

# Construction Quality Assurance CCR Certification Report

**Cell 2 Construction**  
**SWEPCO – John W. Turk, Jr. Power Plant**  
**Fulton, Arkansas**  
**Permit No. 0311-S3N-R1**  
**AFIN: 29-00506**

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Project No. 35177127



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**Terracon**

Environmental



Facilities



Geotechnical



Materials

## PROFESSIONAL ENGINEER'S CERTIFICATION

"I certify to the best of my professional judgment that the bottom liner system and leachate collection system for Cell 2 of the SWEPCO – John W. Turk, Jr. Power Plant Class 3N Landfill (Permit No. 0311-S3N-R1) was constructed in accordance with the permit plans and narrative, the project specifications, plans, and Title 40 of the Code of Federal Regulations 40 CFR 257.70. Any deviations from the permitted drawings and the reason for the deviation are also included in this report as necessary. This certification is contingent on the fact that all information supplied to the signatory authority, at the time of this certification is unquestionably accurate and was provided in good faith."



David C. McCormick, P.E.  
Arkansas Professional Engineer Registration No. 9199

3/29/2019  
Certification Date



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## 1.0 INTRODUCTION

This construction quality assurance (CQA) report summarizes testing and documentation activities performed by Terracon Consultants, Inc (Terracon) during the construction of the bottom composite liner system, leachate collection system, and related work associated with Cell 2 at the SWEPCO – John W. Turk, Jr. Power Plant Class 3N Landfill located near Fulton, Arkansas. **FIGURE 1** illustrates the geographic location of the facility.

This document summarizes the earthwork, construction of the subgrade, compacted clay liner (CCL), bottom composite liner system, geosynthetics, leachate collection system, and the protective cover system. Correspondence, details, quality control test results, and certification associated with the construction are also provided. This document, in conjunction with the project as-built drawing, is intended to satisfy the requirements of 40 CFR Part 257.70 and Permit No. 0311-S3N-R1.

### 1.1 GENERAL

The construction of Cell 2 was conducted in accordance with the following documents:

- Ø “*Construction Quality Assurance Plan*”, Southwestern Electric Power Company, John W. Turk, Jr. Power Plan, Class 3N Landfill, Terracon Consultants, Inc., January 10, 2011 Revised December 2015.
- Ø “*Regulation Number 22, Solid Waste Management Rules*”, Arkansas Pollution Control and Ecology Commission.
- Ø “*Permit Number 0311-S3N-R1*”, Effective Date June 29, 2018
- Ø Title 40 of the Code of Federal Regulations 40 CFR Part 257.70.

### 1.2 SITE DESCRIPTION

SWEPCO owns and operates a Class 3N Solid Waste Landfill (Landfill) located in Fulton County, Arkansas. The Landfill address is 3711 Highway 355 S, Fulton, Arkansas 71838. This will be the first constructed Landfill on this property. This Class 3N Landfill has been designed, constructed, and is permitted (Permit No. 0311-S3N-R1) by the Arkansas Department of Environmental Quality (ADEQ) to accept Class 3N wastes that are approved for acceptance in their permit. **FIGURE 2** illustrates the location and orientation of Cell 2 in relation to the facility’s waste management area.

### 1.3 PROJECT DESCRIPTION

This project involved the construction of approximately 13.9 acres of composite bottom liner system and leachate collection system. The following information summarizes the construction sequence associated with the construction of Cell 2.

- Ø Site preparation, excavation/fill to subgrade, and grading of cell area;

- ∅ Installation and quality assurance testing of a 24-inch thick CCL, placed at 95% of the Standard Proctor density with a maximum hydraulic conductivity of  $1.0 \times 10^{-7}$  cm/s;
- ∅ Installation and quality assurance testing of a 60-mil HDPE textured geomembrane liner;
- ∅ Installation of a leachate collection system consisting of geocomposite, gravel, collection pipes embedded in gravel and geotextile; and
- ∅ Installation of a protective cover layer with lateral chimney drains.
- ∅ Verification of separation distances from the groundwater.

The CQA Report is organized using tables, figures, and appendices to provide documentation of the observations and material testing during the construction of Cell 2. Daily project field records are presented in **APPENDIX B**.

As required by 40 CFR §257.70(b), the Class 3N Landfill conforms must consist of a composite liner system. The upper component consisted of a 60 mil-HDPE geomembrane liner and the lower component consisted of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  centimeters per second (cm/sec). The Cell 2 Composite Liner Design Certification, dated July 16, 2018, by Terracon Consultants, Inc. confirms that the facility meets the requirements of 40 CFR 257.70 Design Criteria for new CCR Landfills and any later expansions of a CCR landfill.

The CQA Report includes record drawings of Cell 2 and the appendices and figures identify the following:

***The limits of liner or final cover barrier construction;***

**FIGURE 2** and as-built drawings in **APPENDIX A** depict the limits of the constructed bottom liner system for Cell 2.

***The top and bottom liner or final cover barrier elevations at 50' intervals referenced to the site grid coordinate system;***

**APPENDIX A** provides the top and bottom elevations of the constructed bottom liner system at 50' intervals referenced to the site grid coordinate system.

***Leachate Collection System Protective Cover identified at 50' elevations;***

**APPENDIX A** provides the top and bottom elevations of the constructed drainage layer and protective cover system. A double-sided geocomposite was utilized in place of a granular drainage layer. However, a protective cover layer with chimney drains was placed on top of the geocomposite layer and was surveyed at 50-foot intervals. The protective cover layer was constructed with a 24-inch thick floor and 12-inch thick side slopes.

***The location and elevation of slope breaks, leachate piping, leachate sumps and trenches, berms, and any other features which are material to the disposal area construction;***

**APPENDIX A** provides the location and elevation information and other features of Cell 2 construction.

***A key map showing the location of the construction in relation to the permitted design, along with an identification of areas previously constructed and areas yet to be constructed;***

**FIGURE 2** and drawings in **APPENDIX A** depict the limits of the constructed bottom liner system for Cell 2 in relation to the permitted design, along with an identification of areas previously constructed and areas yet to be constructed.

***Compaction and permeability testing locations;***

Field logs and Drawings in **APPENDIX E**, **APPENDIX F**, and **FIGURES 3 through 8** provide compaction and permeability test locations for the bottom liner system of Cell 2.

***Indicate the lowest point of the liner constructed not including leachate trenches and sumps.***

**APPENDIX A** provides the lowest point of the liner constructed not including leachate trenches and sumps. Cell 2 consists of a gravity flow system that drains to the Leachate Collection Pond.

***The certifying professional shall make a statement that the cell was constructed in accordance with the permit drawings and narrative. The report should also include a list of any deviations from the permitted drawings, if they exist, and reasons for the deviations.***

Cell 2 was constructed as close as possible and in accordance with the permit drawings and narrative and the plans and specifications. However, during construction the north end of the cell floor was raised to meet CCR groundwater separation requirements. A cross section map and a potentiometric surface map were constructed based on monitoring well seasonal high-water levels and test pits constructed during cell construction. The monitoring well water level data and the test pit data are illustrated in **APPENDIX W**. Cell 2 meets the five-foot separation requirements set forth by 40 CFR §257.60 based on information from the cross sections and potentiometric surf maps in **APPENDIX W**.

## 1.4 KEY PERSONNEL

SFC Contract Services, Inc. was contracted to perform the earthwork for the project including excavation and/or fill to subgrade, placement of the CCL in lifts, installation of the leachate collection system, placement of protective cover, and the other improvements at the site. Installation of the HDPE liner and geocomposite was contracted to Environmental Specialties International.

. The key personnel for each participating firm and suppliers in the project are listed below.

Ø **Owner:**

SWEPCO

- Greg Witte, Project Manager
- Huck Young, Project Manager

Ø **CQA Consultant:**

Terracon Consultants, Inc.

- Certifying Engineer: David C. McCormick, P.E.
- Project Manager: Tony Bardella
- CQA Monitors: Matt Acree and Scott McDonald

Ø **General Contractor:**

SFC Contract Services, Inc.

- Charlie Hickman, Site Superintendent
- Thomas Ashcraft, Site Foreman

Ø **Soil Testing Laboratory:**

Terracon (Cincinnati, Ohio)

- Laboratory Manager: Tim Goodall

Ø **Survey Control:**

MTG Engineers and Surveyors

- Robert Murray

Ø **Geosynthetic Testing Laboratory:**

TRI Environmental

- Project Manager: Jennifer Tenney

Ø **Geosynthetics Contractor:**

Environmental Specialties International.

- Mohammed Malimar, Project Manager



## 2.0 SUBGRADE PREPARATION

This section summarizes the excavation and establishment of the subgrade surface corresponding to the permitted design for Cell 2. The bottom grading plan conforms to the approved permit plans.

### 2.1 PROJECT SPECIFICATIONS

The project specifications called for the subgrade to be established to the lines and grades shown on the project construction plans. The elevations associated with the subgrade surface established are provided in **APPENDIX A**.

## 3.0 CLAY LINER SYSTEM INSTALLATION

The following section describes the construction of the CCL. The CCL corresponding to Cell 2 was constructed from May to July of 2018.

### 3.1 PROJECT SPECIFICATIONS

The project construction plans indicated the CCL was to be constructed with a minimum of four, 6-inch thick compacted lifts to form a minimum 24-inch thick re-compacted clay liner. Each clay lift was to be placed and compacted to 95% of the Standard Proctor maximum dry density at moisture content between 0 and 6 percent above the optimum moisture content for the clay material. As required in 40 CFR §257.70 (a)(i), the hydraulic conductivity of the clay was not to exceed  $1 \times 10^{-7}$  cm/s.

### 3.2 CONSTRUCTION PROCEDURES

Placement of the clay liner material was accomplished using excavators, 30 cubic yard haul trucks, dozers, a sheep-foot compactor, motor grader and a smooth drum roller. The clay liner was moisture conditioned during placement to achieve acceptable emplacement conditions. Dozers and motor grader spread and fine graded each lift. Compaction was achieved by utilizing a CAT 815 sheep-foot compactor. Five lifts of CCL were placed with the fifth lift placed as a protective layer over the required 2-foot CCL. The fifth lift was removed during finish grading. Finish grading of the surface was accomplished by utilizing global positioning system (GPS) devices attached to earth moving equipment. Drawings included in **APPENDIX A** provide the elevations associated with the top of the clay liner for the bottom liner system.

### 3.3 PRE-CONSTRUCTION TESTING OF THE CLAY LINER MATERIAL

Field and laboratory testing of the clay liner system material was completed as specified in the project specifications and the facility CQA plan, and as required by Arkansas Regulation No. 22.

**APPENDIX C** contains the results of the CCL pre-construction test samples. **TABLE 1** summarizes the results of the pre-construction test samples. The results indicate the materials meet or exceed the minimum project standards.

### 3.4 CONSTRUCTION TESTING OF COMPACTED CLAY LINER MATERIAL

During the construction of the CCL, 16 soil samples were obtained for laboratory testing to verify the consistency of the materials during construction. Of the samples obtained, 11 samples were tested as clay liner material. The results of the construction laboratory testing are included in **APPENDIX C**. **TABLE 2** summarizes the results obtained from laboratory testing of the CCL material. Based upon the results of the construction testing performed, the CCL materials comply with the project specifications.

Field moisture and density tests were performed at a minimum rate of one test for every 10,000 square feet per compacted lift. **FIGURE 3** through **FIGURE 7** depict the field test locations performed on each lift of the CCL. **FIGURE 8** illustrates the locations of the field tests for the clay liner installed around the leachate drainage lines. **APPENDIX D** includes the field logs for the moisture and density testing performed in association with the Cell 2 construction. Based upon the results of the moisture and density tests performed by Terracon, the CCL lifts comply with the project specifications.

Shelby tube samples were obtained from each lift at a minimum rate of one test for every 40,000 square feet. **FIGURES 3** through **FIGURE 8** illustrate the locations where the Shelby tube samples were taken for each compacted CCL lift. The tubes were sealed and delivered to the laboratory for permeability testing using a flexible-wall permeameter (ASTM D-5084). As indicated in **TABLE 3**, permeability results for the completed CCL meet the project requirements of less than or equal to  $1.0 \times 10^{-7}$  cm/s. **APPENDIX E** contains CCL permeability test results.

## **4.0 GEOSYNTHETIC LINER INSTALLATION**

Installation of the geosynthetics for the bottom liner system of Cell 2 occurred during July and August 2018. Approximately 675,000 square feet of 60-mil textured HDPE geomembrane liner and double-sided geocomposite were installed in Cell 2 according to 40 CFR §257.70(b). The geosynthetics installer information for Environmental Services International (ESI) is provided in **APPENDIX F**.

### **4.1 MANUFACTURE'S QUALITY CONTROL CERTIFICATES**

Manufacturer's Quality Control Certificates (roll certification reports) were submitted for comparison of the delivered material properties with the project specifications. Copies of the manufacturer's certificates for the geomembrane are provided in **APPENDIX G** and **APPENDIX H** respectively. The manufacturer's certificates for the geocomposite are provided in **APPENDIX R**. An inventory of the geomembrane, geocomposite used at the site is included in **APPENDIX G**. Based upon the manufacturer's quality control certificates, the supplied materials comply with the project specifications.

### **4.2 MATERIAL CONFORMANCE TESTING**

A copy of the laboratory conformance test results on the geomembrane is included in **APPENDIX I** and a copy of the laboratory conformance test results on the geocomposite is included in **APPENDIX S**. Based upon the results of the conformance testing by TRI, the geomembrane and geocomposite supplied comply with the project specifications.

### **4.3 DEPLOYMENT OF GEOSYNTHETICS**

Prior to the deployment of the geomembrane, the ESI field manager and the CQA monitor accepted the subgrade. A copy of the subgrade acceptance form is included in **APPENDIX L**.

Deployment of the panels was accomplished by use of a Track-hoe, Sky Track, Skid Steer, and manual labor to transport each panel into place. A Terracon field representative monitored the deployment of panels. The daily deployment logs for the geomembrane can be found in **APPENDIX L**. Panel layouts of the bottom liner system for Cell 2 are illustrated on the as-built drawings located in **APPENDIX A**.

Terracon field representatives reviewed each panel and noted any manufacturing and deployment defects for repair. The panels were anchored temporarily with sandbags to prevent wind damage. The panels were permanently anchored at the top of the slopes by anchor trenches filled and compacted with clay.

#### 4.4 GEOMEMBRANE TRIAL SEAM MONITORING

Prior to startup of each seaming period (in the morning and after lunch), the fusion and extrusion welder operators were required to prepare a trial seam. The seams were tested in the field on a gauged tensiometer to check for machine failures or operator errors. **APPENDIX K** contains the calibration certificate for the geosynthetic installation field tensiometer. If the tests passed (in peel and in shear), the operator was then allowed to begin seaming. Trial seam logs are presented in **APPENDIX M**. The seams were checked for peel and shear. The coupons were required to exhibit a film tear bond (FTB) and to meet the project specifications for peel and shear strength in order to be acceptable.

#### 4.5 GEOMEMBRANE SEAM MONITORING

The primary seaming method used for joining geomembrane panels was through an automated double track fusion welder. Extrusion welding was used for patches, repairs, intersections of fusion seams, and seam reconstruction. Monitoring of the seaming methods consisted of periodic visual observation of the seaming process, visual examination of the completed seam, and verification that the seam was welded for its entire length. **APPENDIX N** presents a summary of the panel seaming. Seaming imperfections were marked and subsequently repaired in accordance with the project CQA plan. The geomembrane panel layouts showing seam locations are presented on the as-built drawing in **APPENDIX A**.

#### 4.6 NON-DESTRUCTIVE SEAM TESTING AND REPAIR MONITORING

Seams, seam repairs, and patches were non-destructively tested by the installer using an air pressure test for fusion welds or vacuum box techniques for extrusion welds. Terracon field CQA personnel monitored and documented field testing of the seams to ensure that the tests were performed in accordance with the project CQA plan. Summaries of the geomembrane continuity testing are presented in **APPENDIX N**. The location, size, and testing results of seam repairs and patches were documented. Copies of this documentation can be found in **APPENDIX P**.

#### 4.7 DESTRUCTIVE SEAM STRENGTH TESTING

Each destructive sample was divided into three sections: a sample for field testing, a sample for laboratory testing, and an archive sample. Prior to sending the samples to TRI Environmental, Inc. (TRI), they were tested in the field for peel and shear by ESI using a gauged tensiometer. Summaries for the field destructive sampling and laboratory testing for peel and shear are located in **APPENDIX O**. Destructive samples were obtained at a minimum frequency of one sample per 500 linear feet of production seam length. The destructive test locations are noted on the as-built drawing located in **APPENDIX A**. Based on the results of the seam peel and shear testing performed by ESI and TRI, each seam complies with the project specifications.

## 5.0 LEACHATE COLLECTION SYSTEM AND PROTECTIVE COVER

The leachate collection system consists of a geocomposite drainage layer overlying the HDPE liner and gravel chimney drains spaced at a maximum of 85-ft apart. The protective cover layer consists of a 12-inch layer on the sides slope and a 24-inch thick on the floor using on-site soils. This flows to the leachate collection trench. The leachate collection system pipe and gravel envelope were placed in the trench and design to gravity drain to the composite lined Leachate Collection Pond (LCP) according to 40 CFR §257(d).

### 5.1 LEACHATE COLLECTION PIPE

Leachate collection pipes were installed in the bottom of Cell 2 above the composite liner system. The center leachate collection trench pipe consists of a twelve-inch diameter perforated HDPE pipe surrounded by gravel and wrapped in a filter geotextile. The chimney drains consist of a four-inch diameter perforated HDPE pipe surrounded by gravel and wrapped in a filter geotextile. The gravel consists of a material that has less than 5% passing the #200 sieve and permeability faster than  $3 \times 10^{-1}$  cm/sec. **TABLE 4** presents the results of laboratory testing of the gravel. The gravel was installed above a double-sided geocomposite layer and wrapped in an 8 oz non-woven geotextile that protects the system from clogging. The collection pipe gravity drains from the south side of Cell 2 to the north side of Cell 2. The gravity drain then proceeds through a double walled piping system towards the composite lined LCP located to the northwest of Cell 2. **APPENDIX S** presents the laboratory test results on the gravel, protective cover and geotextiles used in the drainage system. Sediment was prevented from entering the pipe and gravel bedding during construction.

The leachate collection piping consisted of double-walled SDR-11 HDPE pipe after it penetrated Cell 2's composite liner system. The pipe trenches were backfilled with clay liner material. **FIGURE 8** shows the approximate test location of the Cell 2 pipe trenches and **APPENDIX D** contains the density test results. Also, the piping system from Cell 2 to the Leachate Collection Pond was pressure tested according to the specifications to verify that the system was installed correctly (See **APPENDIX S**).

### 5.2 PROTECTIVE COVER SOIL

A 12-inch (min) thick protective cover layer was placed on top of the geocomposite on the side slopes and a 24-inch (min) thick protective cover layer on the floor of Cell 2. The protective cover layer was constructed utilizing on-site soils and gravel chimney drains on a maximum of 85-ft spacing. **APPENDIX U** presents the laboratory test results on the chimney drain gravel. **TABLE 4** presents the results of laboratory testing of the chimney drain gravel. The survey record drawing provided in **APPENDIX A** illustrates the top of the protective cover layer. The layer was placed using low ground pressure dozers while maintaining a 12-inch thick minimum working surface to ensure protection of the underlying geosynthetic material.



**TABLE 1**  
**SOIL PRE-CONSTRUCTION TEST SUMMARY**  
**SWEPSCO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

Material ID	Max Dry Density (PCF)	Optimum Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index (>10)	Passing 1" (100%)	Passing #4 (>80%)	Passing #200 (>30%)	Soil Class	Permeability (1.0 E-7 cm/sec)	Soil Description
BA-1	102.1	19.7	51	18	33	100.0	96.1	68.0	CH	1.50E-08	Dark Gray Sandy Fat Clay
BA-2	95.3	24.6	75	23	52	100.0	100.0	97.7	CH	1.20E-08	Brown Fat Clay
BA-3	92.4	28.1	98	30	68	100.0	100.0	97.4	CH	9.60E-09	Brown Fat Clay
BA-4	89.4	29.0	82	25	57	100.0	100.0	97.8	CH	9.30E-09	Brown Fat Clay



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**TABLE 2**  
**SOIL CONSTRUCTION TEST SUMMARY**  
**SWEPCO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

Material ID	Max Dry Density (PCF)	Optimum Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index (>10)	Passing 1" (100%)	Passing #4 (>80%)	Passing #200 (>30%)	Soil Class	Permeability (1.0 E-7 cm/sec)	Soil Description
BA-5	89.1	28.8	82	27	55	100.0	100.0	95.1	CH	2.40E-08	Gray Fat Clay
BA-6	94.0	25.5	86	26	60	100.0	100.0	97.6	CH	2.60E-08	Brown Fat Clay
BA-7	96.2	25.3	81	27	54	100.0	100.0	98.1	CH	2.90E-08	Brown Fat Clay
BA-8 (1)	92.3	27.6	113	20	93	100.0	100.0	93.4	CH	-	Fat Clay
BA-9 (1)	90.9	27.2	115	22	93	100.0	100.0	92.6	CH	-	Fat Clay
BA-10 (1)	106.3	18.4	61	15	46	100.0	98.0	86.7	CH	-	Fat Clay
BA-11 (1)	93.2	26.9	96	21	75	100.0	100.0	95.4	CH	-	Red Fat Clay
BA-12	103.3	22.6	78	21	57	100.0	100.0	97.0	CH	1.10E-08	Brown Fat Clay
BA-13	93.2	26.9	73	23	50	100.0	99.0	92.0	CH	2.00E-08	Gray Fat Clay
BA-14	91.5	28.1	73	21	52	100.0	99.0	97.0	CH	1.60E-08	Brown Fat Clay
BA-15	89.0	30.7	73	22	51	100.0	100.0	97.0	CH	1.50E-08	Brown Fat Clay
BA-16	90.8	27.9	81	21	60	100.0	100.0	99.0	CH	1.90E-08	Brown Fat Clay
BA-17 (1)	94.7	25.2	96	19	77	100.0	100.0	97.0	CH	-	Fat Clay
BA-18	89.9	27.7	83	22	61	100.0	100.0	99.0	CH	2.70E-08	Brown Fat Clay
BA-19	95.7	24.7	72	22	50	100.0	100.0	98.0	CH	1.20E-08	Brown Fat Clay
BA-20	94.2	24.5	74	21	53	100.0	100.0	98.0	CH	1.70E-08	Brown Fat Clay

Notes:

1. Sample was not tested or used as compacted clay liner material.

**TABLE 3**  
**SUMMARY OF PERMEABILITY TESTING DATA**  
**SWEPKO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

Test No.	Lift No./ Layer	Test Results	
		K (cm/sec)	Pass/ Fail
ST-1	S. BERM	9.60E-09	Pass
ST-2	S. BERM	1.00E-08	Pass
P-1	LIFT 1	9.90E-09	Pass
P-2	LIFT 2	1.00E-08	Pass
P-3	LIFT 2	9.90E-09	Pass
P-4	LIFT 3	9.60E-09	Pass
P-5	LIFT 3	1.00E-08	Pass
P-6	LIFT 4	1.10E-08	Pass
P-7	LIFT 4	1.00E-08	Pass
P-8	LIFT 1	1.10E-08	Pass
P-9	LIFT 1	9.50E-09	Pass
P-10	LIFT 2	1.10E-08	Pass
P-11	LIFT 3	9.90E-09	Pass
P-12	LIFT 3	1.10E-08	Pass
P-13	LIFT 4	3.50E-08	Pass
P-14	LIFT 4	1.00E-08	Pass
P-15	LIFT 4	9.10E-09	Pass
P-16	LIFT 1	1.00E-08	Pass
P-17	LIFT 1	9.80E-09	Pass
P-18	LIFT 1	9.60E-09	Pass
P-19	LIFT 1	1.00E-08	Pass
P-20	LIFT 1	9.90E-09	Pass
P-21	LIFT 1	1.00E-08	Pass
P-22	LIFT 2	1.00E-08	Pass
P-23	LIFT 2	1.00E-08	Pass
P-24	LIFT 2	2.20E-08	Pass
P-25	LIFT 2	9.30E-09	Pass
P-26	LIFT 2	1.10E-08	Pass
P-27	LIFT 2	9.20E-09	Pass
P-28	LIFT 3	9.40E-09	Pass
P-29	LIFT 3	9.70E-09	Pass
P-30	LIFT 3	1.00E-08	Pass
P-31	LIFT 3	2.00E-08	Pass
P-32	LIFT 3	1.00E-08	Pass
P-33	LIFT 3	1.10E-08	Pass
P-34	LIFT 3	9.70E-09	Pass
P-35	LIFT 4	5.10E-08	Pass
P-36	LIFT 4	1.10E-08	Pass

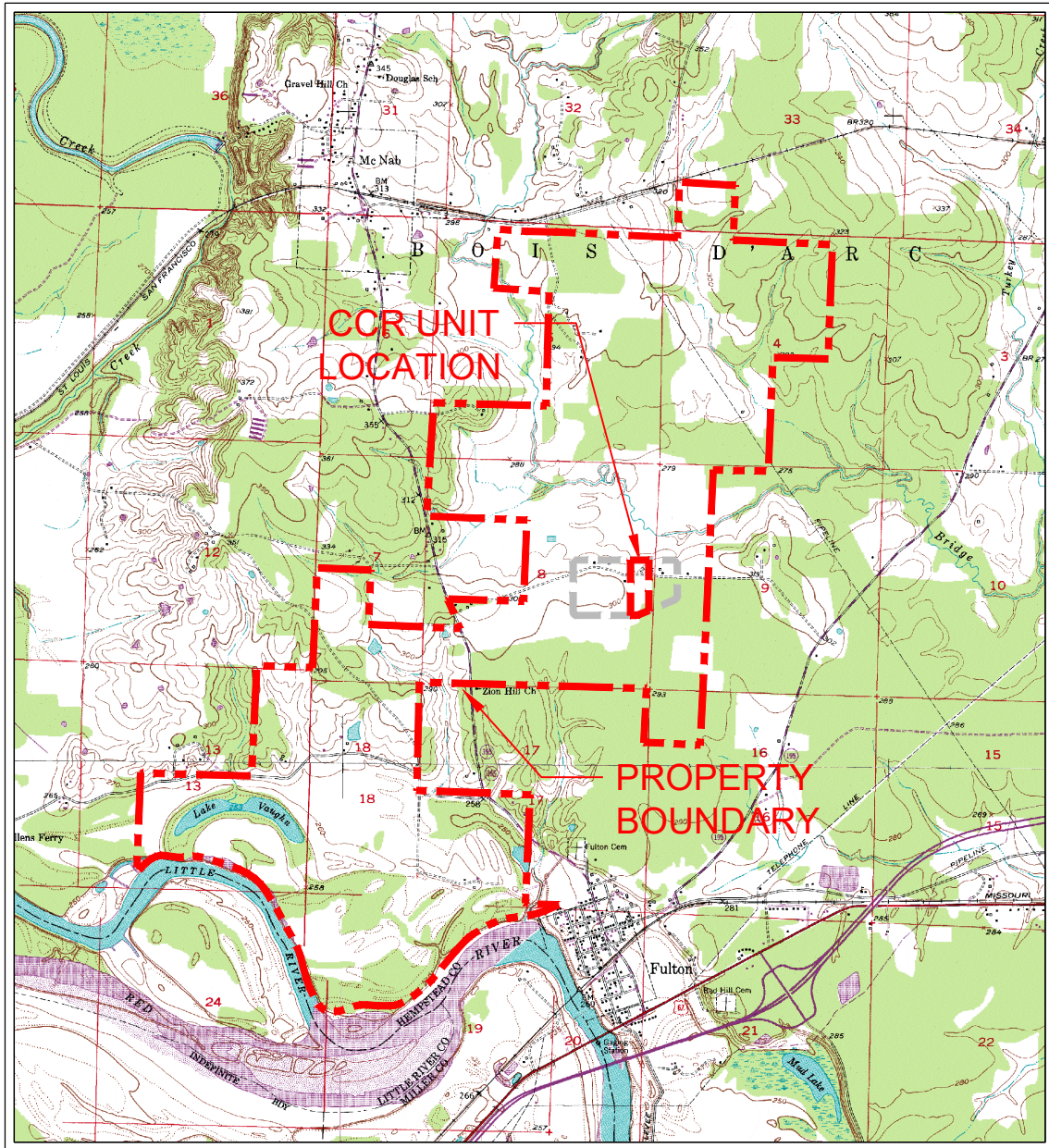
Test No.	Lift No./ Layer	Test Results	
		K (cm/sec)	Pass/ Fail
P-37	LIFT 4	9.30E-09	Pass
P-38	LIFT 4	1.20E-08	Pass
P-39	LIFT 4	1.00E-08	Pass
P-40	LIFT 4	1.10E-08	Pass
P-41	LIFT 1	1.90E-08	Pass
P-42	LIFT 2	3.00E-08	Pass
P-43	LIFT 3	5.60E-08	Pass
P-44	LIFT 4	1.80E-08	Pass
P-45	LIFT 1	9.60E-09	Pass
P-46	LIFT 2	9.80E-09	Pass
P-47	LIFT 3	1.00E-08	Pass
P-48	LIFT 4	1.90E-08	Pass
P-49	LIFT 4	4.40E-08	Pass
P-50	LIFT 1	3.90E-08	Pass
P-51	LIFT 2	6.30E-08	Pass
P-52	LIFT 3	4.20E-08	Pass
P-53	LIFT 1	2.10E-08	Pass
P-54	LIFT 2	9.60E-09	Pass
P-55	LIFT 4	1.10E-08	Pass
P-56	LIFT 4	1.00E-08	Pass
P-57	LIFT 2	1.10E-08	Pass
P-58	LIFT 1	3.60E-08	Pass
P-59	LIFT 1	1.90E-08	Pass
P-60	LIFT 2	9.70E-09	Pass
P-61	LIFT 2	2.00E-08	Pass
P-62	LIFT 3	4.20E-08	Pass
P-63	LIFT 3	1.00E-08	Pass
P-64	LIFT 4	8.10E-08	Pass
P-65	LIFT 4	2.00E-08	Pass
P-66	LIFT 3	3.70E-08	Pass
P-67	LIFT 4	2.20E-08	Pass
P-68	N. BERM	2.10E-08	Pass
P-69	N. BERM	2.10E-08	Pass
P-70	LIFT 1	2.00E-08	Pass
P-71	LIFT 1	5.80E-08	Pass
P-72	LIFT 2	4.40E-08	Pass
P-73	LIFT 3	2.30E-08	Pass
P-74	LIFT 3	1.20E-08	Pass



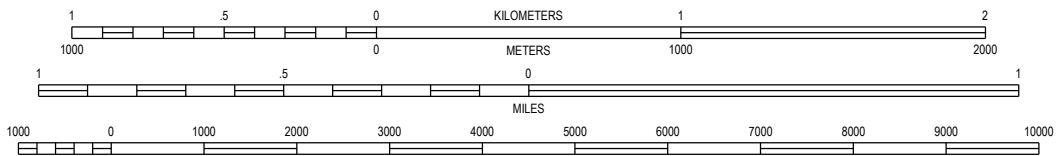


**TABLE 4**  
**LEACHATE COLLECTION SYSTEM GRAVEL TEST SUMMARY**  
**SWEPCO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

<b>Material ID</b>	<b>Calcium Carbonate (15% max)</b>	<b>Passing 1"</b>	<b>Passing 1/2"</b>	<b>Passing 3/8" (&lt;5%)</b>	<b>Soil Class (GW or GP)</b>	<b>Permeability (&gt;1.0 E-3 cm/sec)</b>	<b>Soil Description</b>
G-1	0.3	100.0	0.9	0.1	GP	4.53E+01	Poorly Graded Gravel
G-2	-	96.0	11.0	2.0	GP	2.76E+01	Poorly Graded Gravel




SCALE 1:24 000

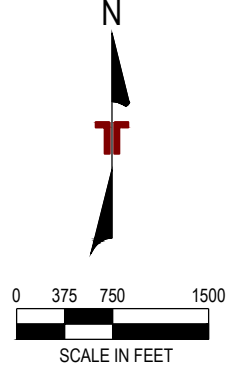
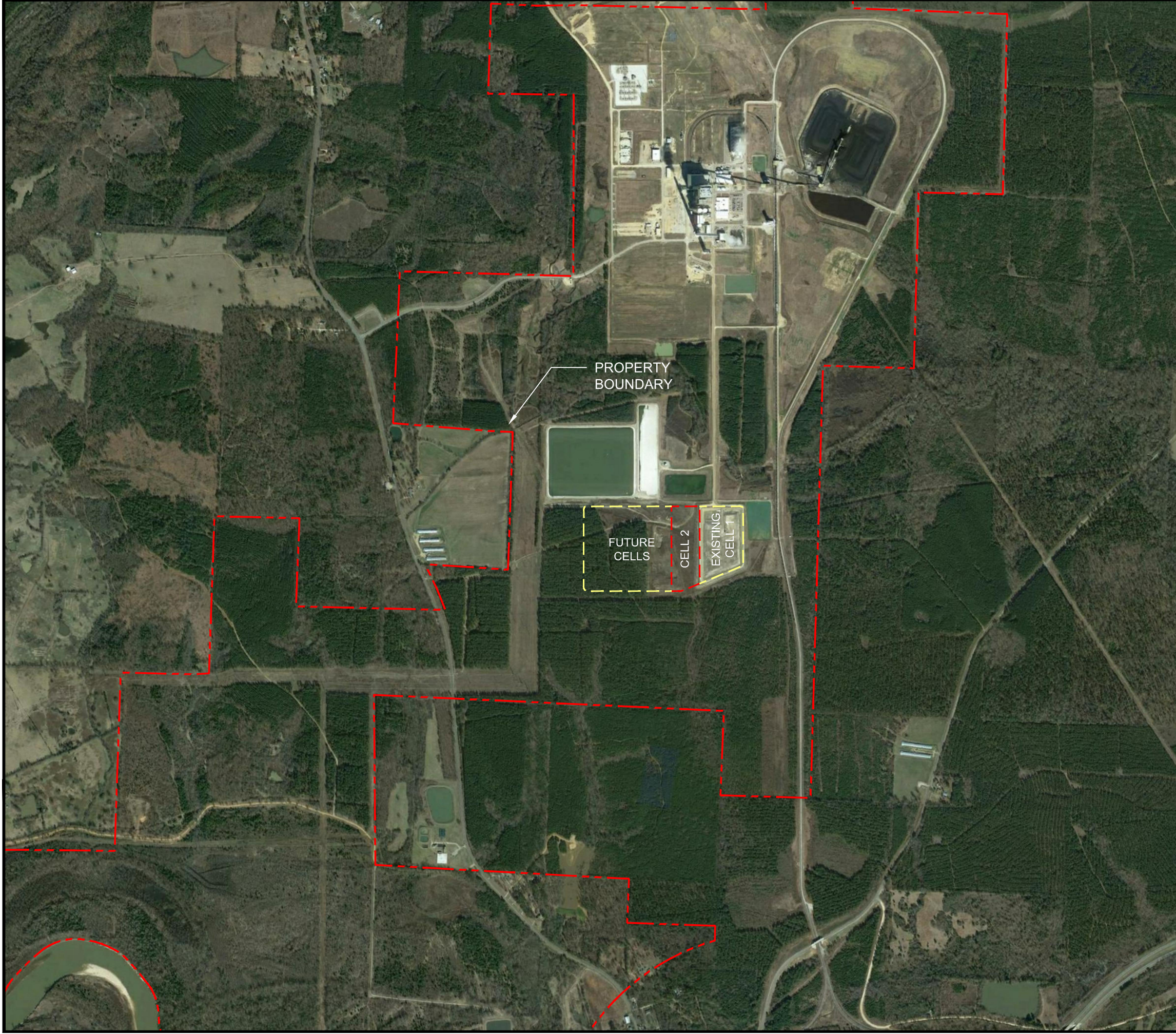


CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

FULTON / MCNAB  
QUADRANGLES  
1951 - Revised 1970 & 1975  
7.5 MINUTE SERIES (TOPOGRAPHIC)



Project Mngr: DCM	Project No. 216-002-35177127	 Consulting Engineers and Scientists 25809 I-30 SOUTH BRYANT, AR 72022 PH. (501) 847-9292 FAX. (501) 847-9210	SITE LOCATION MAP	FIG. No.  1
Drawn By: TLB	Scale: AS SHOWN		CELL 2 BOTTOM LINER CONSTRUCTION	
Checked By: TLB	File No. 101		SWEP CO	
Approved By: DCM	Date: 09/14/2018		JOHN W. TURK, JR. POWER PLANT	
			FULTON ARKANSAS	



REV.	DATE	BY	DESCRIPTION

**Terracon**  
Consulting Engineers and Scientists

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PH. (501) 847-9232

BRYANT, AR 72022  
FAX. (501) 847-9210

**SITE LAYOUT MAP**

CELL 2 BOTTOM LINER CONSTRUCTION

**SWEPCO**

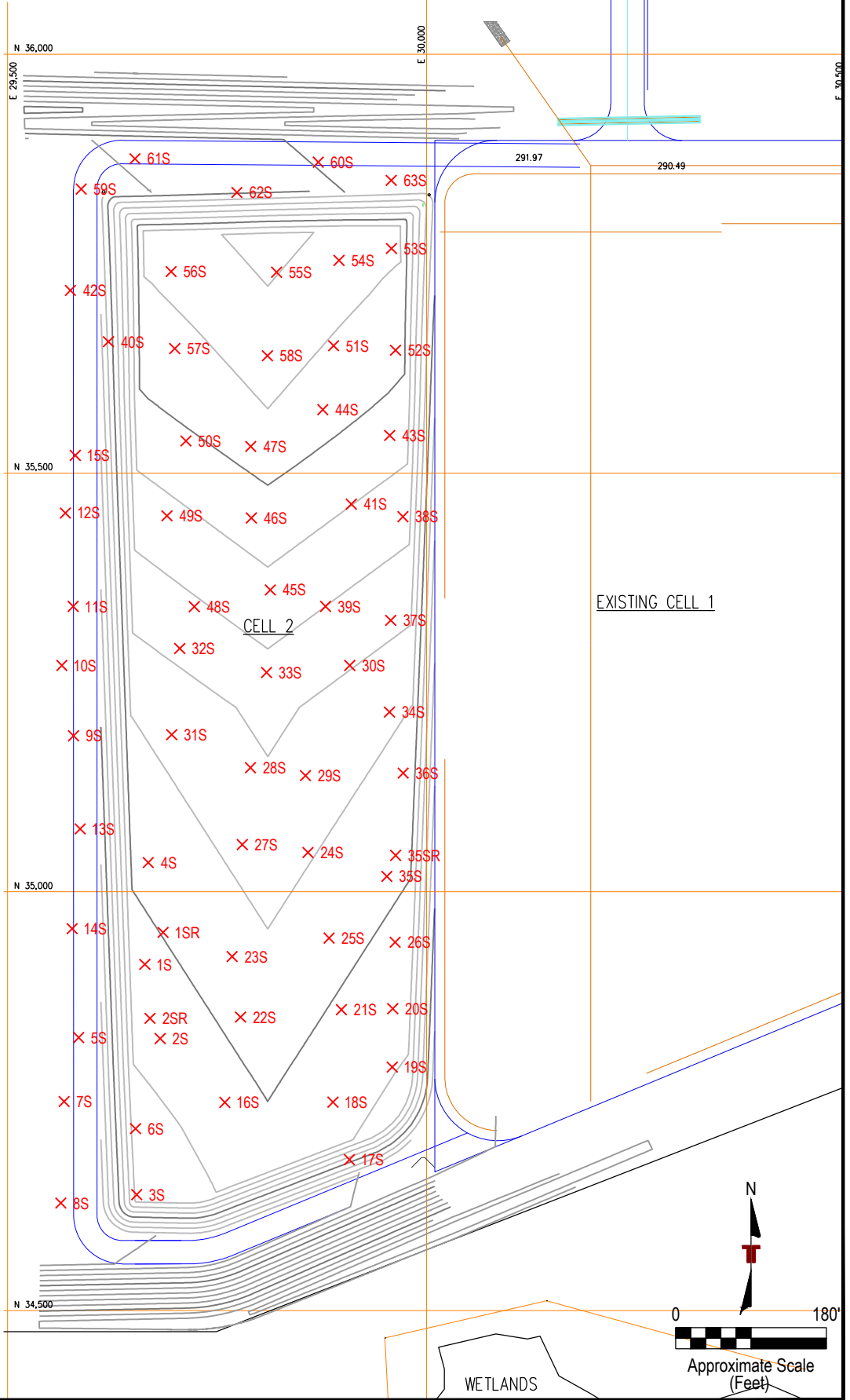
JOHN W. TURK, JR. POWER PLANT

FULTON ARKANSAS

**FIGURE 2**

DESIGNED BY:	DCM
DRAWN BY:	TLB
APPVD. BY:	DCM
SCALE:	SEE BARSCALE
DATE:	09/14/2018
JOB NO.:	216-002-35177127
ACAD NO.:	102
SHEET NO.:	- OF -

LEACHATE COLLECTION POND



**LEGEND:**

**X 1S** DENSITY TEST LOCATION

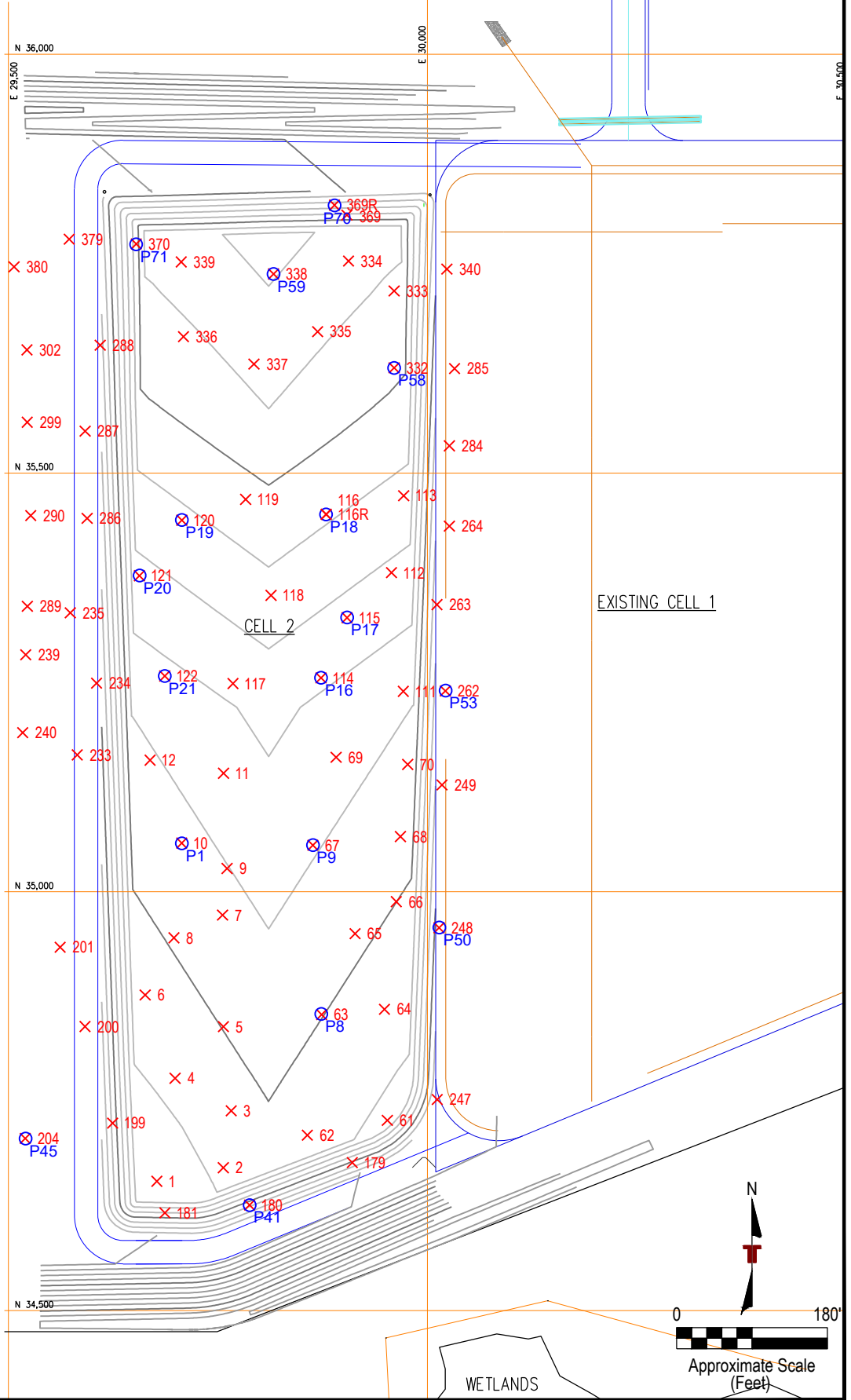
Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM
Project No.:	35177127
Scale:	AS SHOWN
File No.:	103
Date:	09/14/2018

**Terracon**  
 Consulting Engineers and Scientists  
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**CELL 2 DENSITY MAP - TOP OF SUBGRADE**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	3
----------	---

LEACHATE COLLECTION POND



**LEGEND:**

- X 1 DENSITY TEST LOCATION
- P2 PERMEABILITY TEST LOCATION

Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	104
Approved By:	DCM	Date:	09/14/2018

**Terracon**  
Consulting Engineers and Scientists

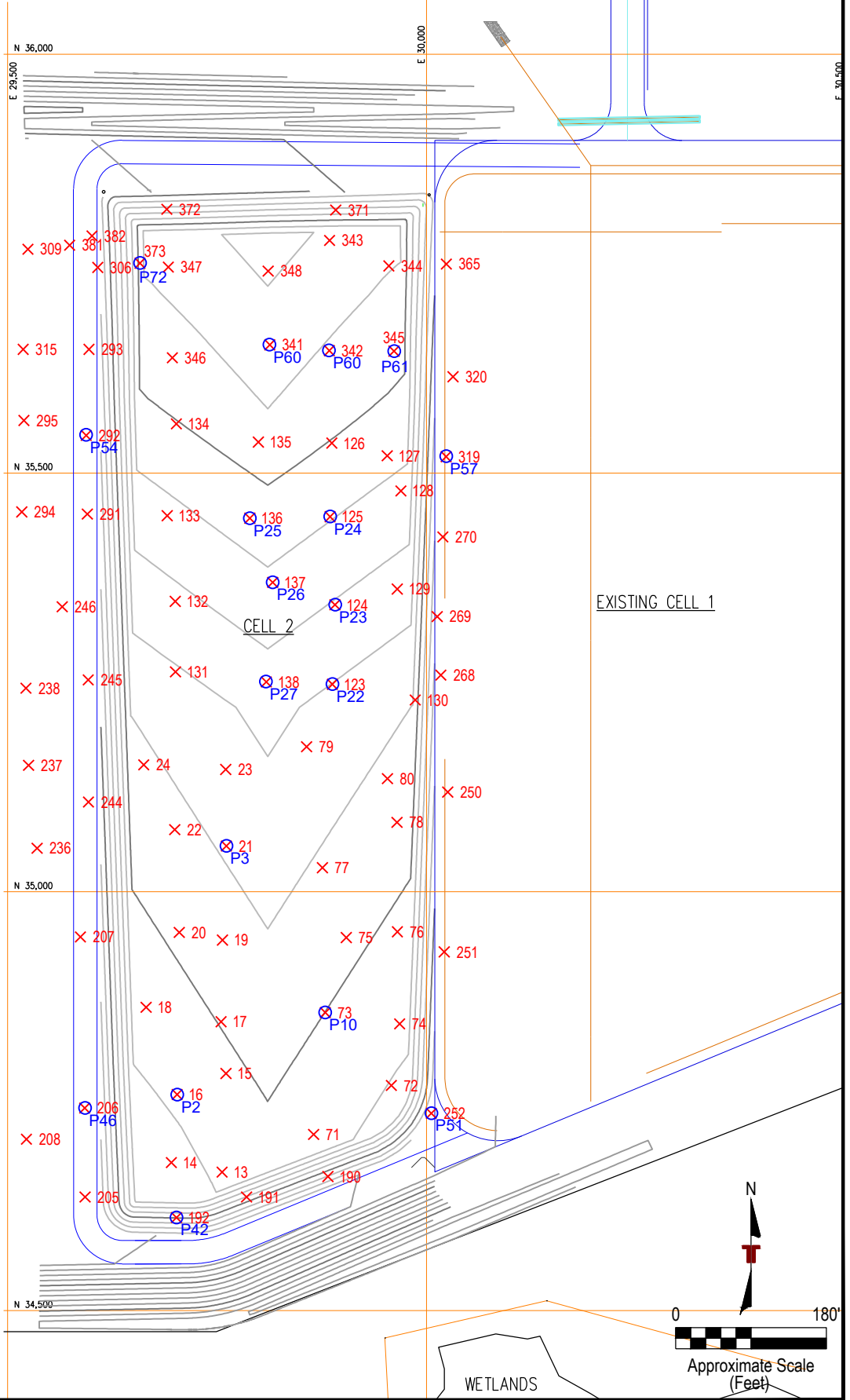
25809 I-30 SOUTH      BRYANT, AR 72022  
PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DENSITY MAP - CLAY LIFT 1**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	<b>4</b>
----------	----------

LEACHATE COLLECTION POND



**LEGEND:**

- X 1 DENSITY TEST LOCATION
- P2 PERMEABILITY TEST LOCATION

Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM
Project No.:	35177127
Scale:	AS SHOWN
File No.:	105
Date:	09/14/2018

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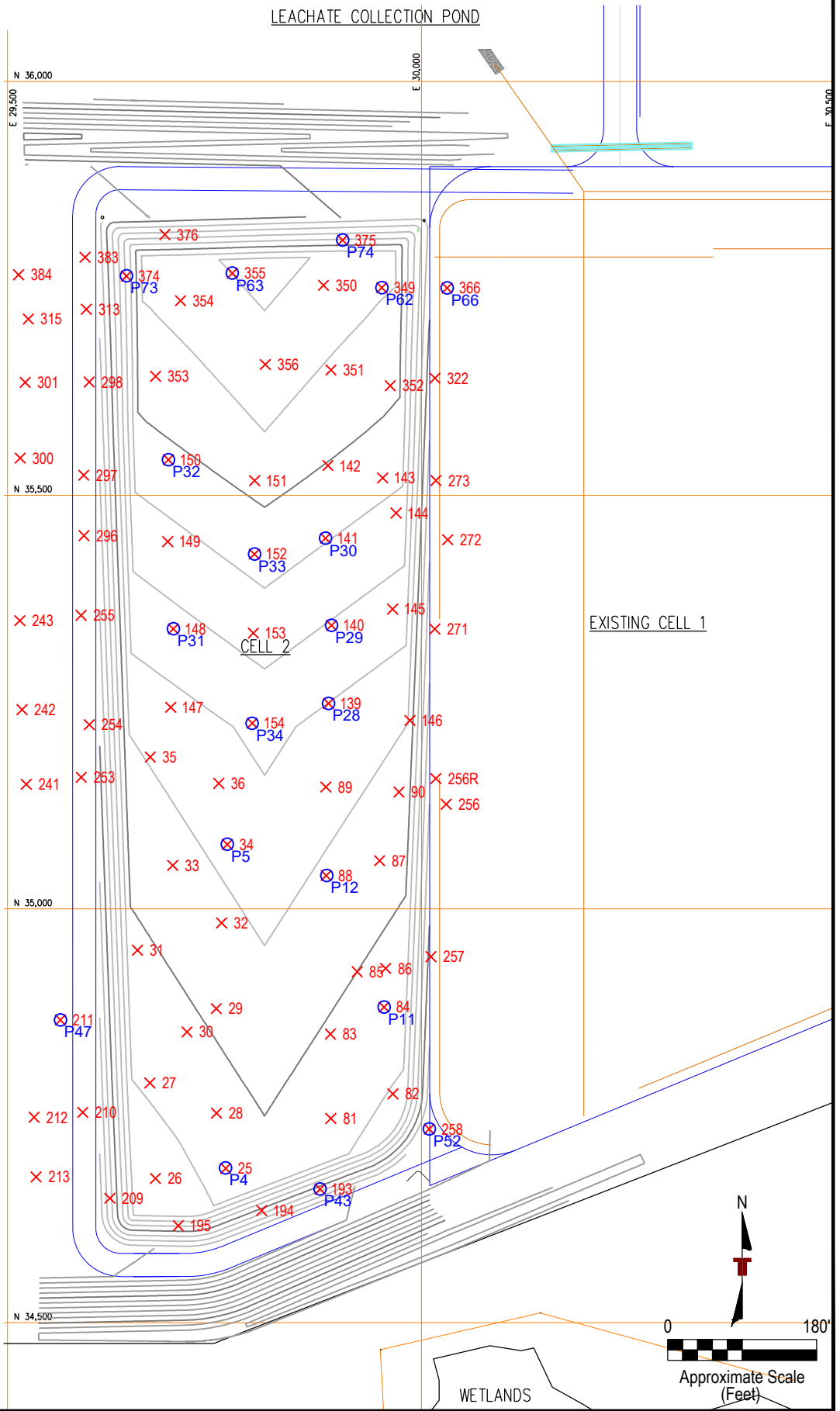
25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DENSITY MAP - CLAY LIFT 2**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON ARKANSAS

FIG. No.	5
----------	---

LEACHATE COLLECTION POND



**LEGEND:**

- X 1 DENSITY TEST LOCATION
- O P2 PERMEABILITY TEST LOCATION

Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM
Project No.:	35177127
Scale:	AS SHOWN
File No.:	106
Date:	09/14/2018

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CELL 2 DENSITY MAP - CLAY LIFT 3

CELL 2 BOTTOM LINER CONSTRUCTION

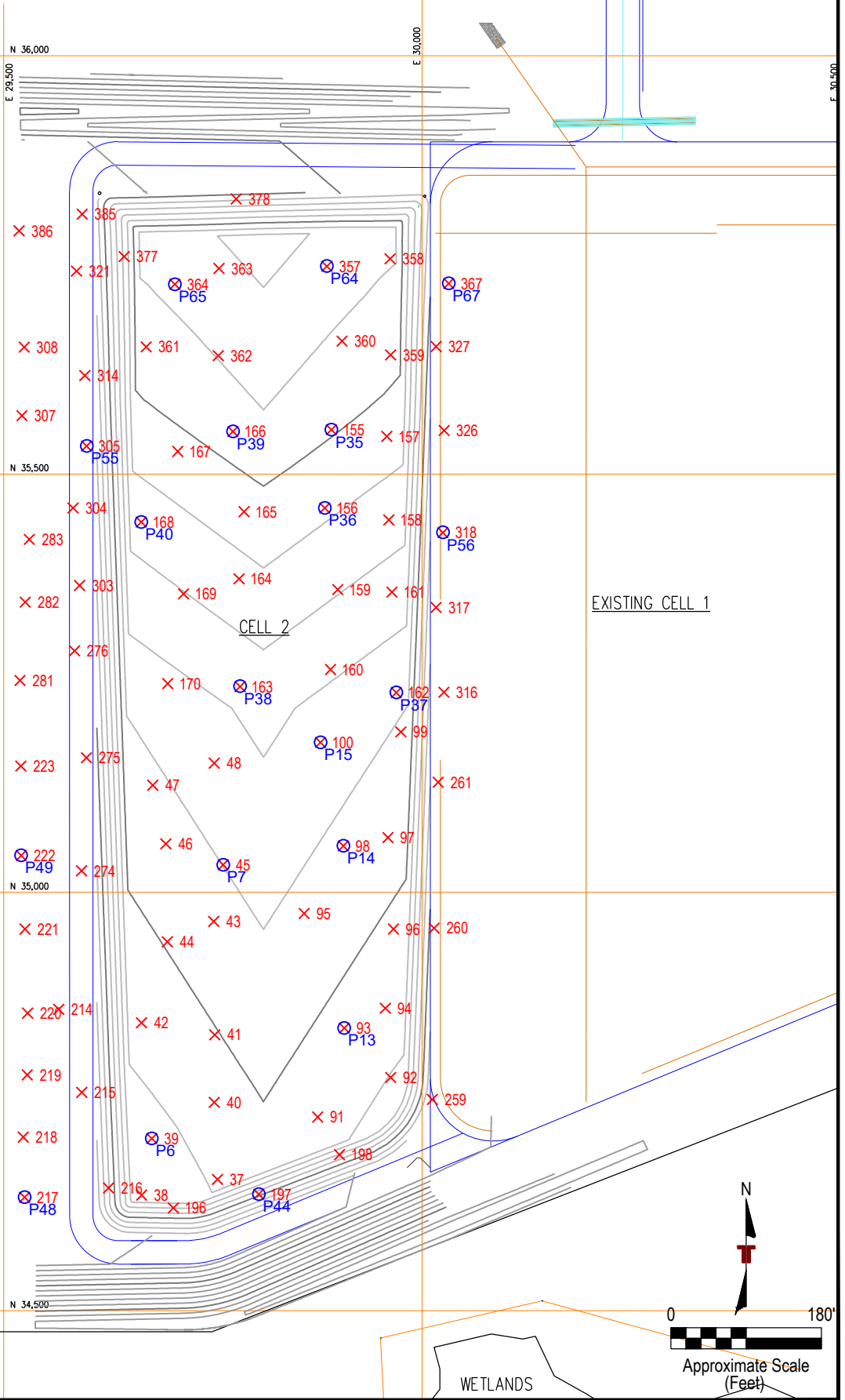
SWEPCO

JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	6
----------	---

LEACHATE COLLECTION POND



**LEGEND:**

- X 1 DENSITY TEST LOCATION
- P2 PERMEABILITY TEST LOCATION

Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM
Project No.:	35177127
Scale:	AS SHOWN
File No.:	107
Date:	09/14/2018

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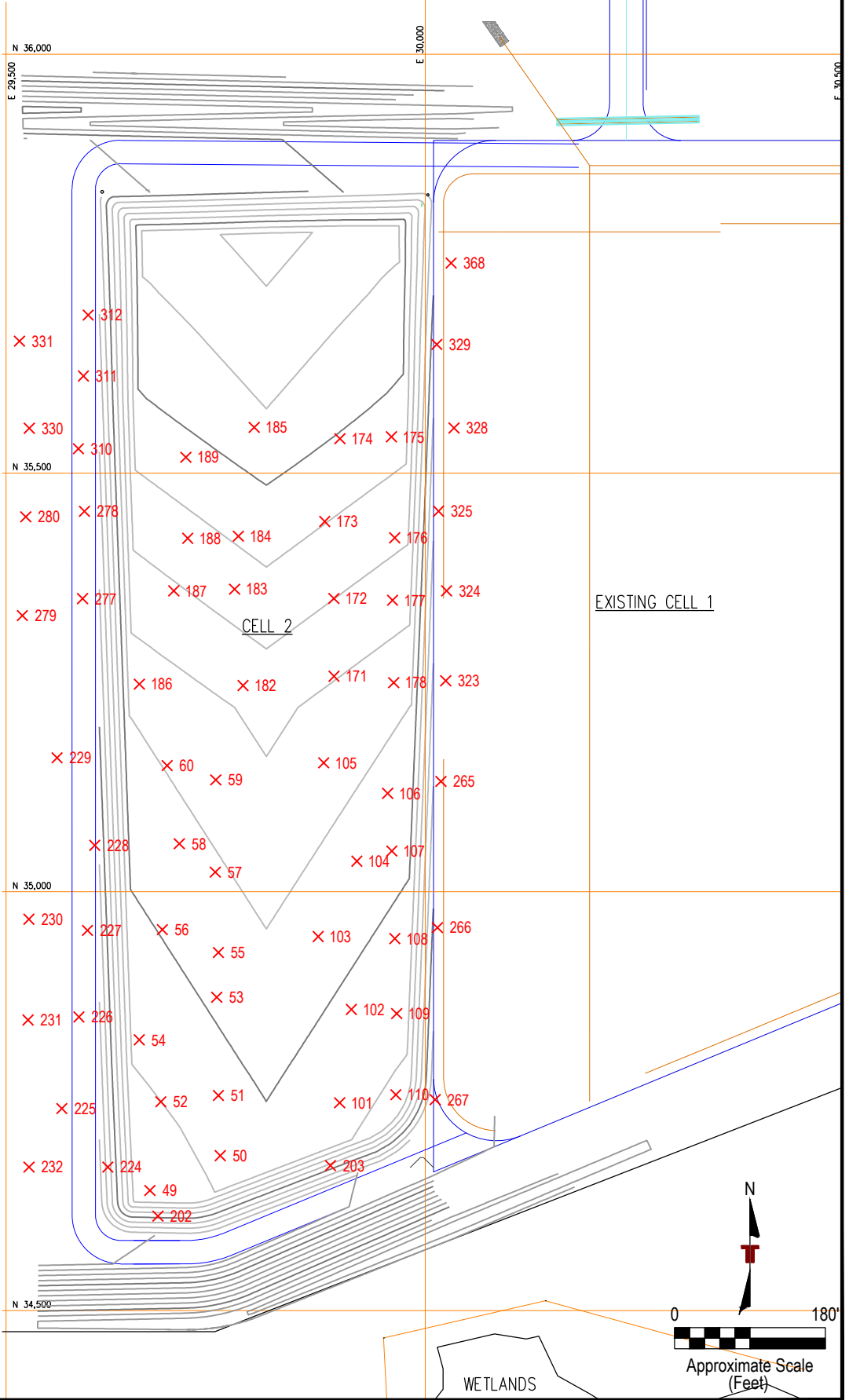
**CELL 2 DENSITY MAP - CLAY LIFT 4**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	7
----------	---



LEACHATE COLLECTION POND



**LEGEND:**

**X 1** DENSITY TEST LOCATION

**NOTE:**

LIFT 5 WAS PLACED TO PROTECT LIFT 4 FROM THE ELEMENTS DURING CONSTRUCTION. MOST OF LIFT 5 WAS REMOVED DURING FINAL GRADING.

Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	108
Date:	09/14/2018

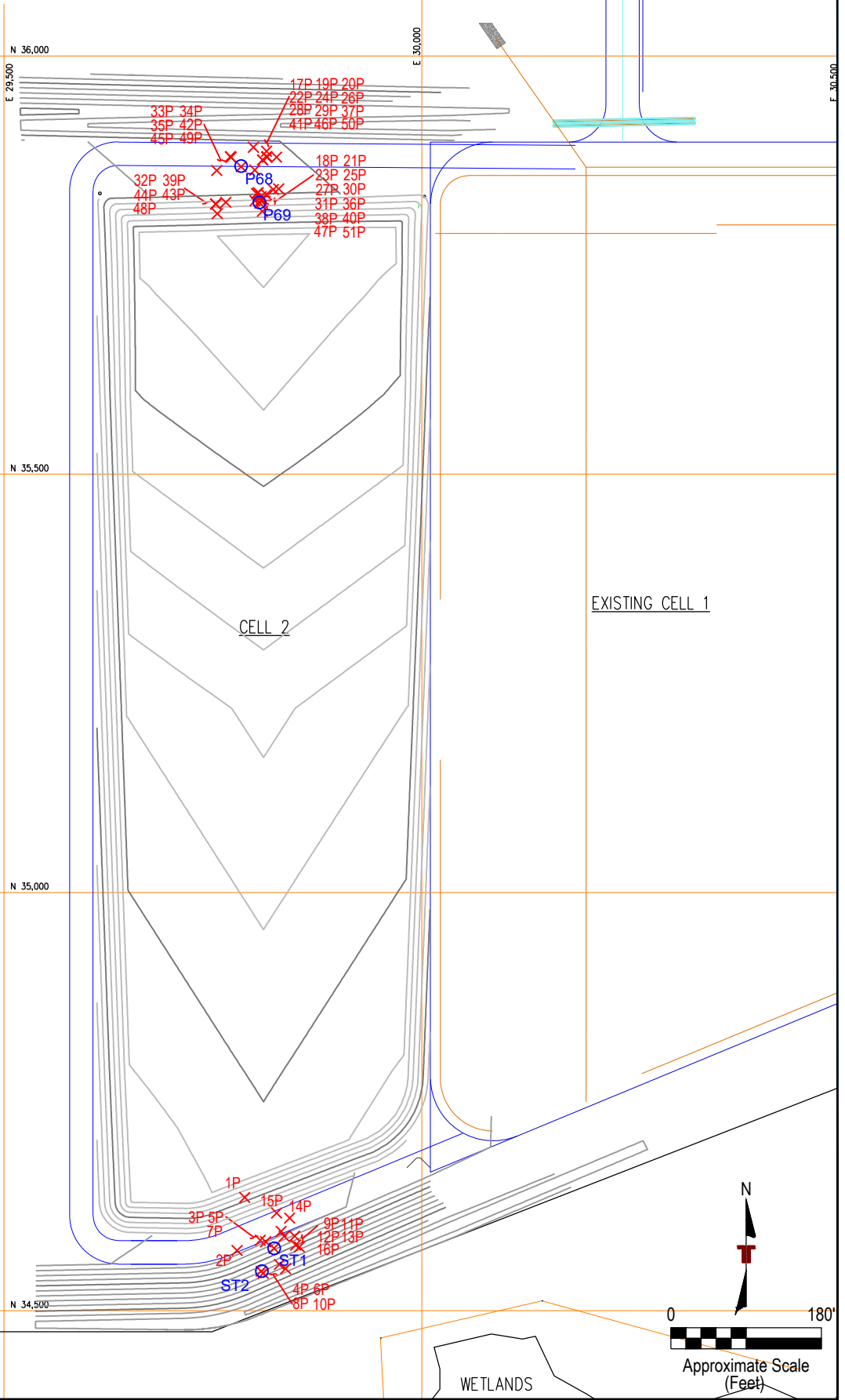


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**CELL 2 DENSITY MAP - CLAY LIFT 5**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	<b>8</b>
----------	----------

LEACHATE COLLECTION POND



**LEGEND:**

- X 1P DENSITY TEST LOCATION
- O PERMEABILITY TEST LOCATION
- P2/ST2

Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	109
Approved By:	DCM	Date:	09/14/2018

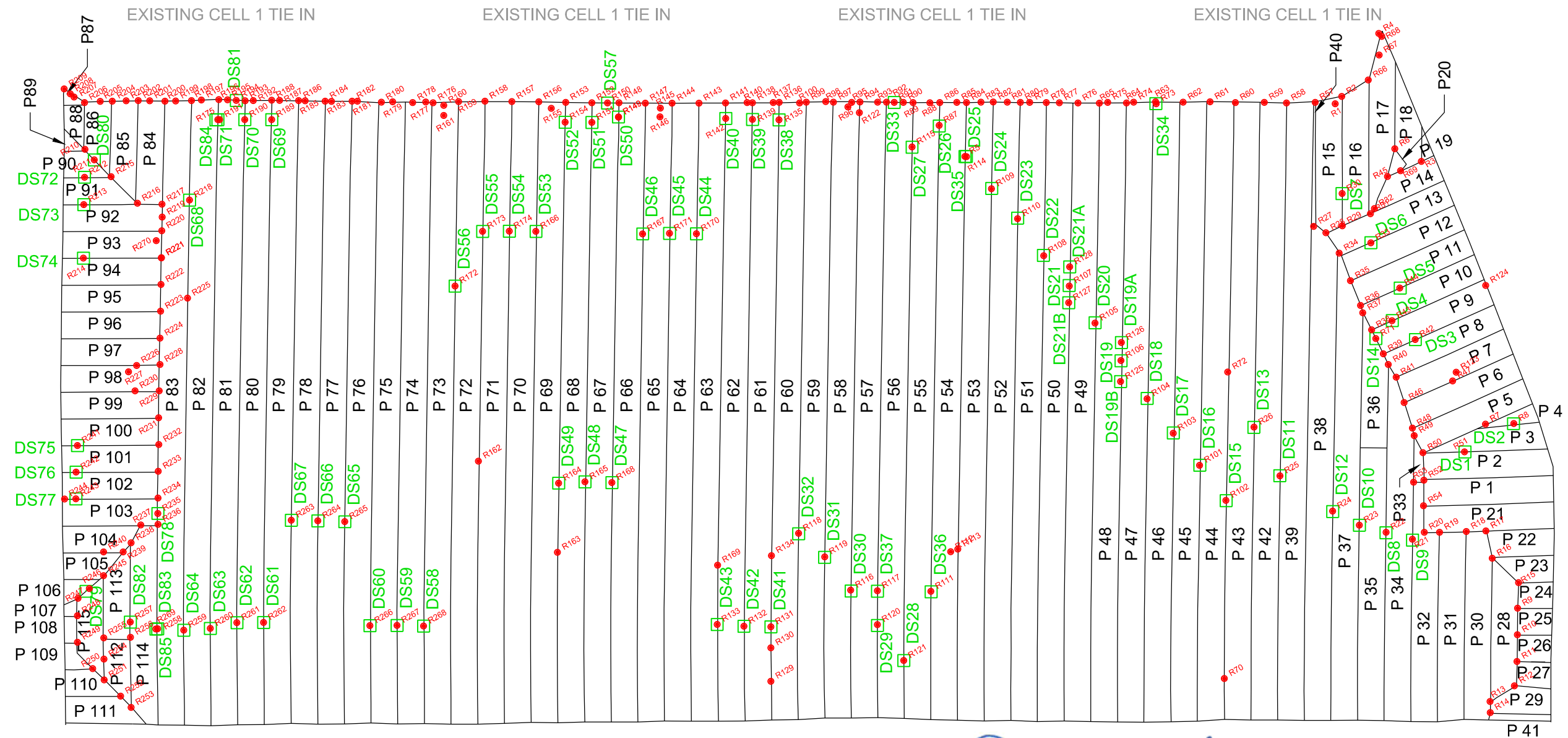
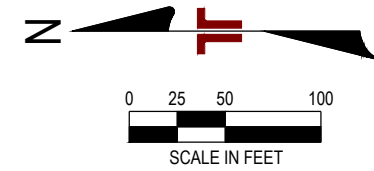
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PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DENSITY MAP - CLAY PIPE PENETRATIONS**  
CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
JOHN W. TURK JR. POWER PLANT  
FULTON      ARKANSAS

FIG. No.	<b>9</b>
----------	----------

# APPENDIX A RECORD DRAWINGS



CELL 2 PANEL LAYOUT

CELL 2 COMPOSITE LINER DESIGN CERTIFICATION  
**AMERICAN ELECTRIC POWER**  
 JOHN W. TURK, JR., POWER PLANT  
 FULTON ARKANSAS

SHEET 1

DESIGNED BY:	DCM
DRAWN BY:	TLB
APP'D BY:	DCM
SCALE:	N.T.S.
DATE:	08/08/2018
JOB NO.:	216-002-3517127
ACAD NO.:	002
SHEET NO.:	OF

**Terracon**  
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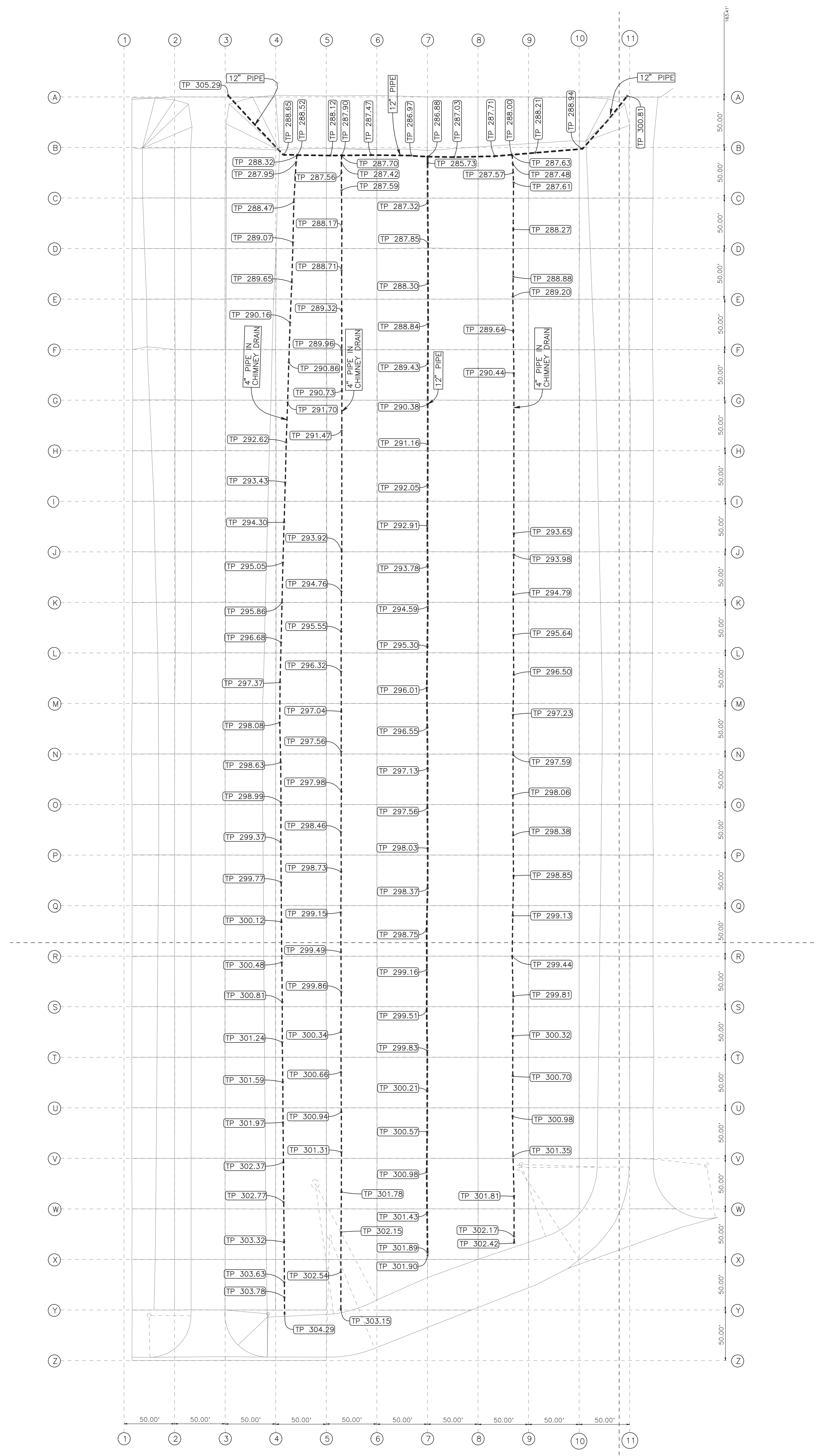
*David McCormick*



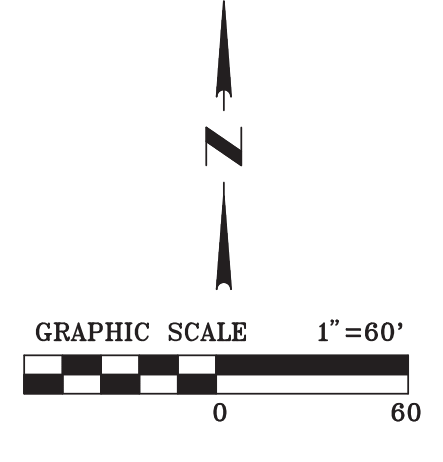
12-14-2018

- LEGEND:
- PANEL
  - DS-1 DESTRUCT LOCATION
  - R1 REPAIR LOCATION

REV.	DATE	BY	DESCRIPTION

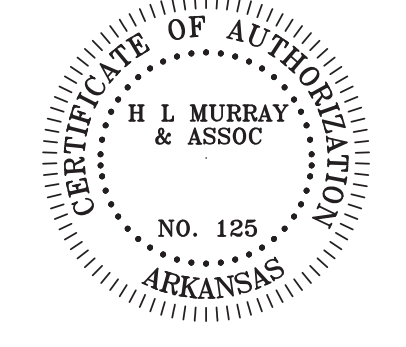
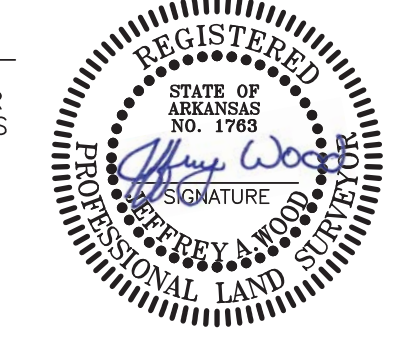


LEGEND	
TP	TOP OF PIPE
---	4" PIPE IN CHIMNEY DRAIN
---	12" DRAIN PIPE
---	TOP OF CLAY LINER



SURVEYOR CERTIFICATE:  
 I HEREBY CERTIFY THAT THIS DRAWING AND INFORMATION SHOWN  
 HEREON WAS TAKEN FROM FIELD SURVEYS MADE BY ME OR UNDER  
 MY SUPERVISION AND ALL HORIZONTAL AND VERTICAL LOCATIONS  
 ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

*Jeffrey G. Wood*  
 JEFFREY G. WOOD  
 PROFESSIONAL LAND SURVEYOR  
 NO. 1763, STATE OF ARKANSAS  
 FIRM CERTIFICATE NO. 125  
 DATE: DECEMBER 13, 2018



CELL 2  
 PIPING  
 AS-BUILT SURVEY  
 SOLID WASTE LANDFILL  
 CELL 2  
 JOHN W. TURK, JR.  
 POWER PLANT UNIT 1

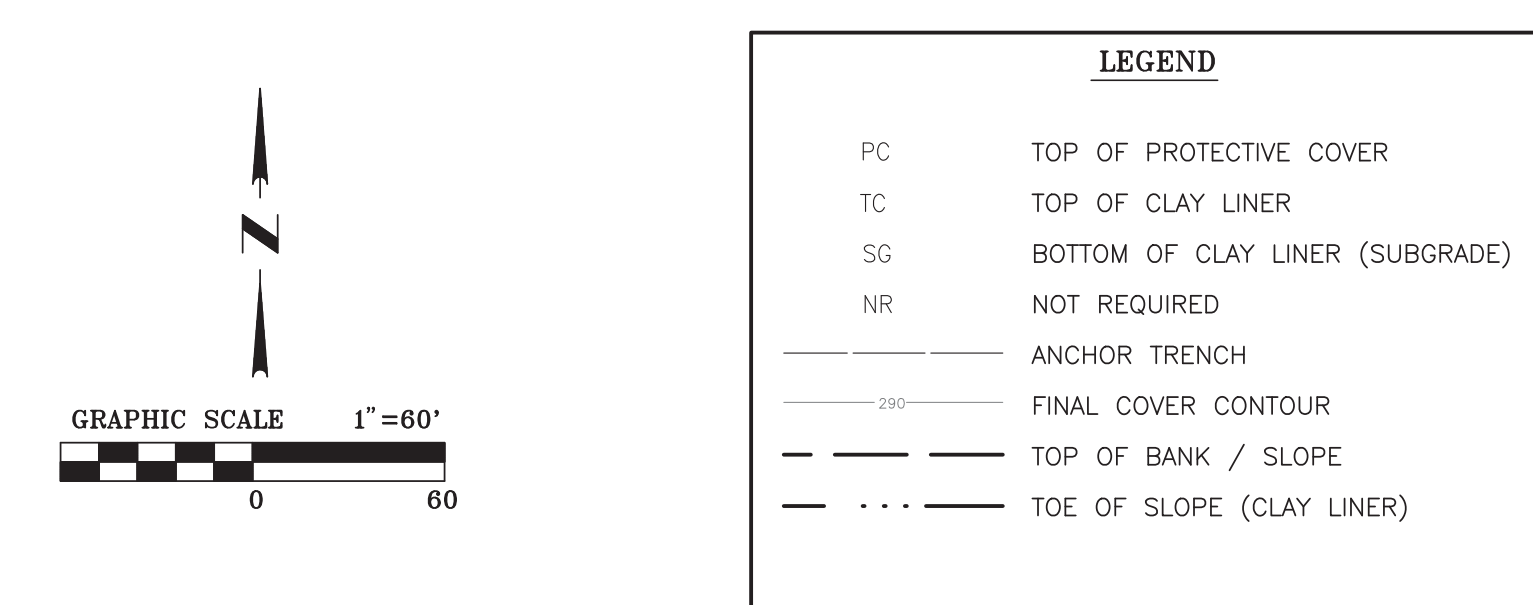
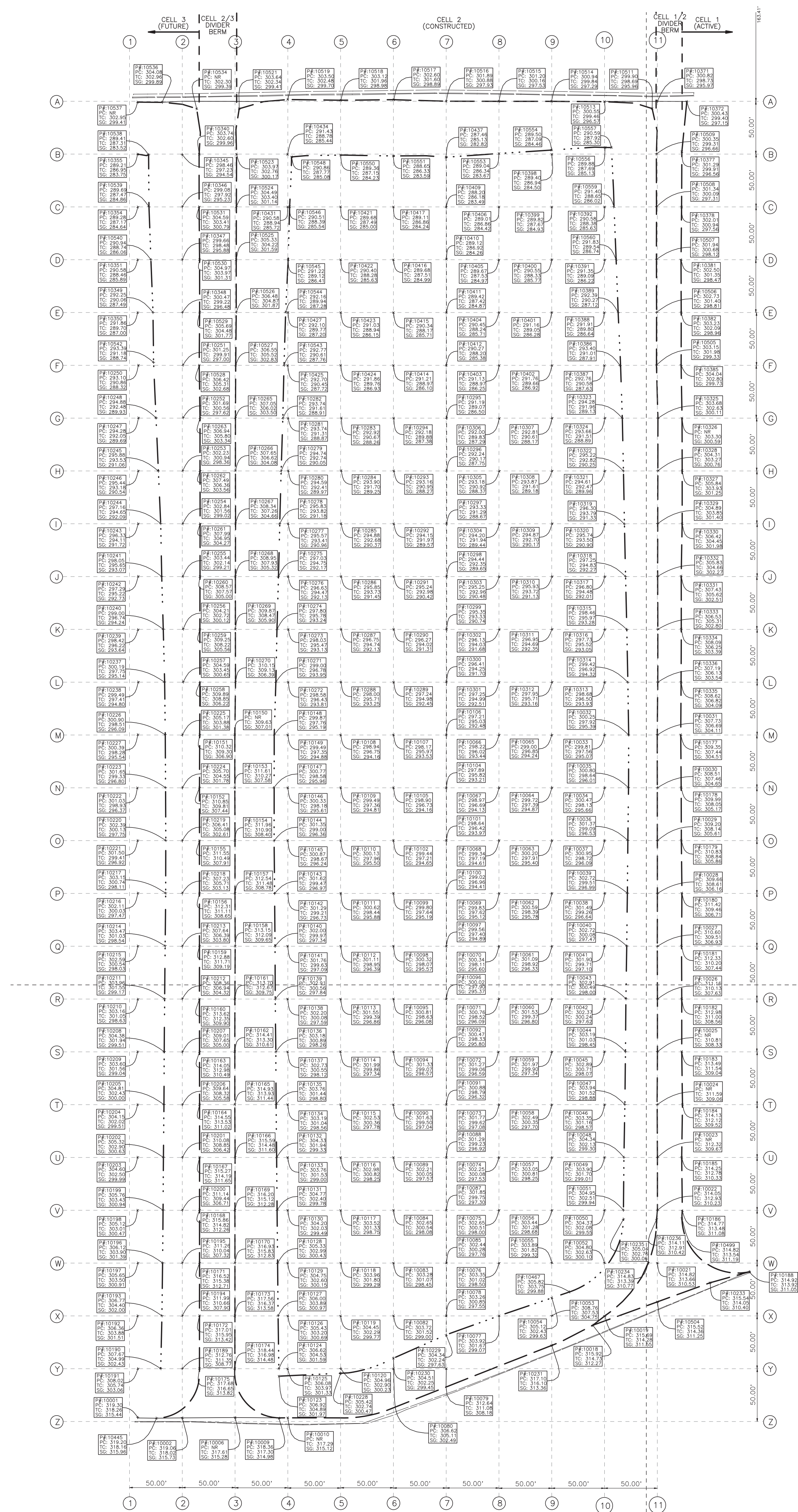


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 TEXARKANA, TEXAS 75503  
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 www.mtgengineers.com  
 TBPE NO. 354 | ASBL NO. 125  
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Date	Revision/Description

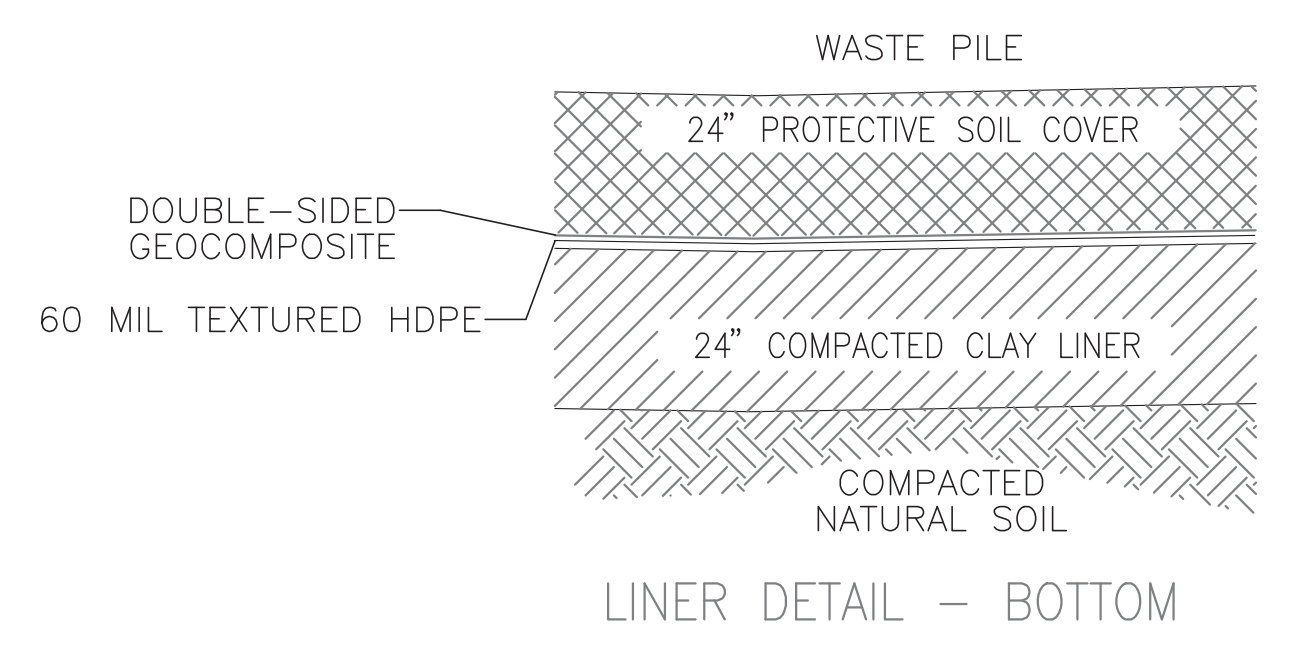
Drawn By W.E.R.	Checked By R.H.H.	Project No. 17701	Dwg. Date 12/13/2018	File No.	Sheet No. 2
--------------------	----------------------	----------------------	-------------------------	----------	----------------

12/13/2018 10:03:13 AM C:\Users\jwood\OneDrive\Documents\Projects\2018\Cell 2 Final Certification Drawings - RHM.dwg - RHM.dwg

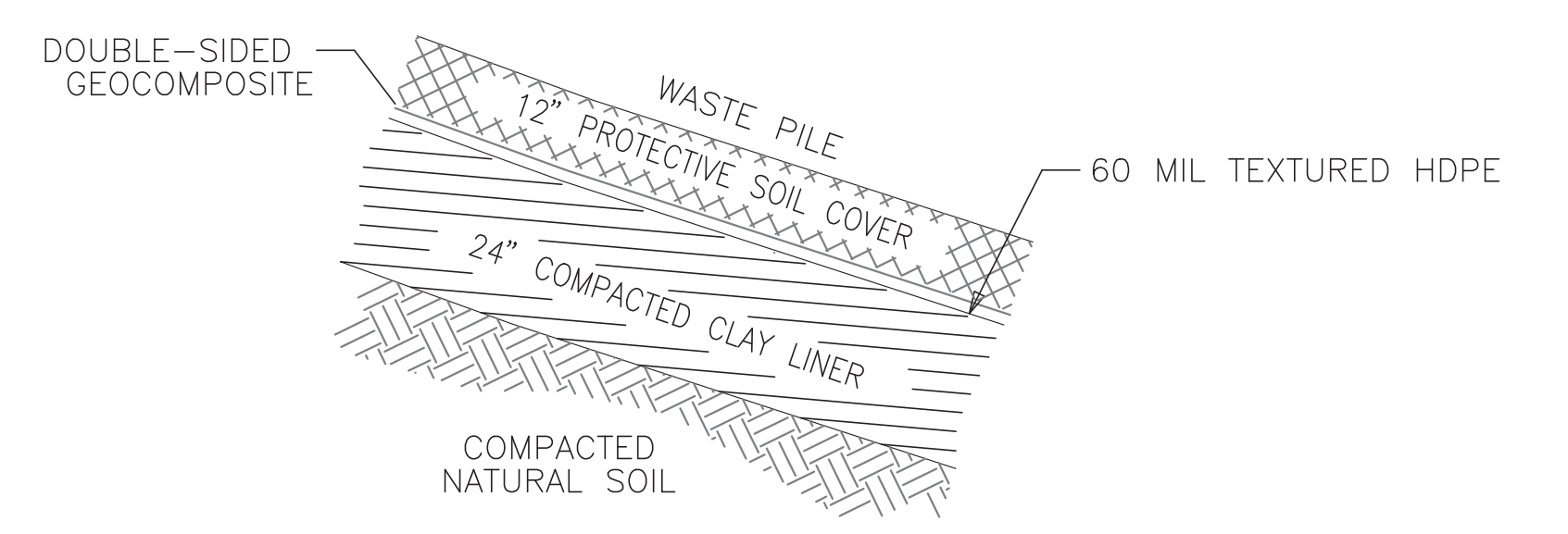


**LEGEND**

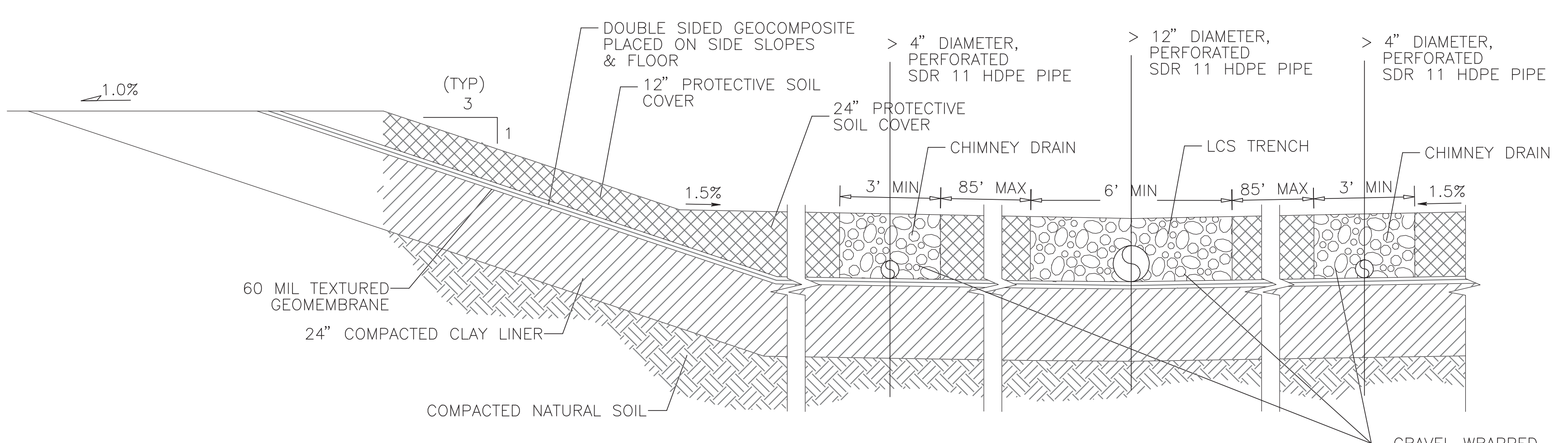
PC	TOP OF PROTECTIVE COVER
TC	TOP OF CLAY LINER
SG	BOTTOM OF CLAY LINER (SUBGRADE)
NR	NOT REQUIRED
---	ANCHOR TRENCH
---	FINAL COVER CONTOUR
---	TOP OF BANK / SLOPE
---	TOE OF SLOPE (CLAY LINER)



**DETAIL 1**  
SCALE: NTS  
THIS DWG



**DETAIL 2**  
SCALE: NTS  
THIS DWG

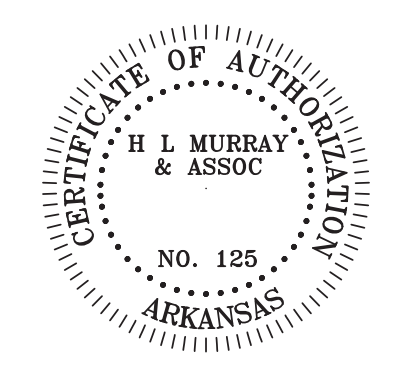


**SECTION C**  
SCALE: NTS  
1-30STE966

**NOTES:**  
 1. THE DETAILS AND SECTIONS SHOWN ON THIS DRAWING ARE FROM DRAWING NO. 1-30STE969 AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.  
 2. THE SIDE SLOPES CONSIST OF 24-INCHES OF COMPACTED CLAY LINER, 60-MIL TEXTURED HDPE, DOUBLE SIDED GEOCOMPOSITE, AND 12-INCHES OF PROTECTIVE COVER (SEE DETAIL 2).  
 3. THE BOTTOM LINER SYSTEM CONSISTS OF 24-INCHES OF COMPACTED CLAY LINER, 60-MIL TEXTURED HDPE, DOUBLE SIDED GEOCOMPOSITE, AND 24-INCHES OF PROTECTIVE COVER (SEE DETAIL 1).  
 4. THE MAIN HEADER CONSISTS OF A 12-INCH DIAMETER PERFORATED HDPE PIPE SURROUNDED BY GRAVEL WRAPPED WITH FILTER FABRIC. CHIMNEY DRAINS CONSIST OF A 4-INCH DIAMETER PERFORATED HDPE PIPE SURROUNDED BY GRAVEL WRAPPED WITH FILTER FABRIC AND ARE PLACED AT A MAXIMUM 85-FOOT SEPARATION. (SEE SECTION C)

**SURVEYOR CERTIFICATE:**  
 I HEREBY CERTIFY THAT THIS DRAWING AND INFORMATION SHOWN HEREON WAS TAKEN FROM FIELD SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND ALL HORIZONTAL AND VERTICAL LOCATIONS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

*Jeffrey A. Wood*  
 JEFFREY A. WOOD  
 PROFESSIONAL LAND SURVEYOR  
 NO. 1763, STATE OF ARKANSAS  
 FIRM CERTIFICATE NO. 125  
 DATE: DECEMBER 13, 2016



<b>LINER THICKNESS AS-BUILT SURVEY</b>		<b>MTG</b> <i>engineers &amp; surveyors</i>
SOLID WASTE LANDFILL CELL 2 JOHN W. TURK JR. POWER PLANT UNIT I		
Date:	Revision/Description:	
Drawn By:	Checked By:	Project No.:
12/16/16	RJM	17501
Dwg. Date:	File No.:	
12/13/2016	3	

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12/13/2016 11:53:13 AM MTG-Turk Power Plant Landfill 2016 Certification Survey Report-Turk Cell 2 Final Certification Drawings - RHM EDIT 12/13/16 RHM.plt

# APPENDIX B DAILY PROJECT FIELD RECORDS

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 1/29/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>34°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>52°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab: <u>5:45 AM</u>	Depart Site: <u>2:30 PM</u>	Arrive Site: <u>7:45 AM</u>	Arrive Lab: <u>3:00 PM</u>

<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans	<u>      </u> Skidsteer	<u>      </u> Water Truck
<u>2</u> Excavator(s)	<u>      </u> Skidsteer	<u>      </u> Water Truck	<u>      </u> Sheeps Foot Compactor
<u>      </u> Backhoe(s)	<u>      </u> Water Truck	<u>      </u> Sheeps Foot Compactor	<u>      </u> Smooth Drum Compactor
<u>5</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor	<u>      </u> Smooth Drum Compactor	
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor		

<b>PERSONNEL ONSITE:</b>	
<u>      </u> Client	<u>      </u> Liner Crew
<input checked="" type="checkbox"/> Contractor	<u>      </u> Liner Installer
<input checked="" type="checkbox"/> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<input checked="" type="checkbox"/> Surveyor	<u>      </u> Gas Line Inst.

**SUMMARY OF ACTIVITIES OBSERVED:**

The contractor ordered a pad created for elevation surveying.

---

Contractor ordered dozers move material around cell floor in attempt to dry out.

---

Contractor called for a proof-roll, determined that material was still too wet.

---



---



---



---

**OPERATIONAL CONCERNS & SOLUTIONS:**

---



---



---



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 1/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>29°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>52°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:30 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:45 AM</u>	Arrive Lab: <u>5:30 PM</u>

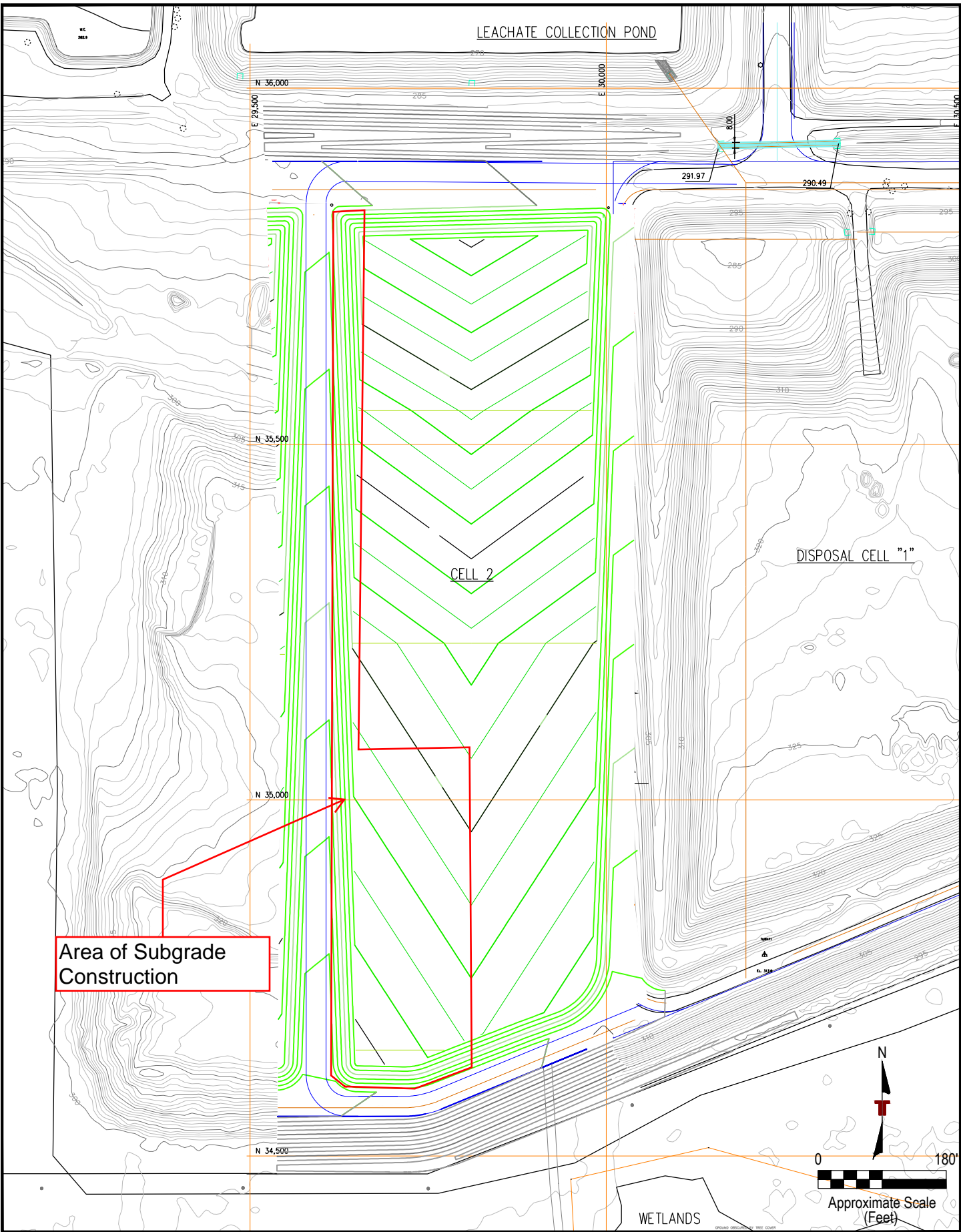
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>5</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>      </u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor haul trucks hauled material to stockpile.</u>
<u>Contractor dozers moved material around cell floor to bring up to grade, moisture/density tests were performed.</u>
<u>SFC Surveyor took elevation data measurements.</u>
<u>Contractor sheeps foot compactor prepared west berm area for cut, haul truck performed passing proof-roll.</u>
<u>OPERATIONAL CONCERNS &amp; SOLUTIONS:</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	1.30.2018

**Terracon**  
 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 1/31/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>33°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>72°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:30 AM</u>	Depart Site: <u>5:30 PM</u>
Arrive Site: <u>6:45 AM</u>	Arrive Lab: <u>5:45 PM</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

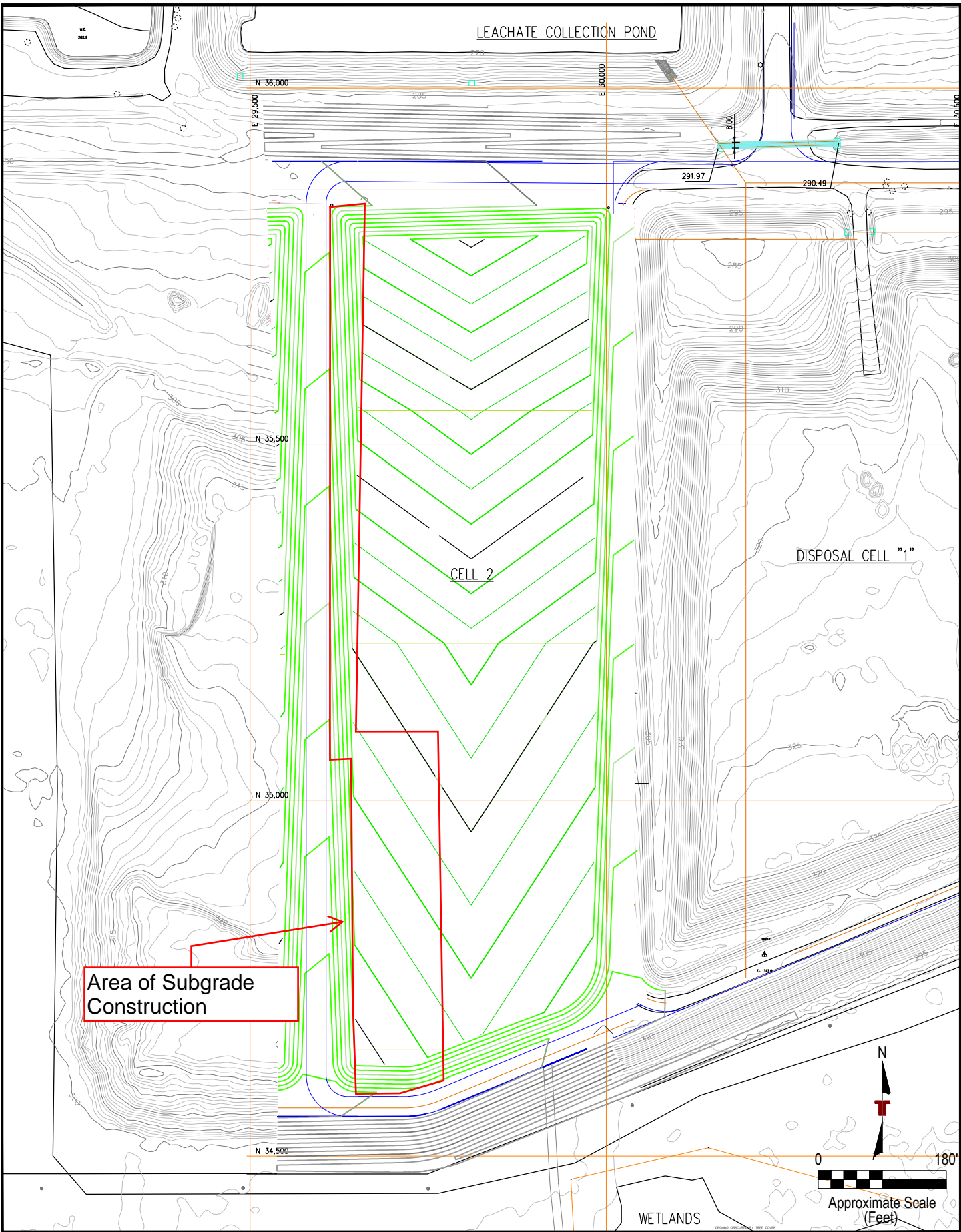
EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>3</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>5</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>      </u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor graded material with dozer to continue with the first lift on cell floor to bring up to grade.</u>
<u>Contractor compacted lift for continued density testing.</u>
<u>Contractor hauled material to stockpile.</u>
<u>Contractor compacted north end of west berm with smooth drum</u>

OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	1.31.18

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 Consulting Engineers and Scientists

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CELL 2 DAILY CONSTRUCTION MAP  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 2/1/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>48°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>64°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:30 AM</u>	Depart Site: <u>5:30 PM</u>
Arrive Site: <u>6:45 AM</u>	Arrive Lab: <u>5:45 PM</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>3</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>5</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>      </u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

### SUMMARY OF ACTIVITIES OBSERVED:

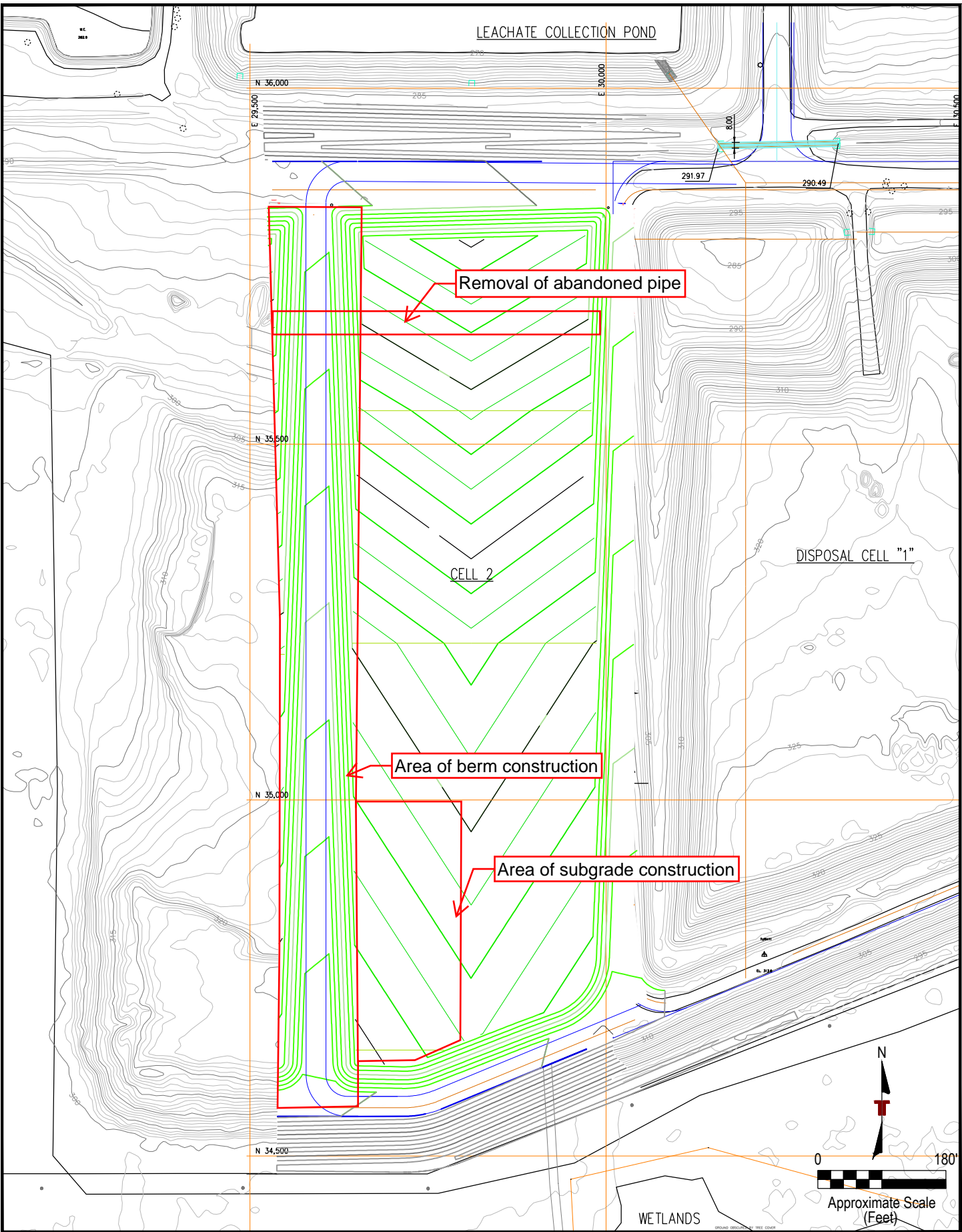
Contractor excavated and hauled overburden to stockpile.

Contractor hauled material as structural fill to bring cell floor up to grade.

Contractor sheeps foot compactor ran over all material that was placed to raise compaction.

Contractor removed abandoned pipe running across north end of cell floor (E-W orientation).

### OPERATIONAL CONCERNS & SOLUTIONS:



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	2.1.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 2/2/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>34°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>45°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:30 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

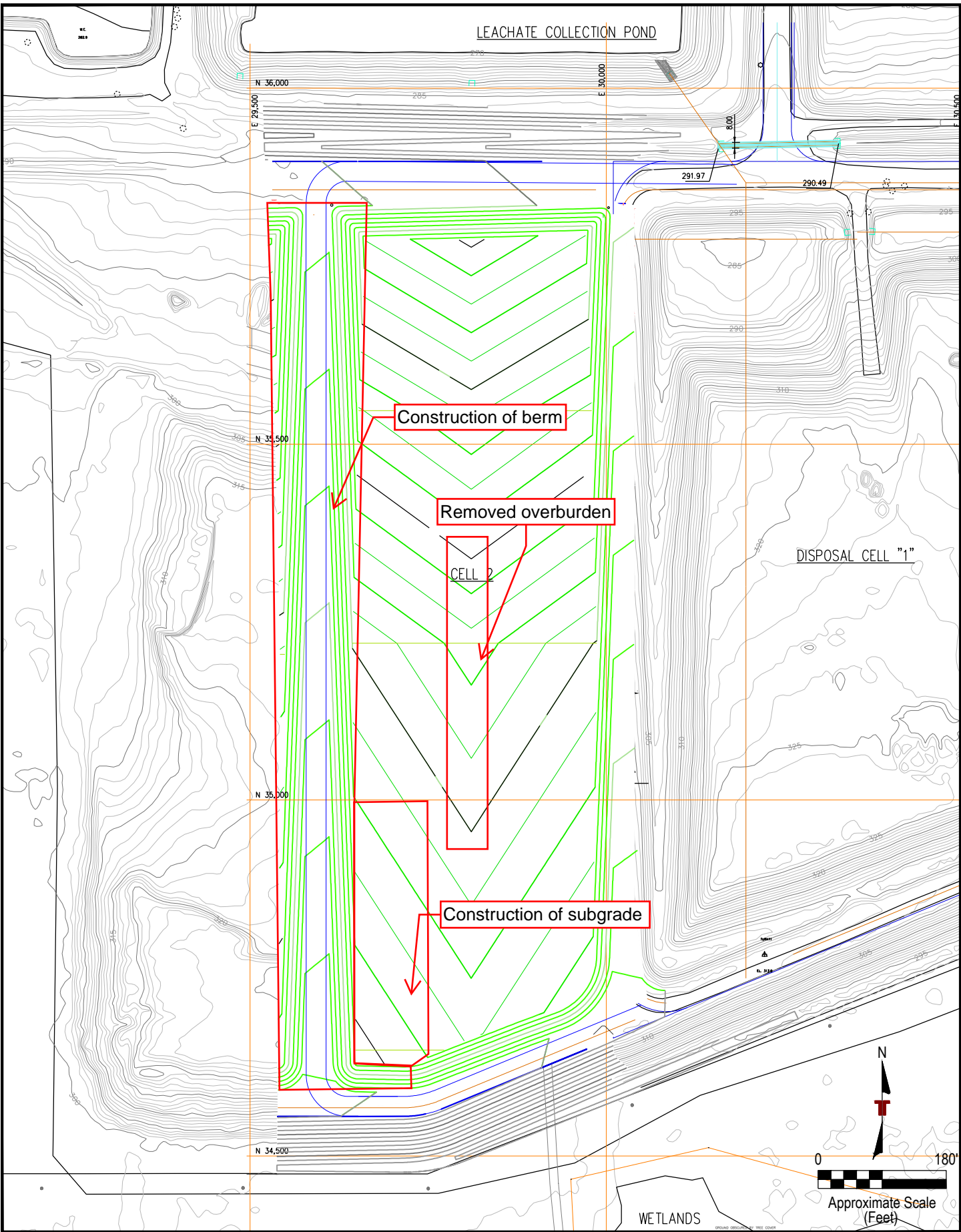
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>    </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>1</u> Skidsteer
<u>    </u> Backhoe(s)	<u>    </u> Water Truck
<u>5</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>    </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>    </u> Liner Crew
<u>13</u> Contractor	<u>    </u> Liner Installer
<u>1</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor removed overburden with excavators to be used as fill.</u>
<u>Contractor dozers spread fill.</u>
<u>Contractor haulers carried placed material for fill on floor as well as west and south berm.</u>
<u>Contractor sheeps foot compacted material.</u>
<u>Performed density testing.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	2.2.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 2/3/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>30°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>48°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>4:00 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>4:15 PM</u>

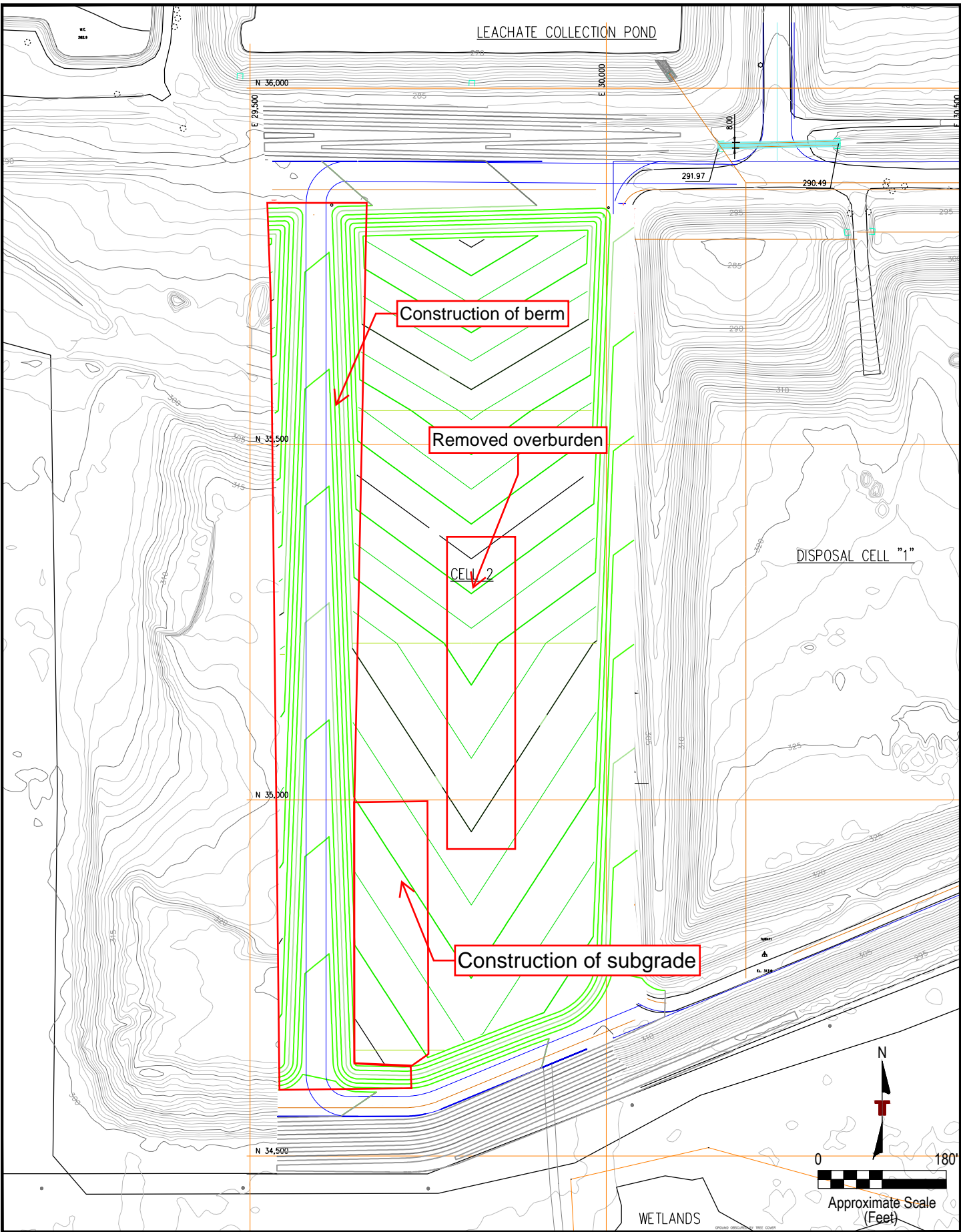
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>5</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators removed overburden to be used as fill</u>
<u>Contractor hauled material to be used as fill for berms and subgrade</u>
<u>Contractor ran sheeps-foot over material placed for compaction.</u>
<u>Performed density testing.</u>
<u>OPERATIONAL CONCERNS &amp; SOLUTIONS:</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	2.3.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 2/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>41</u> °F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>   </u> °F High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>7:15 AM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:30 AM</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>   </u> Dozer(s)	<u>   </u> Tractor & Pans
<u>   </u> Excavator(s)	<u>   </u> Skidsteer
<u>   </u> Backhoe(s)	<u>   </u> Water Truck
<u>   </u> Haul Truck(s)	<u>   </u> Sheeps Foot Compactor
<u>   </u> Motor Grader(s)	<u>   </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>   </u> Client	<u>   </u> Liner Crew
<u>13</u> Contractor	<u>   </u> Liner Installer
<u>1</u> COA Consultant	<u>   </u> Concrete Crew
<u>   </u> Design Engineer	<u>   </u> Pipe Installer
<u>1</u> Surveyor	<u>   </u> Gas Line Inst.

### SUMMARY OF ACTIVITIES OBSERVED:

No activites performed.

### OPERATIONAL CONCERNS & SOLUTIONS:

Rain from yesterday left the material too wet to work on without causing damage.



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 2/5/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>28°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>56°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>4:45 AM</u>	Depart Site: <u>5:30 PM</u>
Arrive Site: <u>6:45 AM</u>	Arrive Lab: <u>5:45 PM</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>5</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

### SUMMARY OF ACTIVITIES OBSERVED:

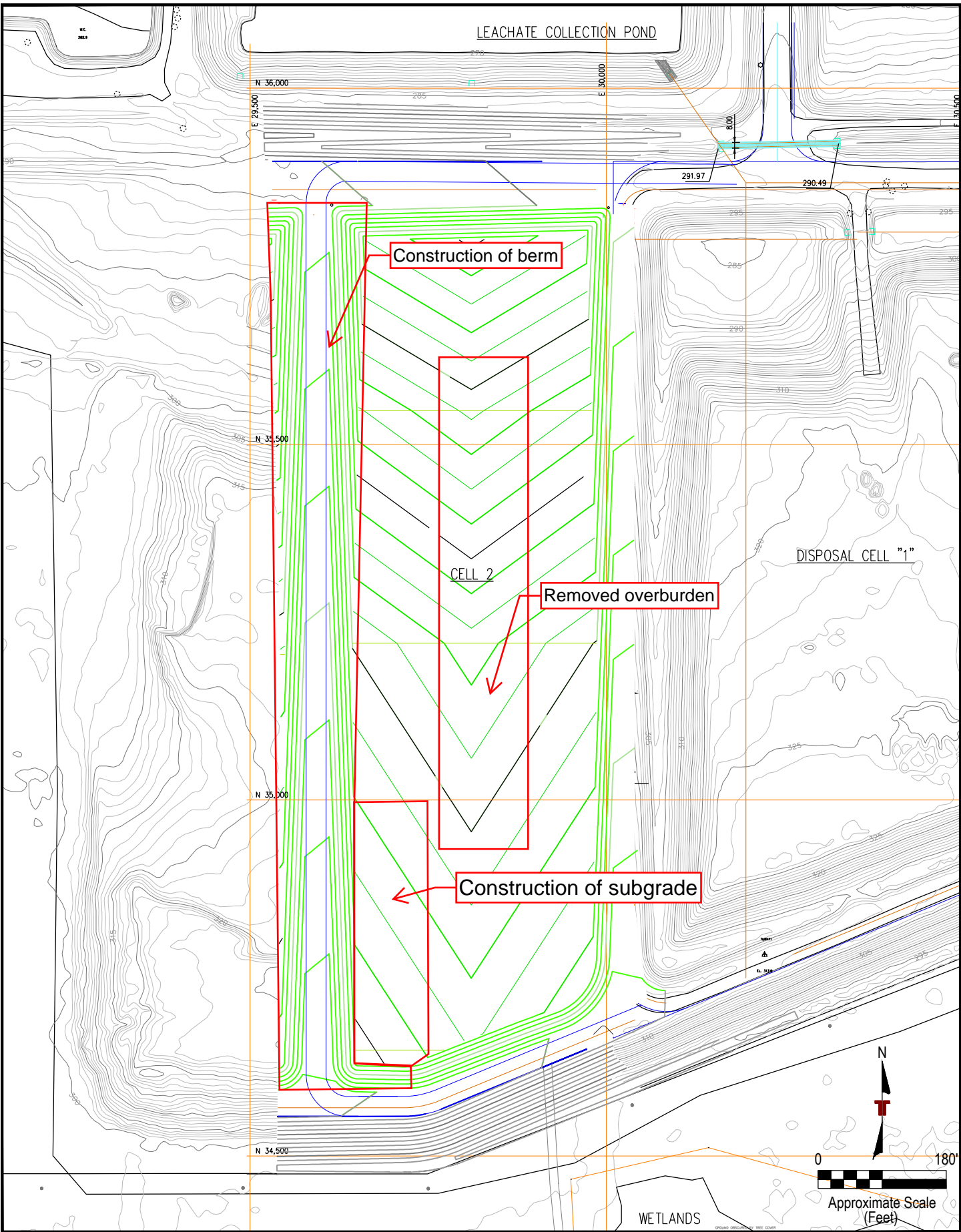
Contractor removed overburden with excavators.

Contractors hauled material to berm construction areas.

Contractor dozers spread material.

Contractor compacted material placed with sheeps foot compactor.

### OPERATIONAL CONCERNS & SOLUTIONS:



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	2.5.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 2/6/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>37°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>51°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>3:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>3:30 PM</u>

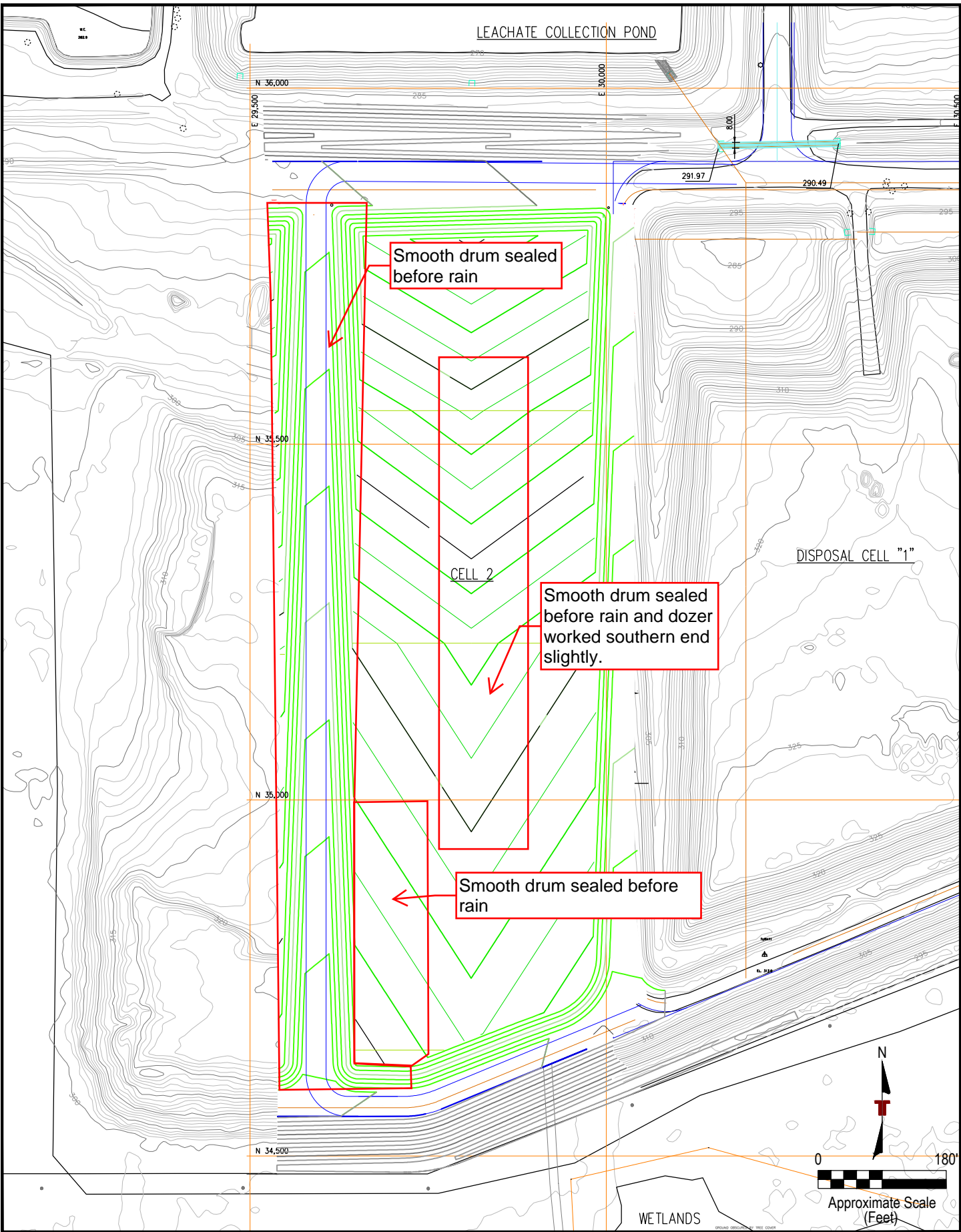
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>5</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozer moved material onto western berm to bring cell floor to grade.</u>
<u>Contractor excavators removed overburden of both western ramps.</u>
<u>Contractor smooth roller compacted west berm and exposed subgrade thrice to seal off before expected rain.</u>
<u>Contractors hauled overburden to southern stockpile.</u>
<u>Contractor sheeps foot passed over entire western berm once, again over dozer placed material.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Began raining at 3:00 PM, operations ceased at 3:00 PM.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	2.6.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/7/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>33°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>54°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>9:00 AM</u>	Depart Site: <u>5:15 P.M.</u>
Arrive Site: <u>11:00 AM</u>	Arrive Lab: <u>5:45 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>8</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Supervise movement of material around the cell and perform density tests.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor dozer in cell moved material and flattened area to grade.

---

Contractor sheeps foot went over west berm to help dry it out.

---

Performed verification density tests to ensure material is within parameters to place more material above it.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
 LIFTS: No new material brought in.

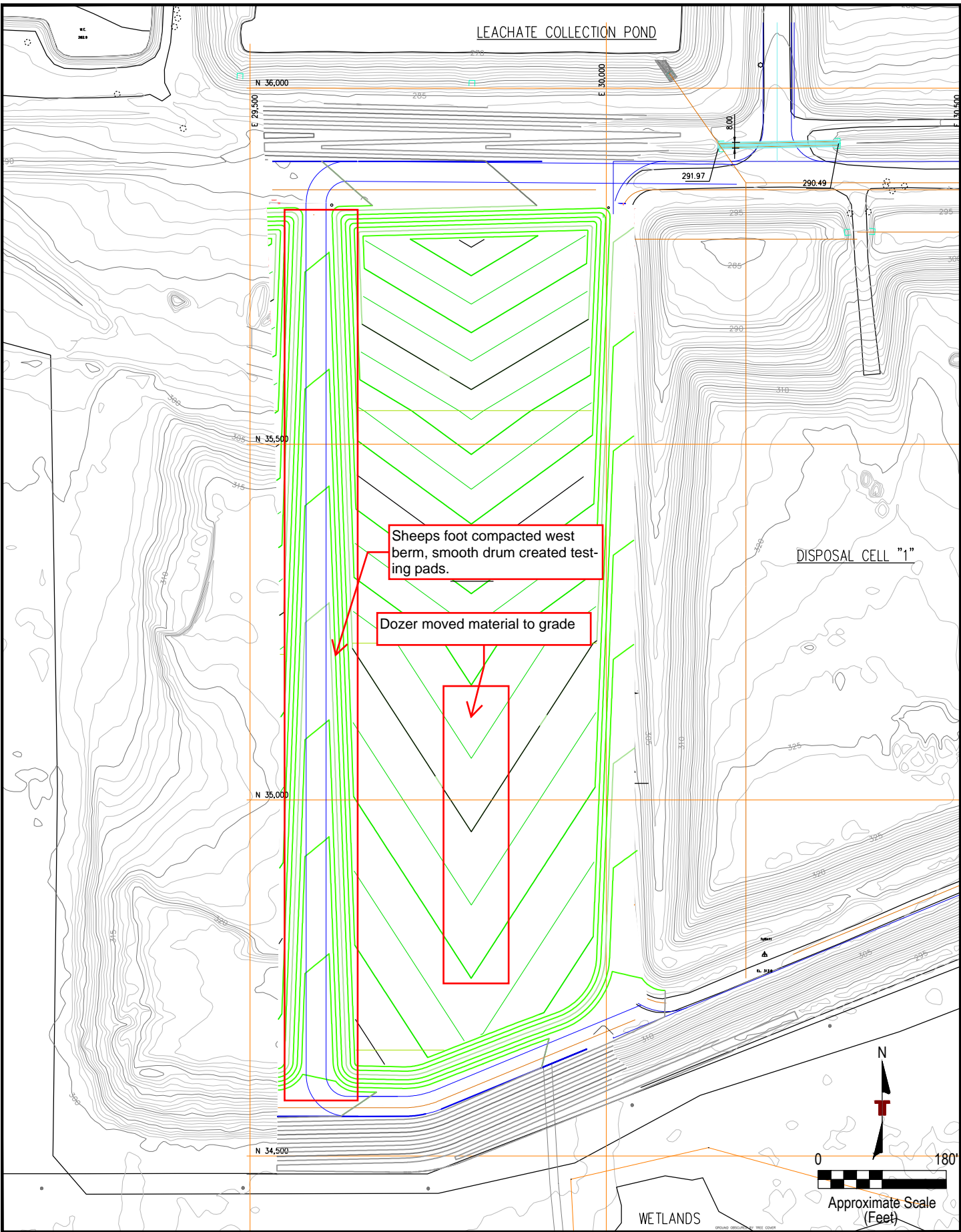
---

COMPACTION: Sheeps foot moved over west berm three times along entirety to reduce moisture and bring compaction up to passing before density tests are performed to continue fill work.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
Northern end of berm was mostly dry, the south end of the berm had compaction that was close, but not passing with a higher than normal moisture. Contractor plans to disc over-saturated material on 3.8.18 to dry it.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.7.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/8/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>35°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>70°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:30 A.M.</u>	Depart Site: <u>5:30 P.M.</u>
Arrive Site: <u>6:45 A.M.</u>	Arrive Lab: <u>5:45 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>10</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Perform verification density tests and supervise continued structural fill.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor sheeps foot compacted south and west berm.

---

Contractor excavator cleaned stockpile and worked on road.

---

Contractor excavator removed structural fill material and moved to west berm.

---

Smooth roller has sealed off the north half of west berm until the southern half is brought up to match the elevation of north half.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: 4th lift added to south berm and southern west berm.

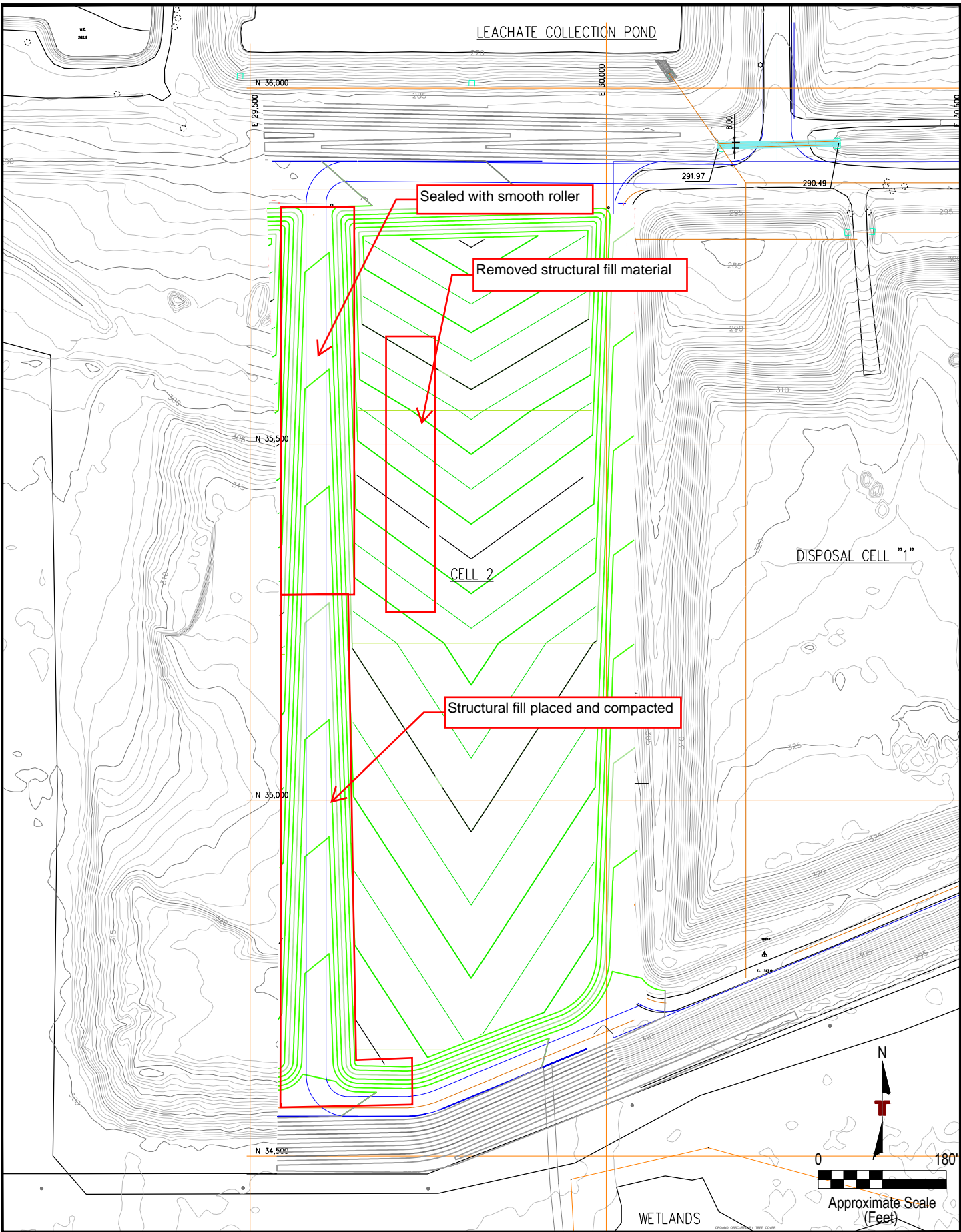
---

COMPACTION EFFORT: For best compaction, contractor sheeps foot covered west berm at a minimum of 4 passes, a few passes more in some places.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
      

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.8.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/9/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>35°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>76°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>5:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>5:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>10</u> Contractor	<u>      </u> Liner Installer
<u>1</u> CQA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe earth work on southern half of west berm and perform density tests as allowable.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators removed structural fill material to be placed in west berm and to be moved to stockpile.  
Contractor haulers moved material from excavation sites to west berm and stockpile.  
Contractor smooth roller created testing pads.  
Contractor dozers smoothed west berm and cell floor to grade.

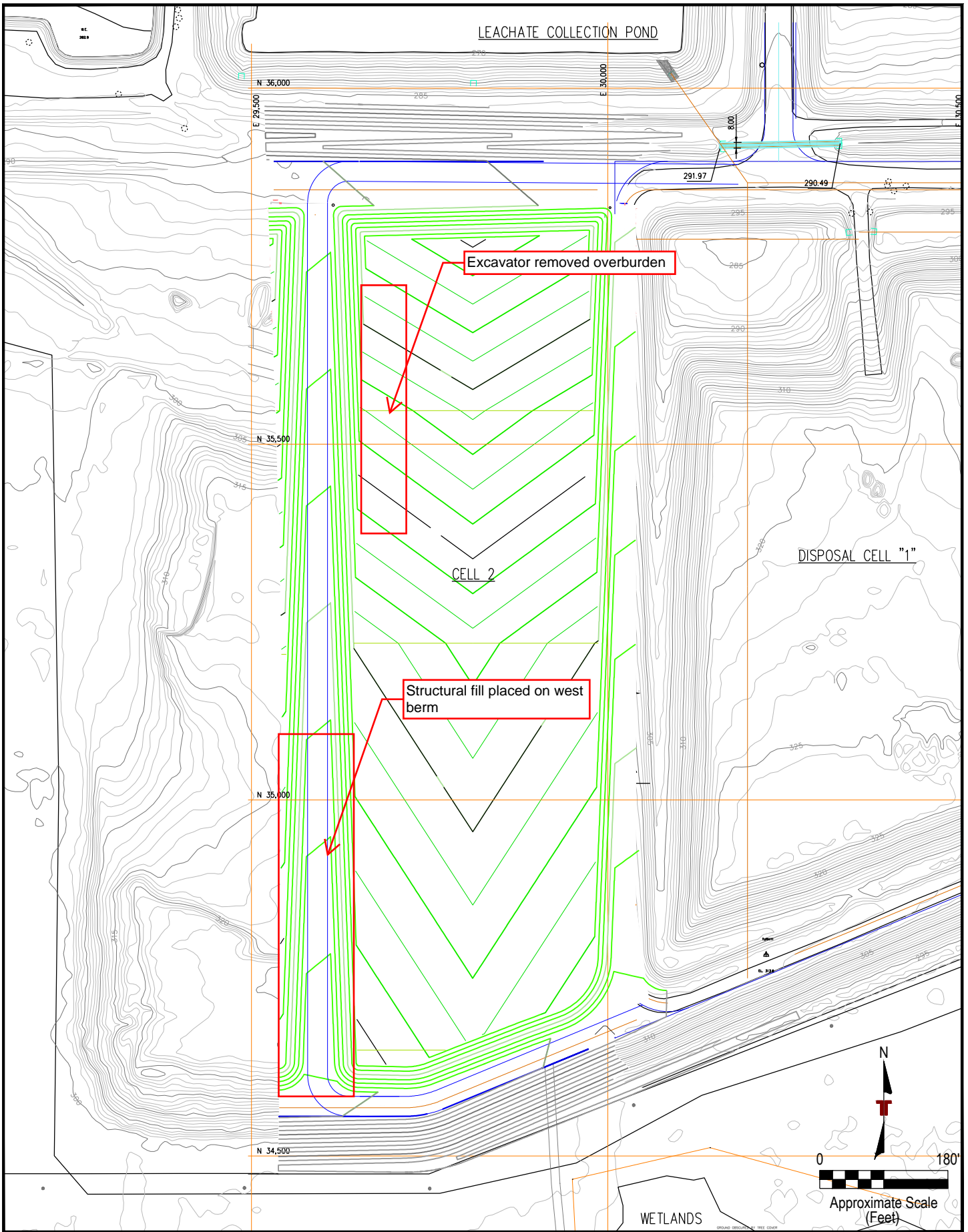
---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Completed lift 4 on southern half of west berm, had to create a smaller lift in middle of west berm, 5, to bring entirety to grade. Lift 6 was also created to bring the southern half to a homogenous grade throughout.  
Compaction Effort: Sheeps foot passed over placed material a minimum of 4 times to achieve ideal compaction, with a few more passes when allowable.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
      

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	DCM	Date:	3.9.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/10/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	51°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	78°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>4:45 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>6:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>3</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>10</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe earth work on southern half of west berm and south berm and perform density tests as allowable.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators removed structural fill material to be placed on south and west berm. Separate contractor excavator removed material to be moved to stockpile.

---

Contractor haulers moved material from excavation sites to west berm and stockpile.

---

Contractor smooth roller created testing pads and sealed before rain.

---

Contractor dozers graded cell floor.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Continued with lift 6 into southwest corner and south berm.

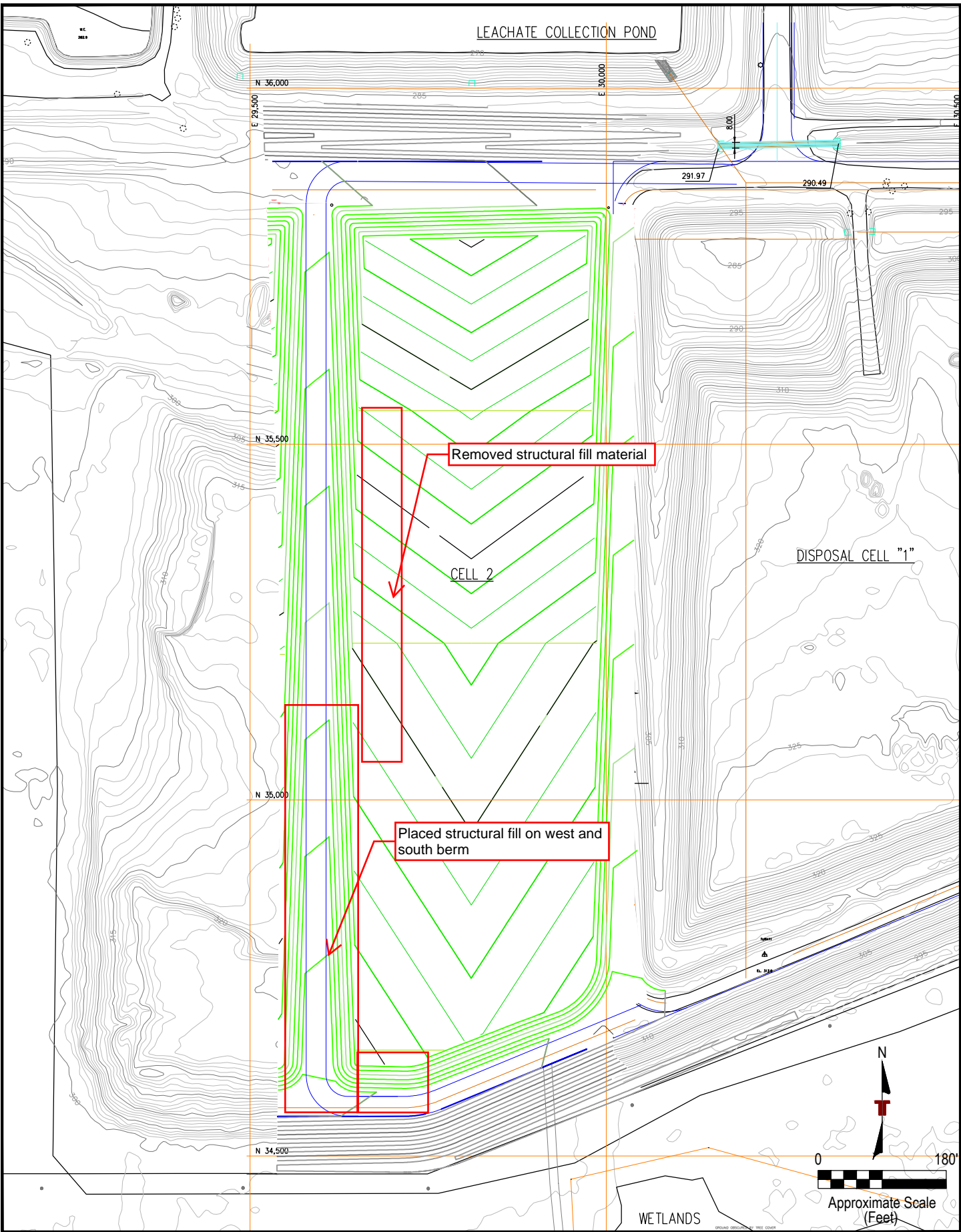
---

Compaction Effort: Minimum of 4 passes with sheeps foot, more when allowable.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
Chance of rain tonight that could cause work to be halted tomorrow.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.10.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/12/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 and Cell 1 Partial Cover  
 Location: Fulton, AR  
 Representative: Greg Whitte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>42°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>66°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>10:45 AM</u>	Depart Site: <u>7:15 P.M.</u>
Arrive Site: <u>12:45 P.M.</u>	Arrive Lab: <u>7:30 P.M.</u>

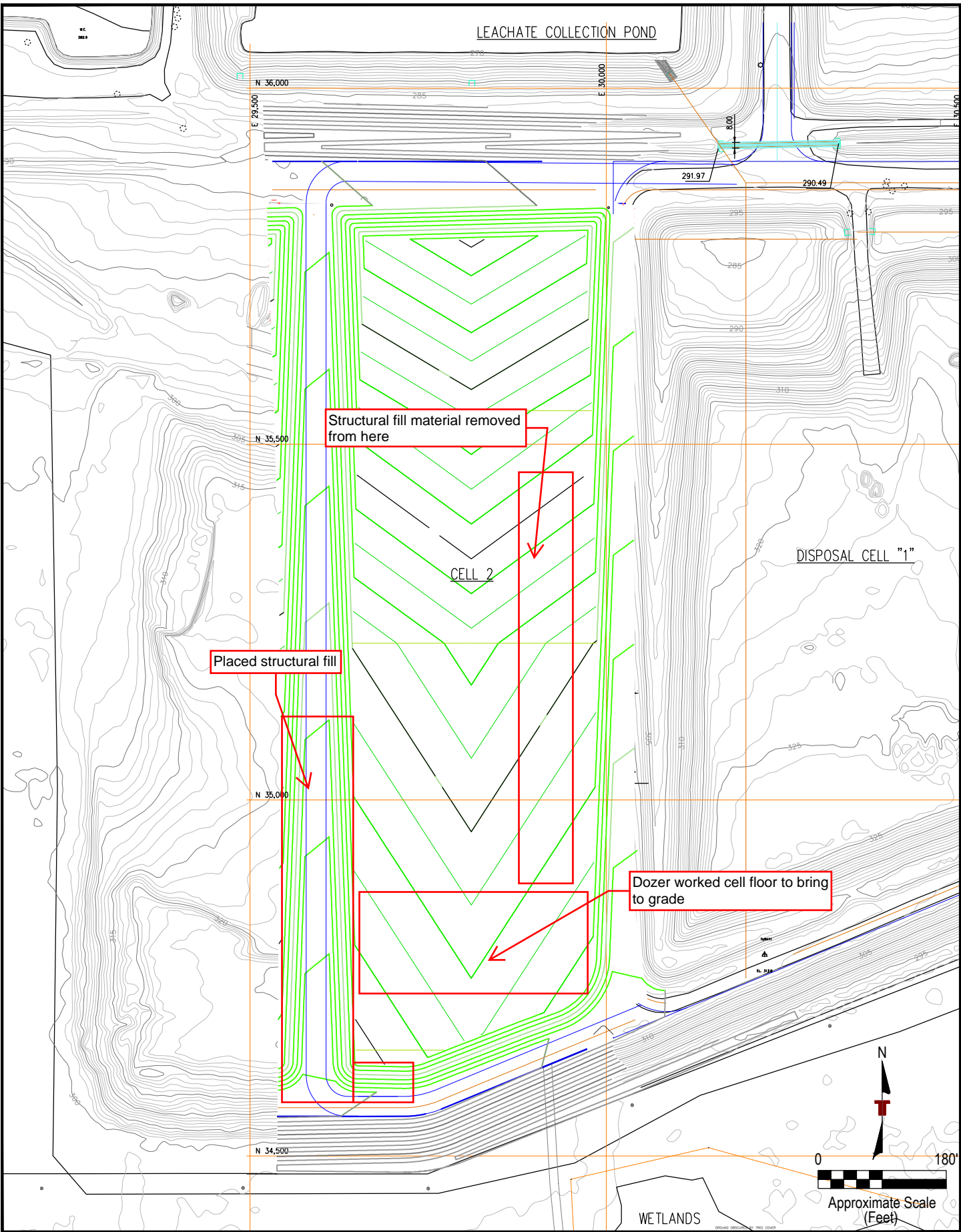
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations: <u>Observe contractors remove structural fill material, place it as structural fill on west berm, and perform density tests to verify passing compaction.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor excavators (2) removed structural fill material from cell 2 floor to bring to grade.</u>
<u>Contractor haulers moved structural fill material to west and south berm.</u>
<u>Contractor dozers spread material along west berm.</u>
<u>Contractor sheeps foot kneaded material into compaction.</u>
<u>Contractor smooth drum created testing pads for density tests.</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Added a seventh lift to south end of west berm and into south berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot passed across material a minimum of 4 times to bring up to compaction, more times if allowable.</u>
OPERATIONAL CONCERNS & SOLUTIONS: <u>Work started in cell floor after noon due to previous rains.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.12.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/13/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 CQA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>38°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>65°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> CQA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe contractors remove structural fill material, place it as structural fill on west berm, and perform density tests to verify passing compaction.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material from cell floor.

---

Contractor haulers carried structural fill material to be placed on west and south berms.

---

Contractor dozers graded cell floor.

---

Contractor sheeps foot compacted newly placed material.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Began work on 8th lift on west and south berm and finished it the same day. Began work on 9th lift on west and south berm.

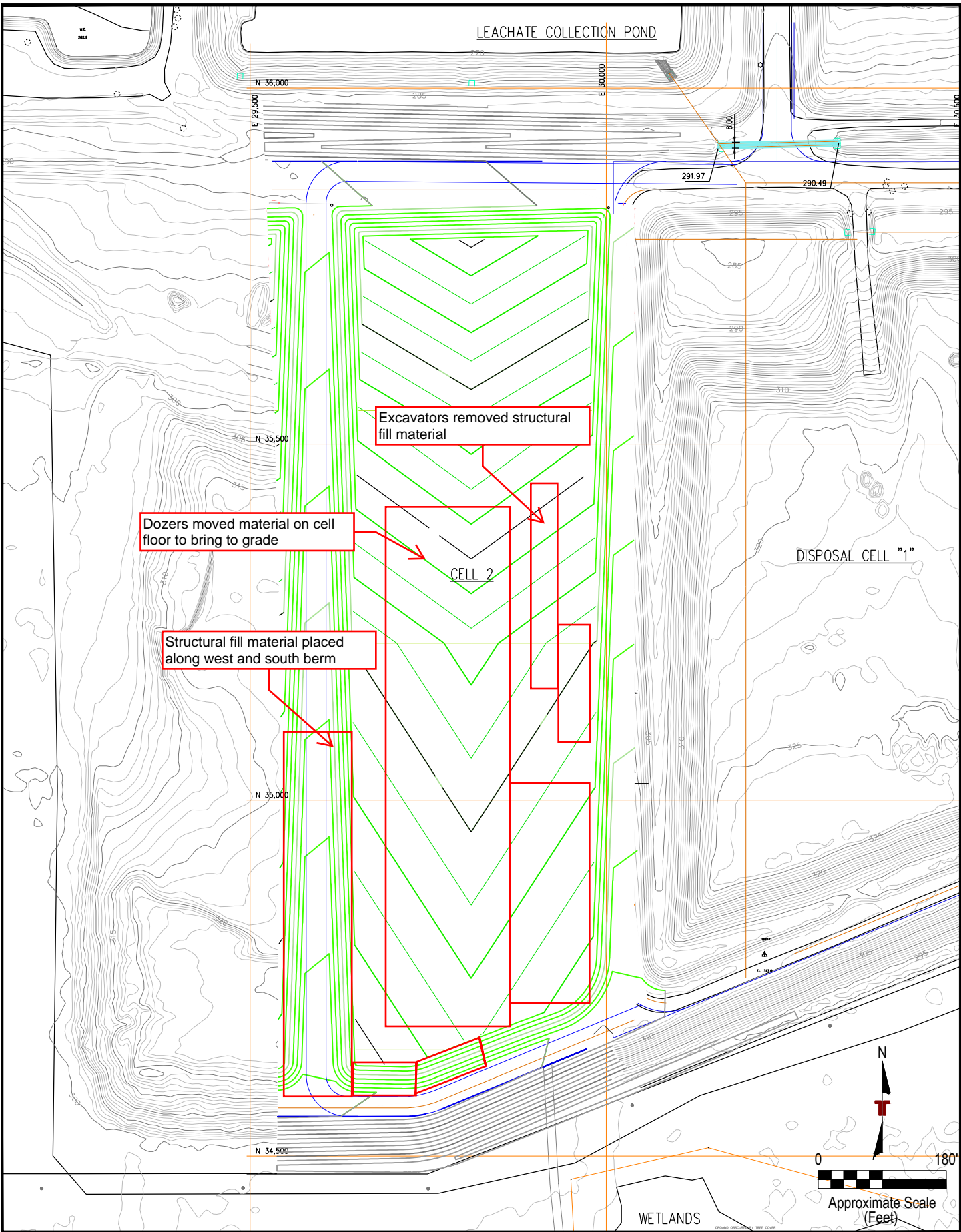
---

COMPACTION EFFORTS: Contractor sheeps foot passed across material a minimum of 4 times to bring up to compaction, more times if allowable. Smooth roller used to create testing pads.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
      

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.13.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/14/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>34°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>70°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>3</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe contractors remove structural fill material, place it as structural fill on west and south berm, and perform density tests to verify passing compaction.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material to be placed in west berm.

---

Contractor dozers graded cell floor.

---

Contractor haulers hauled material to west and south berm.

---

Contractor compactors covered material until passing compaction.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Ninth, tenth, most of eleventh lift placed on west and south berm.

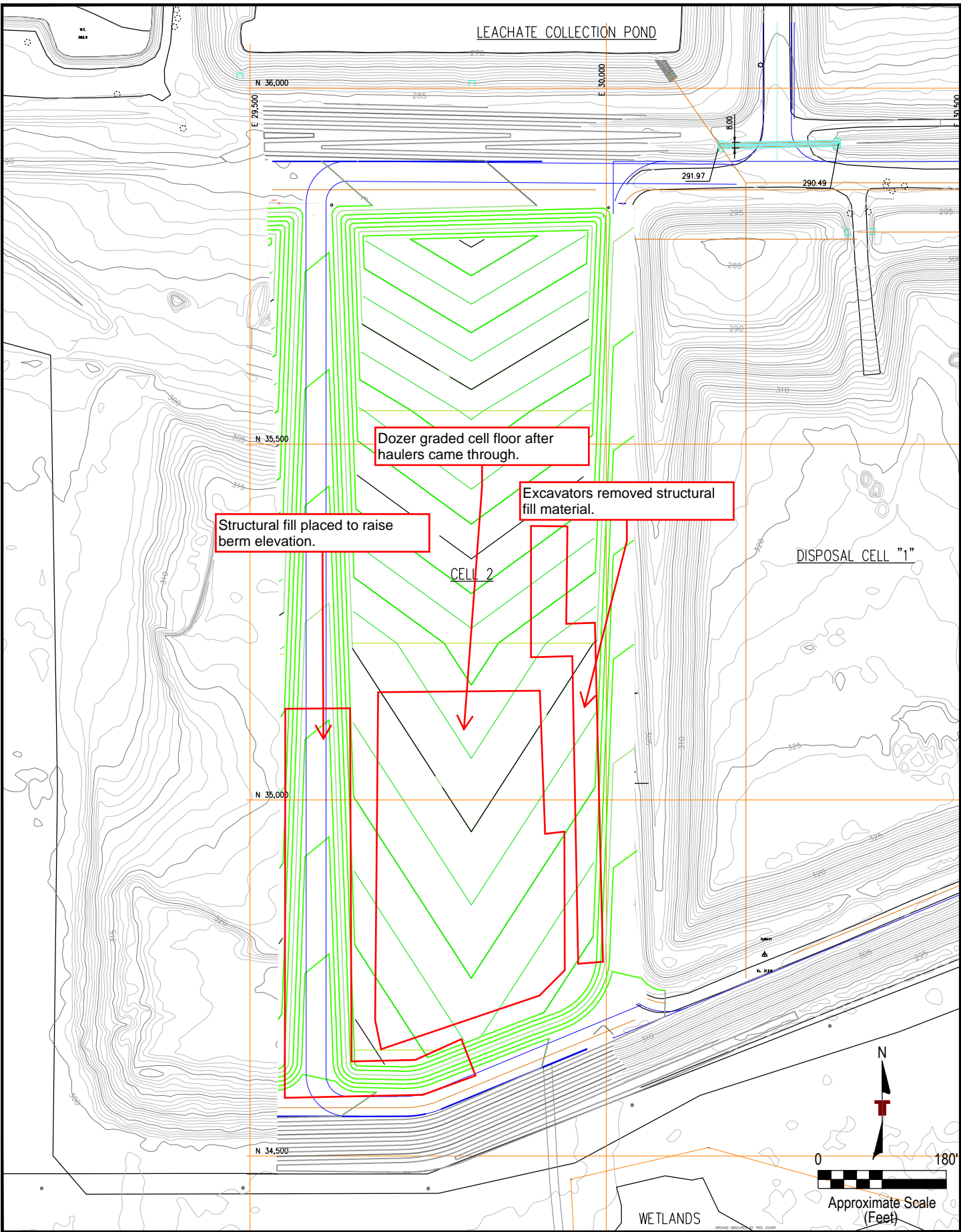
---

COMPACTION EFFORTS: Contractor sheeps foot made a minimum of 4 passes over material to knead into compaction, more if allowable. Contractor smooth roller created testing pads.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
      

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.14.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/15/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 CQA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	45°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	72°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>6:45 PM</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>7:00 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> CQA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe contractors remove structural fill material, place it as structural fill on west berm, and perform density tests to verify passing compaction.

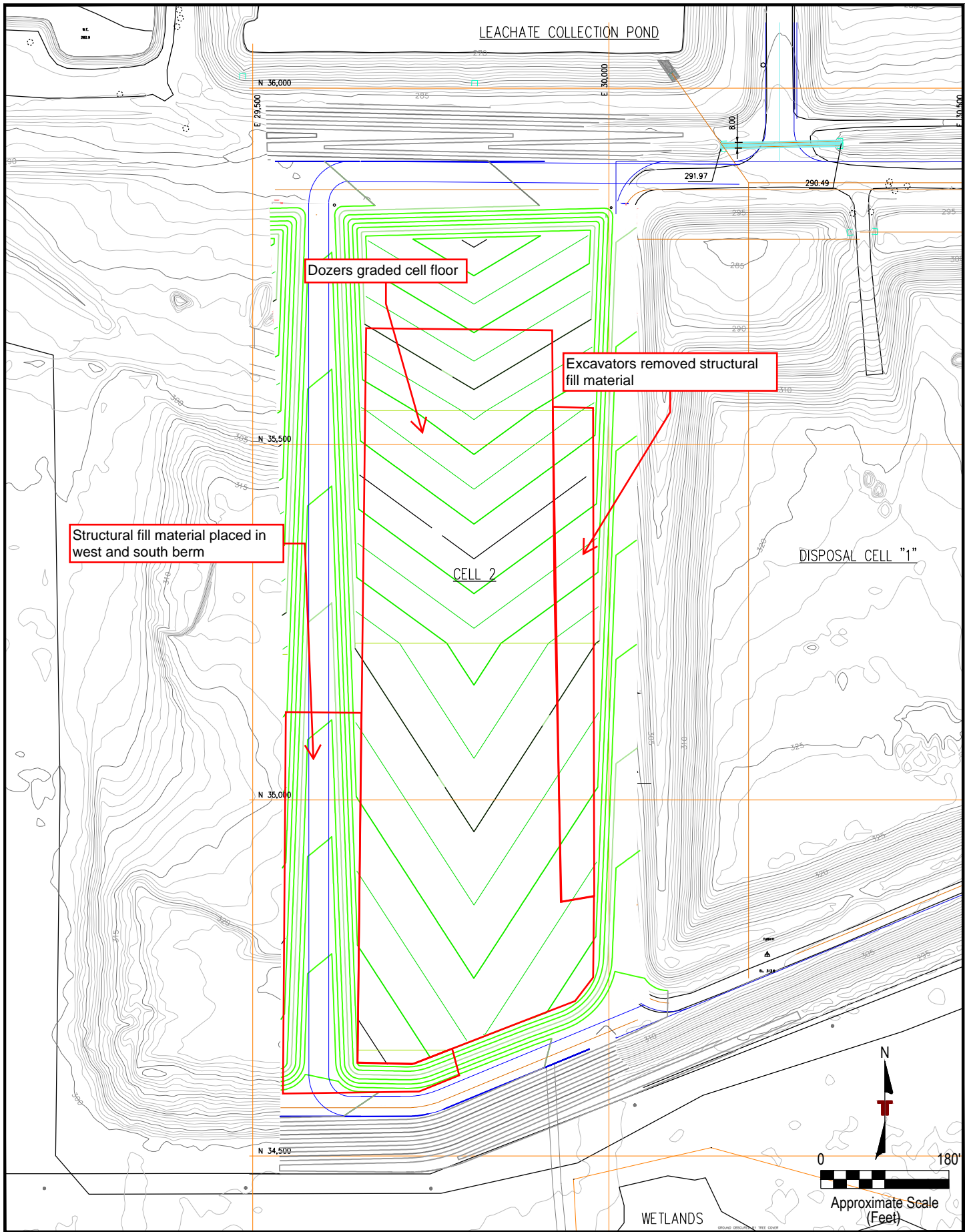
SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material to be placed in west berm.  
Contractor dozers graded cell floor.  
Contractor haulers hauled material to west and south berm.  
Contractor sheeps foot covered material until passing compaction. Smooth drum created testing pads and passed over entirety of west and south berm to seal.

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Twelfth, thirteenth, and part of fourteenth lifts placed on south of west berm and south berm.

COMPACTION EFFORT: Contractor sheeps foot made a minimum of 4 passes over material to knead into compaction, more if allowable. Contractor smooth roller created testing pads.

OPERATIONAL CONCERNS & SOLUTIONS:  
Possible rain overnight/in the morning. Smooth drum is covering west and south berm to reduce water infiltration.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	DCM	Date:	3.15.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/16/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 CQA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>61°F</u> Low Temp. (°F)
<input checked="" type="checkbox"/> Foggy / Misty	<u>84°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>10</u> Contractor	<u>      </u> Liner Installer
<u>1</u> CQA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe contractors remove structural fill material, place it as structural fill on west and south berms, and perform density tests to verify passing compaction.

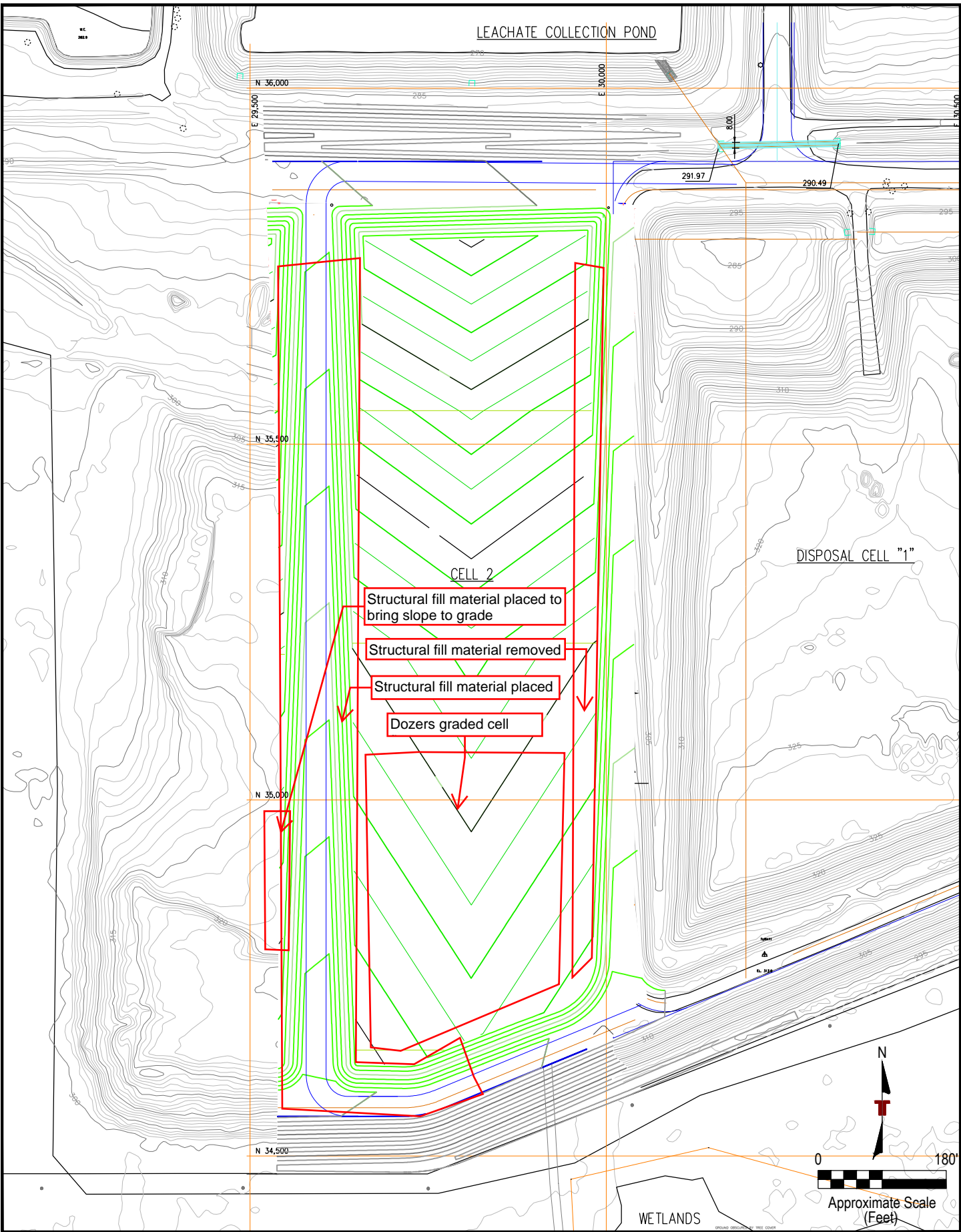
SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material to be placed in west and south berms.  
Contractor dozers graded cell floor and leveled lift material.  
Contractor haulers hauled material to west and south berm.  
Contractor sheeps foot covered material until passing compaction. Smooth drum created testing pads and passed over entirety of west and south berm to seal.  
Work was performed by contractor on west side of west berm to bring slope up to grade and prevent water from ponding at the bottom.

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Finished fourteenth lift on south end and resumed work on north half of west berm. Fourth and seventh lifts added to the north end of west berm.

COMPACTION EFFORT: Contractor sheeps foot made a minimum of 4 passes over material to knead into compaction, more if allowable. Contractor smooth roller created testing pads.

OPERATIONAL CONCERNS & SOLUTIONS:  
Misty rain from arrival to around 9:00 A.M.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



- Structural fill material placed to bring slope to grade
- Structural fill material removed
- Structural fill material placed
- Dozers graded cell

Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.16.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/17/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	55°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	78°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>1:30 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>2:45 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>4</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>10</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe contractors remove structural fill material, place on western side of west berm, and haul to stockpile.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material to be placed on west side of west berm.

---

Contractor dozers graded cell floor and leveled lift material.

---

Contractor haulers hauled material to west side of west berm.

---

Contractor sheeps foot covered material until passing compaction.

---

Work was performed by contractor on west side of west berm to bring slope up to grade and prevent water from ponding at the bottom.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Material placed on west side of west berm in lifts to raise elevation to adjust west slope. No structural fill placed.

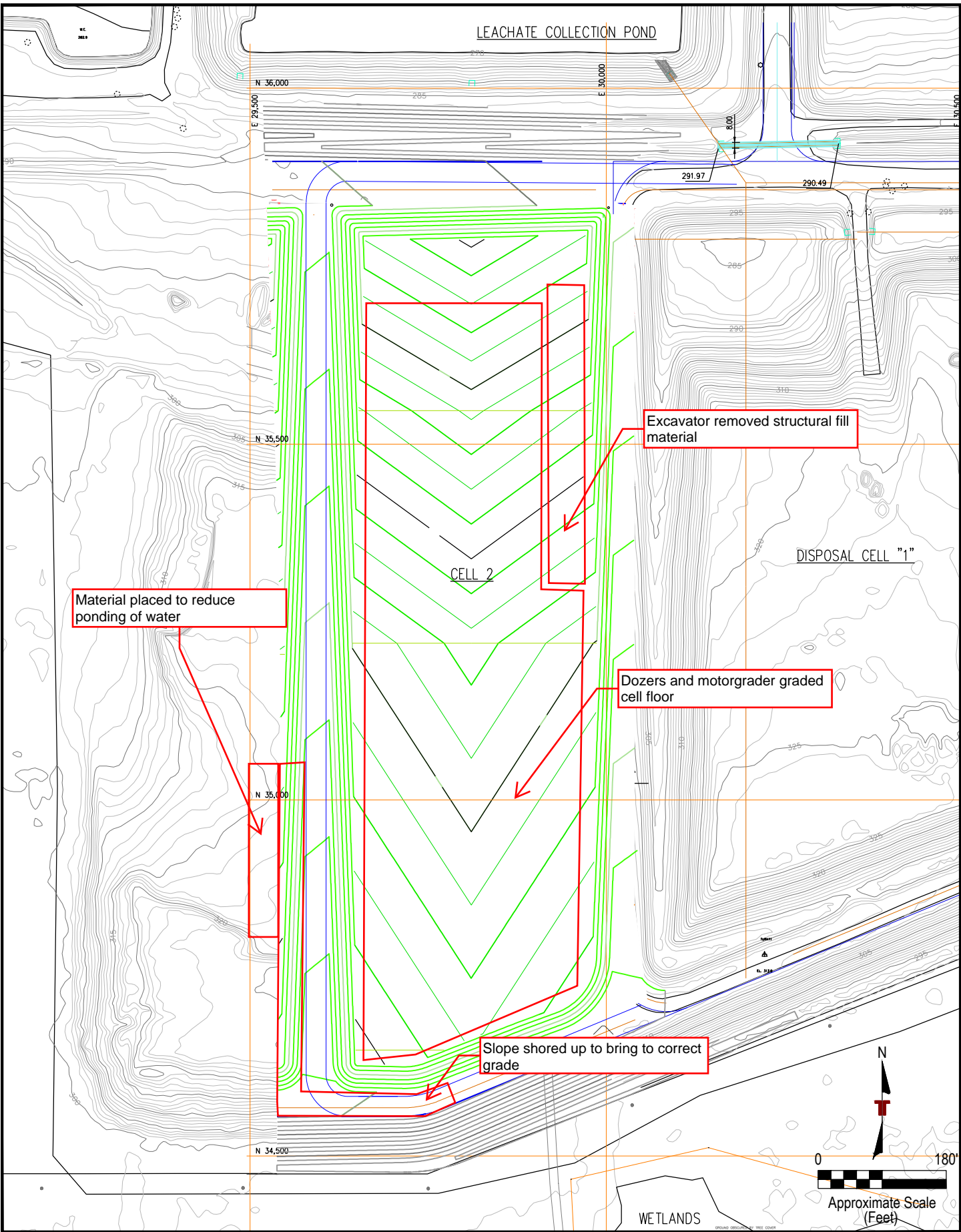
---

COMPACTION EFFORT: Contractor sheeps foot made a minimum of 4 passes over material to knead into compaction, more if allowable.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
With expectant rain on 3.18.18, smooth drum compacted placed structural fill to reduce water infiltration.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.17.18

**Terracon**  
Consulting Engineers and Scientists

25809 I-30 SOUTH BRYANT, AR 72022  
PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
JOHN W. TURK JR. POWER PLANT

FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/19/2020  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>63°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>76°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>11:00 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>1:30 P.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe placement of structural fill outside of cell boundaries on south end.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material from cell to be placed on south berm.

---

Contractor haulers (4) transported material from point of origin to south berm.

---

Contractor sheeps foot passed over all placed material to bring to compaction.

---

Motor grader passed over cell floor to reduce rutting and to bring cell floor to grade.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Structural fill material placed outside of cells to bring slopes to grade.

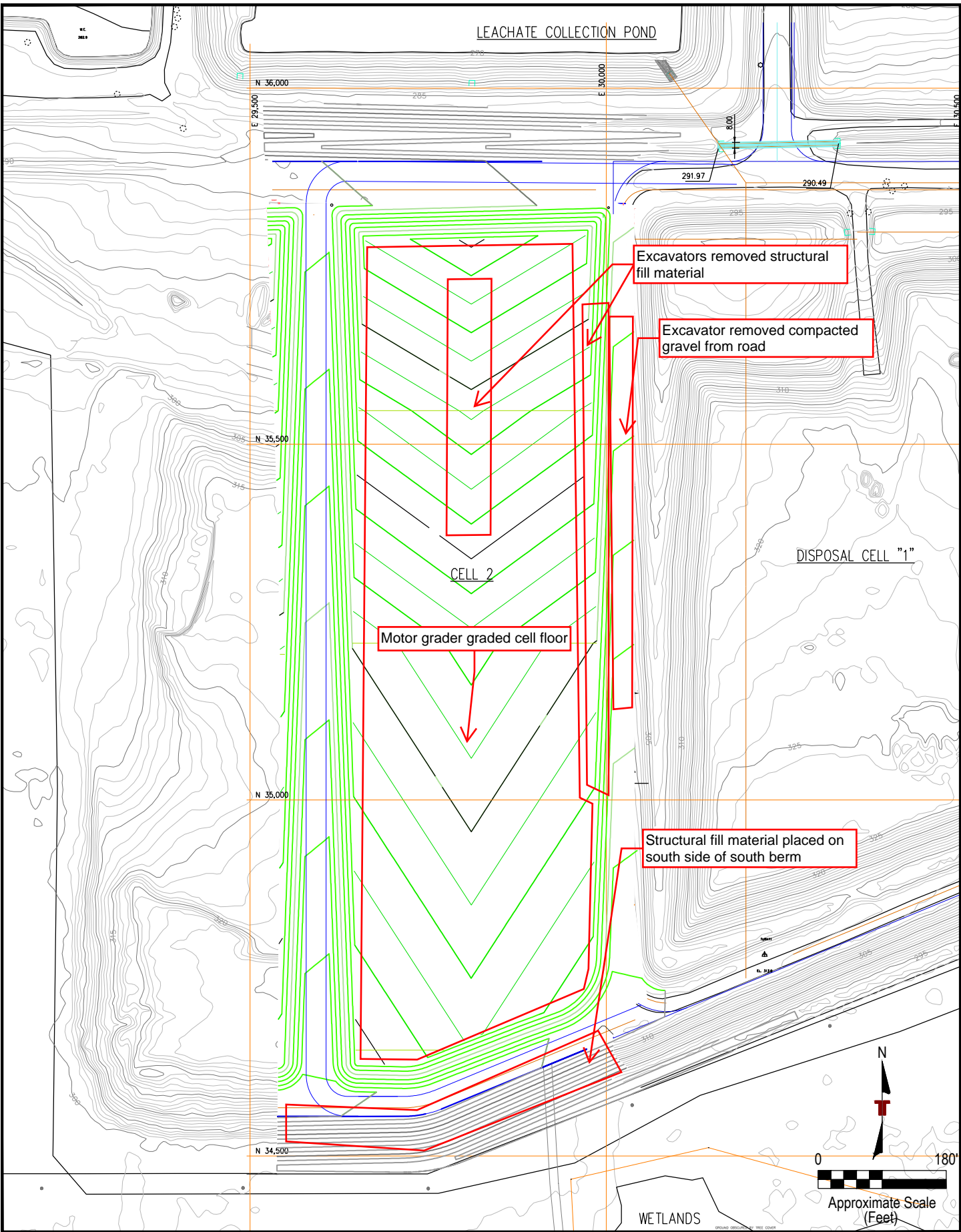
---

COMPACTION EFFORTS: Sheeps foot compacted material with at least four passes, more when time permitted.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
High winds drying out material as it is placed. Water truck was out to douse between lifts.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.19.18

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 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/20/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>47°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>64°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe removal of compacted gravel, observe work on south side of south berm, and possibly test structural fill compaction.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) completed removal of gravel. Began removing structural fill material from cell floor.  
Contractor haulers transported material to the side of berms.  
Contractor sheeps foot kneaded placed material to raise compaction.  
Contractor dozers graded cell floor and moved hauled material into place.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
 LIFTS: No additional lifts added.

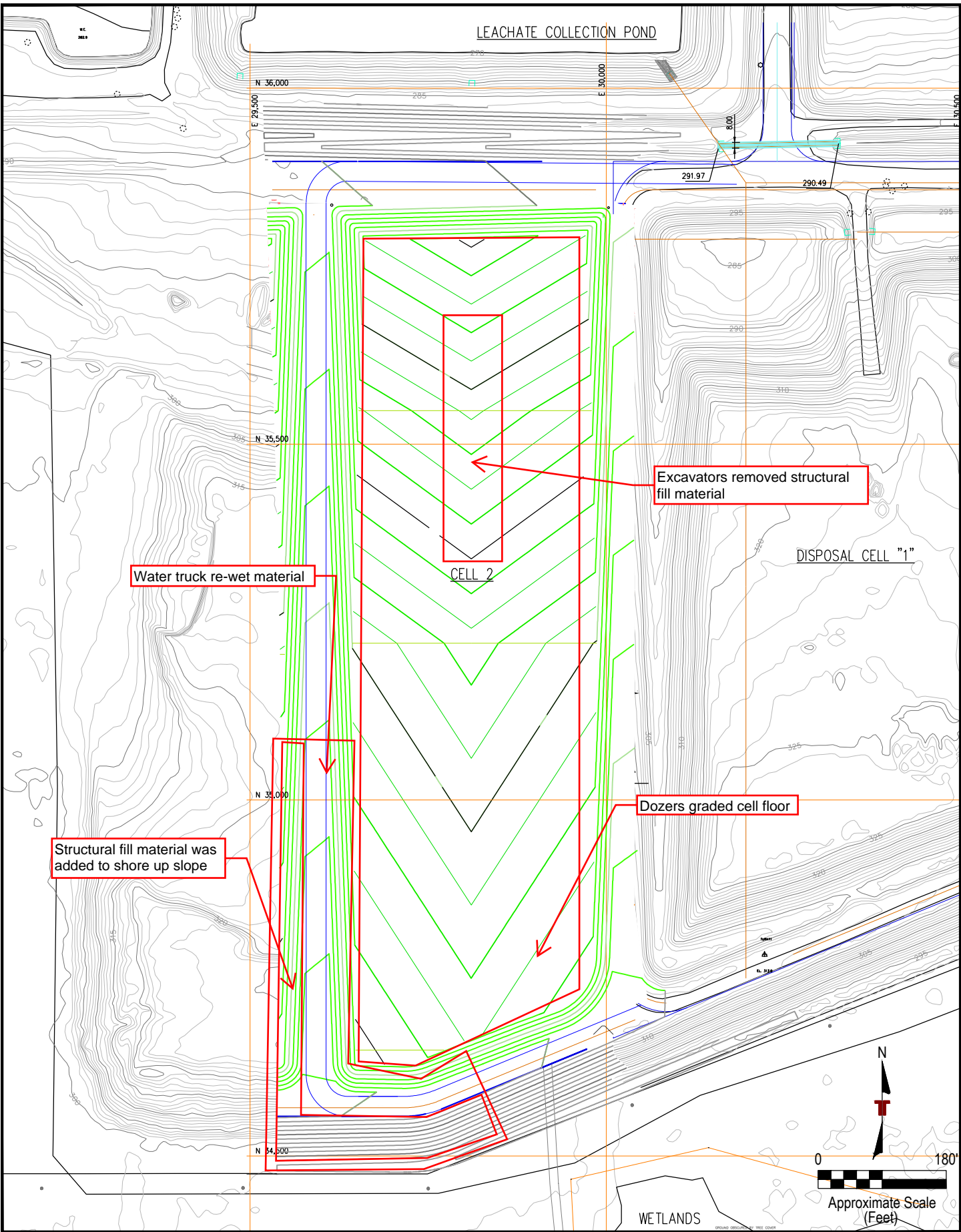
---

COMPACTION EFFORTS: Sheeps foot made a minimum of four passes to meet compaction. More efforts were undertaken when time allowed.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
Windy conditions dried placed material, water truck went over to increase moisture.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.20.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/21/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>39°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>66°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe removal of structural fill material, placement of material, compaction efforts, and perform density tests.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material.

---

Contractor haulers transported structural fill material to south and west berms for lift placement.

---

Contractor sheeps foot compacted placed material until it meets compaction.

---

Contractor water truck moistened dry material throughout the day.

---

LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Partial addition of lift 8 and 9 on northern portion of west berm, 15th lift added to southern west berm and south berm with 16th started.

---

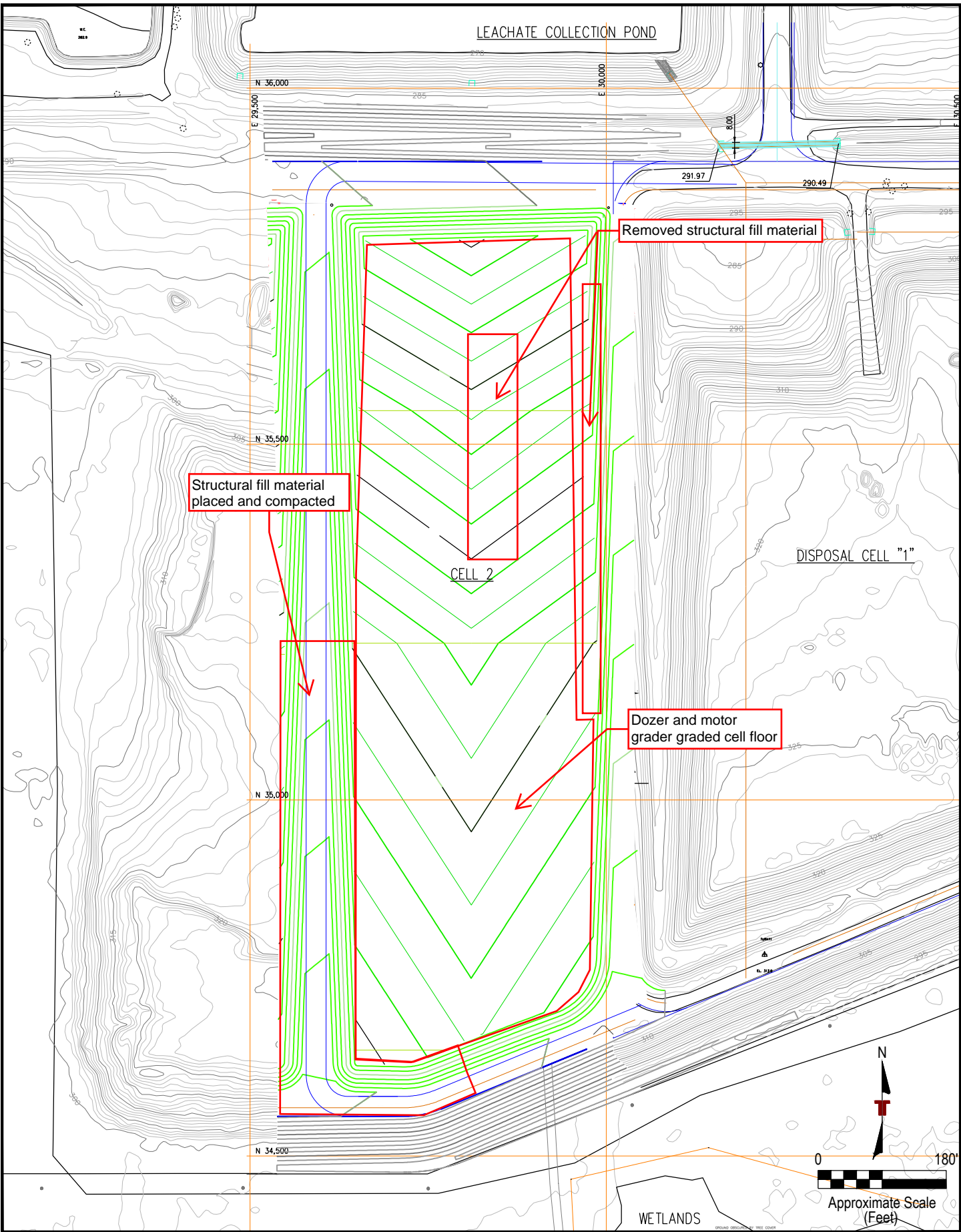
COMPACTION EFFORTS: Sheeps foot made a minimum of four passes to meet compaction. More efforts were undertaken when time allowed. Smooth roller created pads for density tests.

---

OPERATIONAL CONCERNS & SOLUTIONS:

---

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngnr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.21.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/22/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	43°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	74°F High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 A.M.</u>	Depart Site:	<u>6:15 P.M.</u>
Arrive Site:	<u>6:30 A.M.</u>	Arrive Lab:	<u>6:30 P.M.</u>

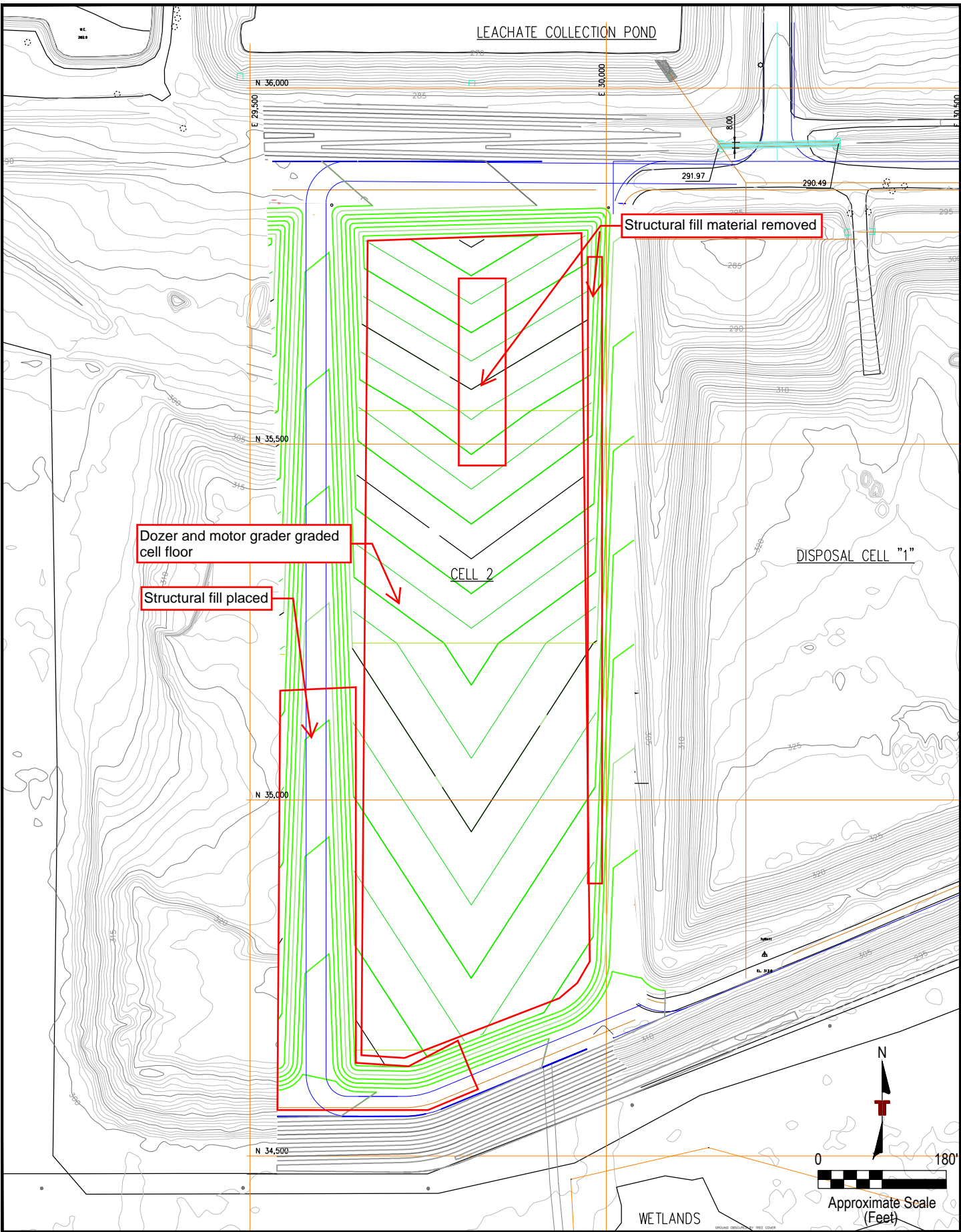
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations: <u>Observe removal of structural fill material, placement of material, compaction efforts, and perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor excavators (2) removed structural fill material.</u>
<u>Contractor haulers transported structural fill material to south and west berms for lift placement.</u>
<u>Contractor sheeps foot compacted placed material until it meets compaction.</u>
<u>Contractor water truck moistened dry material at various intervals throughout the day</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Contractor placed lifts 16 and 17 on south half of west berm and south berm.</u>
COMPACTION EFFORTS: <u>Sheeps foot made a minimum of four passes to meet compaction. More efforts were undertaken when time allowed. Smooth roller created pads for density tests.</u>
OPERATIONAL CONCERNS & SOLUTIONS: <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.22.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/23/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	55°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	72°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:30 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>6:45 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>3</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations:  
Observe removal of structural fill material, placement of material, compaction efforts, and perform density tests.

---

SUMMARY OF ACTIVITIES OBSERVED:  
Contractor excavators (2) removed structural fill material.

---

Contractor haulers transported structural fill material to south and west berms for lift placement.

---

Contractor sheeps foot compacted placed material until it meets compaction.

---

Contractor water truck moistened dry material at various intervals throughout the day

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LIFTS WORKED AND COMPACTION EFFORTS:  
LIFTS: Contractor placed lifts 18, 19, and part of 20 on south half of west berm and south berm.

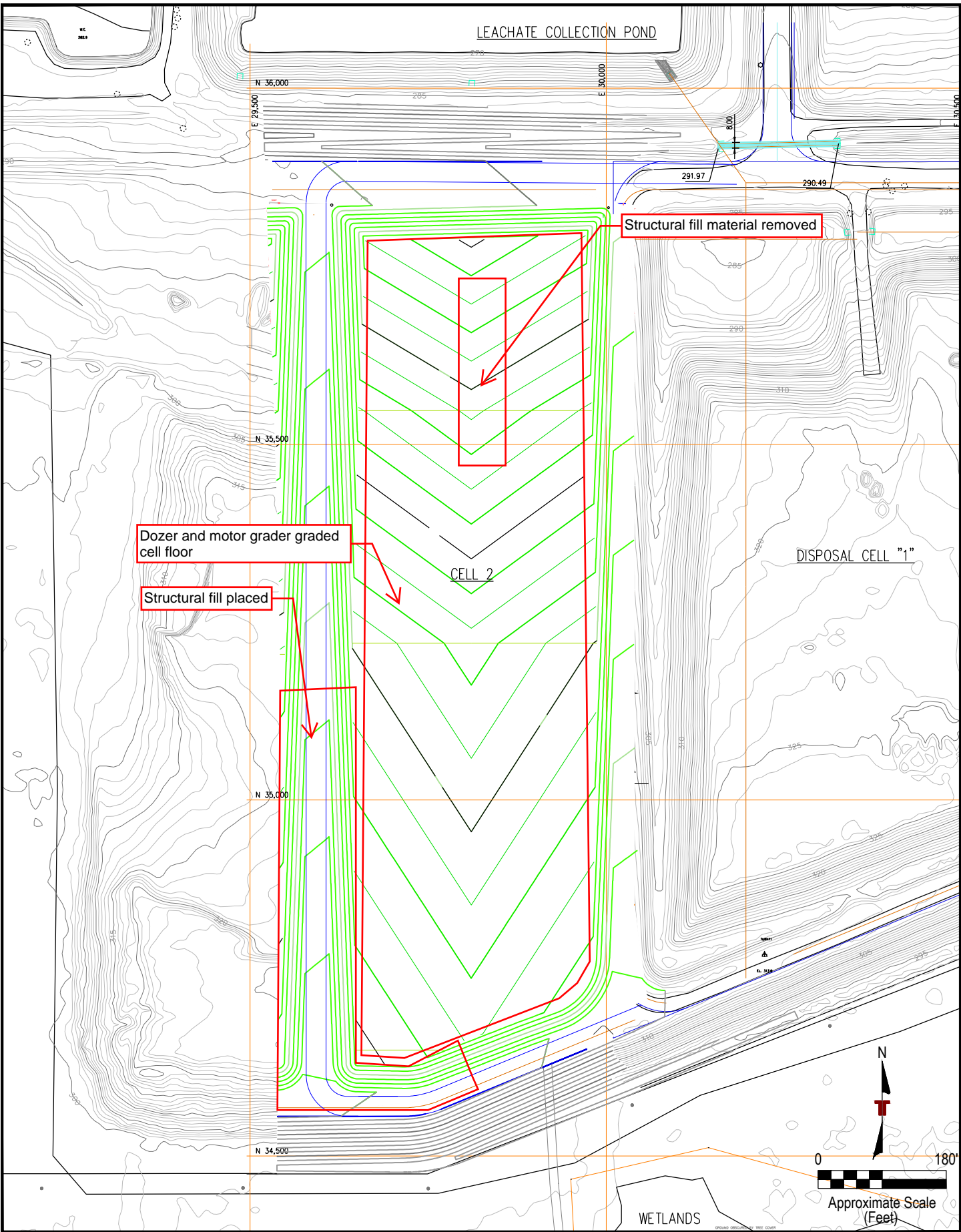
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COMPACTION EFFORTS: Sheeps foot made a minimum of four passes to meet compaction. More efforts were undertaken when time allowed. Smooth roller created pads for density tests.

---

OPERATIONAL CONCERNS & SOLUTIONS:  
      

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.23.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/24/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>54°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>75°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>8:45 P.M.</u>

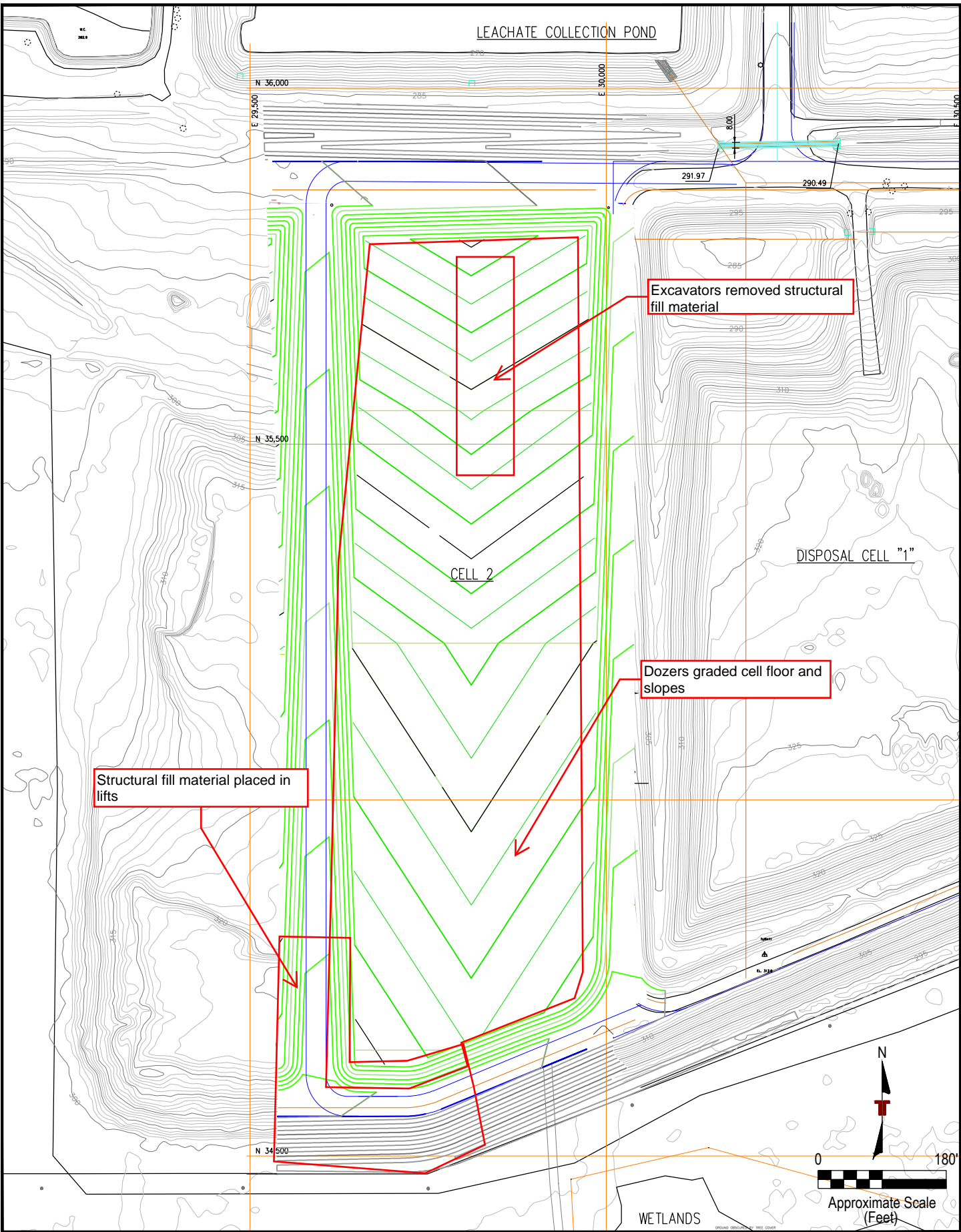
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC Expectations: <u>Observe removal of structural fill material, placement of material, compaction efforts, and perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor excavators (2) removed structural fill material.</u>
<u>Contractor haulers transported structural fill material to south and west berms for lift placement.</u>
<u>Contractor sheeps foot compacted placed material until it meets compaction.</u>
<u>Contractor water truck moistened dry material at various intervals throughout the day</u>
<u>Contractor dozers graded slopes and cell floor`</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Contractor placed lifts 21 and 22 on south half of west berm and south berm.</u>
<u>COMPACTION EFFORTS: Sheeps foot made a minimum of four passes to meet compaction. More efforts were undertaken when time allowed. Smooth roller created pads for density tests.</u>
<u>OPERATIONAL CONCERNS &amp; SOLUTIONS:</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.24.18

**Terracon**  
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 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/26/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>66°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>83°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>7:00 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>8:45 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

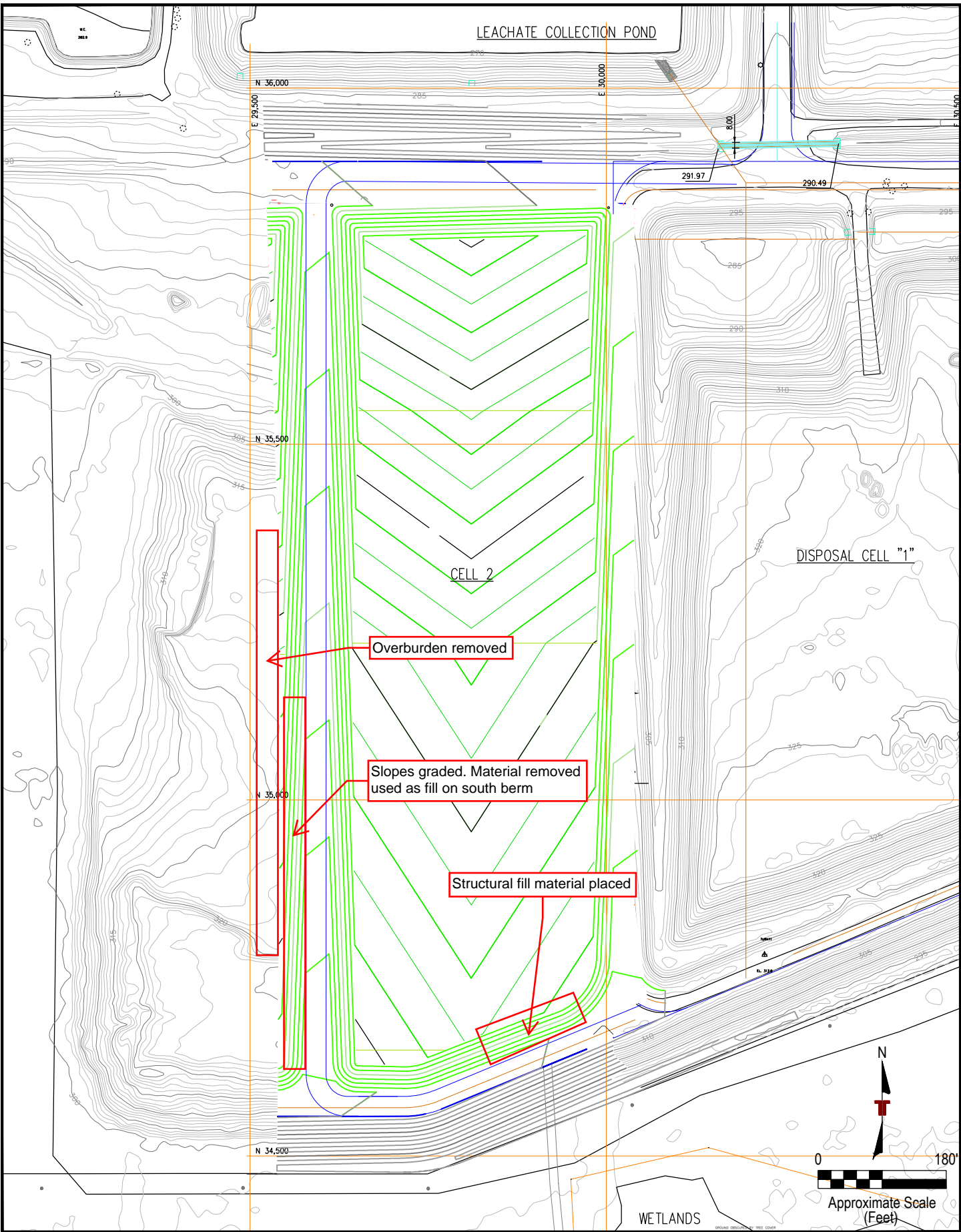
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe earth-moving procedures and possibly take density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozer graded slopes outside of cell. Separate dozer spread structural fill material into lift on south end.</u>
<u>Contractor excavator loaded haulers with structural fill material scraped from west berm slopes.</u>
<u>Contractor haulers transported structural fill material to south berm to be used as fill.</u>
<u>Contractor water truck moistened material between lifts.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Placed the first lift on top of subgrade on east end of south berm.</u>
COMPACTION EFFORTS:
<u>Contractor sheeps foot made a minimum of four passes over material to compact, more if time allowed.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.26.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 3/27/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2 COA  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>64°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>81°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>6:30 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>8:15 P.M.</u>

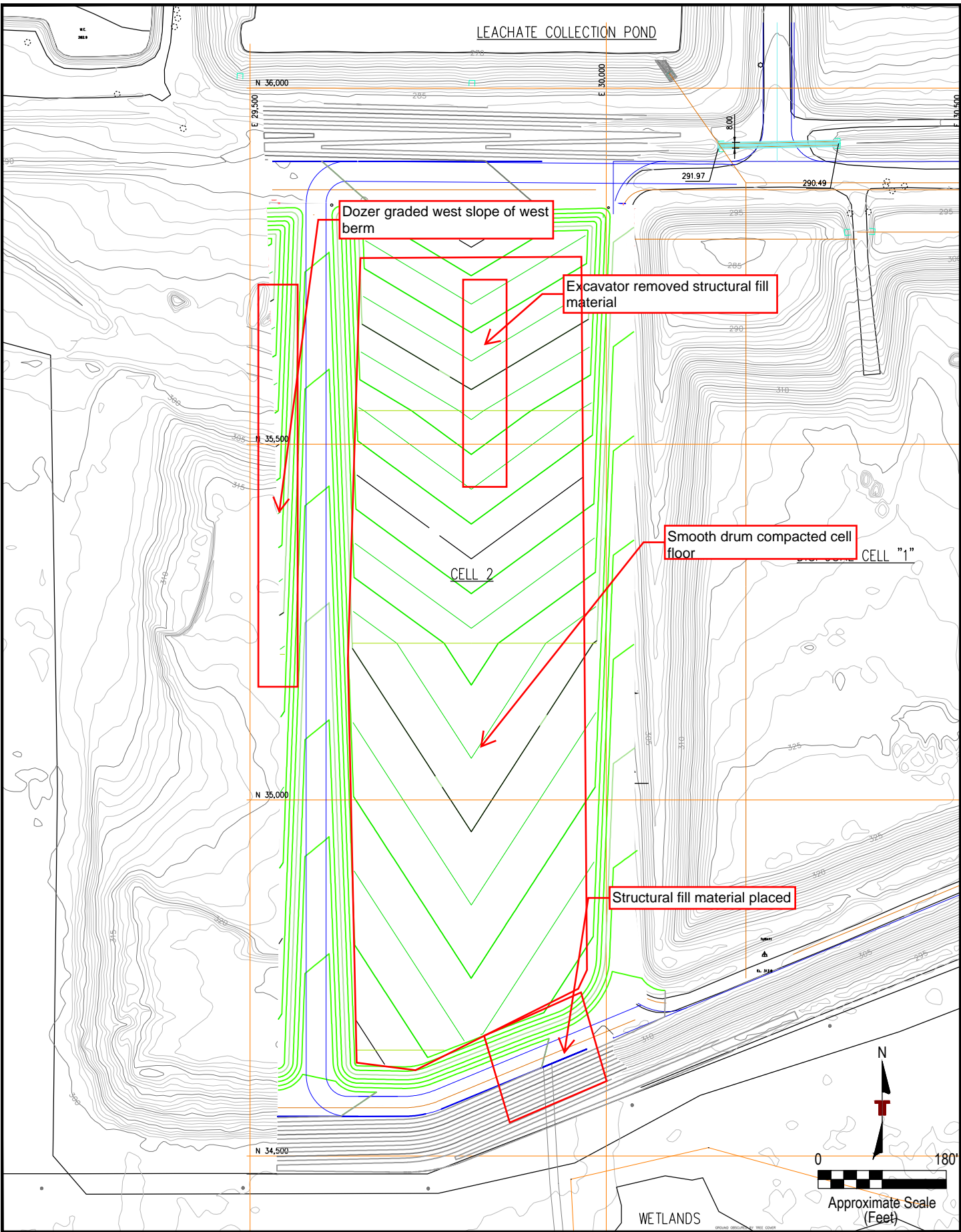
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe earth-moving procedures and possibly take density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozer spread structural fill material into lift on south end.</u>
<u>Contractor excavator removed structural fill material from cell floor to be moved to south berm.</u>
<u>Contractor haulers transported material from north end of cell floor to south berm.</u>
<u>Water truck moistened material between lifts.</u>
<u>Contractor smooth drum went over cell floor to compact.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Placed lifts 3, 4, 5, and 6 on east end of south berm</u>
<u>COMPACTION EFFORTS: Contractor sheeps-foot made a minimum of four passes over material to bring to compaction. Smooth drum created test pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Incoming rain this evening and tomorrow, smooth drum compacted all worked material to seal off from infiltration.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	3.27.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 4/3/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>79°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>7:00 A.M.</u>	Depart Site:	<u>3:30 P.M.</u>
Arrive Site:	<u>8:45 A.M.</u>	Arrive Lab:	<u>5:15 P.M.</u>

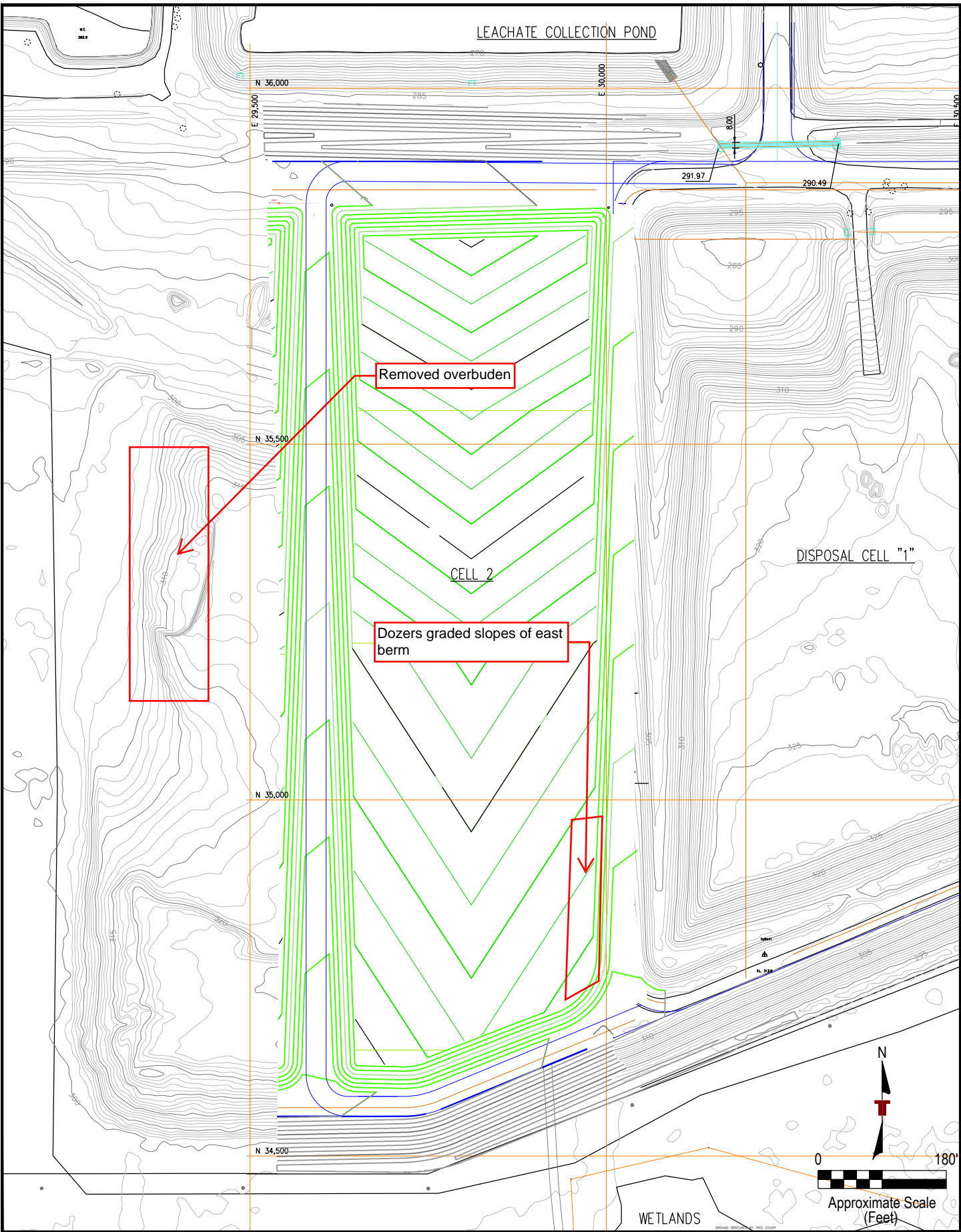
<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>9</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Be prepared for density testing if needed.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator removed overburden and loaded material into haulers.</u> <u>Contractor haulers transported overburden material to stockpile</u> <u>Contractor dozer (1) helped excavator with loading material, other dozers (2) performed housekeeping work by cleaning in borrow area and around berm slopes.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: No structural fill material placed.</u>
<b>COMPACTION EFFORTS:</b> <u>No structural fill material placed.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngnr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.03.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>42°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>61°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>7:00 A.M.</u>	Depart Site: <u>7:00 P.M.</u>
Arrive Site: <u>8:45 A.M.</u>	Arrive Lab: <u>7:15 P.M.</u>

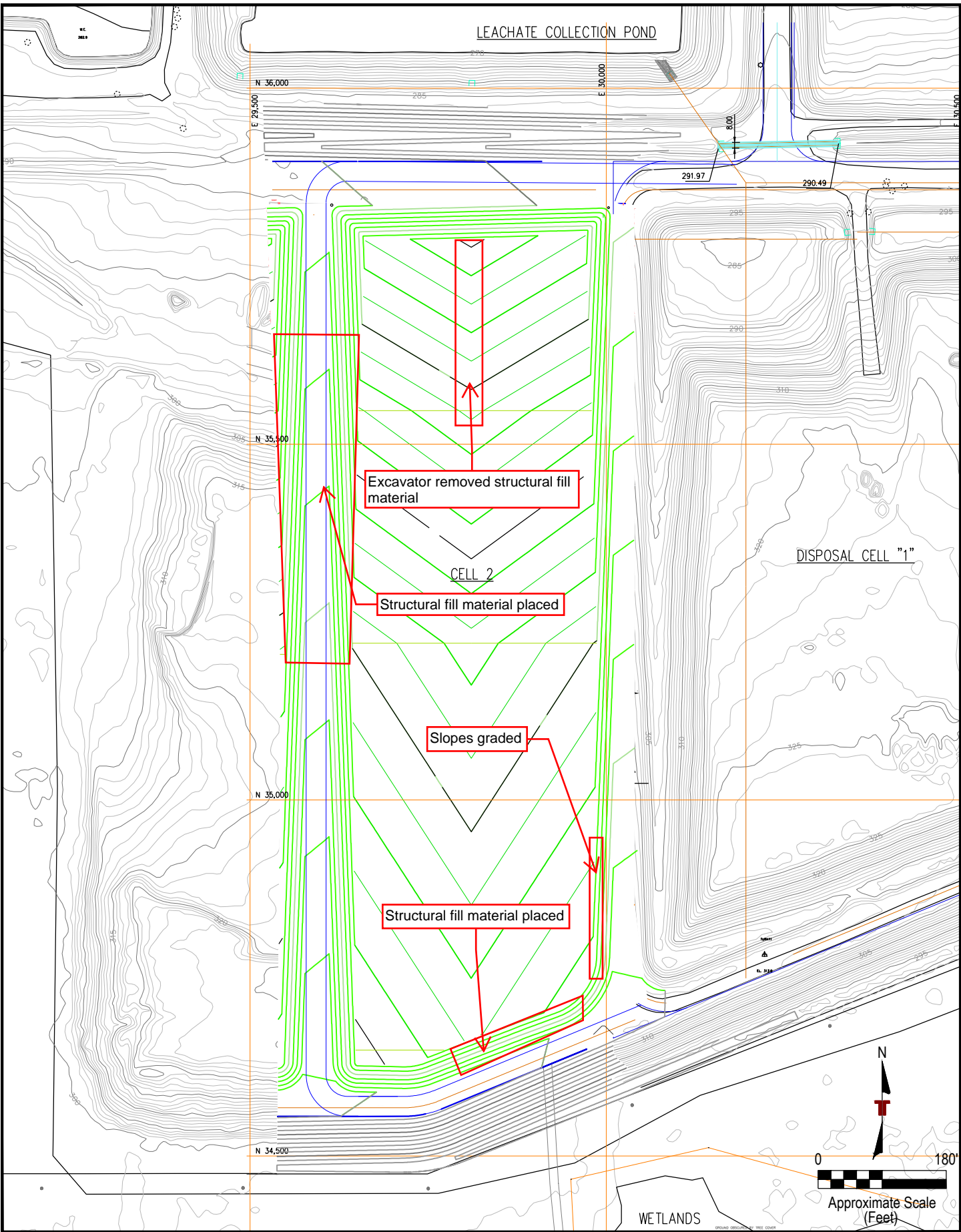
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill material on south berm and take passing density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator removed structural fill material from floor of cell 2 and loaded into haulers.</u>
<u>Contractor haulers transported material from excavation site to south berm.</u>
<u>Contractor dozers spread structural fill material and performed housekeeping duties.</u>
<u>Contractor grader kept cell floor and roads smooth and rut free.</u>
<u>Water truck sprayed as necessary, keeping structural fill at optimum moisture.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Placed lifts 7, 8, and 9 on south berm, part of lift 9 on north end of west berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes over placed material, more if time allowed. Smooth drum created density testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.04.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/5/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	42°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	79°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 A.M.</u>	Depart Site: <u>4:00 P.M.</u>
Arrive Site: <u>6:30 A.M.</u>	Arrive Lab: <u>6:45 P.M.</u>

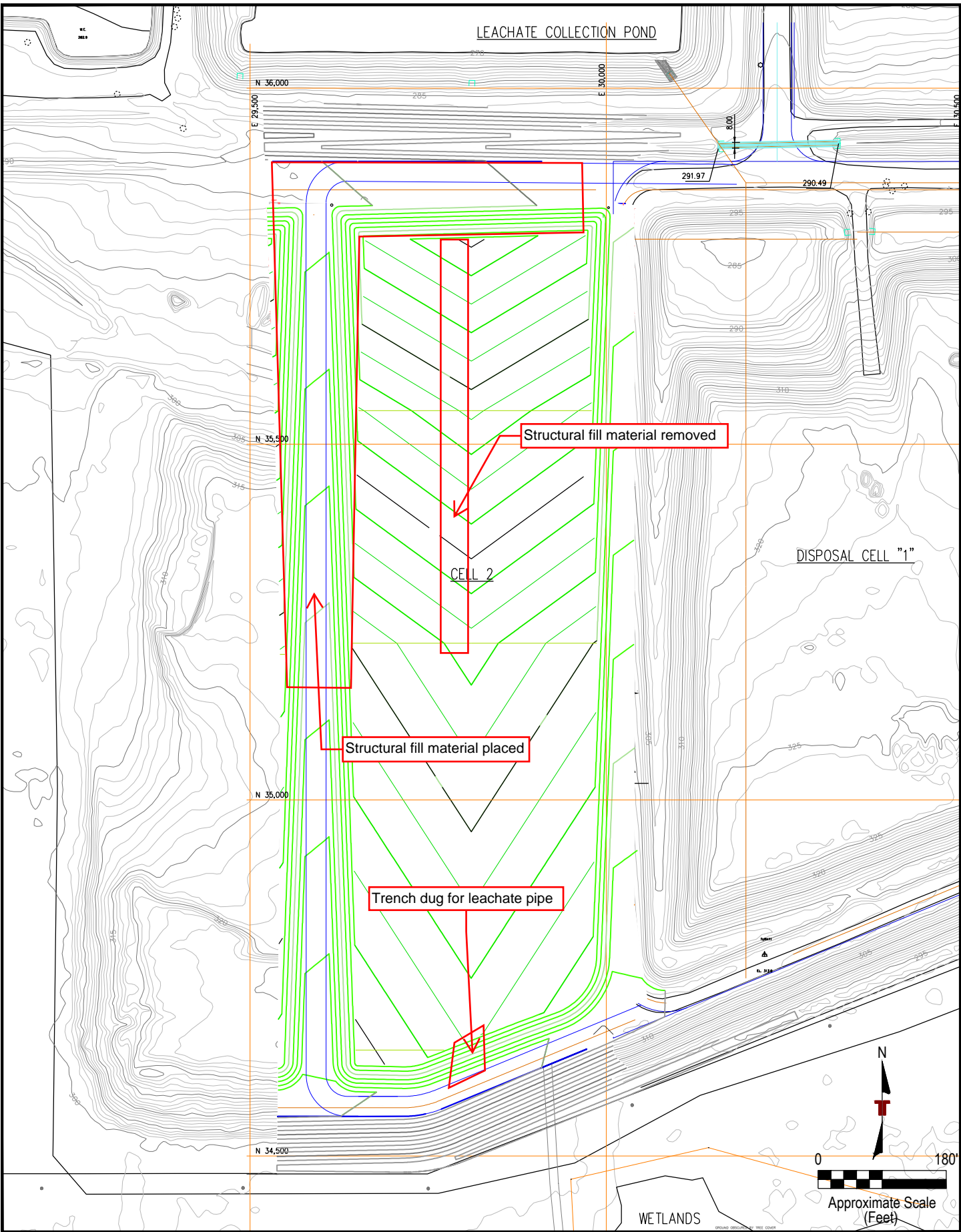
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators removed structural fill material from cell floor and also removed overburden.</u>
<u>Excavator also began work on trench to install pipe in south berm.</u>
<u>Contractor dozers spread structural fill material and graded cell floor.</u>
<u>Contractor haulers transported structural fill material to north end of west berm and north berm.</u>
<u>Contractor motor grader graded cell floor after haulers.</u>
<u>Water truck used minimally in the morning.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Finished lift 8 on north end of west berm and began work on first lift of north berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of 4 passes over material to bring up to compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Rain in the forecast for tonight and tomorrow. All placed material will be sealed with smooth drum to prevent infiltration.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.05.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/6/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>60°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>62°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>7:15 AM</u>	Depart Site:	<u>10:45 AM</u>
Arrive Site:	<u>9:15 AM</u>	Arrive Lab:	<u>2:00 PM</u>

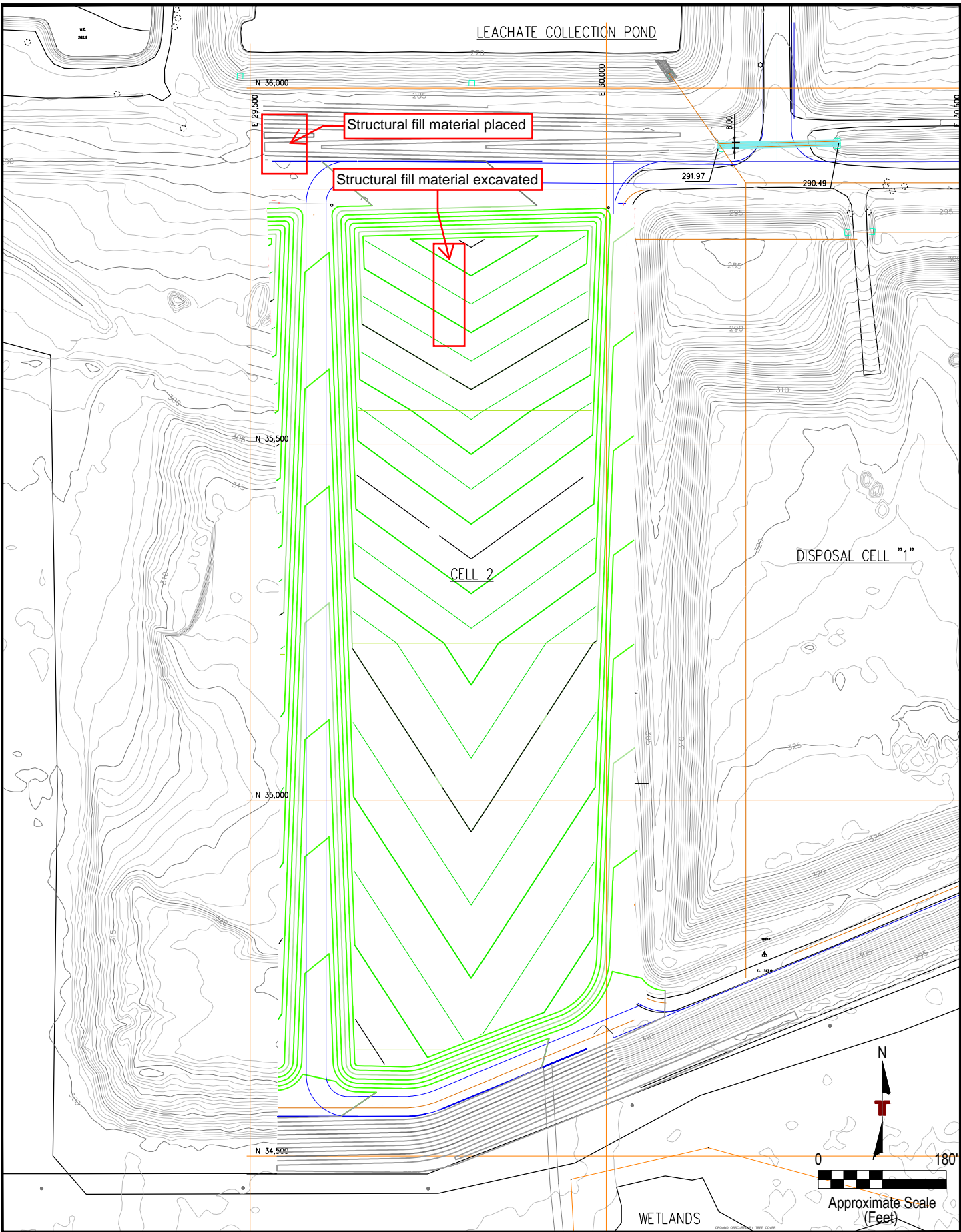
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators removed structural fill material.</u>
<u>Contractor haulers transported material to north berm.</u>
<u>Contractor dozers spread placed structural fill material.</u>
<u>Contractor sheeps foot worked material to compaction.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: No full lifts placed.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of 4 passes over material to bring up to compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Rain in the forecast for today. All placed material will be sealed with smooth drum and dozers to prevent infiltration.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.06.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/9/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>58°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>64°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>10:15 AM</u>	Depart Site:	<u>7:00 PM</u>
Arrive Site:	<u>12:00 PM</u>	Arrive Lab:	<u>7:30 PM</u>

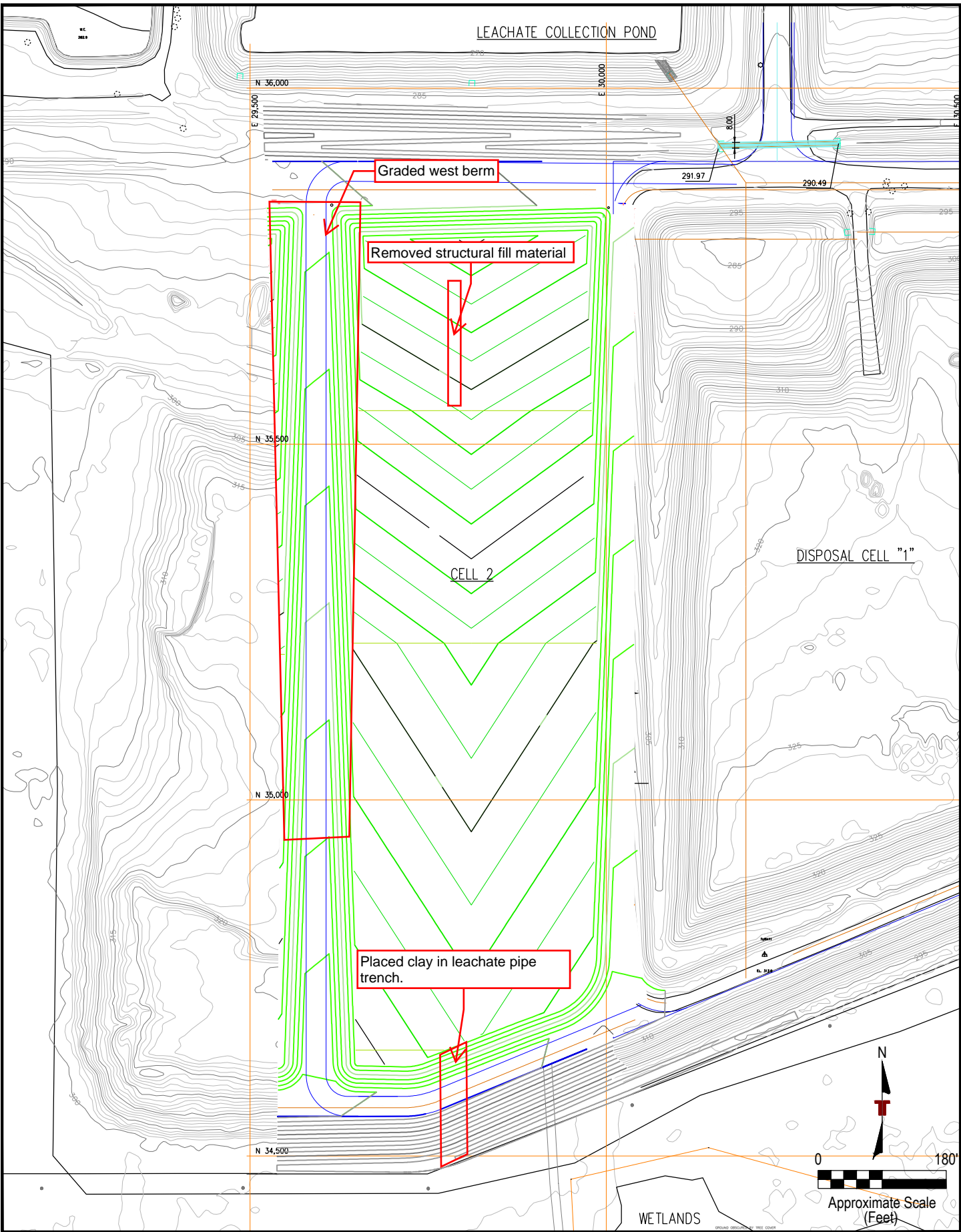
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>4</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and clay material and perform density compaction tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator removed overburden material and structural fill material.</u>
<u>Contractor haulers transported overburden to stockpile and clay material to south berm for clay liner for the leachate pipe trench.</u>
<u>Contractor dozers spread placed material and graded west berm.</u>
<u>Contractor sheeps foot compacted material.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Placed lifts 1, 2, 3, and 4 of clay liner for south berm pipe area.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Some material may still be oversaturated from rain last Friday, 4.6.18.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.09.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/10/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>45°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>65°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>7:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:30 PM</u>

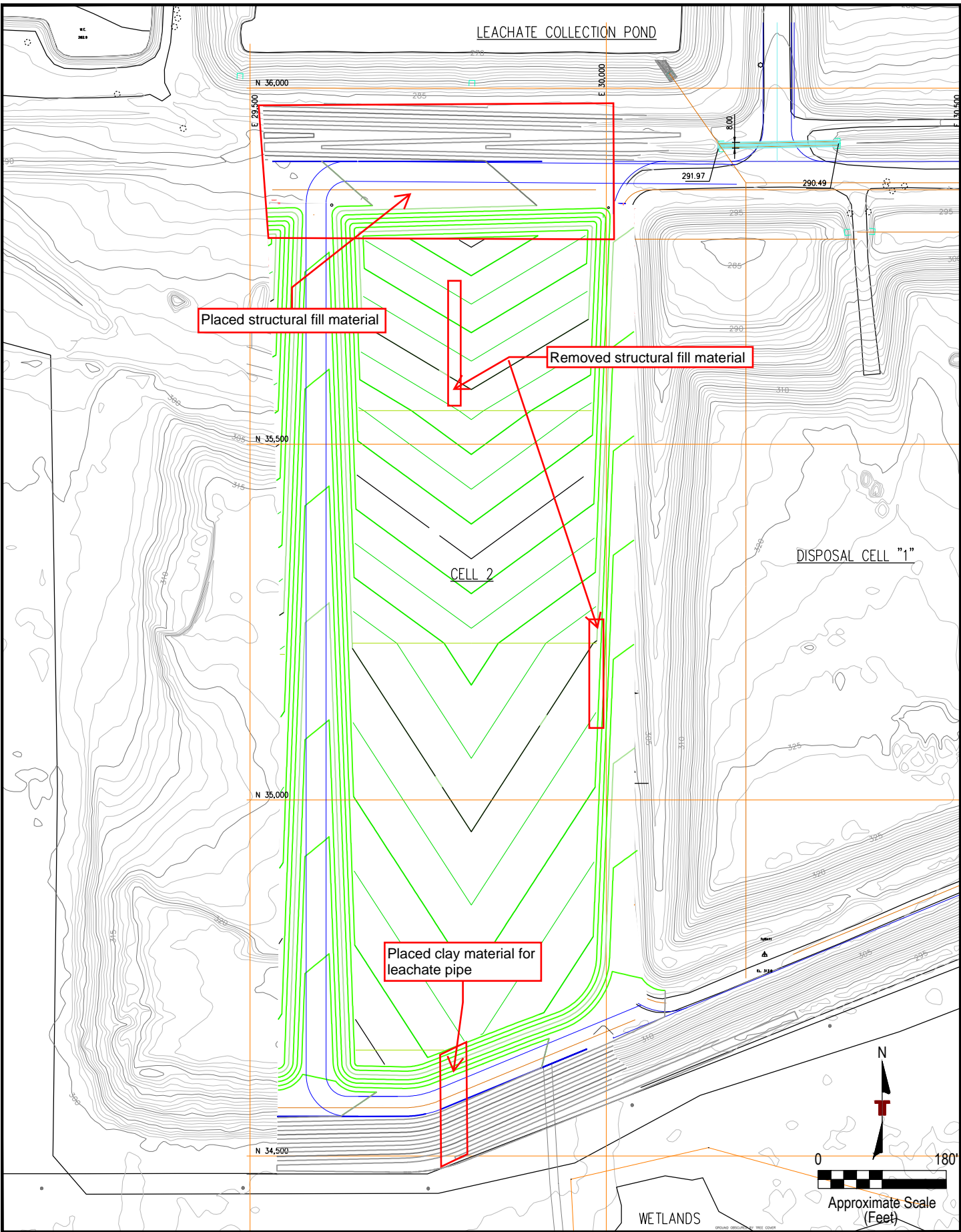
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe structural fill placement, clay liner placement, and conduct density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators removed structural fill material from cell floor and loaded into haul trucks.</u>
<u>Contractor haulers transported clay material to south berm for pipe installation and structural fill material to the north berm.</u>
<u>Contractor dozers spread placed material</u>
<u>Contractor sheeps foot compacted material.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed second lift on north berm and began work on third, completed lifts 5-9 on the pipe section of the south berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.10.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/11/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>50°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>75°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>7:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:30 PM</u>

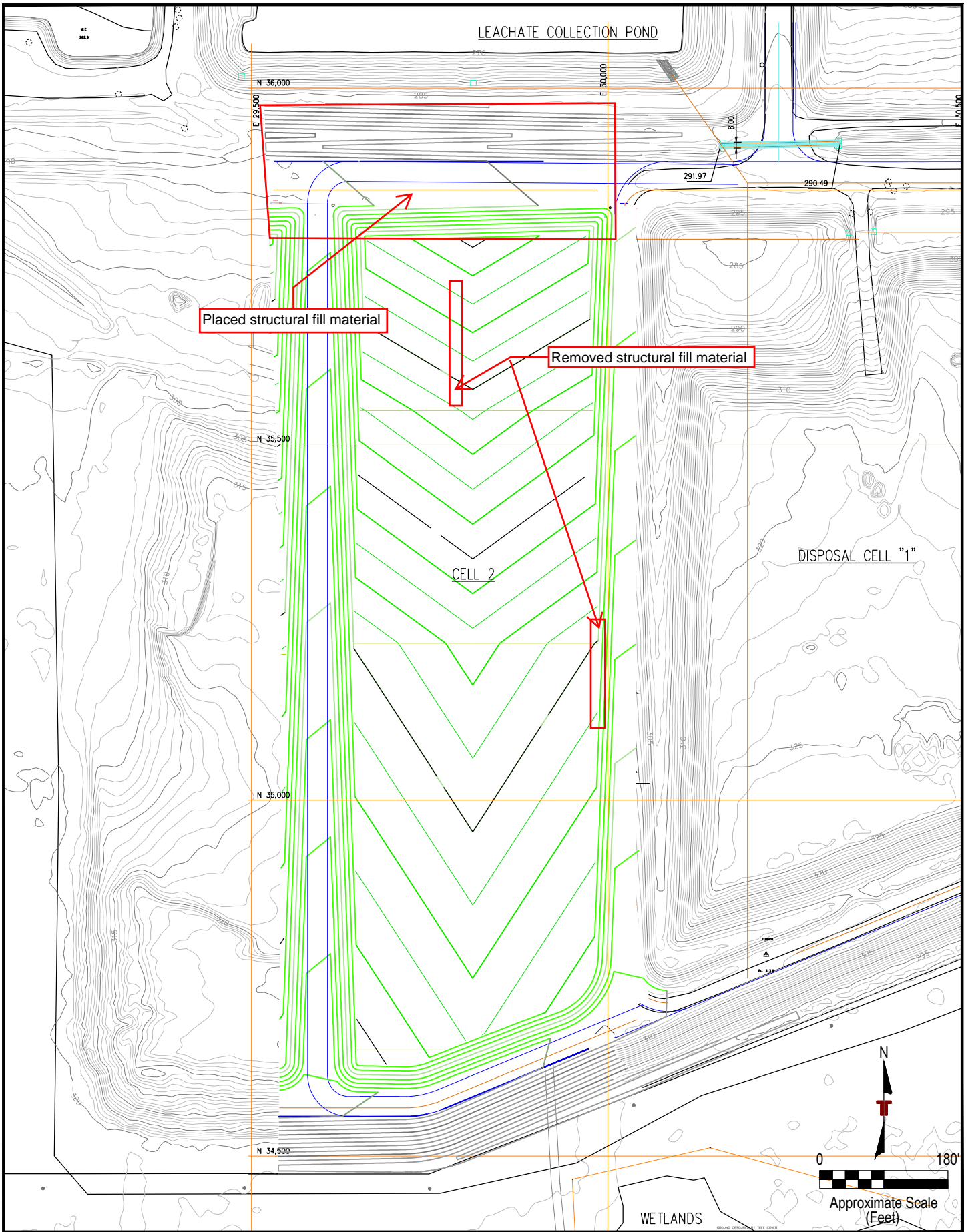
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill material and perform density compaction tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators removed structural fill material from cell floor and loaded into haul trucks.</u>
<u>Contractor haulers transported structural fill material to north berm.</u>
<u>Contractor dozers spread placed material and graded cell floor.</u>
<u>Contractor sheeps foot compacted material.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lifts 2 and 3 on the north berm and began work on the 4th.</u>
COMPACTION EFFORTS:
<u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	DCM	Date:	4.11.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/12/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>54°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>67°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>11:15 AM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>1:15 PM</u>

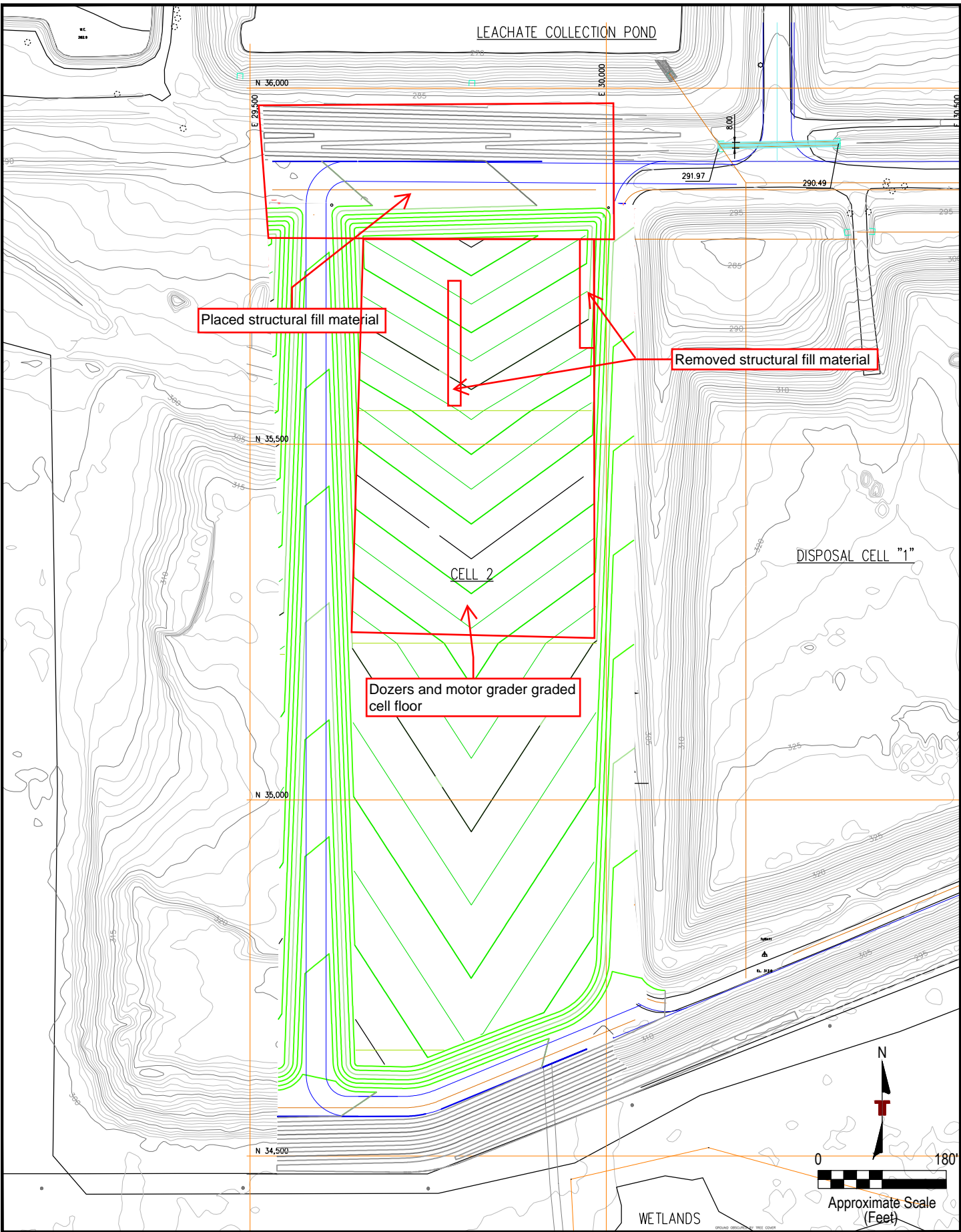
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill material and perform density compaction tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators removed structural fill material from cell floor and loaded into haul trucks.</u>
<u>Contractor haulers transported structural fill material to north berm.</u>
<u>Contractor dozers spread placed material and graded cell floor.</u>
<u>Contractor sheeps foot compacted material.</u>
<u>Contractor motor grader graded cell floor.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued placing 4th lift on north berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Rain expected 4.13.18. Smooth drum roller compacted placed structural fill material to help prevent infiltration.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.12.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/16/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>63°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>77°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>10:00 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>11:45 AM</u>	Arrive Lab: <u>5:30 PM</u>

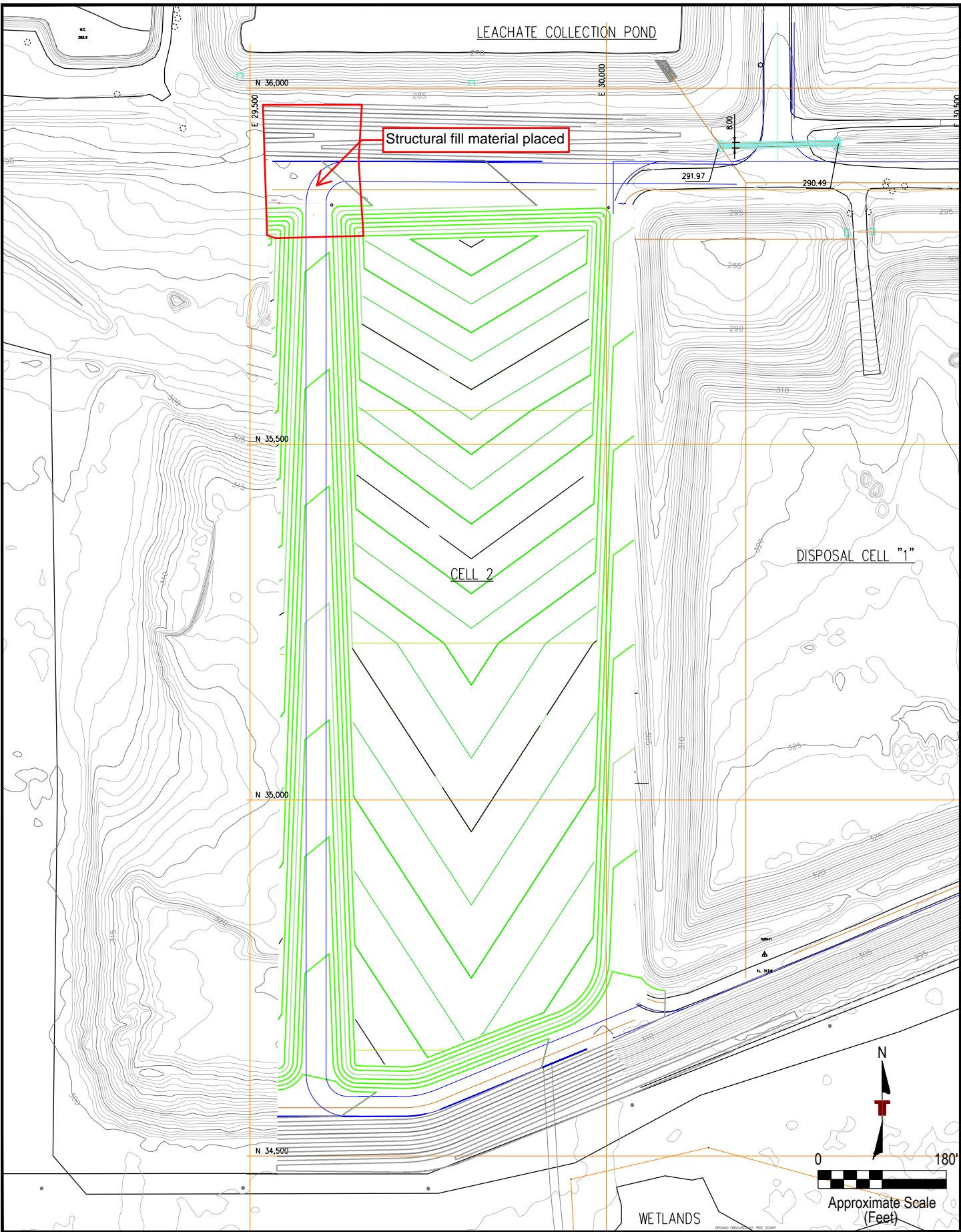
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe construction of leachate pipe and placement of structural fill. Perform density tests as needed.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor assembled piping for leachate system.</u>
<u>Contractor excavator removed structural fill material from borrow area.</u>
<u>Contractor haulers transported structural fill material from borrow area to north berm.</u>
<u>Contractor dozers spread structural fill material into even lifts.</u>
<u>Contractor water truck sprayed dry material to work more easily with.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Began work on 5th lift on north berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.16.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH      BRYANT, AR 72022  
 PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

**FIG. No.**  
**1**

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/17/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>58°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>81°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:30 PM</u>

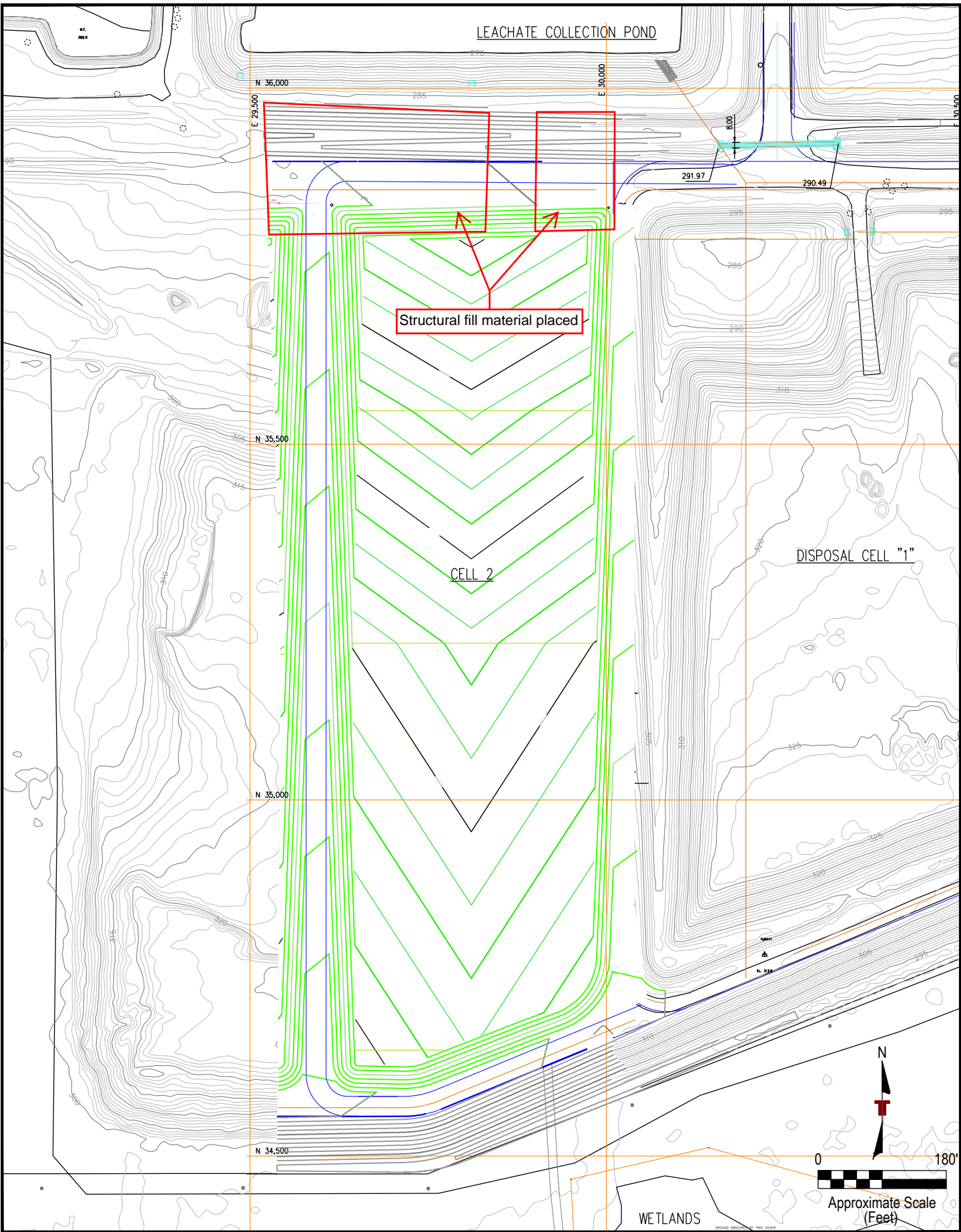
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and take density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor assembled piping for leachate system.</u>
<u>Contractor excavator removed structural fill material from borrow area.</u>
<u>Contractor haulers transported structural fill material from borrow area to north berm.</u>
<u>Contractor dozers spread structural fill material into even lifts.</u>
<u>Contractor water truck sprayed deteriorated material to work more easily.</u>
<u>Contractor motor grader graded behind large haulers to minimize rutting.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed 5th lift on north berm and began work on the 6th.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.17.18

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 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 4/18/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>63°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>80°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

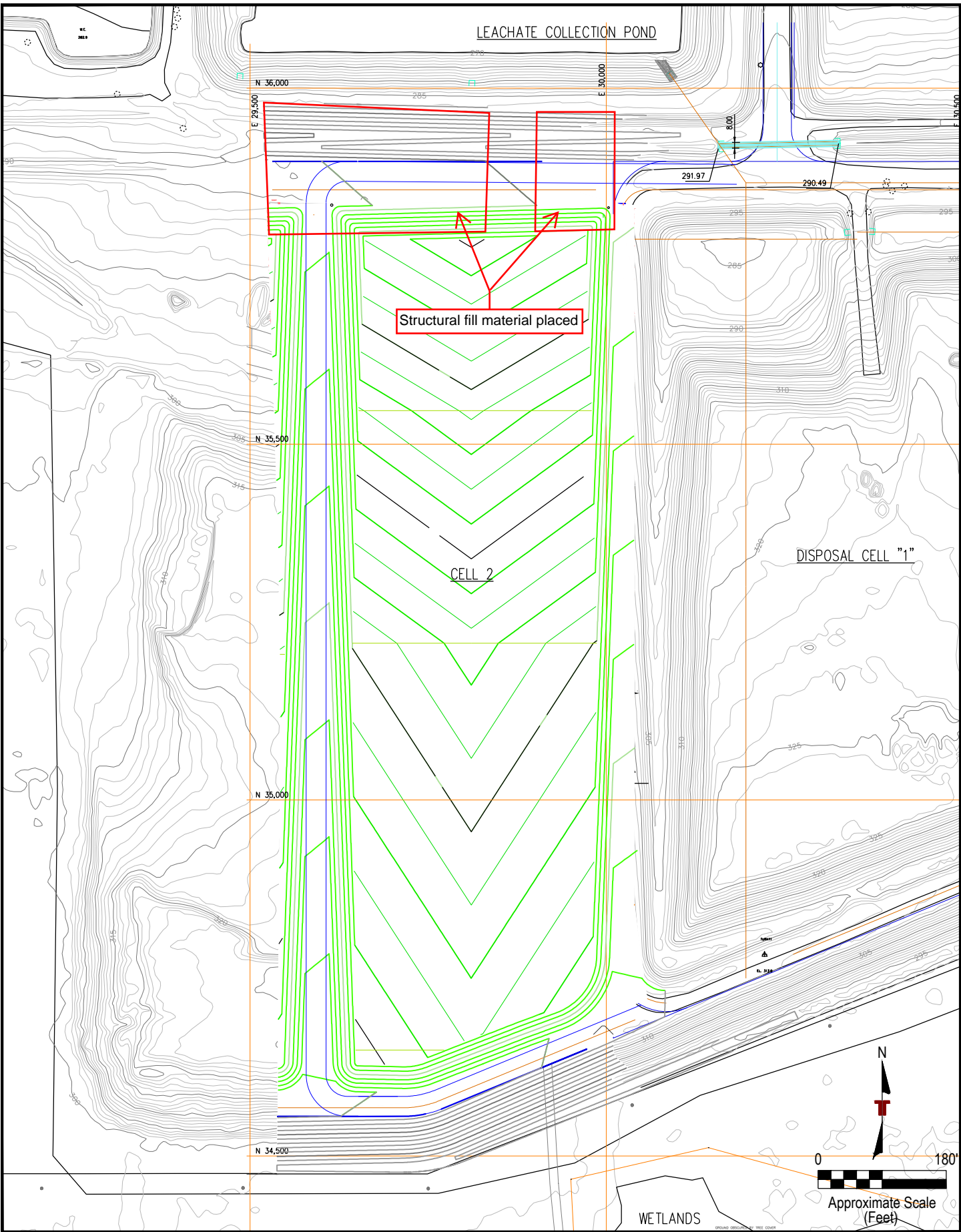
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>2</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of structural fill and take density tests. Also to test leachate pipes for leaks.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor assembled piping for leachate system. Testing was performed.</u> <u>Contractor excavator removed structural fill material from borrow area.</u> <u>Contractor haulers transported structural fill material from borrow area to north berm.</u> <u>Contractor dozers spread structural fill material into even lifts.</u> <u>Contractor water truck sprayed deteriorated material to knead more easily.</u> <u>Contractor motor grader graded behind large haulers to minimize rutting.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lifts 6 and 7 and began work on lift 8.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.18.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 4/19/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>42°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>70°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

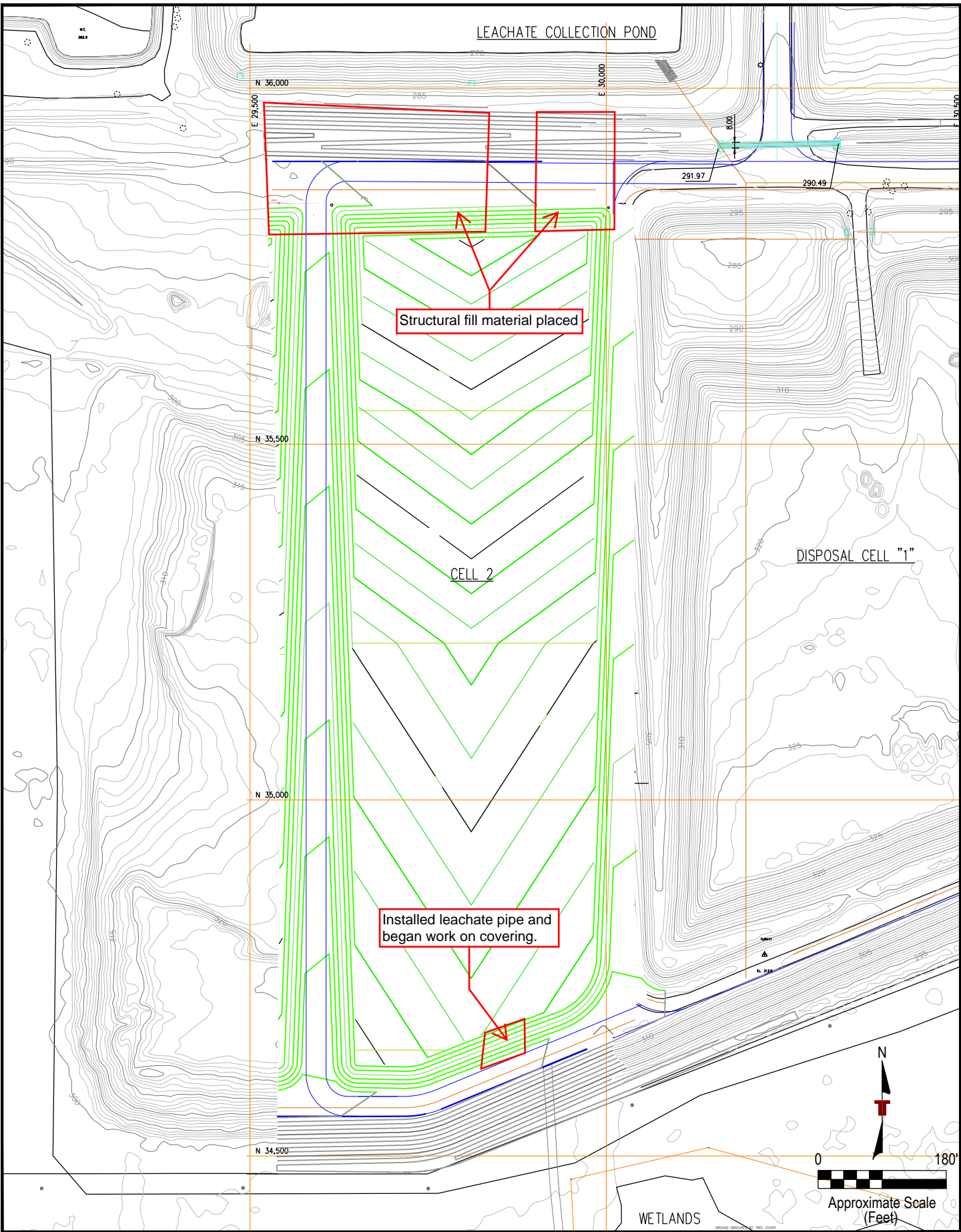
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>3</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of structural fill and take density tests. Also to test leachate pipes for leaks.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor assembled piping for leachate system. Testing was performed. Pipe was moved by contractor excavators to south berm for installation. Began covering with clay liner material.</u> <u>Contractor excavator removed structural fill material from borrow area.</u> <u>Contractor haulers transported structural fill material from borrow area to north berm.</u> <u>Contractor dozers spread structural fill material into even lifts.</u> <u>Contractor water truck sprayed deteriorated material to knead more easily.</u> <u>Contractor motor grader graded behind large haulers to minimize rutting.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lift 8, began work on lift 9.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Trench packer compacted clay liner material around leachate pipe. Smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.19.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/20/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	41°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	68°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:30 PM</u>

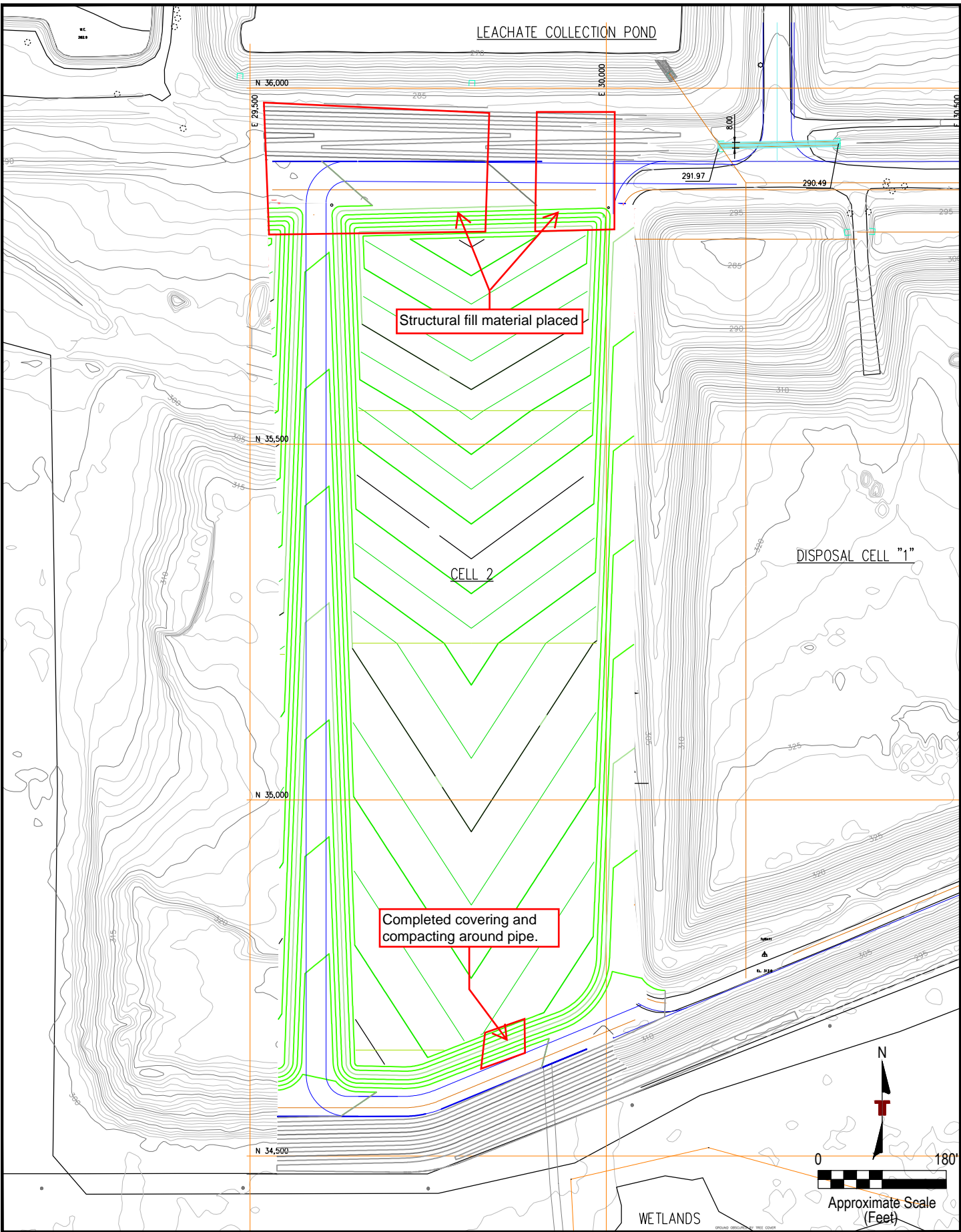
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>3</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and take density tests.</u>
<u>      </u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor assembled last pipe for leachate system. Began testing. Completed covering with clay liner material on south pipe.</u>
<u>Contractor excavator removed structural fill material and loaded into haulers.</u>
<u>Contractor haulers transported structural fill material.</u>
<u>Contractor dozers spread structural fill material into even lifts.</u>
<u>Contractor water truck sprayed deteriorated material to knead more easily.</u>
<u>Contractor motor grader graded behind large haulers to minimize rutting.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift 10 and 11 and began work on lift 12 at north berm. Completed lifts 10-13 on south berm around pipe.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.20.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 4/21/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	47°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	68°F High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>4:45 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>6:45 PM</u>

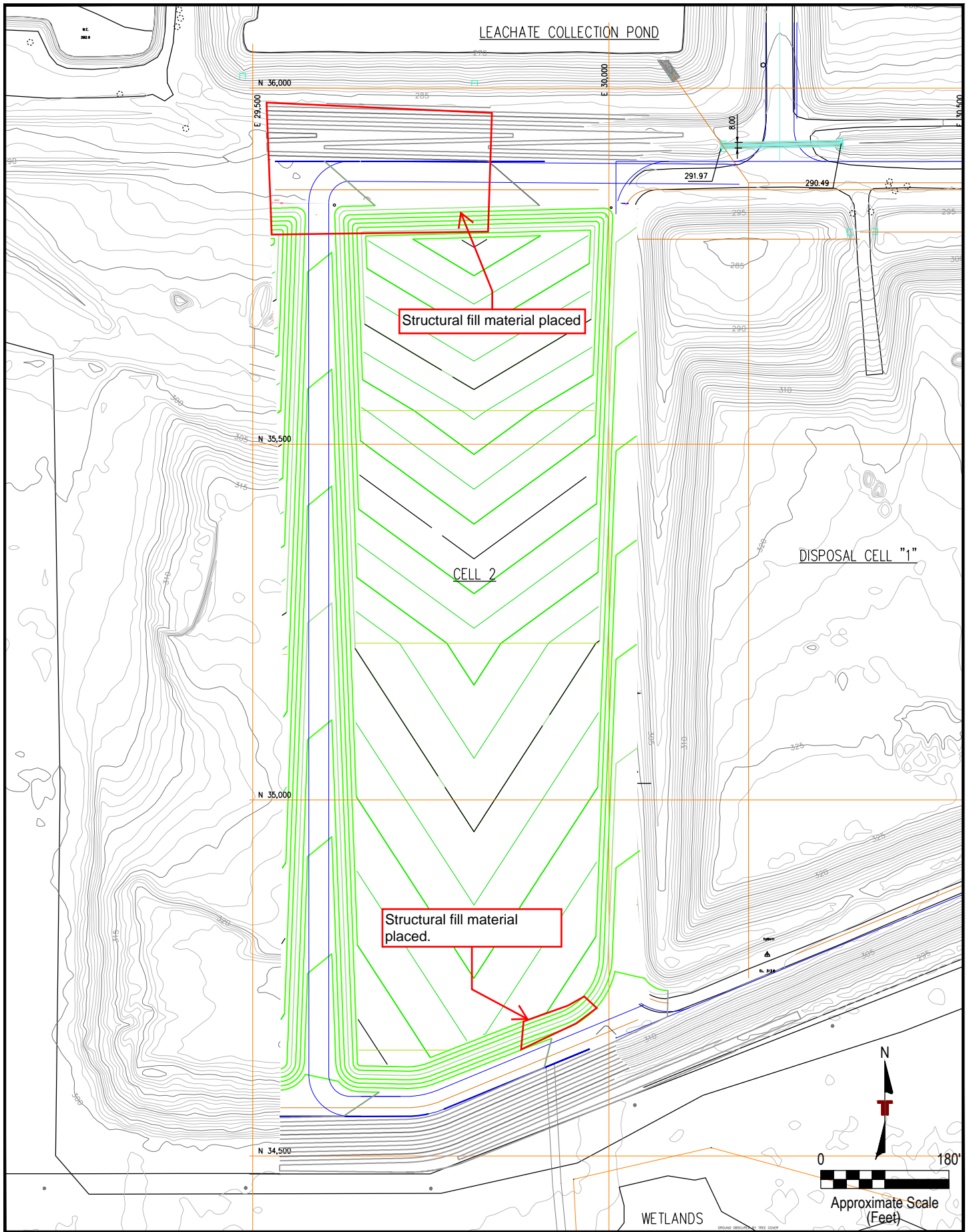
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b>
<u>Observe placement of structural fill and take density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b>
<u>Completed testing of final pipe.</u>
<u>Contractor excavator removed structural fill material and loaded into haulers.</u>
<u>Contractor haulers transported structural fill material.</u>
<u>Contractor dozers spread structural fill material into even lifts.</u>
<u>Contractor water truck sprayed deteriorated material to knead more easily.</u>
<u>Contractor motor grader graded behind large haulers to minimize rutting.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b>
<u>LIFTS: Completed lift 12 on north berm. Completed lift 8 and 9 on south berm.</u>
<b>COMPACTION EFFORTS:</b> Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>
<u>Expected rain in the evening. Smooth drum sealed sheeps foot tracks to prevent infiltration.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	DCM	Date:	4.21.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON ARKANSAS

**FIG. No.**  
**1**



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/24/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	55°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	70°F High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:30 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>7:15 AM</u>	Arrive Lab:	<u>5:45 PM</u>

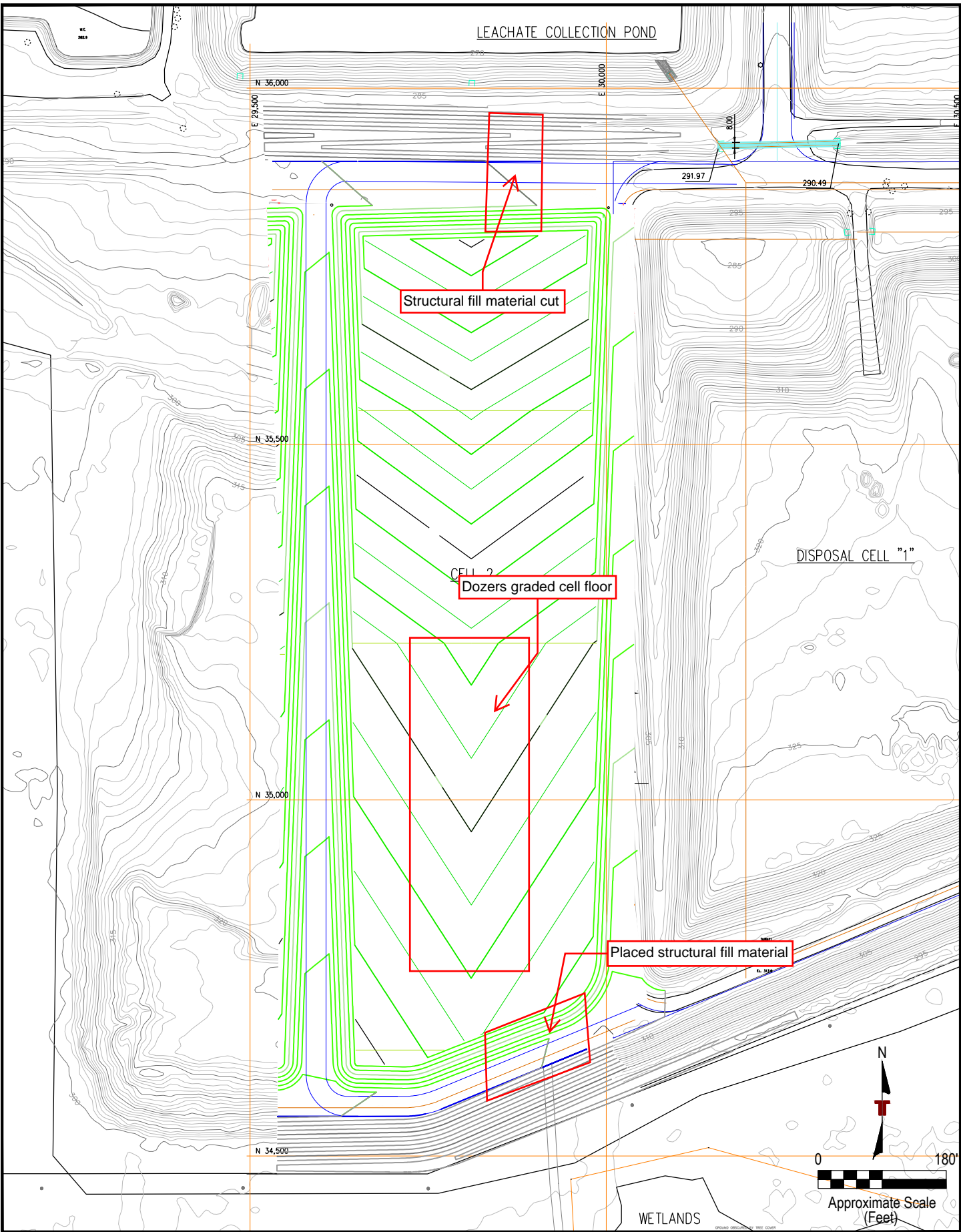
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators cut structural fill material from borrow area and location of north berm pipe and loaded it into contractor haulers.</u>
<u>Contractor haulers transported material to south berm</u>
<u>Contractor dozers graded cell floor and spread structural fill material on south berm.</u>
<u>Contractor motor grader followed haulers to keep rutting minimized.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lifts 10 and 11 and began work on lift 12.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Trench packer compacted clay liner material around leachate pipe. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	4.24.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 4/25/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	59°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	67°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:30 PM</u>

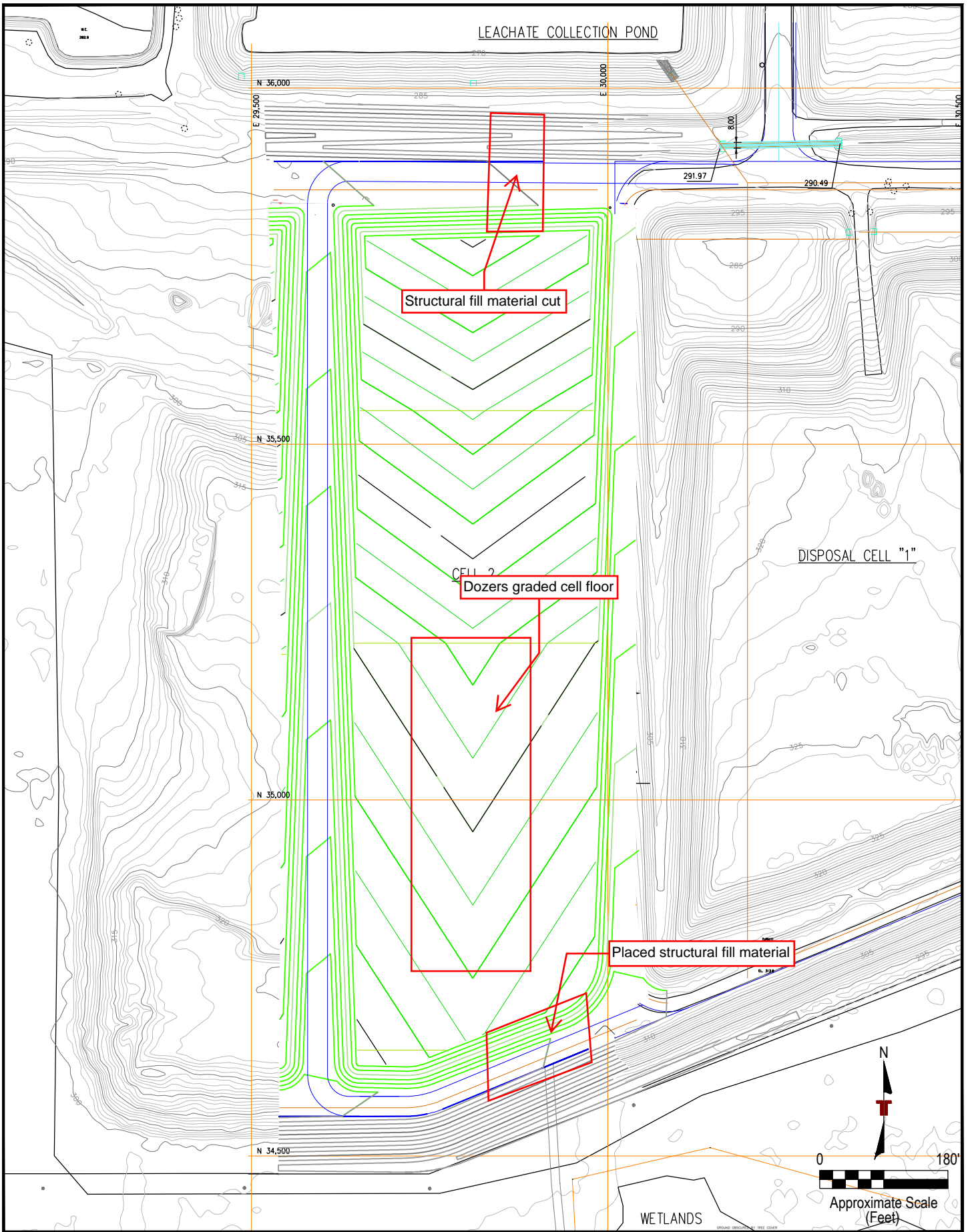
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill material and perform density tests</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators cut structural fill material cut from future location of north berm pipe and loaded it into contractor haulers.</u>
<u>Contractor haulers transported material to south berm</u>
<u>Contractor dozers graded cell floor and spread structural fill material on south berm.</u>
<u>Contractor motor grader followed haulers to keep rutting minimized.</u>
<u>Contractor water truck wet deteriorated material between lifts.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lifts 12 and 13. Began work on lift 14.</u>
COMPACTION EFFORTS:
<u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Rain expected in the evening, dozers sealed open material to prevent infiltration.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	DCM	Date:	4.25.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 4/30/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>74°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>81°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>10:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>12:00 PM</u>	Arrive Lab:	<u>5:45 PM</u>

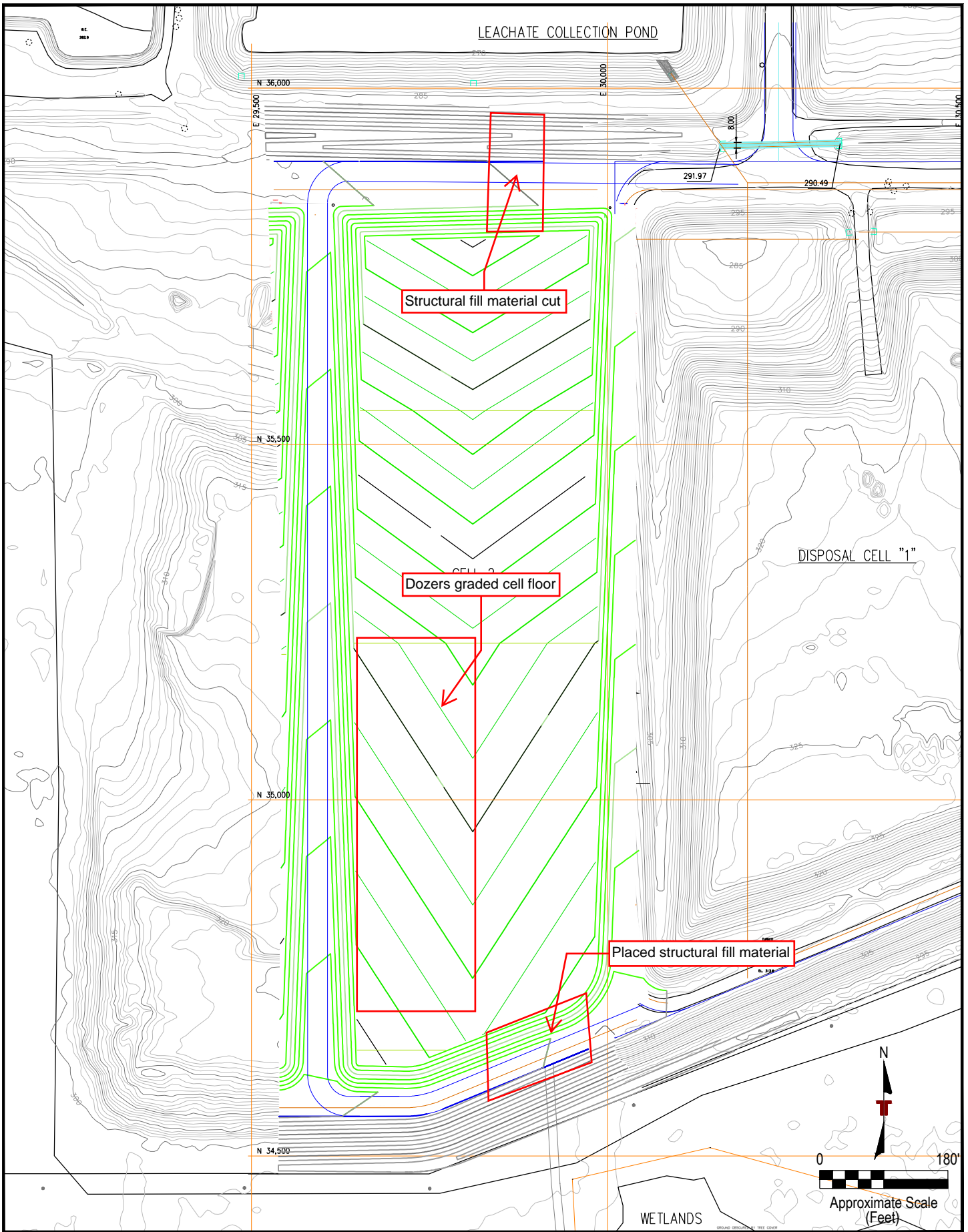
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of structural fill and perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavators cut structural fill material from location of north berm pipe and loaded it into contractor haulers.</u> <u>Contractor haulers transported material to south berm.</u> <u>Contractor dozers graded cell floor and spread structural fill material on south berm.</u> <u>Contractor motor grader followed haulers to keep rutting minimized.</u> <u>Contractor water truck wet deteriorated material to bring back to optimum.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lift 14 and began work on lift 15.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM	Project No.	35177127
Drawn By:	TLB	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	DCM	Date:	4.30.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 5/1/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>64°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>80°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

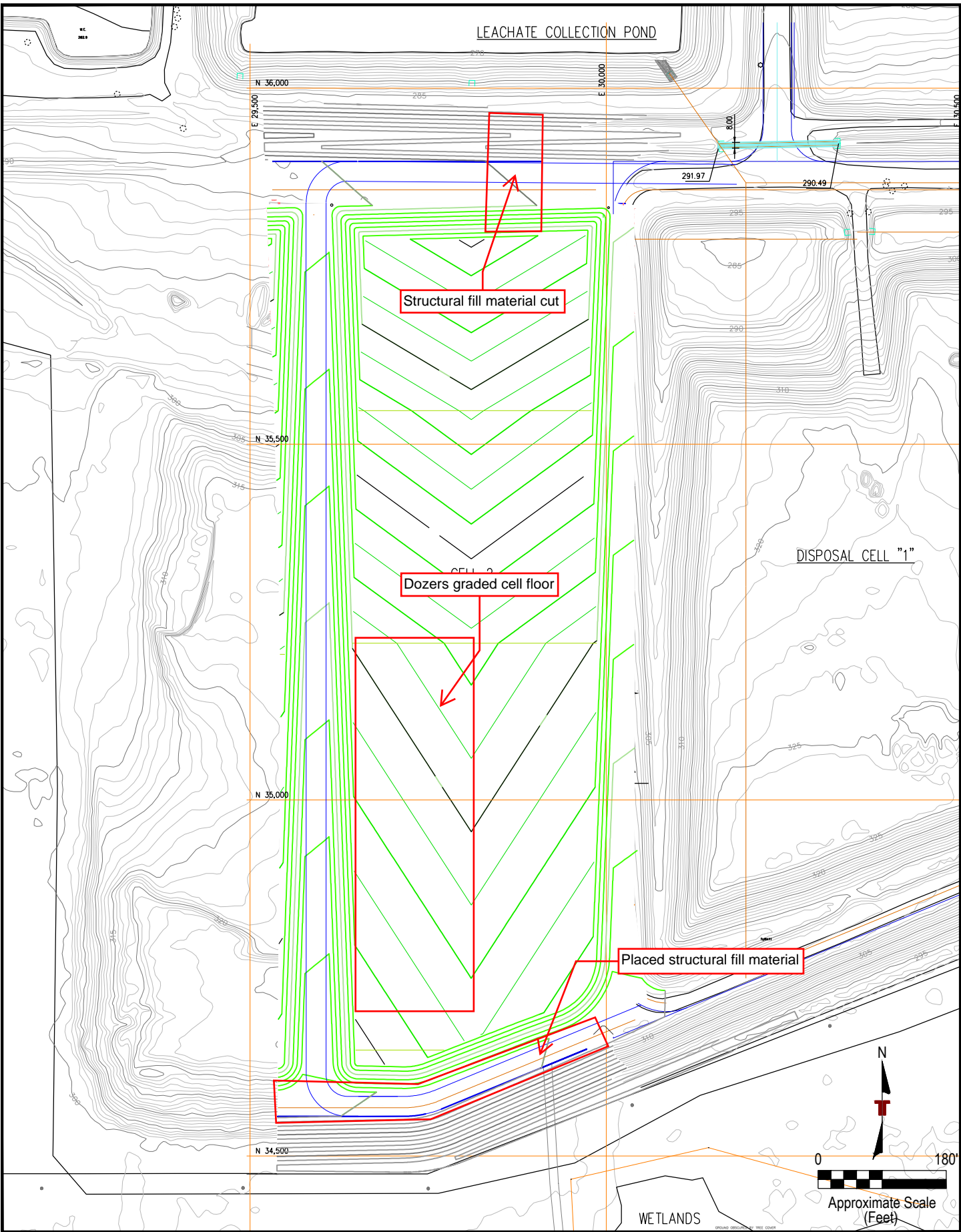
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)			Tractor & Pans
<u>2</u> Excavator(s)	<u>1</u>		Skidsteer
	<u>1</u>		Water Truck
<u>2</u> Haul Truck(s)	<u>1</u>		Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u>		Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>1</u> Client			Liner Crew
<u>13</u> Contractor			Liner Installer
<u>1</u> COA Consultant			Concrete Crew
			Pipe Installer
<u>1</u> Surveyor			Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of structural fill material and perform density tests</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavators cut structural fill material from location of north berm pipe and loaded it into contractor haulers.</u> <u>Contractor haulers transported material to south berm.</u> <u>Contractor dozers graded cell floor and spread structural fill material on south berm.</u> <u>Contractor motor grader followed haulers to keep rutting minimized.</u> <u>Contractor water truck wet deteriorated material to bring back to optimum.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lift 15, 23, and began work on lift 24.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.1.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

CELL 2 DAILY CONSTRUCTION MAP  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/2/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>69°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>80°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

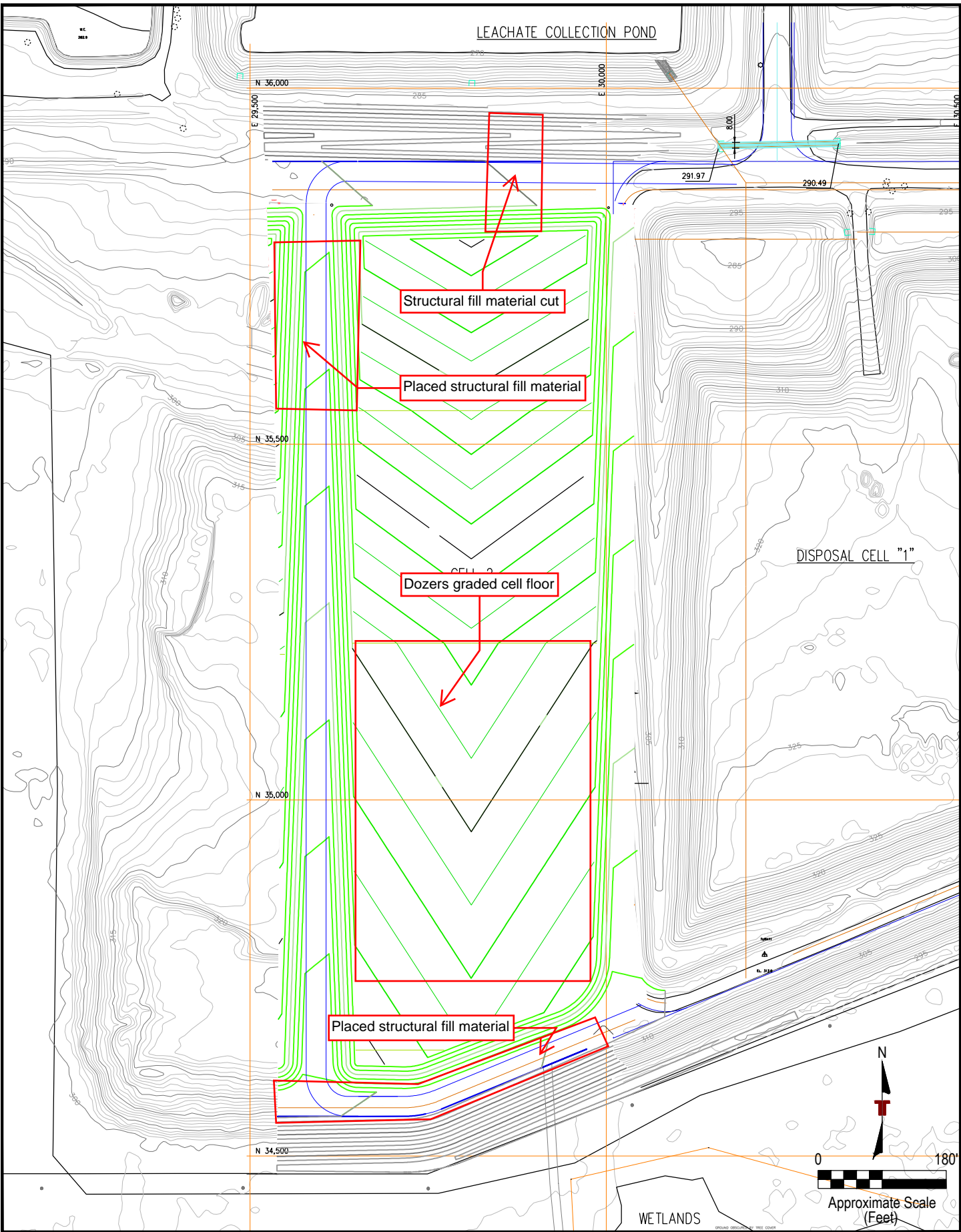
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>1</u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill material and perform density tests</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators cut structural fill material from location of north berm pipe and loaded it into contractor haulers. They also loaded graded material from cell floor to be used as structural fill.</u>
<u>Contractor haulers transported material to south and west berms.</u>
<u>Contractor dozers graded cell floor and spread structural fill material on south and west berms.</u>
<u>Contractor motor grader followed haulers to keep rutting minimized.</u>
<u>Contractor water truck wet deteriorated material to bring back to optimum.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift 24 and 25.</u>
COMPACTION EFFORTS:
<u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Found perched water between two layers of clay in north berm where leachate pipe will be installed. Letting drain and then pumping from area.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.2.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

CELL 2 DAILY CONSTRUCTION MAP  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/3/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>69°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>81°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>4:30 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>6:30 PM</u>

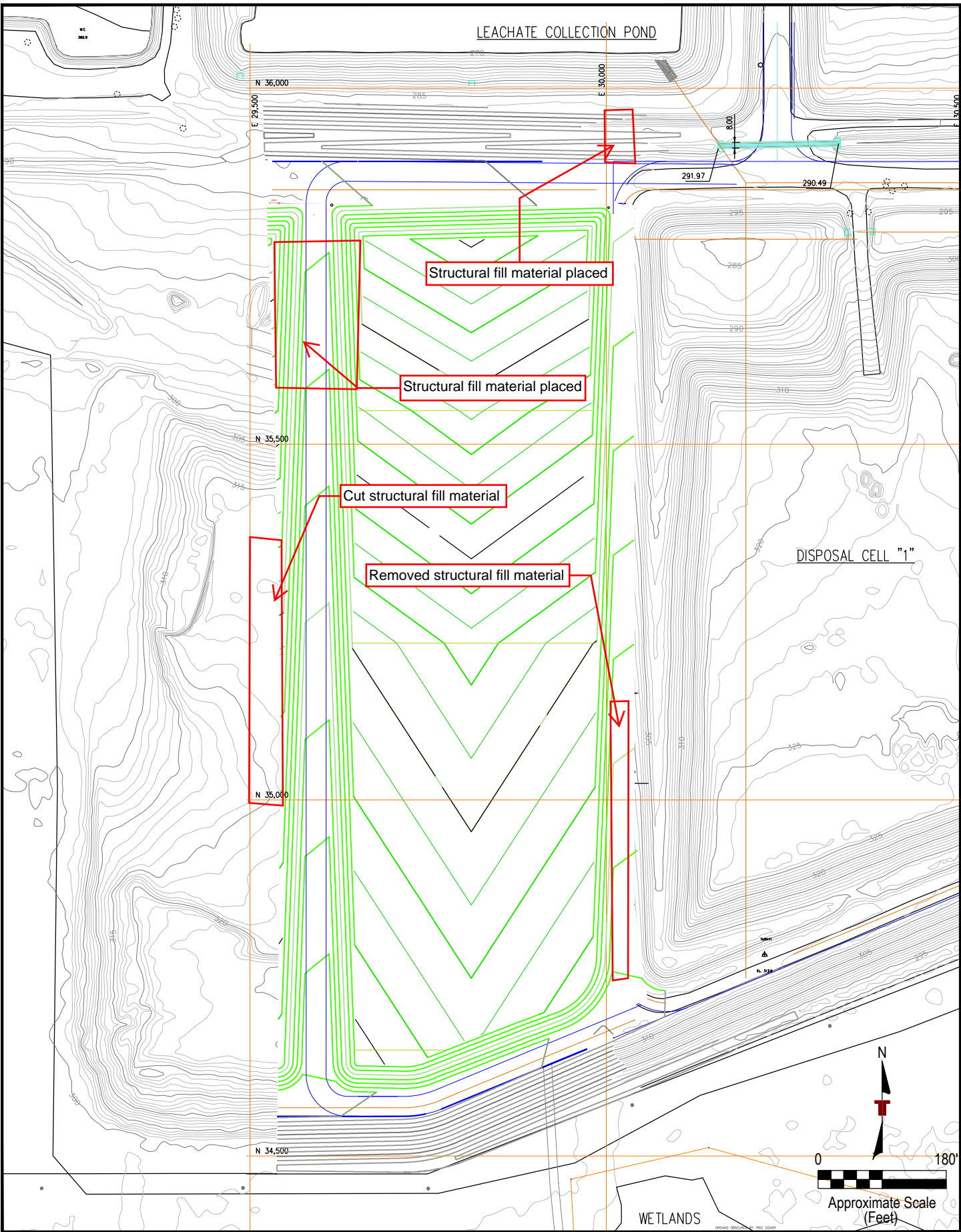
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>1</u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill material and perform density tests</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavators cut structural fill material from outside of cell 2, west of west berm and along east berm for tie in purposes.</u>
<u>Contractor haulers transported material to west and north berm.</u>
<u>Contractor dozers spread structural fill material on west and north berm.</u>
<u>Contractor motor grader followed haulers to keep rutting minimized.</u>
<u>Contractor water truck wet deteriorated material to bring back to optimum.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lifts 24, 25, and 26.</u>
COMPACTION EFFORTS:
<u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Rain out. Used smooth drum to seal west berm and prevent infiltration.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.3.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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CELL 2 DAILY CONSTRUCTION MAP  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/7/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>57°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>5:45 PM</u>

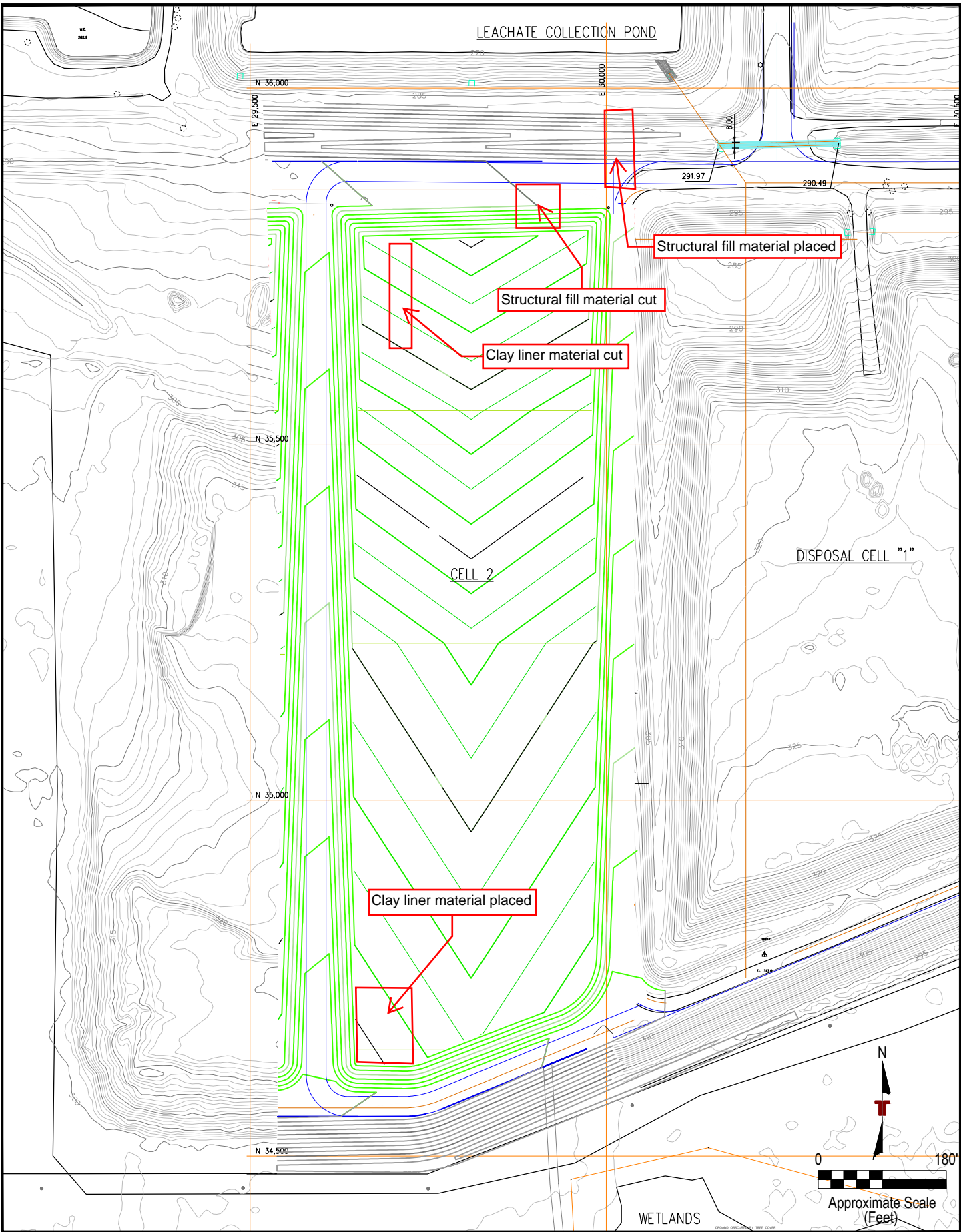
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>13</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut structural fill material from north pipe area and clay liner material from north cell floor. Then loaded material into contractor haulers.</u>
<u>Contractor haulers transported structural fill material to east end of north berm and clay liner material to south-west cell floor.</u>
<u>Contractor dozers graded and spread structural fill and clay liner material.</u>
<u>Contractor sheeps foot scarified cell floor prior to placement of clay liner and compacted structural fill material.</u>
<u>Contractor motor grader followed haulers to reduce rutting.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Began first lift of clay liner in south-west corner of cell floor.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.7.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/8/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>63°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

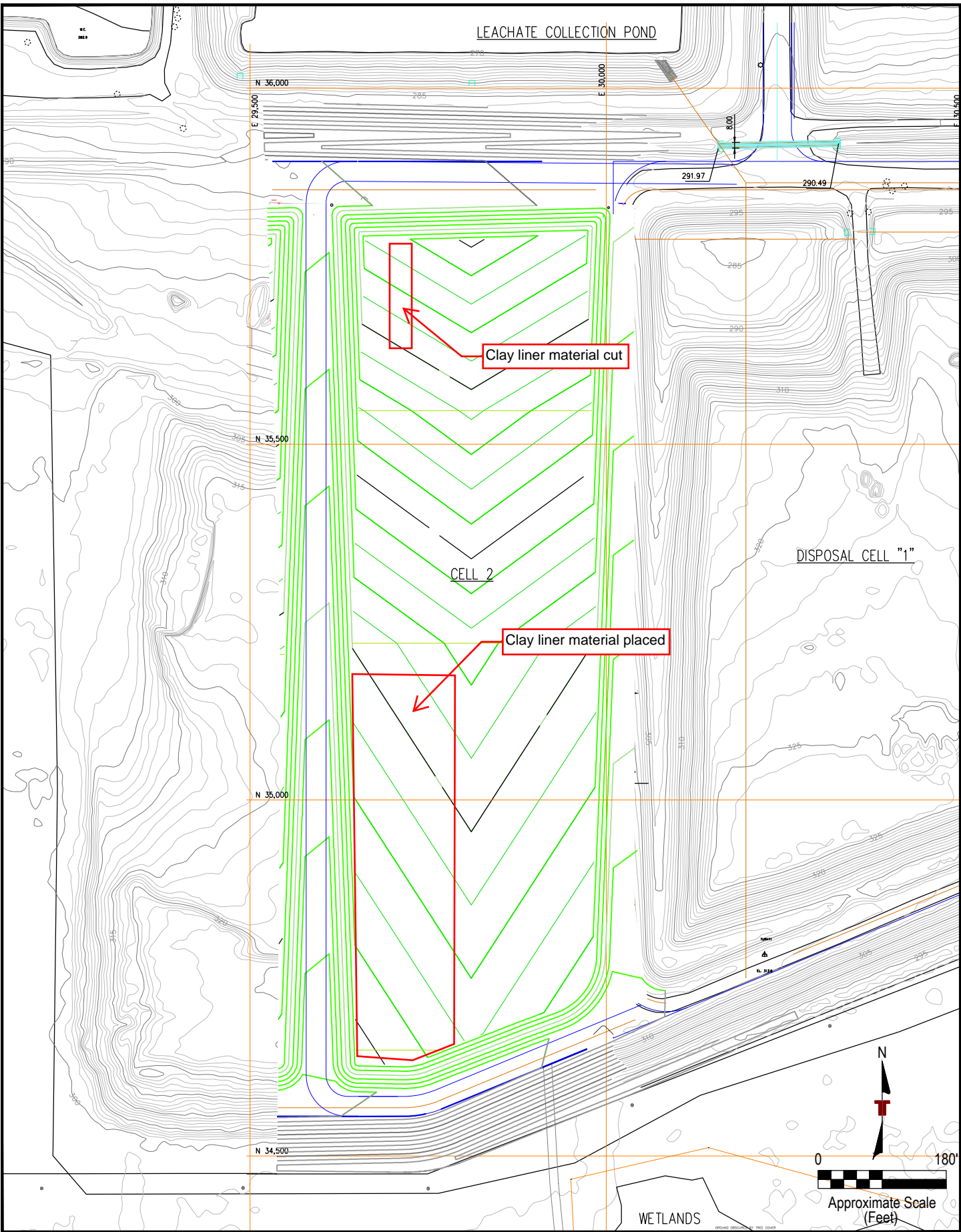
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
<u>SUMMARY OF ACTIVITIES OBSERVED:</u>
<u>Contractor excavator cut clay liner material from north cell floor and borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-west cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor motor grader followed haulers to reduce rutting.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
<u>LIFTS WORKED AND COMPACTION EFFORTS:</u>
<u>LIFTS: Finished first lift of clay liner in south-west corner of cell floor and began second lift.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<u>OPERATIONAL CONCERNS &amp; SOLUTIONS:</u>
<u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings and sealing with smooth roller to reduce surface area occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.8.18

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 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/9/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

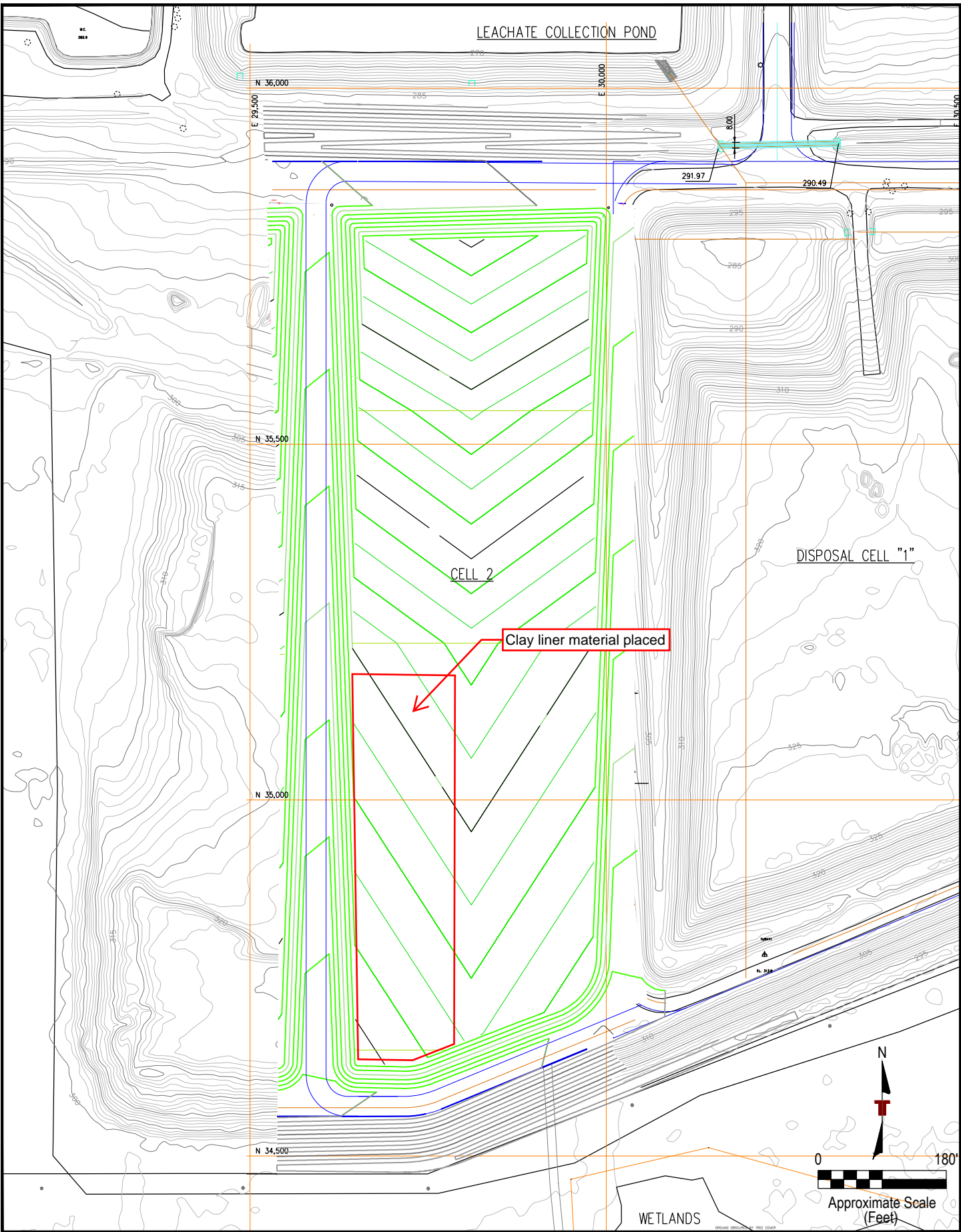
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
<u>SUMMARY OF ACTIVITIES OBSERVED:</u>
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-west cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor motor grader followed haulers to reduce rutting.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
<u>LIFTS WORKED AND COMPACTION EFFORTS:</u>
<u>LIFTS: Finished first lift of clay liner in south-west corner of cell floor and began second lift.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<u>OPERATIONAL CONCERNS &amp; SOLUTIONS:</u>
<u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings and sealing with smooth roller to reduce surface area occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.9.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/10/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>65°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>6:45 PM</u>

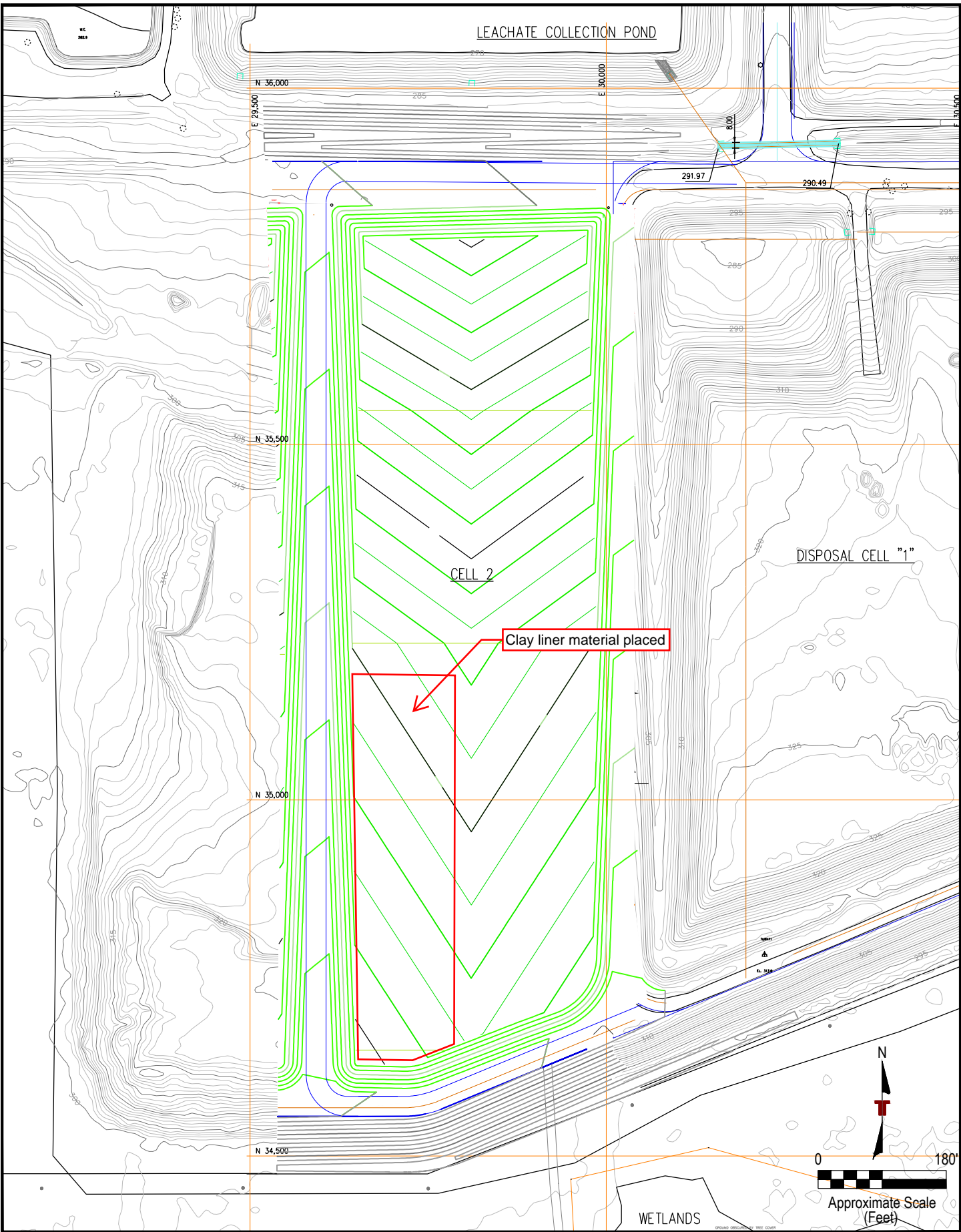
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
<u>      </u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-west cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
<u>Work around cleanup pipe began. Contractor excavator removed surrounding material so that it could be shortened. Fusion welded the cap onto it. Placed bentonite liberally below concrete cap. Mixed concrete and placed it on top of pipe.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Finished second lift of clay liner in south-west corner of cell floor and began third lift.</u>
<u>      </u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.10.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/14/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>85°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>9:30 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>11:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

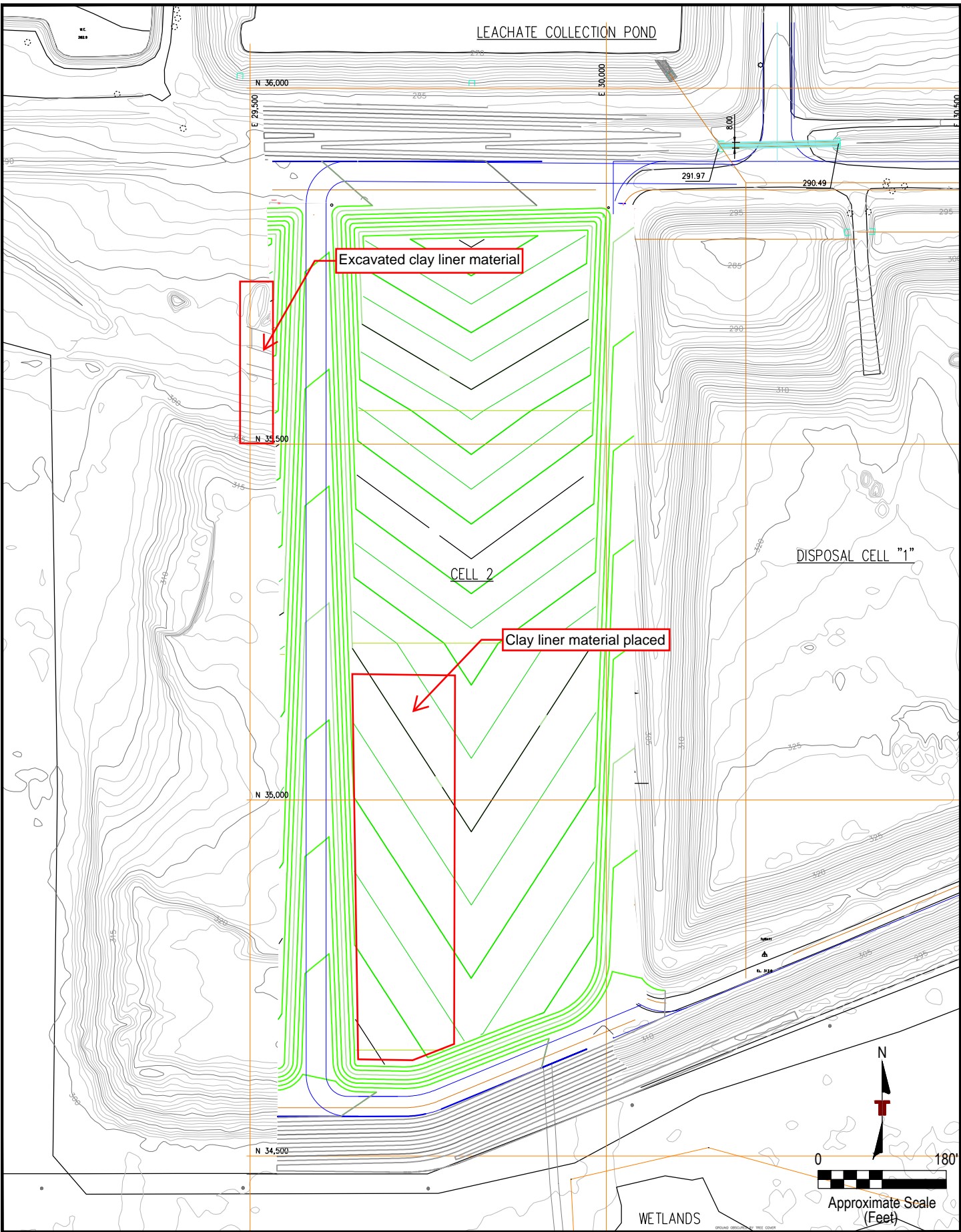
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from outside cell 2 then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-west cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued working on lift 3.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.14.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 5/15/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>7:15 PM</u>

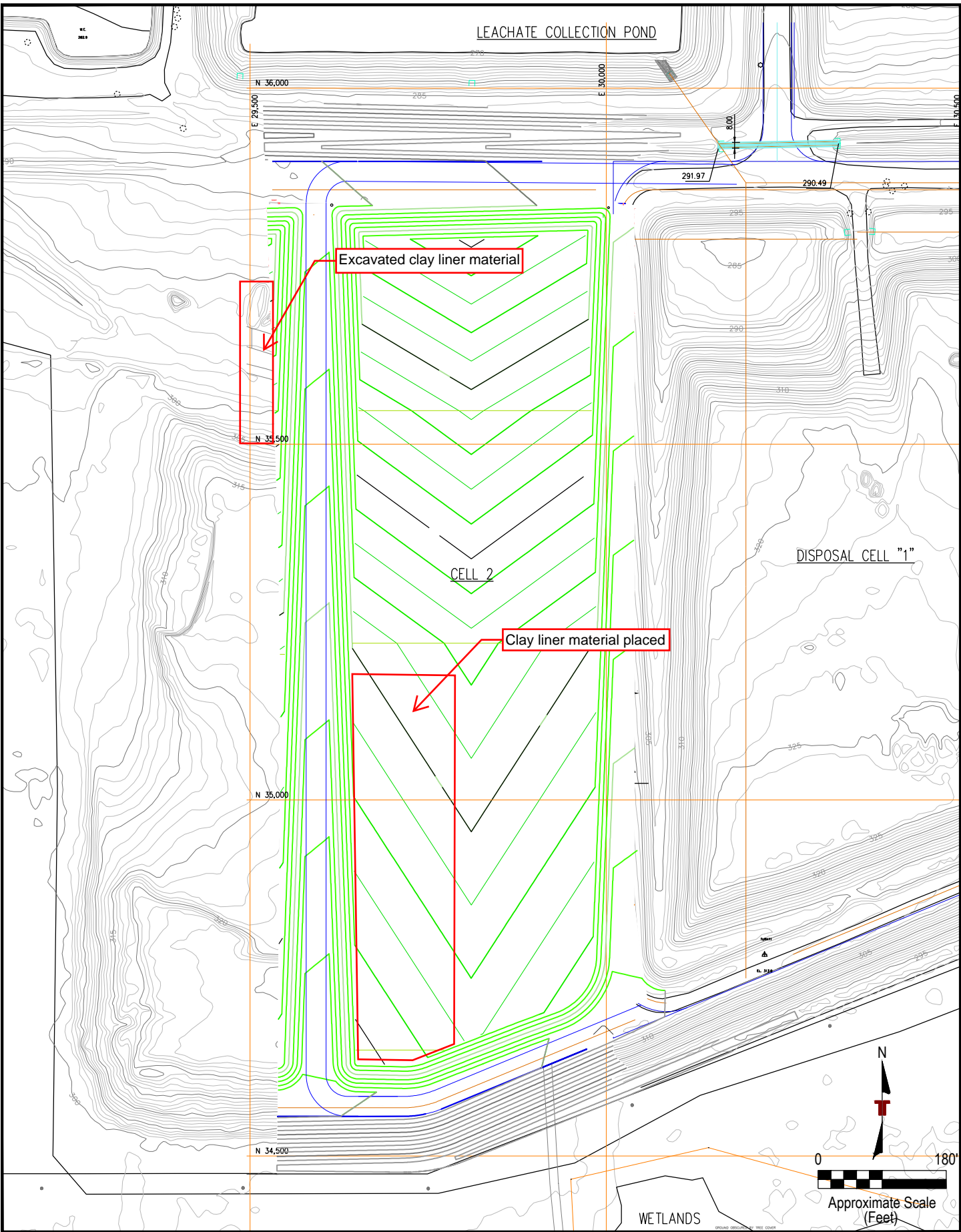
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from outside cell 2 then loaded material into contractor haulers.</u> <u>Contractor haulers transported clay liner material to south-west cell floor.</u> <u>Contractor dozers graded and spread clay liner material.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u> <u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lift 3 and began placing lift 4.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.15.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---



# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 5/16/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>	
Depart Lab: <u>4:45 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

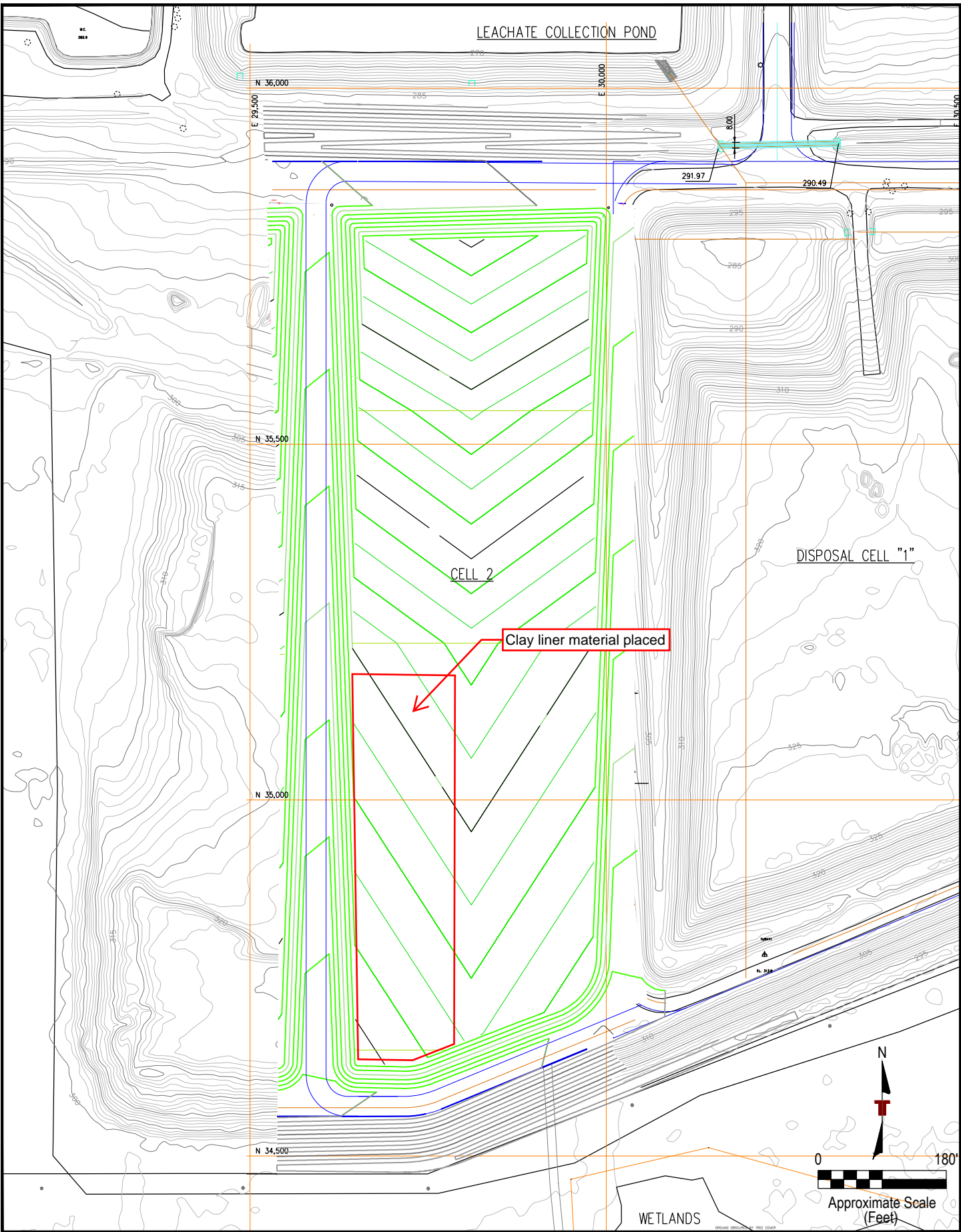
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u> <u>Contractor haulers transported clay liner material to south-west cell floor.</u> <u>Contractor dozers graded and spread clay liner material.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u> <u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lift 4 and began placing a layer of cover material to prevent dessication.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.16.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 5/17/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>63°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

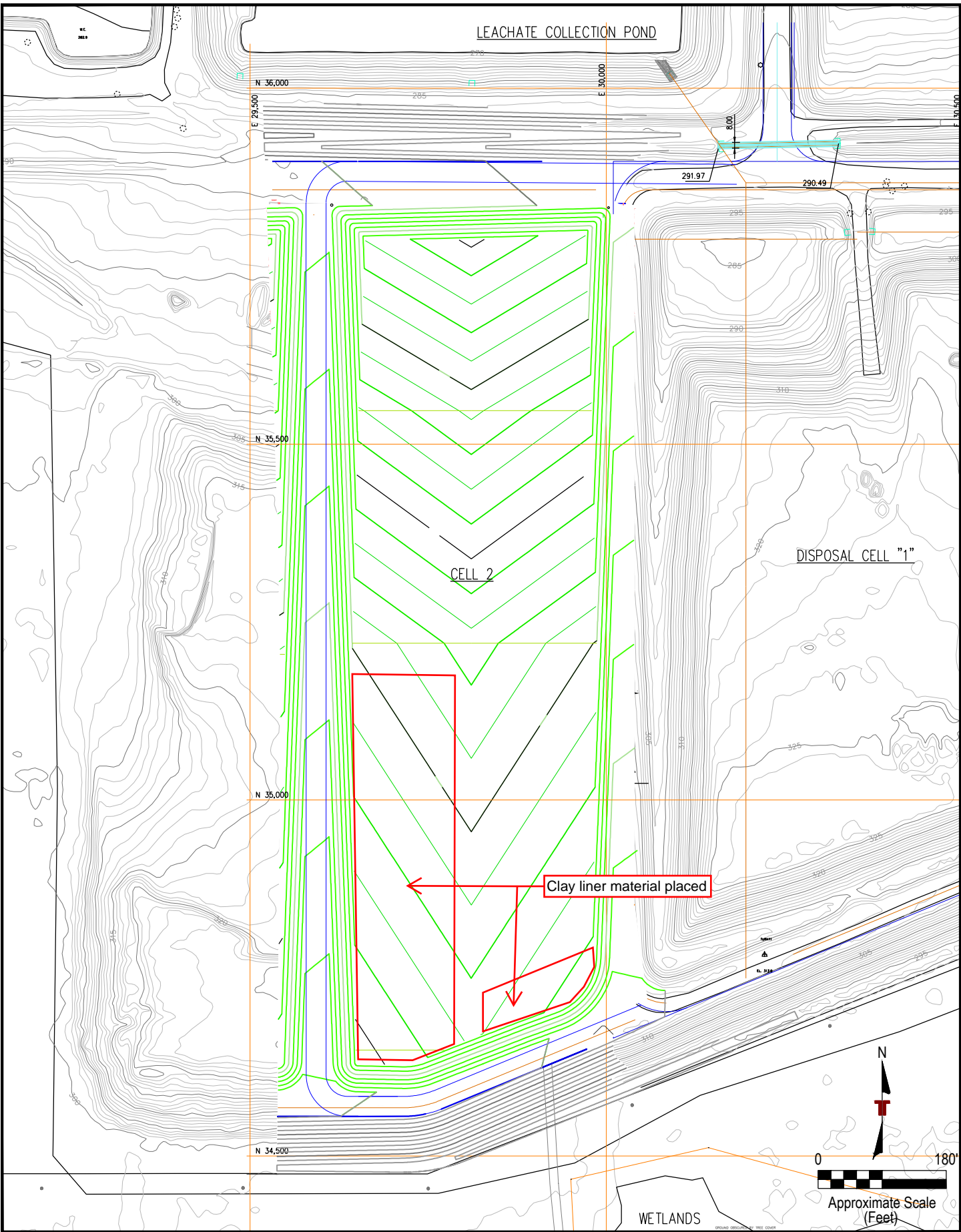
<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>2</u> Dozer(s)	_____	Tractor & Pans	
<u>1</u> Excavator(s)	_____	Skidsteer	
_____	<u>1</u>	Backhoe(s)	Water Truck
<u>3</u> Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor	
_____	<u>1</u>	Motor Grader(s)	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>		
<u>2</u> Client	_____	Liner Crew
<u>11</u> Contractor	_____	Liner Installer
<u>1</u> COA Consultant	_____	Concrete Crew
_____	_____	Design Engineer
<u>1</u> Surveyor	_____	Pipe Installer
	_____	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u> <u>Contractor haulers transported clay liner material to south-west cell floor and began to transport to south-east corner.</u> <u>Contractor dozers graded and spread clay liner material.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u> <u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed cover lift on sw half of cell floor and began placement in se corner.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.17.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/18/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>67°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

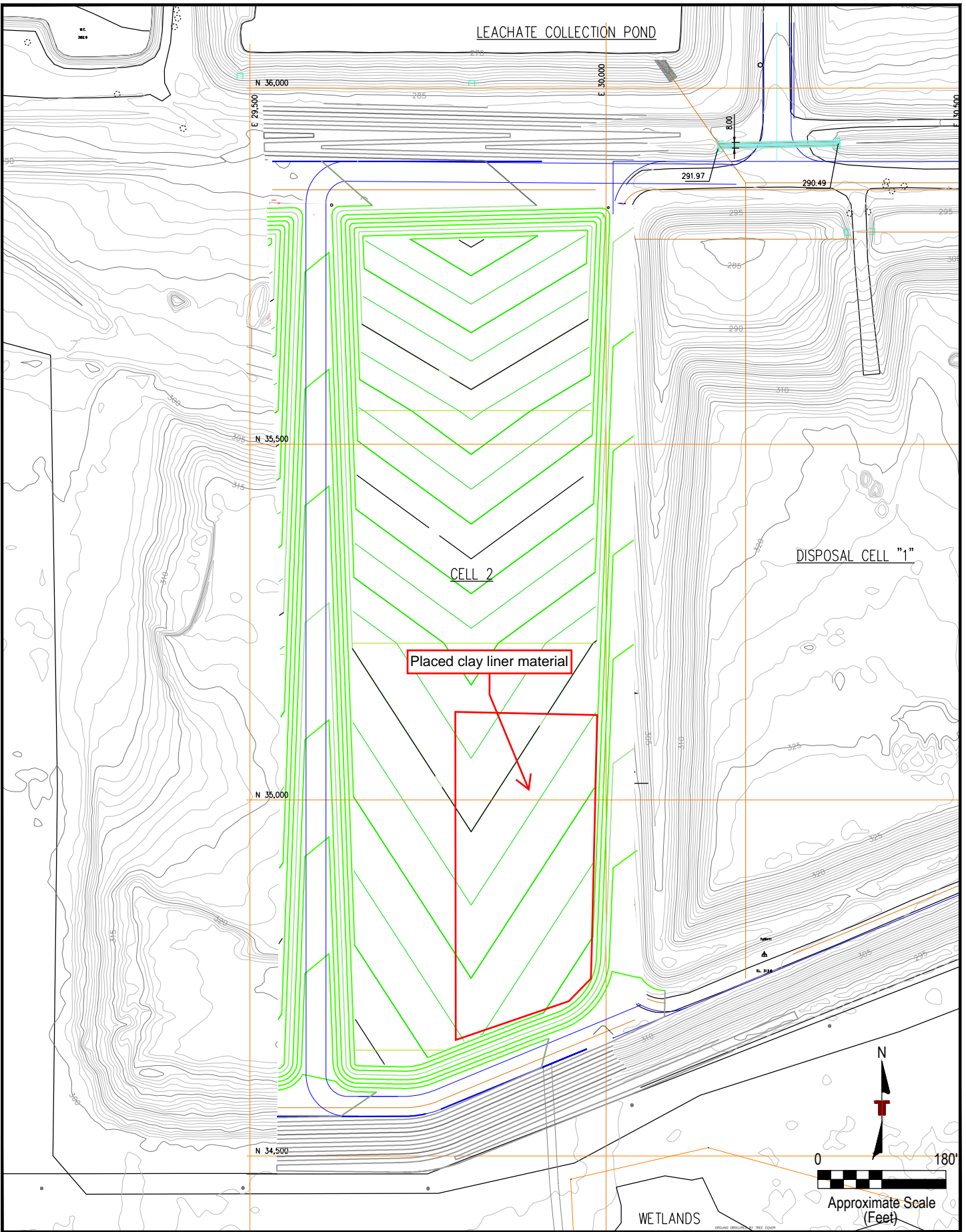
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-east corner of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued placing material in lift 1 in se corner.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.18.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/19/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>67°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

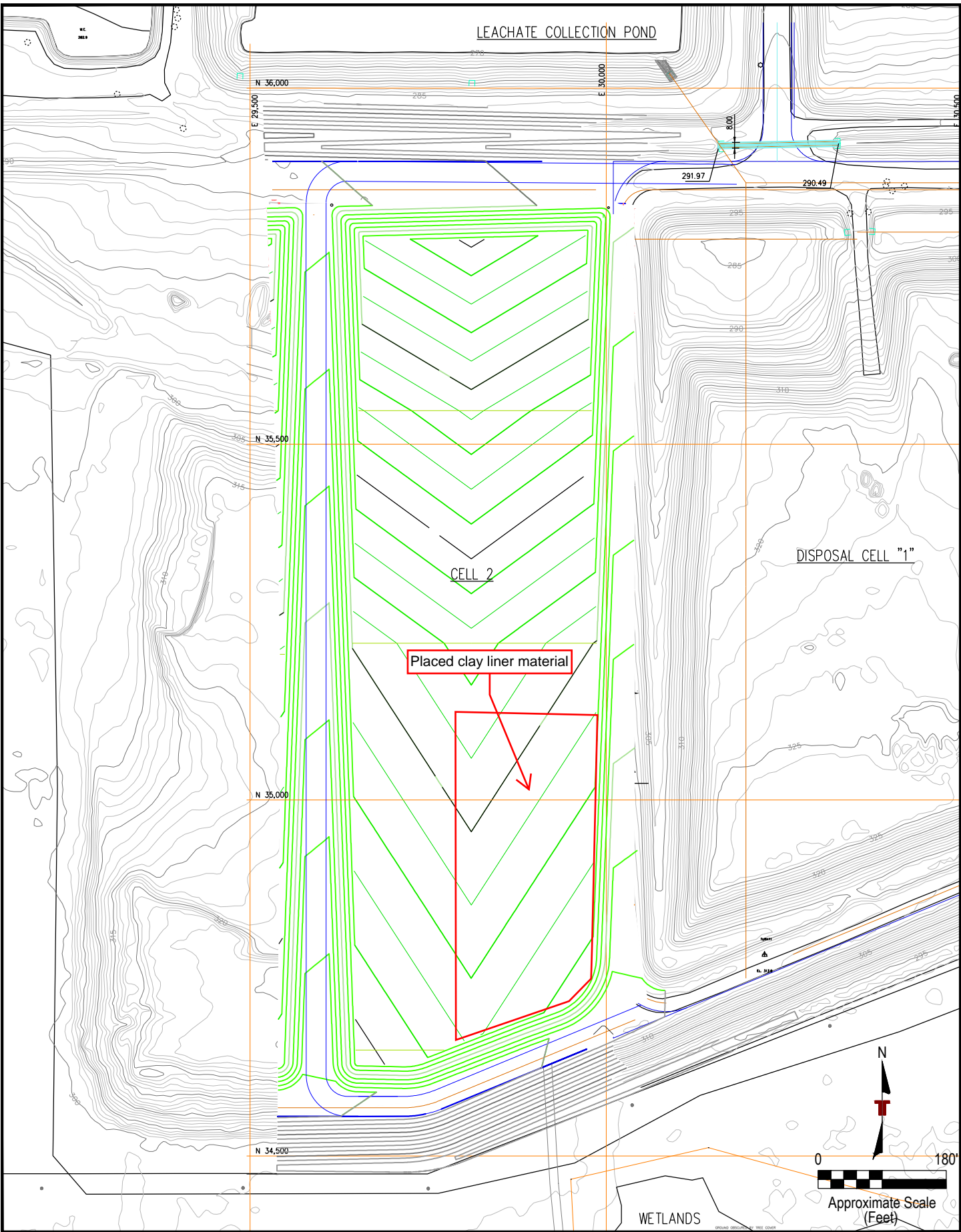
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-east corner of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift 1 and began lift 2 in se corner of cell floor.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.19.18

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 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 5/20/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>99°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

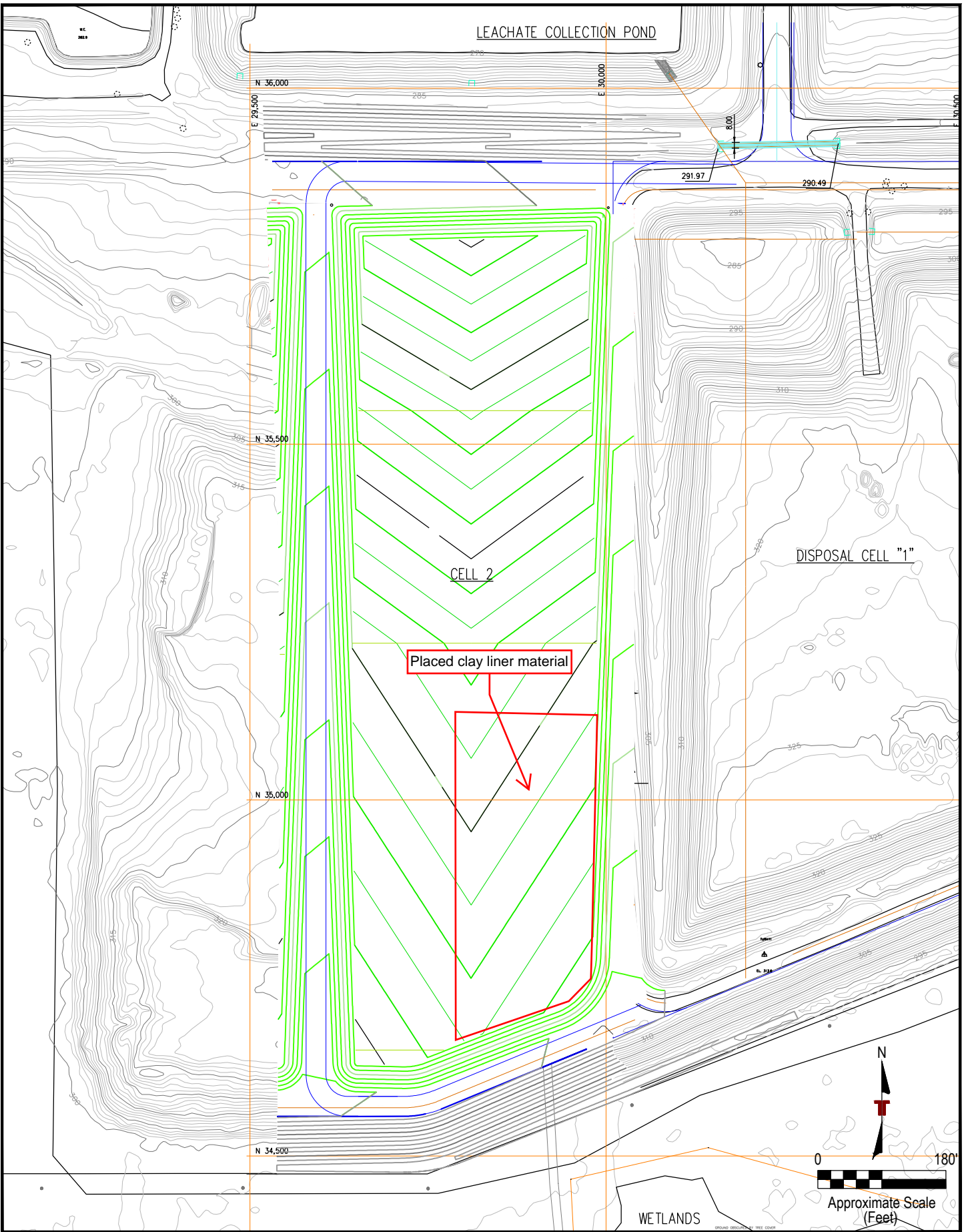
<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>11</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u> <u>Contractor haulers transported clay liner material to south-east corner of cell floor.</u> <u>Contractor dozers graded and spread clay liner material.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u> <u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lift 2 and began placing lift 3.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.20.18

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 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/21/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>81°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>10:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>10:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

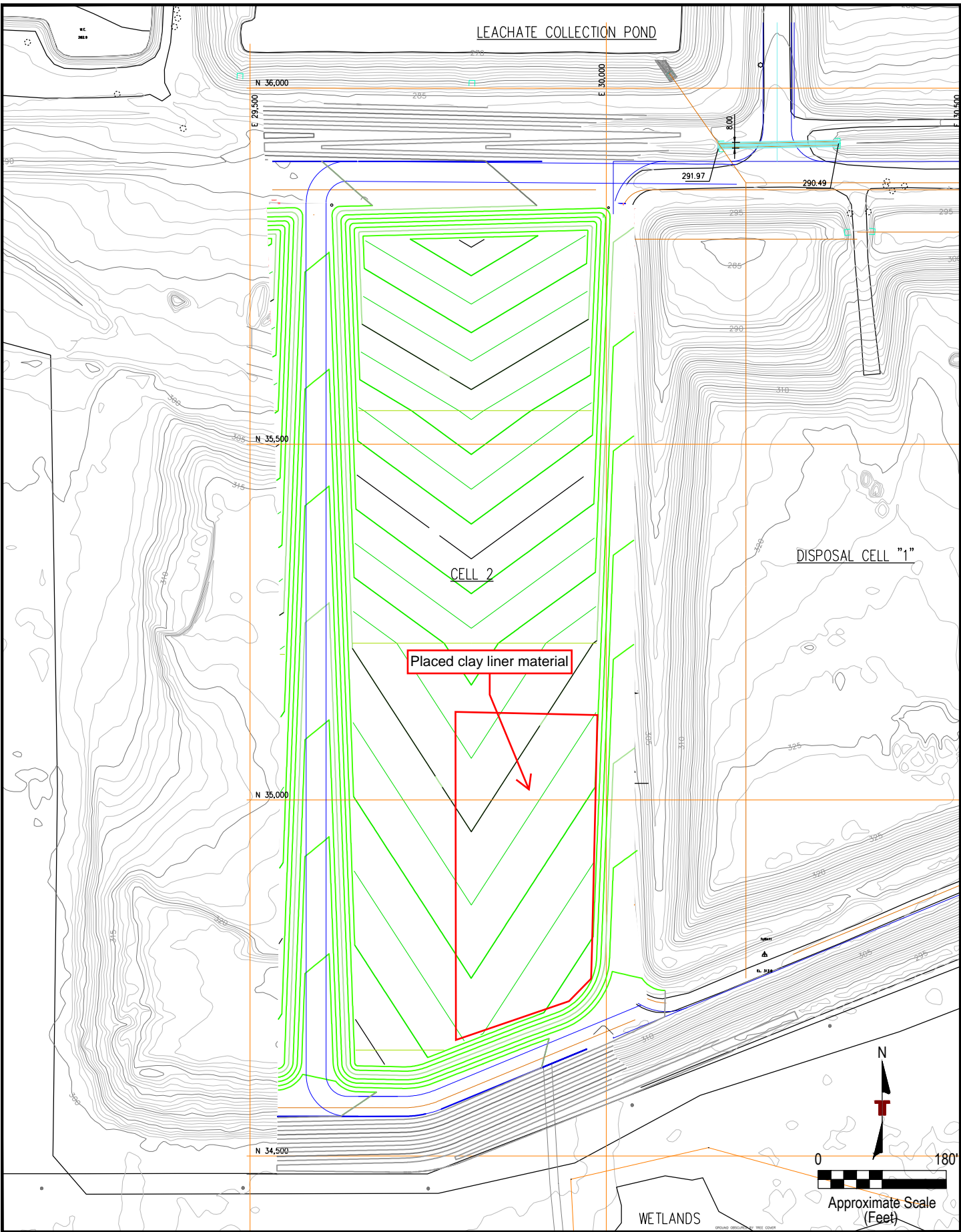
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-east corner of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued placing lift 3 in se corner.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Rain the previous night. Waited until 11:00 AM to begin hauling due to wet road conditions. Progress was slowed due to slower driving speeds and lighter loads.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.21.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/22/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>89°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

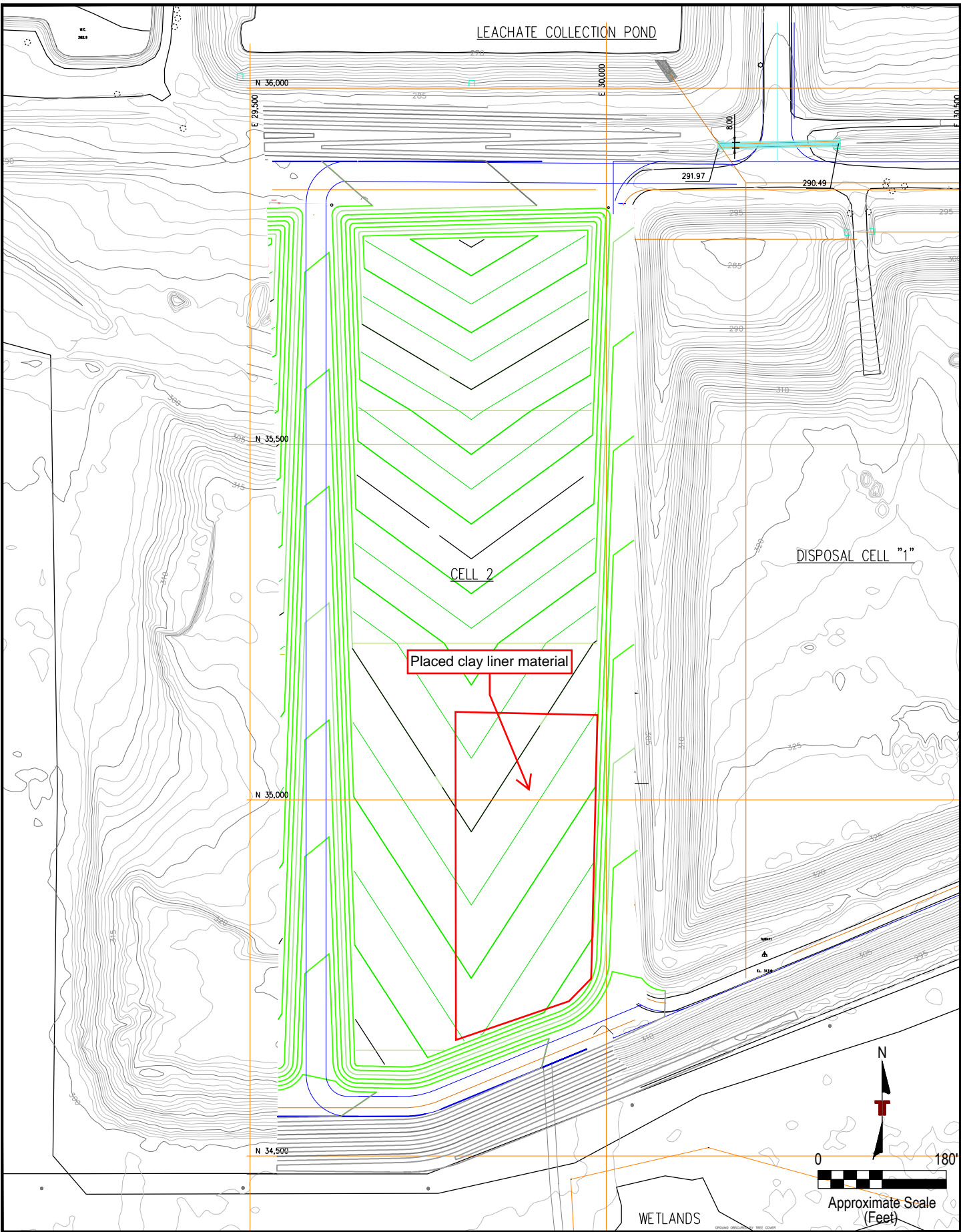
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-east corner of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet cell floor prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift 3 and began placing lift 4.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Wind and high temperatures require supervision of clay liner material to prevent dessication. Multiple waterings occurred to solve issue.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.22.18

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 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/28/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>86°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>9:30 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>11:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

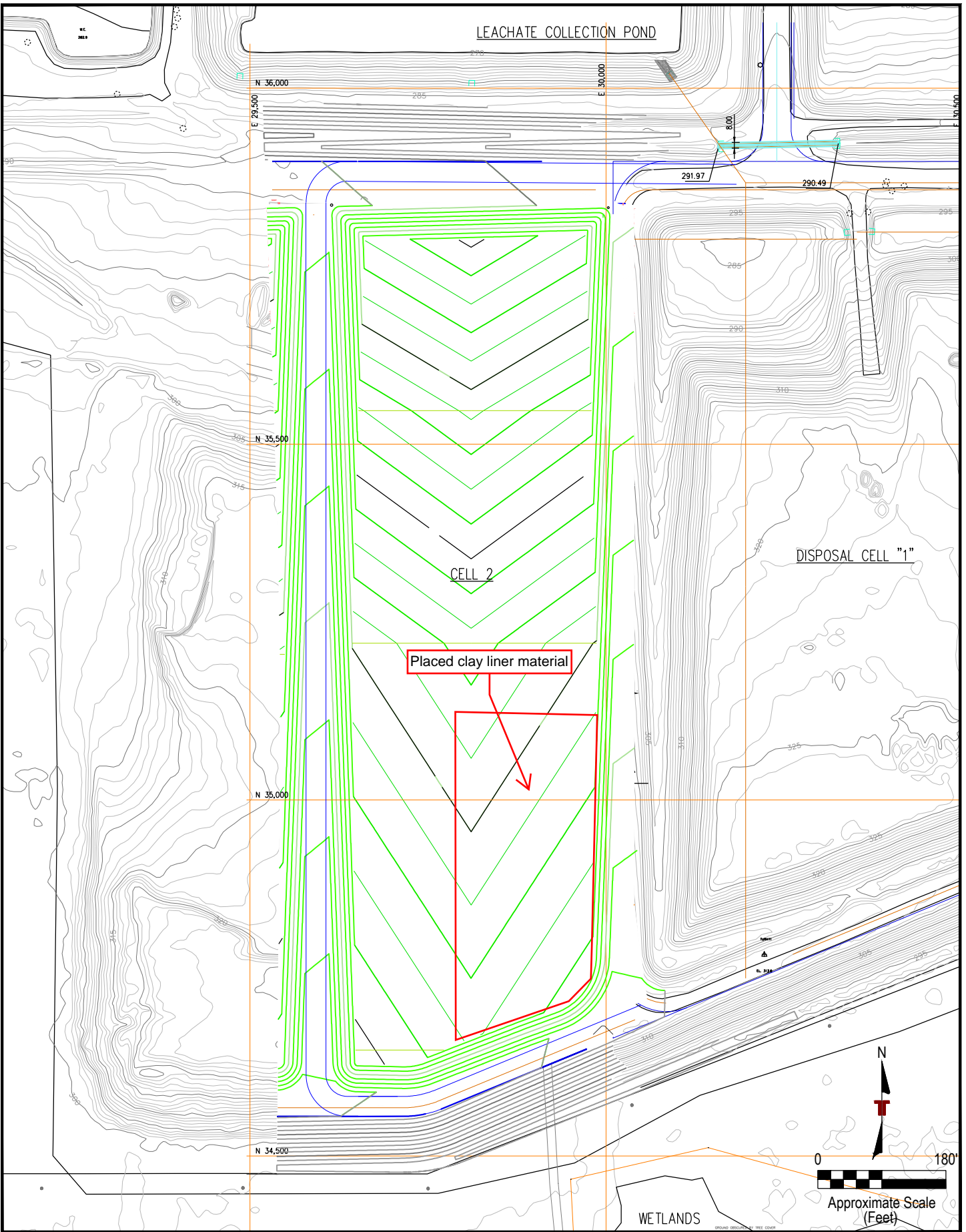
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-east corner of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift 4 and began cover lift</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>After a weekend of no work, reconditioning of material was necessary. Water was added, compaction efforts were made by sheeps foot compactor.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	DCM
Drawn By:	TLB
Checked By:	TLB
Approved By:	DCM

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.28.18

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 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/29/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>69°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

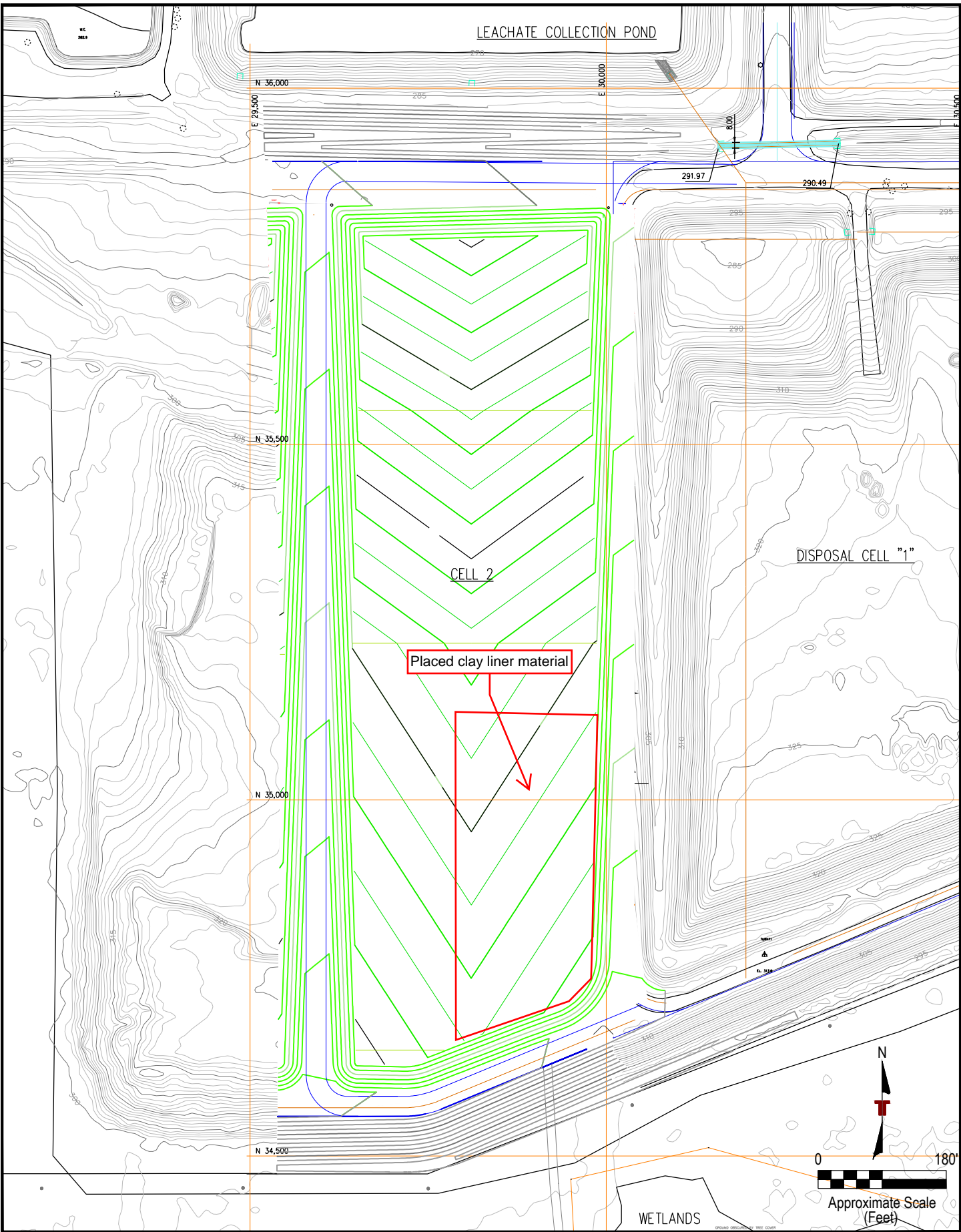
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-east corner of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued working on cover lift.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.29.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 5/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

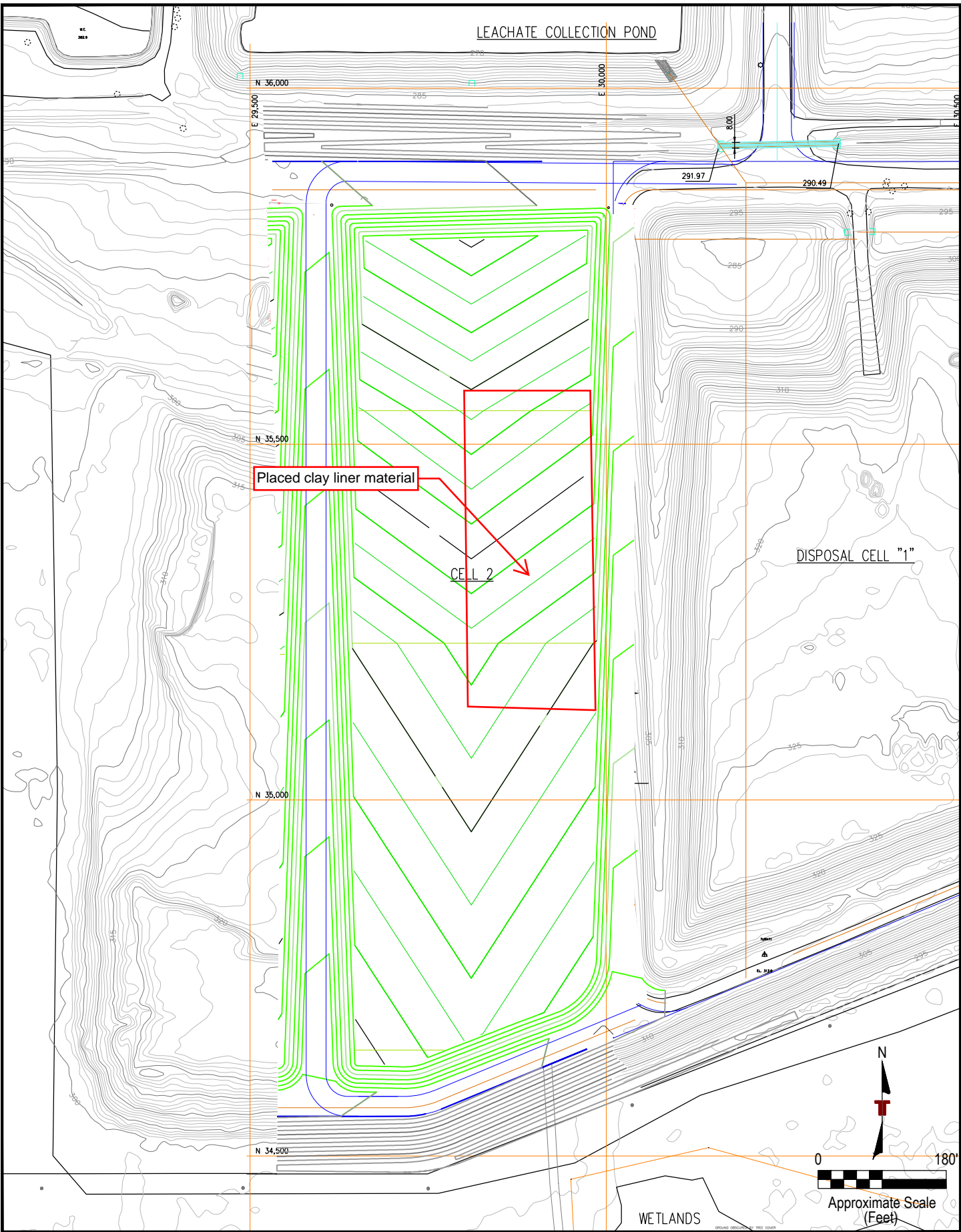
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south-east and north-east corner of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed cover lift, began placing first lift in northern half of cell.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.30.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 5/31/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

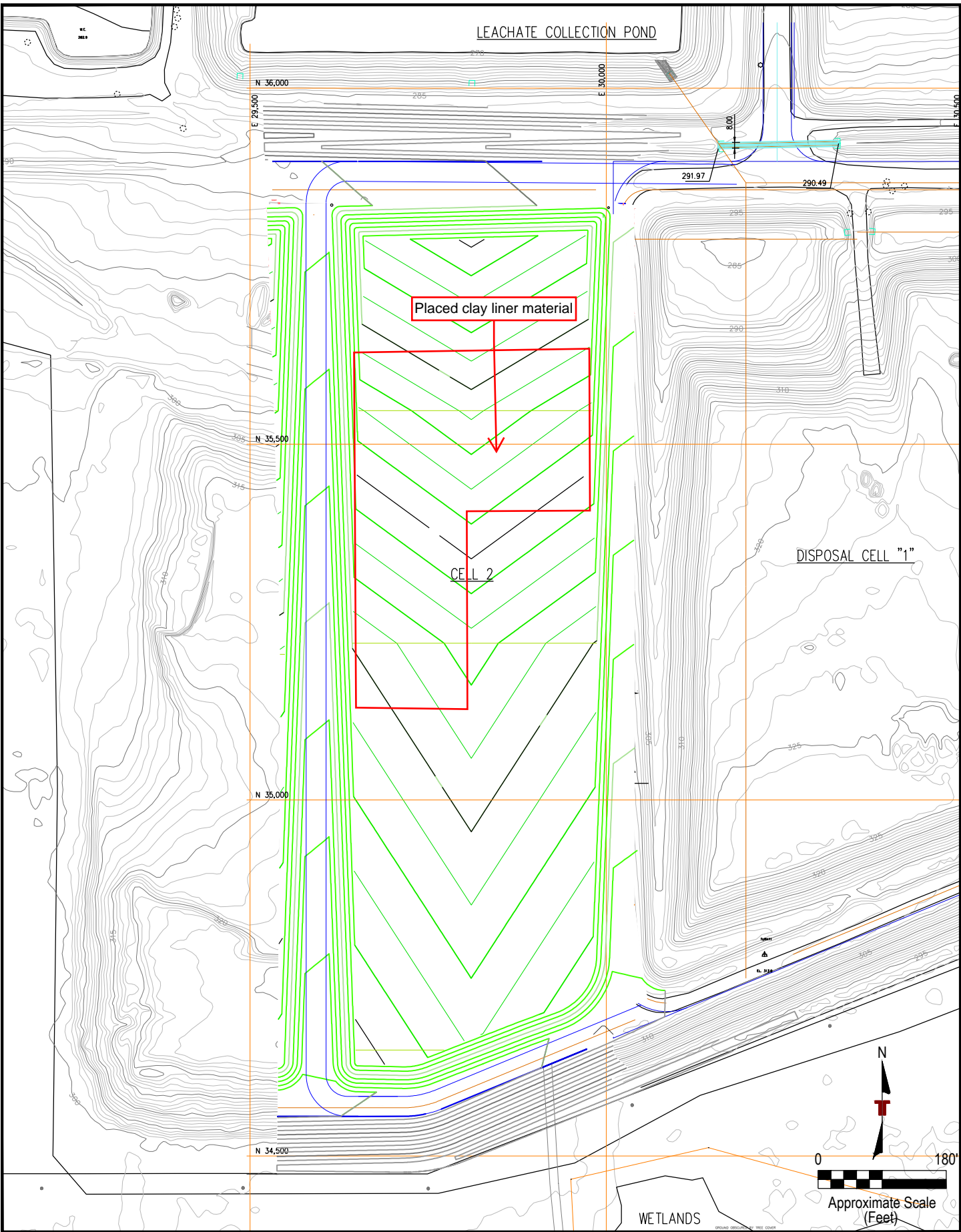
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u> <u>Contractor haulers transported clay liner material to northern half of cell floor.</u> <u>Contractor dozers graded and spread clay liner material.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u> <u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed first lift in northern half of cell and began placing the second.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	5.31.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/1/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

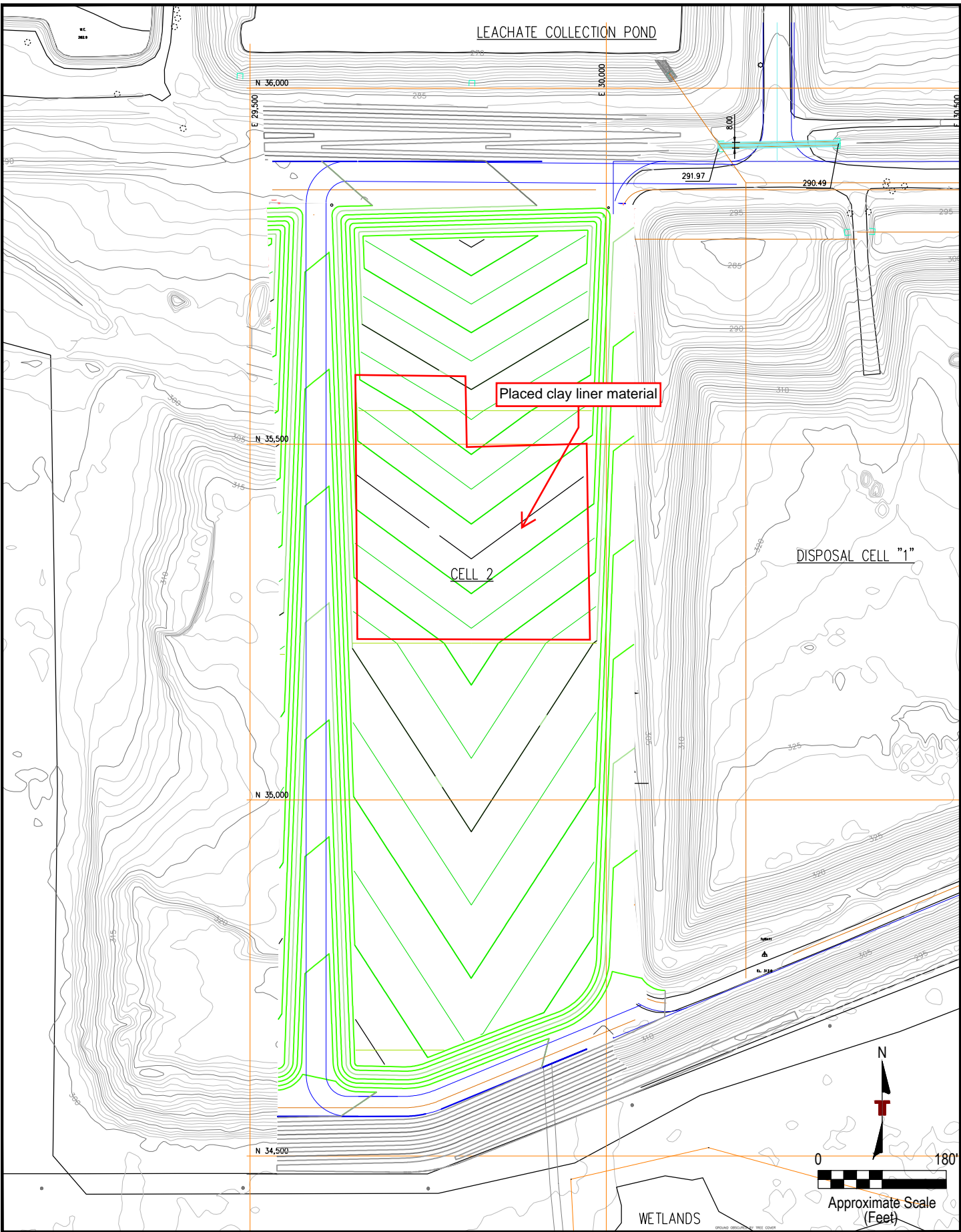
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to northern half of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed second lift and began placing third.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr: TLB  
 Drawn By: MJA  
 Checked By: TLB  
 Approved By: TLB

Project No. 35177127  
 Scale: AS SHOWN  
 File No. 000  
 Date: 6.1.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/2/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

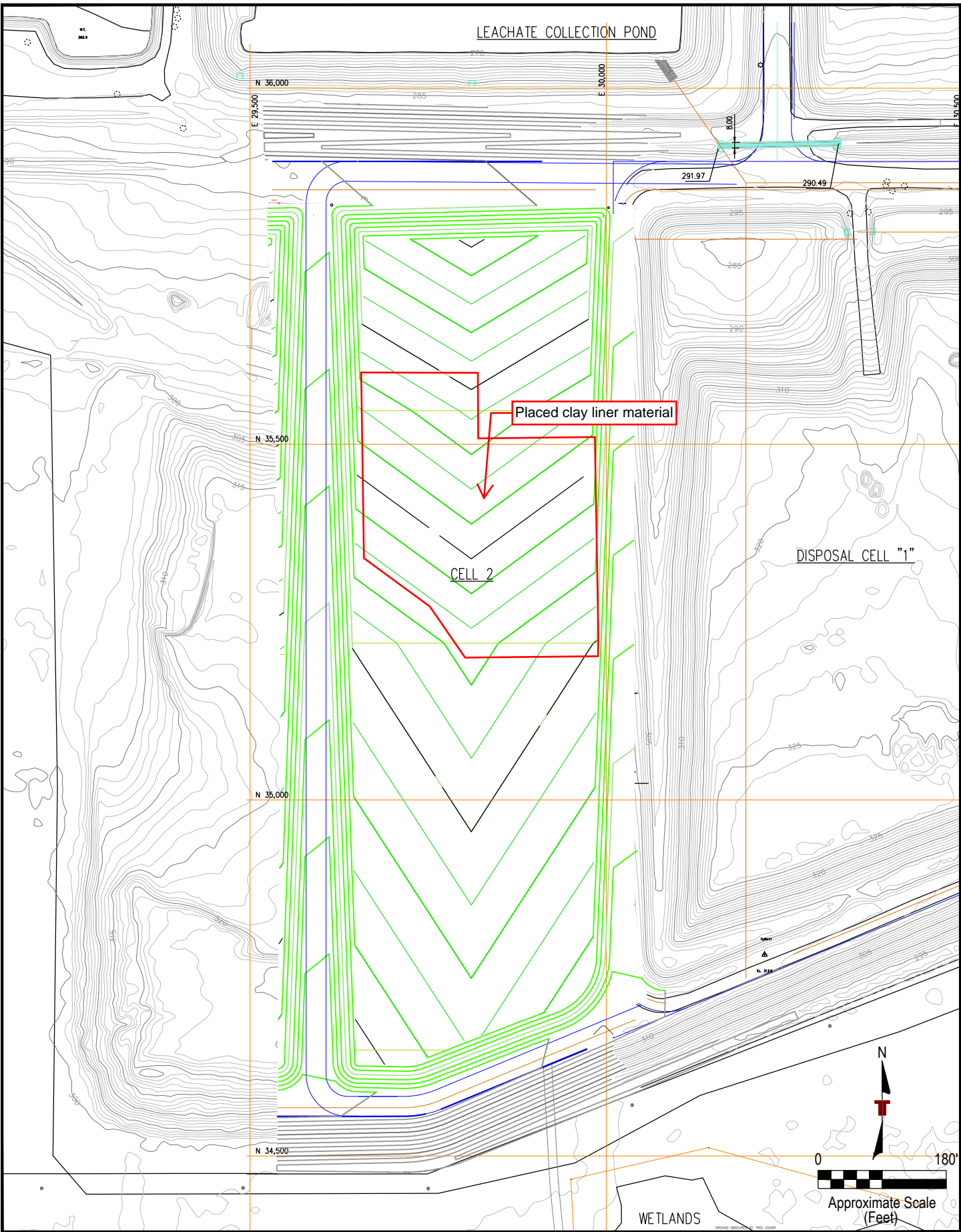
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to northern half of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued placing third lift</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.02.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 6/3/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree/Tony Bardella  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>68°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

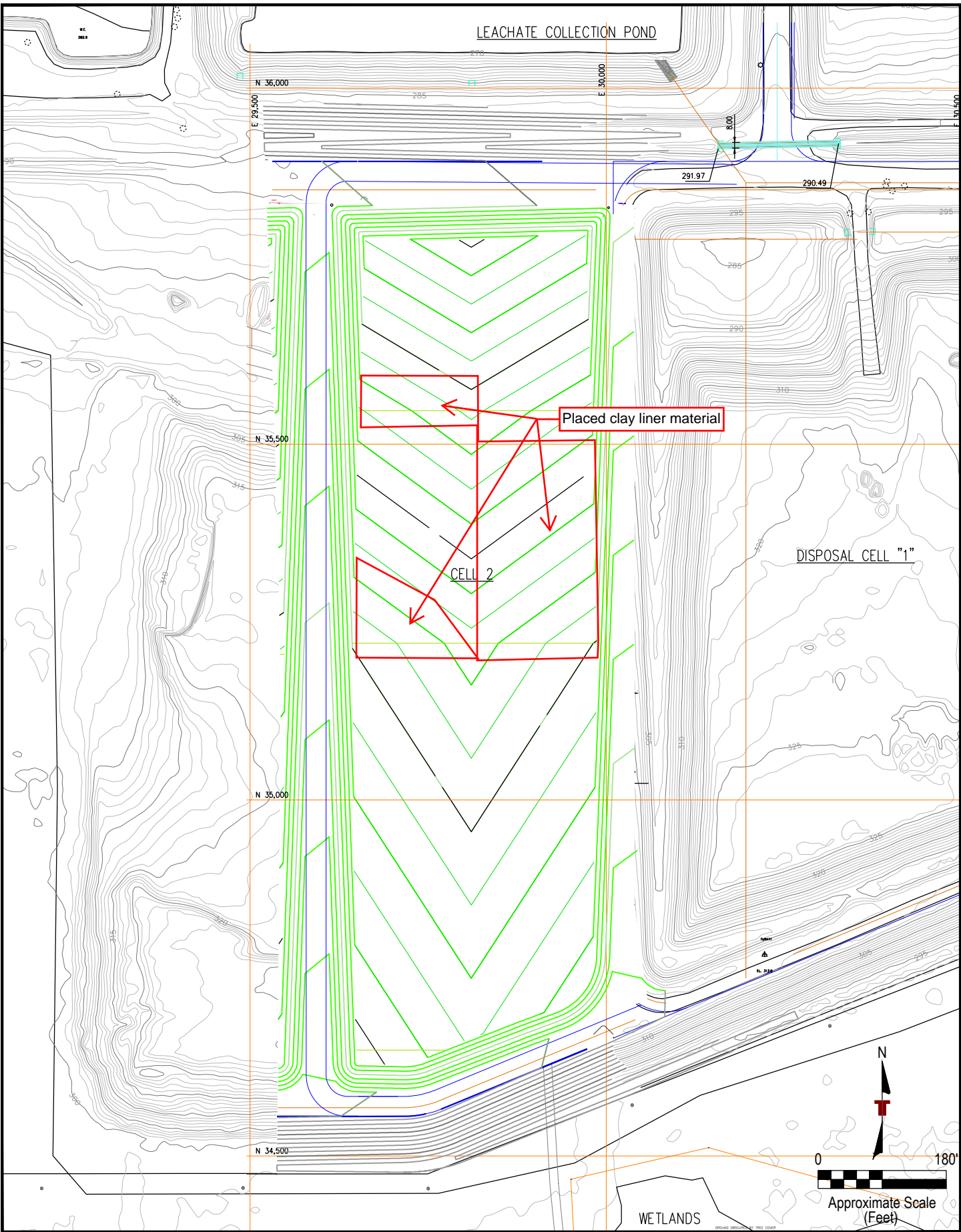
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>	
<u>1</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>	
<u>1</u> Client	<u>      </u> Liner Crew
<u>11</u> Contractor	<u>      </u> Liner Installer
<u>2</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u> <u>Contractor haulers transported clay liner material to northern half of cell floor.</u> <u>Contractor dozers graded and spread clay liner material.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u> <u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed third lift and began placing fourth.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.03.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>67°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>87°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>4:30 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>6:45 PM</u>

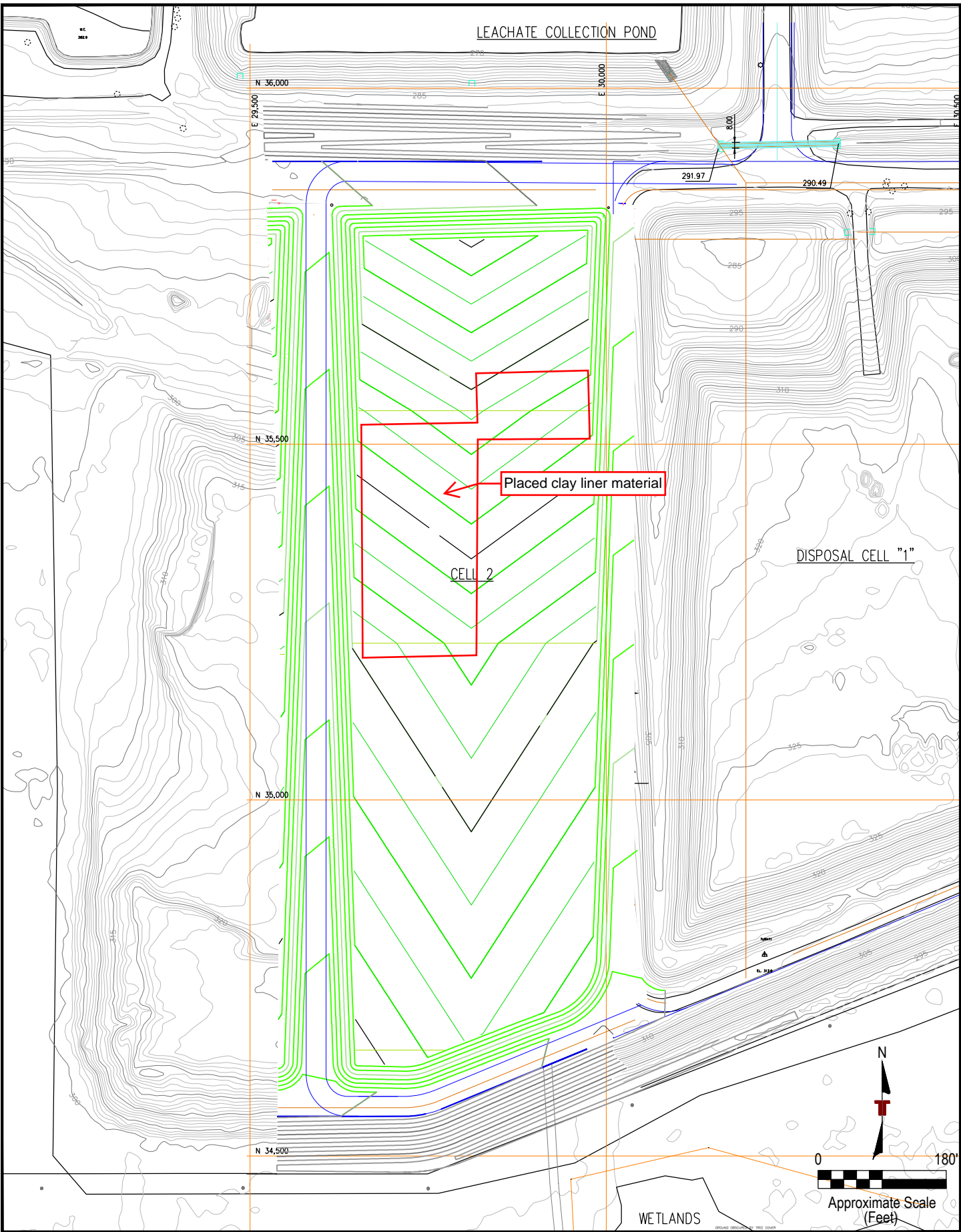
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to northern half of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed fourth lift and began placing cover lift.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.04.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/5/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>67°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>89°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

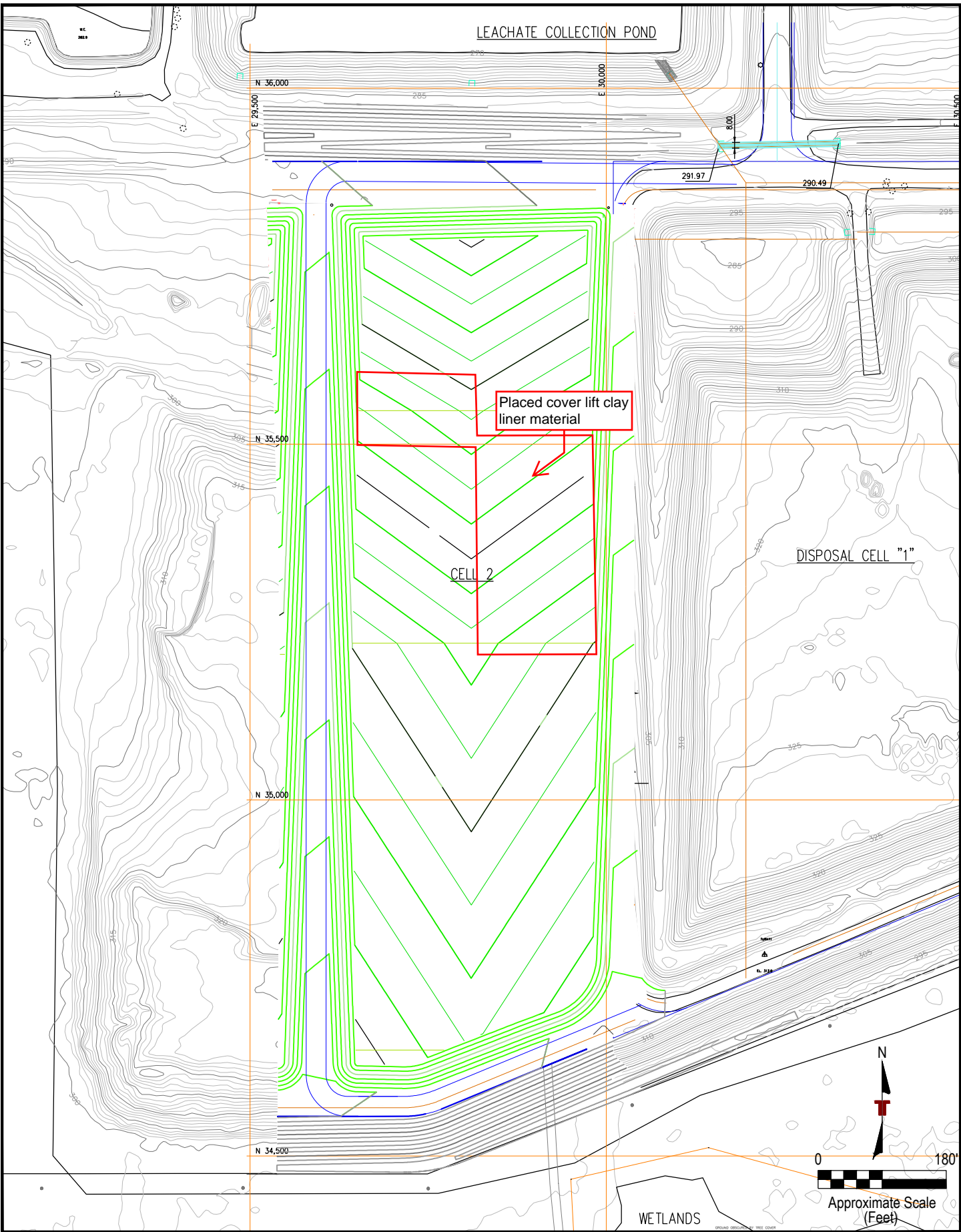
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to northern half of cell floor.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued placing cover lift.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.05.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/6/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

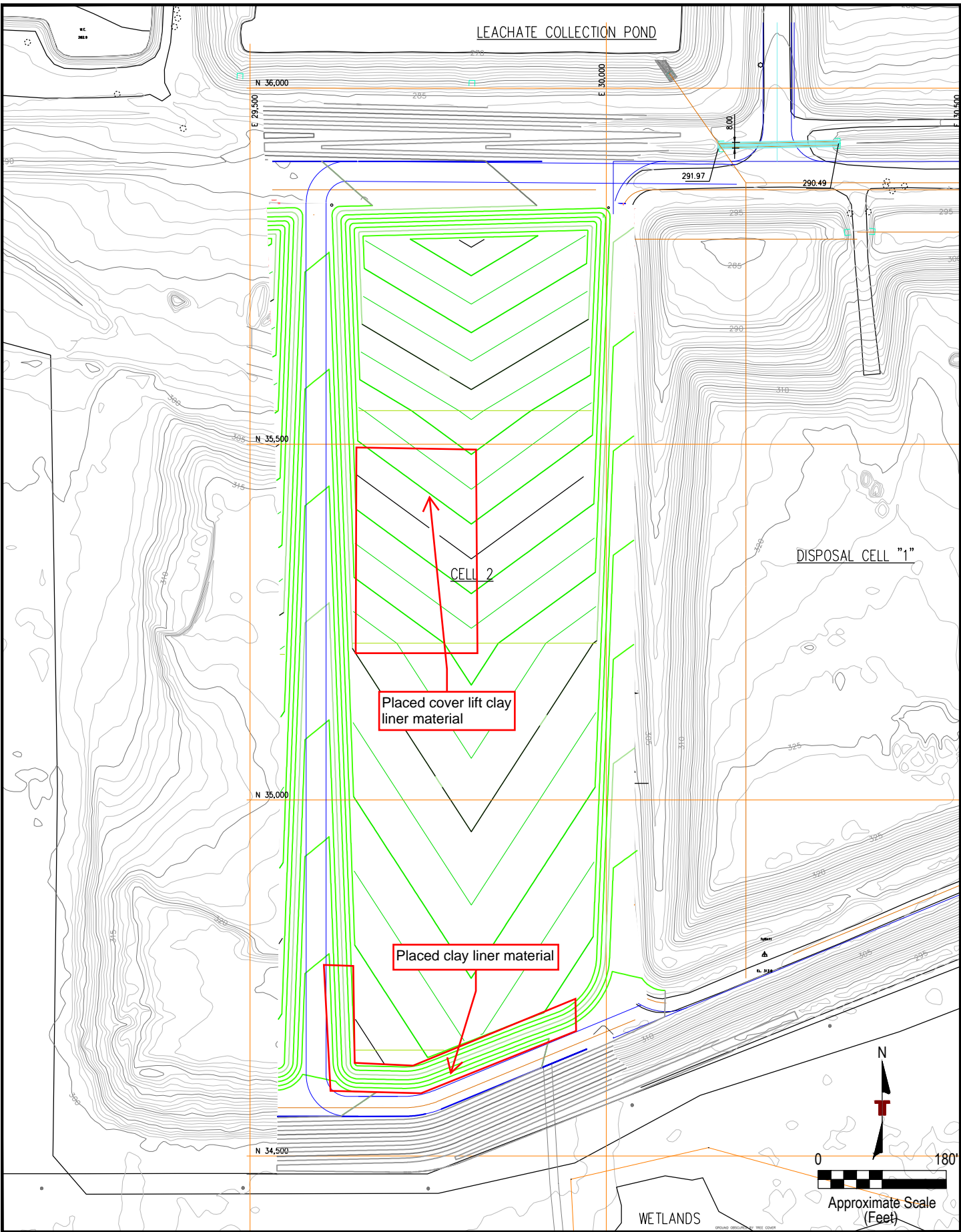
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to northern half of cell floor and south and southwest slopes.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed cover lift, placed lifts one, two, and three on south berm and began placing lift one on west berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.06.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/7/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>68°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

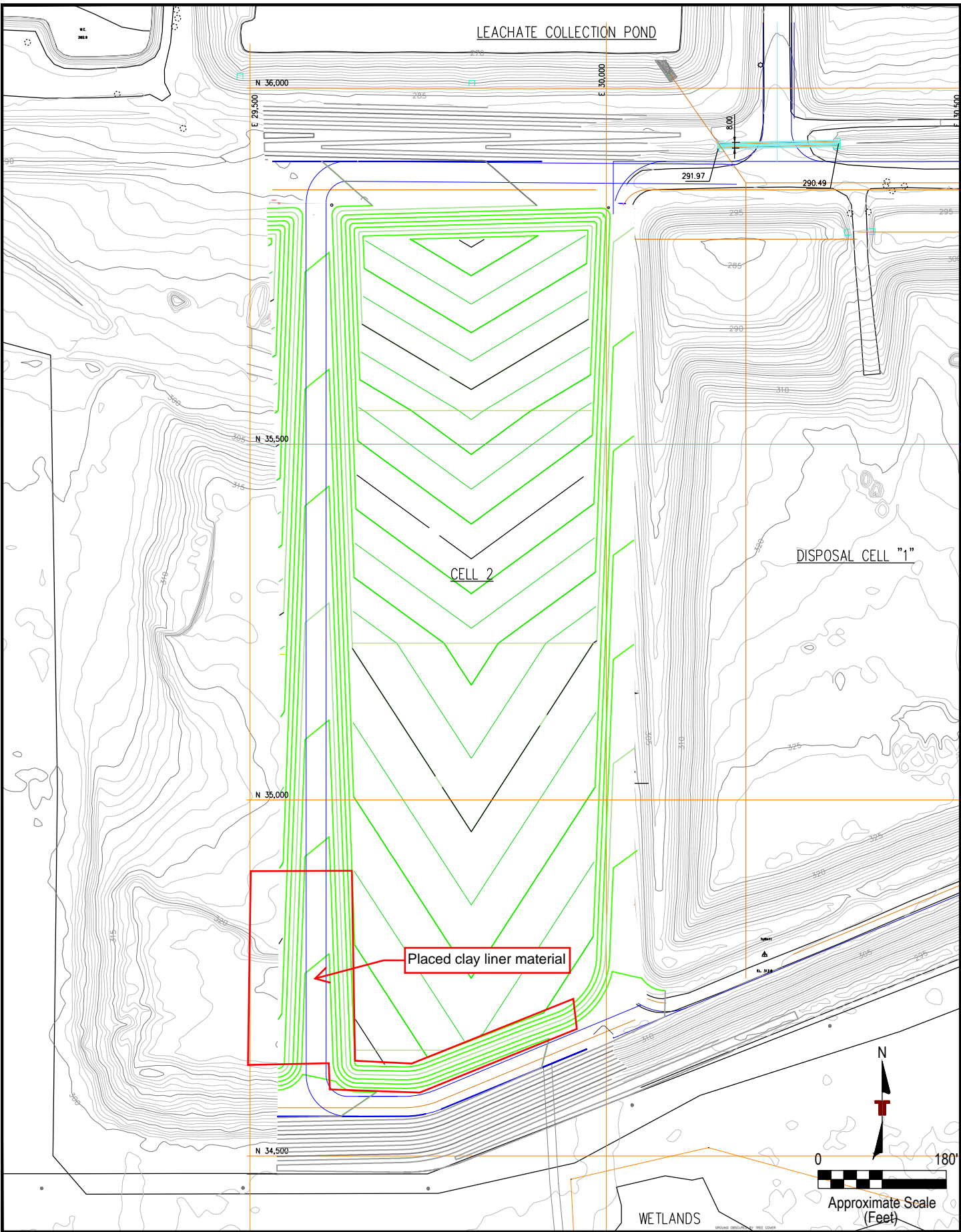
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>1</u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to south and west berms.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Placed lifts four and cover lift on south berm and completed placing lift one on west berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.07.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/8/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>68°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

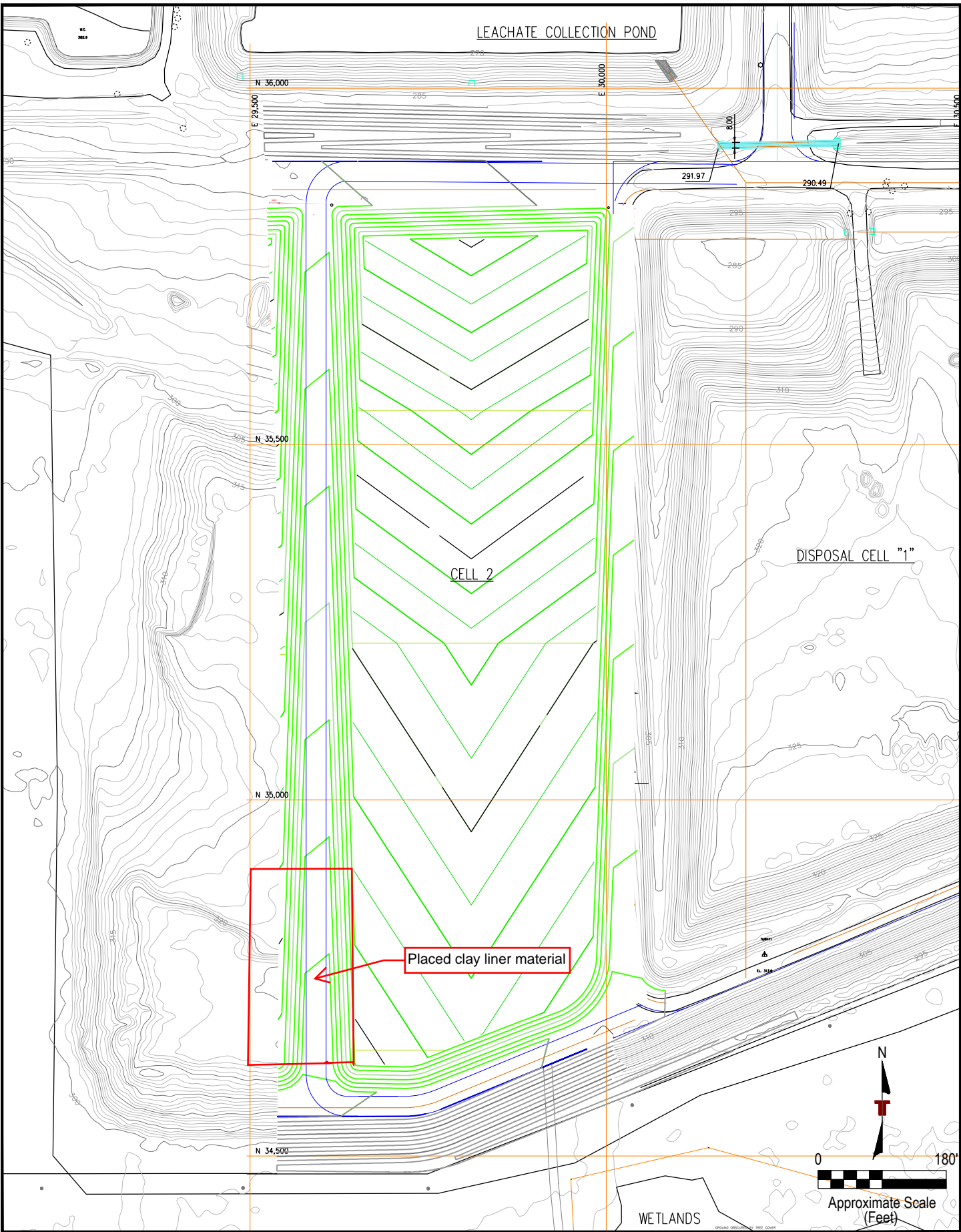
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to west berm.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing lift one and began placing lift two on west berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.08.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/9/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>69°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>7:15 PM</u>

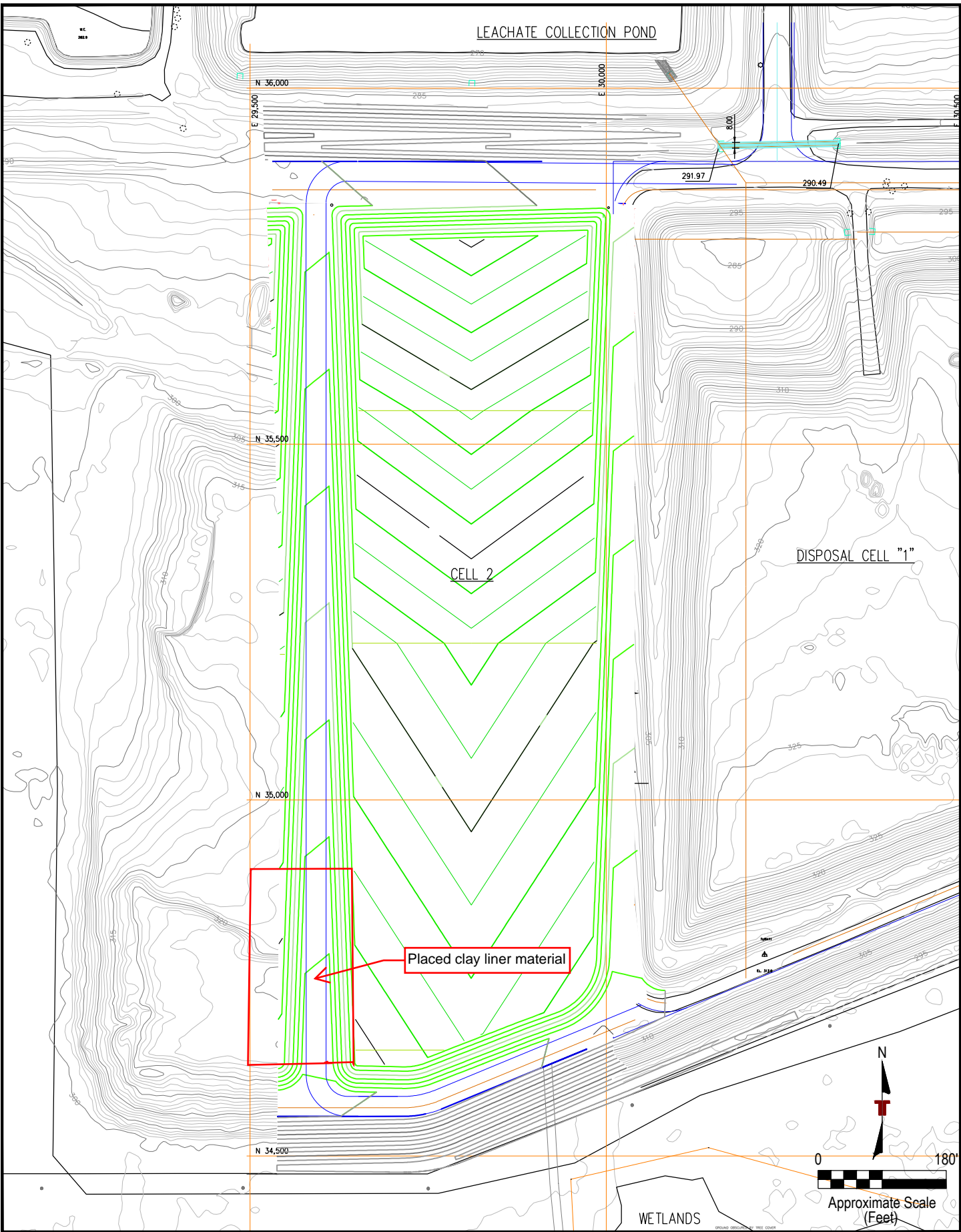
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to west berm.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing lift three and began placing lift four.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.09.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/11/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>73°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

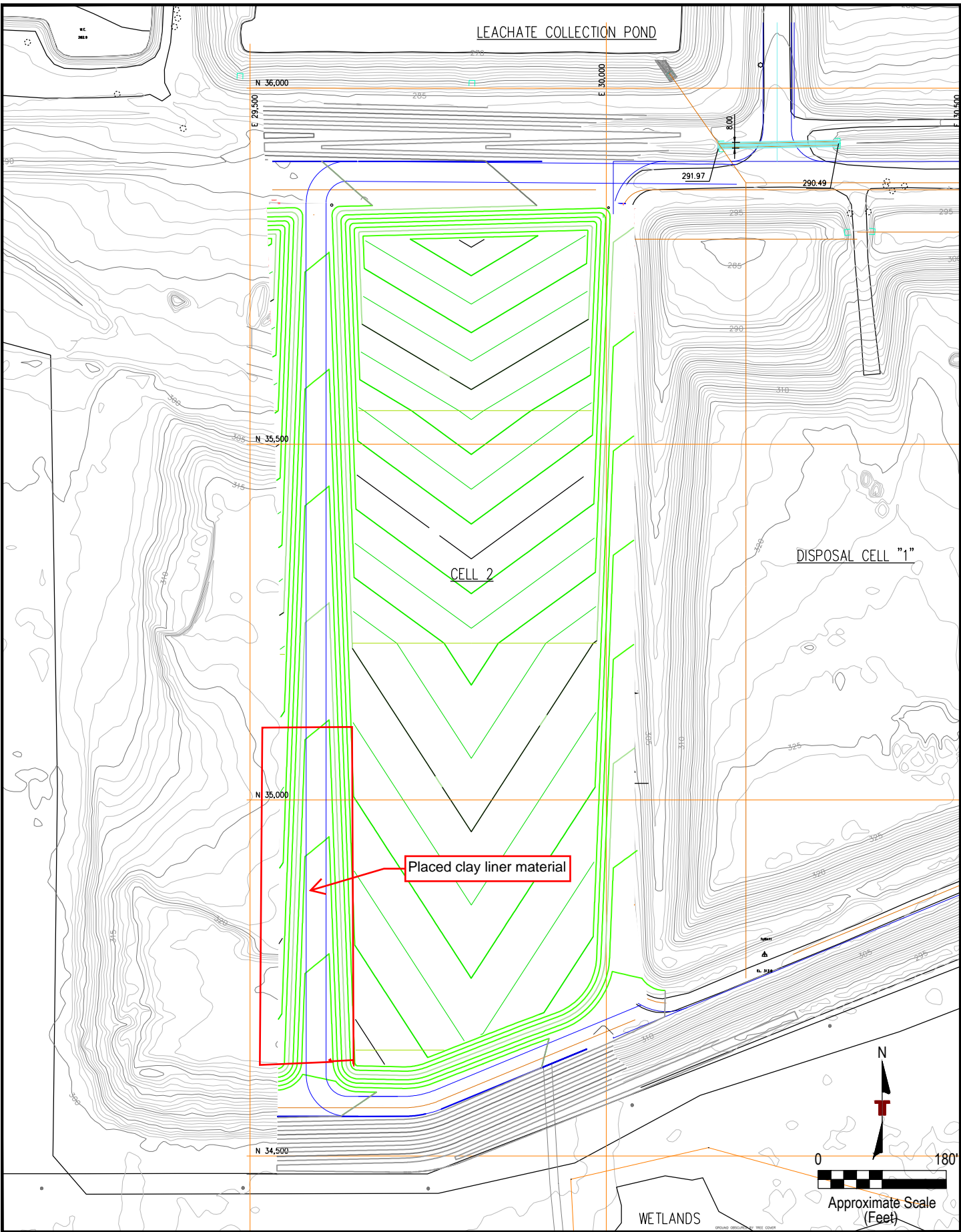
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>15</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to west berm.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing lift four and began placing cover lift.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.11.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/12/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>97°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

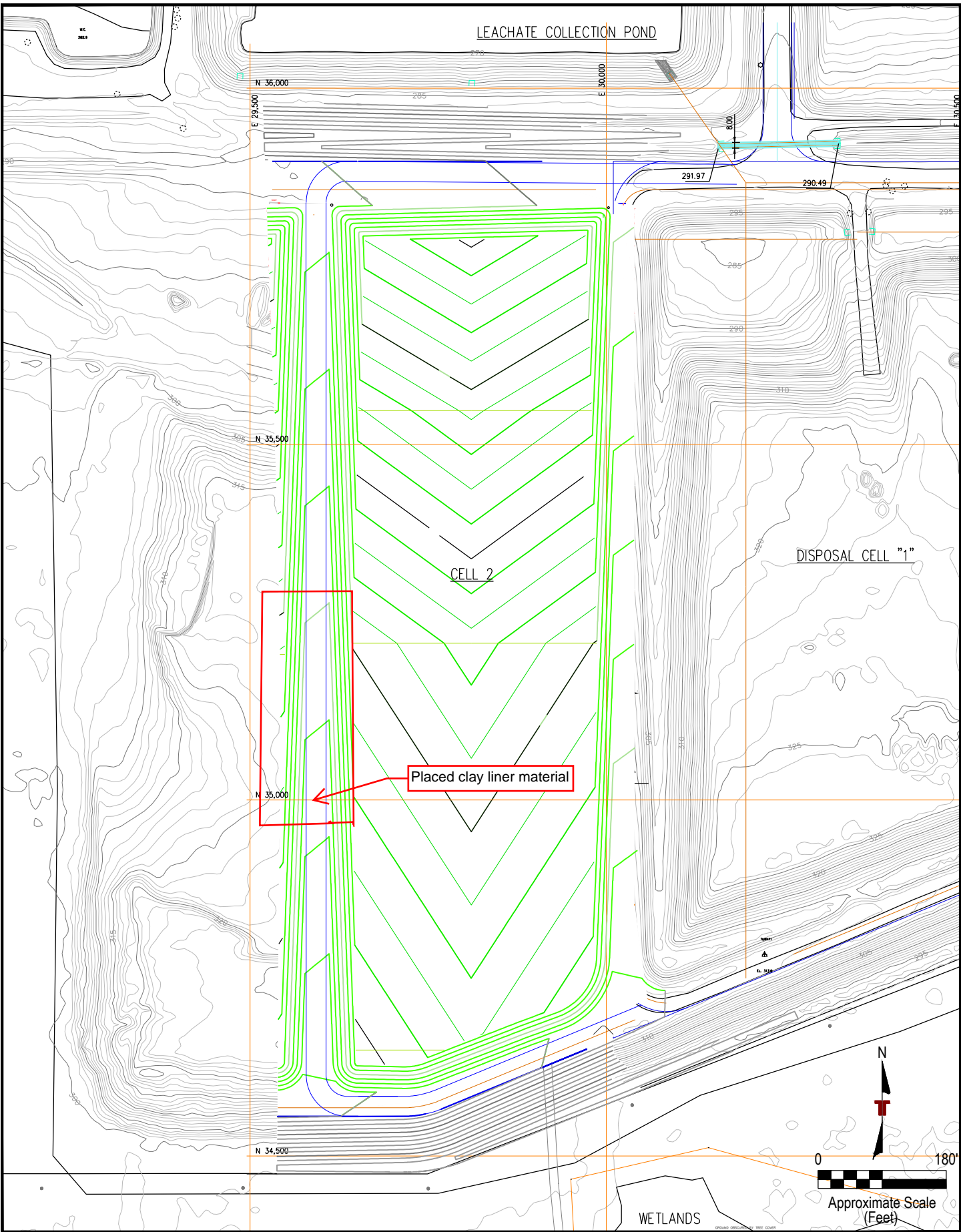
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>15</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to west berm.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing cover lift and moved north to begin placing lift one.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.13.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/13/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>95°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>6:45 PM</u>

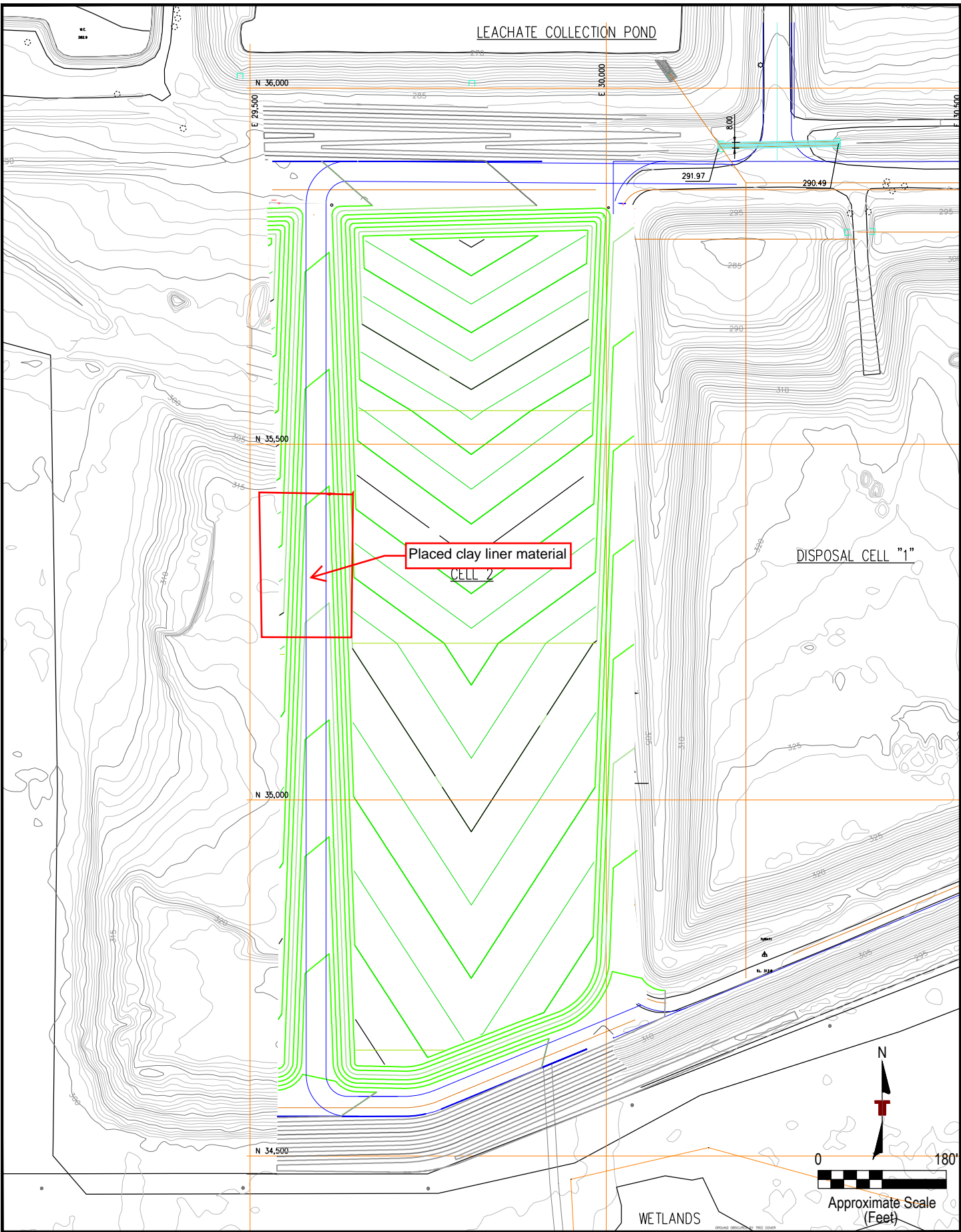
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>15</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to west berm.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing lift one and two, and began placement of lift three.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.13.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/18/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>73°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>9:30 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>11:15 AM</u>	Arrive Lab: <u>5:45 PM</u>

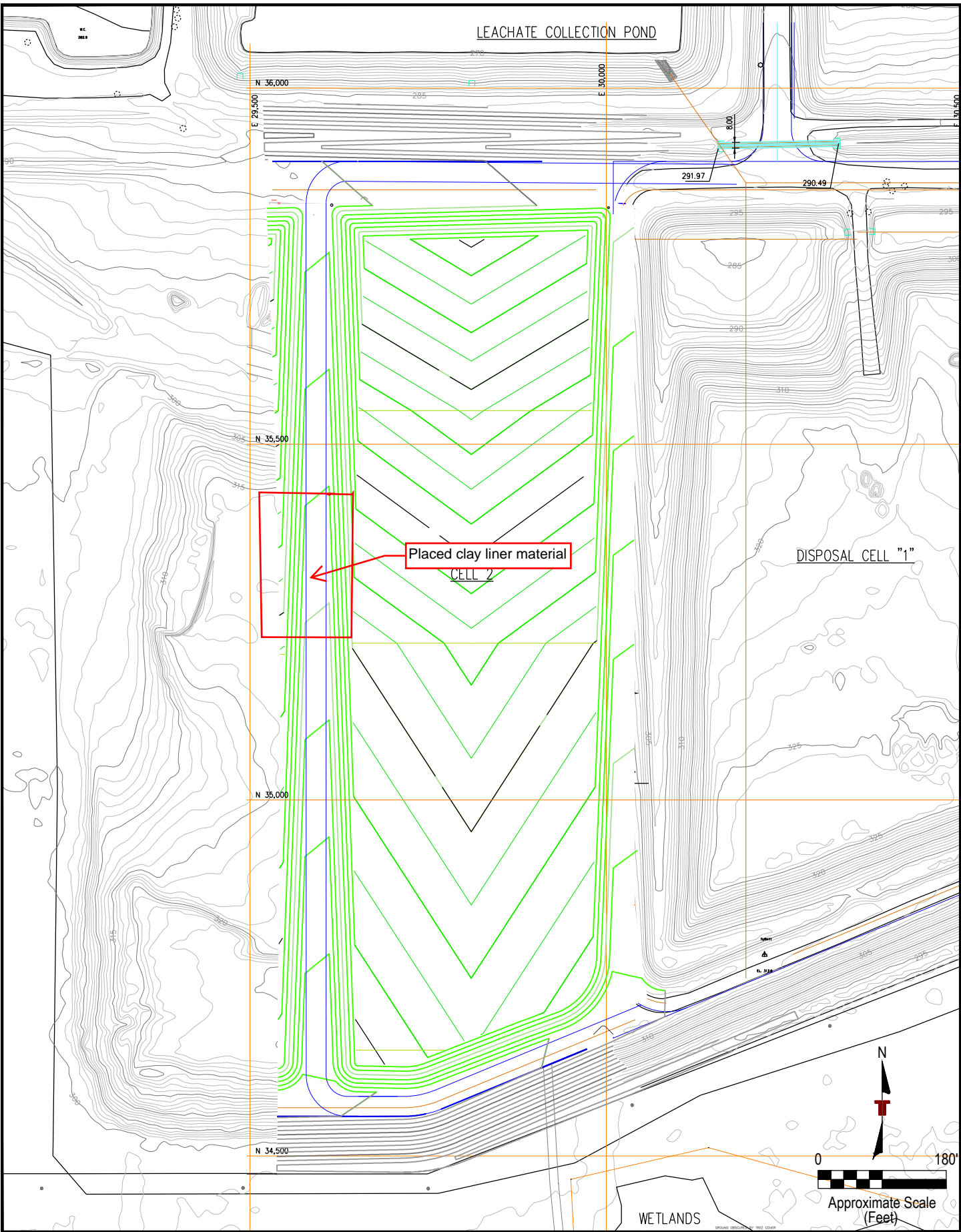
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to east berm tie-in.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Began placing lift one on east berm tie-in.</u>
COMPACTION EFFORTS:
<u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.18.18

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 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/19/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>70°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

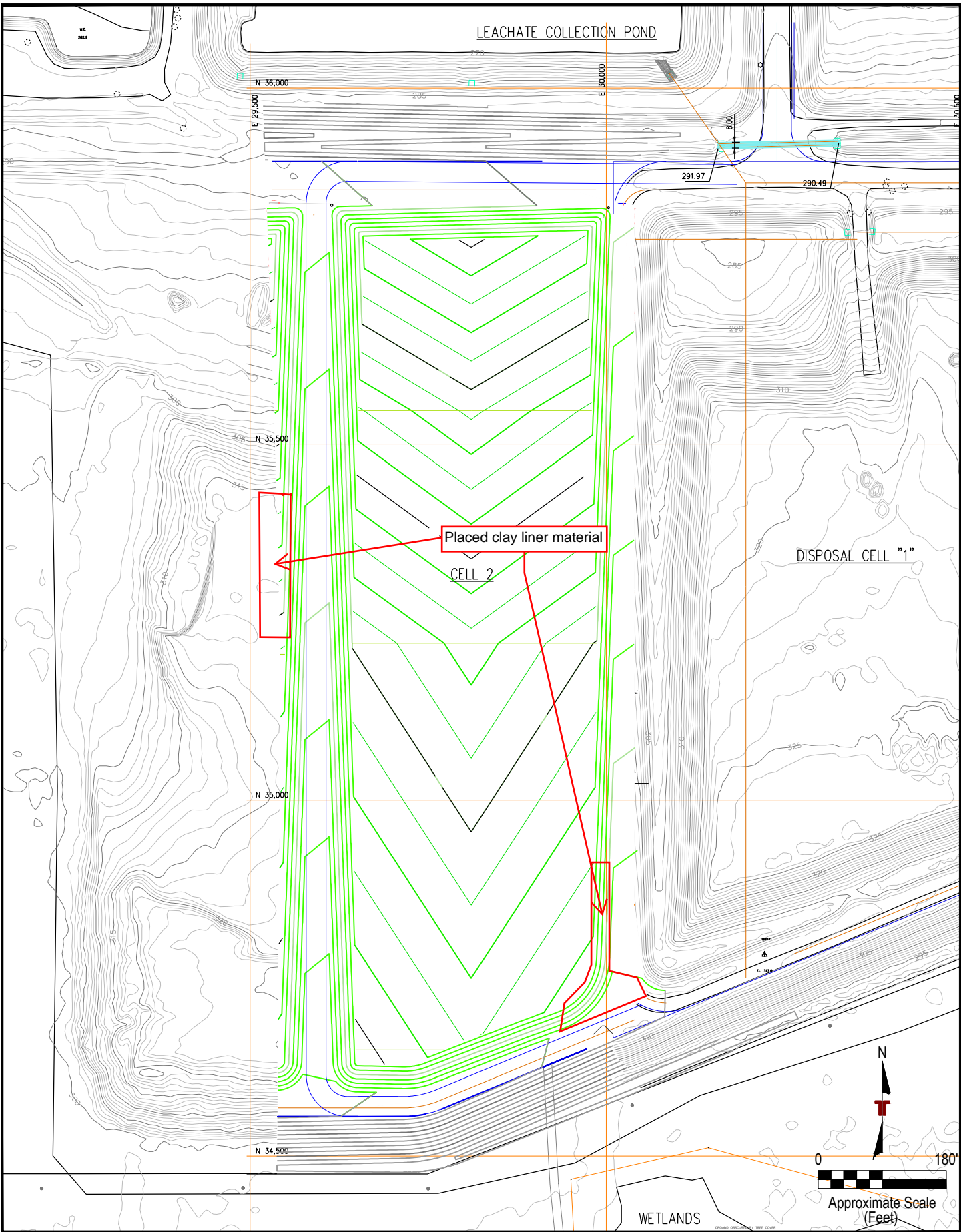
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>    </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>    </u> Skidsteer
<u>    </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>    </u> Liner Crew
<u>12</u> Contractor	<u>    </u> Liner Installer
<u>1</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to east berm tie-in and west berm.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<u>Contractor water truck wet placed material prior to placement of clay liner material and after placement to prevent dessication.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing lift one on east berm tie-in and began placing lift two. Completed lift three on west berm and began placing lift four.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Due to heat and breeze, clay liner requires intermittent water to prevent dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.20.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/20/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>8:45 AM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>10:30 AM</u>

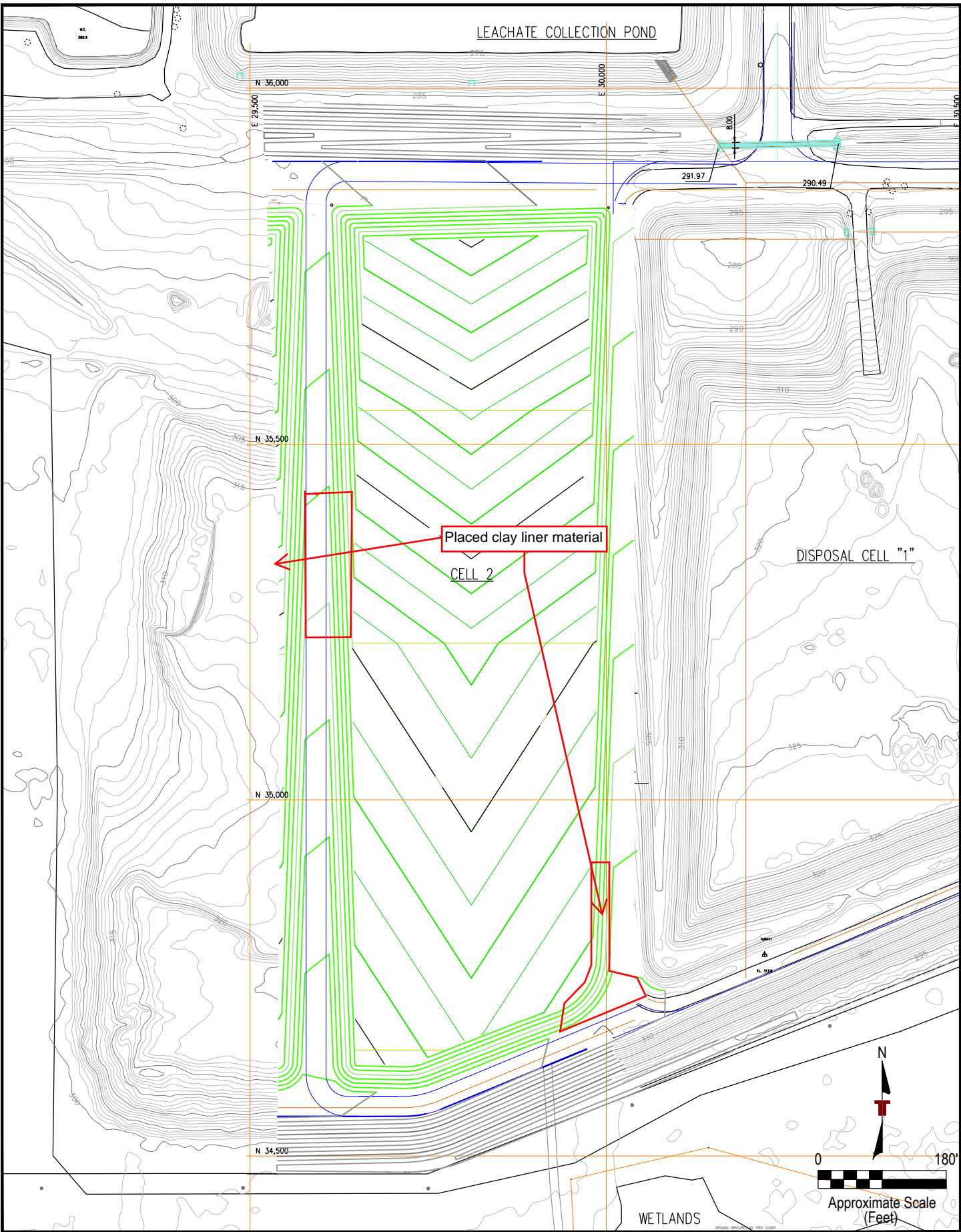
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area then loaded material into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to west berm.</u>
<u>Contractor dozers graded and spread clay liner material.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Began placing lift 4 on west berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Light rain early morning, eventual rain out.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.20.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 6/23/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>74°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>7:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>9:45 AM</u>	Arrive Lab:	<u>7:15 PM</u>

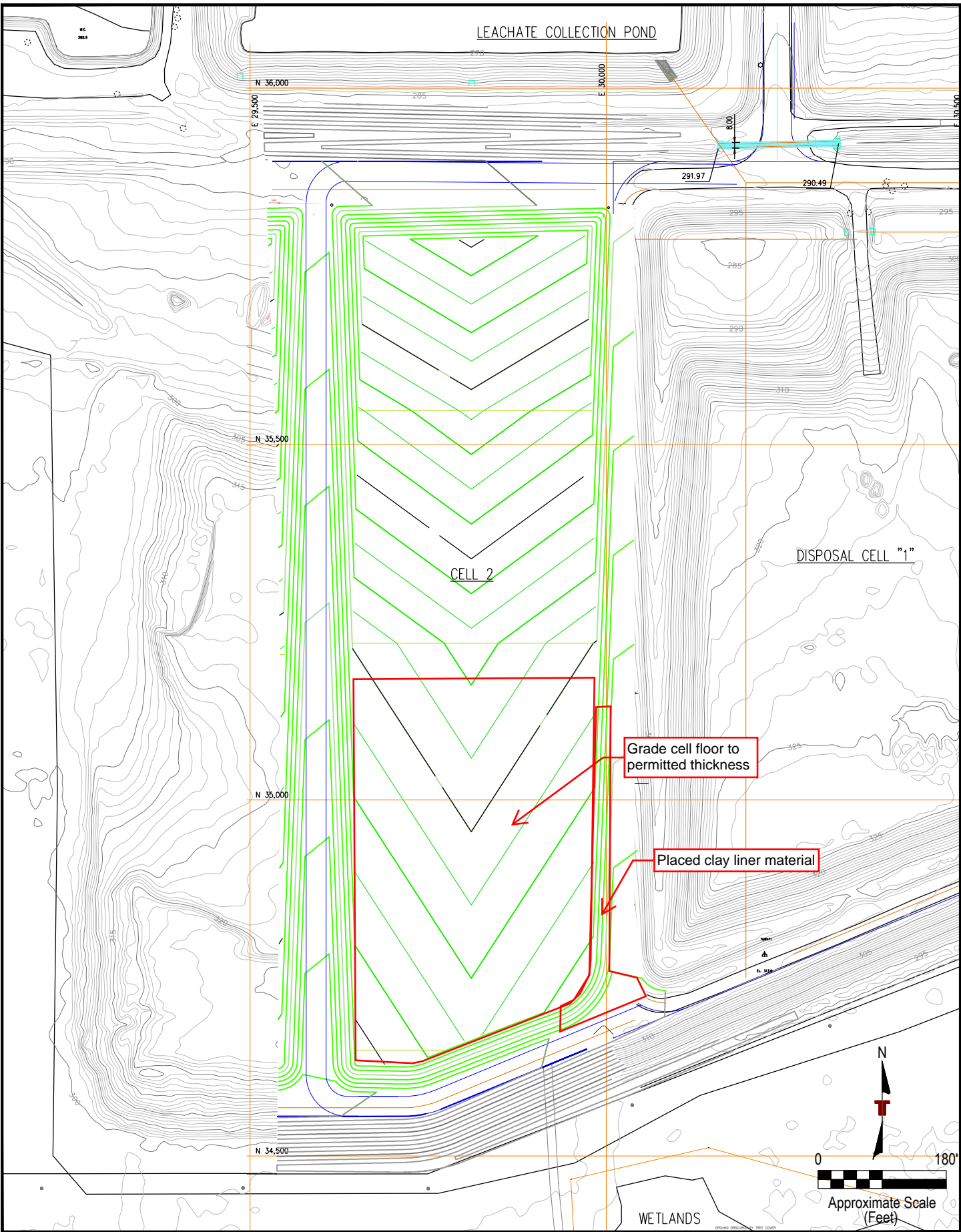
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)	_____	Tractor & Pans	_____
<u>1</u> Excavator(s)	_____	Skidsteer	_____
_____	Backhoe(s)	<u>1</u> Water Truck	_____
<u>1</u> Haul Truck(s)	_____	<u>2</u> Sheeps Foot Compactor	_____
_____	Motor Grader(s)	<u>1</u> Smooth Drum Compactor	_____

<b>PERSONNEL ONSITE:</b>			
<u>1</u> Client	_____	Liner Crew	_____
<u>8</u> Contractor	_____	Liner Installer	_____
<u>1</u> COA Consultant	_____	Concrete Crew	_____
_____	Design Engineer	_____	Pipe Installer
<u>1</u> Surveyor	_____	_____	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from cell floor and then loaded material into contractor haulers.</u> <u>Contractor hauler transported clay liner material to south east berm.</u> <u>Contractor dozers graded southern cell floor to specified grade.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed placing lift three on south east berm and began lift four.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.23.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/24/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>78°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>7:00 PM</u>

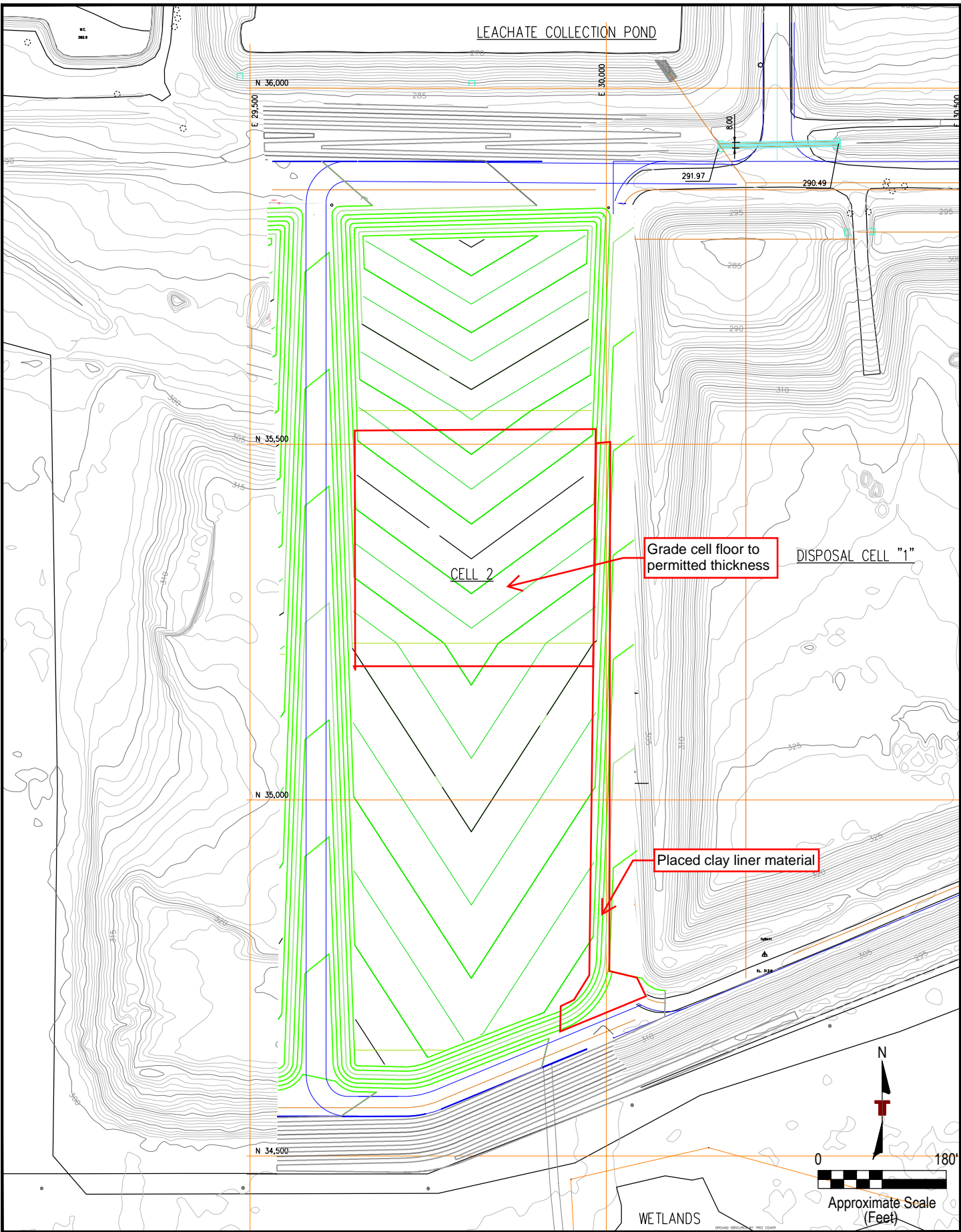
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>1</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>10</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from cell floor and then loaded material into contractor haulers.</u>
<u>Contractor hauler transported clay liner material to east berm.</u>
<u>Contractor dozers graded southern cell floor to specified grade.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing new section on east berm, lift one, two, and three; and completed lift five on east berm/south.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.24.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/25/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	70°F Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	95°F High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>4:45 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:45 AM</u>	Arrive Lab: <u>5:45 PM</u>

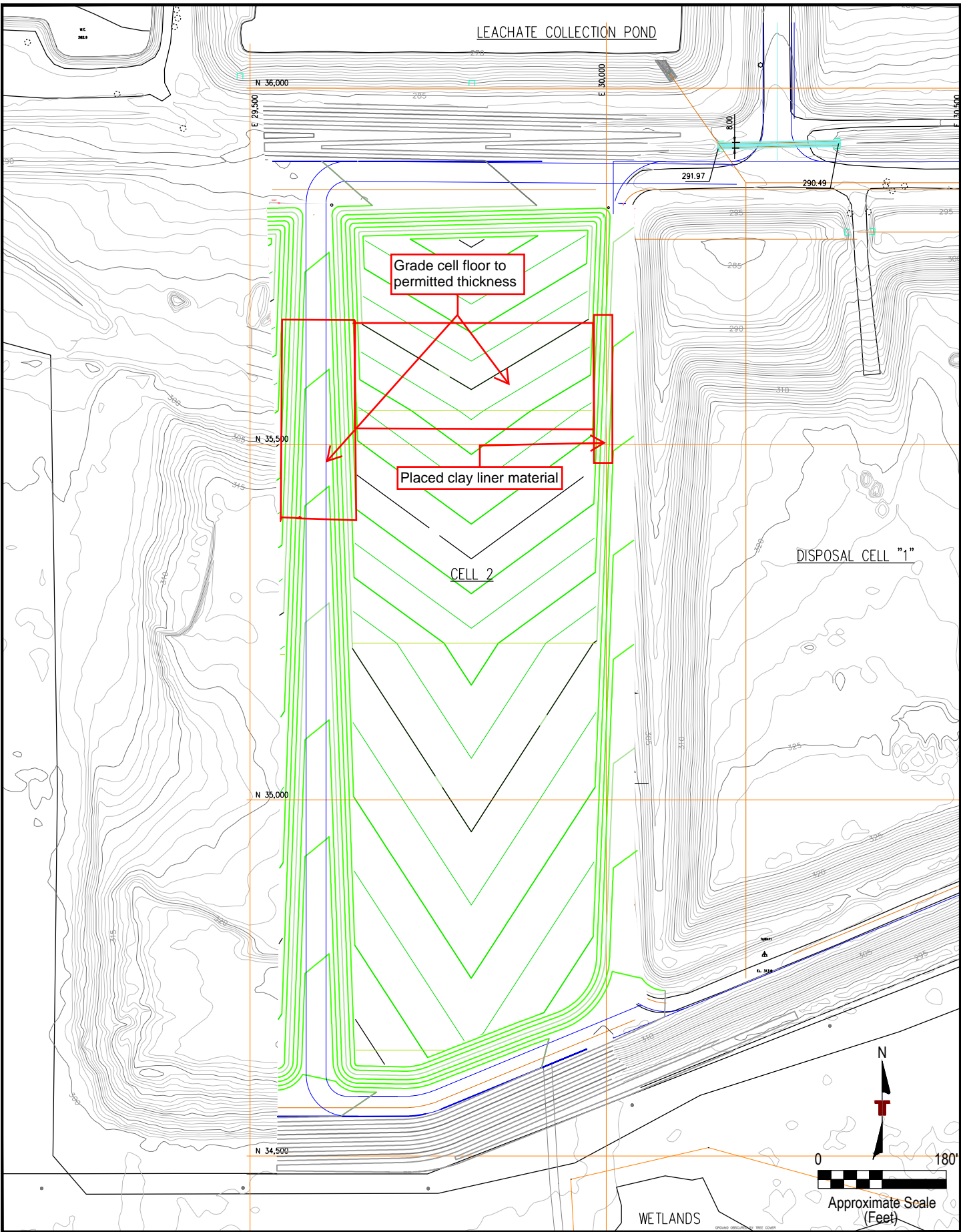
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from cell floor and then loaded material into contractor haulers.</u>
<u>Contractor hauler transported clay liner material to east and west berms.</u>
<u>Contractor dozers graded southern cell floor to specified grade.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lifts four and five on the west berm and began a new section, beginning to place lift one.</u>
<u>Completed lifts four and five on east berm and began placing a new section.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.25.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/26/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

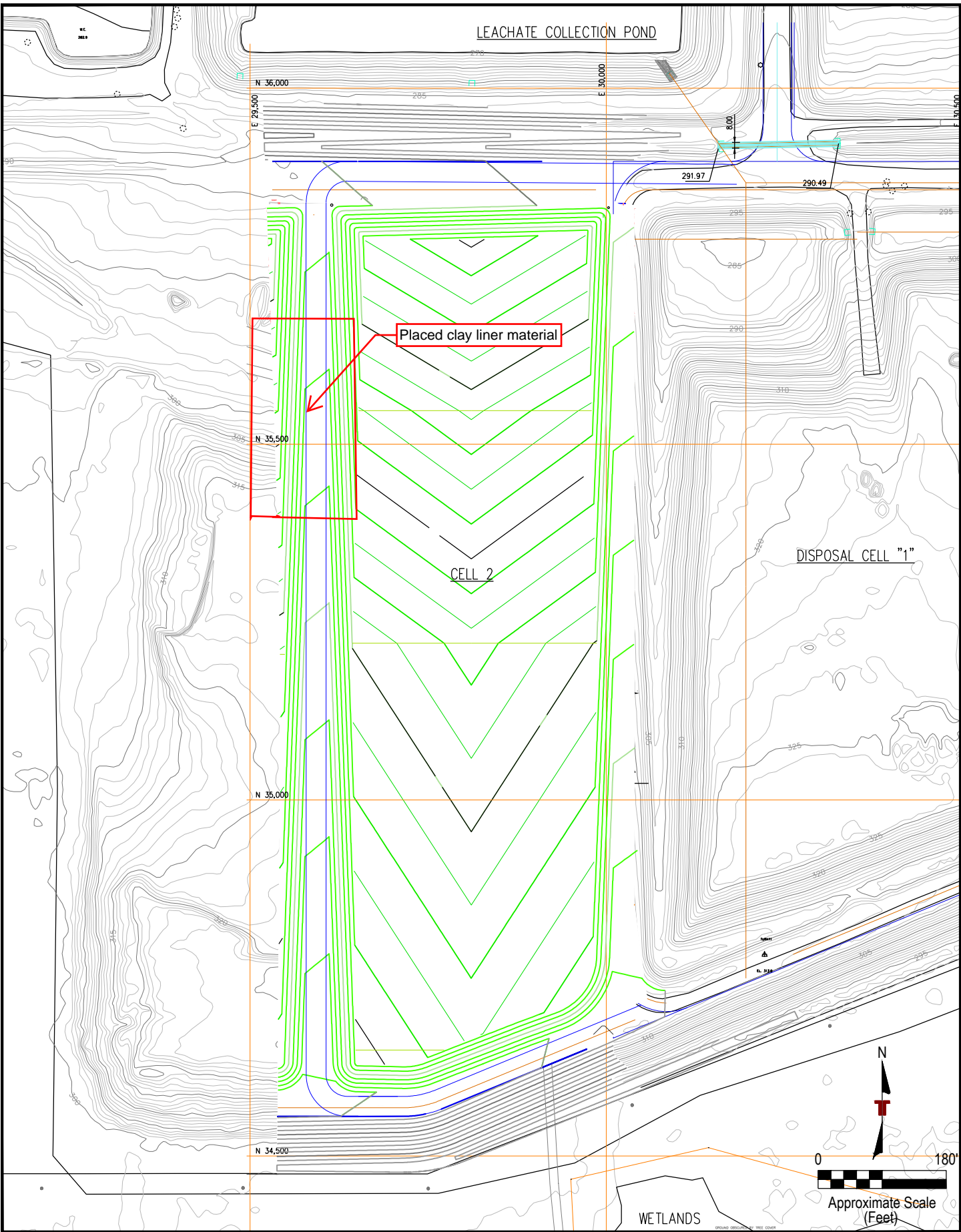
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from cell floor and then loaded material into contractor haulers.</u>
<u>Contractor hauler transported clay liner material to west berm.</u>
<u>Contractor dozers spread and graded material on west berm.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lifts one and two of a new section on west berm and began placing third.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.26.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/27/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>79°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>101°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

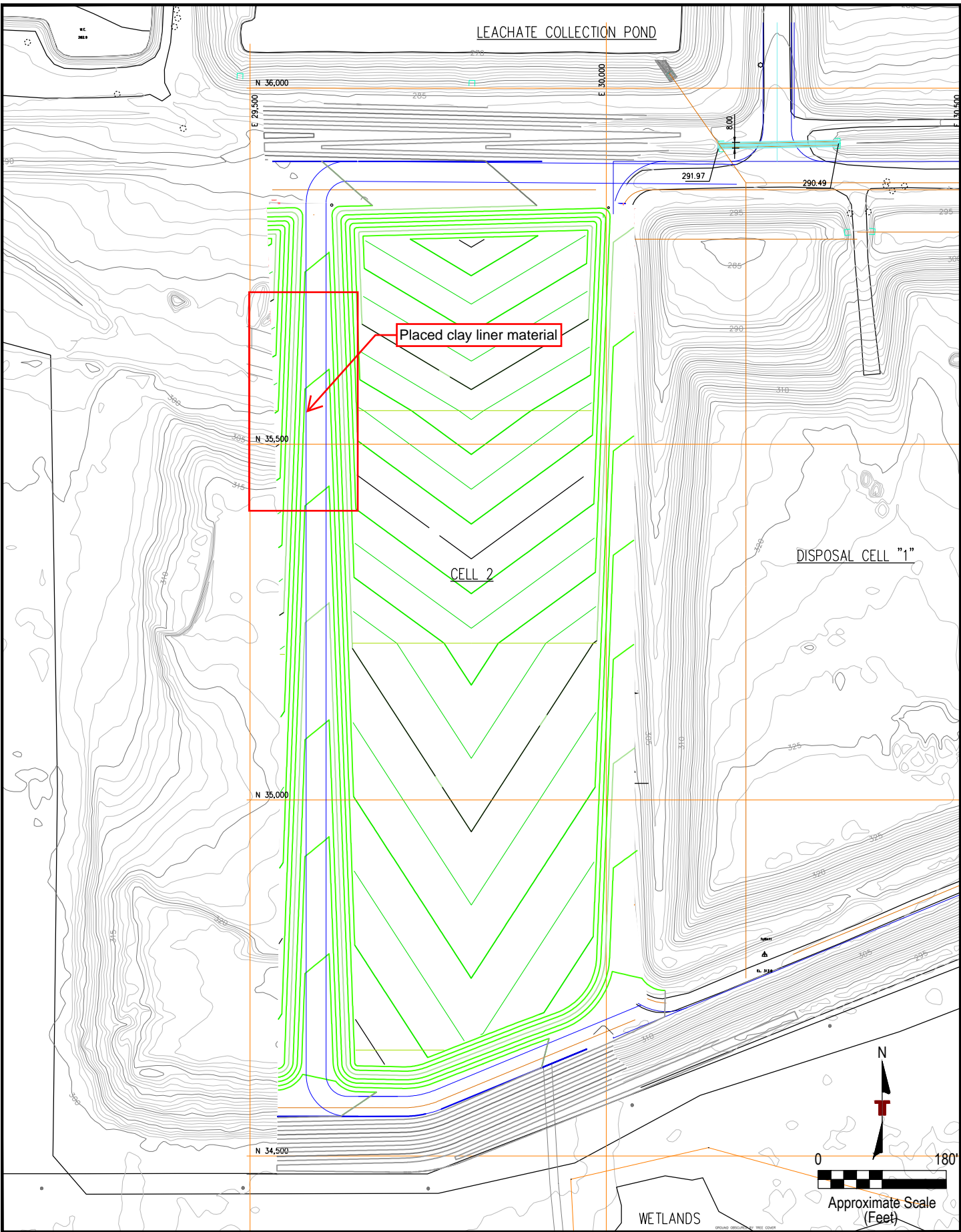
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area and loaded into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to west berm.</u>
<u>Contractor dozers spread and graded material on west berm.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner after placement.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift three and began four and began placing five; completed separate section lift one and two and began placing three.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.27.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 6/28/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>79°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>101°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

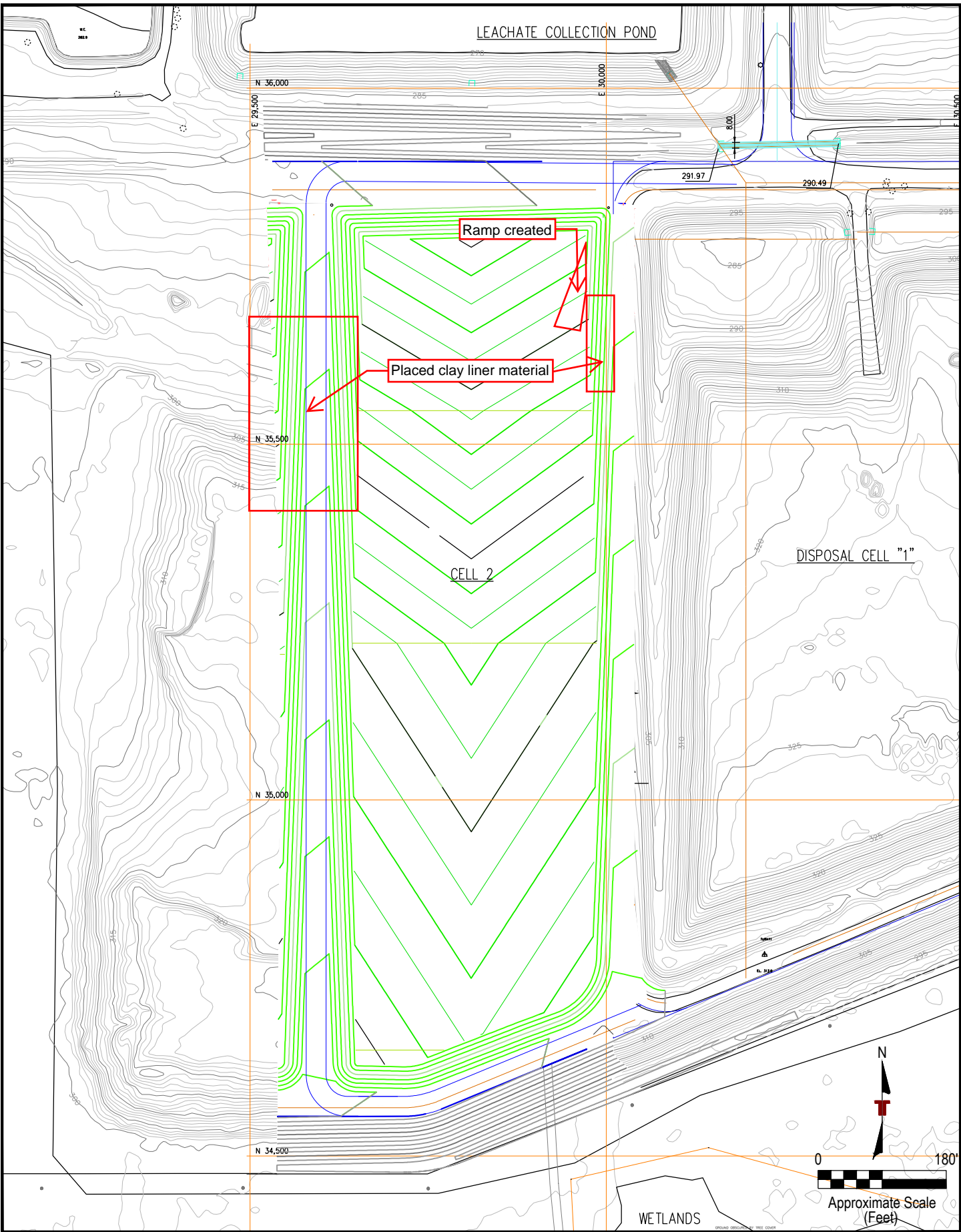
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS: <u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor excavator cut clay liner material from borrow area and loaded into contractor haulers.</u> <u>Contractor haulers transported clay liner material to east and west berm.</u> <u>Contractor dozers spread and graded material on east and west berm. Also created a ramp on east berm to make access available. Began creating ramp on west berm as well but not complete.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner after placement.</u> <u>Contractor water truck ran, wetting material before compaction</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Began placing lift five on west berm.</u>
COMPACTION EFFORTS: <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS: <u>Water truck became inoperable early in the morning slowing down placement. Technician came out same-day to make repairs.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.28.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 6/29/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>101°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

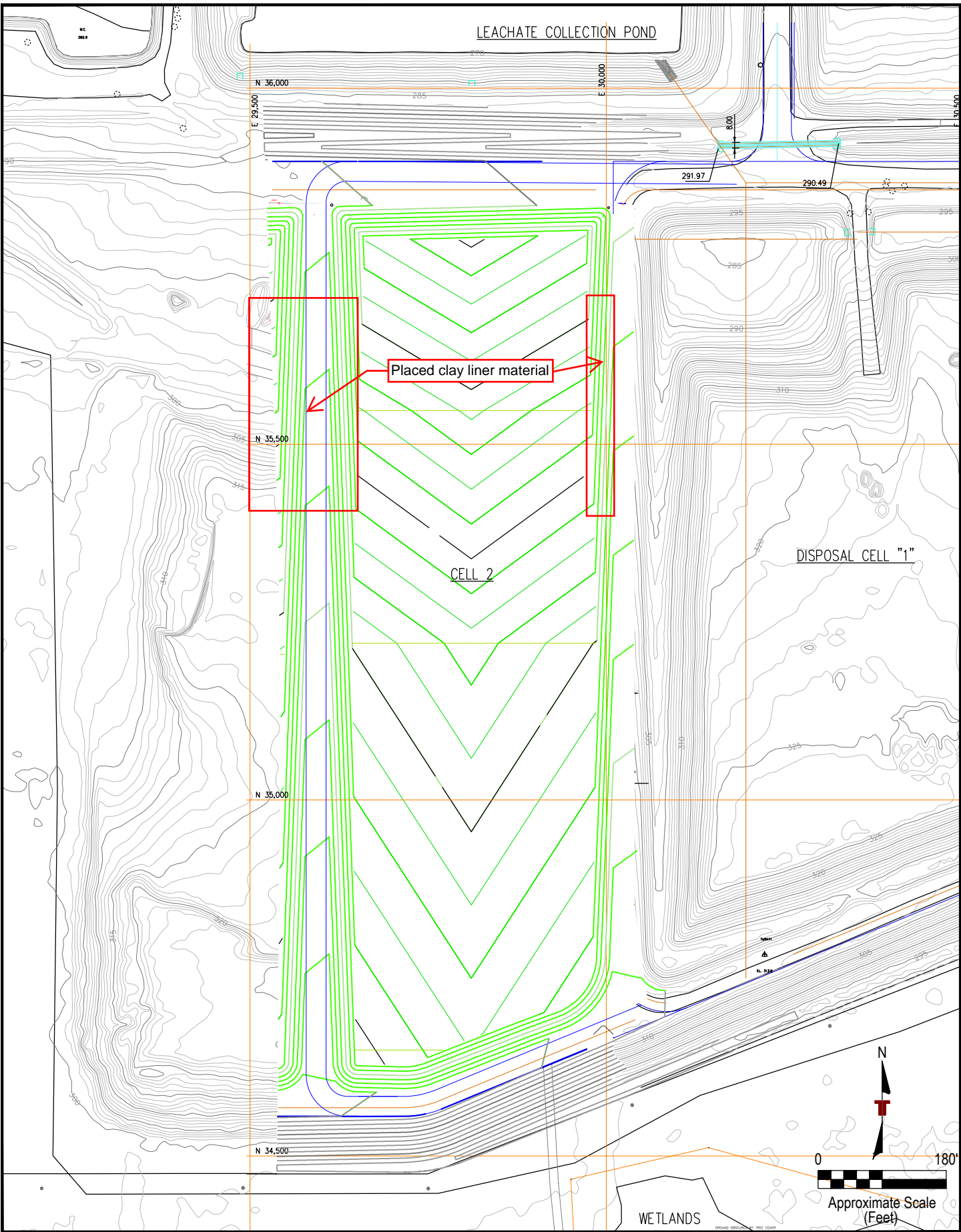
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)	_____	Tractor & Pans	_____
<u>1</u> Excavator(s)	_____	Skidsteer	_____
_____	Backhoe(s)	<u>1</u> Water Truck	_____
<u>3</u> Haul Truck(s)	_____	<u>2</u> Sheeps Foot Compactor	_____
<u>1</u> Motor Grader(s)	_____	<u>1</u> Smooth Drum Compactor	_____

<b>PERSONNEL ONSITE:</b>			
<u>2</u> Client	_____	Liner Crew	_____
<u>12</u> Contractor	_____	Liner Installer	_____
<u>1</u> COA Consultant	_____	Concrete Crew	_____
_____	Design Engineer	Pipe Installer	_____
_____	Surveyor	Gas Line Inst.	_____

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut clay liner material from borrow area and loaded into contractor haulers.</u> <u>Contractor haulers transported clay liner material to east and west berm.</u> <u>Contractor dozers spread and graded material on east and west berm.</u> <u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner after placement.</u> <u>Contractor water truck ran, wetting material before compaction.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Placed lift sections two, three, four, and five on west berm. Placed lift sections two and four.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Dry and windy conditions dry out material, frequent runs by water truck prevented dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.29.18

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 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 6/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>98°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:00 PM</u>

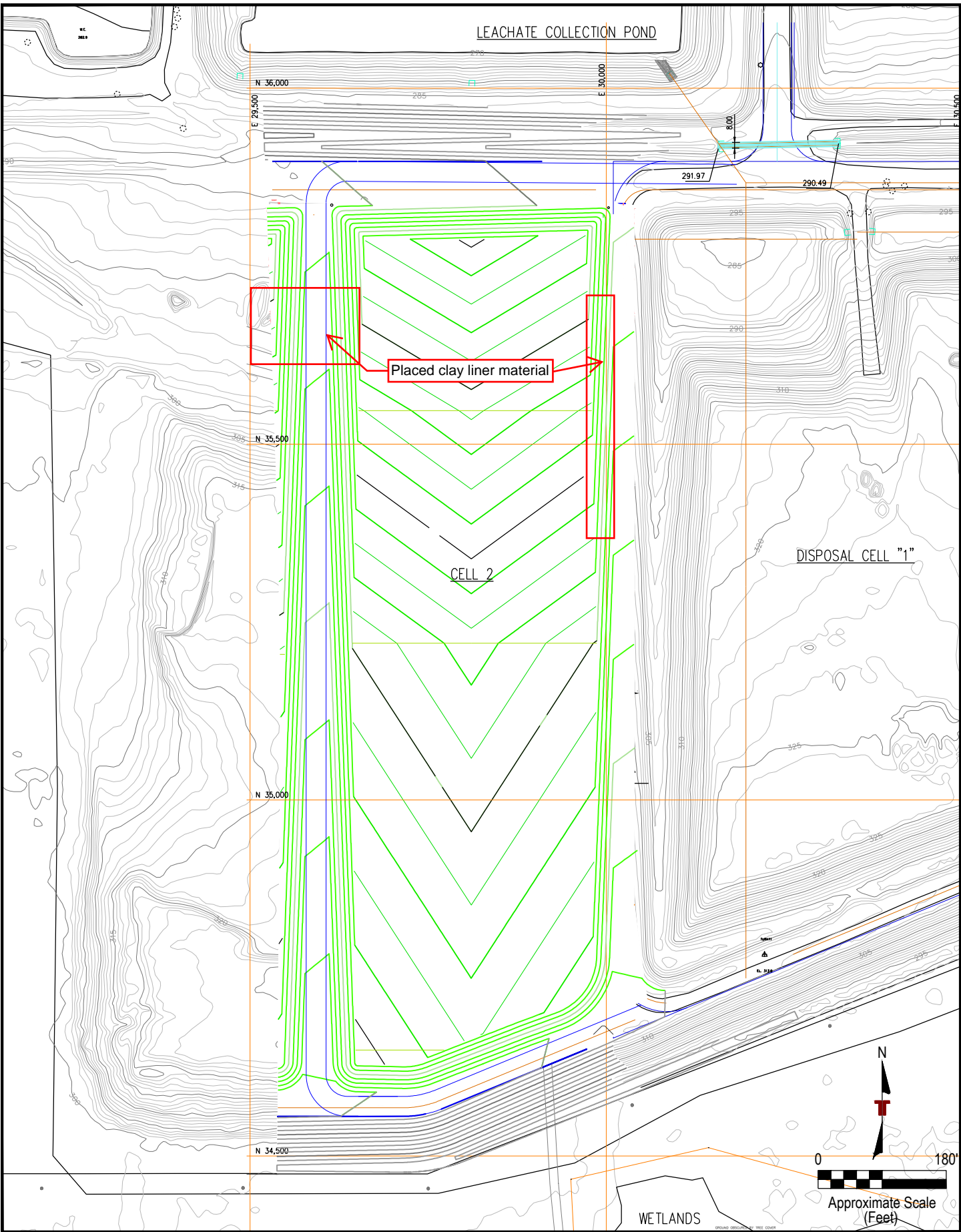
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from borrow area and loaded into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to east and west berm.</u>
<u>Contractor dozers spread and graded material on east and west berm.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner after placement.</u>
<u>Contractor water truck ran, wetting material before compaction.</u>
<u>Began placing material for subgrade at north end of cell floor.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift five on east and west berm.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Dry and windy conditions dry out material, frequent runs by water truck prevented dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	6.30.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/1/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>96°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>4:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>4:45 PM</u>

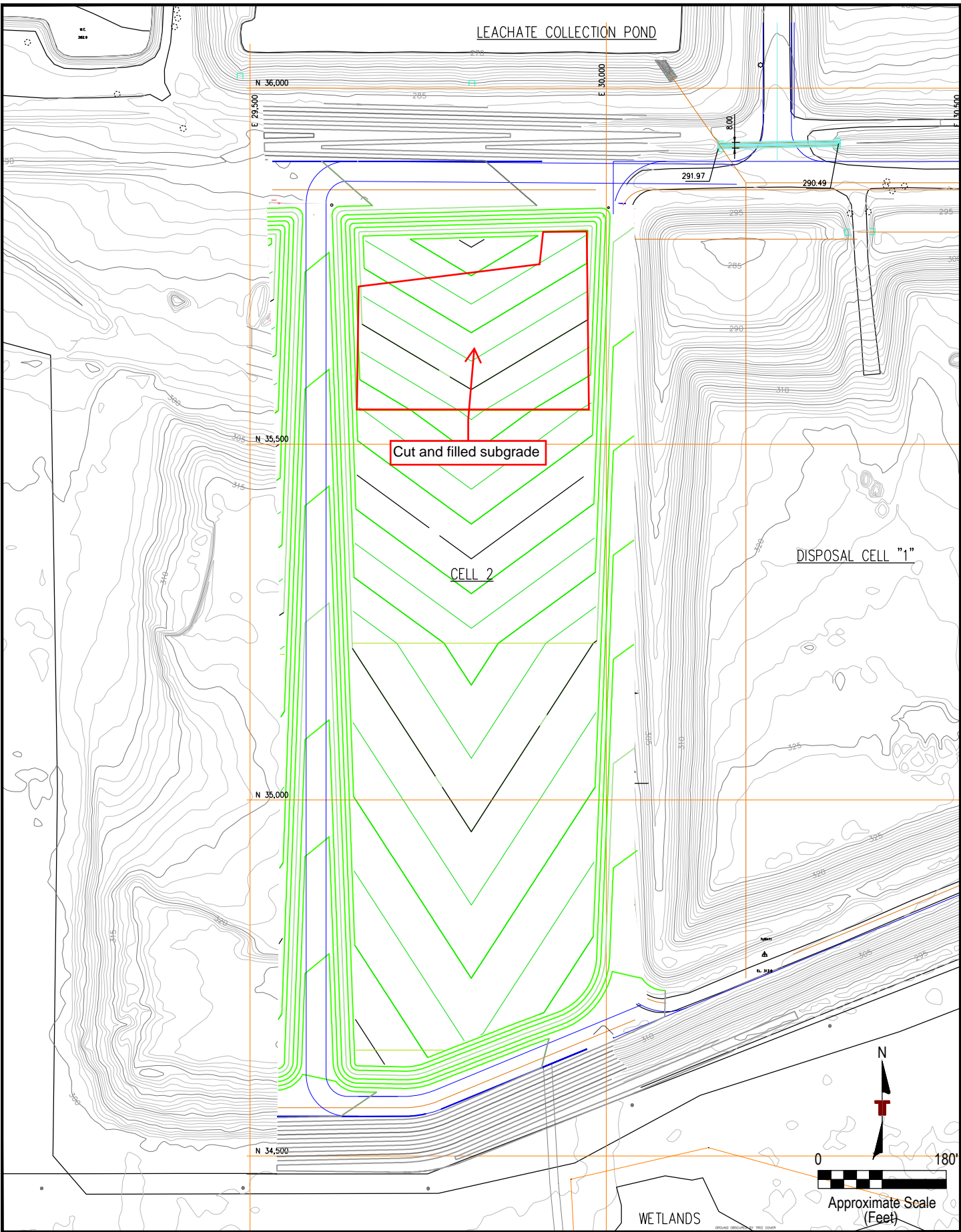
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut clay liner material from north end of cell and loaded into contractor haulers.</u>
<u>Contractor haulers transported clay liner material to subgrade area at north end of cell floor.</u>
<u>Contractor dozers spread and graded material for subgrade at north end of cell floor.</u>
<u>Contractor sheeps foot scarified prior to placement of clay liner and compacted clay liner after placement.</u>
<u>Contractor water truck ran, wetting material before compaction.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued filling subgrade at north end of cell</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Dry and windy conditions dry out material, frequent runs by water truck prevented dessication. GPS receiver on one of the contractor dozers went out and was irreparable for the afternoon. Ended day at 4:00 PM.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr: TLB  
 Drawn By: MJA  
 Checked By: TLB  
 Approved By: TLB

Project No. 35177127  
 Scale: AS SHOWN  
 File No. 000  
 Date: 7.01.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 7/2/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>104°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

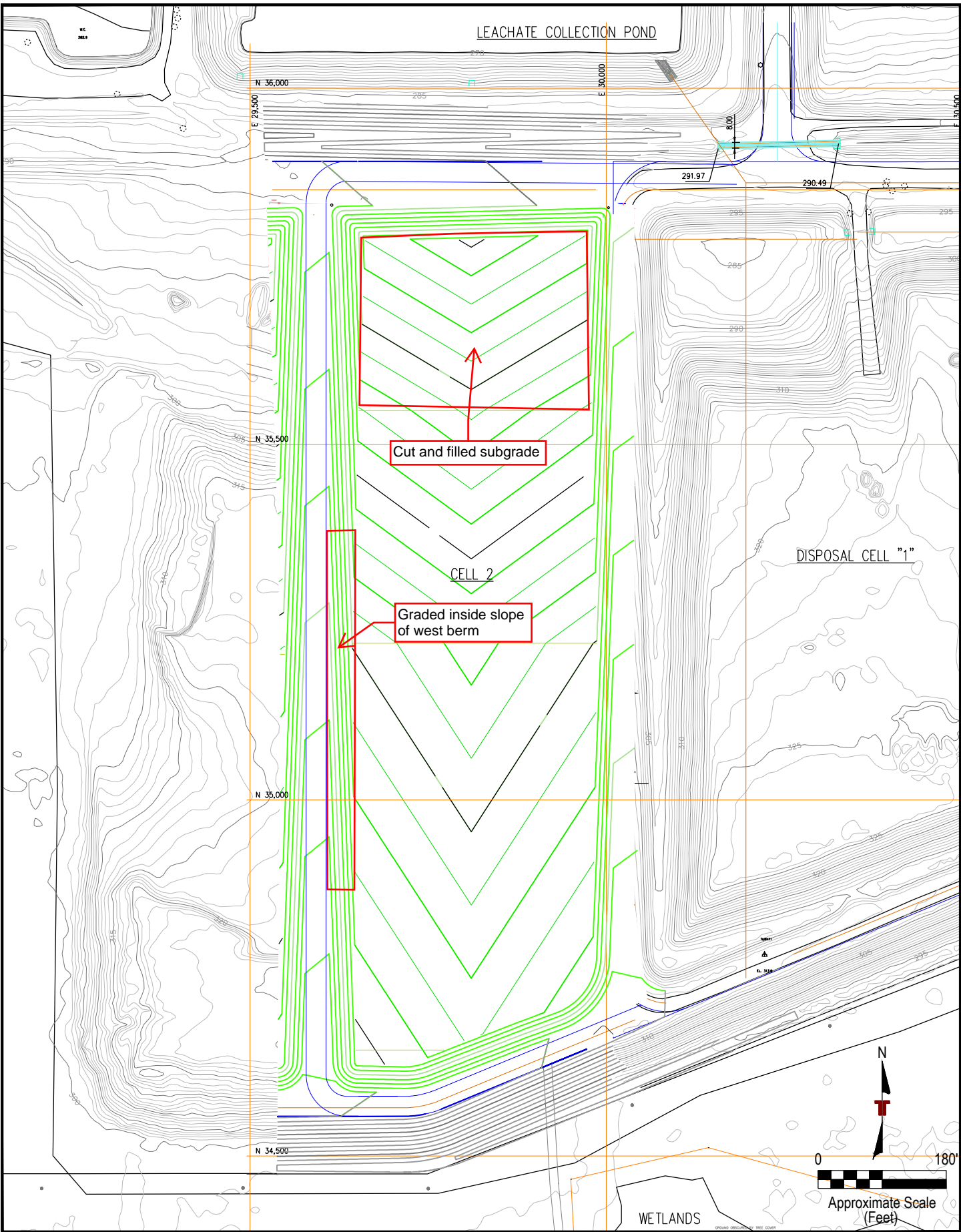
<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator loaded clay liner material from west berm to north end of cell floor.</u> <u>Contractor haulers transported structural fill material to subgrade area at north end of cell floor.</u> <u>Contractor dozers spread and graded structural fill material for subgrade at north end of cell floor. Also graded inside slope of west berm.</u> <u>Contractor water truck ran, wetting material before compaction</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Continued filling subgrade at north end of cell</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Dry and windy conditions dry out material, frequent runs by water truck prevented dessication.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.02.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 7/3/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>103°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

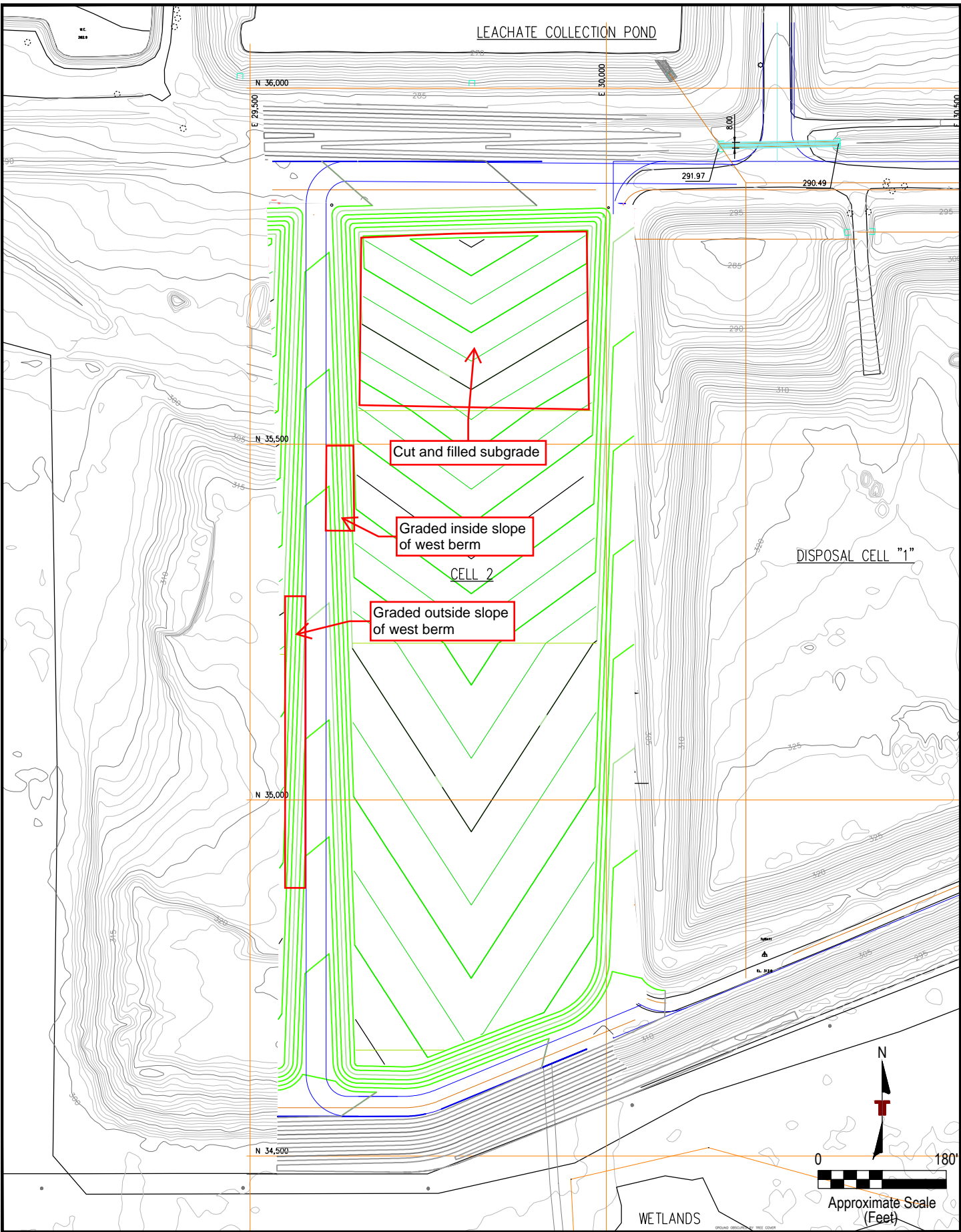
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe placement of clay liner and to perform density tests.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator loaded clay liner material from west berm into haulers.</u>  <u>Contractor haulers transported clay liner material to subgrade area at north end of cell floor.</u>  <u>Contractor dozers spread and graded material for subgrade at north end of cell floor. Also graded inside and outside slope of west berm.</u>  <u>Contractor water truck ran, wetting material before compaction</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b> Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>  <u>Dry and windy conditions dry out material, frequent runs by water truck prevented dessication.</u></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.03.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

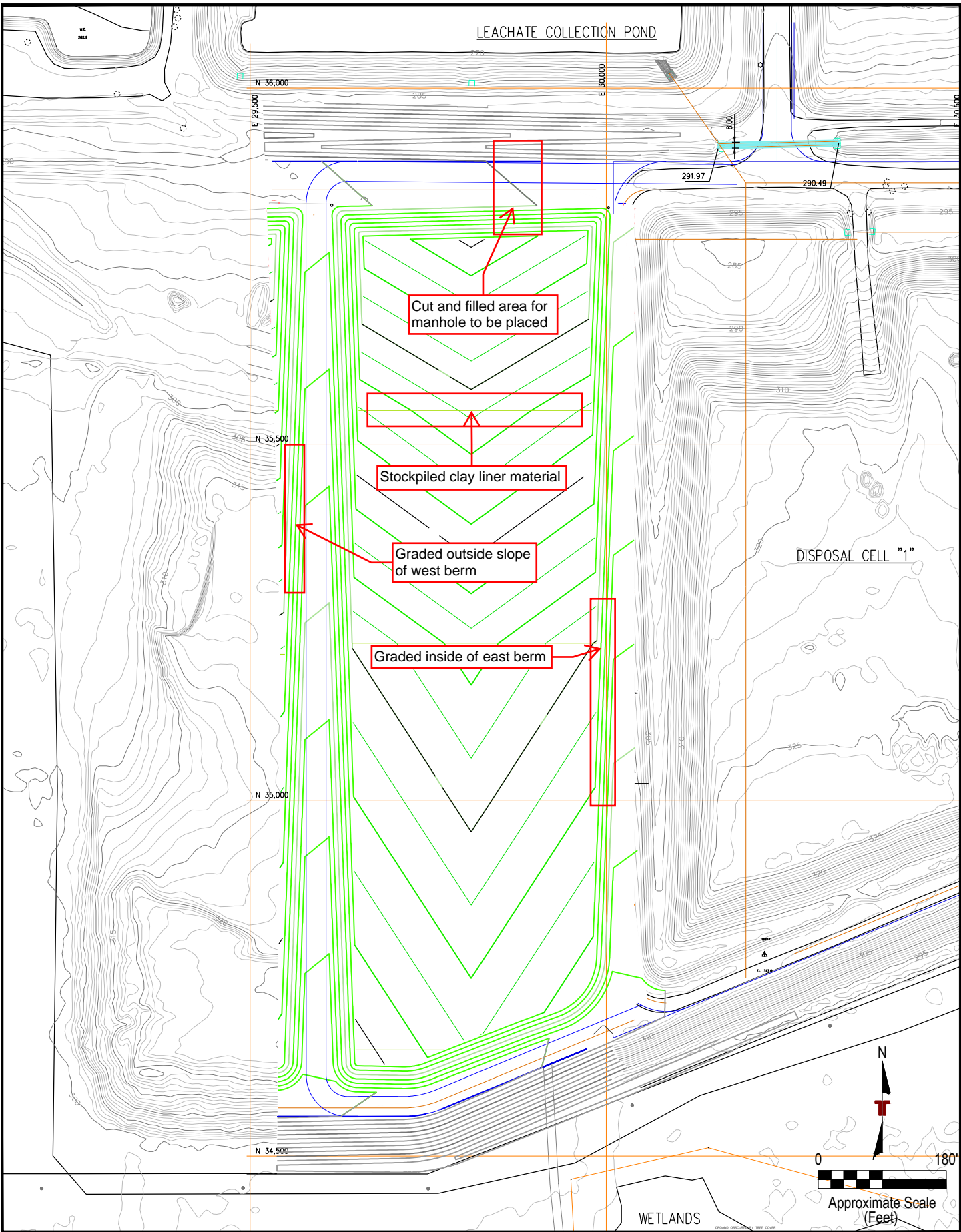
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>2</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
<u>      </u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator loaded clay liner material from east and west berm into haulers. Also cut existing material from northern side of north berm in anticipation of manhole placement and loaded material into haulers.</u>
<u>Contractor haulers transported clay liner material to subgrade area at north end of cell floor. Also transported north berm structural fill material to overburden pile.</u>
<u>Contractor dozers graded outside slope of west berm and inside slope of east berm.</u>
<u>Contractor water truck ran, wetting material before compaction</u>
<u>Contractor smooth drum compacted and leveled south end of cell floor in anticipation of certification for liner placement.</u>
<u>      </u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: No lifts added.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<u>      </u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Dry and windy conditions dry out material, frequent runs by water truck prevented dessication.</u>
<u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.04.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/5/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>3:30 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:15 PM</u>

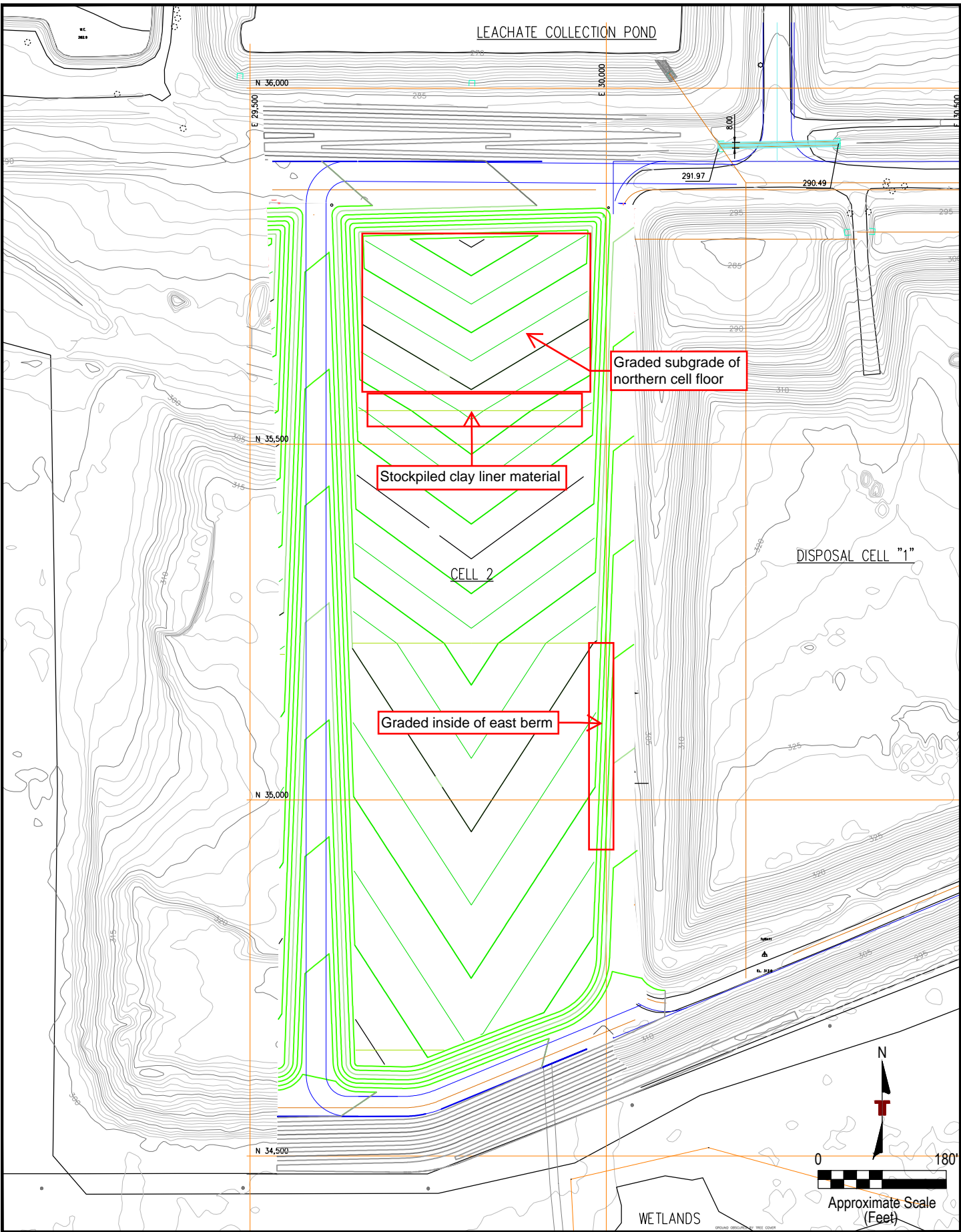
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator loaded clay liner material from east berm and north area subgrade into haulers.</u>
<u>Contractor haulers transported clay liner material to subgrade area at north end of cell floor. Also transported north berm structural fill material to overburden pile.</u>
<u>Contractor dozers graded inside slope of east berm and north cell floor subgrade.</u>
<u>Contractor water truck ran, wetting material before compaction</u>
<u>Contractor smooth drum compacted and leveled south end of cell floor in anticipation of certification for liner placement. Contractor workers filled in any low areas to be compacted.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: No lifts added.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Dry and windy conditions dry out material, frequent runs by water truck prevented dessication. Pop-up thunderstorm in the afternoon shut down the operation of heavy equipment at around 3:15 PM.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.05.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 7/10/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>74°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>100°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>5:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>7:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

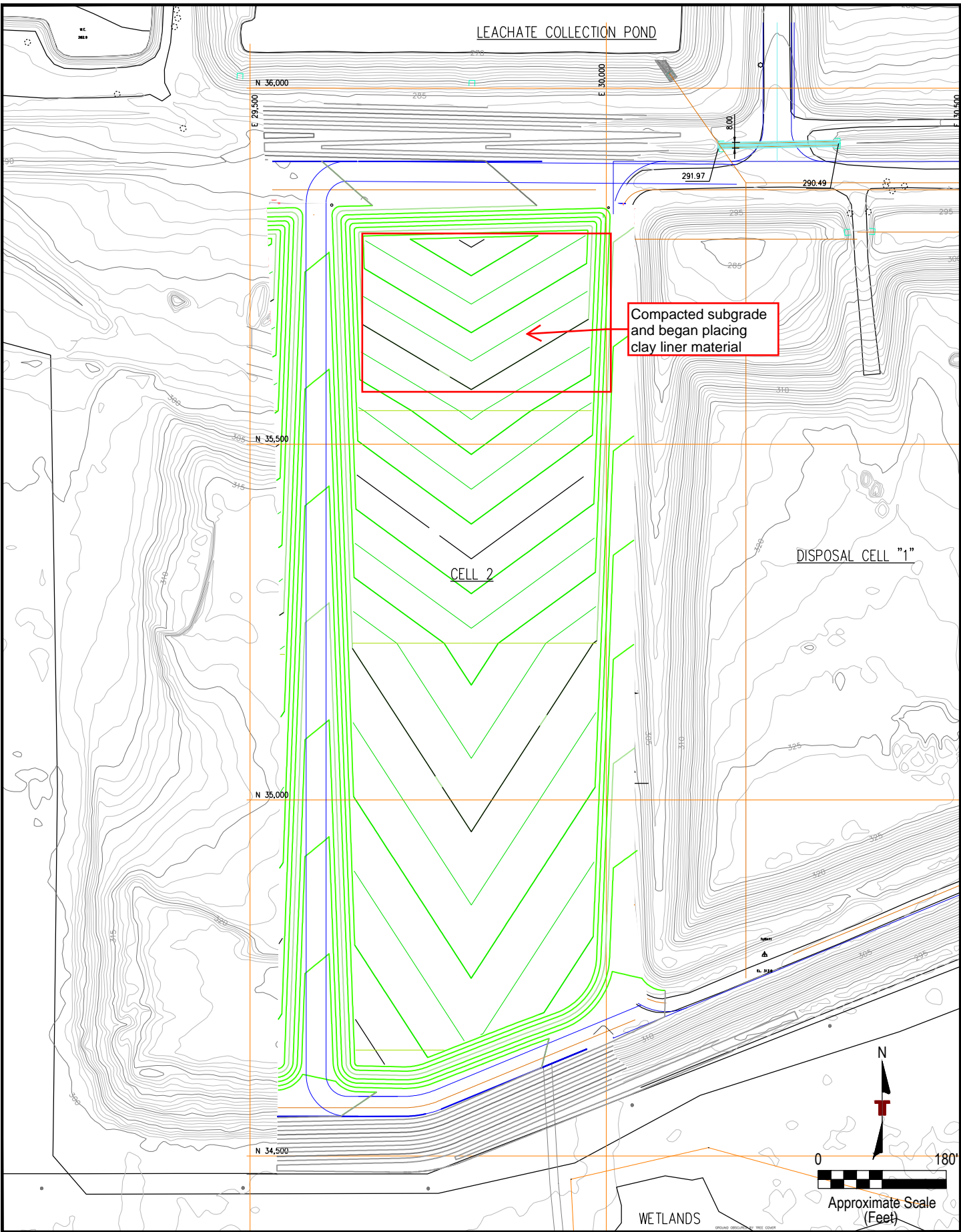
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>11</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor dozers spread stockpiled material over subgrade at north end of cell floor into clay liner.</u> <u>Contractor haulers transported clay liner material to subgrade area at north end of cell floor from the borrow area.</u> <u>Contractor excavator cut and loaded clay liner material into haul trucks.</u> <u>Contractor water truck ran, wetting material before compaction</u> <u>Contractor sheeps foot compacted subgrade before clay liner material was placed and then compacted it again after it was placed.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Added lift one to north end of cell floor and began placing lift two.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.10.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 7/11/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>100°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>7:00 PM</u>

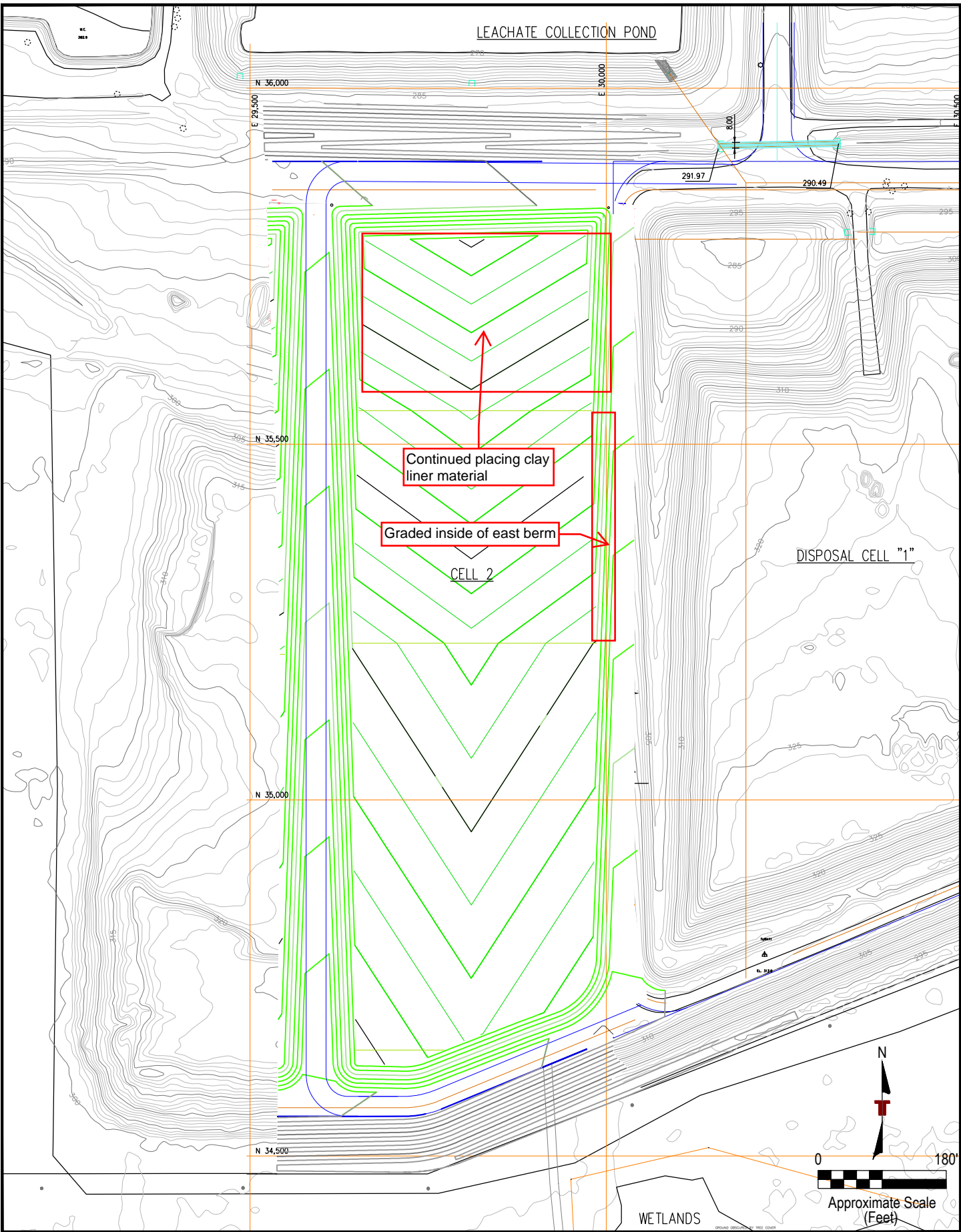
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor dozers spread clay liner material over subgrade at north end of cell. Also graded inside slope of east berm.</u> <u>Contractor haulers transported clay liner material to subgrade area at north end of cell floor from the borrow area.</u> <u>Contractor excavator cut and loaded clay liner material into haul trucks.</u> <u>Contractor water truck ran, wetting material before compaction</u> <u>Contractor sheeps foot compacted subgrade before clay liner material was placed and then compacted it again after it was placed.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Added lift one to north end of cell floor and began placing lift two.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.11.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 7/12/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>99°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>4:00 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

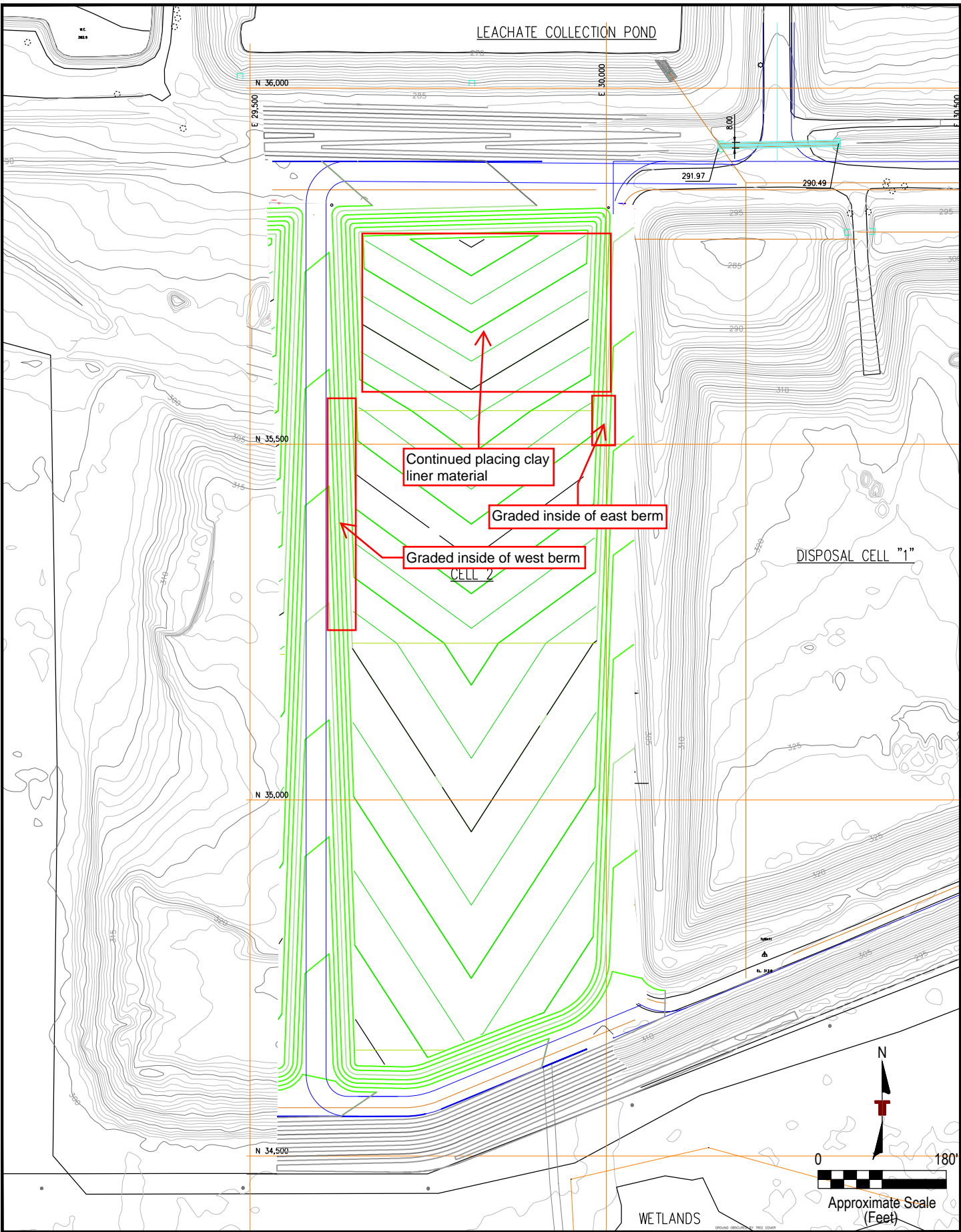
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u>	Dozer(s)	<u>      </u>	Tractor & Pans
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>2</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>2</u>	Client	<u>16</u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>2</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor dozers spread clay liner material over subgrade at north end of cell. Also graded inside slope of east and west berm.</u> <u>Contractor haulers transported clay liner material to subgrade area at north end of cell floor from the borrow area and from gathered material on cell floor.</u> <u>Contractor excavator cut and loaded clay liner material into haul trucks.</u> <u>Contractor water truck ran, wetting material before compaction.</u> <u>Contractor sheeps foot compacted subgrade before clay liner material was placed and then compacted it again after it was placed.</u> <u>ESI liner crew set up trailers and began filling sandbags.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed placing lift three and began placing lift four.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.12.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/13/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>98°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

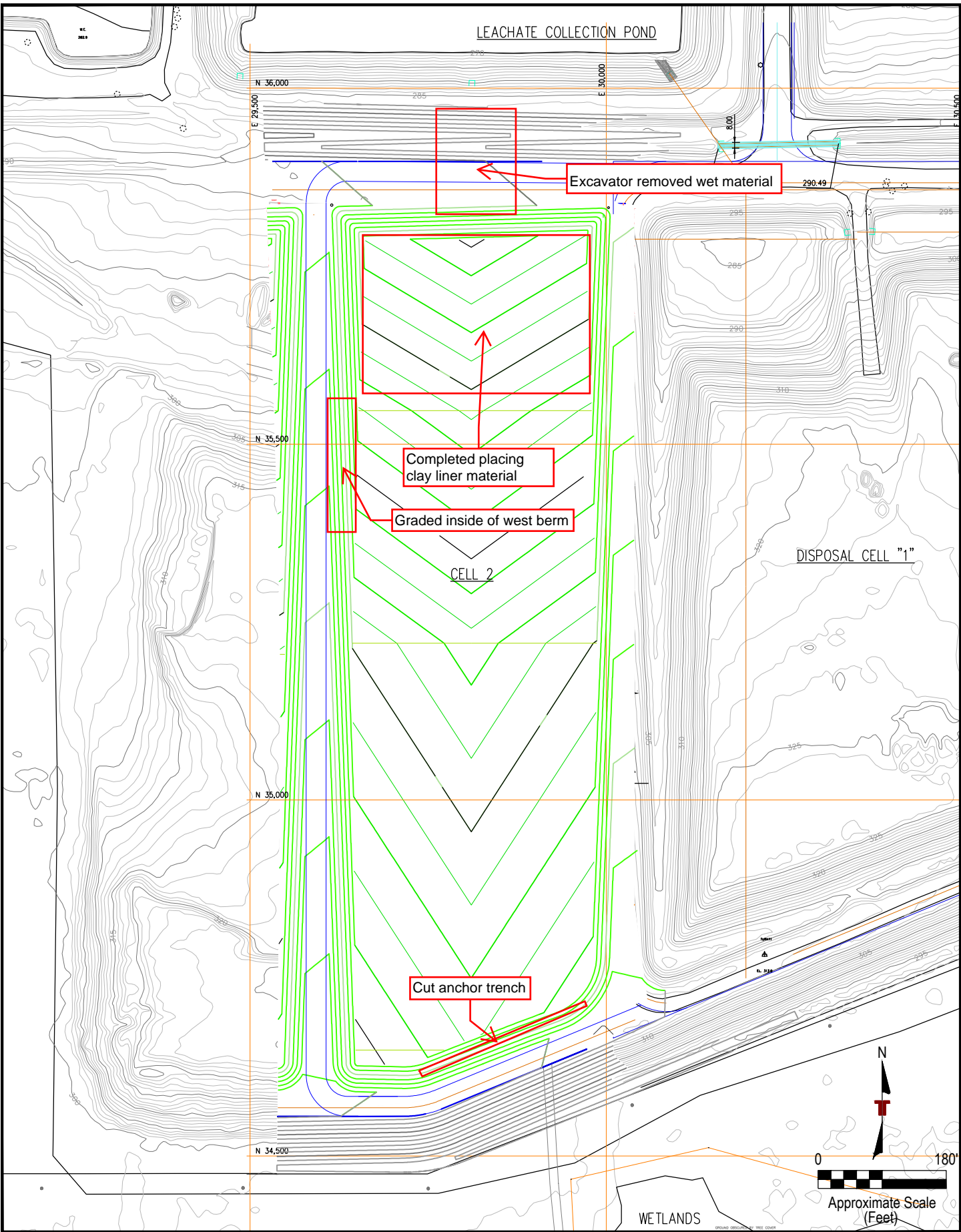
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Tractor & Pans
<u>1</u> Excavator(s)	<u>1</u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>2</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of clay liner and to perform density tests.</u>
<u>      </u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozers spread clay liner material over subgrade at north end of cell. Also graded inside slope of west berm.</u>
<u>Contractor haulers transported clay liner material to north end of cell floor from gathered material on cell floor.</u>
<u>Contractor excavator loaded clay liner material into haul trucks and removed wet material from open area of north berm. Also began cutting anchor trench along south berm.</u>
<u>Contractor water truck ran, wetting material before compaction.</u>
<u>      </u>
<u>Contractor sheeps foot compacted clay liner material and compacted it again after it was placed.</u>
<u>      </u>
<u>ESI held off deployment of Geomembrane due to rain on previous day.</u>
<u>      </u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed placing lift four at north end of cell.</u>
<u>      </u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
<u>      </u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>      </u>
<u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.13.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 7/14/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

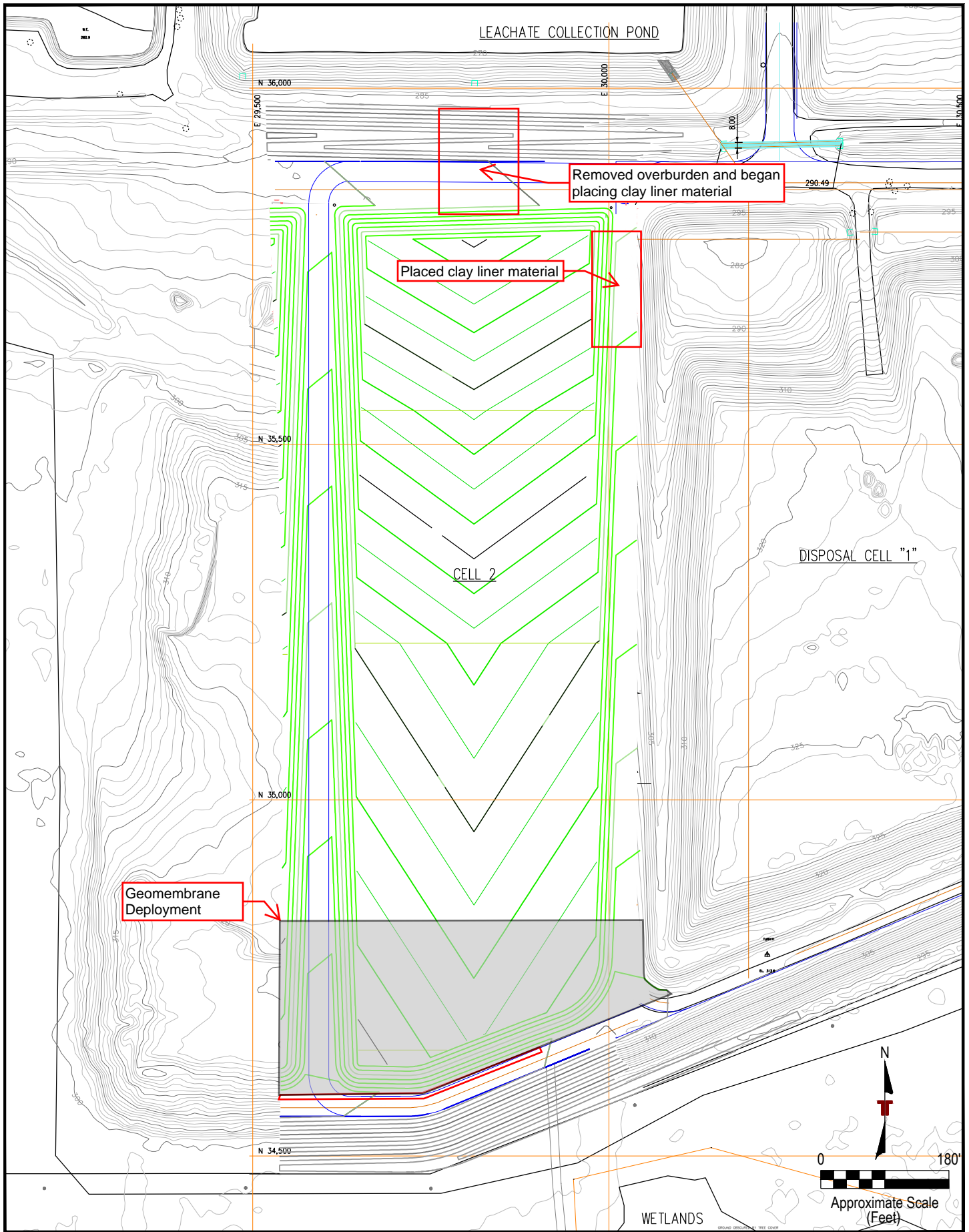
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)	<u>1</u> Skyjack		
<u>3</u> Excavator(s)	<u>1</u> Skidsteer		
<u>    </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

<b>PERSONNEL ONSITE:</b>	
<u>1</u> Client	<u>15</u> Liner Crew
<u>13</u> Contractor	<u>    </u> Liner Installer
<u>3</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor dozers cleared manhole area in north berm, graded cell floor, and spread material on east berm</u> <u>Contractor haulers transported overburden from planned manhole location. Also hauled clay liner to north end of east berm.</u> <u>Contractor excavator removed overburden from manhole location of north berm, completed cutting the anchor trench on south berm, and loaded clay liner material from west berm and cell floor into haulers.</u> <u>Contractor water truck ran, wetting material before compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed.</u> <u>ESI began deployment of Geomembrane on the south end of Cell 2. ESI performed trial welds prior to seaming and performed non-destructive testing after seaming.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed placing lift two at north end of east berm</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>    </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.14.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**



# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 7/15/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:15 PM</u>

FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>1</u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>    </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>15</u>	Liner Crew
<u>13</u>	Contractor	<u>    </u>	Liner Installer
<u>2</u>	COA Consultant	<u>    </u>	Concrete Crew
<u>    </u>	Design Engineer	<u>    </u>	Pipe Installer
<u>1</u>	Surveyor	<u>    </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**  
Observe placement of clay liner and to perform density tests.

---

**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor dozers spread clay liner material in manhole area in north berm, graded cell floor, and spread material on east berm  
Contractor haulers transported clay liner material to manhole location in north berm. Also hauled clay liner to north end of east berm.  
Contractor excavator loaded clay liner material into haulers from borrow area.

---

Contractor water truck ran, wetting material before compaction.

---

Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed.

---

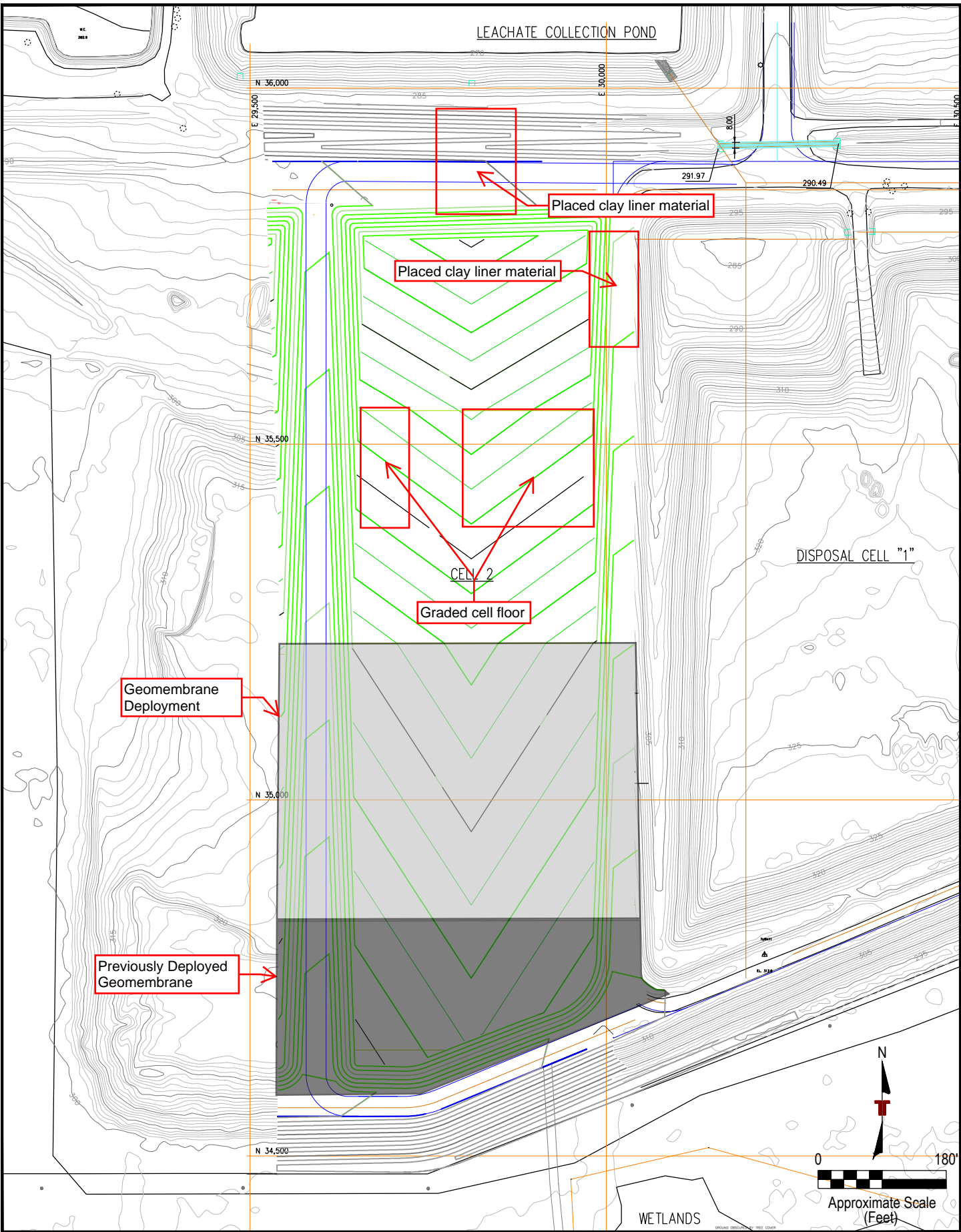
ESI continued deployment of Geomembrane on the south end of Cell 2. ESI performed trial welds prior to seaming and performed non-destructive testing after seaming. Destructs were cut and tested.

**LIFTS WORKED AND COMPACTION EFFORTS:**  
LIFTS: Completed placing lift two, three, four, and five at north end of east berm and lifts one, two, and three around the manhole location in north berm.  
COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.

---

**OPERATIONAL CONCERNS & SOLUTIONS:**

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.15.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 7/16/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree/Scott McDonald  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>103°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

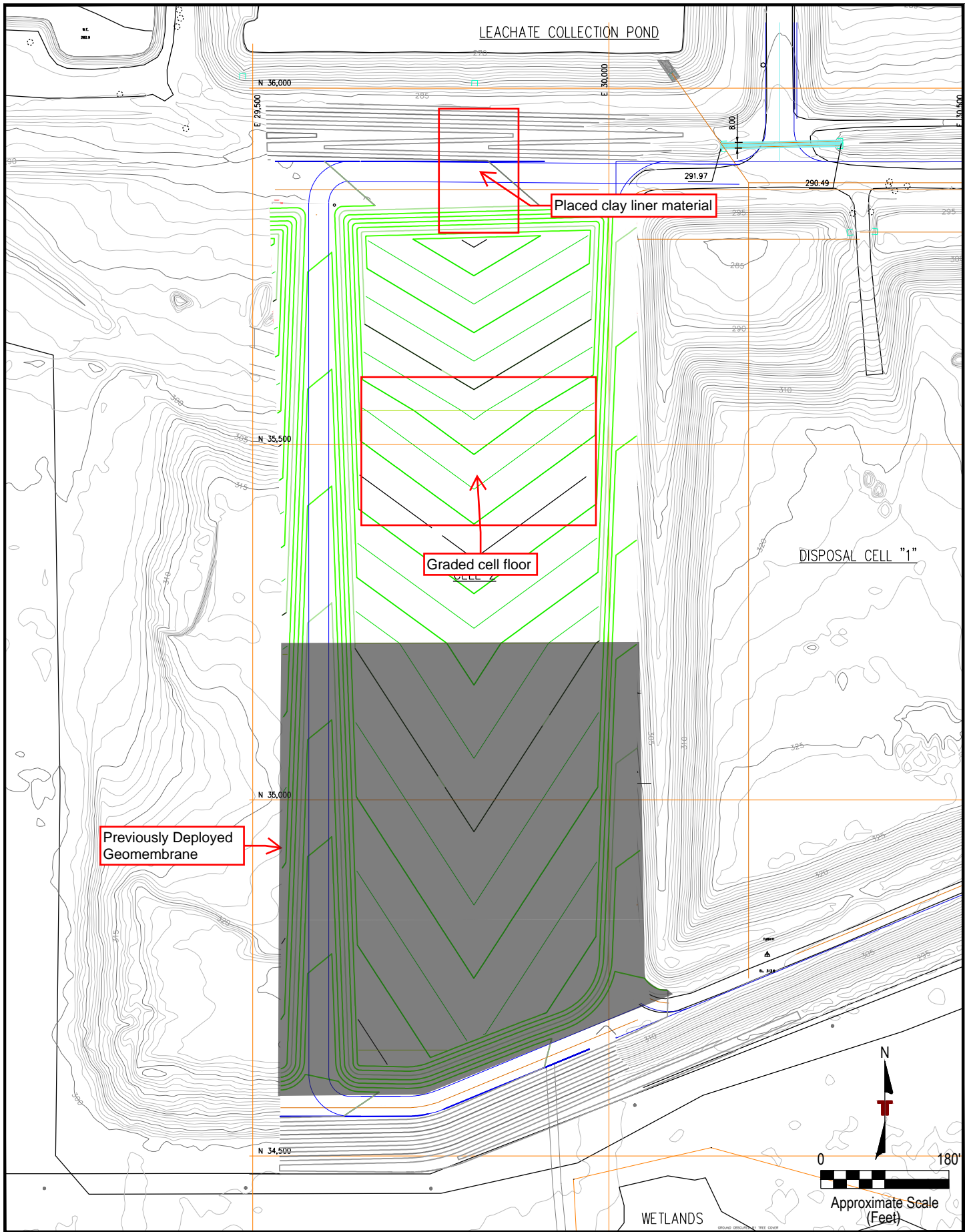
<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)	<u>1</u> Skyjack		
<u>1</u> Excavator(s)	<u>1</u> Skidsteer		
<u>    </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>15</u> Liner Crew
<u>12</u> Contractor	<u>    </u> Liner Installer
<u>2</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor dozers spread clay liner material in manhole area in north berm and graded cell floor.</u> <u>Contractor haulers transported clay liner material to manhole location in north berm.</u> <u>Contractor excavator loaded clay liner material into haulers from borrow area.</u> <u>Contractor water truck ran, wetting material before compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed.</u> <u>ESI performed trial welds, made repairs to geomembrane, and non-destructively tested repairs. Continued testing destructs in the field and sent to TRI for lab testing.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed Place lifts four, five, and six in the manhole area of the north berm.</u>
<b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>    </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.16.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/17/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree/Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>95°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

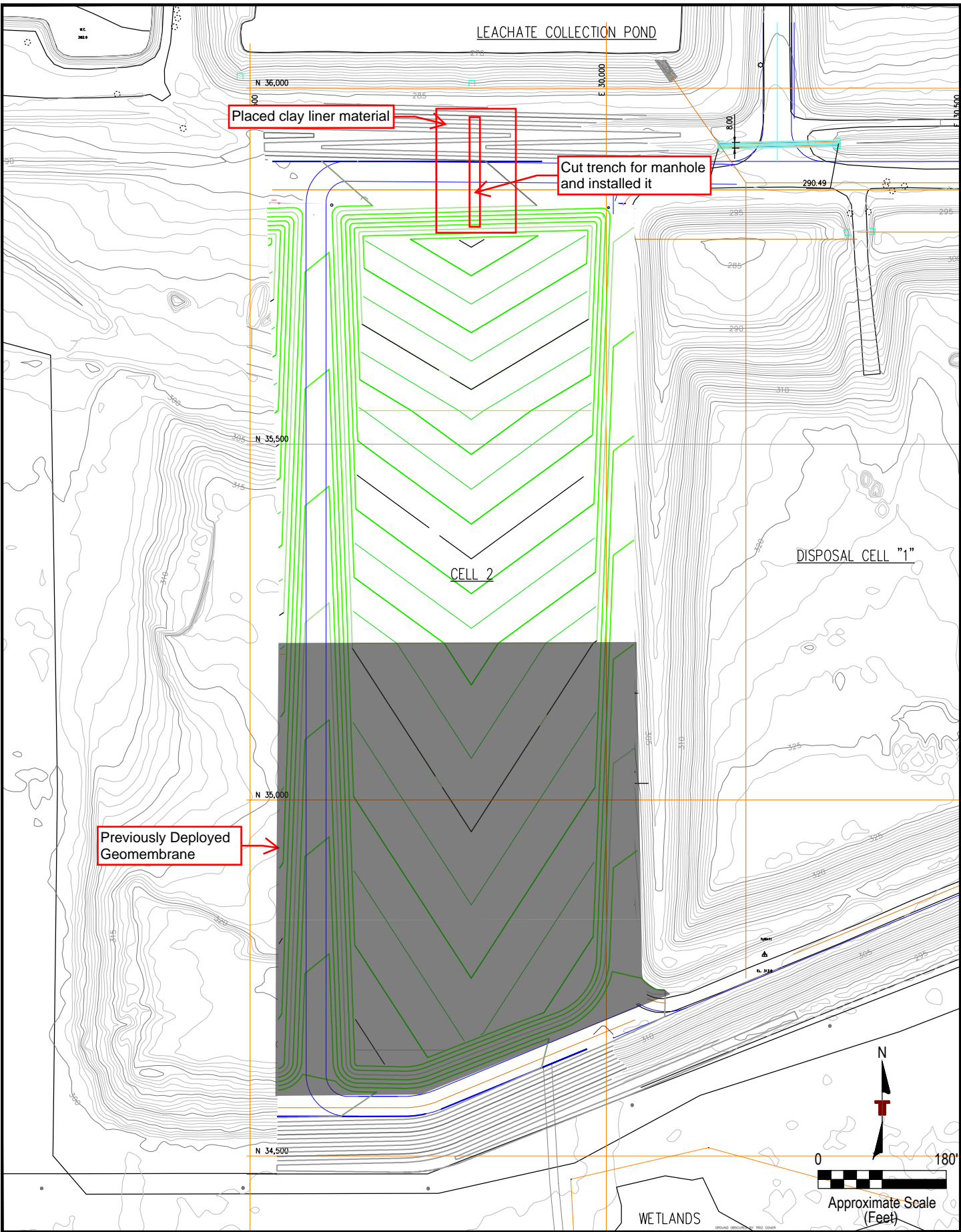
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>1</u>	Skyjack
<u>1</u>	Excavator(s)	<u>1</u>	Skidsteer
	Backhoe(s)	<u>1</u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>        </u>	Liner Crew
<u>12</u>	Contractor	<u>        </u>	Liner Installer
<u>2</u>	COA Consultant	<u>        </u>	Concrete Crew
	Design Engineer	<u>        </u>	Pipe Installer
<u>1</u>	Surveyor	<u>        </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe placement of clay liner and to perform density tests.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor dozers spread clay liner material in manhole area in north berm and graded cell floor.</u>  <u>Contractor haulers transported clay liner material to manhole location in north berm.</u>  <u>Contractor excavator loaded clay liner material into haulers from borrow area. Also cut shallow trench for manhole installation as well as piping.</u>  <u>Contractor water truck ran, wetting material before compaction. Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed.</u>  <u>Installed manhole into north berm location as well as piping in the area.</u></p>
<p>MTG on site to survey geomembrane information and top of clay in the prepared areas. Received destruct results from TRI. Two samples did not pass and will be retested according to project specifications.</p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <u>LIFTS: Completed lift seven.</u></p>
<p><b>COMPACTION EFFORTS:</b> Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.17.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 7/18/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree/Scott McDonald  
Test Location: Cell 2

<b>WEATHER:</b>	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>74°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)	<u>      </u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

<b>PERSONNEL ONSITE:</b>			
<u>2</u> Client	<u>15</u> Liner Crew		
<u>12</u> Contractor	<u>      </u> Liner Installer		
<u>2</u> COA Consultant	<u>      </u> Concrete Crew		
<u>      </u> Design Engineer	<u>      </u> Pipe Installer		
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.		

**QA/QC EXPECTATIONS:**  
Observe placement of clay liner and to perform density tests. Observe placement of geosynthetics.

**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor dozers spread clay liner material in manhole area in north berm.

Contractor haulers transported clay liner material to manhole location in north berm.

Contractor excavator spread and filled in clay liner material around the manhole in north berm. Helped compact the material around the pipe. Also loaded clay liner material into haulers from borrow area.  
Contractor water truck ran, wetting material before compaction.

Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole pipe. Also used a trench packer to raise compaction.

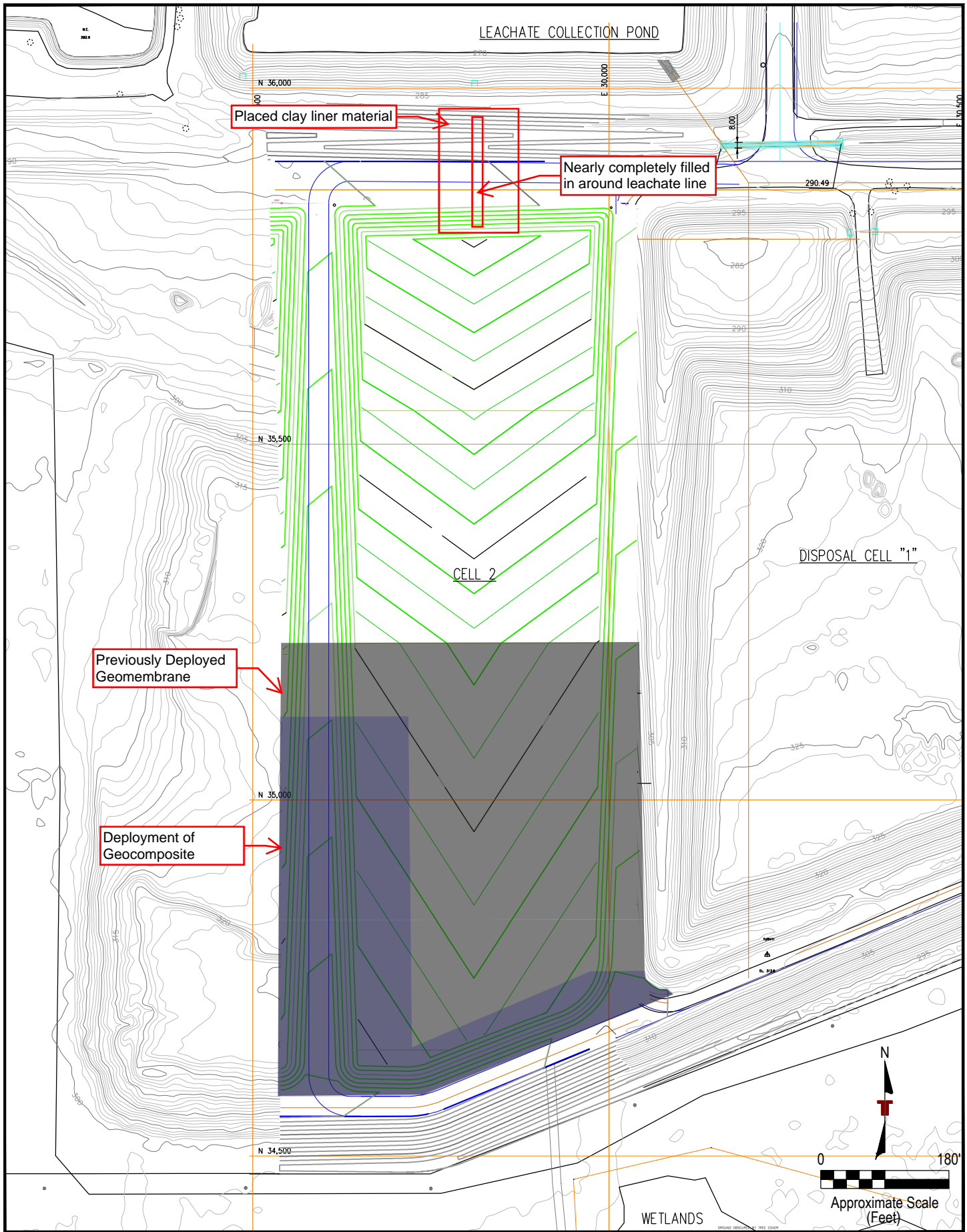
ESI deployed geocomposite on the south end of the Cell. Marked and tested additional Destruct samples and sent to TRI.

**LIFTS WORKED AND COMPACTION EFFORTS:**  
LIFTS: Completed lift eight.

**COMPACTION EFFORTS:** Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.

**OPERATIONAL CONCERNS & SOLUTIONS:**

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.18.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/19/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree/Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>74°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>101°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:00 PM</u>

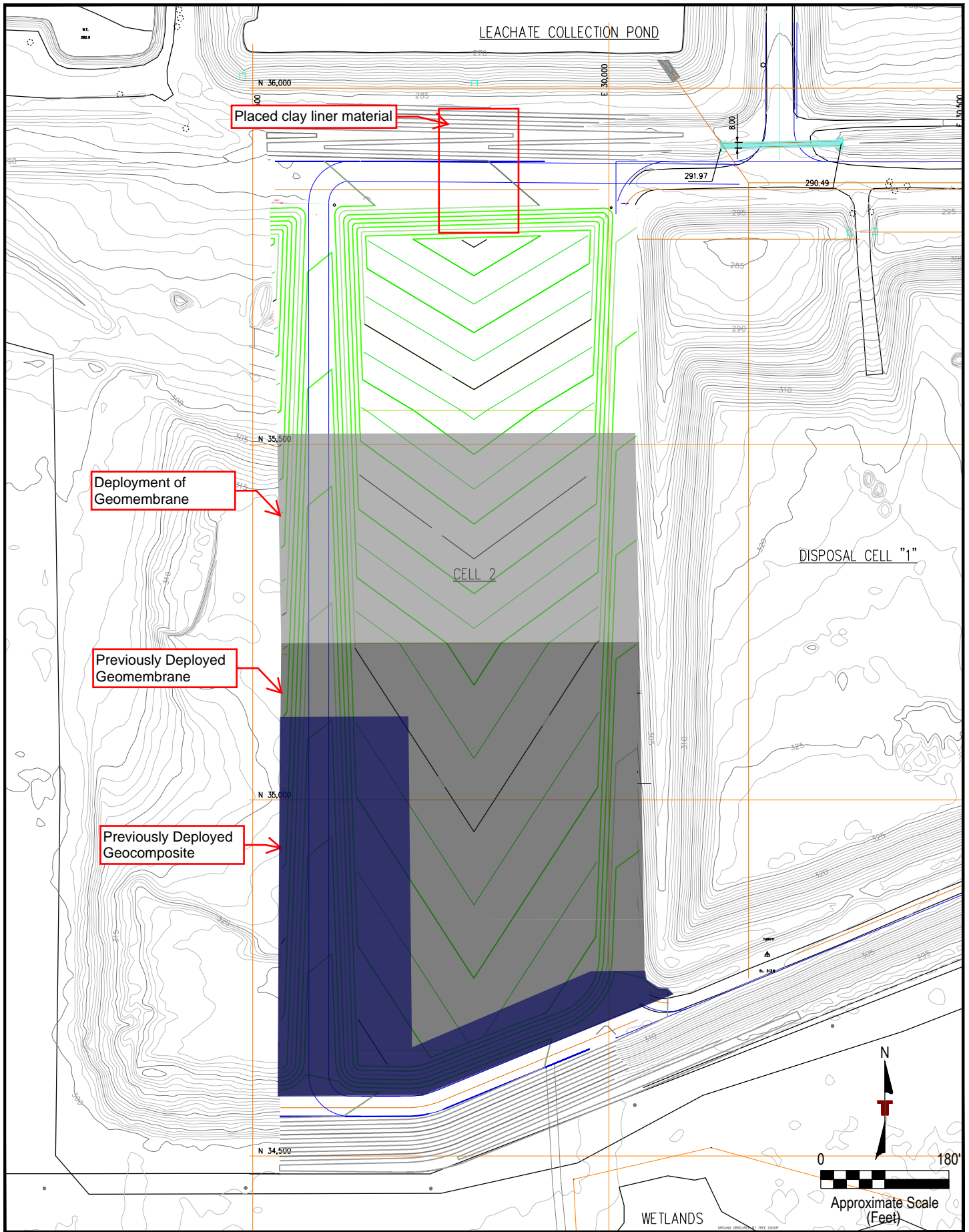
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u> Dozer(s)	<u>    </u> Skyjack	<u>    </u> Excavator(s)	<u>1</u> Skidsteer
<u>    </u> Backhoe(s)	<u>1</u> Water Truck	<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

PERSONNEL ONSITE:			
<u>2</u> Client	<u>15</u> Liner Crew	<u>13</u> Contractor	<u>    </u> Liner Installer
<u>2</u> COA Consultant	<u>    </u> Concrete Crew	<u>2</u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.		

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe placement of clay liner and to perform density tests. Observe placement of geosynthetics.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor dozers spread clay liner material in manhole area in north berm.</u>  <u>Contractor haulers transported clay liner material to manhole location in north berm.</u>  <u>Contractor excavator loaded clay liner material into haulers from borrow area. Helped install next section of manhole in north berm.</u>  <u>Contractor water truck ran, wetting material before compaction.</u>  <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole pipe.</u>  <u>ESI deployed geomembrane, performed trial welds, seaming, and made repairs to geomembrane. All seams and repairs were non-destructively tested repairs. Marked and tested additional Destruct samples and sent to TRI.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <u>LIFTS: Completed lift nine, ten, eleven, and twelve.</u></p>
<p><b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>  <u>Extreme heat advisory for the day.</u></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.19.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 7/20/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree/Scott McDonald  
Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>102°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

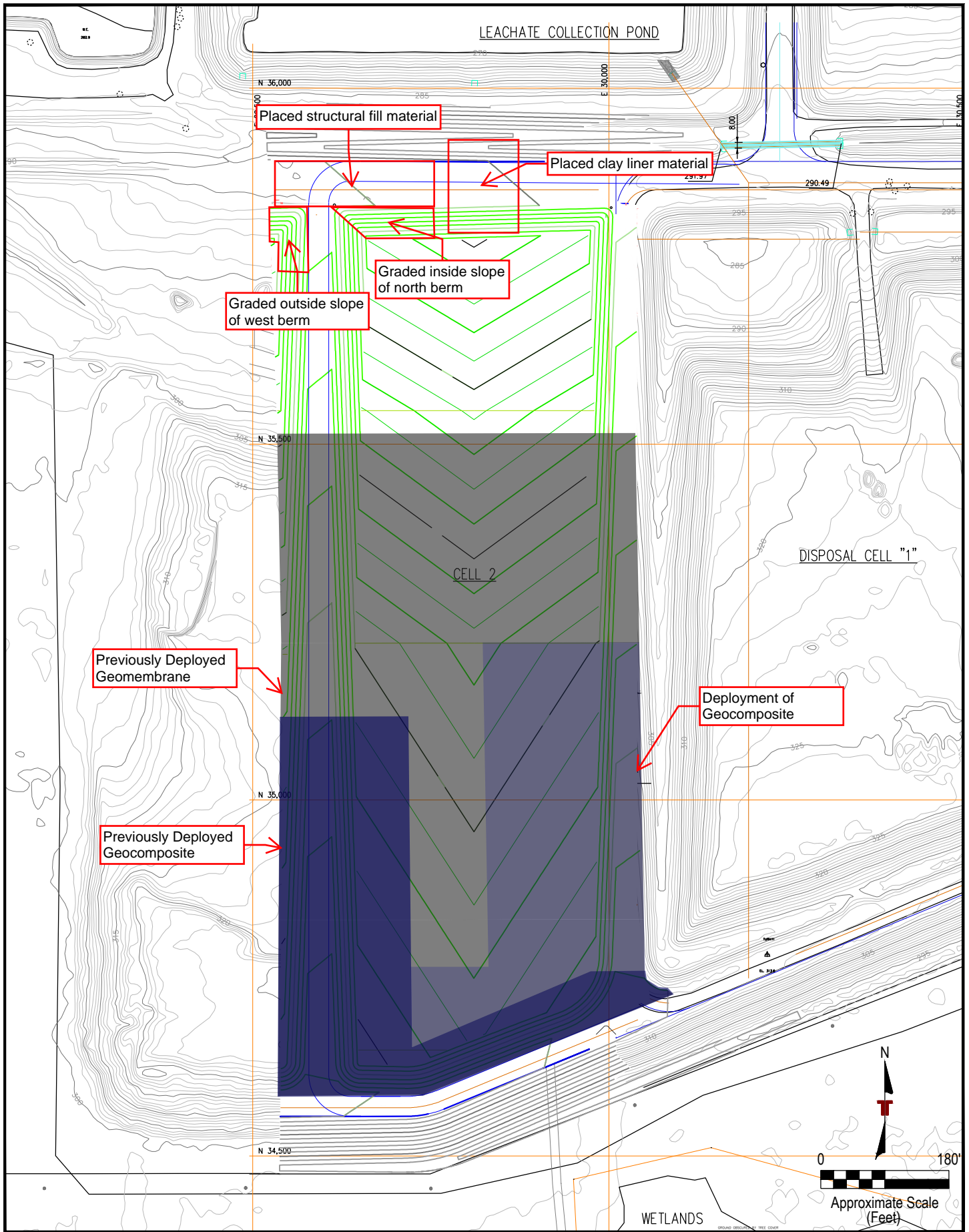
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u> Dozer(s)	<u>1</u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>    </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>15</u> Liner Crew
<u>14</u> Contractor	<u>    </u> Liner Installer
<u>2</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

QA/QC EXPECTATIONS: <u>Observe placement of structural fill/clay liner and to perform density tests. Observe placement of geosynthetics.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor dozers spread clay liner material in manhole area in north berm, grade inside slope of north berm, spread structural fill material on top of north berm, and grade outside slope of west berm.</u> <u>Contractor haulers transported clay liner material to manhole location in north berm and structural fill material to the top of the north berm.</u> <u>Contractor excavator loaded clay liner and structural fill material into haulers from borrow area.</u> <u>Contractor water truck ran, wetting material before and during compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole.</u> <u>ESI deployed geocomposite at south end of cell.</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Completed lift thirteen, fourteen, fifteen, and sixteen.</u>
COMPACTION EFFORTS: <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS: <u>Extreme heat advisory for the day.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.20.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH  
 PH. (501) 847-9292

BRYANT, AR 72022  
 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/21/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree/Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>103°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:00 PM</u>
Arrive Site: <u>6:45 AM</u>	Arrive Lab: <u>7:00 PM</u>

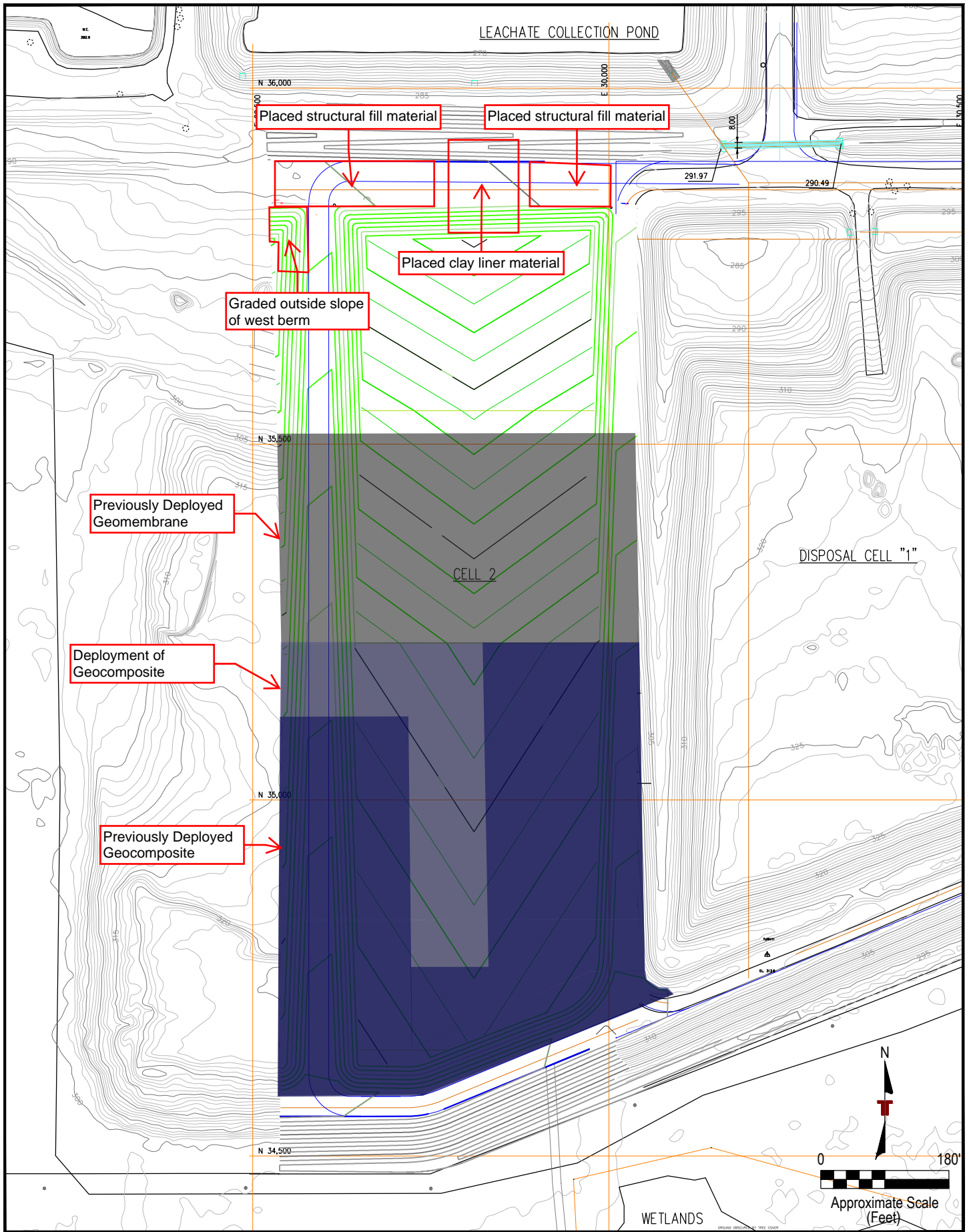
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input checked="" type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>1</u> Skyjack
<u>2</u> Excavator(s)	<u>1</u> Skidsteer
<u>    </u> Backhoe(s)	<u>1</u> Water Truck
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>15</u> Liner Crew
<u>14</u> Contractor	<u>    </u> Liner Installer
<u>2</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill and to perform density tests. Observe deployment of geocomposite.</u>
<u>    </u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozers spread structural material in manhole area in north berm, spread structural fill material on top of north berm, and grade outside slope of west berm.</u>
<u>Contractor haulers transported structural fill material to manhole location in north berm and to the top of the north berm.</u>
<u>Contractor excavator loaded structural fill material into haulers from borrow area.</u>
<u>    </u>
<u>Contractor water truck ran, wetting material before and during compaction.</u>
<u>    </u>
<u>Contractor sheeps foot reconditioned placed material and compacted structural fill material that was placed in the north berm area.</u>
<u>Liner crew deployed geocomposite at south end of cell.</u>
<u>    </u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift seventeen, eighteen, nineteen, twenty, and twenty-one in the manhole area and lift 13 on the north berm/west side.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
<u>    </u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Extreme heat advisory for the day.</u>
<u>    </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.21.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 7/23/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree/Scott McDonald  
Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>73°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>96°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>7:00 PM</u>

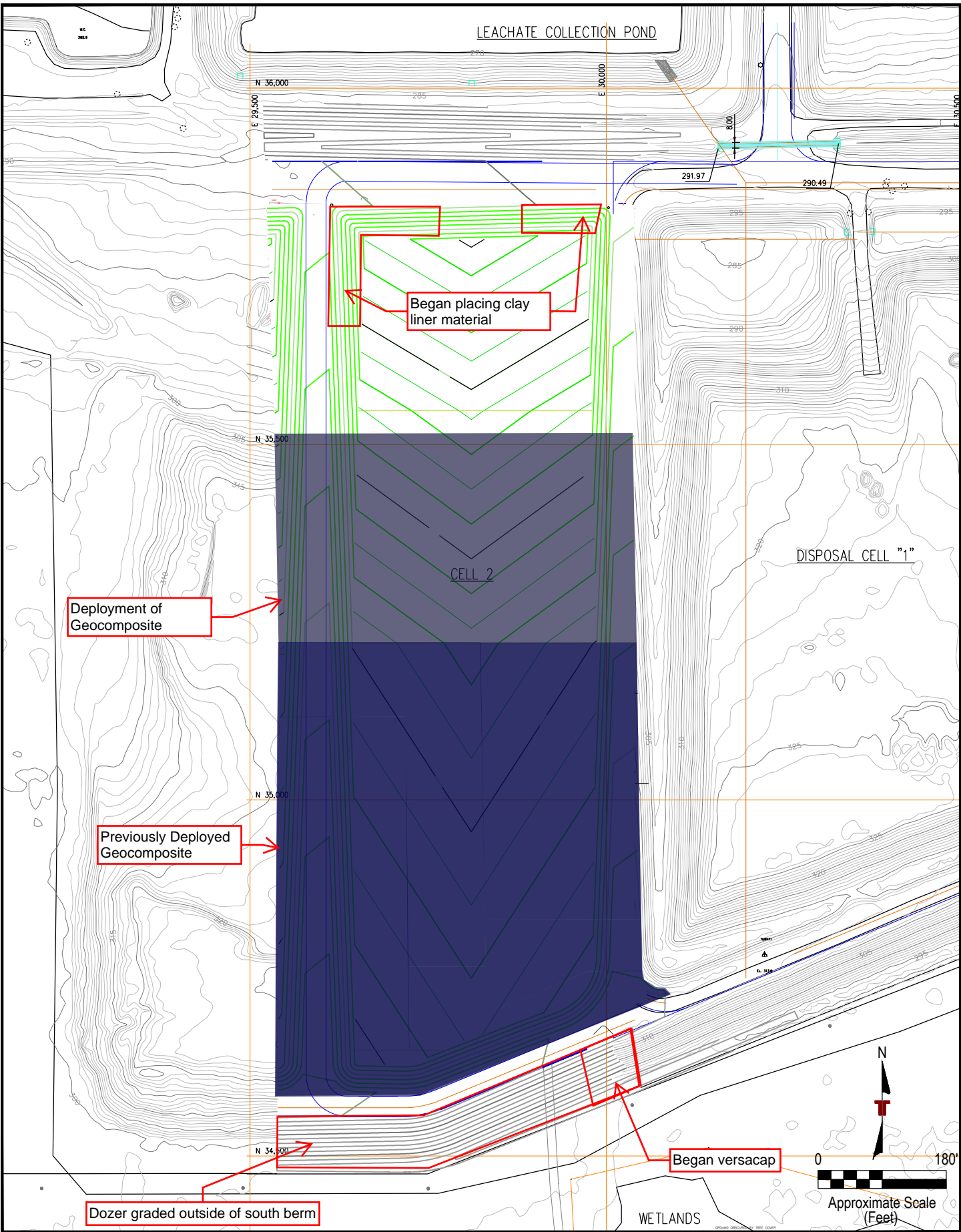
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u> Dozer(s)	<u>1</u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>    </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>15</u> Liner Crew
<u>14</u> Contractor	<u>    </u> Liner Installer
<u>2</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe placement of structural fill/clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozers spread clay liner material on inside slopes of north and west berm and trim outside south berm.</u>
<u>Contractor haulers transported clay liner material to inside of north berm.</u>
<u>Contractor excavator loaded clay liner material into haulers from borrow area.</u>
<u>Contractor water truck ran, wetting material before and during compaction.</u>
<u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole.</u>
<u>Liner crew deployed geocomposite in middle section of cell floor and began placing versacap along outside of south berm.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Completed lift one and two on inside of north and west berm.</u>
COMPACTION EFFORTS:
<u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.24.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 7/24/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree/Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>69°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

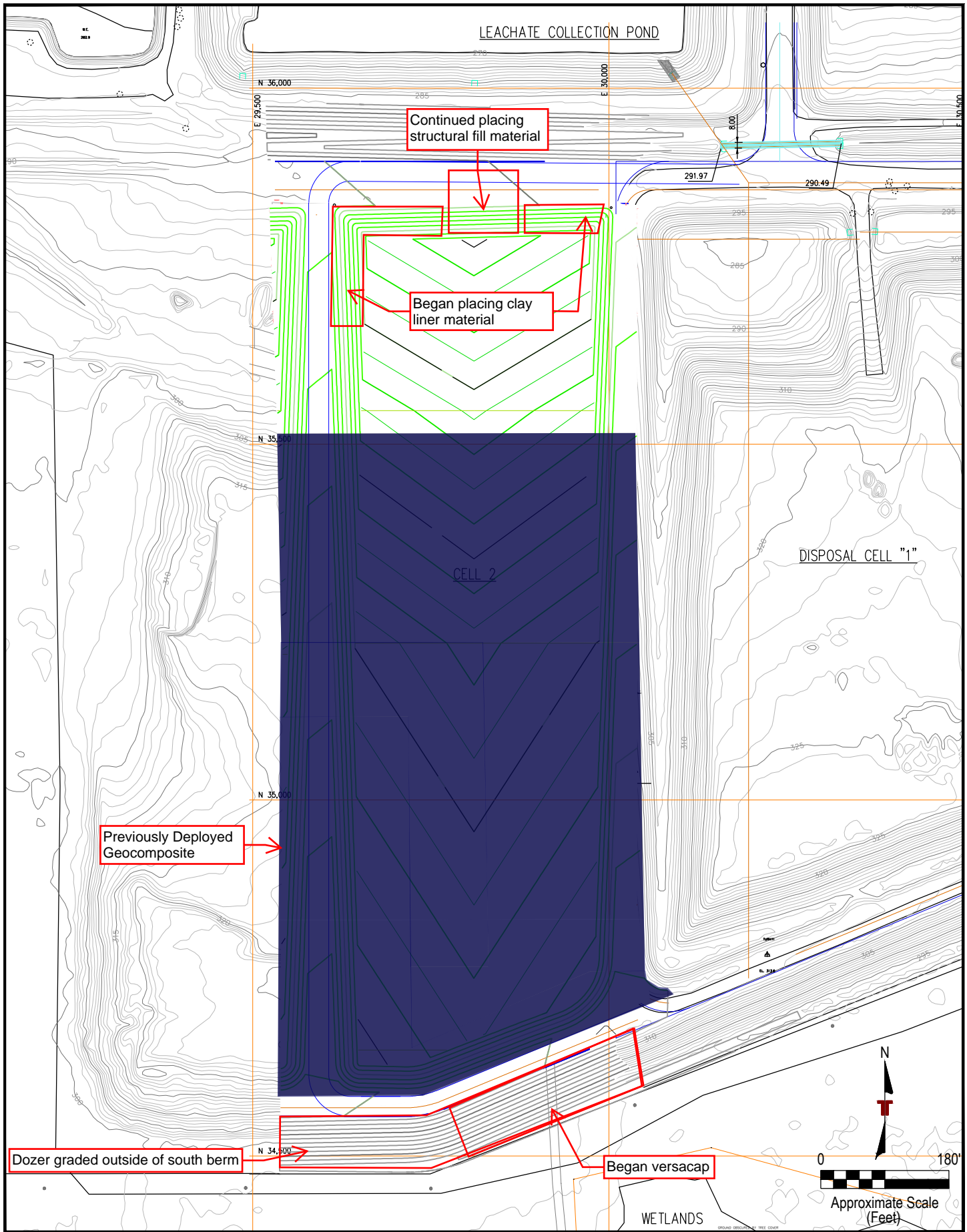
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input checked="" type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u> Dozer(s)	<u>      </u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

PERSONNEL ONSITE:			
<u>2</u> Client	<u>15</u> Liner Crew		
<u>14</u> Contractor	<u>      </u> Liner Installer		
<u>2</u> COA Consultant	<u>      </u> Concrete Crew		
<u>      </u> Design Engineer	<u>      </u> Pipe Installer		
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.		

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe placement of structural fill/clay liner and to perform density tests.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor dozers spread clay liner material on inside slopes of north and west berm, spread structural fill material in north manhole area, and trim outside south berm.</u>  <u>Contractor haulers transported clay liner material to inside of north berm and structural fill material to manhole area of north berm.</u>  <u>Contractor excavator loaded clay liner material and structural fill material into haulers from borrow area.</u>  <u>Contractor water truck ran, wetting material before and during compaction.</u>  <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole.</u>  <u>Liner crew deployed versacap along outside of south berm.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <u>LIFTS: Completed lift two and three on inside of north and west berm and lift 22 in the north manhole area.</u></p>
<p><b>COMPACTION EFFORTS:</b> Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB
Project No.:	35177127
Scale:	AS SHOWN
File No.:	000
Date:	5.30.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 7/25/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>69°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>99°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:00 PM</u>

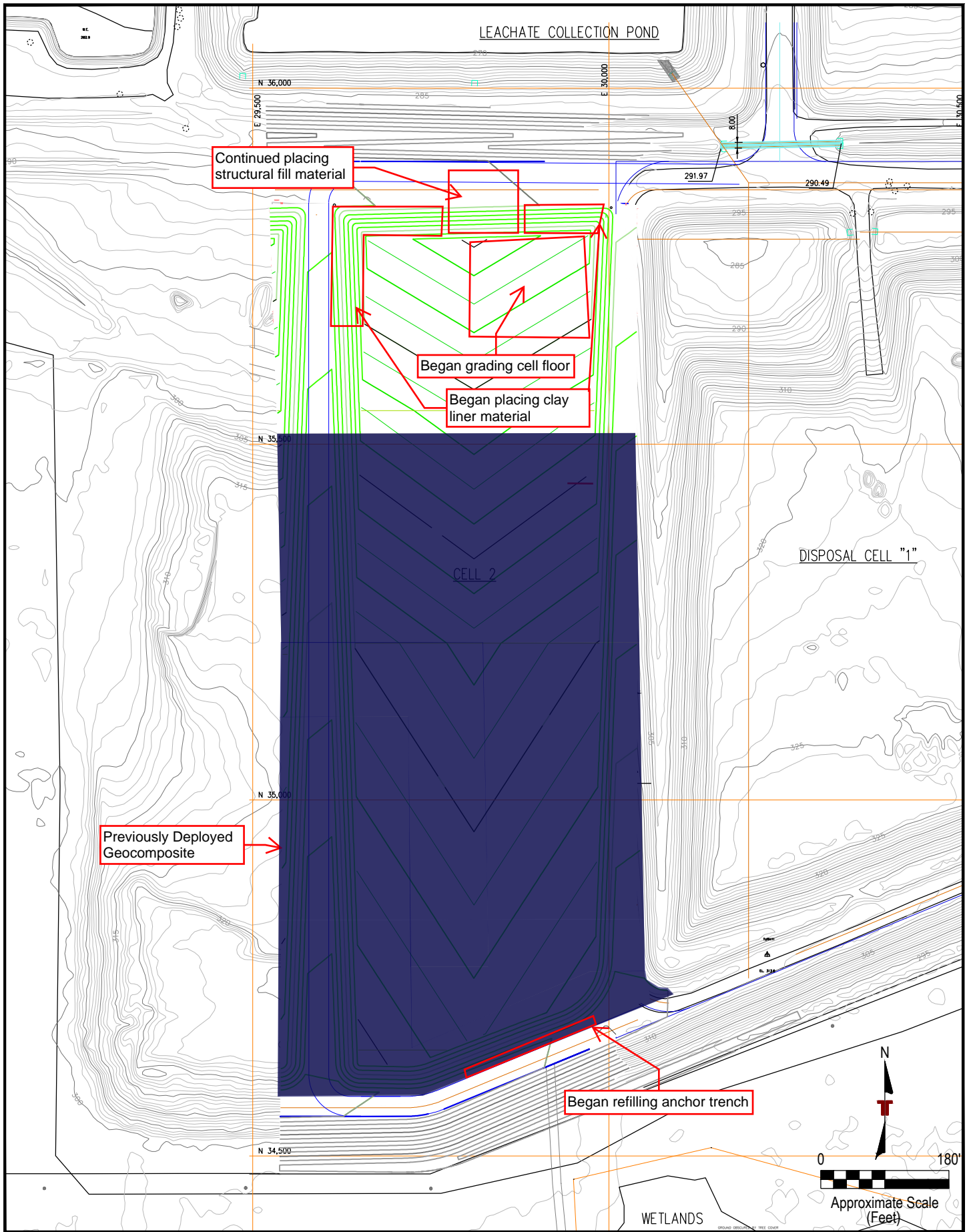
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u> Dozer(s)	<u>      </u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>2</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS: <u>Observe placement of structural fill/clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor dozers spread clay liner material on inside slopes of north and west berm and in manhole area.</u> <u>Contractor haulers transported clay liner material to inside of north and west berm and to manhole area of north berm.</u> <u>Contractor excavator loaded clay liner material into haulers from borrow area.</u> <u>Contractor water truck ran, wetting material before and during compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole.</u> <u>Contractor began filling in anchor trench system in six-inch lifts and compacting with trench packer.</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Completed lift four on inside of north and west berm and lift 23, 24, 25, and 26 in the north manhole area.</u> <u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Contractor smooth drum created testing pads.</u>
OPERATIONAL CONCERNS & SOLUTIONS: <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.25.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 7/26/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>100°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

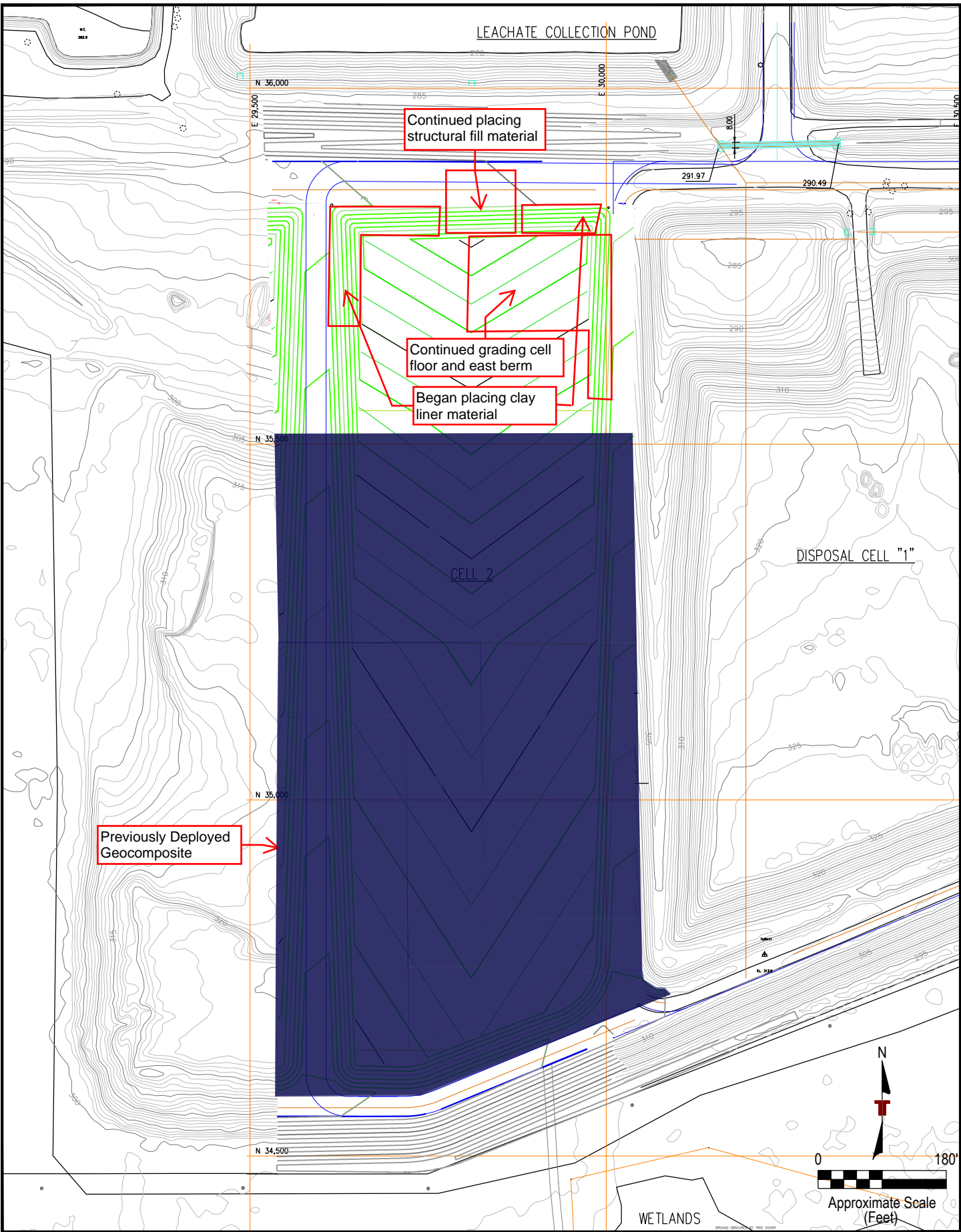
<b>FIELD TESTING PERFORMED:</b>	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)	<u>      </u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor		

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>2</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe placement of structural fill/clay liner and to perform density tests.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor dozers spread clay liner material on inside slopes of north and west berm and in manhole area. Also graded cell floor and east berm and removed ramp from that area.</u> <u>Contractor haulers transported clay liner material to inside of north and west berm and to manhole area of north berm.</u> <u>Contractor excavator loaded clay liner material into haulers from borrow area.</u> <u>Contractor water truck ran, wetting material before and during compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lift 18 and 27 in manhole area and lifts one and two on north section of west berm as well as overbuild on outside.</u> <u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.26.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 7/27/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

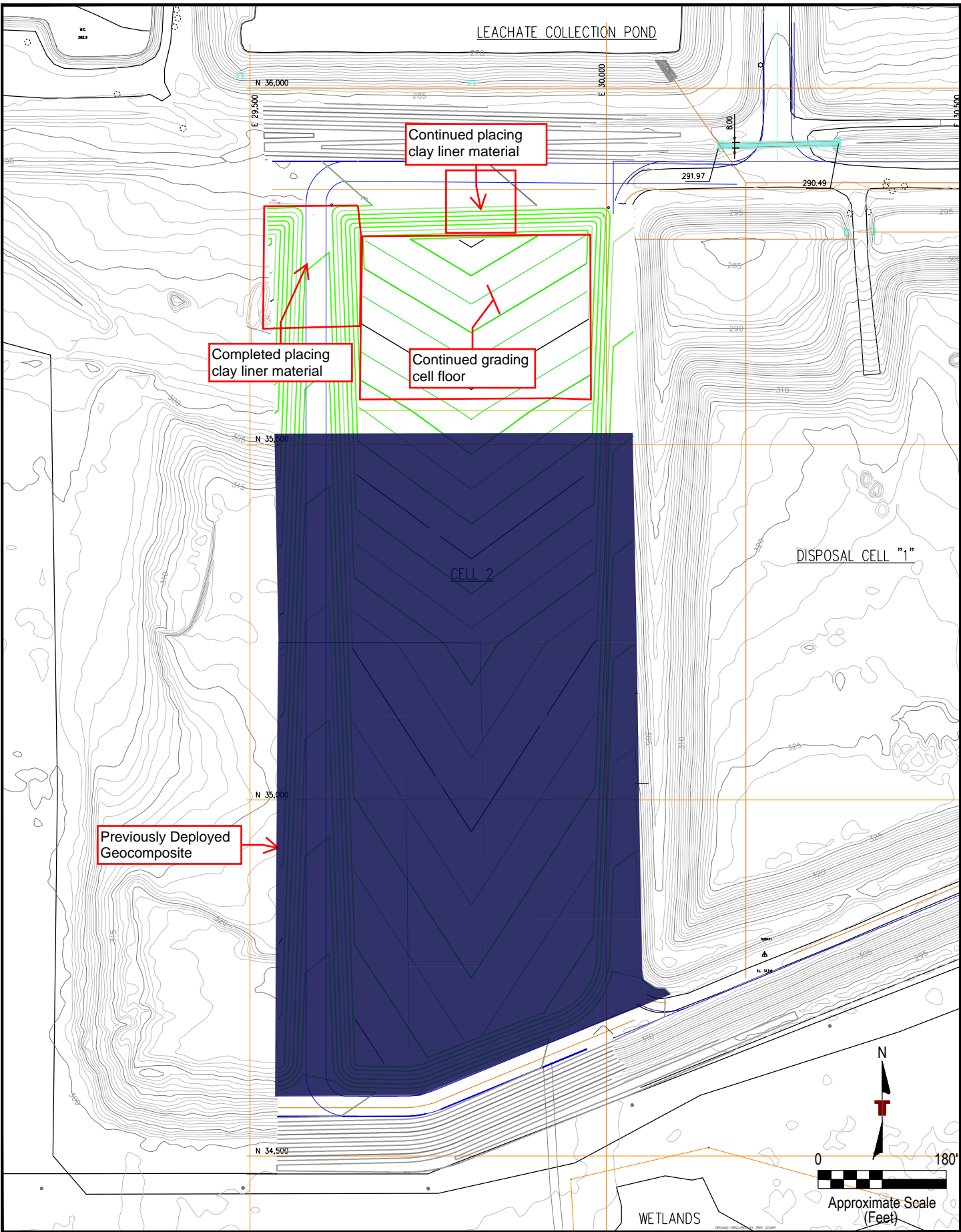
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u> Dozer(s)	<u>      </u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>14</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS: <u>Observe placement of structural fill/clay liner and to perform density tests.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor dozers spread clay liner material in manhole area, on top of west berm, and the overbuild area. Also graded cell floor.</u> <u>Contractor haulers transported clay liner material to west berm and to manhole area of north berm.</u> <u>Contractor excavator loaded clay liner material into haulers from borrow area.</u> <u>Contractor water truck ran, wetting material before and during compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material that was placed around manhole.</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Completed lift 28, 29, and 30 in manhole area and lifts three and four on north section of west berm as well as overbuild on outside.</u> <u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction.</u>
OPERATIONAL CONCERNS & SOLUTIONS: <u>      </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	7.27.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 7/28/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>77°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

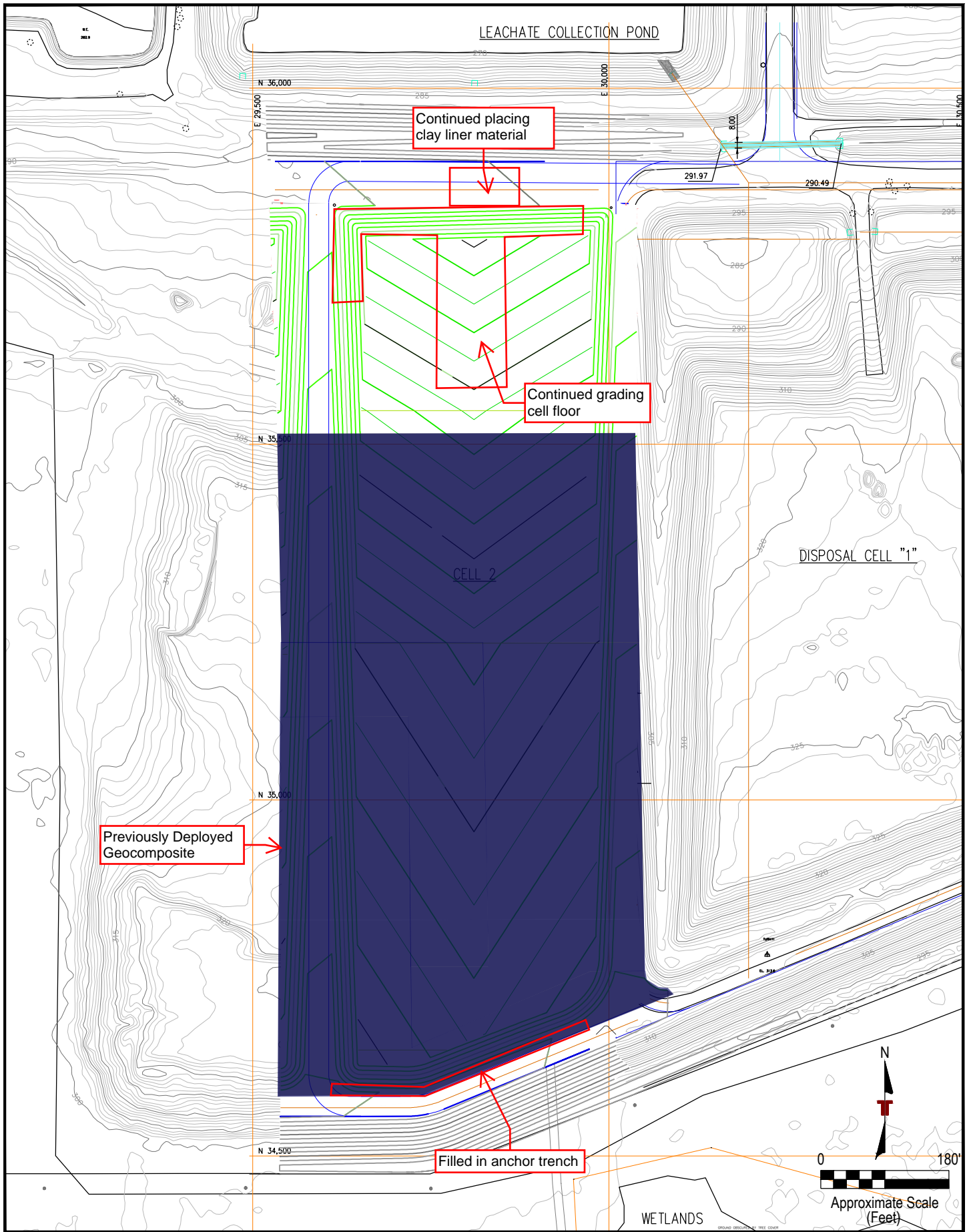
FIELD TESTING PERFORMED:	
<input checked="" type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input checked="" type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>3</u> Dozer(s)	<u>1</u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>    </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>2</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>1</u> Client	<u>    </u> Liner Crew
<u>13</u> Contractor	<u>    </u> Liner Installer
<u>1</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

QA/QC EXPECTATIONS: <u>Observe placement of clay at north berm and test it as well as observe filling in of anchor trench.</u>
SUMMARY OF ACTIVITIES OBSERVED: <u>Contractor dozers spread clay liner material in manhole area. Also graded cell floor and inside of north and west berm.</u> <u>Contractor haulers transported clay liner material to manhole area of north berm.</u> <u>Contractor excavator loaded clay liner material into haulers from borrow area and an extra that had been graded off the cell floor and slopes.</u> <u>Contractor water truck ran, wetting material before and during compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material.</u>
LIFTS WORKED AND COMPACTION EFFORTS: <u>LIFTS: Completed lift 31 in the north berm/manhole area. Completed first lift on south anchor trench and began the second lift.</u> <u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Trench packer made three passes over material in anchor trench to compact.</u>
OPERATIONAL CONCERNS & SOLUTIONS: <u>    </u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.28.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 7/29/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>1:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>3:00 PM</u>

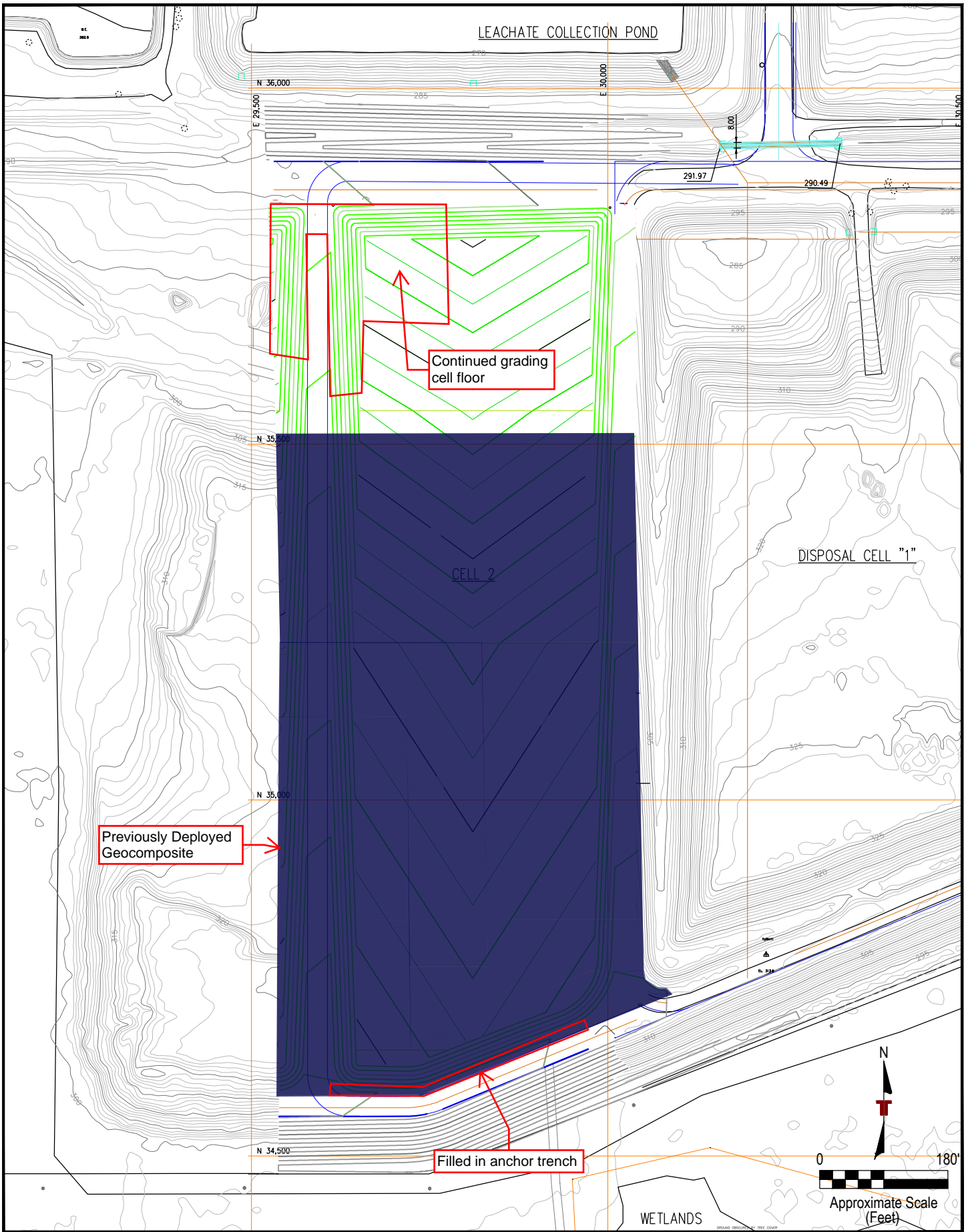
<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>3</u> Dozer(s)	<u>1</u> Skyjack		
<u>2</u> Excavator(s)	<u>1</u> Skidsteer		
<u>    </u> Backhoe(s)	<u>1</u> Water Truck		
<u>4</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

<b>PERSONNEL ONSITE:</b>	
<u>1</u> Client	<u>    </u> Liner Crew
<u>12</u> Contractor	<u>    </u> Liner Installer
<u>1</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe grading of clay liner on west slope of west berm.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor dozers graded west cell floor, west berm, and west slope of west berm.</u> <u>Contractor haulers transported clay liner material to north end of cell and to south end to stockpile for anchor trench.</u> <u>Contractor excavator loaded clay liner material into haulers from borrow area and helped with the anchor trench at the south end of the cell.</u> <u>Contractor water truck ran, wetting material before and during compaction.</u> <u>Contractor sheeps foot reconditioned placed material and compacted clay liner material</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <u>LIFTS: Completed lifts two and began work on lift three of the anchor trench at the south end.</u> <b>COMPACTION EFFORTS:</b> <u>Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Trench packer ran over material placed in anchor trench to hold liner.</u>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b> <u>Rain in mid-afternoon call off work.</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.29.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 7/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70°F</u> Low Temp. (°F)
<input checked="" type="checkbox"/> Foggy / Misty	<u>83°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>4:45 AM</u>	Depart Site: <u>10:15 AM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>12:15 AM</u>

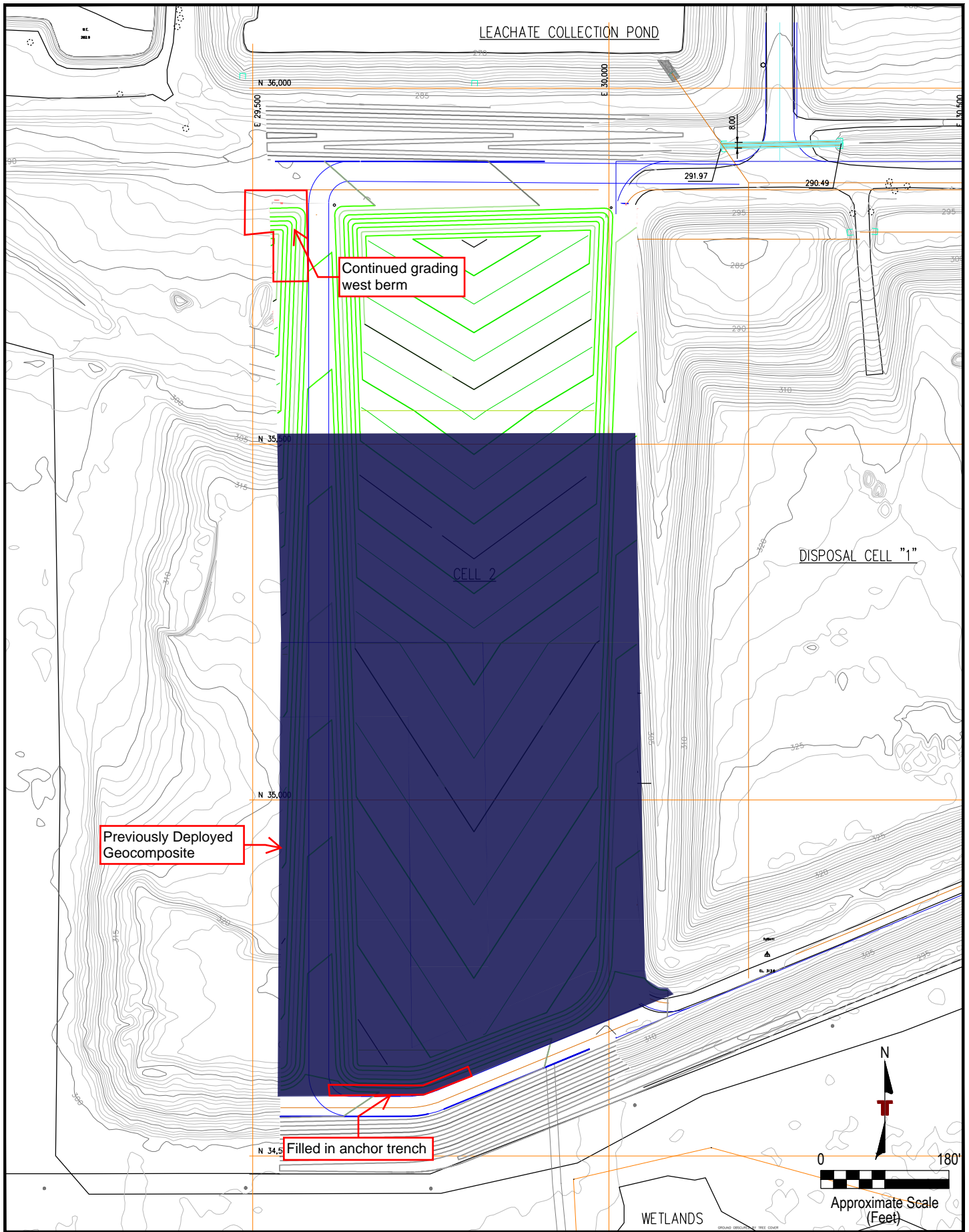
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>3</u> Dozer(s)	<u>      </u> Skyjack
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>2</u> Haul Truck(s)	<u>1</u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>12</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe grading of cell floor to prepare for certification.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozers graded the west slope of the west berm.</u>
<u>Contractor excavator provided balance to trench packer and helped spread material inside anchor trench.</u>
<u>Contractor sheeps foot reconditioned placed material.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: Continued placing lift three in the south anchor trench.</u>
<u>COMPACTION EFFORTS: Contractor sheeps foot made a minimum of four passes to bring material to passing compaction. Trench packer ran along south anchor to compact material at a minimum of two passes.</u>
OPERATIONAL CONCERNS & SOLUTIONS:
<u>Rain-out at 10:00 AM</u>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	7.30.18

**Terracon**  
 Consulting Engineers and Scientists

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 PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 8/1/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>64°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>88°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>6:45 PM</u>

<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>2</u> Dozer(s)		<u>      </u> Skyjack	
<u>1</u> Excavator(s)		<u>1</u> Skidsteer	
<u>      </u> Backhoe(s)		<u>      </u> Water Truck	
<u>2</u> Haul Truck(s)		<u>      </u> Sheeps Foot Compactor	
<u>1</u> Motor Grader(s)		<u>      </u> Smooth Drum Compactor	

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

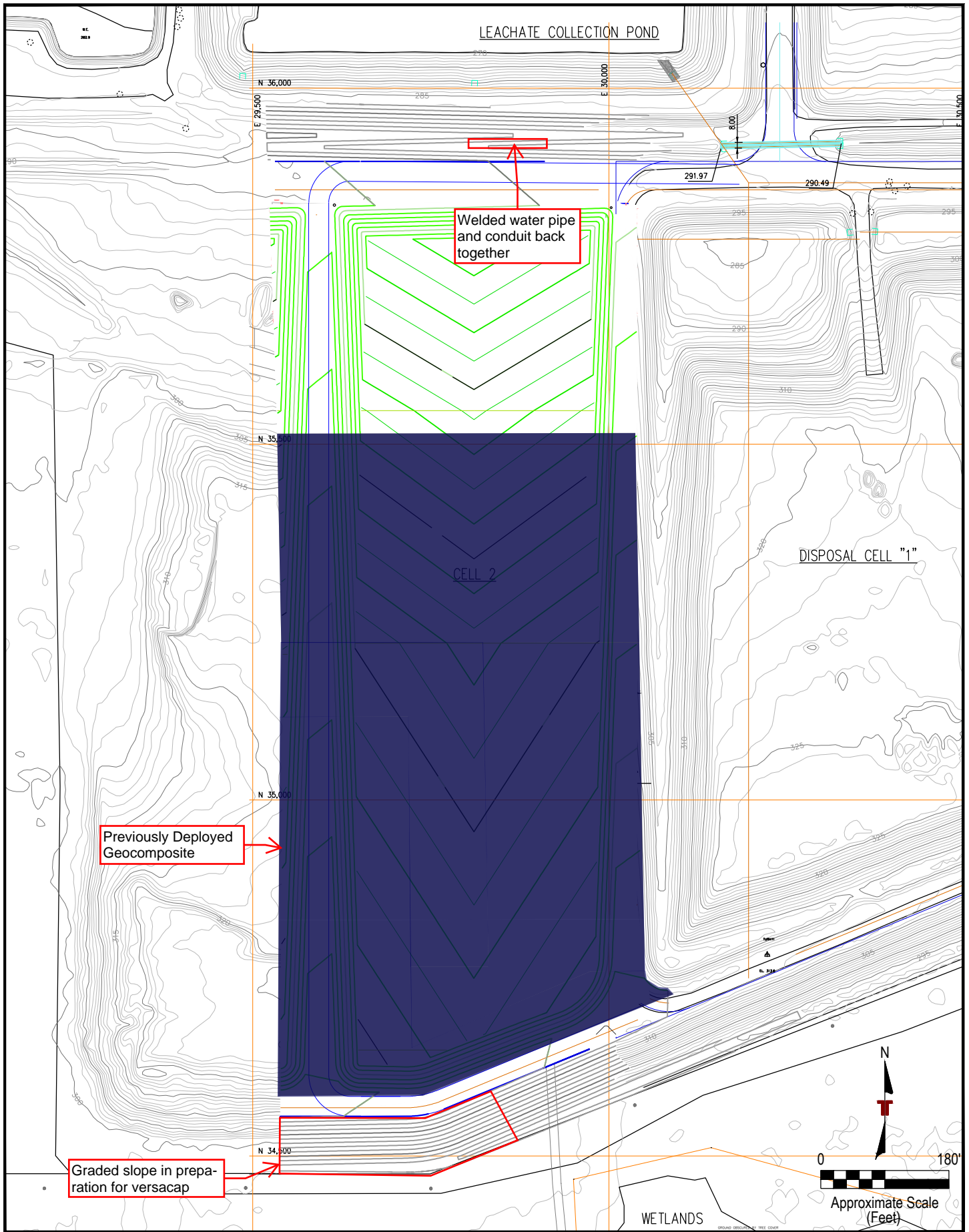
**QA/QC EXPECTATIONS:**  
Observe reattachment of water pipe and electrical conduit in north berm and possibly observe and test backfill

**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor excavator dug a trench to lay the water pipe in during welding. Also gathered scraped material from south berm and loaded into haulers.  
Contractor laborers placed pipe in shallow trench and reattached it via fusion welding. Pressure tested for leaks. Reattached electrical conduit as well.  
Contractor dozer scraped outside of south berm to grade in preparation for versacap.  
Contractor haulers transported structural fill material from south berm to overburden pile.

**LIFTS WORKED AND COMPACTION EFFORTS:**  
**LIFTS:**  
**COMPACTION EFFORTS:**

**OPERATIONAL CONCERNS & SOLUTIONS:**  
Hydraulic line on welder burst. Cleaned spilled fluid and replaced hose to continue working.

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	8.1.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

Project No: 35177127  
Date of Report: 8/2/2018  
Client Name: American Electric Power  
Contractor: SFC / ESI  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>64°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>5:45 PM</u>

<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>2</u> Dozer(s)	<u>      </u> Skyjack		
<u>1</u> Excavator(s)	<u>1</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>      </u> Water Truck		
<u>2</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor		

<b>PERSONNEL ONSITE:</b>	
<u>2</u> Client	<u>      </u> Liner Crew
<u>13</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>1</u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

**QA/QC EXPECTATIONS:**  
Observe reattachment of water pipe and electrical conduit in north berm and possibly observe and test backfill

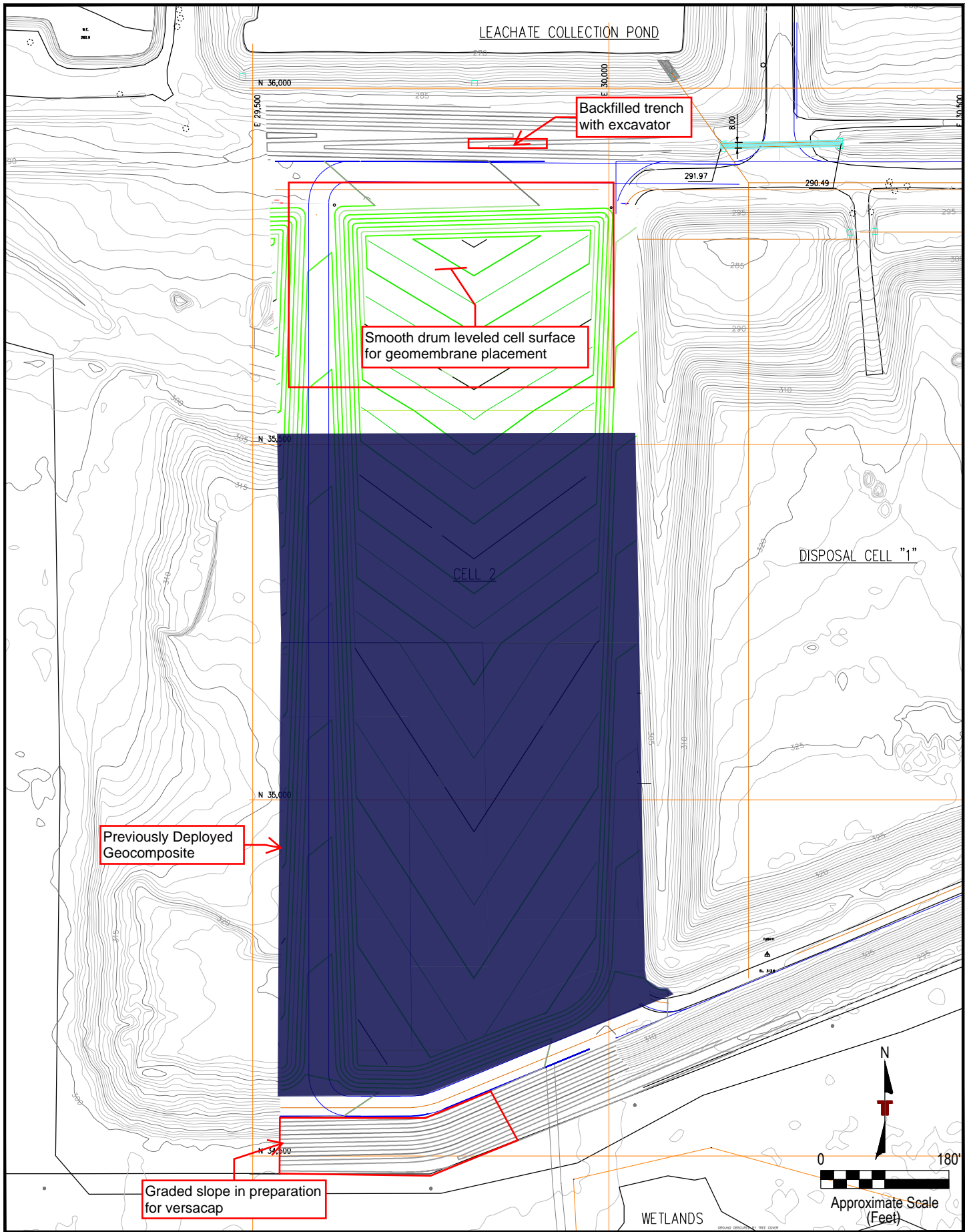
**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor excavator backfilled water pipe trench with clay liner material and compacted it. Also gathered scraped material from south berm and loaded into haulers. Also began cutting anchor trench along top of north berm.  
Contractor dozer scraped outside of south berm to grade in preparation for versacap.  
Contractor haulers transported structural fill material from south berm to overburden pile.  
Smooth drum went over cell floor to prepare for liner placement.  
Water truck ran, reconditioning clay liner material.

**LIFTS WORKED AND COMPACTION EFFORTS:**  
LIFTS: Backfilled trench for water pipe.

**COMPACTION EFFORTS:** To reduce possibility of crushing lines, material was pressed with excavator bucket.

**OPERATIONAL CONCERNS & SOLUTIONS:**  
        
      

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	8.02.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH      BRYANT, AR 72022  
 PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/3/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input checked="" type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>65°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>7:00 PM</u>

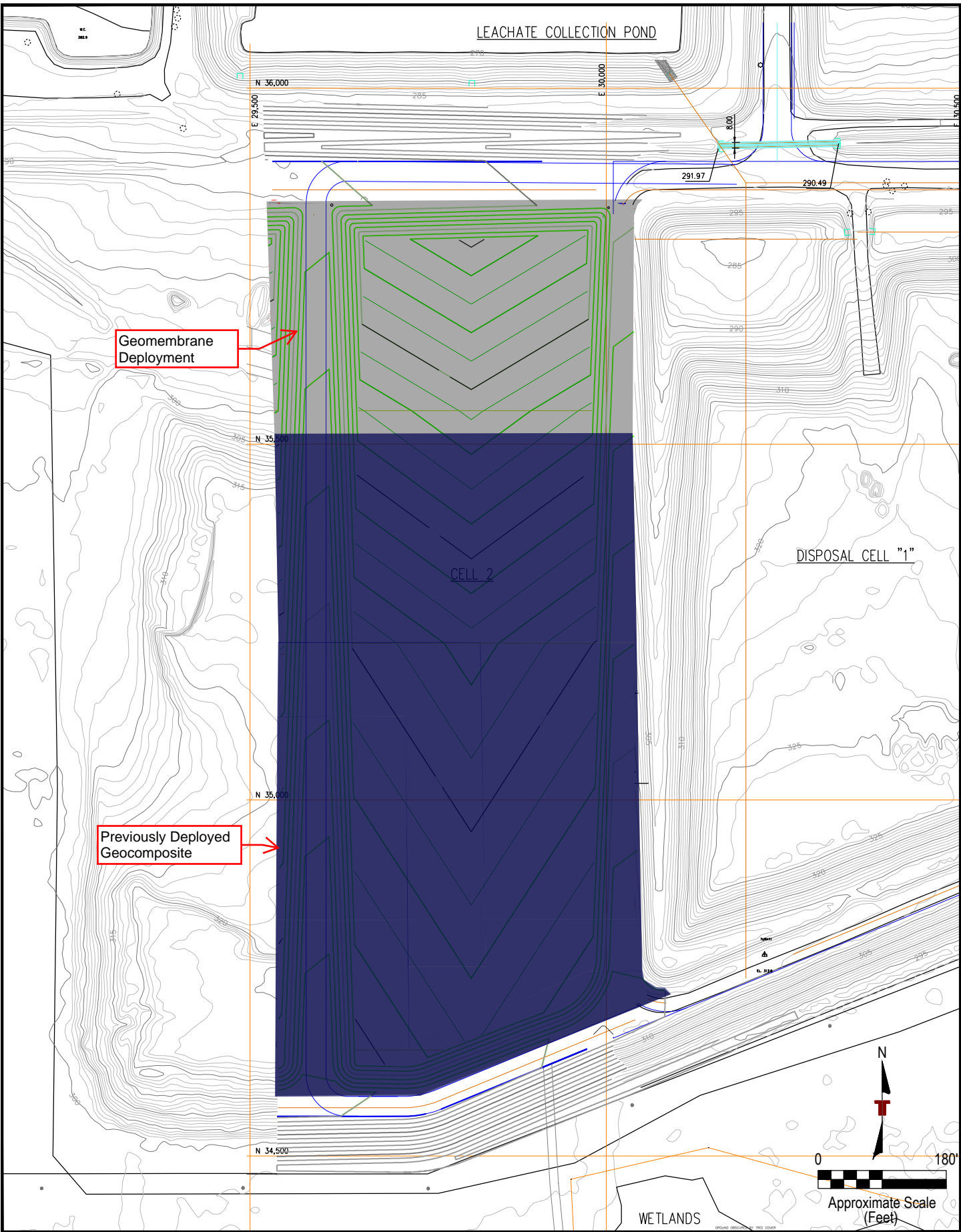
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u> Dozer(s)	<u>      </u> Skyjack		
<u>1</u> Excavator(s)	<u>2</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>      </u> Water Truck		
<u>1</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor		
<u>0</u> Motor Grader(s)	<u>1</u> Smooth Drum Compactor		

PERSONNEL ONSITE:			
<u>2</u> Client	<u>15</u> Liner Crew		
<u>6</u> Contractor	<u>      </u> Liner Installer		
<u>1</u> COA Consultant	<u>      </u> Concrete Crew		
<u>0</u> Design Engineer	<u>      </u> Pipe Installer		
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.		

QA/QC EXPECTATIONS:
<u>Observe ESI deploy remaining geomembrane on north end of cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>ESI deployed and welded together geomembrane panels</u>
<u>SFC cleared cell floor in preparation for geomembrane deployment. Rolled as much as they could with smooth drum.</u>
<u>SFC continued to work on south berm, preparing road.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS:</u>
<u>COMPACTION EFFORTS:</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.03.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>71°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>96°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

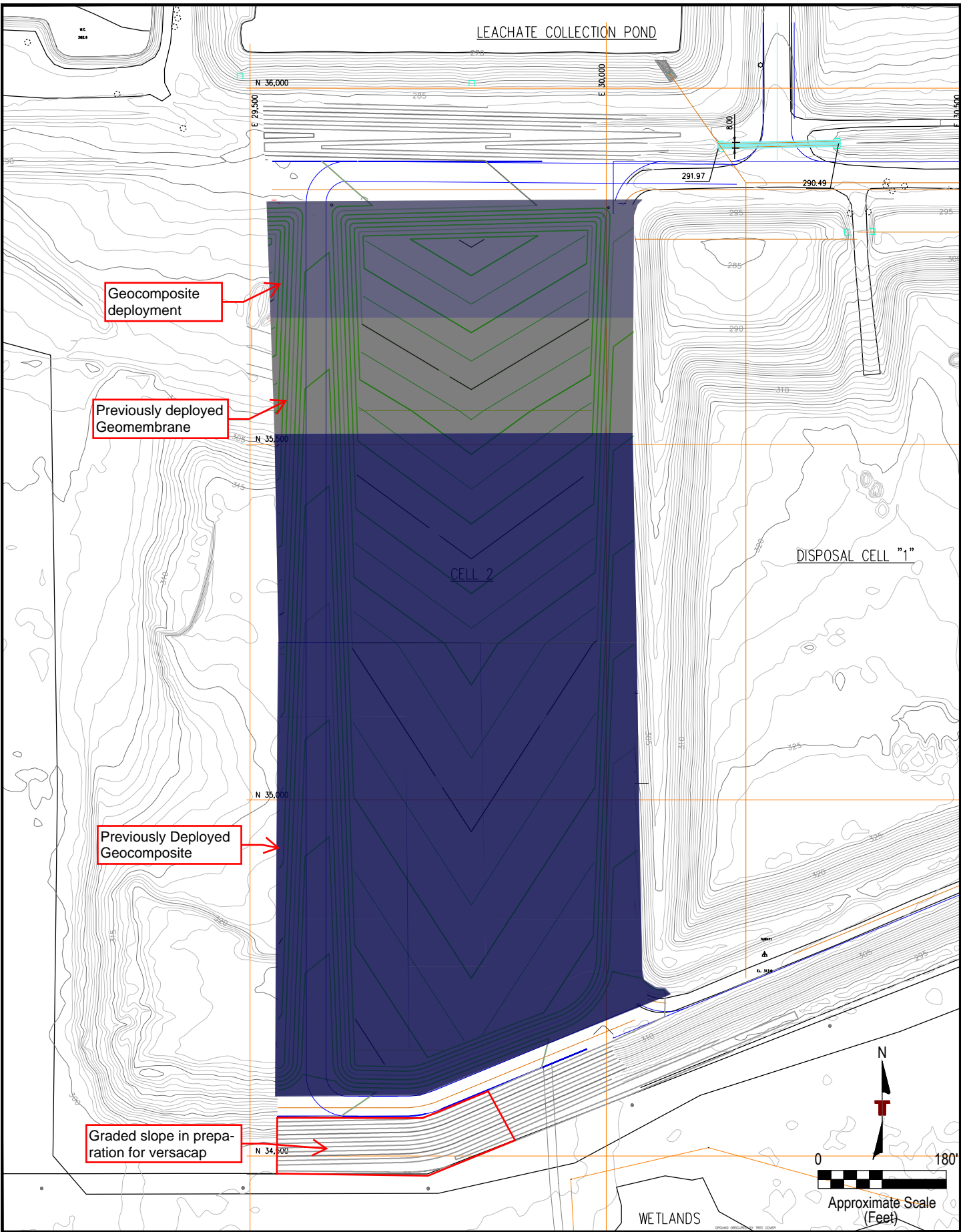
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u> Dozer(s)	<u>1</u> Skyjack		
<u>1</u> Excavator(s)	<u>2</u> Skidsteer		
<u>    </u> Backhoe(s)	<u>    </u> Water Truck		
<u>    </u> Haul Truck(s)	<u>    </u> Sheeps Foot Compactor		
<u>    </u> Motor Grader(s)	<u>    </u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>15</u> Liner Crew
<u>2</u> Contractor	<u>    </u> Liner Installer
<u>1</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe ESI make repairs to geomembrane and begin deploying geocomposite.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>ESI extrusion welded repairs into geomembrane using extrusion welds.</u>
<u>ESI began deploying geocomposite on north end of cell, pulling out rolls with kubota side-by-side and then stitching and zip-tying together.</u>
<u>SFC began backfilling north anchor trench with skidsteer.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS: First lift of north anchor trench</u>
<u>COMPACTION EFFORTS: No compaction on anchor trench lift at this time.</u>
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.04.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 8/5/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>71°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>99°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>7:00 PM</u>

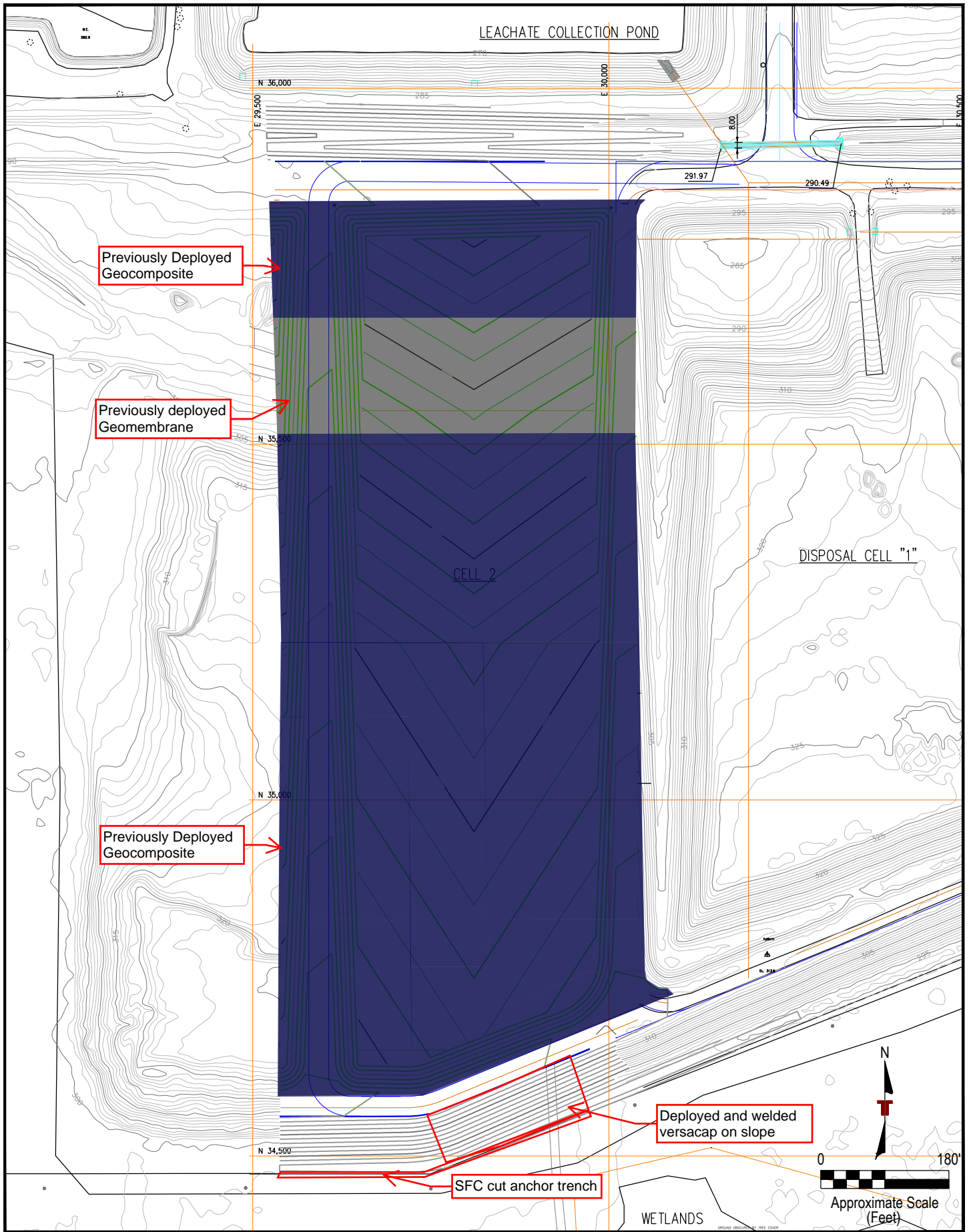
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>    </u> Dozer(s)	<u>  1  </u> Skyjack	<u>    </u> Backhoe(s)	<u>    </u> Water Truck
<u>  1  </u> Excavator(s)	<u>  2  </u> Skidsteer	<u>    </u> Haul Truck(s)	<u>    </u> Sheeps Foot Compactor
<u>    </u> Motor Grader(s)	<u>    </u> Smooth Drum Compactor	<u>    </u>	<u>    </u>

PERSONNEL ONSITE:			
<u>  2  </u> Client	<u>  10  </u> Liner Crew	<u>    </u> Contractor	<u>    </u> Liner Installer
<u>  1  </u> COA Consultant	<u>    </u> Concrete Crew	<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>  1  </u> Surveyor	<u>    </u> Gas Line Inst.	<u>    </u>	<u>    </u>

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe ESI deploy versacap on the south slope of the south berm.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>ESI deployed and fusion welded versacap panels along south slope of south berm.</u>  <u>SFC began backfilling south anchor trench with skidsteer.</u>  <u>SFC excavator was used to pull panels up slope.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <u>LIFTS: Began first lift of south anchor trench for versacap.</u>  <u>COMPACTION EFFORTS: No compaction on anchor trench lift at this time.</u></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	8.05.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**



# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/6/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>74°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>96°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:30 AM</u>	Depart Site:	<u>3:15 PM</u>
Arrive Site:	<u>7:15 AM</u>	Arrive Lab:	<u>4:00 PM</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>    </u> Dozer(s)	<u>  1  </u>	<u>    </u> Skyjack	
<u>  1  </u> Excavator(s)	<u>  2  </u>	<u>    </u> Skidsteer	
<u>    </u> Backhoe(s)	<u>    </u>	<u>    </u> Water Truck	
<u>    </u> Haul Truck(s)	<u>    </u>	<u>    </u> Sheeps Foot Compactor	
<u>    </u> Motor Grader(s)	<u>    </u>	<u>    </u> Smooth Drum Compactor	

PERSONNEL ONSITE:			
<u>  2  </u> Client	<u>  14  </u>	<u>    </u> Liner Crew	
<u>  2  </u> Contractor	<u>    </u>	<u>    </u> Liner Installer	
<u>  1  </u> COA Consultant	<u>    </u>	<u>    </u> Concrete Crew	
<u>    </u> Design Engineer	<u>    </u>	<u>    </u> Pipe Installer	
<u>  1  </u> Surveyor	<u>    </u>	<u>    </u> Gas Line Inst.	

**QA/QC EXPECTATIONS:**

Observe ESI deploy geocomposite and zip-tie and sew.

**SUMMARY OF ACTIVITIES OBSERVED:**

ESI deployed geocomposite panels, zip-tied the geonetting together, and then sewed the geotextile together.

SFC continued cutting anchor trench and backfilling it.

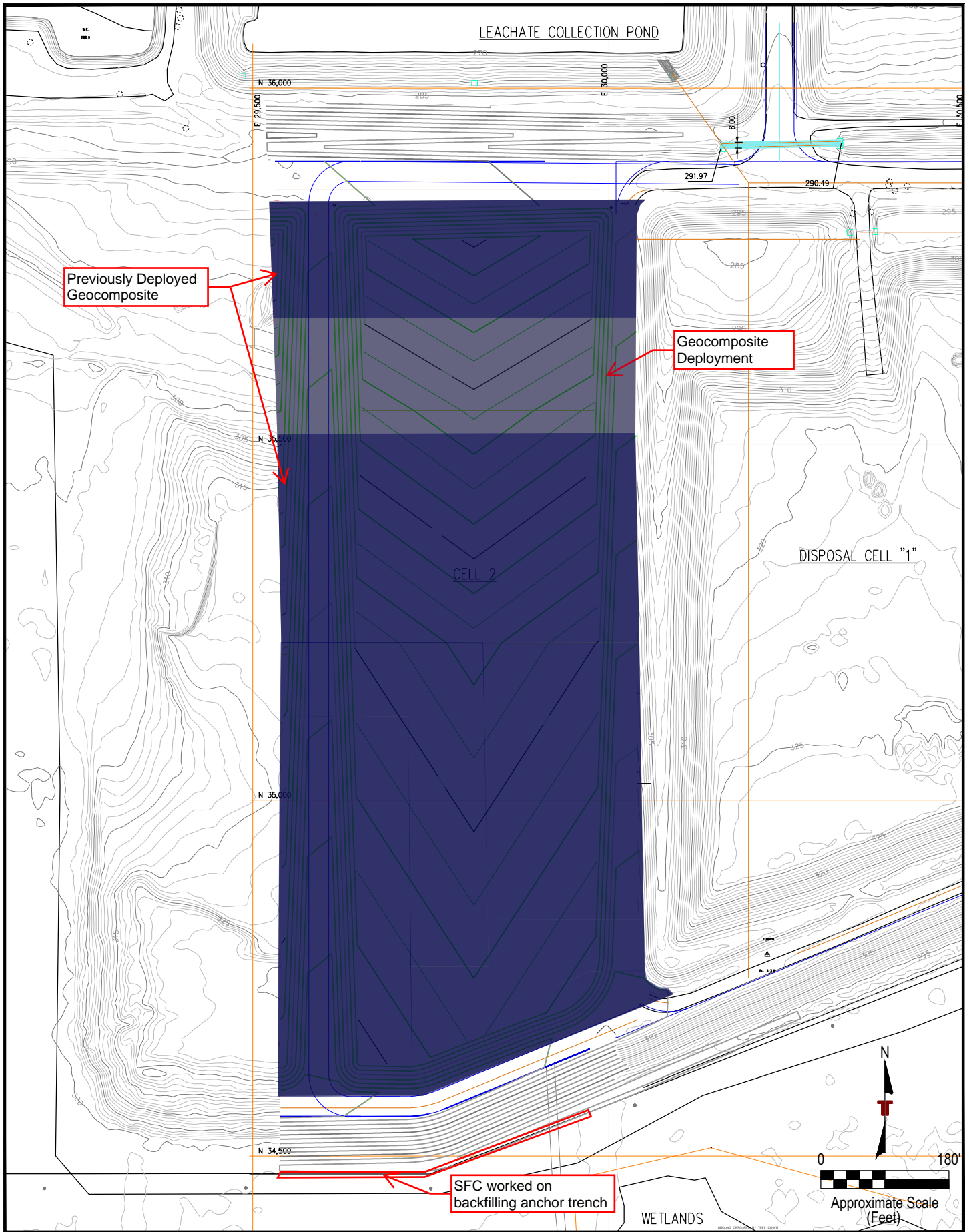
**LIFTS WORKED AND COMPACTION EFFORTS:**

LIFTS: Began first lift of south anchor trench for versacap.

COMPACTION EFFORTS: No compaction on anchor trench lift at this time.

**OPERATIONAL CONCERNS & SOLUTIONS:**

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	8.06.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 8/7/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>97°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>3:30 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:30 PM</u>

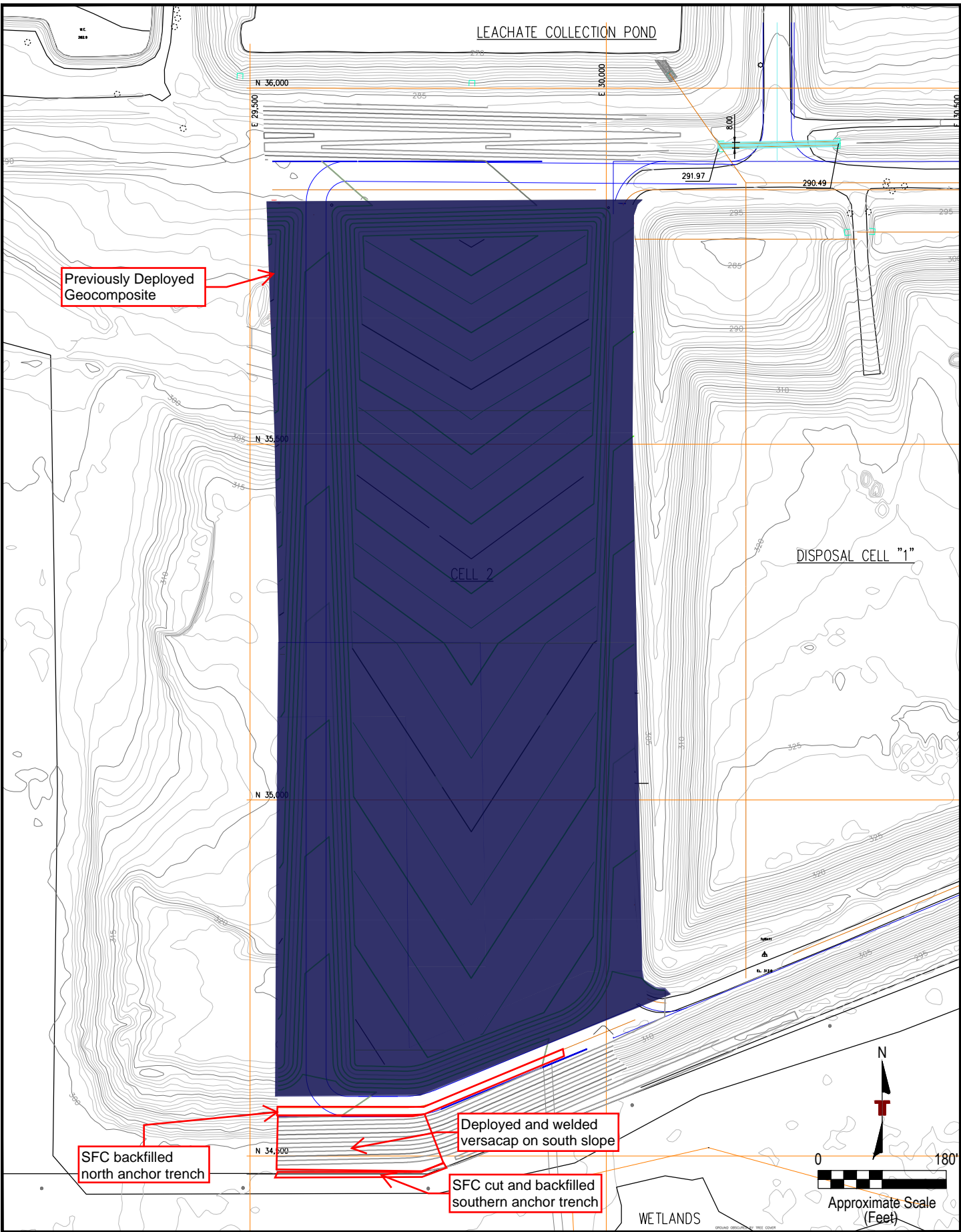
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>    </u> Dozer(s)	<u>  1  </u> Skyjack	<u>    </u> Excavator(s)	<u>  2  </u> Skidsteer
<u>    </u> Backhoe(s)	<u>    </u> Water Truck	<u>    </u> Haul Truck(s)	<u>    </u> Sheeps Foot Compactor
<u>    </u> Motor Grader(s)	<u>    </u> Smooth Drum Compactor		

PERSONNEL ONSITE:			
<u>  2  </u> Client	<u> 14 </u> Liner Crew	<u>  2  </u> Contractor	<u>    </u> Liner Installer
<u>  1  </u> COA Consultant	<u>    </u> Concrete Crew	<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>  1  </u> Surveyor	<u>    </u> Gas Line Inst.		

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe ESI deploy versacap on south slope of south berm.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>ESI completed deployment of versacap panels and welded them together.</u>  <u>SFC continued cutting anchor trench and backfilling it.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <u>LIFTS: Completed backfilling south anchor trench for versacap</u>  <u>COMPACTION EFFORTS: Compacted the anchor trench with smooth drum.</u></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.07.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 8/8/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>97°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>2:30 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>4:15 PM</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>    </u> Dozer(s)	<u>    </u> Skyjack	<u>    </u> Excavator(s)	<u>    </u> Skidsteer
<u>    </u> Backhoe(s)	<u>    </u> Water Truck	<u>    </u> Haul Truck(s)	<u>    </u> Sheeps Foot Compactor
<u>    </u> Motor Grader(s)	<u>    </u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>    </u> 1 Client	<u>    </u> Liner Crew
<u>    </u> 4 Contractor	<u>    </u> Liner Installer
<u>    </u> 1 COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>    </u> Surveyor	<u>    </u> Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe SFC complete backfilling of north anchor trench.

**SUMMARY OF ACTIVITIES OBSERVED:**

Contractor excavator loaded clay liner material from south berm stockpile into hauler. Also moved material from stockpiles into anchor trench.

Contractor hauler transported material from south berm stockpile to north berm.

Contractor skidsteer loaded material and moved it into anchor trench.

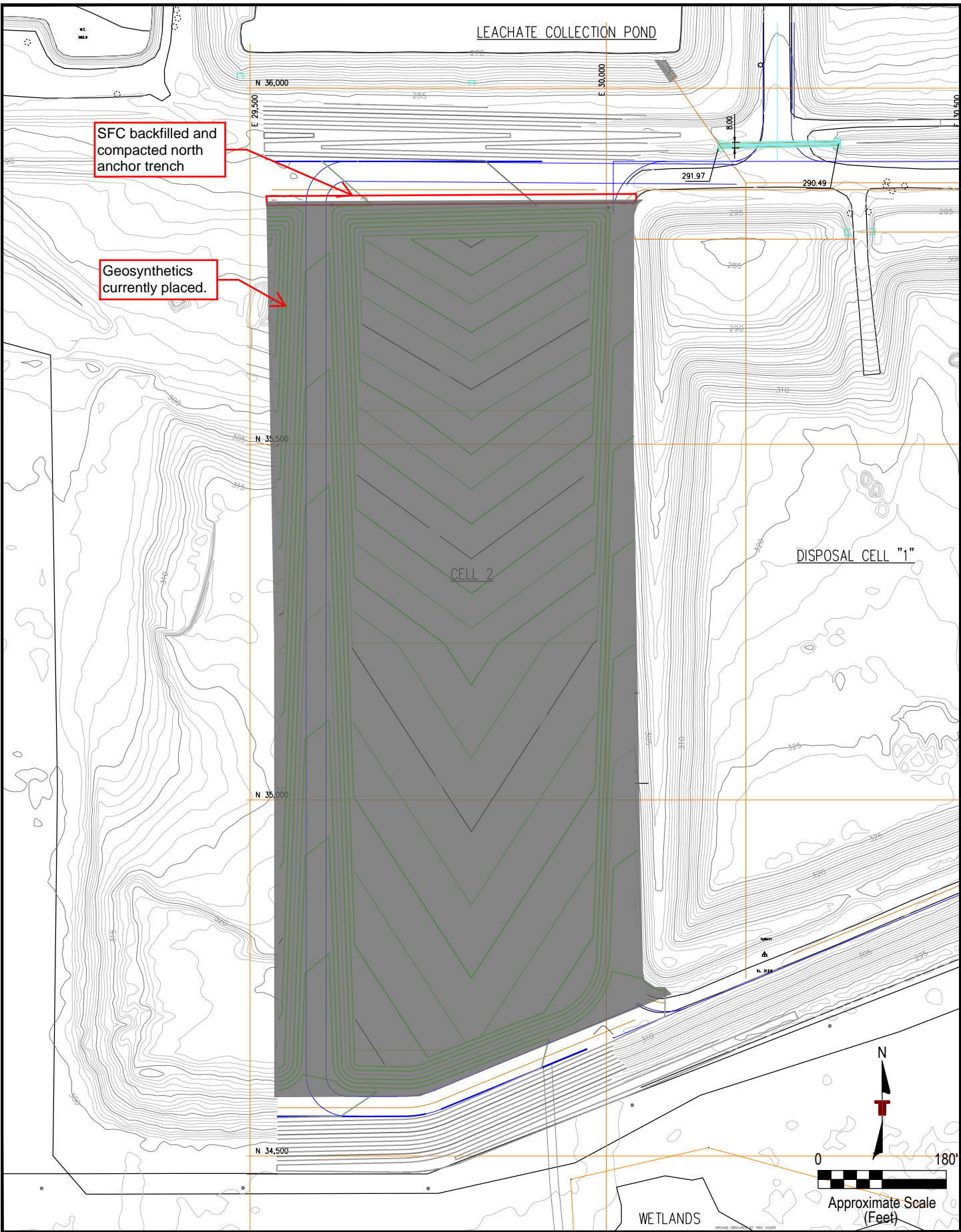
**LIFTS WORKED AND COMPACTION EFFORTS:**

LIFTS: Placed first, second, and third lifts of anchor trench.

COMPACTION EFFORTS: Compacted first lift three times with trench packer. Compacted second lift with one pass of trench packer and then 4-5 passes with small excavator. Compacted third lift with more than 5 passes with sheep's foot. Compacted again with smooth drum after enough material was placed.

**OPERATIONAL CONCERNS & SOLUTIONS:**

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.08.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH      BRYANT, AR 72022  
 PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/15/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>96°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>12:30 PM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>2:30 PM</u>	Arrive Lab:	<u>5:45 PM</u>

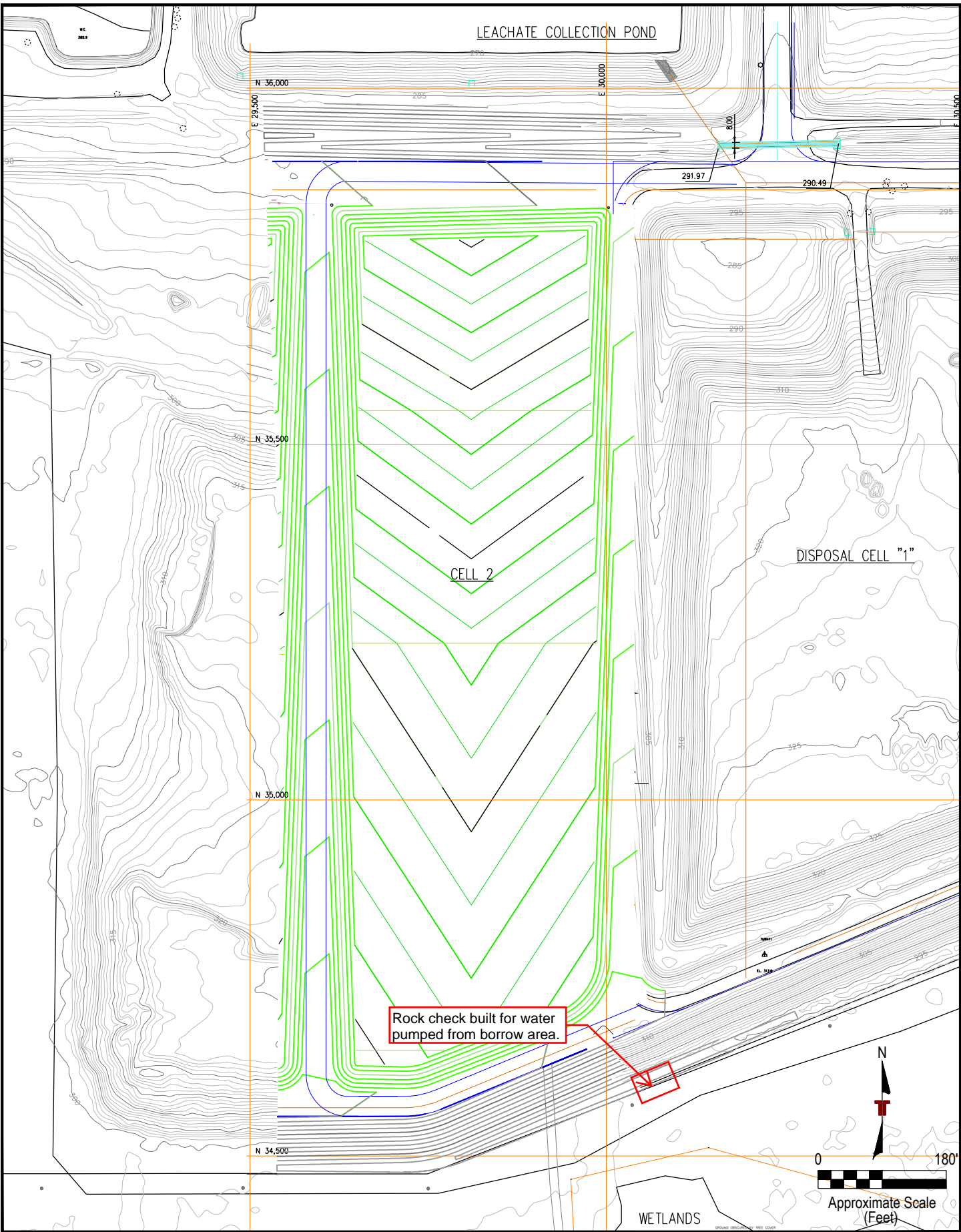
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>    </u> Dozer(s)	<u>    </u> Skyjack	<u>    </u> Excavator(s)	<u>    </u> Skidsteer
<u>    </u> Backhoe(s)	<u>    </u> Water Truck	<u>    </u> Haul Truck(s)	<u>    </u> Sheeps Foot Compactor
<u>    </u> Motor Grader(s)	<u>    </u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>    </u> Liner Crew
<u>12</u> Contractor	<u>    </u> Liner Installer
<u>1</u> COA Consultant	<u>    </u> Concrete Crew
<u>    </u> Design Engineer	<u>    </u> Pipe Installer
<u>1</u> Surveyor	<u>    </u> Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe placement of protective cover.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor built rockcheck in south stormwater ditch to prevent erosion from pumping of borrow area into said ditch.</u>  <u>Contractor skidsteer retrieved rock from stockpile and placed it in ditch.</u>  <u>Contractor excavator spread and shaped rocks into structure.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.15.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 8/16/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>100°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

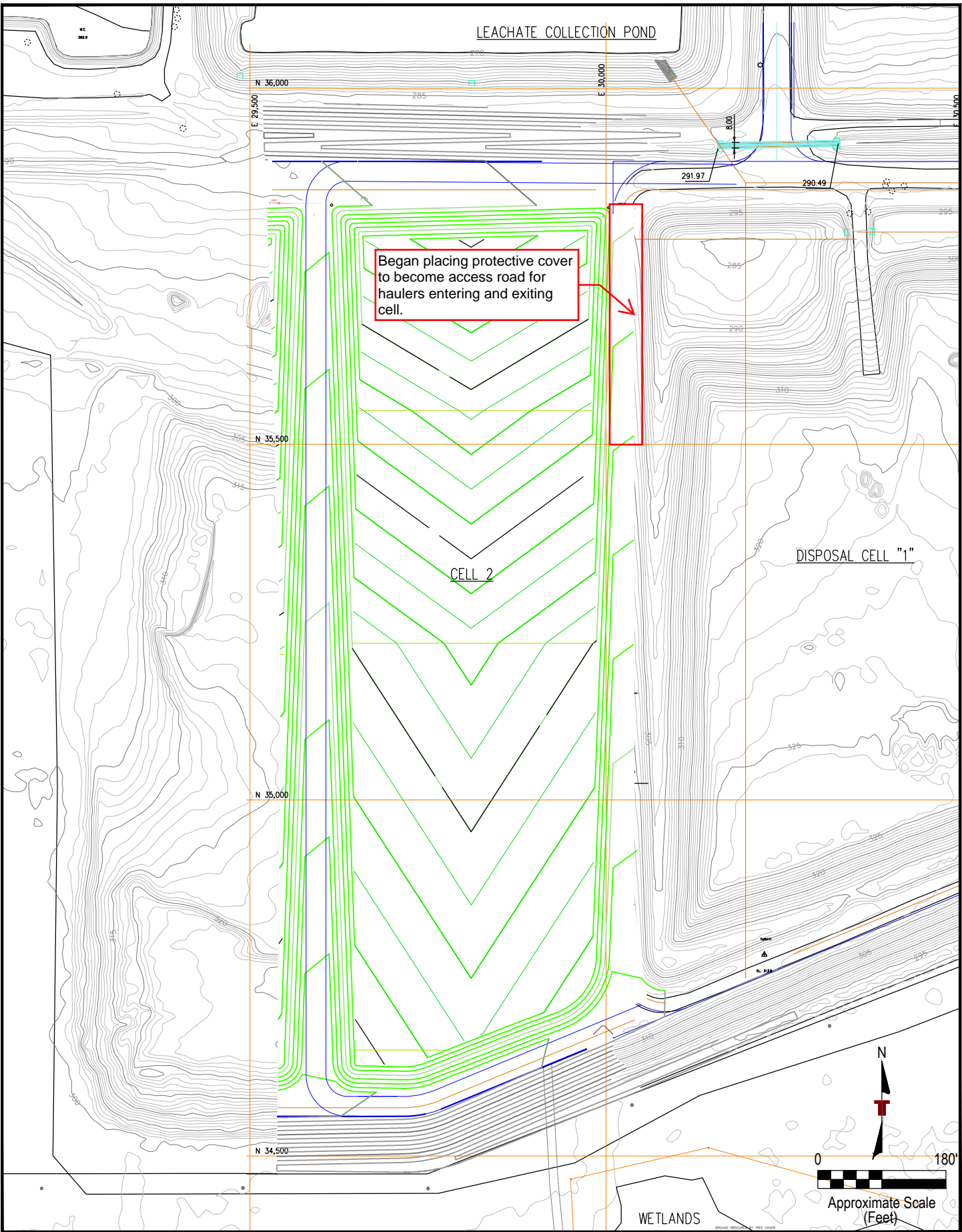
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>1</u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe placement of protective cover along east berm. Intent is to create an access road for haulers.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from overbuild area in cell 3 and loaded into haulers.</u>  <u>Contractor haulers transported protective cover material to ne corner of cell and began offloading along east tie-in to the south.</u>  <u>Contractor dozer spread protective cover material along ne cell corner.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.16.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/17/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>100°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

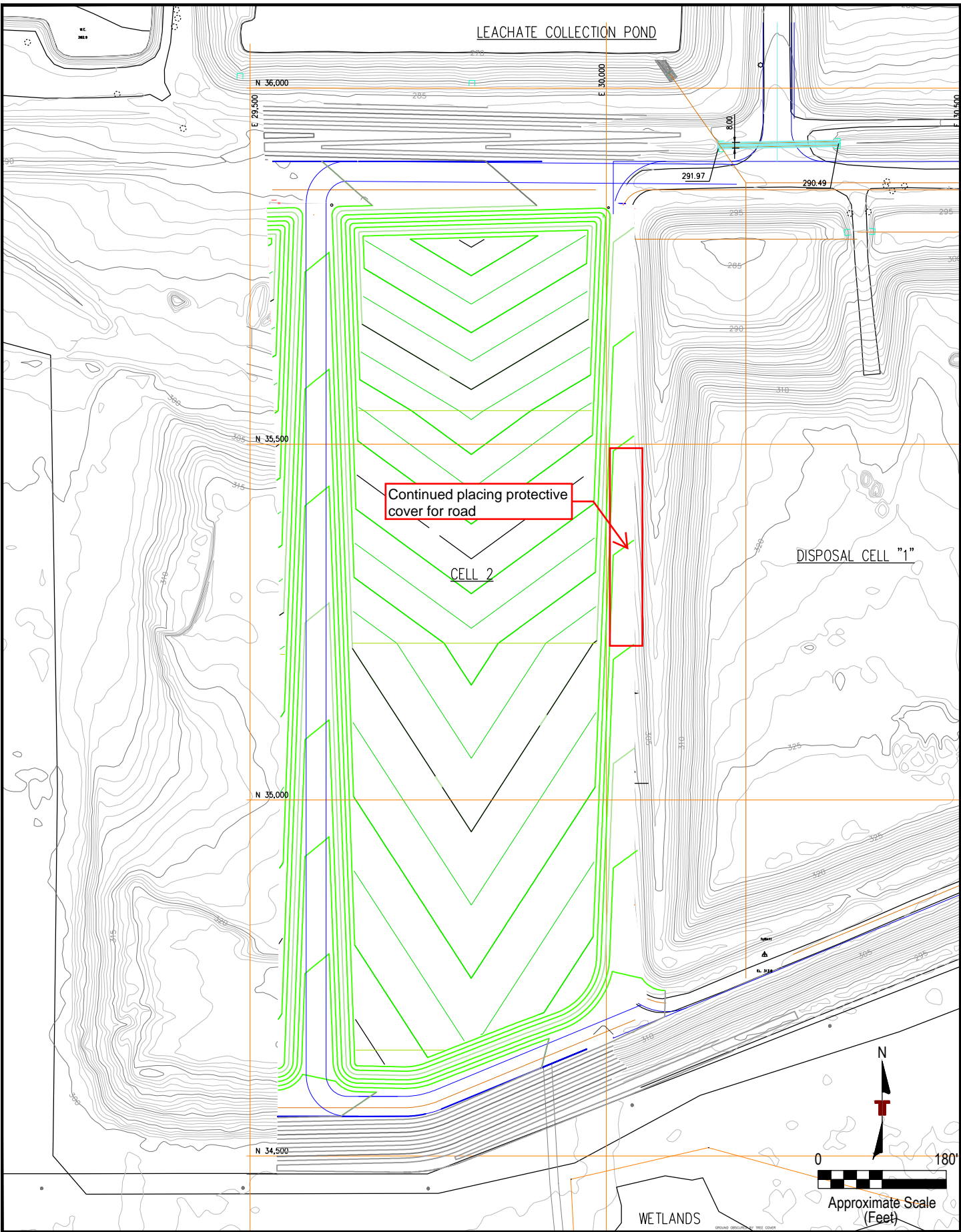
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover along east berm.</u></p> <hr/> <p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from overbuild area in cell 3 and loaded into haulers.</u>  <u>Contractor haulers transported protective cover material to east berm of cell and continued offloading to the south.</u>  <u>Contractor dozer spread protective cover material along east berm.</u></p> <hr/> <p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p> <hr/> <p><b>COMPACTION EFFORTS:</b></p> <hr/> <p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>
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Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.17.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/21/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input checked="" type="checkbox"/> Windy	<u>67°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>90°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>8:30 AM</u>	Depart Site:	<u>3:00 PM</u>
Arrive Site:	<u>10:15 AM</u>	Arrive Lab:	<u>4:45 PM</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>7</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**  
Observe continued placement of protective cover along east berm and into cell floor as large ramp.

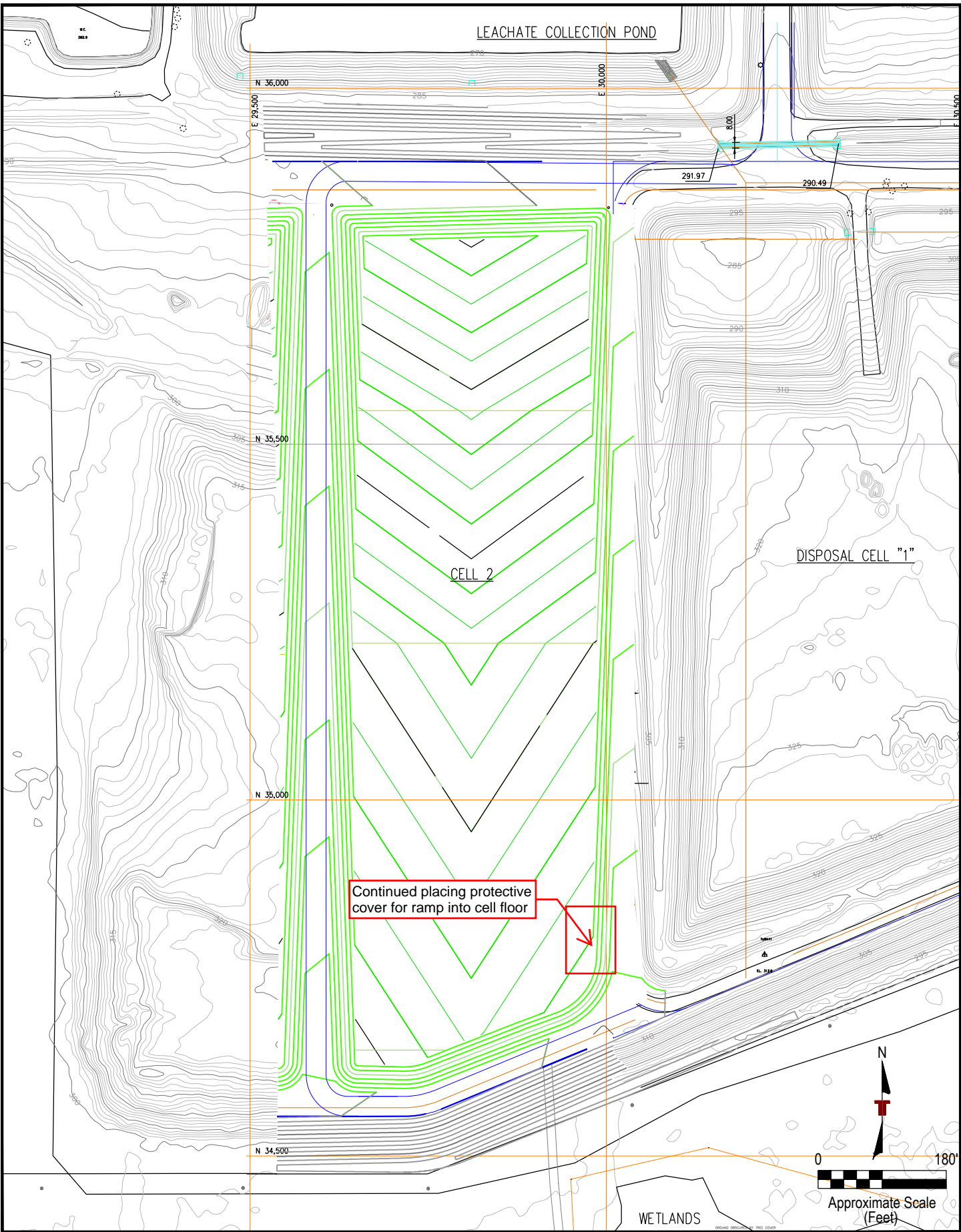
**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor excavator cut protective cover material from storm ditch extending from overbuild area to nw and loaded into haulers.  
Contractor haulers transported protective cover material to east berm of cell and continued offloading to the south.  
Contractor dozer spread protective cover material along east berm.

**LIFTS WORKED AND COMPACTION EFFORTS:**  
**LIFTS:**

**COMPACTION EFFORTS:**

**OPERATIONAL CONCERNS & SOLUTIONS:**

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.21.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 8/22/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

<b>WEATHER:</b>	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>67°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>90°F</u> High Temp. (°F)

<b>REPORTING TIMES:</b>			
Depart Lab:	<u>6:00 AM</u>	Depart Site:	<u>4:45 PM</u>
Arrive Site:	<u>7:45 AM</u>	Arrive Lab:	<u>6:45 PM</u>

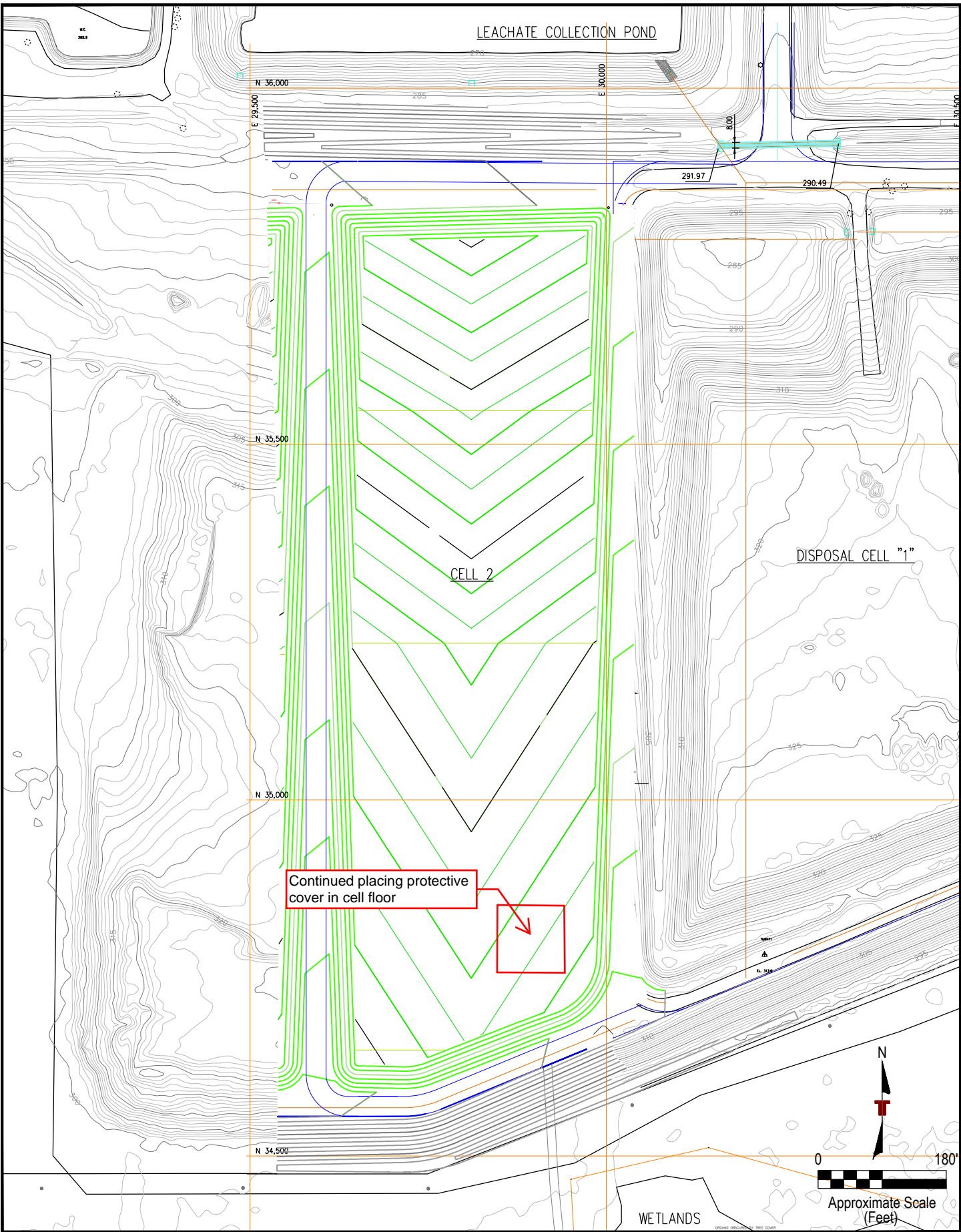
<b>FIELD TESTING PERFORMED:</b>	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

<b>EQUIPMENT ONSITE:</b>			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

<b>PERSONNEL ONSITE:</b>			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>7</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe continued placement of protective cover along east berm and into cell floor as large ramp.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Contractor excavator cut protective cover material from storm ditch extending from overbuild area to nw and loaded into haulers. Also placed protective cover material on top of plyboard in cell floor.</u> <u>Contractor haulers transported protective cover material to east berm of cell and continued offloading to the south.</u> <u>Contractor dozer spread protective cover material along east berm.</u> <u>Contractor placed plyboard on geocomposite to help protect it from future excavations for piping.</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.22.18

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 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/23/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>67°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:00 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>7:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

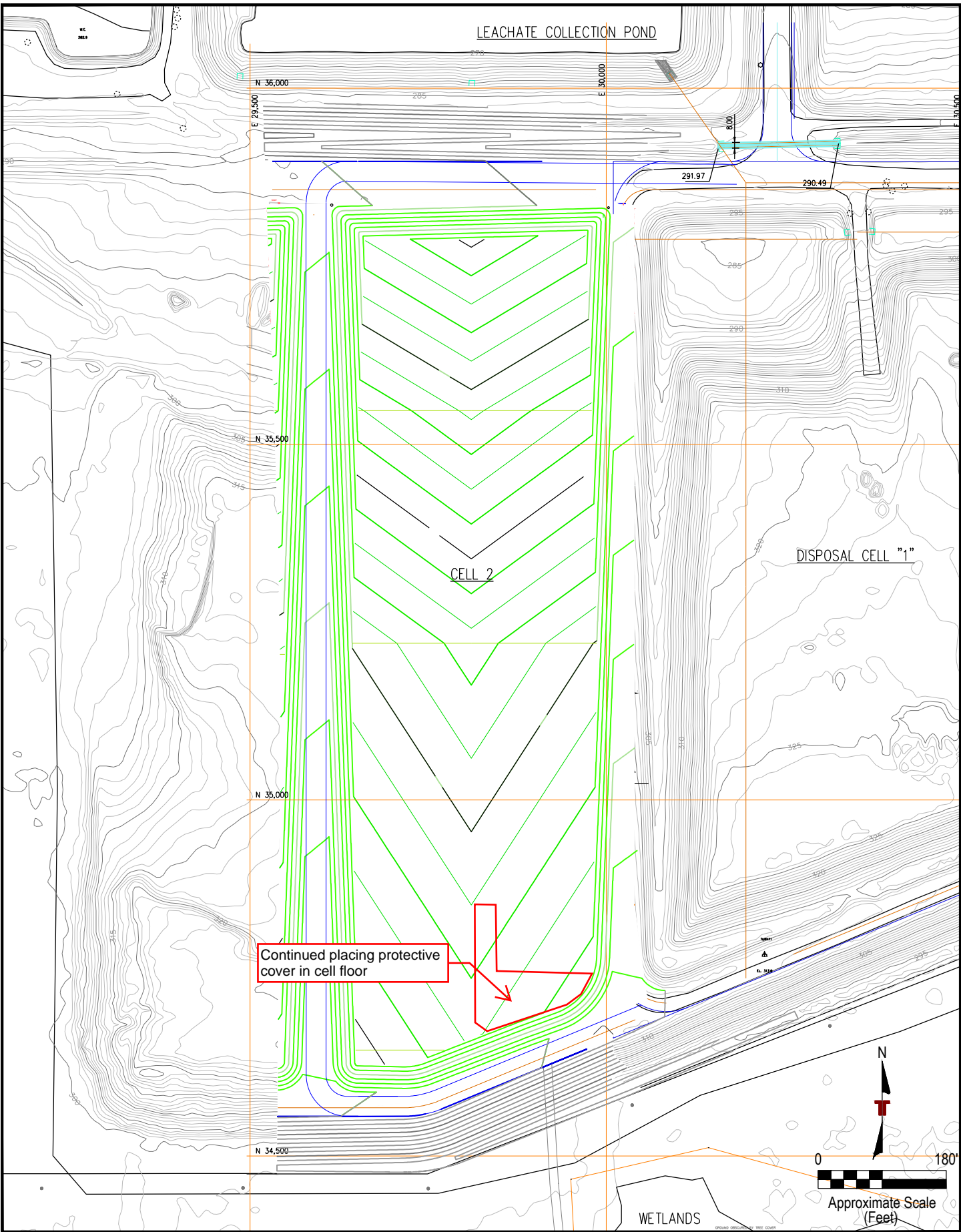
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover along east berm and into cell floor as large ramp.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area and storm ditch area to the nw.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.23.18

**Terracon**  
 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/24/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>98°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

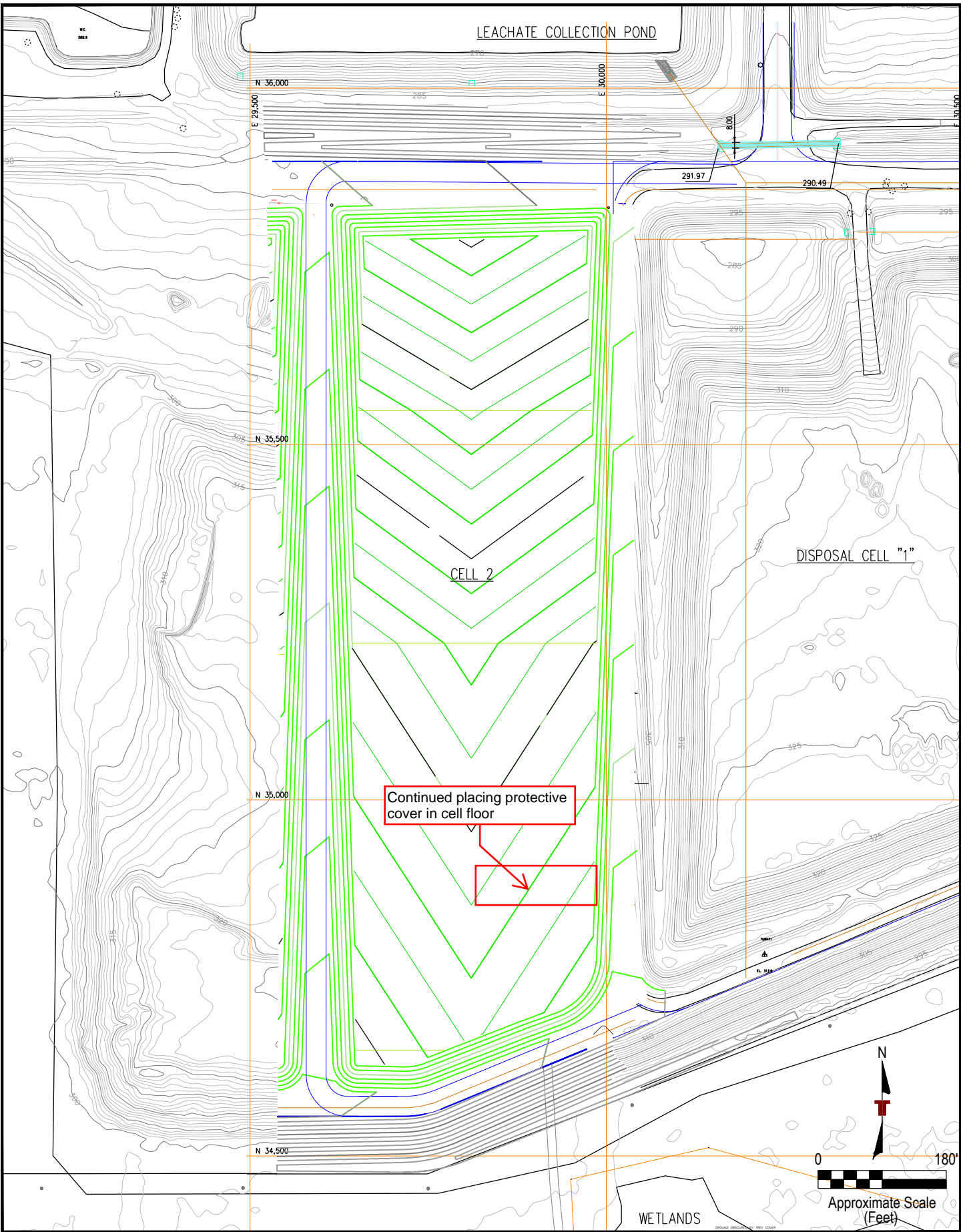
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b></p> <p><u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b></p> <p><u>Contractor excavator cut protective cover material from borrow area.</u></p> <p><u>Contractor haulers transported protective cover material to cell floor and offloaded.</u></p> <p><u>Contractor dozer spread protective cover material in cell floor</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b></p> <p>LIFTS:</p> <p>COMPACTION EFFORTS:</p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.24.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/25/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>97°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:00 PM</u>

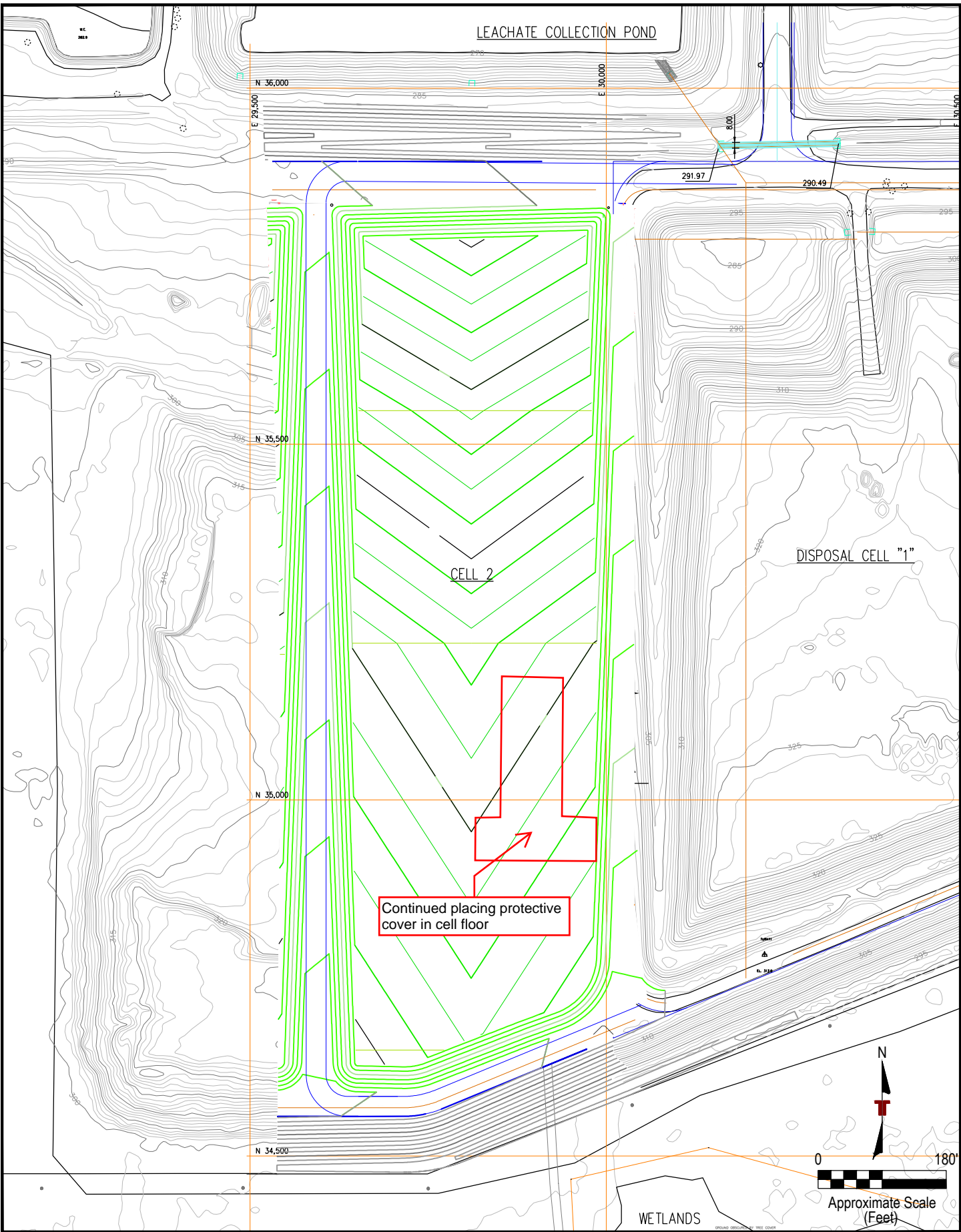
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.25.18

**Terracon**  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/27/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>76°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>97°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>7:00 PM</u>

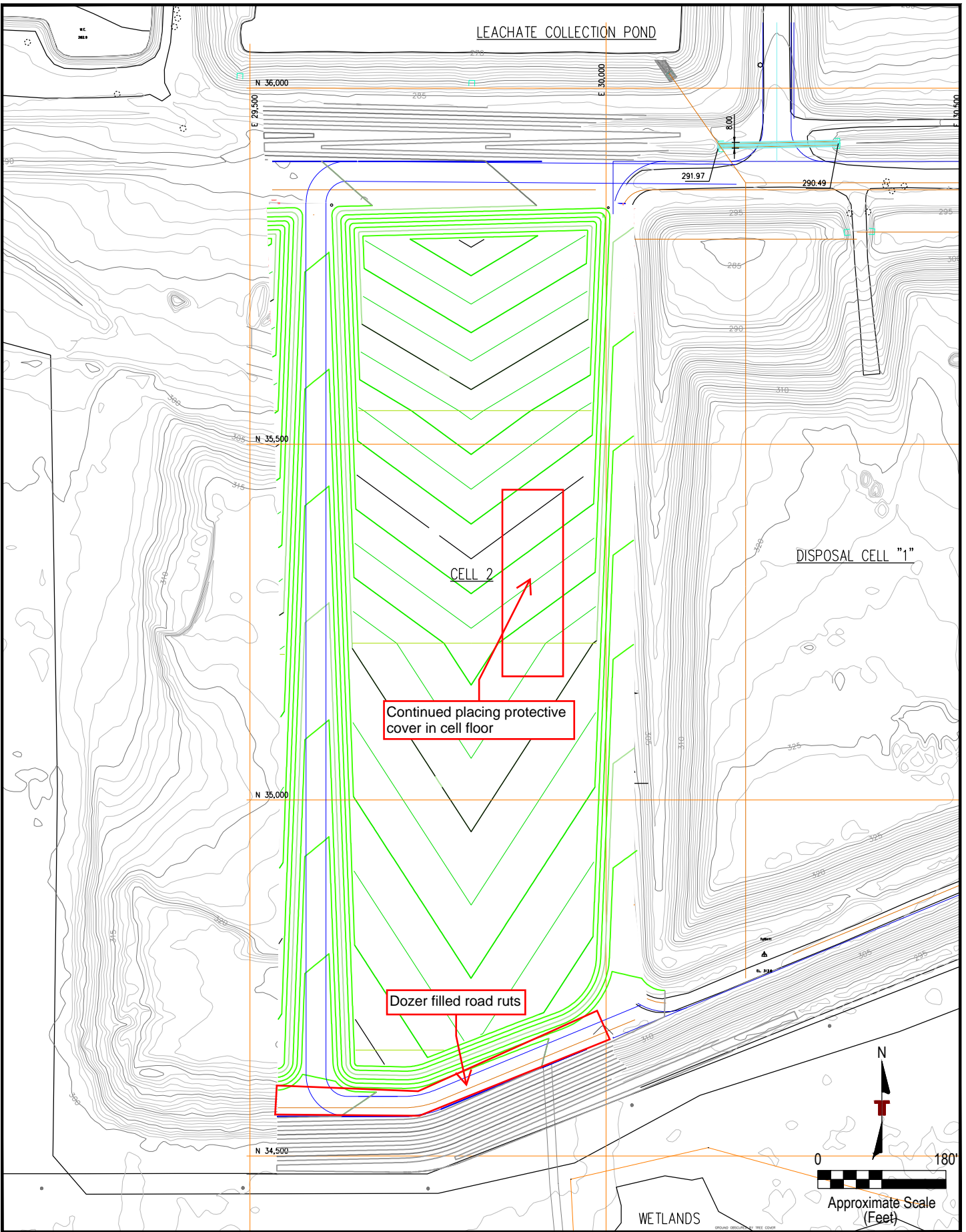
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u> Dozer(s)	<u>      </u> Skyjack		
<u>1</u> Excavator(s)	<u>1</u> Skidsteer		
<u>      </u> Backhoe(s)	<u>1</u> Water Truck		
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor		
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>8</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover in cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>
<u>Contractor dozer spread protective cover material in cell floor. Also filled in ruts on south berm.</u>
<u>Skidsteer moved more particle board to cell floor to help prevent punctures in liner when removing material for pipe-laying.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
LIFTS:
COMPACTION EFFORTS:
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.27.18

**Terracon**  
 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---



## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/28/2018  
 Client Name: American Electric Power  
 Contractor: SFC / ESI  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>97°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

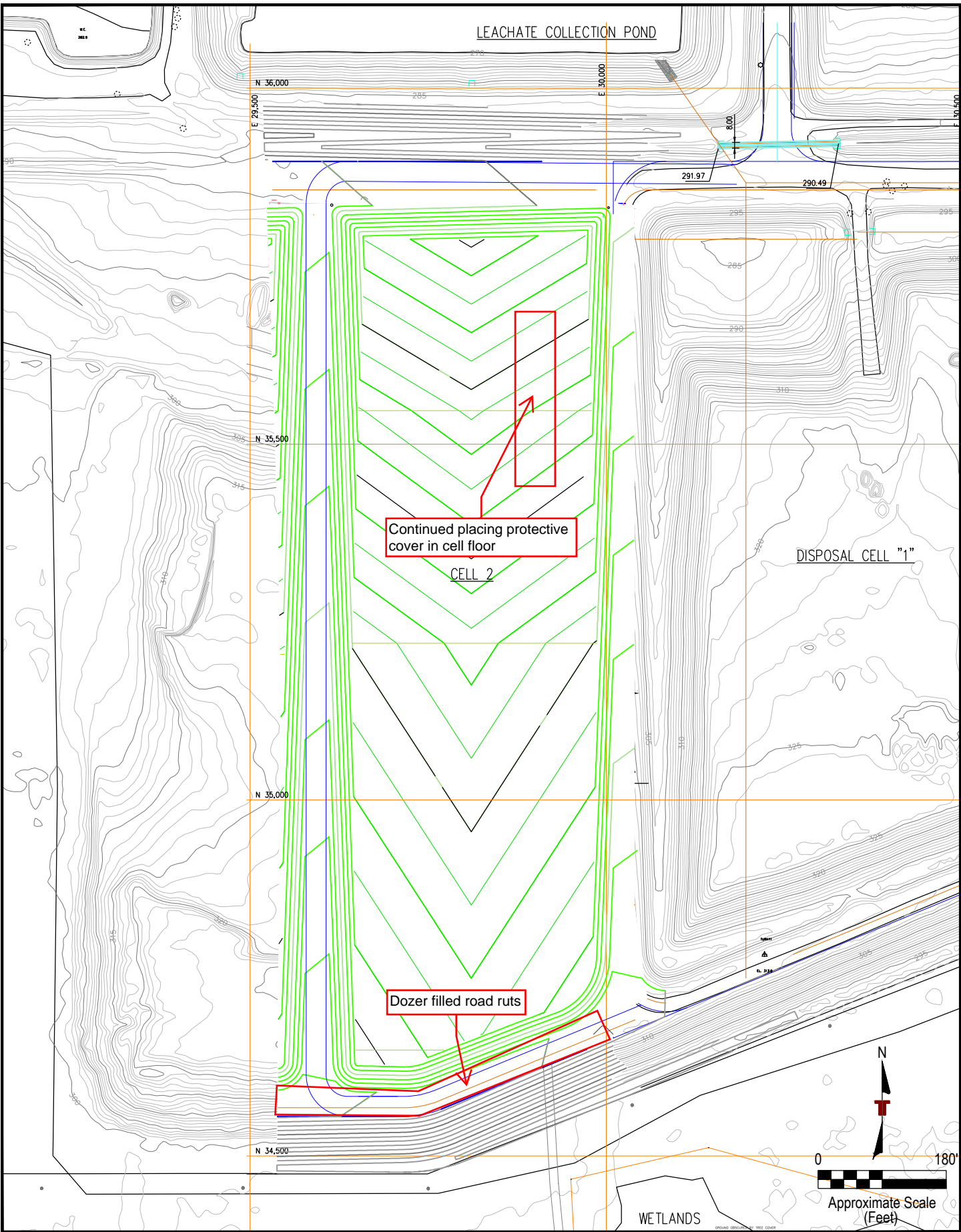
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Skyjack
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>10</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover in cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>
<u>Contractor dozer spread protective cover material in cell floor. Also filled in ruts on south berm.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
LIFTS:
COMPACTION EFFORTS:
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.28.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/29/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>75°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

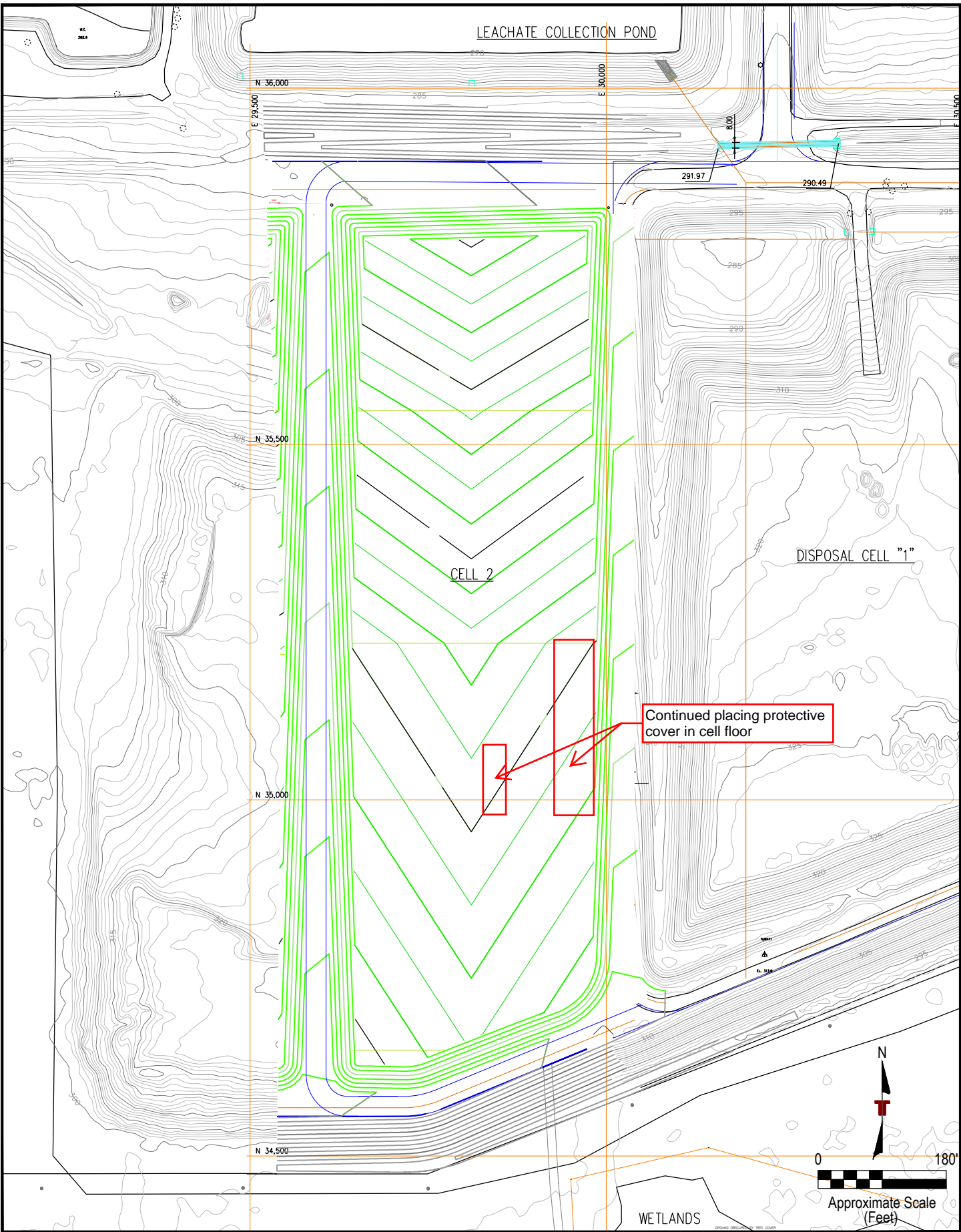
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>10</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr: TLB  
 Drawn By: MJA  
 Checked By: TLB  
 Approved By: TLB

Project No. 35177127  
 Scale: AS SHOWN  
 File No. 000  
 Date: 8.29.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 8/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92°F</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>12:00 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>2:00 PM</u>

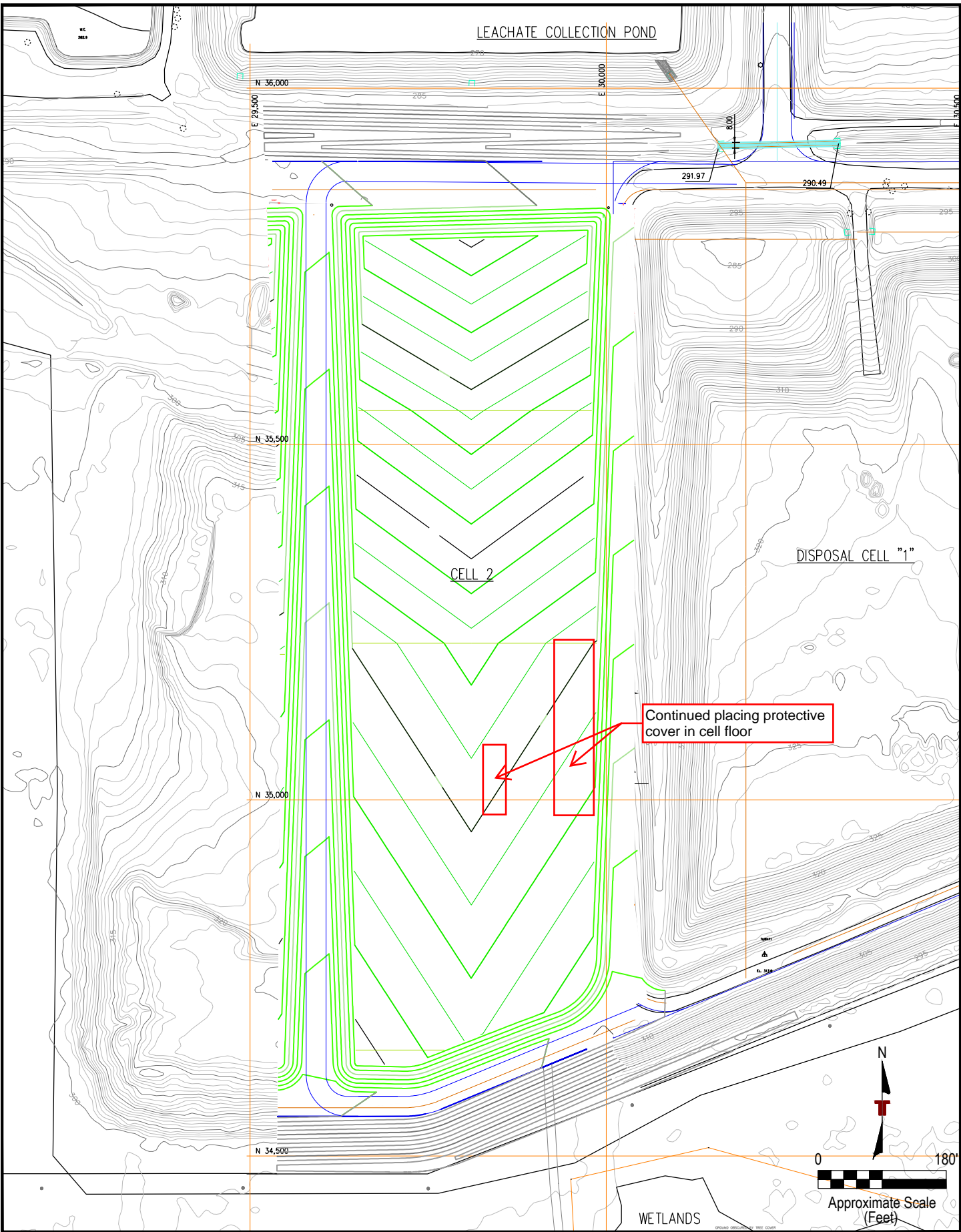
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Skyjack
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>10</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b></p> <p><u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b></p> <p><u>Contractor excavator cut protective cover material from borrow area.</u></p> <p><u>Contractor haulers transported protective cover material to cell floor and offloaded.</u></p> <p><u>Contractor dozer spread protective cover material in cell floor.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b></p> <p>LIFTS:</p>
<p>COMPACTION EFFORTS:</p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	8.30.18

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 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>96°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>7:15 AM</u>	Arrive Lab:	<u>5:45 PM</u>

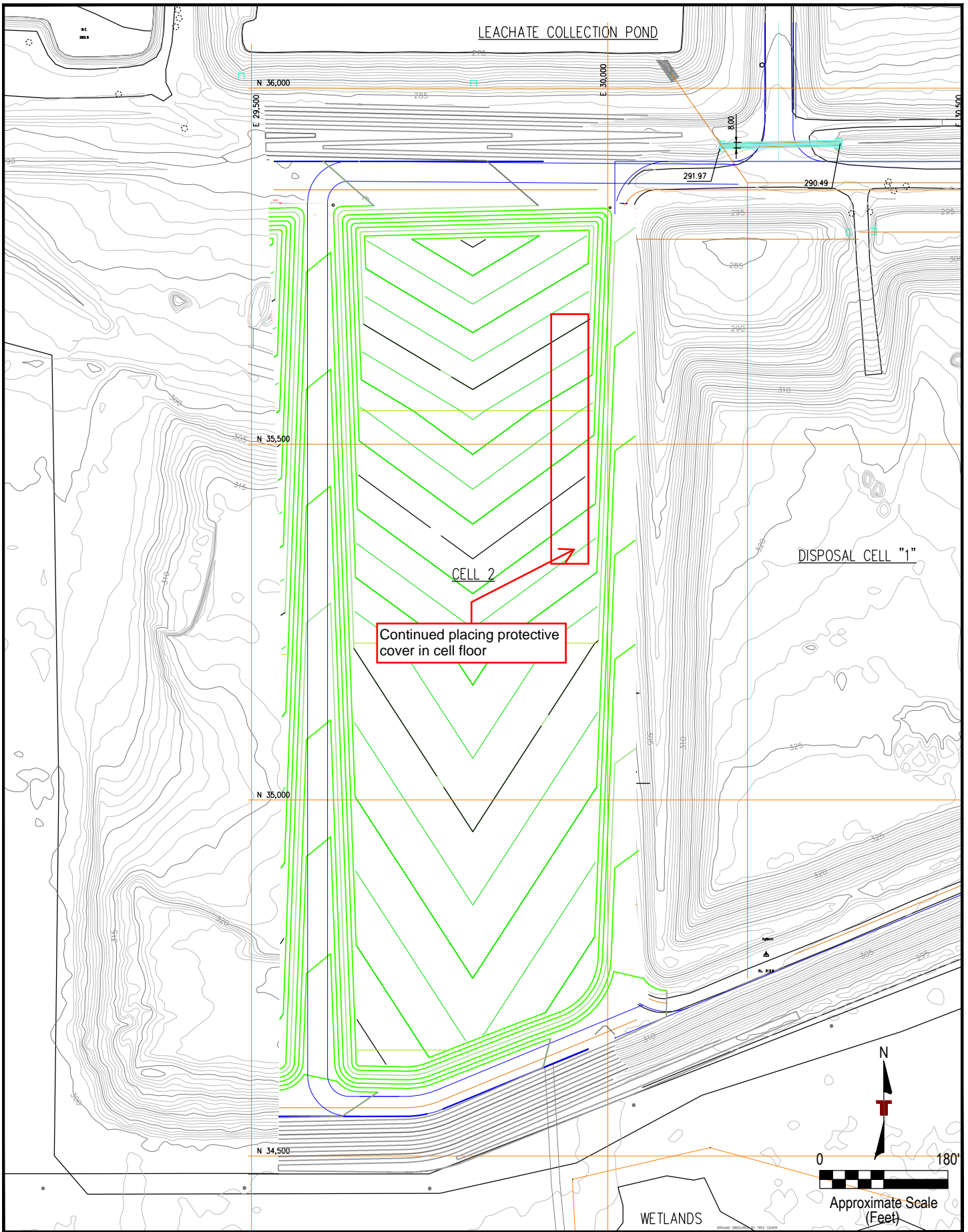
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b></p> <p><u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b></p> <p><u>Contractor excavator cut protective cover material from borrow area.</u></p> <p><u>Contractor haulers transported protective cover material to cell floor and offloaded.</u></p> <p><u>Contractor dozer spread protective cover material in cell floor.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b></p> <p>LIFTS:</p>
<p>COMPACTION EFFORTS:</p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p> <p><u>Rain from previous night delayed starting time to around 11:00 AM.</u></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	9.04.18

**Terracon**  
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 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/5/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>71°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

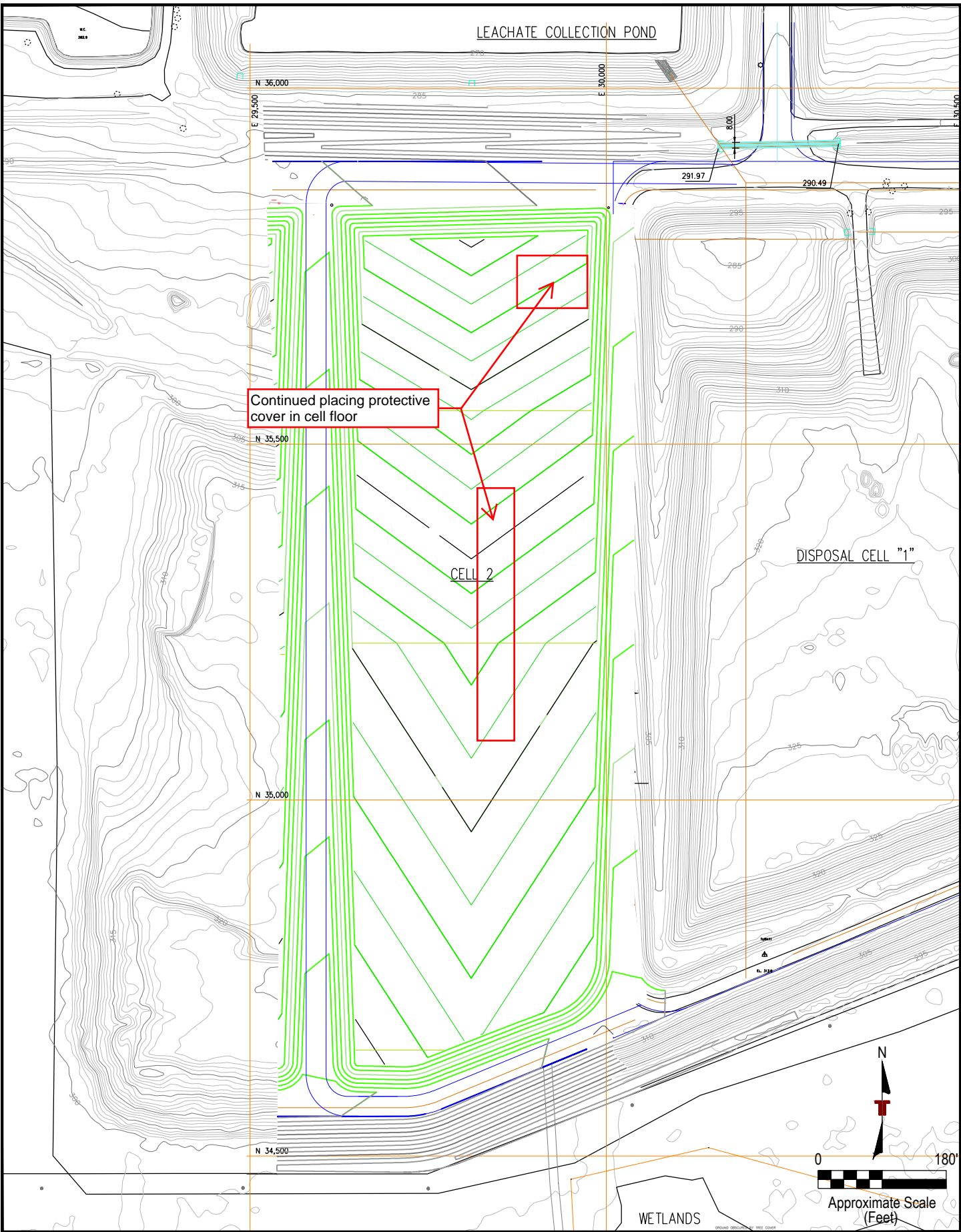
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>1</u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b></p> <p><u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b></p> <p><u>Contractor excavator cut protective cover material from borrow area.</u></p> <p><u>Contractor haulers transported protective cover material to cell floor and offloaded.</u></p> <p><u>Contractor dozer spread protective cover material in cell floor.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b></p> <p>LIFTS:</p>
<p>COMPACTION EFFORTS:</p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.05.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/6/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>68°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:00 PM</u>

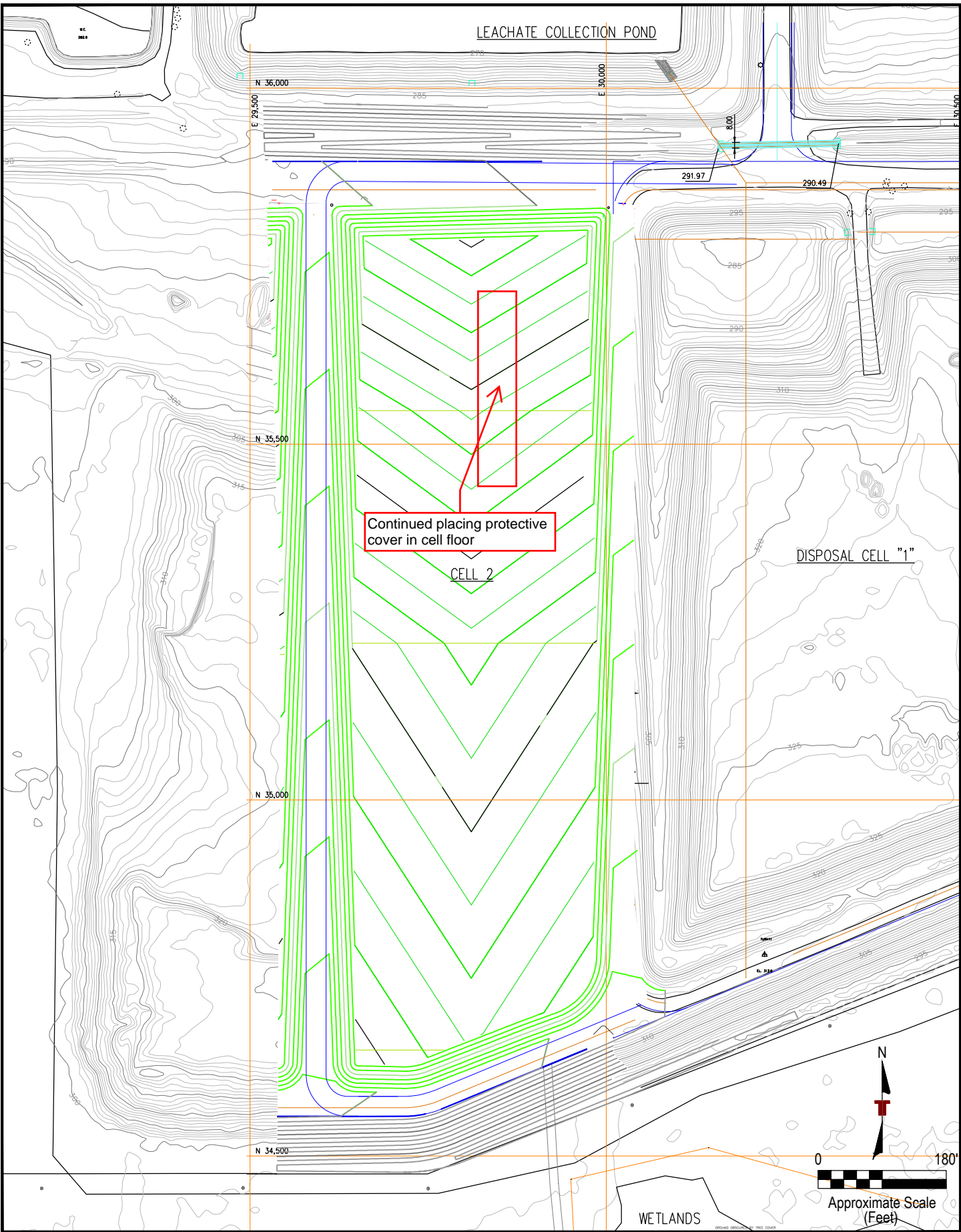
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u> Dozer(s)	<u>      </u> Skyjack	<u>      </u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck	<u>      </u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor		

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>8</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>1</u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.06.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/7/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree / Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>68°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>5:45 PM</u>

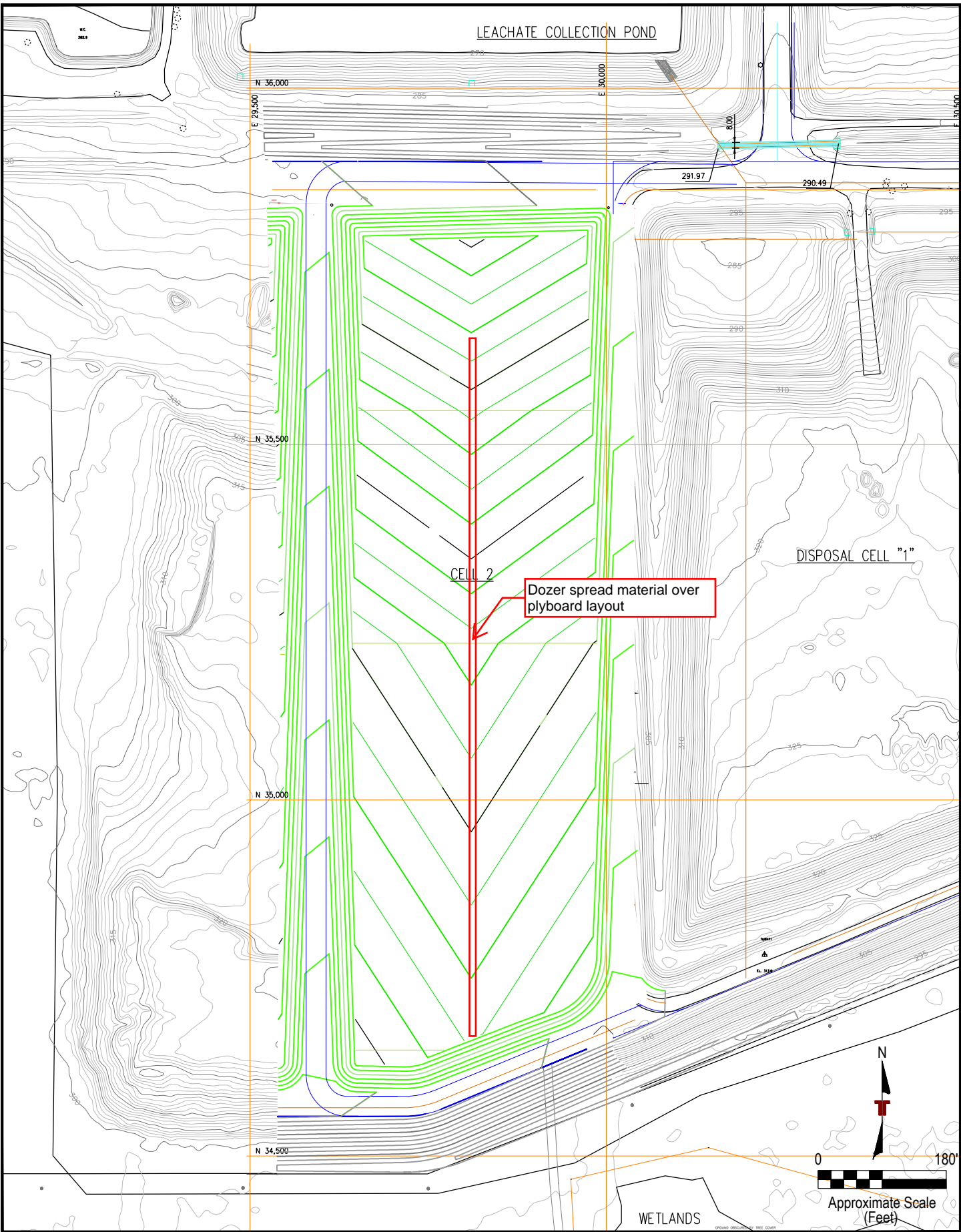
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>2</u> Dozer(s)	<u>      </u> Skyjack
<u>1</u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>1</u> Water Truck
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>1</u> Client	<u>      </u> Liner Crew
<u>8</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor.</u>  <u>Contractor laborers placed plywood on geocomposite to help prevent punctures when excavating for pipe installation.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.07.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 9/8/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input checked="" type="checkbox"/> Warm
<input checked="" type="checkbox"/> Raining	<input checked="" type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>73°F</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>83°F</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>3:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:00 PM</u>

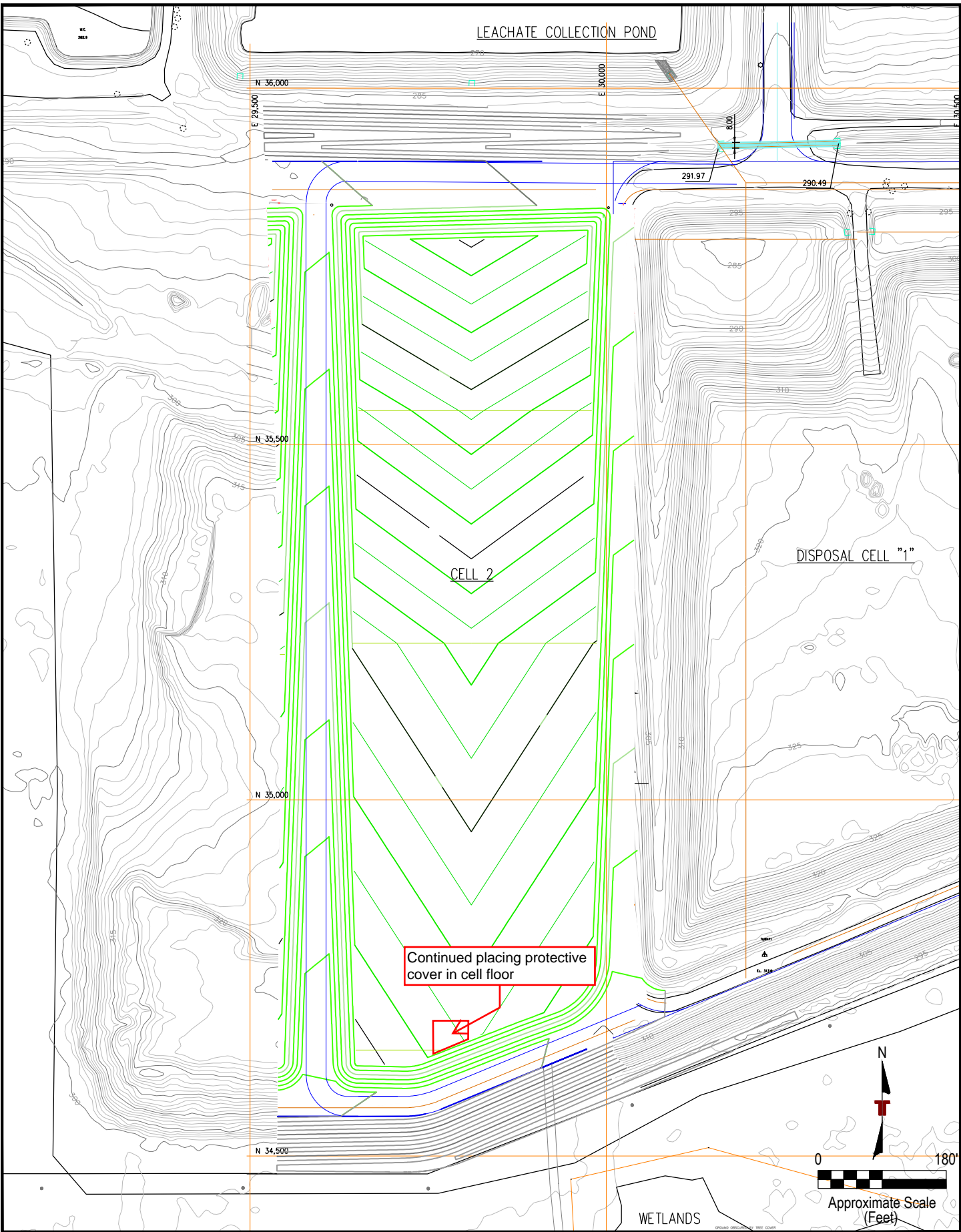
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>2</u> Dozer(s)	<u>      </u> Skyjack		
<u>1</u> Excavator(s)	<u>      </u> Skidsteer		
<u>      </u> Backhoe(s)	<u>1</u> Water Truck		
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor		
<u>1</u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor		

PERSONNEL ONSITE:			
<u>1</u> Client	<u>      </u> Liner Crew		
<u>8</u> Contractor	<u>      </u> Liner Installer		
<u>1</u> COA Consultant	<u>      </u> Concrete Crew		
<u>      </u> Design Engineer	<u>      </u> Pipe Installer		
<u>1</u> Surveyor	<u>      </u> Gas Line Inst.		

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>  <u>Rainout at 3:00 PM</u></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.08.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH      BRYANT, AR 72022  
 PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT

FULTON      ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/12/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>67</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>81</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>7:45 AM</u>	Depart Site: <u>5:30 PM</u>
Arrive Site: <u>9:30 AM</u>	Arrive Lab: <u>6:00 PM</u>

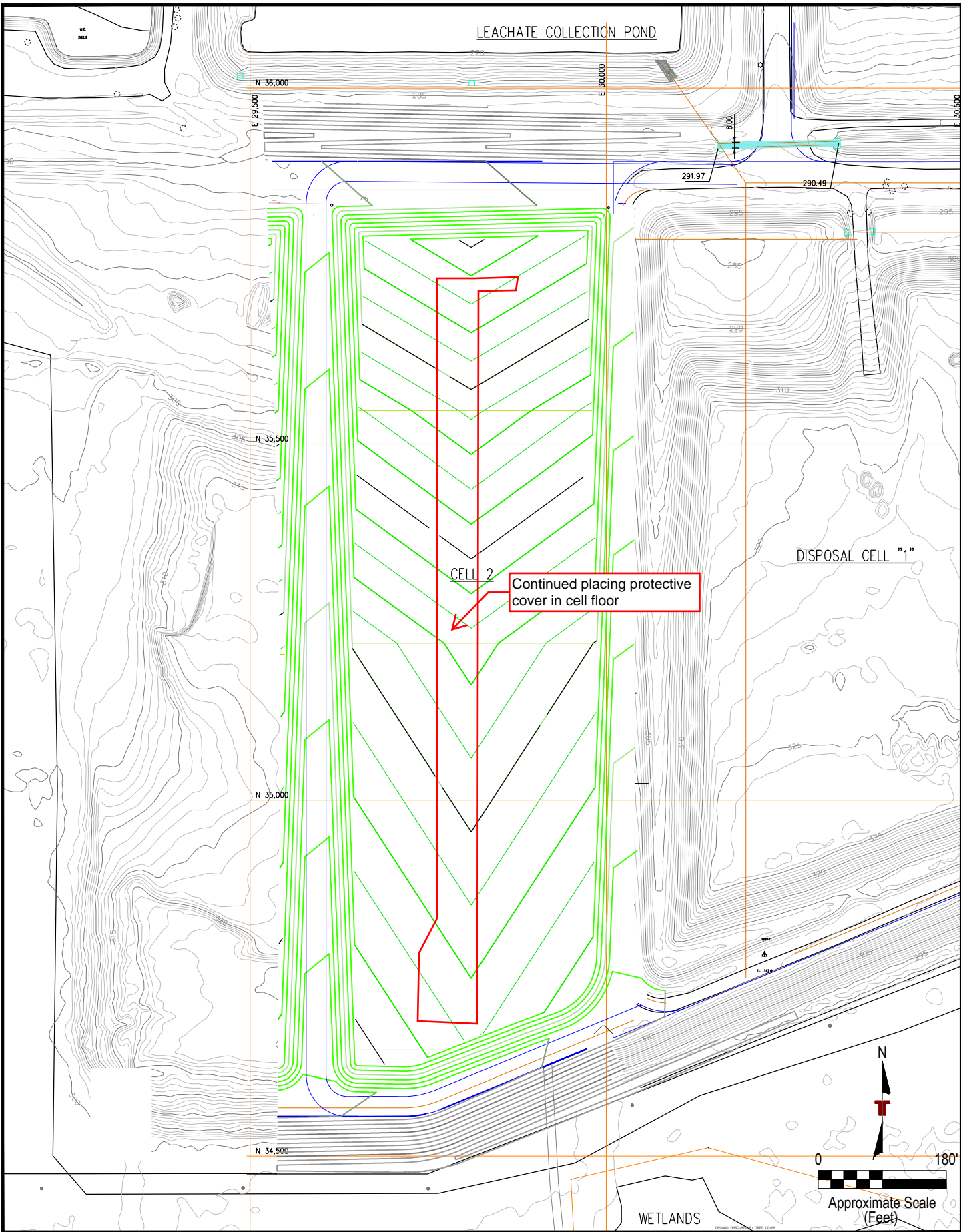
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Skyjack
<u>      </u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>4</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>6</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover in cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>
<u>Contractor dozer spread protective cover material in cell floor.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
LIFTS:
COMPACTION EFFORTS:
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.12.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/13/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>71</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>89</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:45 AM</u>	Depart Site:	<u>5:30 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>6:00 PM</u>

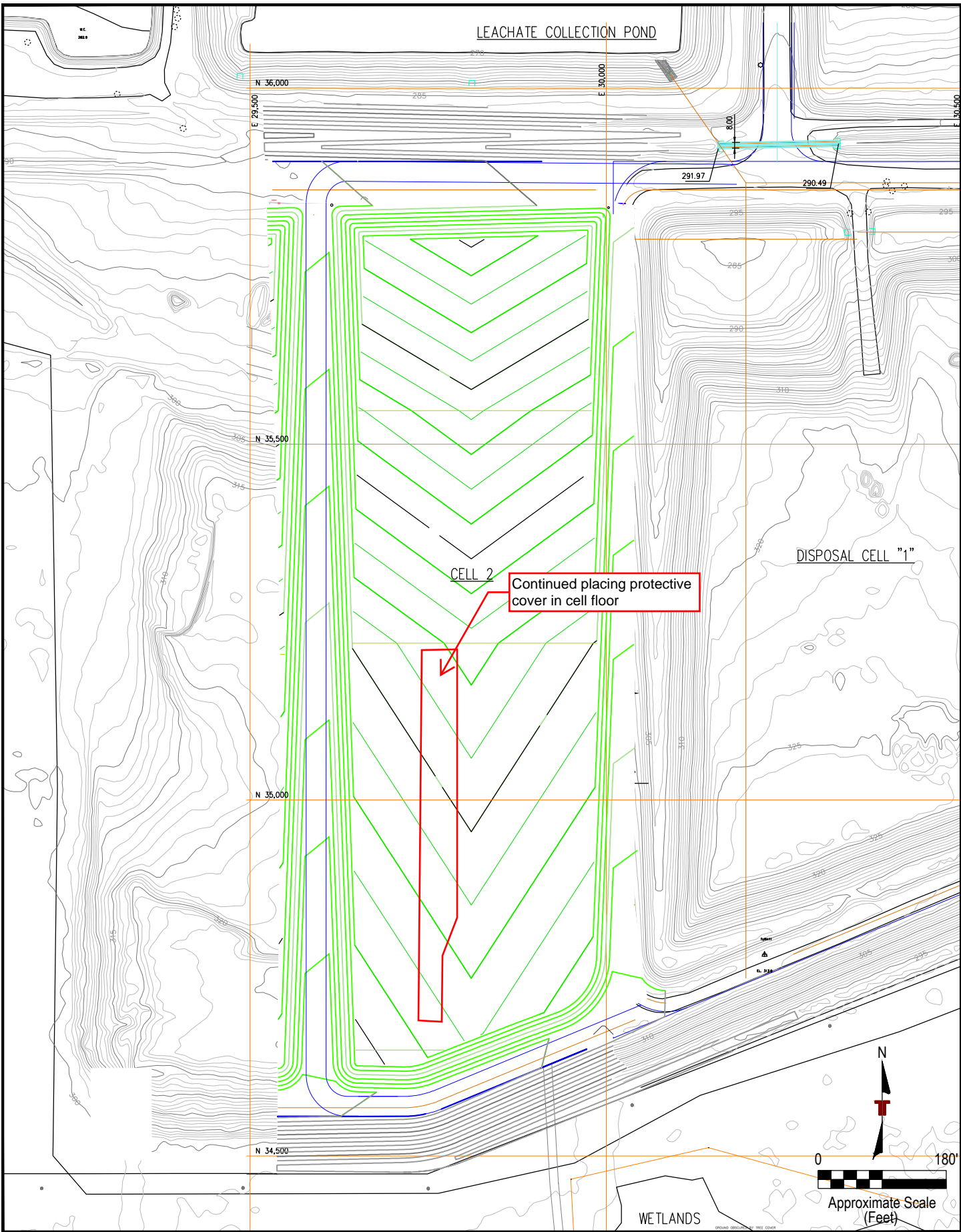
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>      </u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>      </u>	Client	<u>      </u>	Liner Crew
<u>7</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover in cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.13.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/14/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>73</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>92</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:45 AM</u>	Depart Site: <u>5:30 PM</u>
Arrive Site: <u>7:00 AM</u>	Arrive Lab: <u>6:00 PM</u>

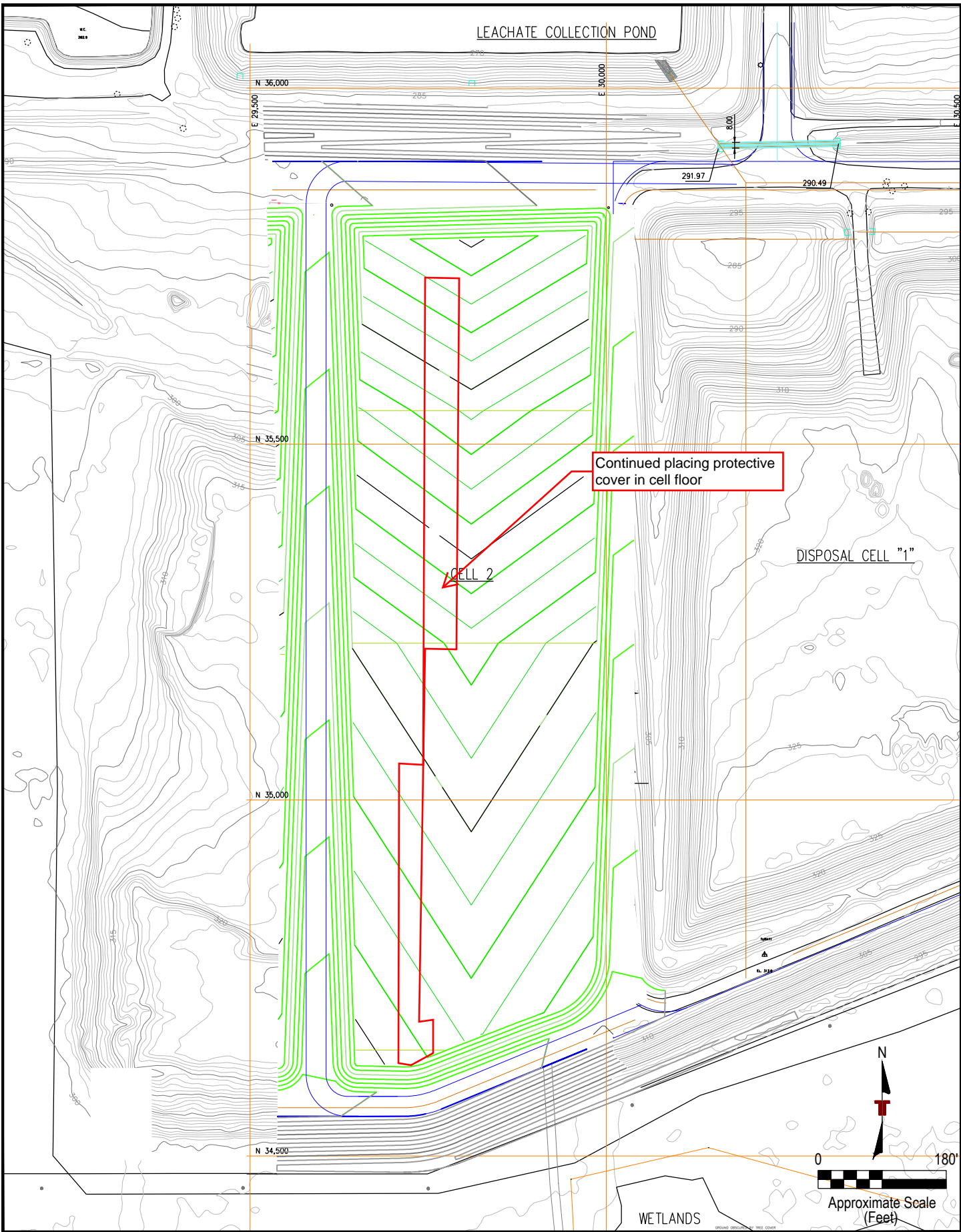
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Skyjack
<u>      </u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>      </u> Client	<u>      </u> Liner Crew
<u>7</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover in cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>
<u>Contractor dozer spread protective cover material in cell floor.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
LIFTS:
COMPACTION EFFORTS:
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.14.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/15/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>71</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>98</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

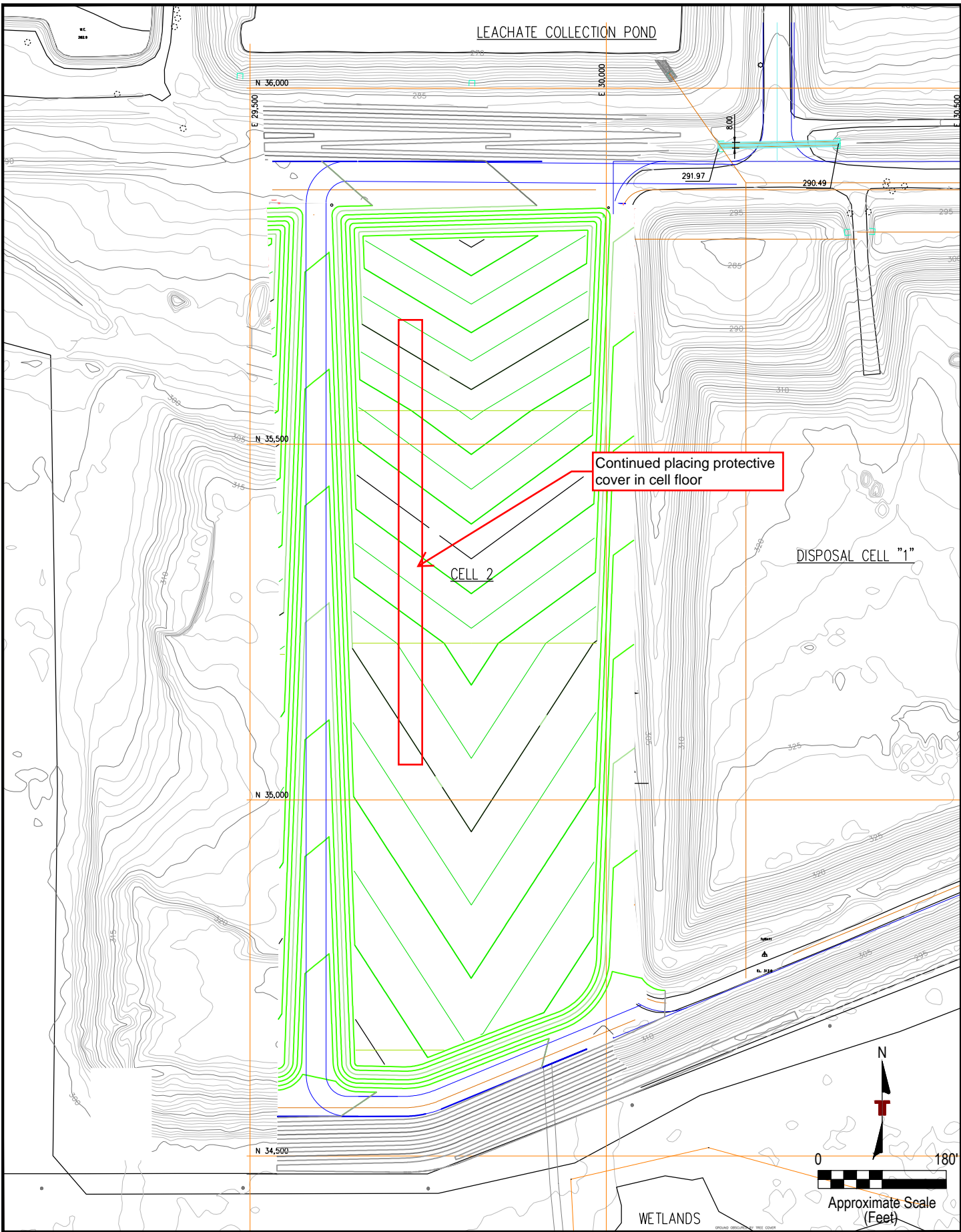
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Skyjack
<u>      </u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>4</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>5</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover in cell floor.</u></p> <hr/> <p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>  <u>Contractor dozer spread protective cover material in cell floor.</u></p> <hr/> <p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p> <hr/> <p><b>COMPACTION EFFORTS:</b></p> <hr/> <p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>
--

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.15.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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## Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/16/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>94</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:30 PM</u>
Arrive Site: <u>6:45 AM</u>	Arrive Lab: <u>6:00 PM</u>

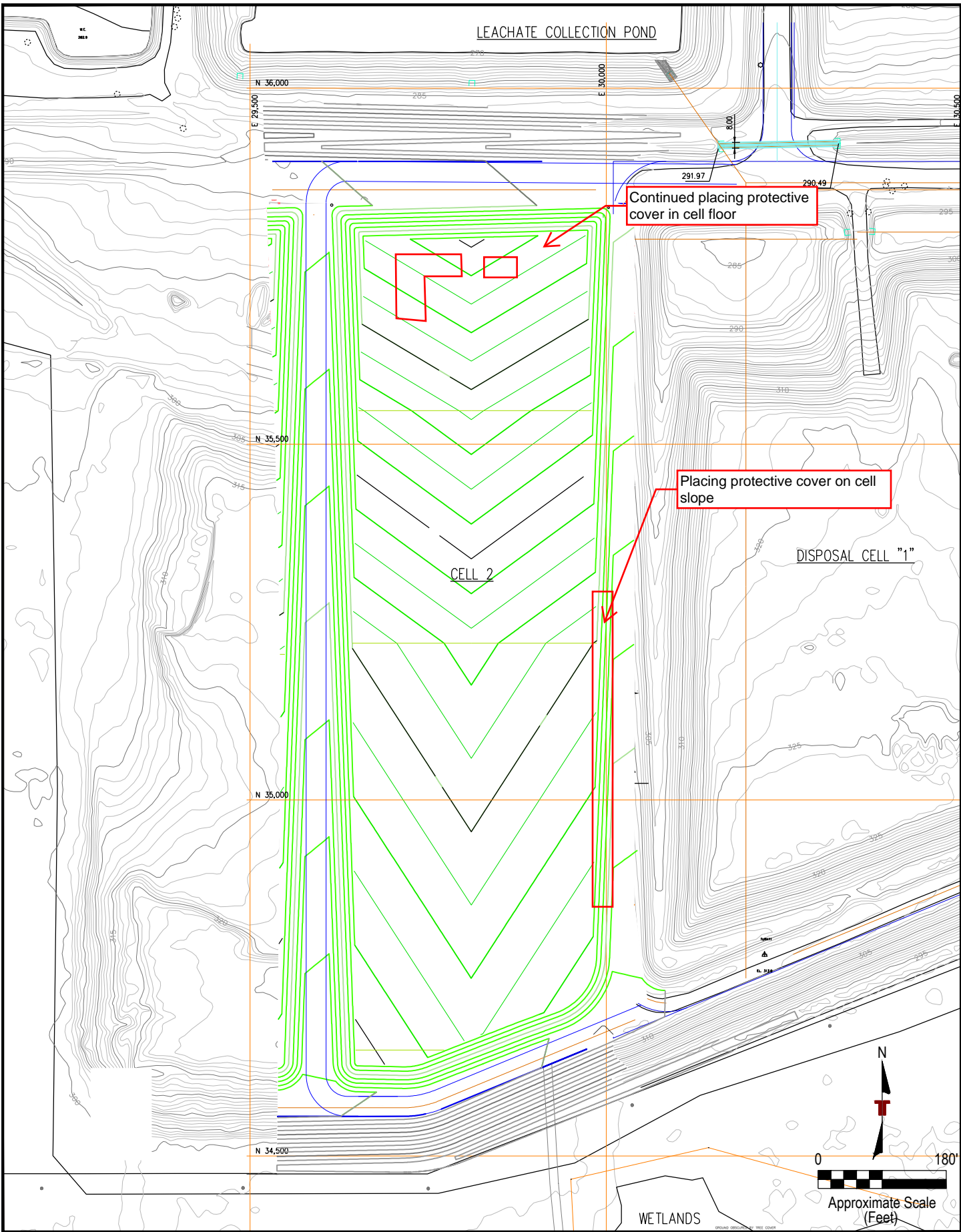
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Skyjack
<u>      </u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>3</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>8</u> Contractor	<u>      </u> Liner Installer
<u>1</u> COA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover in cell floor and slope.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>
<u>Contractor dozer spread protective cover material in cell floor and slope.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
LIFTS:
COMPACTION EFFORTS:
OPERATIONAL CONCERNS & SOLUTIONS:

Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.16.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/17/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>72</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>99</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:30 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>6:00 PM</u>

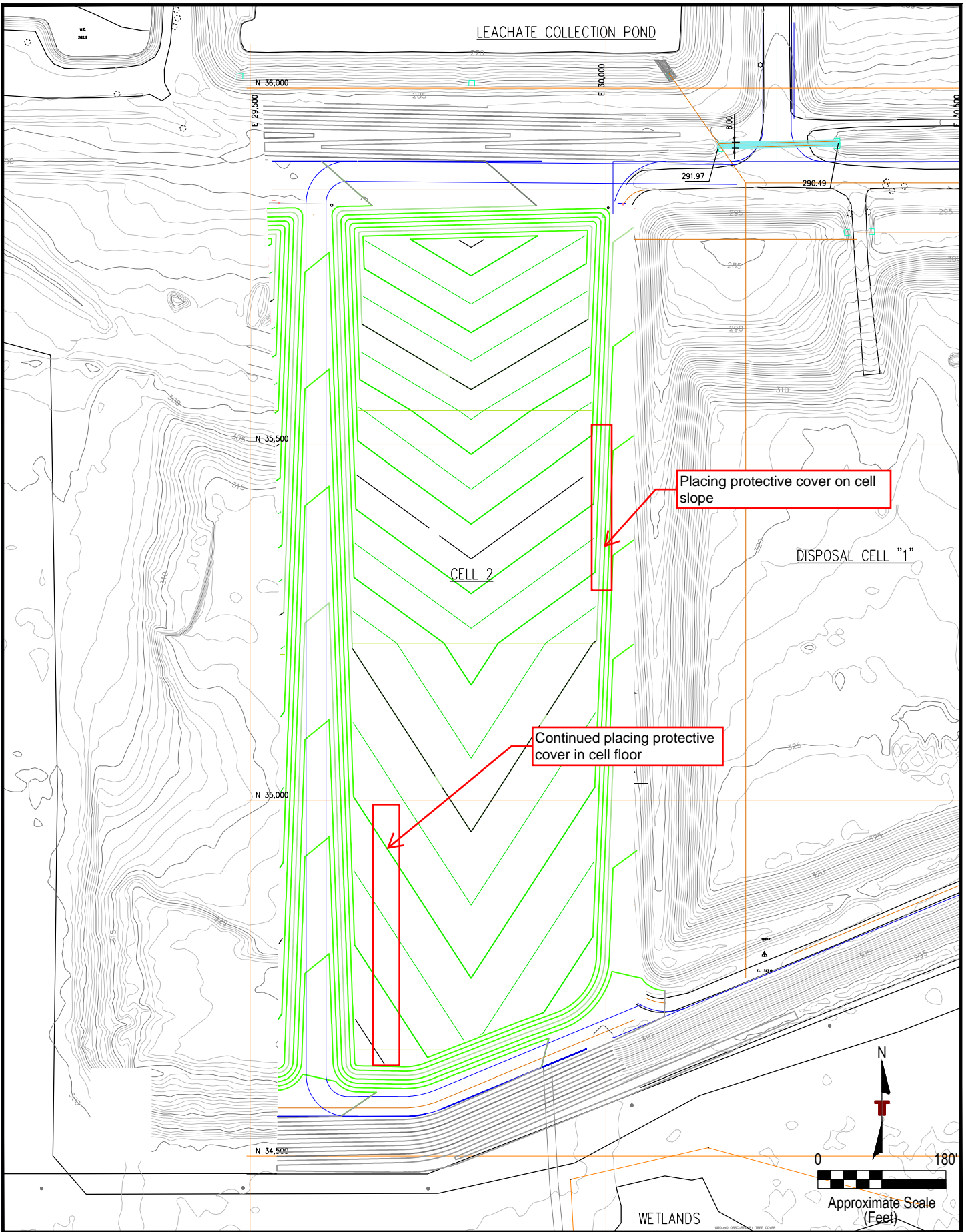
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>      </u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover in cell floor and slope.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>
<u>Contractor dozer spread protective cover material in cell floor and slope.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.17.18

**Terracon**  
 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/18/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>72</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>102</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:30 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>6:00 PM</u>

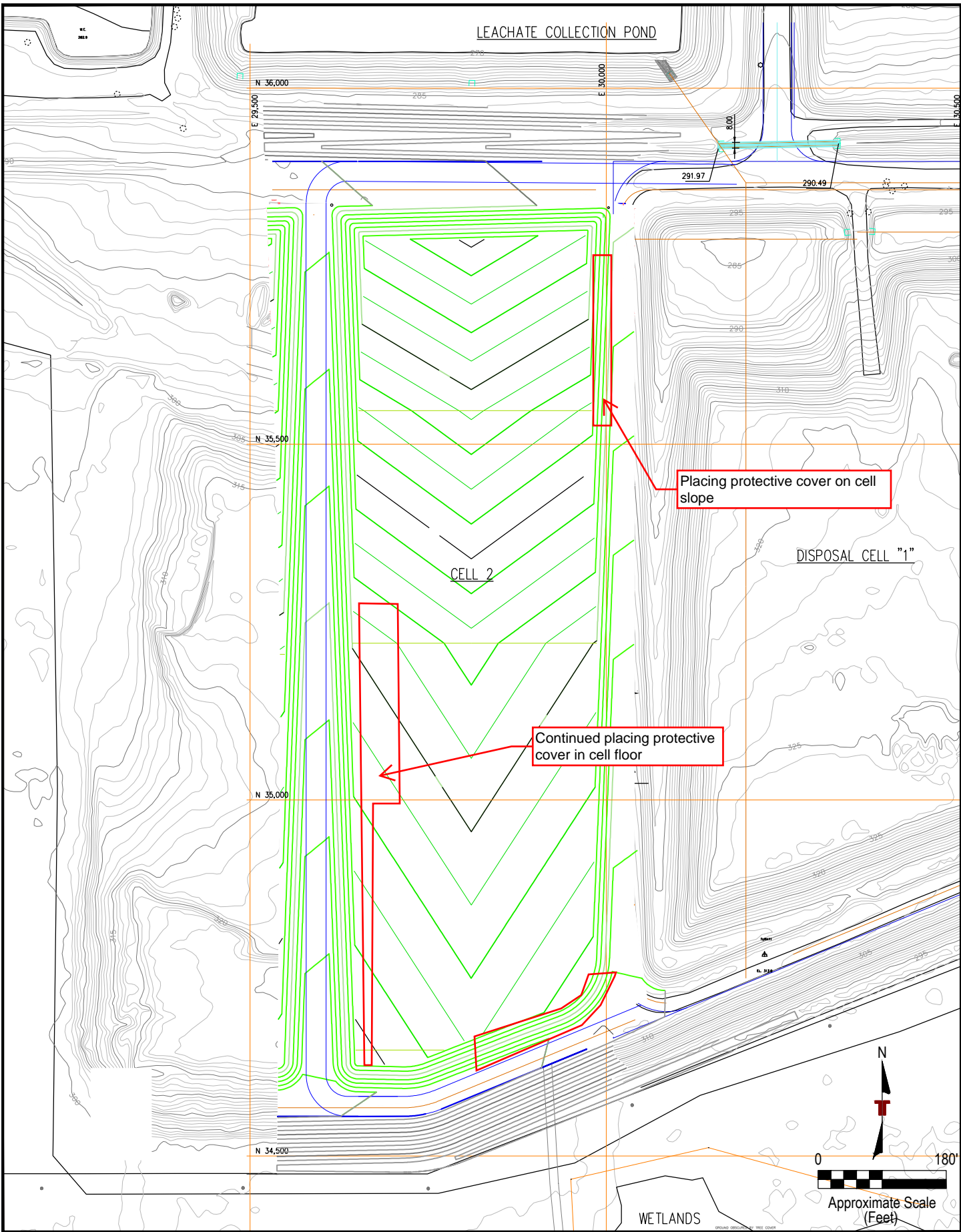
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>      </u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover in cell floor and slope.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor and offloaded.</u>
<u>Contractor dozer spread protective cover material in cell floor and slope.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.18.18

**Terracon**  
 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/21/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>70</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>86</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>1:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>3:15 PM</u>

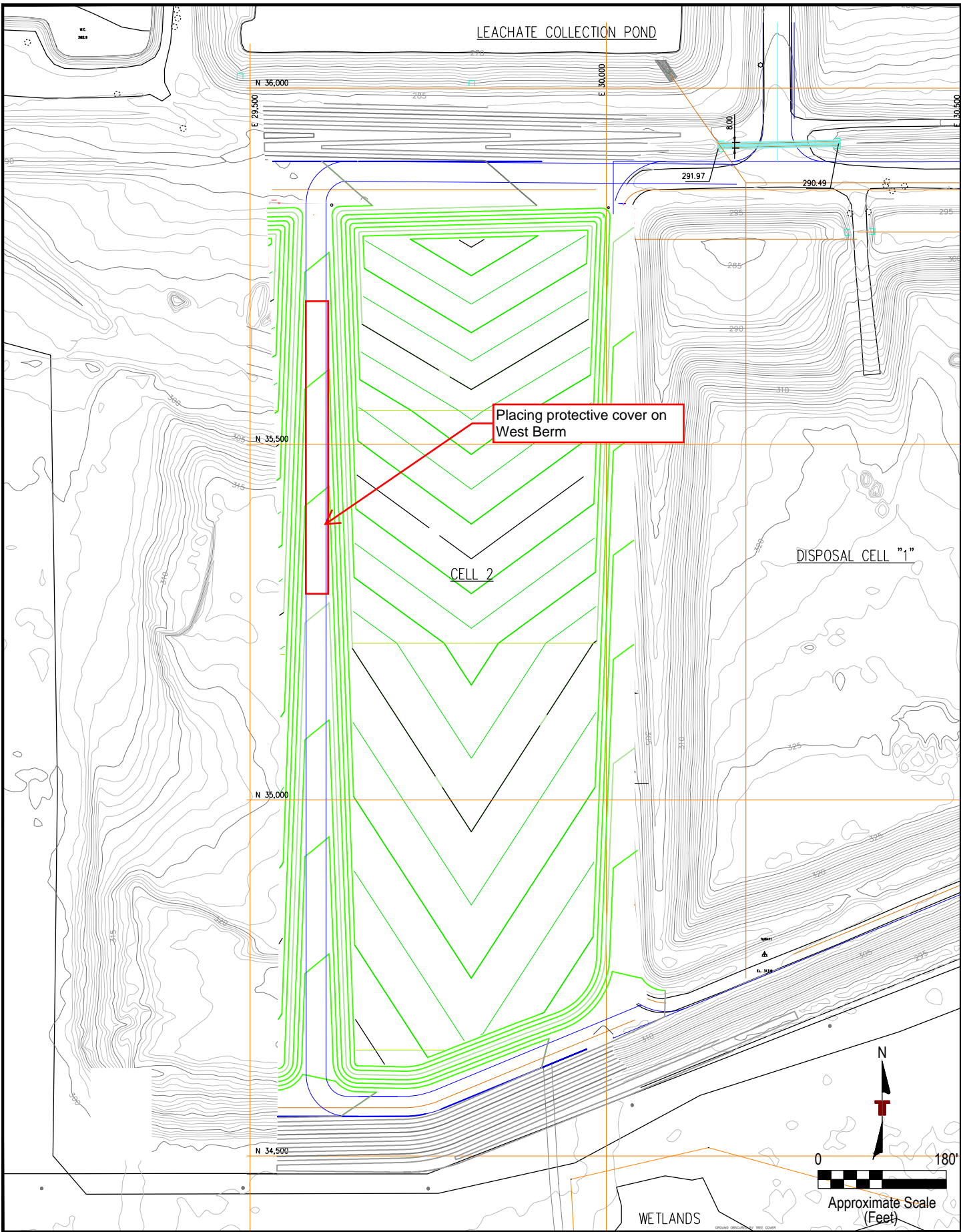
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>4</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on west berm.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to west berm then offloaded.</u>
<u>Contractor dozer spread protective cover material on west berm.</u>
<u>Contractor started cutting road west of berm to grade.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.21.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/20/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>72</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>95</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:30 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>6:00 PM</u>

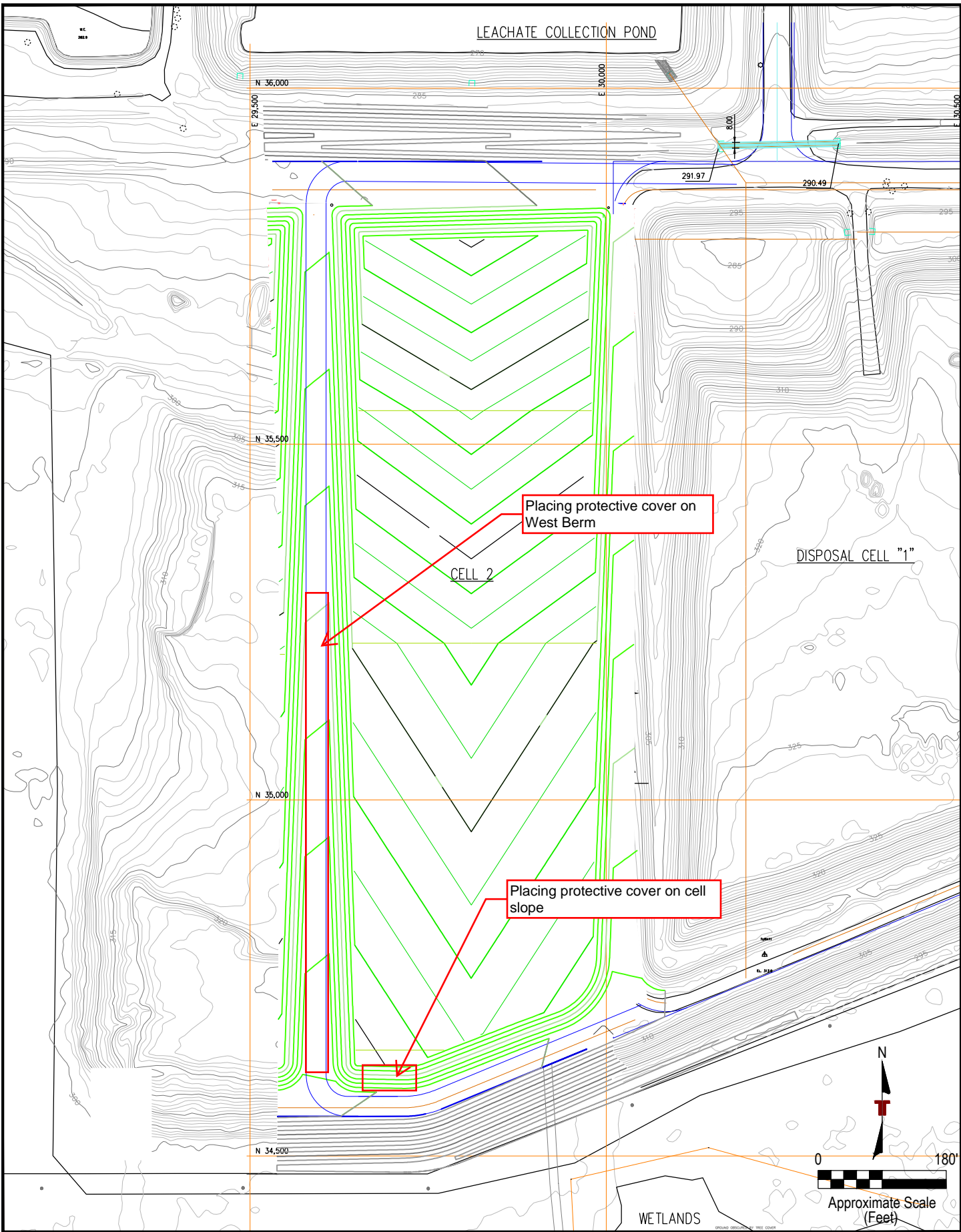
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>      </u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>2</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on slope and west berm.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor/berm then offloaded.</u>
<u>Contractor dozer spread protective cover material on cell floor, west berm, and slope.</u>
<u>Contractor placed six rolls of composite on west edge of liner for future tie in.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.20.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/19/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>72</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>101</u> High Temp. (°F)

REPORTING TIMES:	
Depart Lab: <u>6:15 AM</u>	Depart Site: <u>5:15 PM</u>
Arrive Site: <u>6:30 AM</u>	Arrive Lab: <u>5:45 PM</u>

FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:	
<u>1</u> Dozer(s)	<u>      </u> Skyjack
<u>      </u> Excavator(s)	<u>      </u> Skidsteer
<u>      </u> Backhoe(s)	<u>      </u> Water Truck
<u>4</u> Haul Truck(s)	<u>      </u> Sheeps Foot Compactor
<u>      </u> Motor Grader(s)	<u>      </u> Smooth Drum Compactor

PERSONNEL ONSITE:	
<u>2</u> Client	<u>      </u> Liner Crew
<u>8</u> Contractor	<u>      </u> Liner Installer
<u>1</u> CQA Consultant	<u>      </u> Concrete Crew
<u>      </u> Design Engineer	<u>      </u> Pipe Installer
<u>      </u> Surveyor	<u>      </u> Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe continued placement of protective cover in cell floor and slope.

**SUMMARY OF ACTIVITIES OBSERVED:**

Contractor excavator cut protective cover material from borrow area.

Contractor haulers transported protective cover material to cell floor and offloaded.

Contractor dozer spread protective cover material in cell floor and slope.

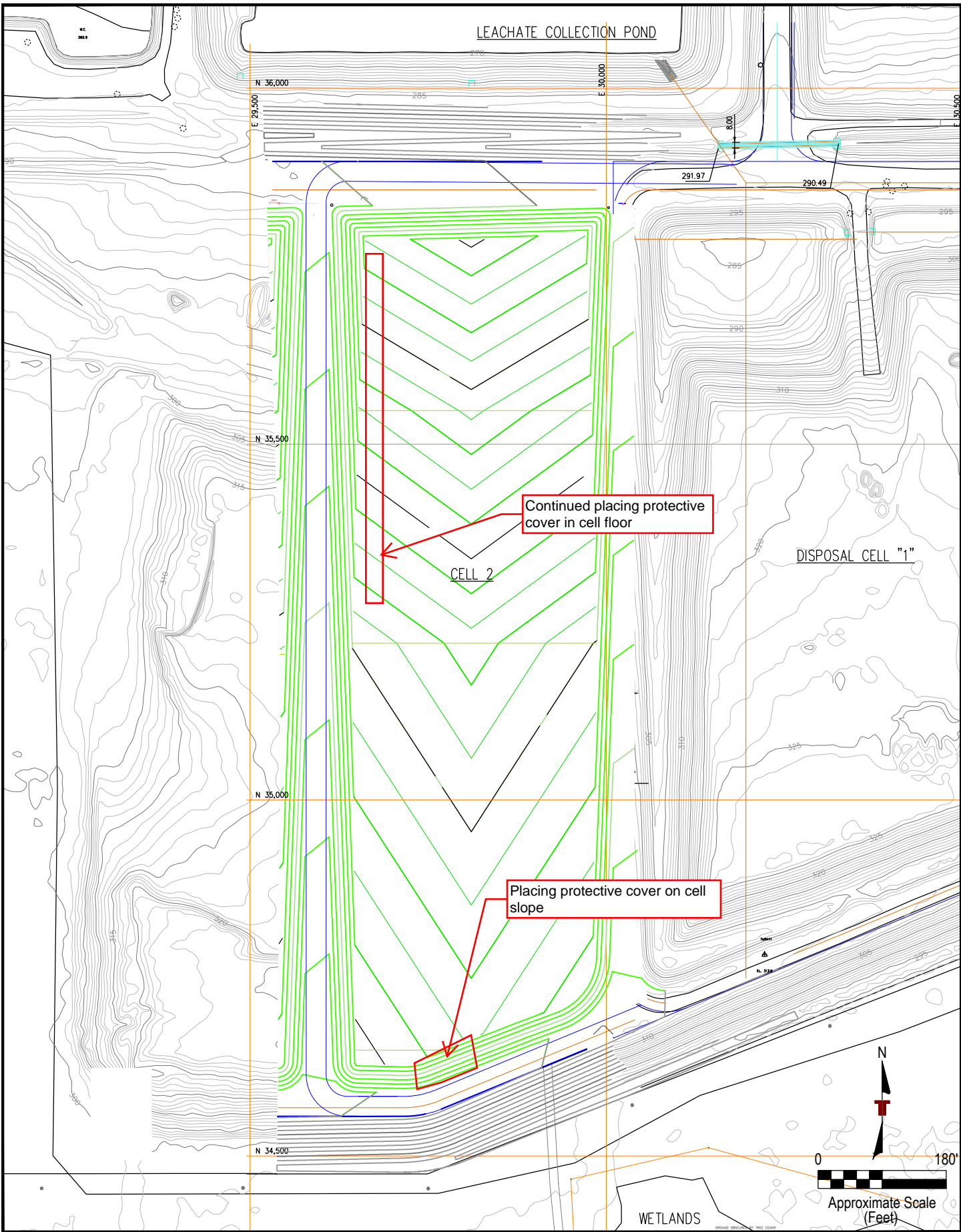
**LIFTS WORKED AND COMPACTION EFFORTS:**

**LIFTS:**

**COMPACTION EFFORTS:**

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.19.18

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 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 9/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input checked="" type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>66</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>80</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>9:30 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>12:00 PM</u>	Arrive Lab:	<u>7:00 PM</u>

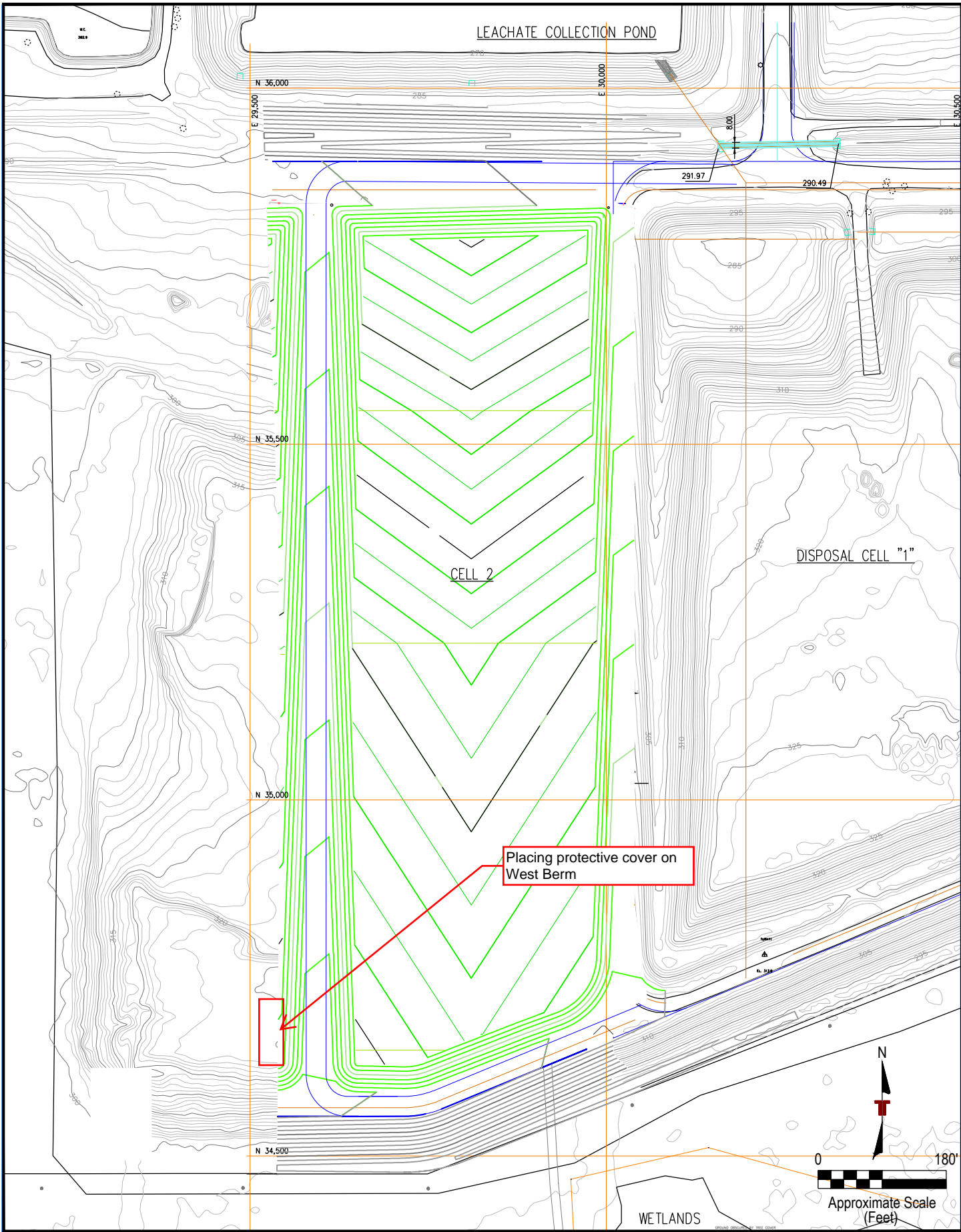
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on west berm.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to west berm then offloaded.</u>
<u>Contractor dozer spread protective cover material on west berm.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	9.30.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/1/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input checked="" type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>70</u>	Low Temp. (°F)
<input checked="" type="checkbox"/>	Foggy / Misty	<u>89</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>7:30 AM</u>	Depart Site:	<u>5:30 PM</u>
Arrive Site:	<u>9:30 AM</u>	Arrive Lab:	<u>6:00 PM</u>

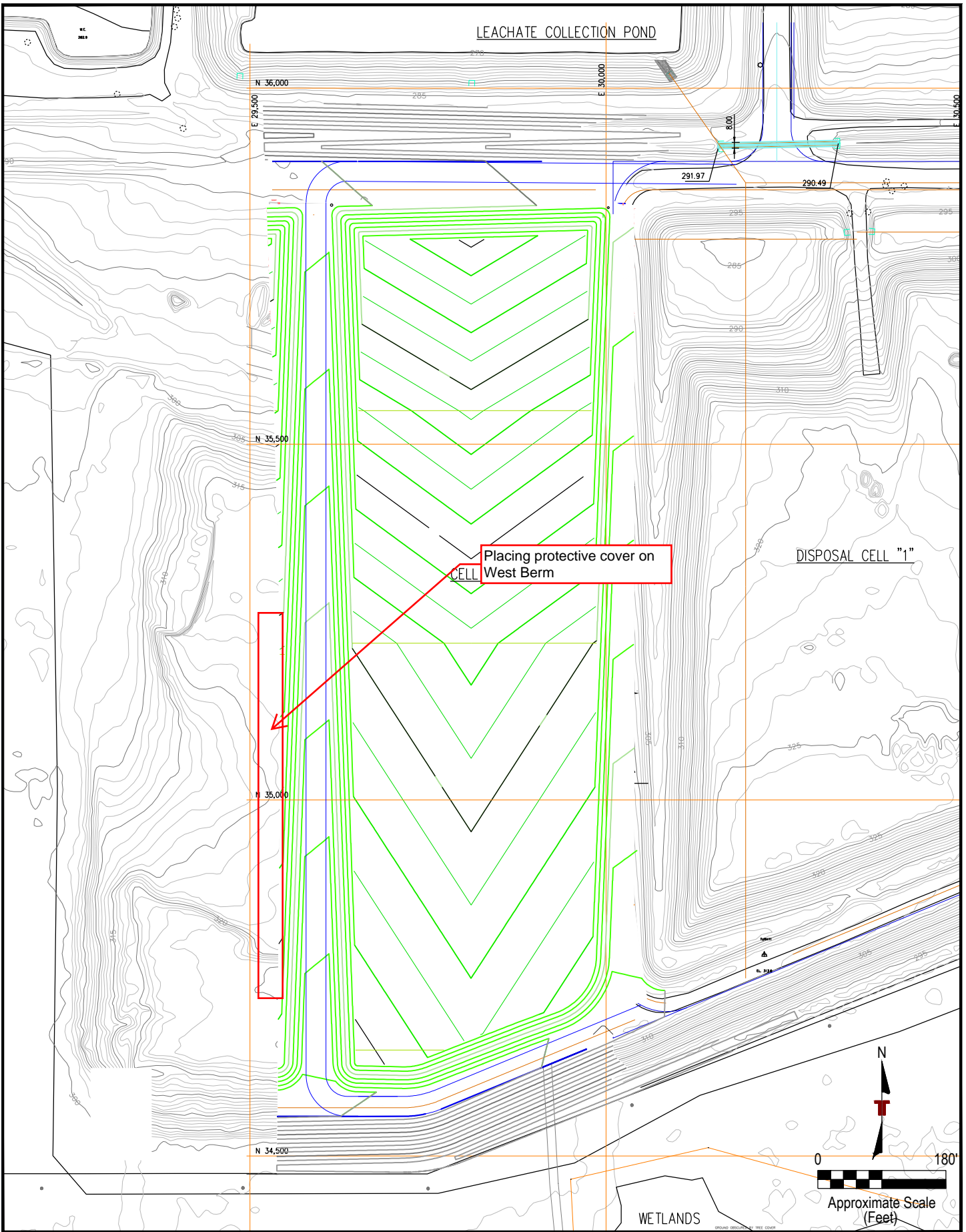
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on west berm.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to west berm then offloaded.</u>
<u>Contractor dozer spread protective cover material on west berm.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.01.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH      BRYANT, AR 72022  
 PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON      ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 10/2/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>93</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

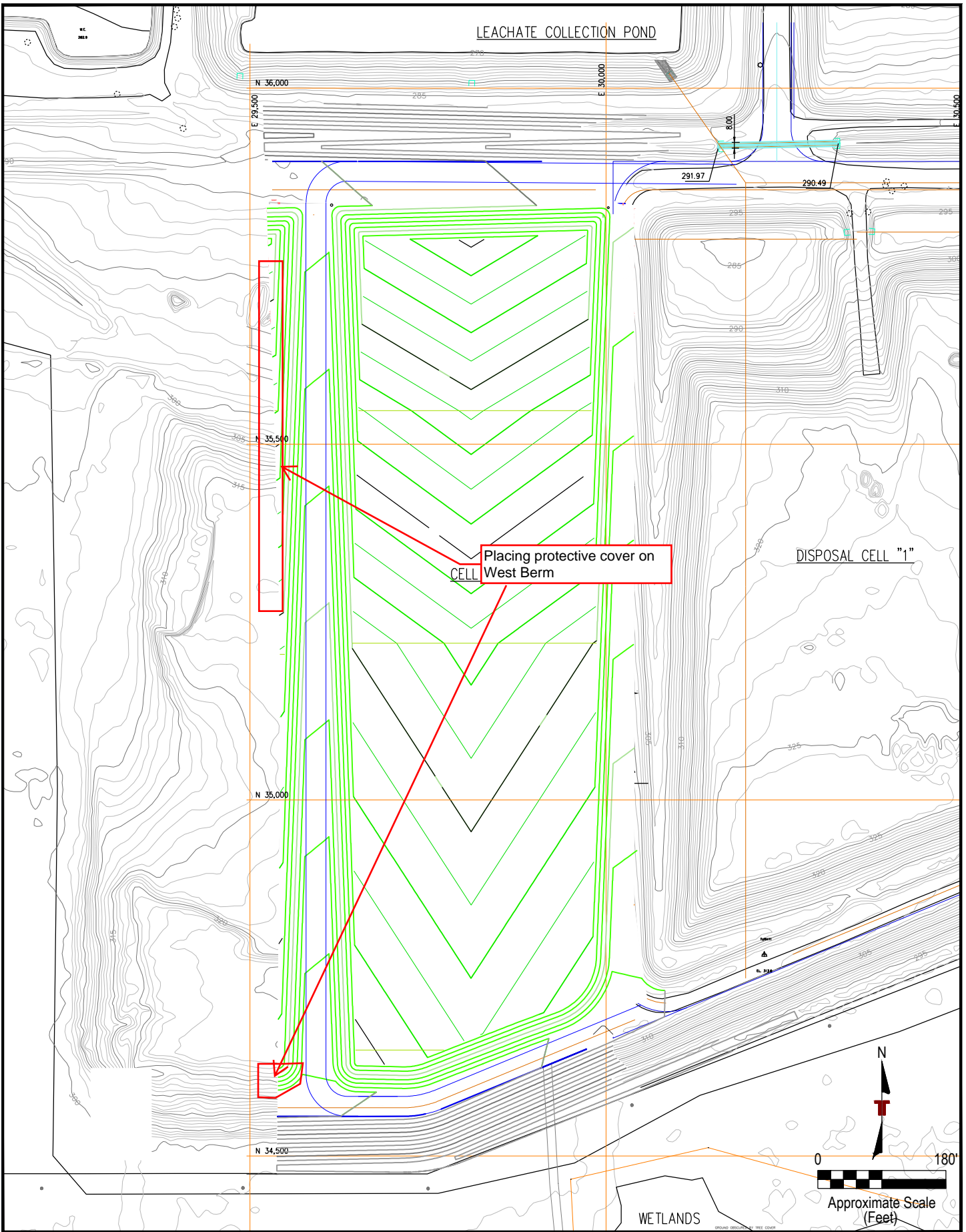
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover on west berm.</u></p> <hr/> <p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor excavator cut protective cover material from borrow area.</u>  <u>Contractor haulers transported protective cover material to west berm then offloaded.</u>  <u>Contractor dozer spread protective cover material on west berm.</u></p> <hr/> <p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b>    <b>COMPACTION EFFORTS:</b></p> <hr/> <p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>
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Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.02.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/3/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>70</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>94</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

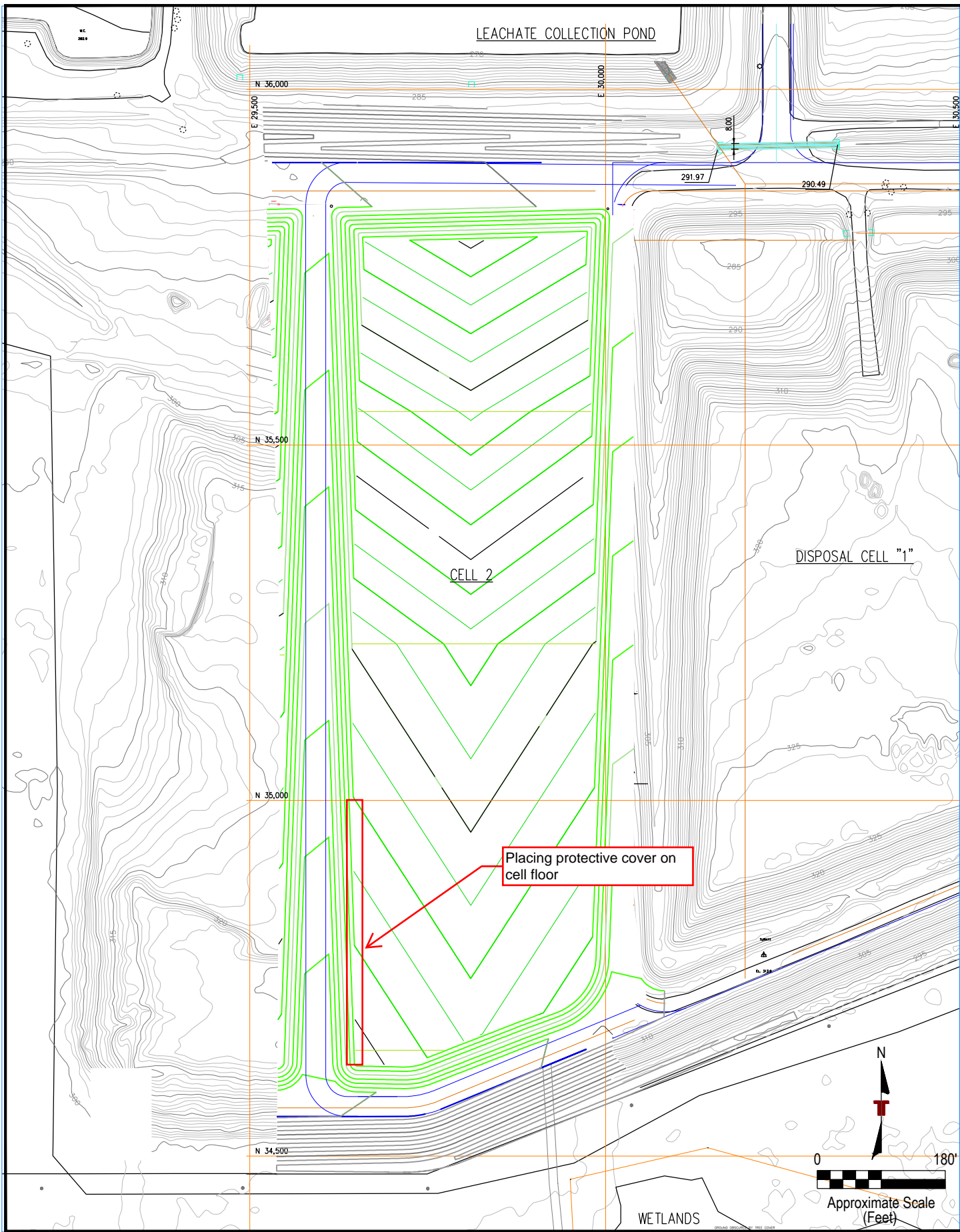
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on west berm.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor then offloaded.</u>
<u>Contractor dozer spread protective cover material on cell floor.</u>
<u>Contractor laid down plywood in cell.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.03.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH      BRYANT, AR 72022  
 PH. (501) 847-9292      FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON      ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>71</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>95</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:45 PM</u>

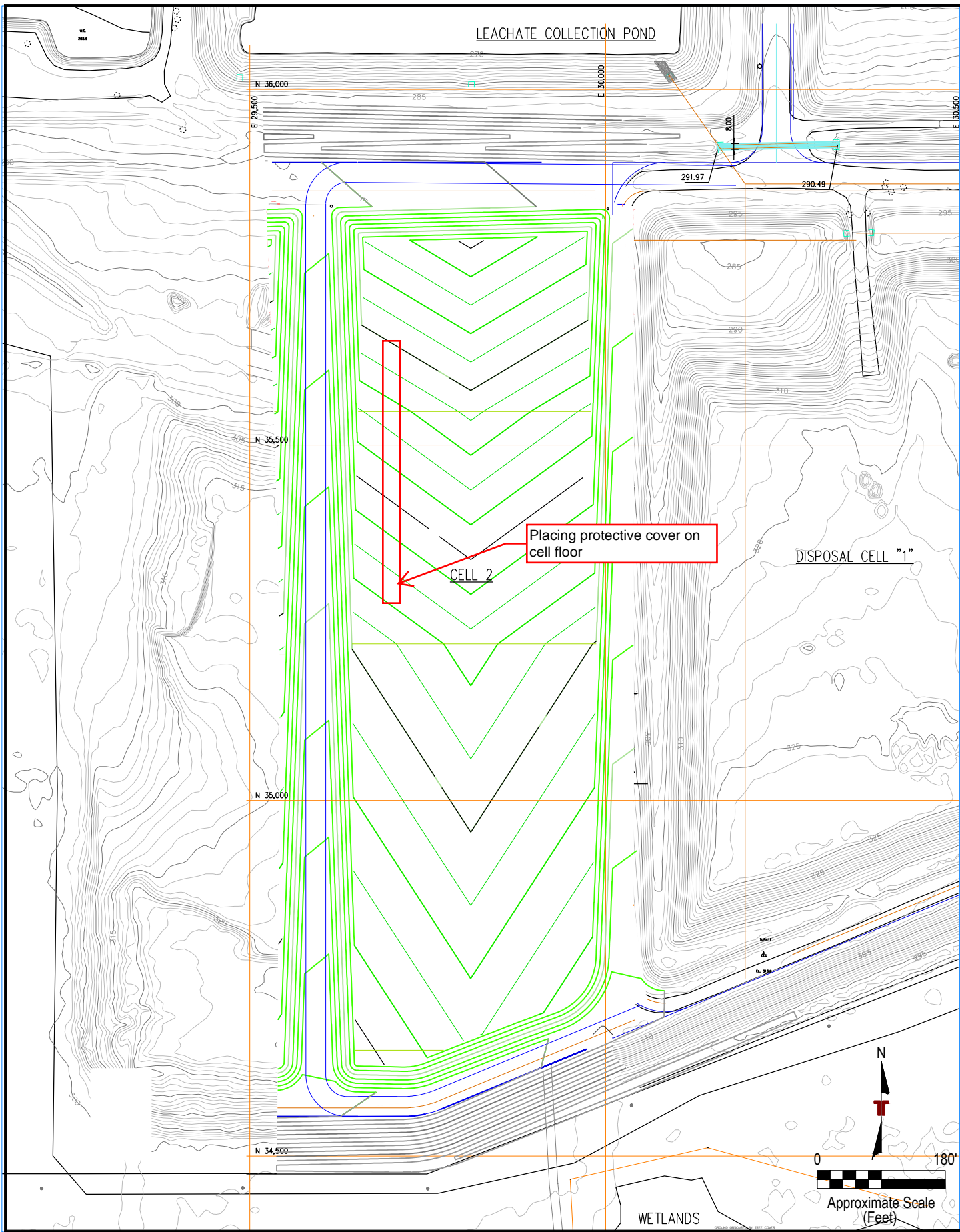
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor then offloaded.</u>
<u>Contractor dozer spread protective cover material on cell floor.</u>
<u>Contractor laid down plywood in cell.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.04.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/5/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>71</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>93</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:30 PM</u>

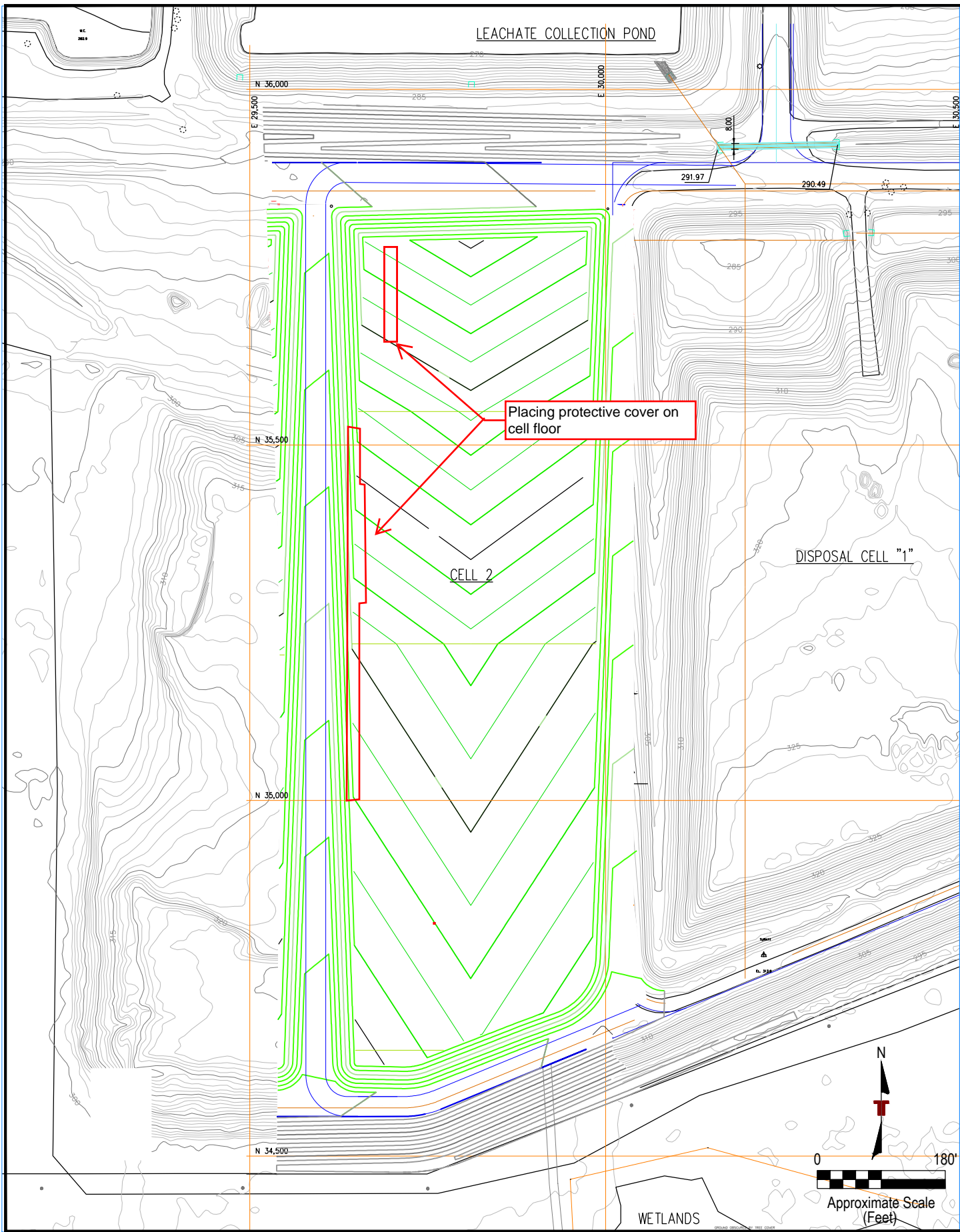
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor then offloaded.</u>
<u>Contractor dozer spread protective cover material on cell floor.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.05.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/6/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>70</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>93</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>7:00 PM</u>

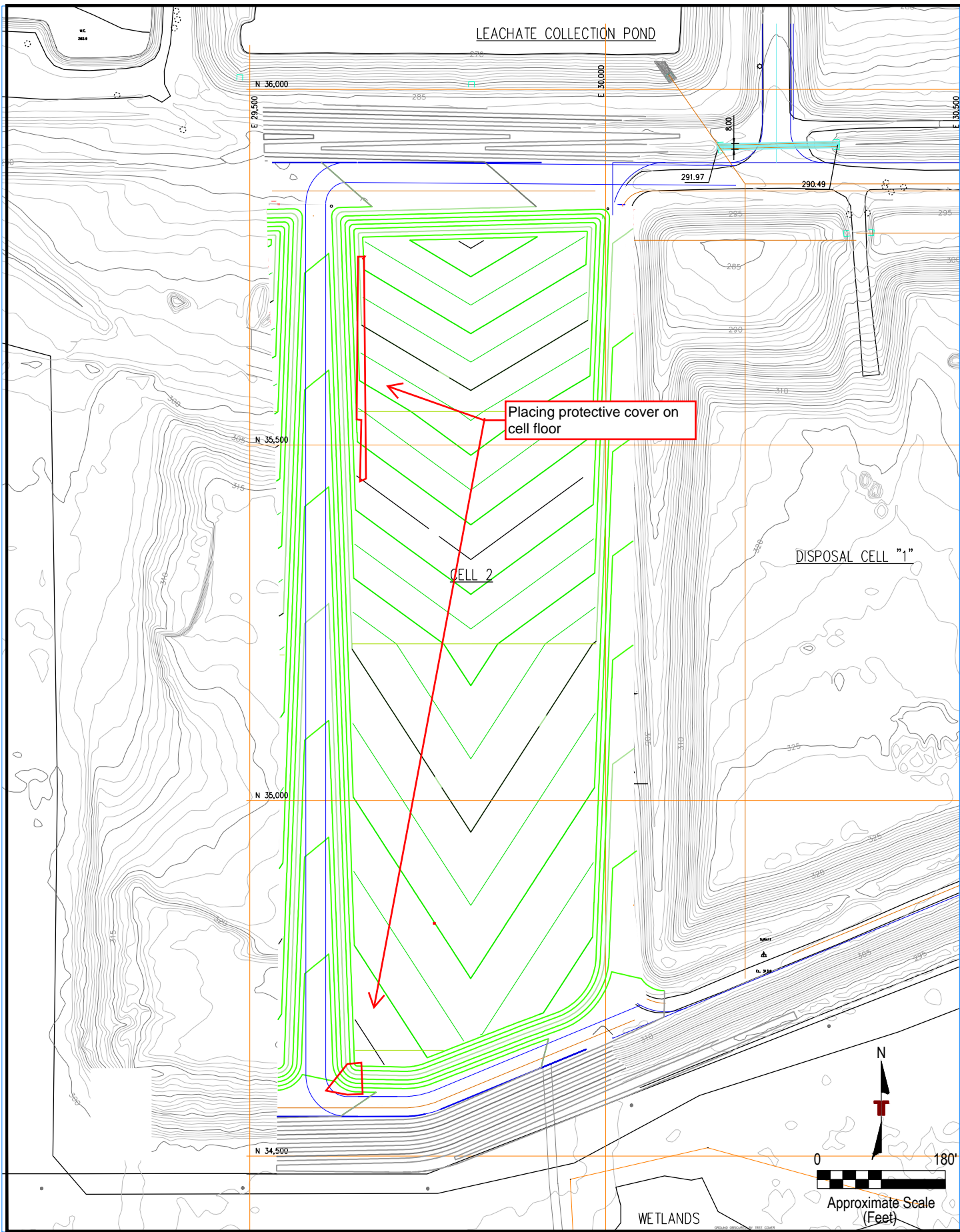
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor excavator cut protective cover material from borrow area.</u>
<u>Contractor haulers transported protective cover material to cell floor then offloaded.</u>
<u>Contractor dozer spread protective cover material on cell floor and slope.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.06.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

**Terracon**  
 25809 Interstate 30 South  
 Bryant, AR 72022  
 (501) 847-9292

Project No: 35177127  
 Date of Report: 10/8/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:	
<input type="checkbox"/> Clear	<input type="checkbox"/> Cold
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Cool
<input checked="" type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Warm
<input type="checkbox"/> Raining	<input type="checkbox"/> Hot
<input type="checkbox"/> Windy	<u>70</u> Low Temp. (°F)
<input type="checkbox"/> Foggy / Misty	<u>91</u> High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:30 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>6:00 PM</u>

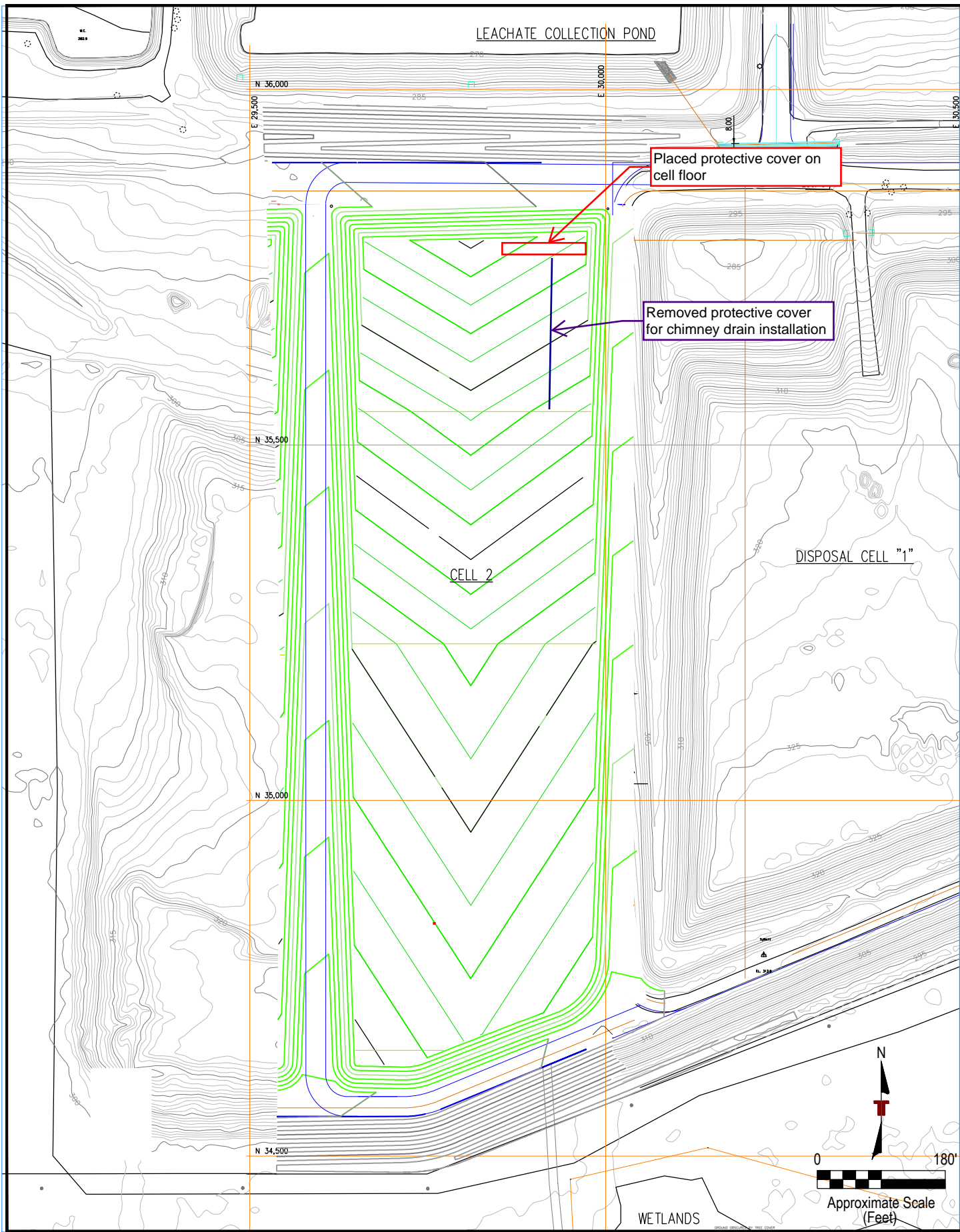
FIELD TESTING PERFORMED:	
<input type="checkbox"/> Moisture/Density	<input type="checkbox"/> Subgrade
<input type="checkbox"/> Shelby Tube(s)	<input type="checkbox"/> Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>10</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	COA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover on cell floor.</u></p> <hr/> <p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor dozer spread protective cover to grade on cell floor.</u>  <u>Contractor removed section of protective cover from the east side cell floor in preparation to install chimney drain and hdpe pipe.</u>  <u>Contractor welded hdpe pipe</u></p> <hr/> <p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b>  <b>LIFTS:</b></p> <hr/> <p><b>COMPACTION EFFORTS:</b></p> <hr/> <p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>
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Note: Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.08.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/9/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>65</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>84</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>4:30 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:00 PM</u>

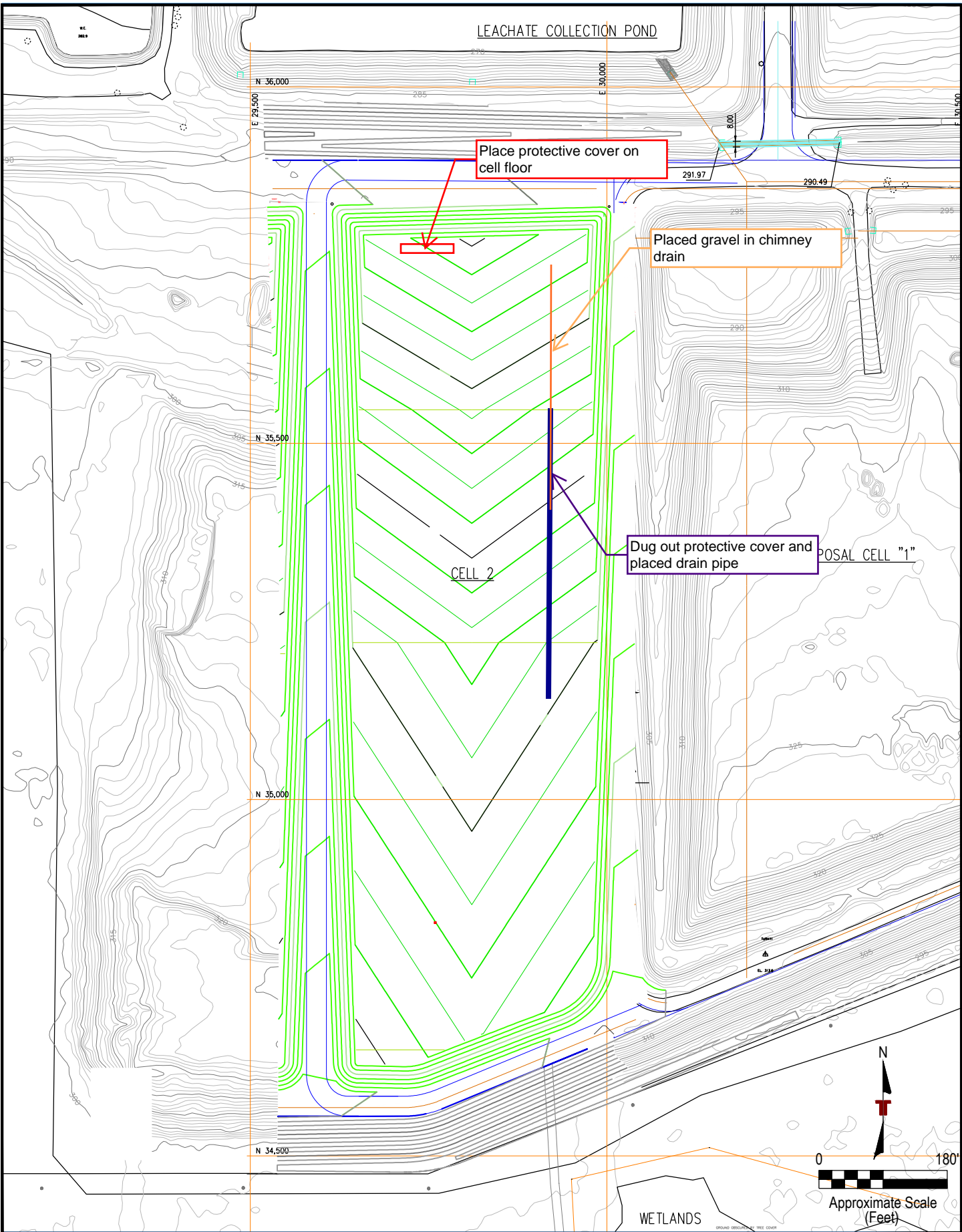
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>10</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozer spread protective cover to grade on cell floor.</u>
<u>Contractor removed section of protective cover from the east side cell floor in preparation to install chimney drain and hdpe pipe.</u>
<u>Contractor welded hdpe pipe.</u>
<u>Contractor placed gravel in chimney drain.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr: TLB  
 Drawn By: CSM  
 Checked By: TLB  
 Approved By: TLB

Project No. 35177127  
 Scale: AS SHOWN  
 File No. 000  
 Date: 10.09.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/10/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>57</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>79</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>8:00 AM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>10:00 AM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>      </u>	Dozer(s)	<u>      </u>	Skyjack
<u>      </u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>  1  </u>	Client	<u>      </u>	Liner Crew
<u> 10 </u>	Contractor	<u>      </u>	Liner Installer
<u>  1 </u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Ground to wet due to previous nights rain.</u>
<u>No map created due to rain out</u>
LIFTS WORKED AND COMPACTION EFFORTS:
LIFTS:
COMPACTION EFFORTS:
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/11/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>51</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>71</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>5:30 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>6:00 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

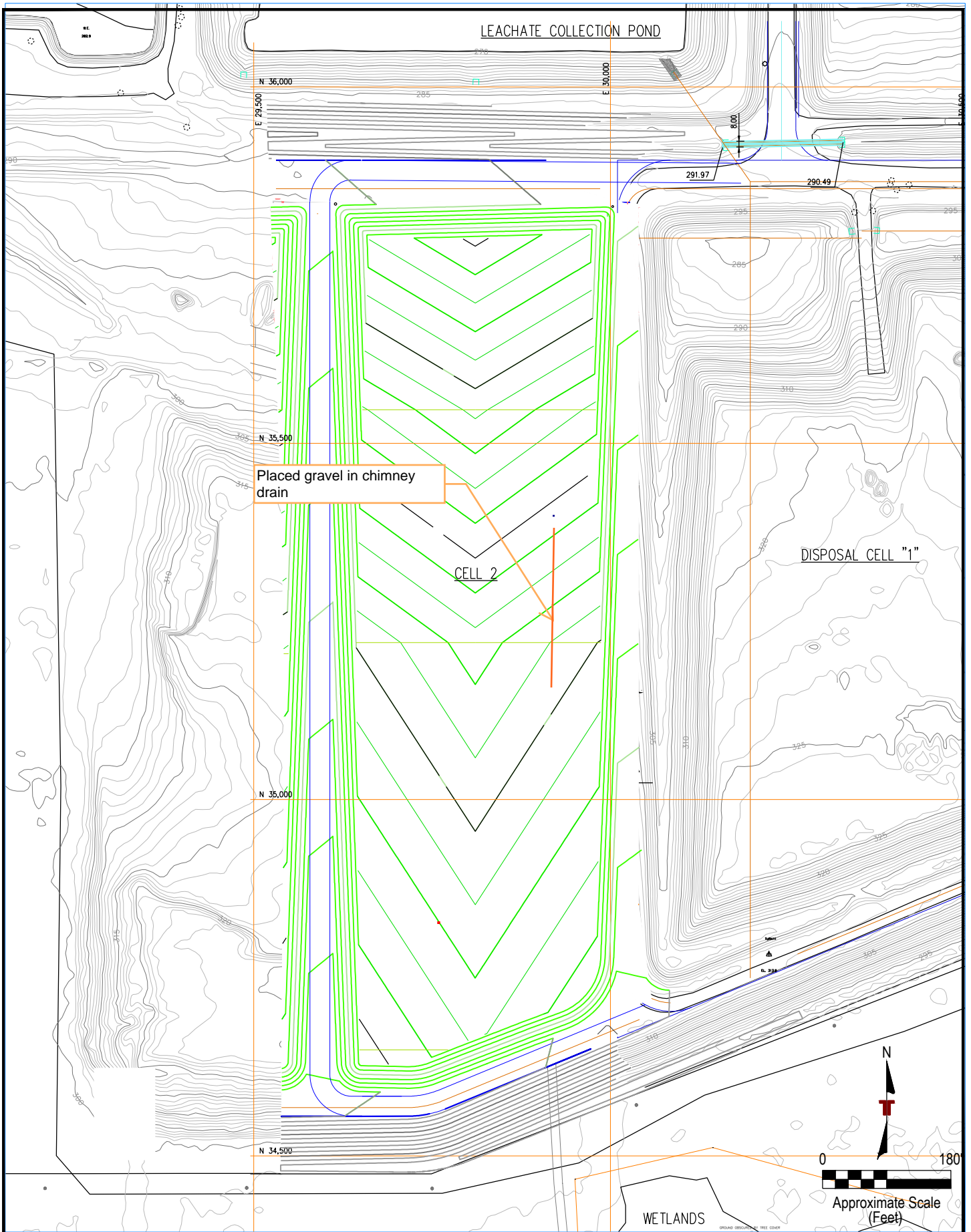
EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>10</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor dozer spread protective cover to grade on cell floor.</u>
<u>Contractor placed gravel in chimney drain.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
LIFTS:
COMPACTION EFFORTS:
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.





Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.11.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/12/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input checked="" type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>53</u>	Low Temp. (°F)
<input checked="" type="checkbox"/>	Foggy / Misty	<u>68</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>3:30 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>4:00 PM</u>

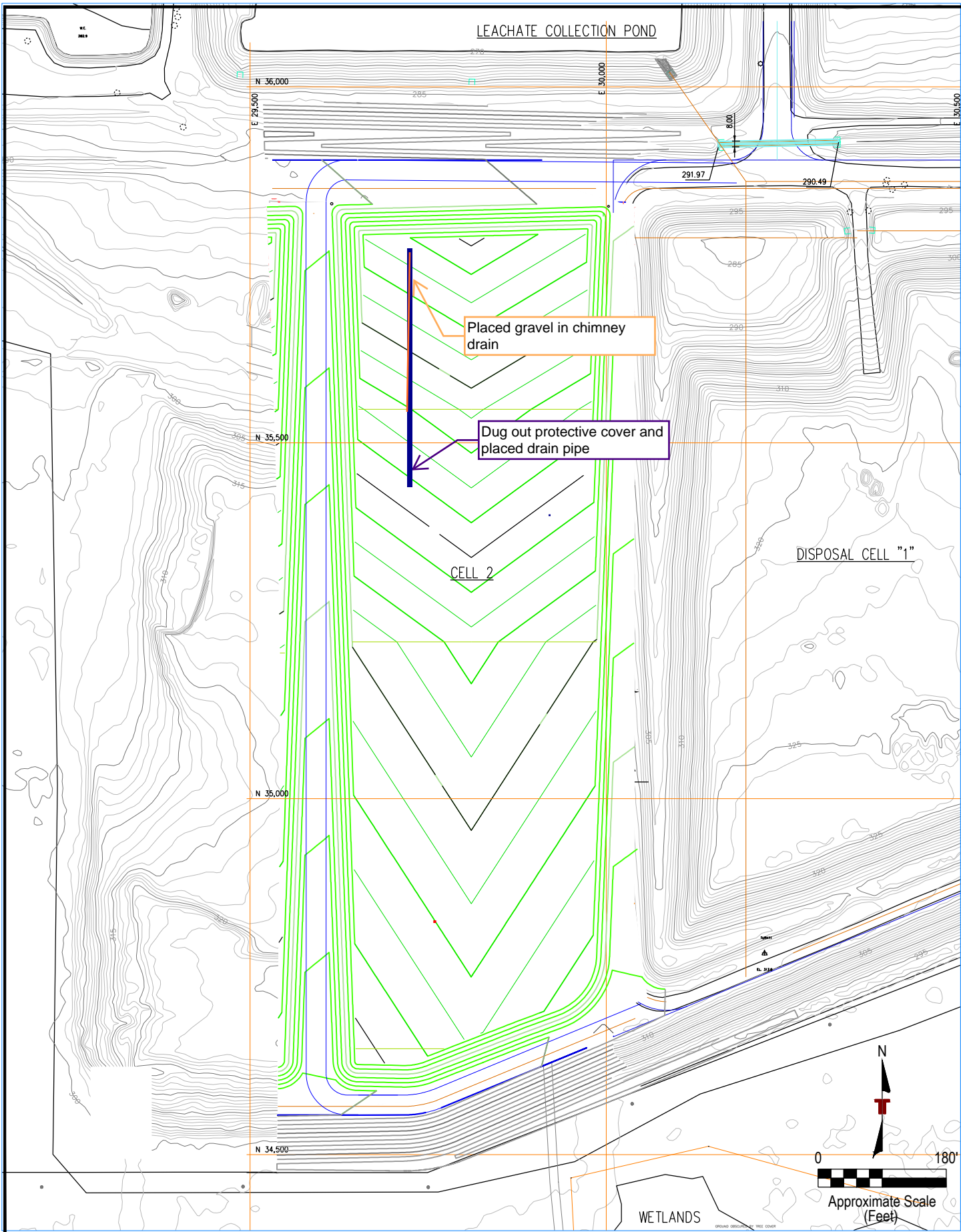
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor removed section of protective cover from the east side cell floor in preparation to install chimney drain and hdpe pipe.</u>
<u>Contractor welded hdpe pipe.</u>
<u>Contractor placed gravel in chimney drain.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr: TLB  
 Drawn By: CSM  
 Checked By: TLB  
 Approved By: TLB

Project No. 35177127  
 Scale: AS SHOWN  
 File No. 000  
 Date: 10.12.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/13/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input checked="" type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>61</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>64</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>7:30 AM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>9:30 AM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>    </u>	Dozer(s)	<u>    </u>	Skyjack
<u>    </u>	Excavator(s)	<u>    </u>	Skidsteer
<u>    </u>	Backhoe(s)	<u>    </u>	Water Truck
<u>    </u>	Haul Truck(s)	<u>    </u>	Sheeps Foot Compactor
<u>    </u>	Motor Grader(s)	<u>    </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>  1  </u>	Client	<u>    </u>	Liner Crew
<u> 10 </u>	Contractor	<u>    </u>	Liner Installer
<u>  1 </u>	CQA Consultant	<u>    </u>	Concrete Crew
<u>    </u>	Design Engineer	<u>    </u>	Pipe Installer
<u>    </u>	Surveyor	<u>    </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Ground to wet due to previous nights rain. Expected rain in forecast.</u>
<u>No map created due to rain out</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/22/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>38</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>65</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>9:30 AM</u>	Depart Site:	<u>6:15 PM</u>
Arrive Site:	<u>12:00 PM</u>	Arrive Lab:	<u>6:45 PM</u>

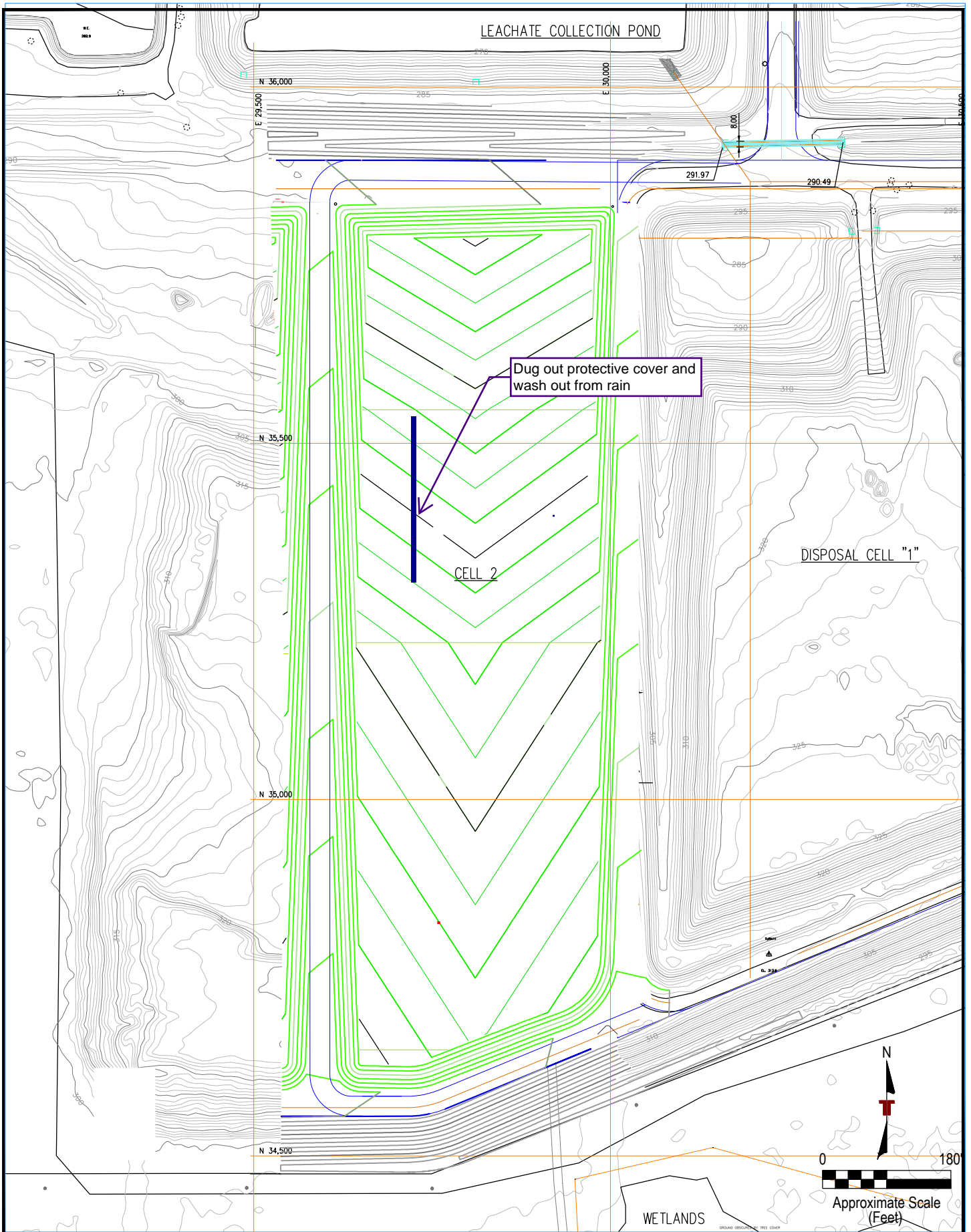
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>5</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor welded hdpe pipe.</u>
<u>Contractor removed section of protective cover from the east side cell floor in preparation to install chimney drain and hdpe pipe.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	CSM	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	10.22.18

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 Consulting Engineers and Scientists

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/23/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input checked="" type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>48</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>67</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>6:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>6:15 PM</u>

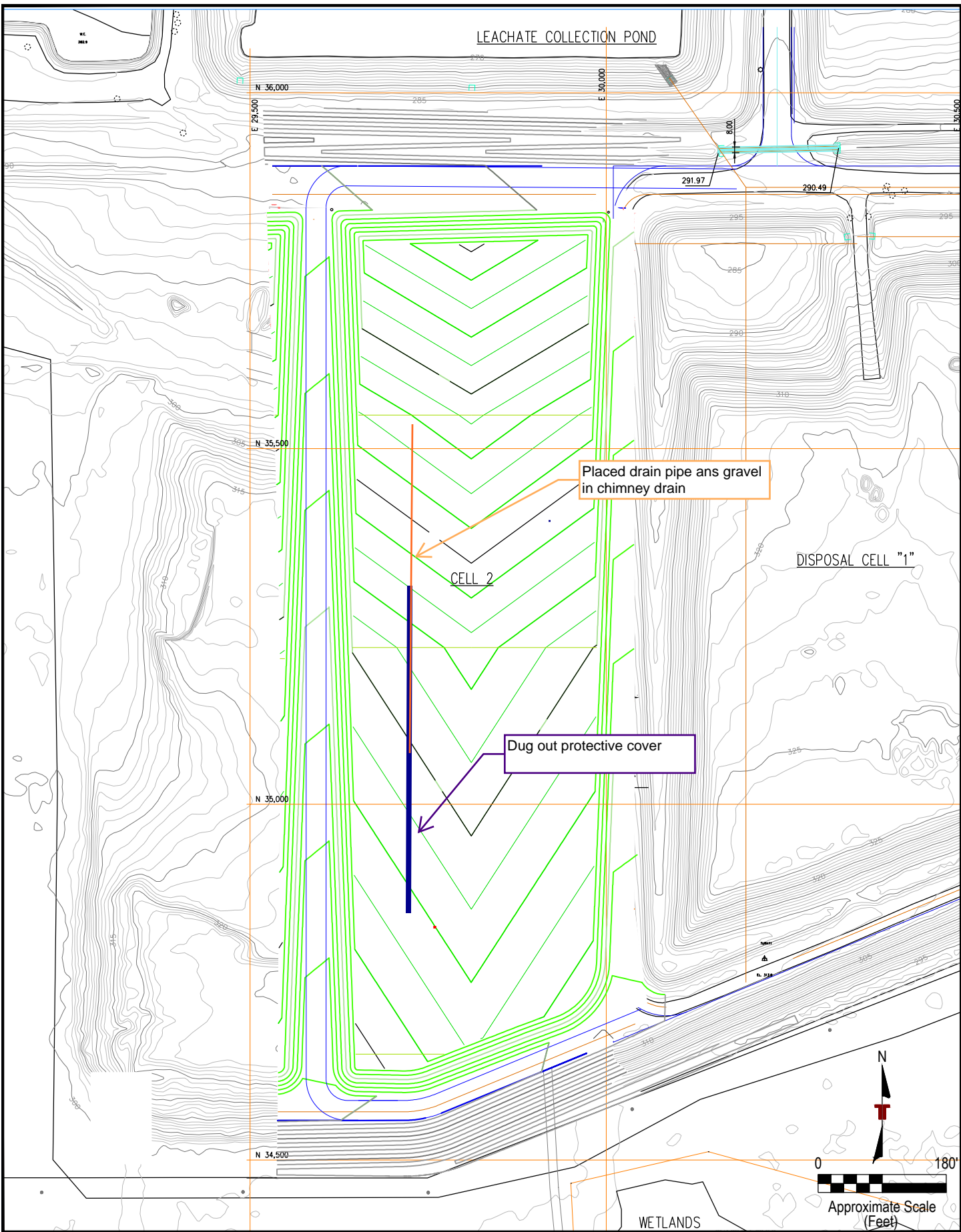
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor removed section of protective cover from the east side cell floor in preparation to install chimney drain and hdpe pipe.</u>
<u>Contractor welded hdpe pipe.</u>
<u>Contractor placed gravel in chimney drain.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.23.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/24/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input checked="" type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>47</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>66</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>6:15 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>6:45 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor removed section of protective cover from cell floor in preparation to install chimney drain and hdpe pipe.</u>
<u>Contractor welded hdpe pipe.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/25/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input checked="" type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>51</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>55</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>9:15 AM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>12:00 PM</u>

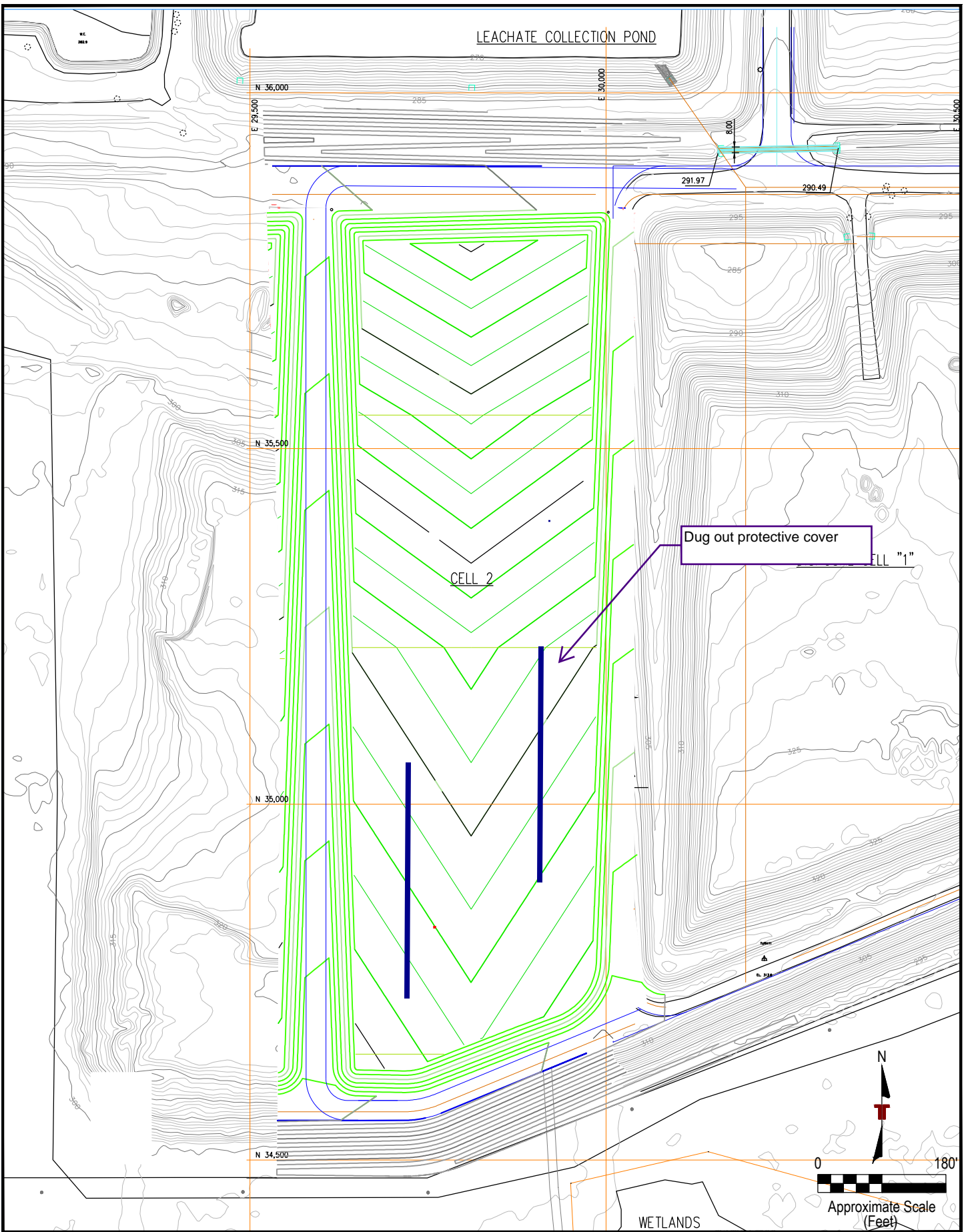
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>    </u>	Dozer(s)	<u>    </u>	Skyjack
<u>    </u>	Excavator(s)	<u>    </u>	Skidsteer
<u>    </u>	Backhoe(s)	<u>    </u>	Water Truck
<u>    </u>	Haul Truck(s)	<u>    </u>	Sheeps Foot Compactor
<u>    </u>	Motor Grader(s)	<u>    </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>  1  </u>	Client	<u>    </u>	Liner Crew
<u> 10 </u>	Contractor	<u>    </u>	Liner Installer
<u>  1 </u>	CQA Consultant	<u>    </u>	Concrete Crew
<u>    </u>	Design Engineer	<u>    </u>	Pipe Installer
<u>    </u>	Surveyor	<u>    </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Rain Out</u>
<u>No map created due to rain out</u>
<u>Meeting</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<u>LIFTS:</u>
<u>COMPACTION EFFORTS:</u>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.24.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/27/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>48</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>81</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>9:15 AM</u>	Depart Site:	<u>6:15 PM</u>
Arrive Site:	<u>11:45 AM</u>	Arrive Lab:	<u>6:45 PM</u>

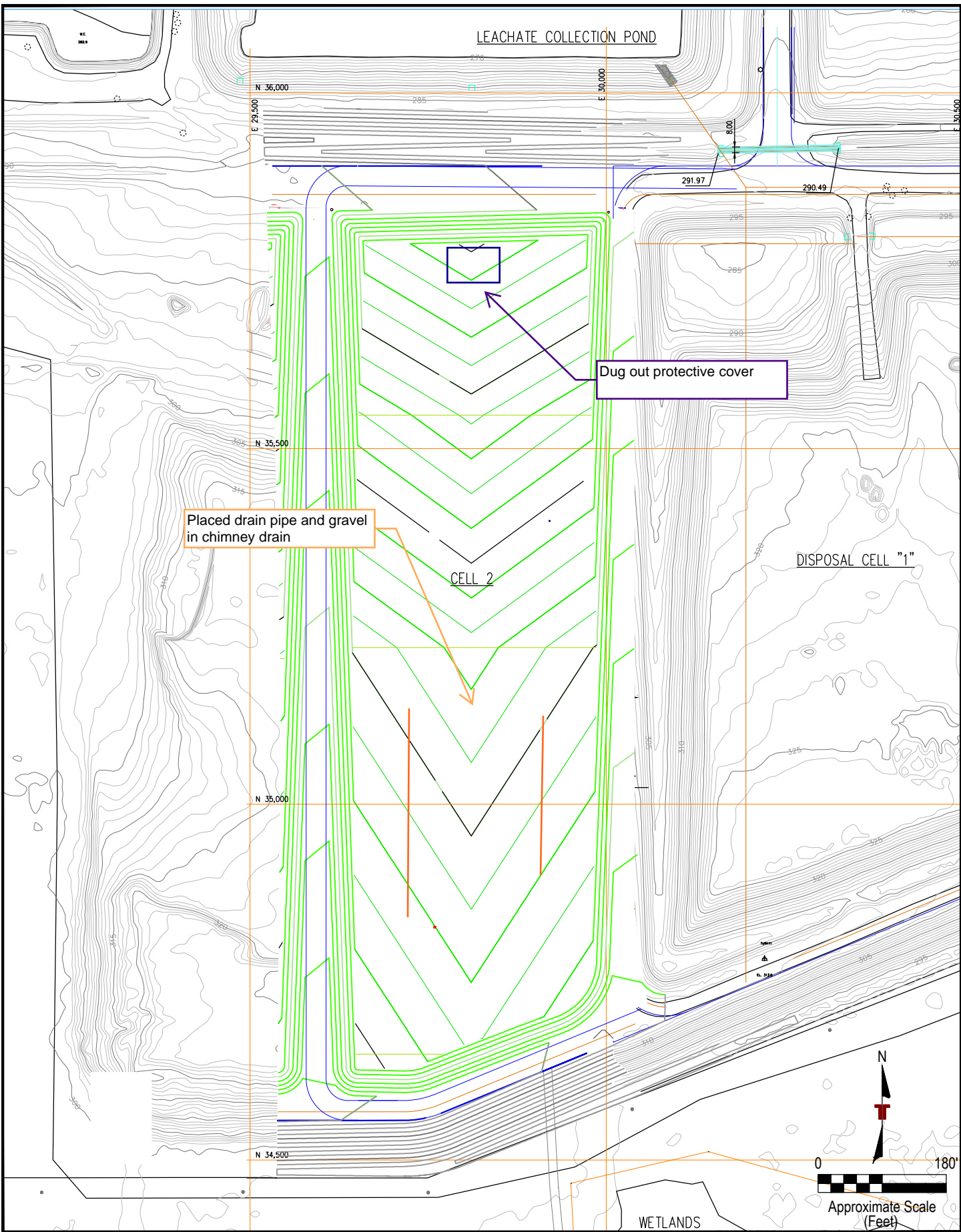
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

<p><b>QA/QC EXPECTATIONS:</b>  <u>Observe continued placement of protective cover on cell floor.</u></p>
<p><b>SUMMARY OF ACTIVITIES OBSERVED:</b>  <u>Contractor removed section of protective cover from the east side cell floor in preparation to install chimney drain and hdpe pipe.</u>  <u>Contractor placed gravel in chimney drain.</u></p>
<p><b>LIFTS WORKED AND COMPACTION EFFORTS:</b></p> <p><b>LIFTS:</b></p>
<p><b>COMPACTION EFFORTS:</b></p>
<p><b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b></p>

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.27.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/28/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>47</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>76</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>6:15 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>6:45 PM</u>

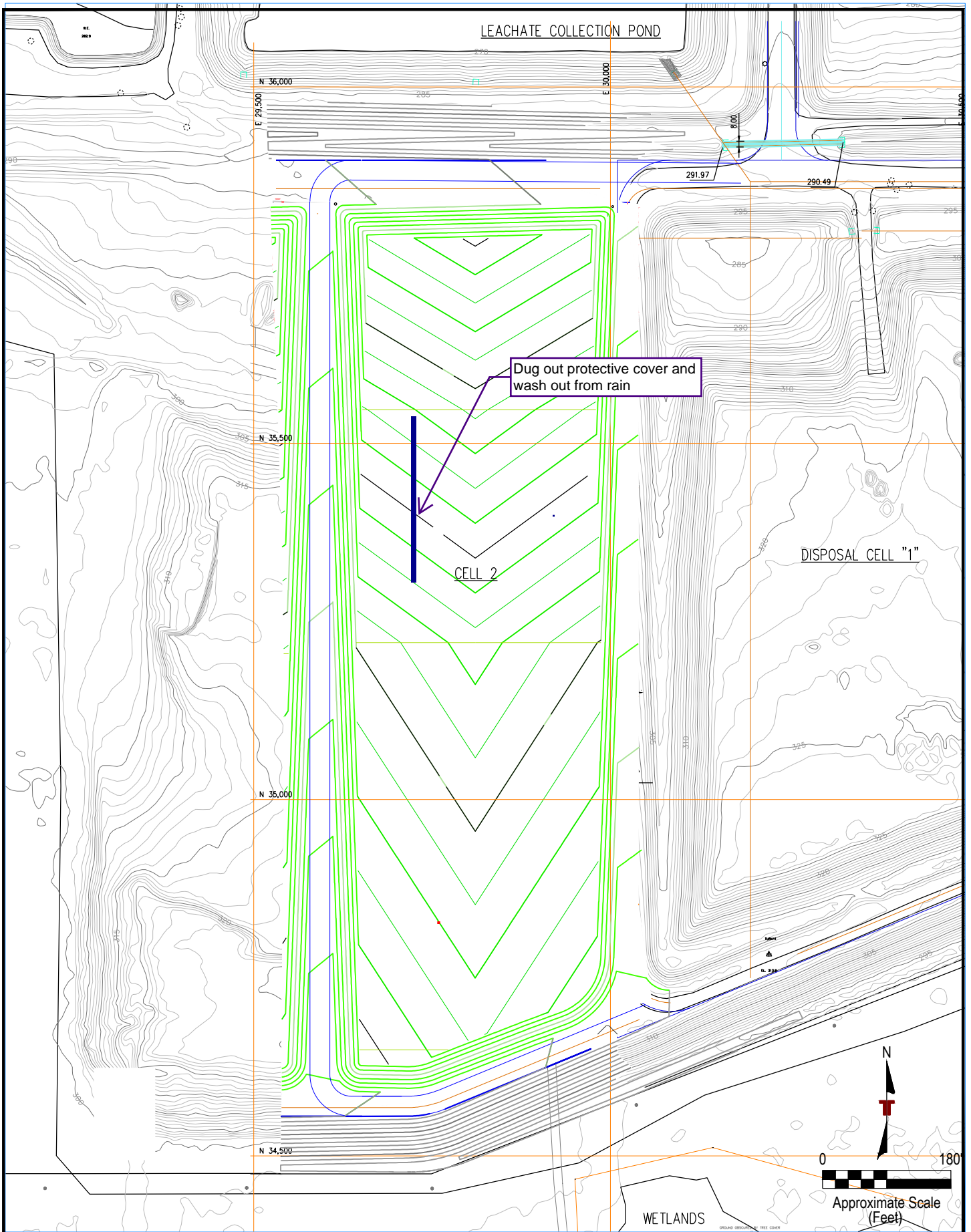
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor removed section of protective cover from the cell floor in preparation to install chimney drain and hdpe pipe.</u>
<u>Contractor placed gravel in chimney drain.</u>
<u>Contractor welded chimney drain.</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB
Project No.:	35177127
Scale:	AS SHOWN
File No.:	000
Date:	10.22.18

**Terracon**  
 Consulting Engineers and Scientists

25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/29/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>53</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>80</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>6:45 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>7:15 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

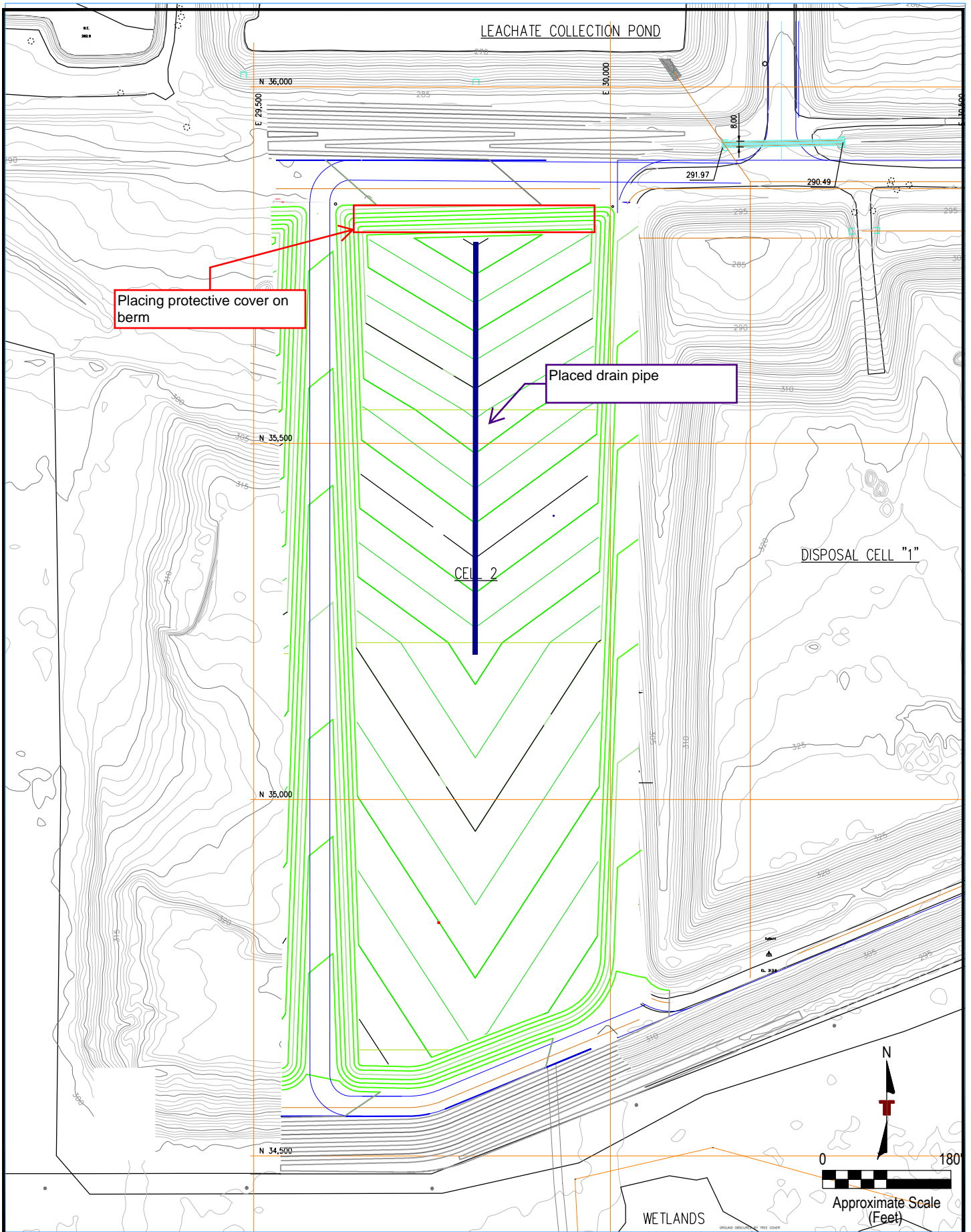
EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor welded chimney drain.</u>
<u>Contractor placed chimney drain in ditch</u>
<u>Contractor cut protective cover from borrow area.</u>
<u>Contractor haulers transported protective cover material to north berm then offloaded.</u>
<u>Contractor dozer spread material on north slope</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.





Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.29.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>60</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>80</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>6:15 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>6:30 PM</u>

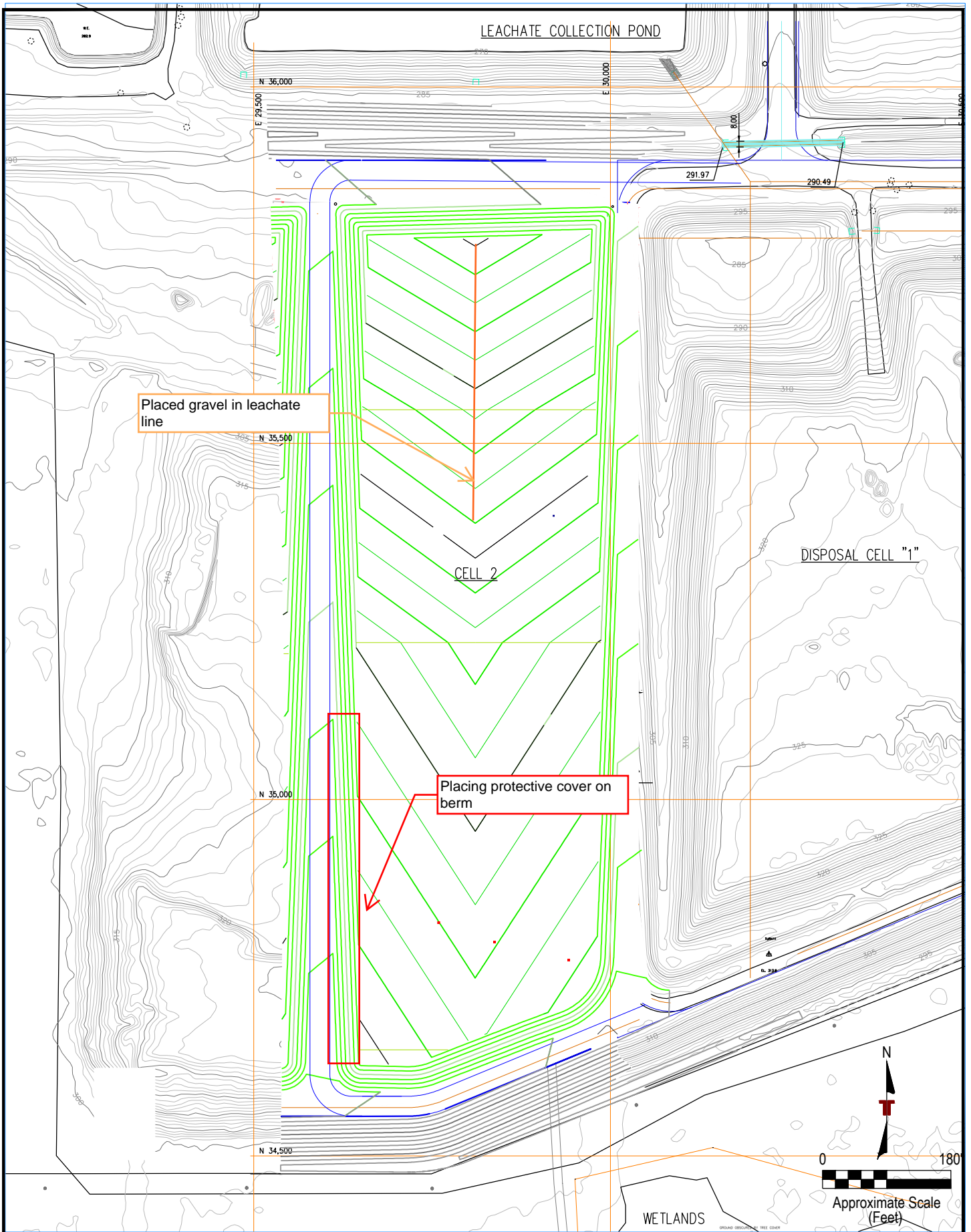
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>16</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor welded chimney drain.</u>
<u>Contractor placed chimney drain in ditch and added gravel.</u>
<u>Contractor cut protective cover from chimney drain.</u>
<u>Contractor haulers transported protective cover material to west berm then offloaded.</u>
<u>Contractor dozer spread material on west slope</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	CSM
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	10.30.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 10/31/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>58</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>79</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>5:30 PM</u>

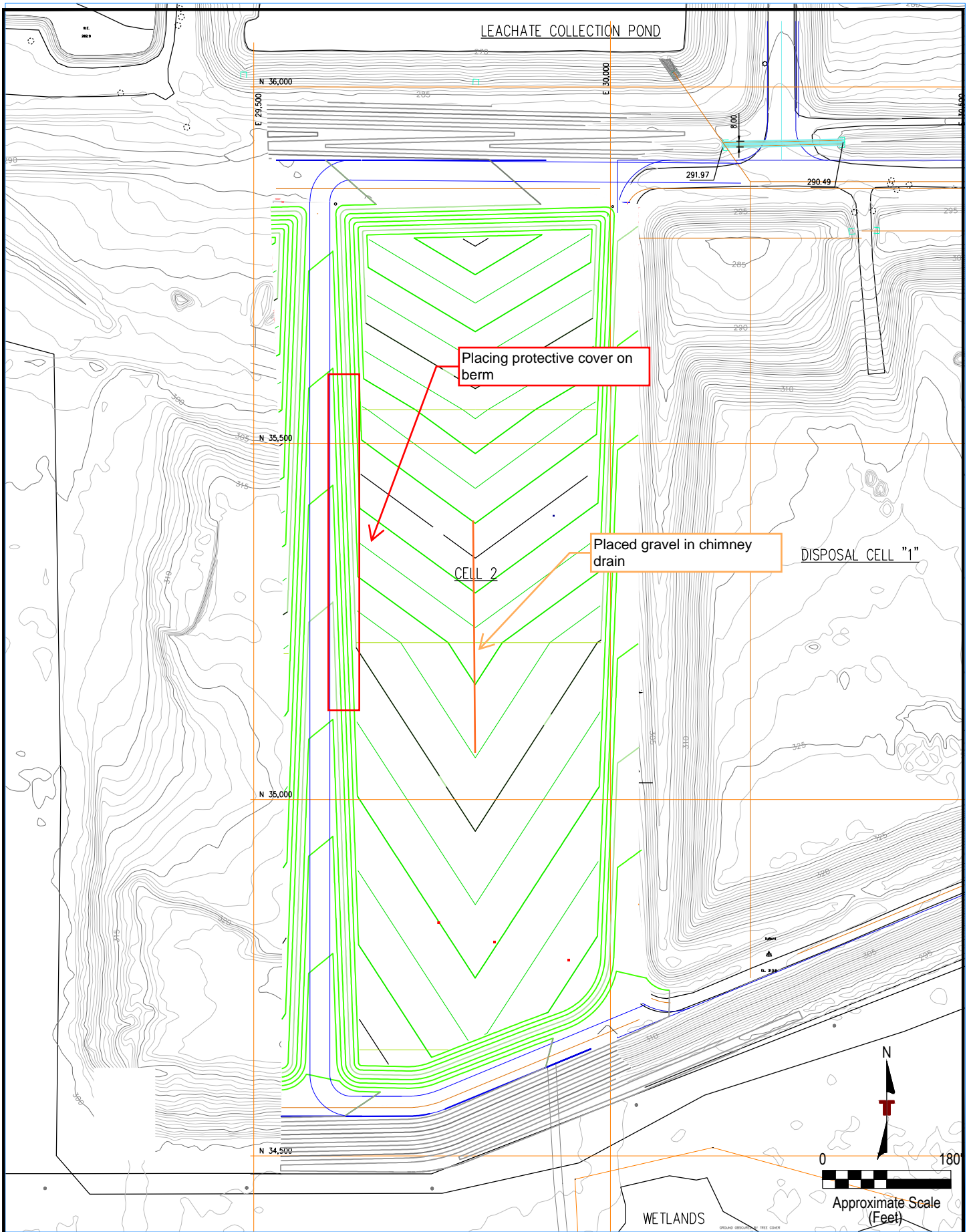
FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>16</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

QA/QC EXPECTATIONS:
<u>Observe continued placement of protective cover on cell floor.</u>
SUMMARY OF ACTIVITIES OBSERVED:
<u>Contractor welded chimney drain.</u>
<u>Contractor placed chimney drain in ditch and added gravel.</u>
<u>Contractor cut protective cover from chimney drain.</u>
<u>Contractor haulers transported protective cover material to west berm then offloaded.</u>
<u>Contractor dozer spread material on west slope</u>
LIFTS WORKED AND COMPACTION EFFORTS:
<b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	CSM	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	10.31.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
 CELL 2 BOTTOM LINER CONSTRUCTION  
 SWEPCO  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/1/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Scott McDonald  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input checked="" type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>50</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>58</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>7:15 AM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>9:45 AM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>      </u>	Dozer(s)	<u>      </u>	Skyjack
<u>      </u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>  1  </u>	Client	<u>      </u>	Liner Crew
<u> 10 </u>	Contractor	<u>      </u>	Liner Installer
<u>  1 </u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>      </u>	Surveyor	<u>      </u>	Gas Line Inst.

<b>QA/QC EXPECTATIONS:</b> <u>Observe continued placement of protective cover on cell floor.</u>
<b>SUMMARY OF ACTIVITIES OBSERVED:</b> <u>Rain Out</u> <u>No map created due to rain out</u>
<b>LIFTS WORKED AND COMPACTION EFFORTS:</b> <b>LIFTS:</b>
<b>COMPACTION EFFORTS:</b>
<b>OPERATIONAL CONCERNS &amp; SOLUTIONS:</b>

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.

# Daily Project Construction Summary

Project No: 35177127  
Date of Report: 11/11/2018  
Client Name: American Electric Power  
Contractor: SFC  
Project Name: Turk Cell 2  
Location: Fulton, AR  
Representative: Greg Witte  
Technician: Matt Acree  
Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input checked="" type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>39</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>49</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>9</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

## QA/QC EXPECTATIONS:

Observe continued placement of protective cover in cell floor.

## SUMMARY OF ACTIVITIES OBSERVED:

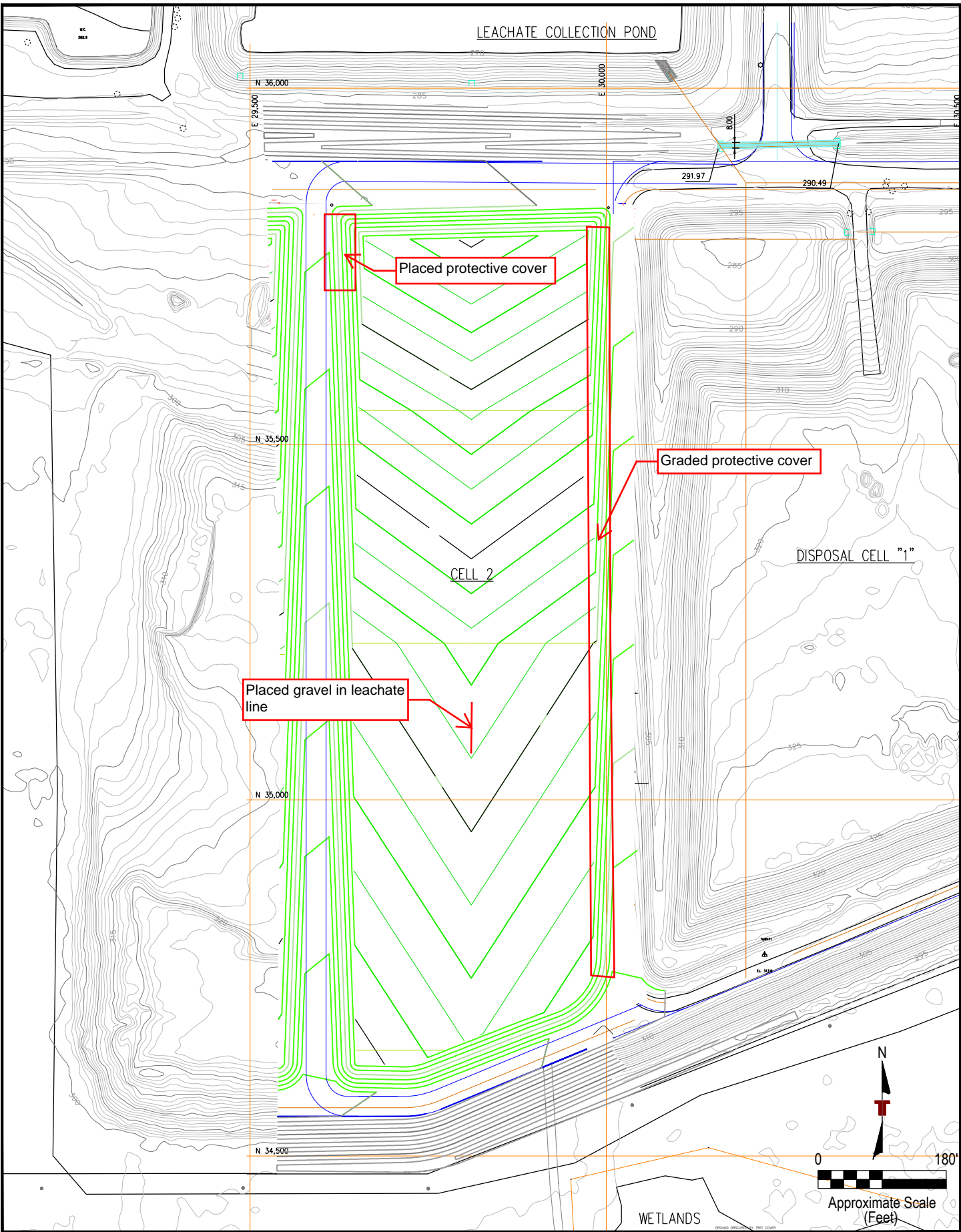
Contractor laborers shoveled wet material from main leachate line trench.

Contractor excavator scooped washed stone stockpile and loaded into haul trucks. Also unloaded from haul trucks and placed it around installed pipe.

Contractor haul trucks transported washed stone from staging area to cell floor.

Contractor dozer graded protective cover.

## OPERATIONAL CONCERNS & SOLUTIONS:



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.11.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---



# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/15/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>35</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>58</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>7:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>10:00 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>1</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe excavation of protective cover and installation of HDPE leachate line.

**SUMMARY OF ACTIVITIES OBSERVED:**

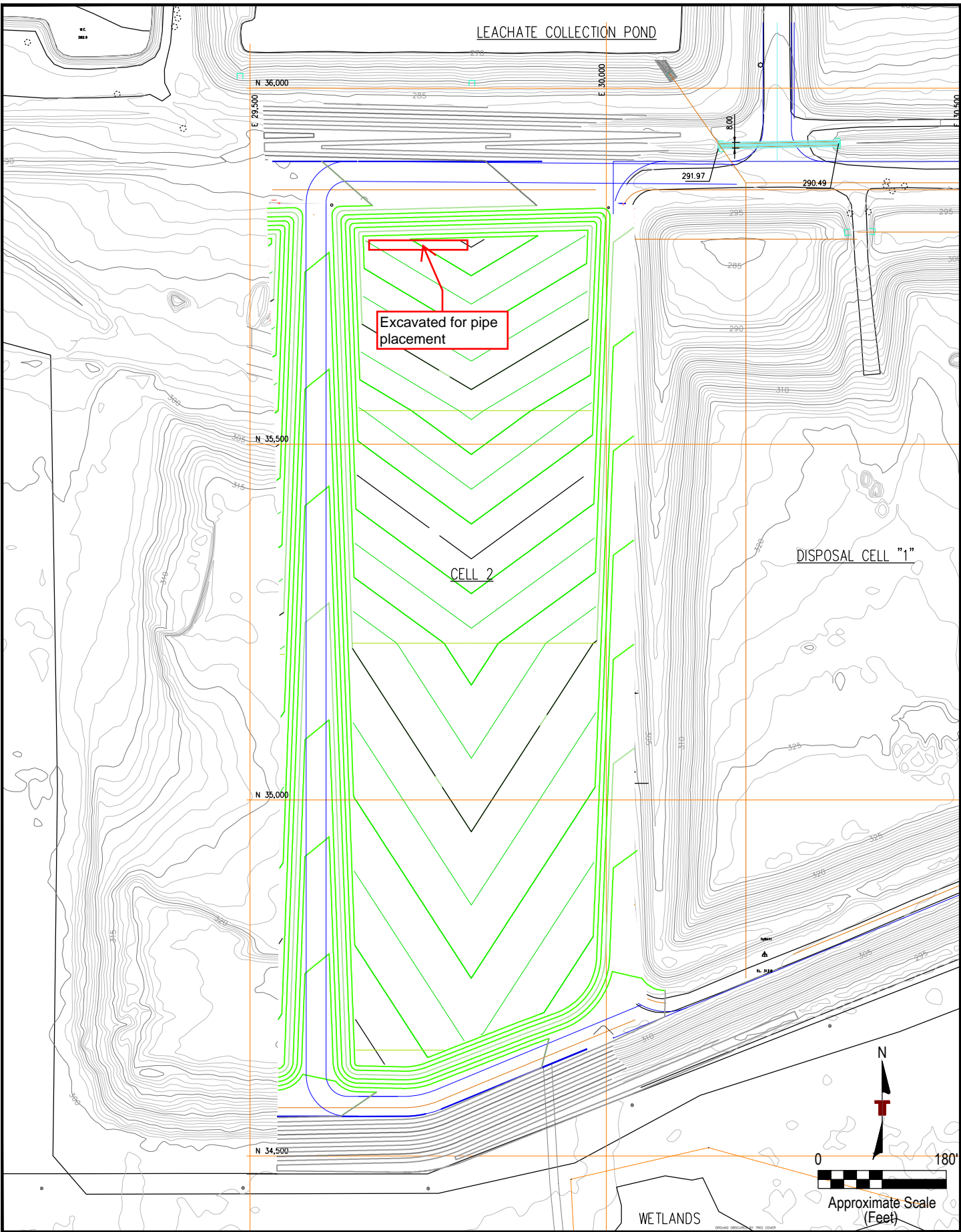
Contractor laborers shoveled wet material excavated area.

Contractor excavator excavated protective cover from cross-junction to west berm.

Contractor dozer graded protective cover.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.15.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/16/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input checked="" type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>37</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>69</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>4:45 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe excavation of protective cover and installation of HDPE leachate line.

**SUMMARY OF ACTIVITIES OBSERVED:**

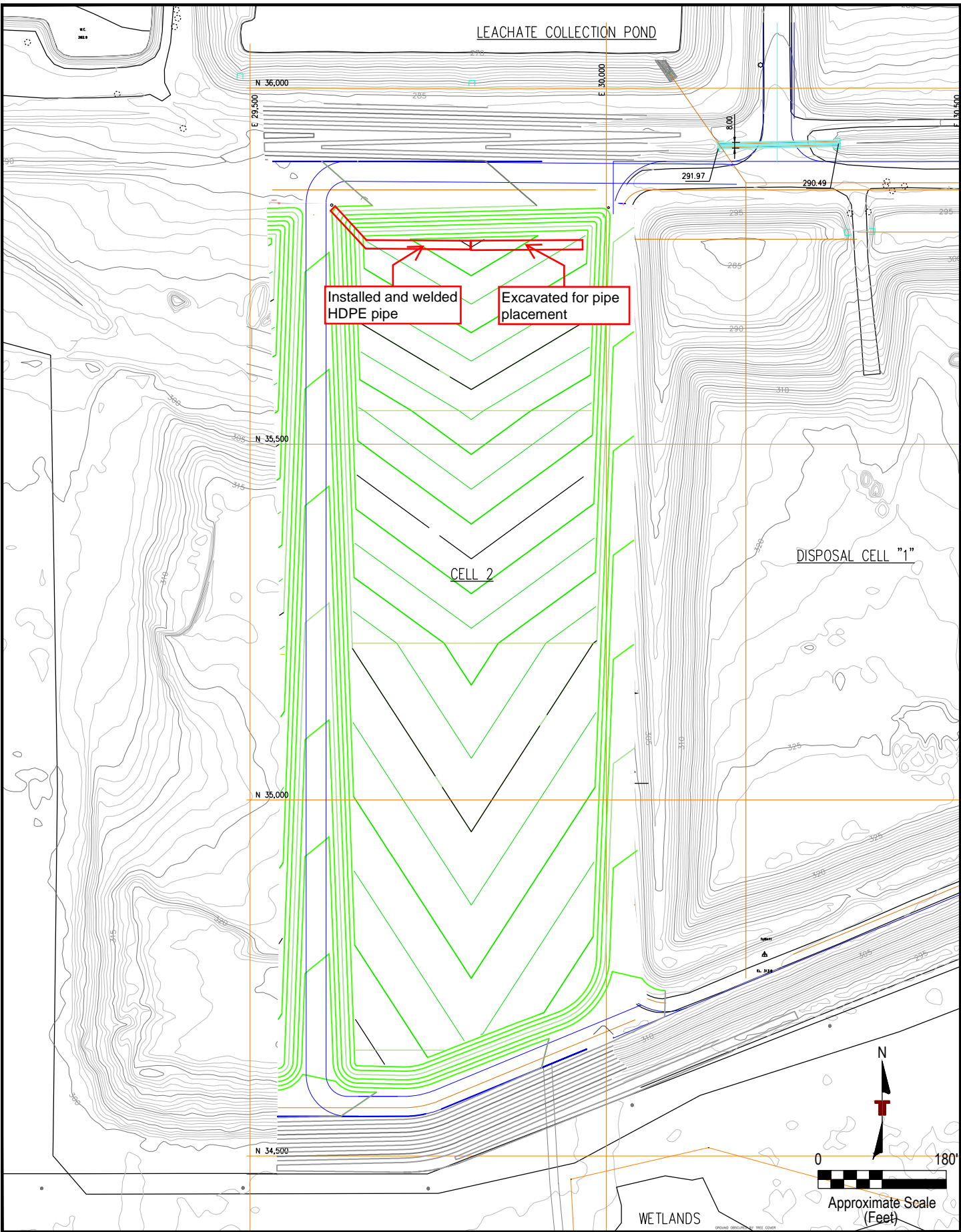
Contractor laborers fusion welded HDPE pipe.

Contractor excavator excavated protective cover from cross-junction to east berm. Also helped place HDPE pipe in trenches.

Contractor dozer graded protective cover.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngnr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.16.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
----------	---

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/17/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input checked="" type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>44</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>72</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:30 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:45 AM</u>	Arrive Lab:	<u>5:45 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>      </u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

### QA/QC EXPECTATIONS:

Observe installation of HDPE leachate line and placement of gravel.

### SUMMARY OF ACTIVITIES OBSERVED:

Contractor placed and fusion welded HDPE piping.

Contractor excavator helped place HDPE piping, loaded gravel into haulers, and scooped gravel from hauler buckets to place around piping.

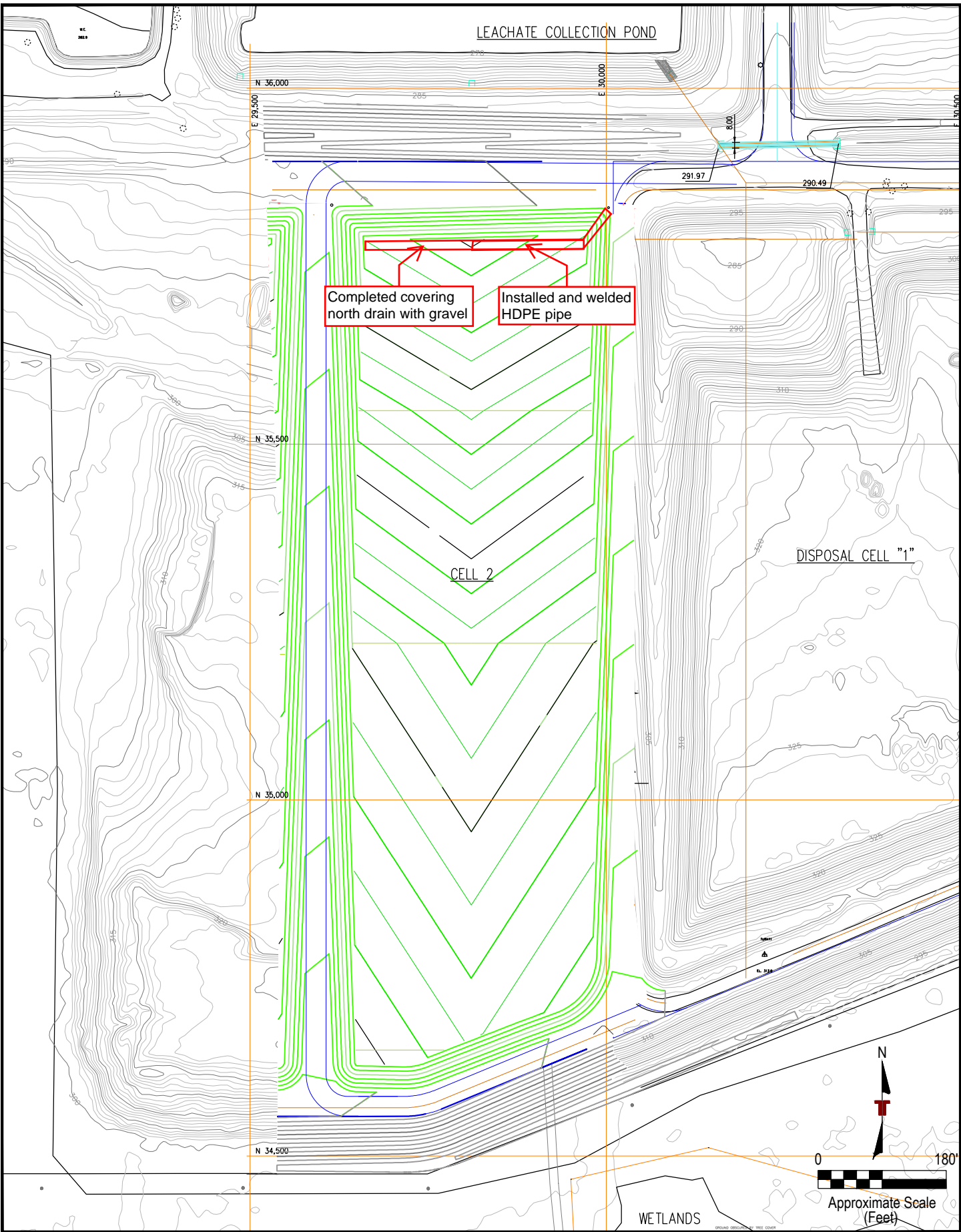
Contractor haulers transported pipe gravel from stockpile to north end of cell.

Contractor dozer graded protective cover.

### OPERATIONAL CONCERNS & SOLUTIONS:

Expected rain 11/18/2018

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.17.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/20/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>30</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>57</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>5:45 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

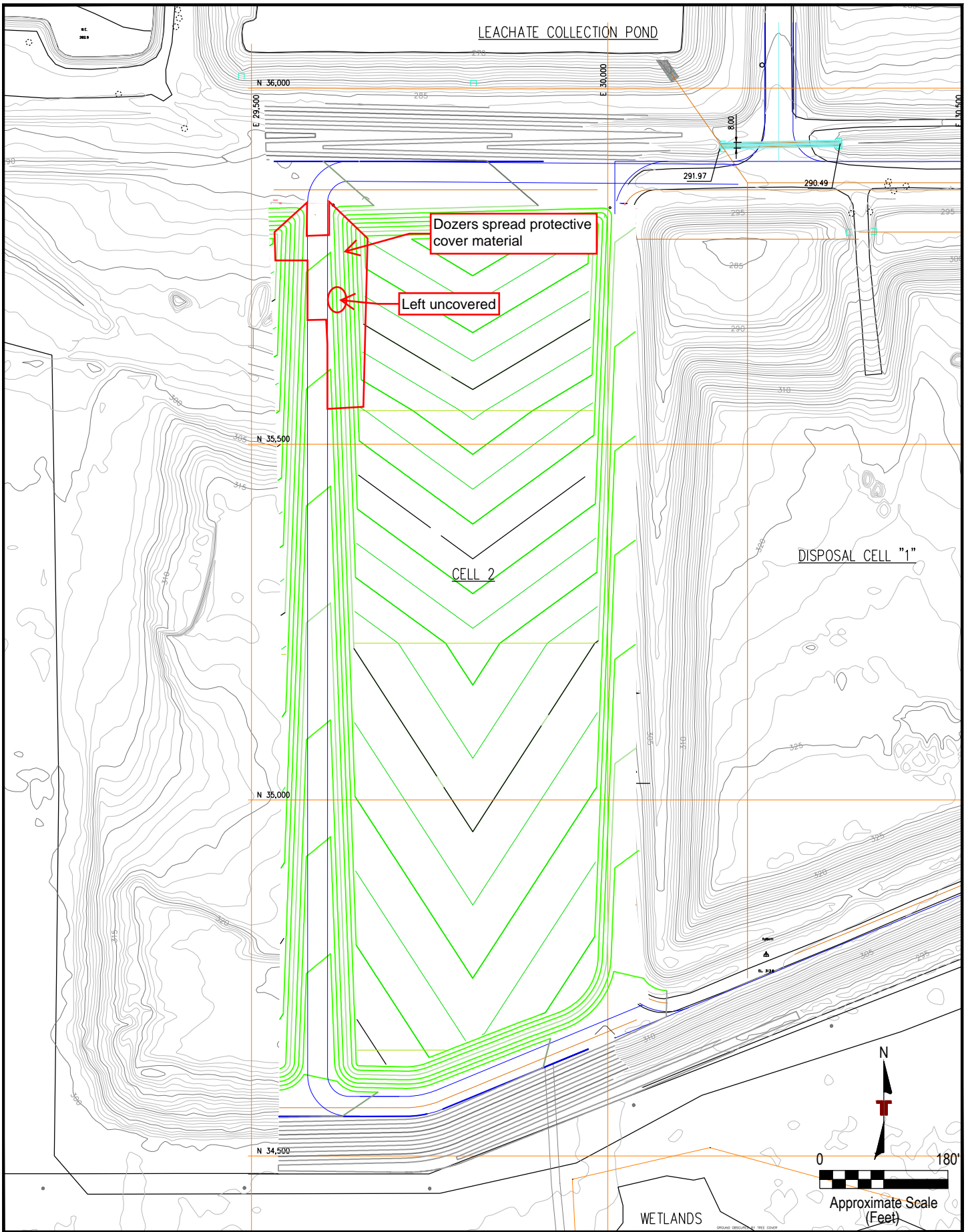
PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**  
Observe placement of protective cover

**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor excavator scooped stockpiled material into haulers.  
Contractor haulers transported protective cover from various stockpiles around cell to west berm.  
Contractor dozers spread protective cover material.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	11.20.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**



# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/21/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>31</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>58</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:30 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

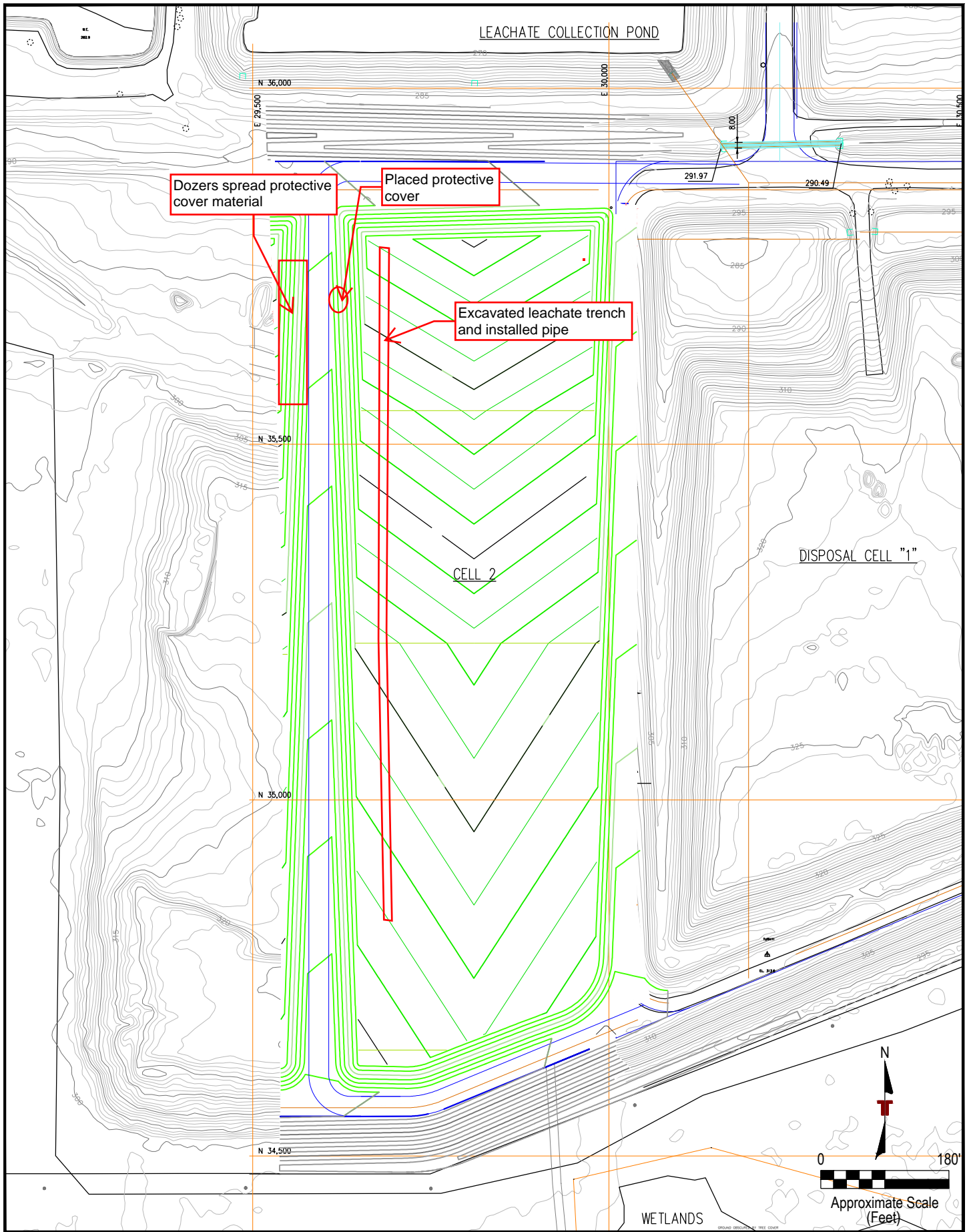
PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>12</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**  
Observe placement of protective cover and excavation and placement of west leachate line.

**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor excavator scooped stockpiled material into haulers and scooped smooth stone into leachate trenches.  
Contractor haulers transported protective cover from various stockpiles around cell to west berm and smooth gravel from stockpile to leachate trenches.  
Contractor dozers spread protective cover material.  
Contractor laborers installed pipe in west leachate trench.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.21.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/22/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>30</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>57</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe excavation of leachate trench and placement of smooth gravel.

**SUMMARY OF ACTIVITIES OBSERVED:**

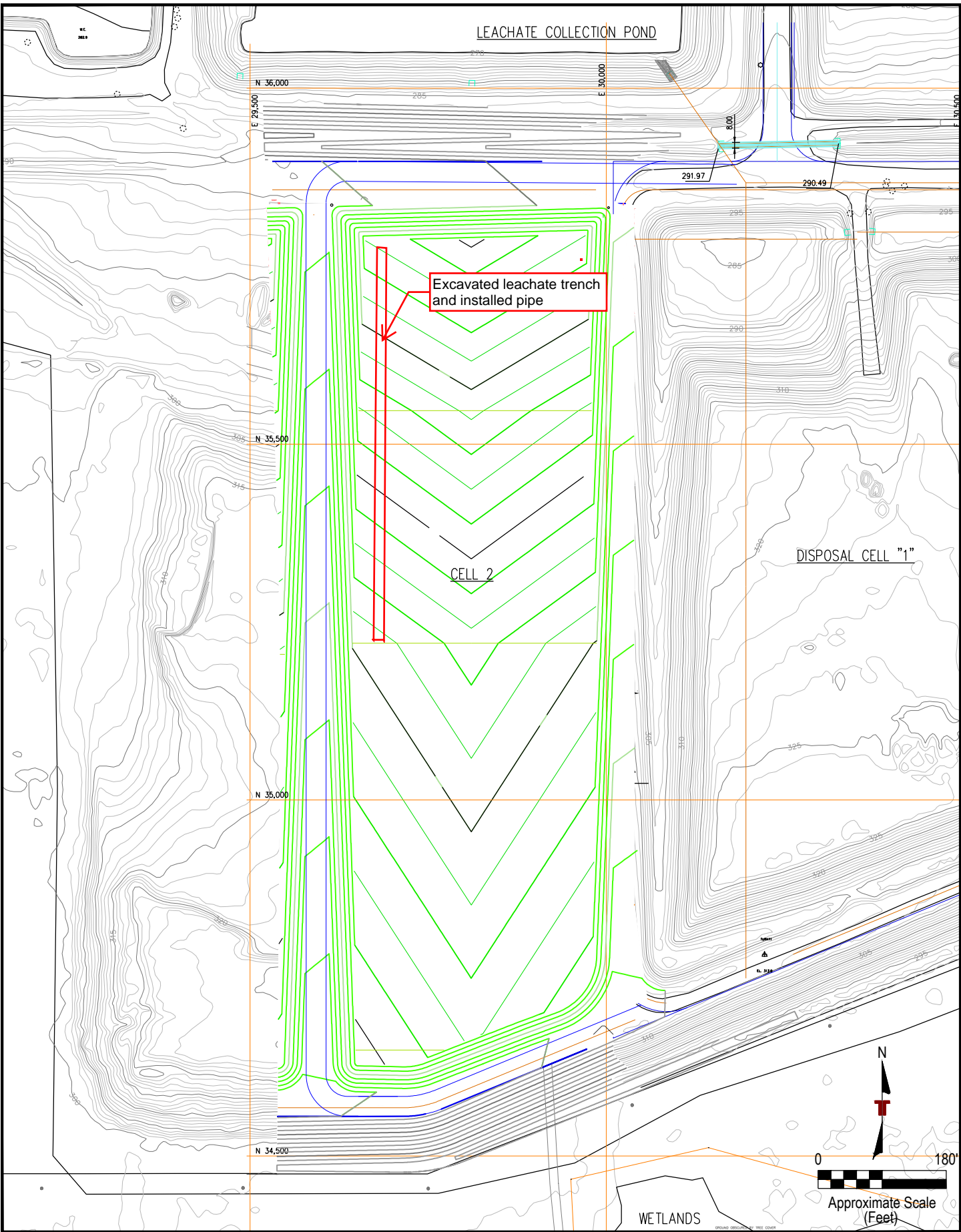
Contractor laborers installed pipe in west leachate trench and covered with gravel and textile.

Contractor excavators loaded and unloaded gravel from haul trucks.

Contractor dozers graded protective cover.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.22.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/23/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input checked="" type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input checked="" type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>44</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>57</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>5:45 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe completion of pipe installation and grading

**SUMMARY OF ACTIVITIES OBSERVED:**

Contractor excavator loaded and unloaded gravel into trucks

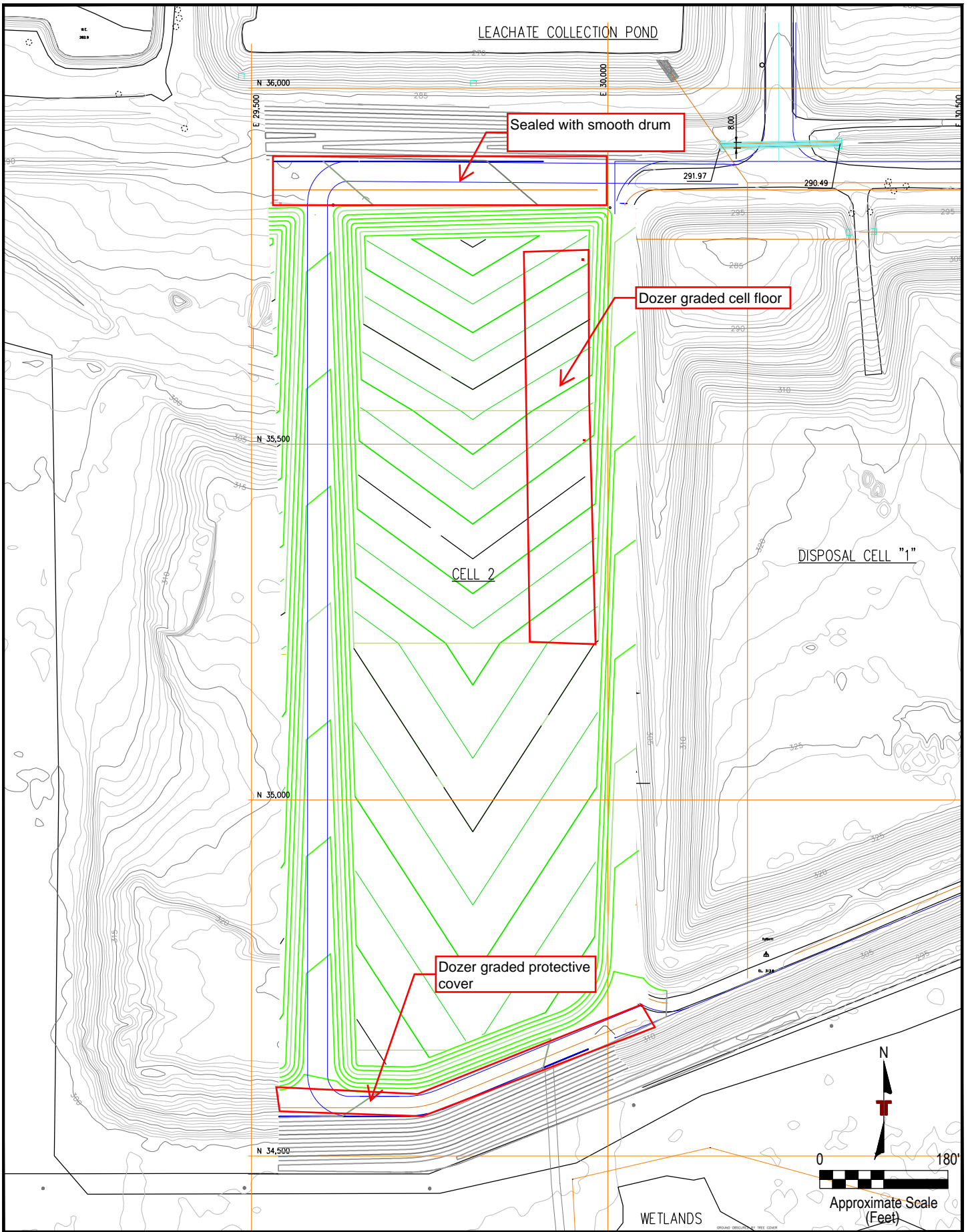
Contractor haulers transported gravel from stockpile to cell floor

Contractor dozers graded protective cover

**OPERATIONAL CONCERNS & SOLUTIONS:**

Rain out

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	11.23.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

**FIG. No.**  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/25/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>36</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>65</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>1</u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe excavation of leachate trench and installation of pipe.

**SUMMARY OF ACTIVITIES OBSERVED:**

Contractor laborers installed pipe in west leachate trench

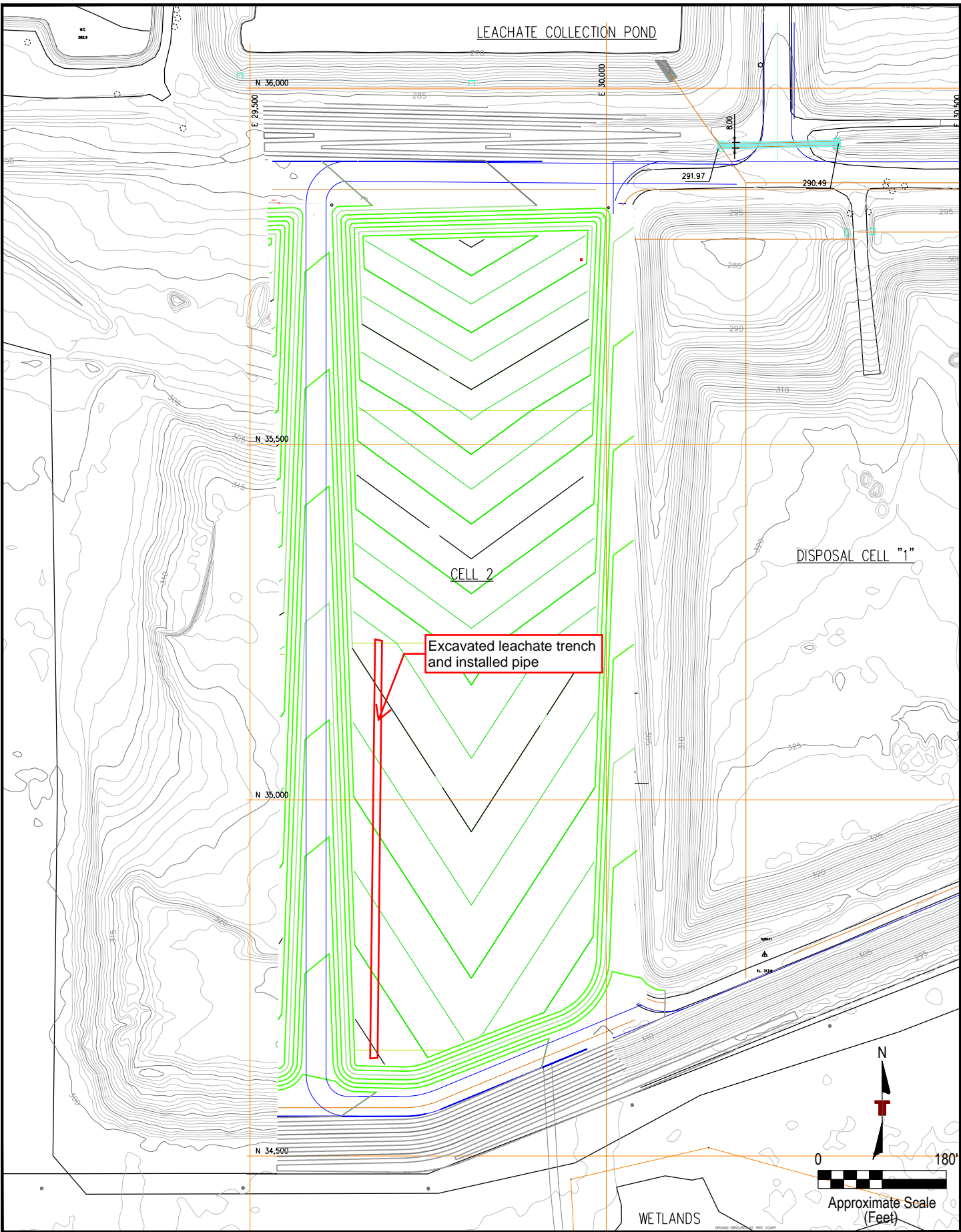
Contractor excavators loaded and unloaded protective cover from haul trucks.

Contractor dozers graded protective cover.

Contractor haulers transported protective cover to stockpile.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.25.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/26/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>28</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>57</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>5:30 AM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>8</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe excavation of leachate trench and placement of smooth gravel.

**SUMMARY OF ACTIVITIES OBSERVED:**

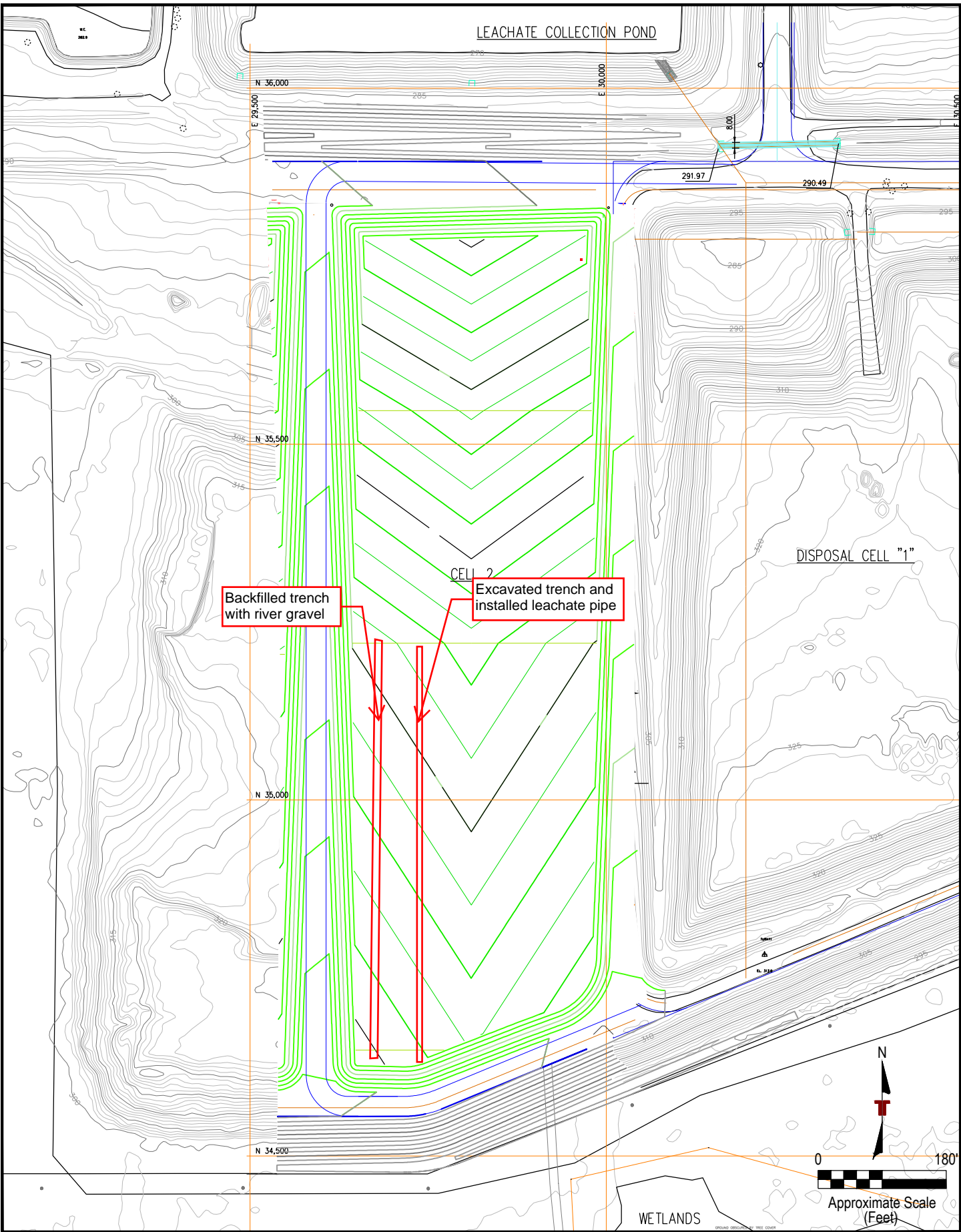
Contractor laborers installed pipe in leachate trench and covered with gravel and textile.

Contractor excavators loaded and unloaded gravel from haul trucks.

Contractor dozers graded protective cover.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.26.18

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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/27/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>28</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>59</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:30 AM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>14</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

### QA/QC EXPECTATIONS:

Observe excavation of leachate trench and placement of smooth gravel.

### SUMMARY OF ACTIVITIES OBSERVED:

Contractor laborers installed pipe in leachate trench and covered with gravel and textile.

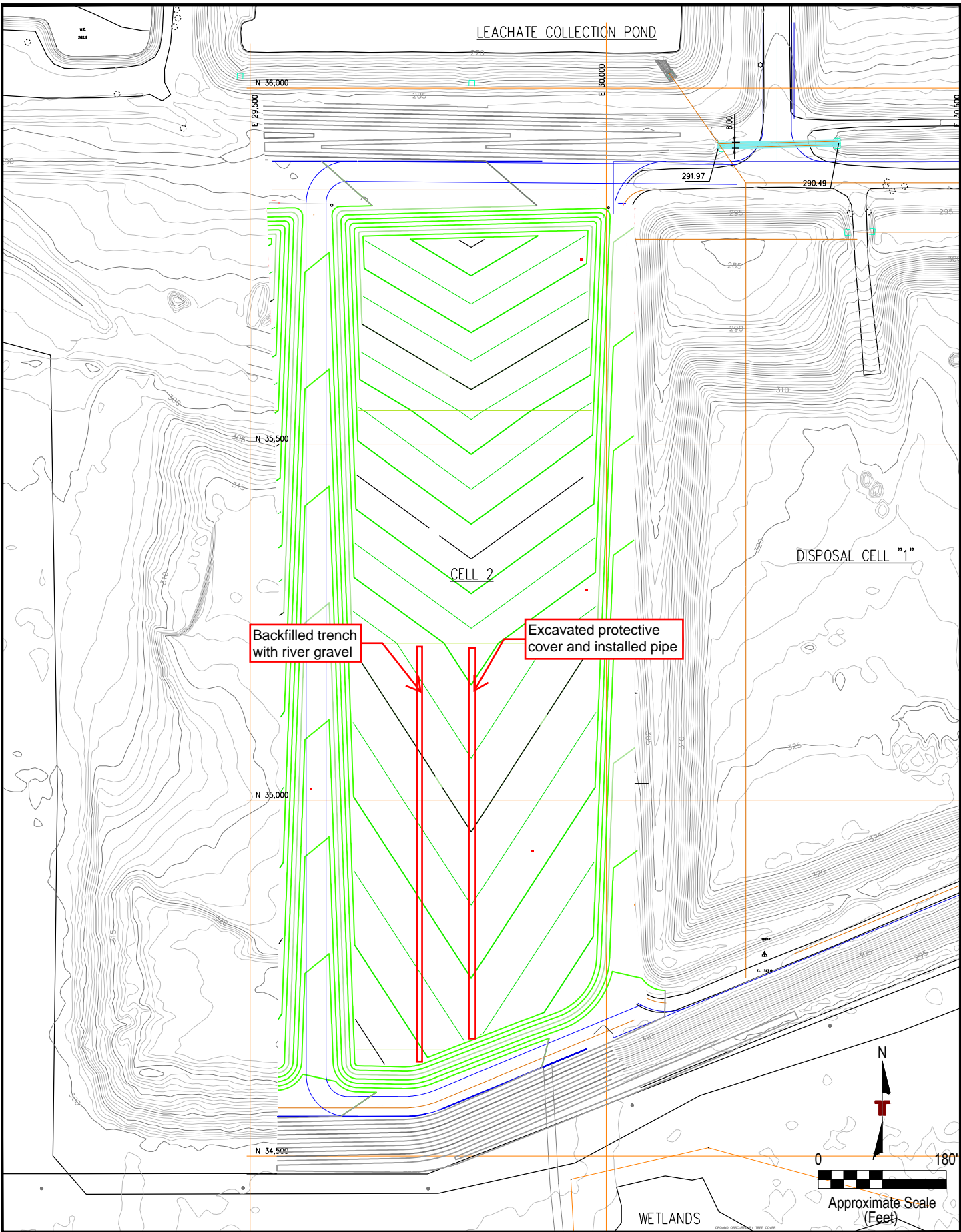
Contractor excavators loaded and unloaded gravel from haul trucks and excavated leachate trench and loaded material into haulers.

Contractor haulers transported gravel from stockpile to trench and protective cover material from cell floor to stockpile.

Contractor dozers graded protective cover.

### OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.27.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/28/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>42</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>62</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>5:30 AM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

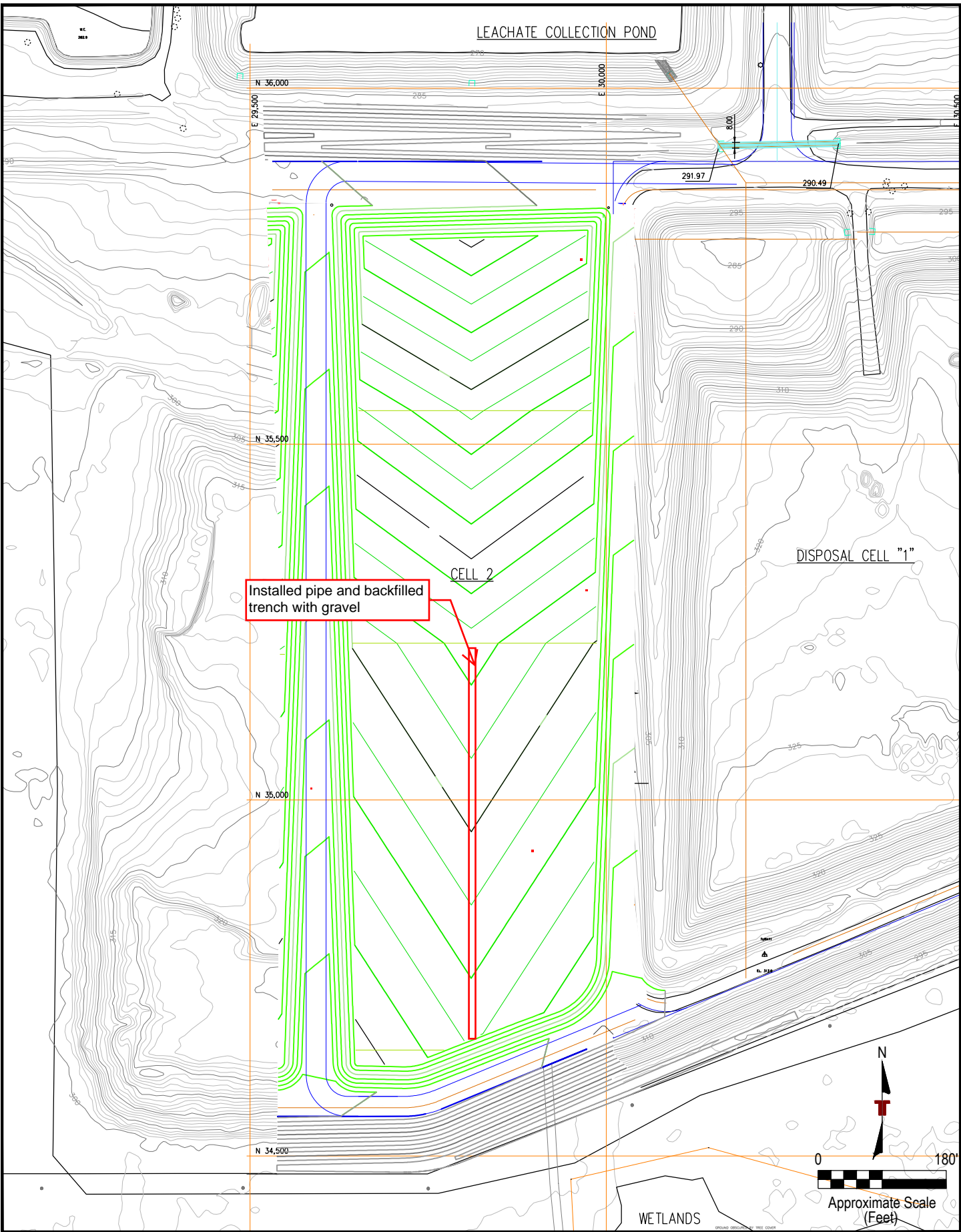
PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>15</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**  
Observe installation of leachate pipe and placement of smooth gravel.

**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor laborers installed pipe in leachate trench and covered with gravel and textile.  
Contractor excavators loaded and unloaded gravel from haul trucks.  
Contractor haulers transported gravel from stockpile to trench and protective cover material from cell floor to stockpile.  
Contractor dozers graded protective cover.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.

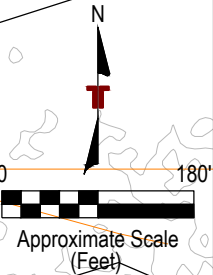


Installed pipe and backfilled trench with gravel

CELL 2

DISPOSAL CELL "1"

WETLANDS



Project Mngr:	TLB	Project No.	35177127
Drawn By:	MJA	Scale:	AS SHOWN
Checked By:	TLB	File No.	000
Approved By:	TLB	Date:	11.28.18

**Terracon**  
 Consulting Engineers and Scientists  
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CELL 2 DAILY CONSTRUCTION MAP  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.  
**1**

# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/29/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input checked="" type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>55</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>72</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>6:15 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>6:30 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>1</u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>2</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>15</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

### QA/QC EXPECTATIONS:

Observe excavation of leachate trench and placement of smooth gravel.

### SUMMARY OF ACTIVITIES OBSERVED:

Contractor laborers installed pipe in leachate trench and covered with gravel and textile.

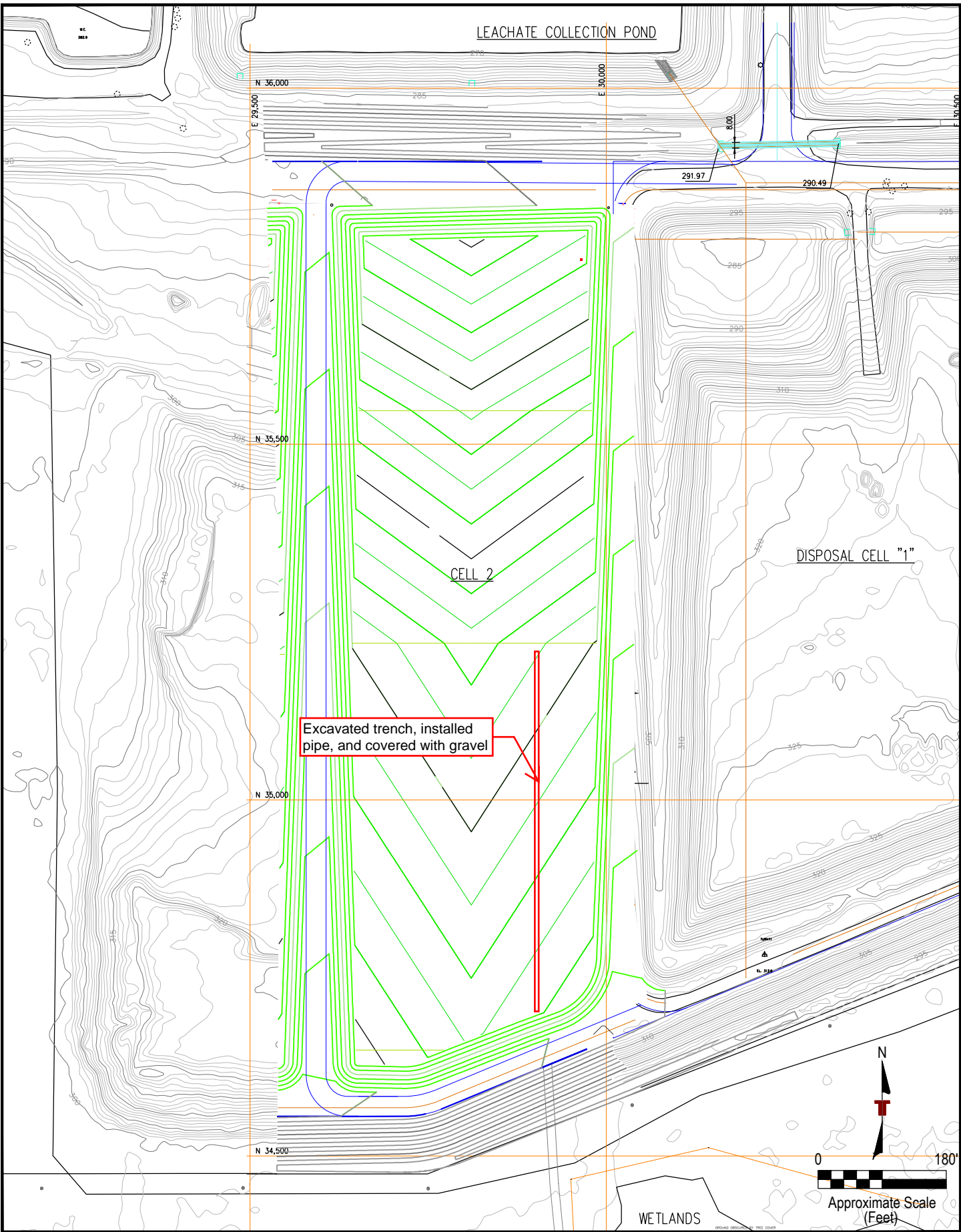
Contractor excavators dug east leachate trench and loaded and unloaded gravel from haul trucks.

Contractor haulers transported gravel from stockpile to trench and protective cover material from cell floor to stockpile.

Contractor dozers graded protective cover.

### OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.29.18

**Terracon**  
 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 11/30/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input type="checkbox"/>	Partly Cloudy	<input checked="" type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>62</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>73</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input checked="" type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>2</u>	Dozer(s)	<u>      </u>	Skyjack
<u>1</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>3</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>      </u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>10</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**

Observe placement of structural fill material in north berm.

**SUMMARY OF ACTIVITIES OBSERVED:**

Contractor haulers transported structural fill material to north berm.

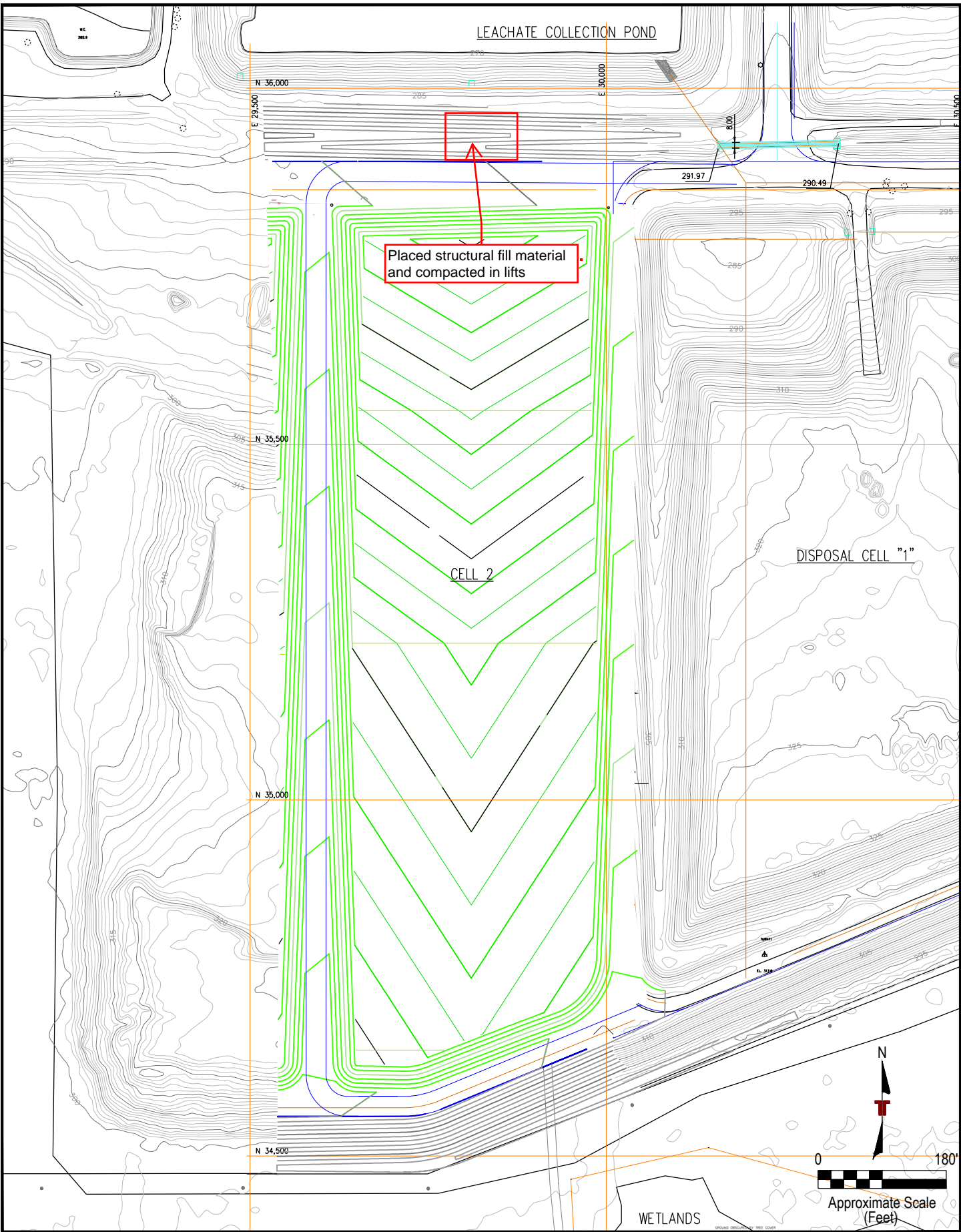
Contractor excavator loaded structural fill material into haulers

Contractor sheeps foot compacted material.

Contractor dozers spread and graded material

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	11.30.18

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CELL 2 DAILY CONSTRUCTION MAP  
 CELL 2 BOTTOM LINER CONSTRUCTION  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 12/2/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input checked="" type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>51</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>62</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input checked="" type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>16</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

### QA/QC EXPECTATIONS:

Observe placement of structural fill material in north berm.

### SUMMARY OF ACTIVITIES OBSERVED:

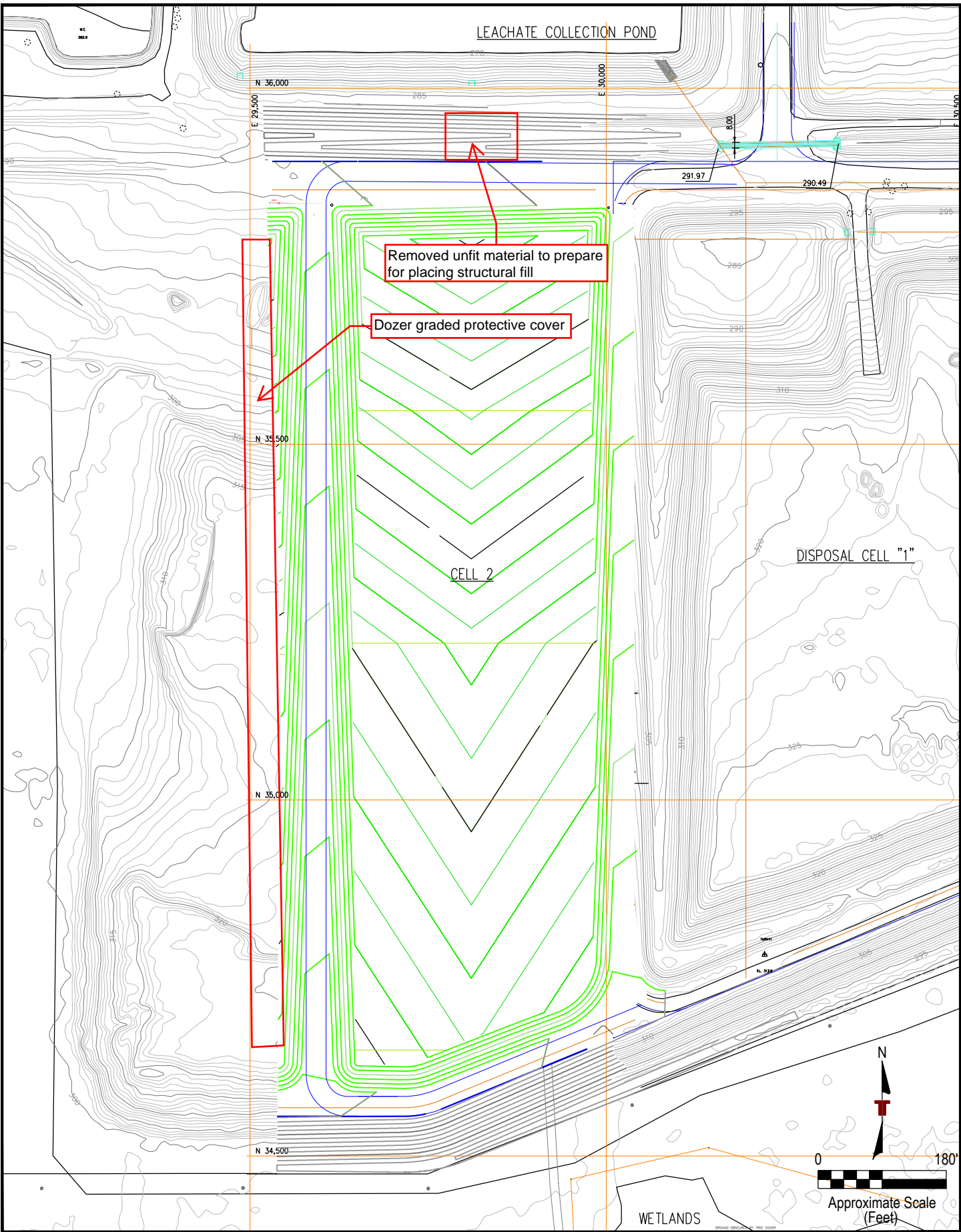
Contractor haulers transported unfit material from north berm to stockpile and overburden material from west of cell 2 to borrow area stockpile

Contractor excavators cut unfit material and placed in haulers and cut overburden from west side of cell

Contractor dozers spread dumped overburden material and graded protective cover

### OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	12.02.18

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 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 12/3/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input checked="" type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>34</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>51</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>5:00 AM</u>	Depart Site:	<u>5:00 PM</u>
Arrive Site:	<u>7:00 AM</u>	Arrive Lab:	<u>7:00 PM</u>

FIELD TESTING PERFORMED:			
<input type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Skyjack
<u>3</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>      </u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

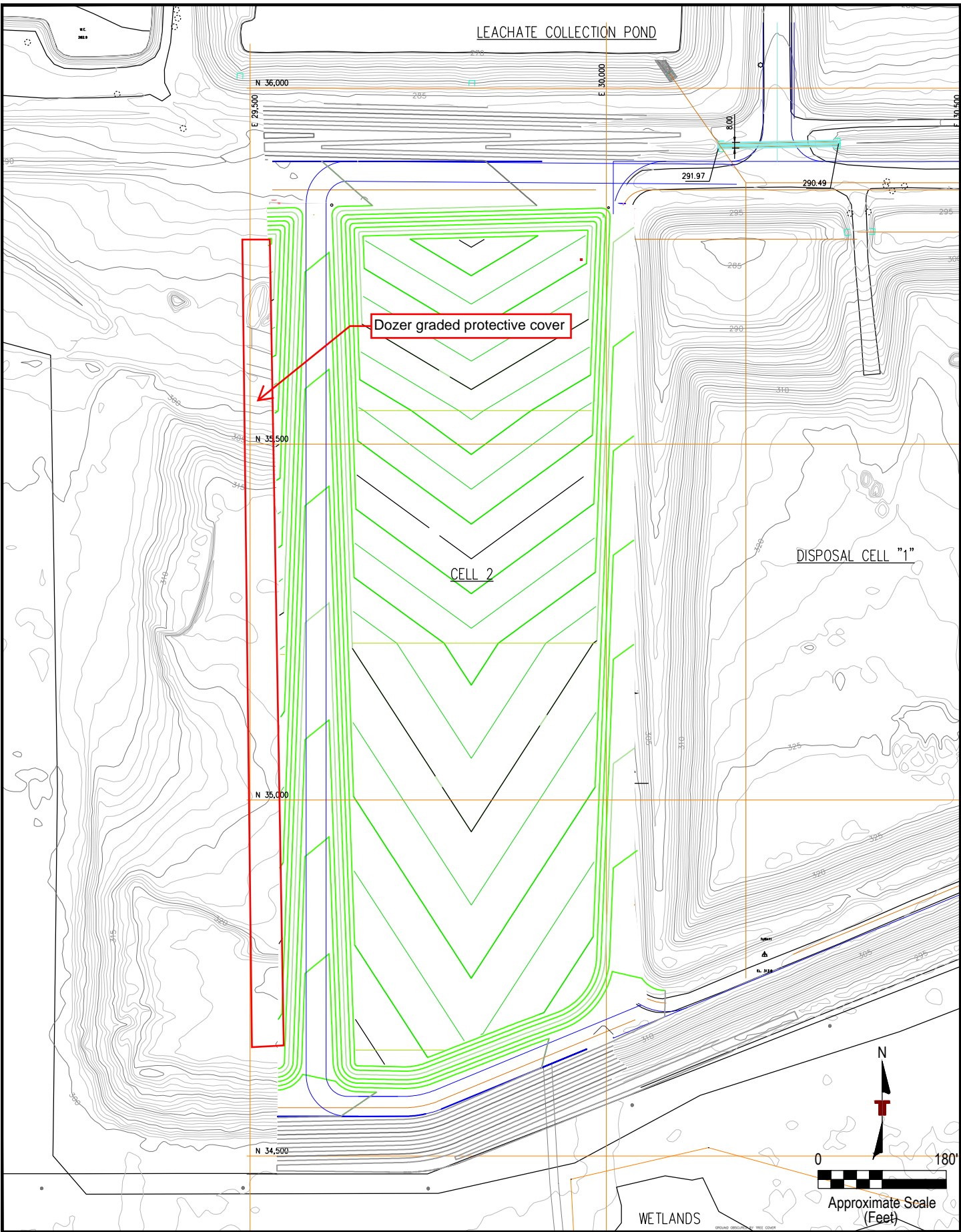
PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>16</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

**QA/QC EXPECTATIONS:**  
Observe placement of structural fill material in north berm.

**SUMMARY OF ACTIVITIES OBSERVED:**  
Contractor dozers graded protective cover  
Contractor excavators cut overburden and loaded into trucks  
Haul trucks transported overburden material to borrow area stockpile.

**OPERATIONAL CONCERNS & SOLUTIONS:**

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	12.03.18

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 Consulting Engineers and Scientists  
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**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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# Daily Project Construction Summary

Project No: 35177127  
 Date of Report: 12/4/2018  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Location: Fulton, AR  
 Representative: Greg Witte  
 Technician: Matt Acree  
 Test Location: Cell 2

WEATHER:			
<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cold
<input type="checkbox"/>	Cloudy	<input checked="" type="checkbox"/>	Cool
<input checked="" type="checkbox"/>	Partly Cloudy	<input checked="" type="checkbox"/>	Warm
<input type="checkbox"/>	Raining	<input type="checkbox"/>	Hot
<input type="checkbox"/>	Windy	<u>28</u>	Low Temp. (°F)
<input type="checkbox"/>	Foggy / Misty	<u>47</u>	High Temp. (°F)

REPORTING TIMES:			
Depart Lab:	<u>1:00 PM</u>	Depart Site:	<u>5:15 PM</u>
Arrive Site:	<u>2:45 PM</u>	Arrive Lab:	<u>7:15 PM</u>

FIELD TESTING PERFORMED:			
<input checked="" type="checkbox"/>	Moisture/Density	<input type="checkbox"/>	Subgrade
<input type="checkbox"/>	Shelby Tube(s)	<input type="checkbox"/>	Clay Liner

EQUIPMENT ONSITE:			
<u>3</u>	Dozer(s)	<u>      </u>	Skyjack
<u>2</u>	Excavator(s)	<u>      </u>	Skidsteer
<u>      </u>	Backhoe(s)	<u>      </u>	Water Truck
<u>4</u>	Haul Truck(s)	<u>1</u>	Sheeps Foot Compactor
<u>1</u>	Motor Grader(s)	<u>      </u>	Smooth Drum Compactor

PERSONNEL ONSITE:			
<u>1</u>	Client	<u>      </u>	Liner Crew
<u>16</u>	Contractor	<u>      </u>	Liner Installer
<u>1</u>	CQA Consultant	<u>      </u>	Concrete Crew
<u>      </u>	Design Engineer	<u>      </u>	Pipe Installer
<u>1</u>	Surveyor	<u>      </u>	Gas Line Inst.

## QA/QC EXPECTATIONS:

Observe placement of structural fill material in north berm.

## SUMMARY OF ACTIVITIES OBSERVED:

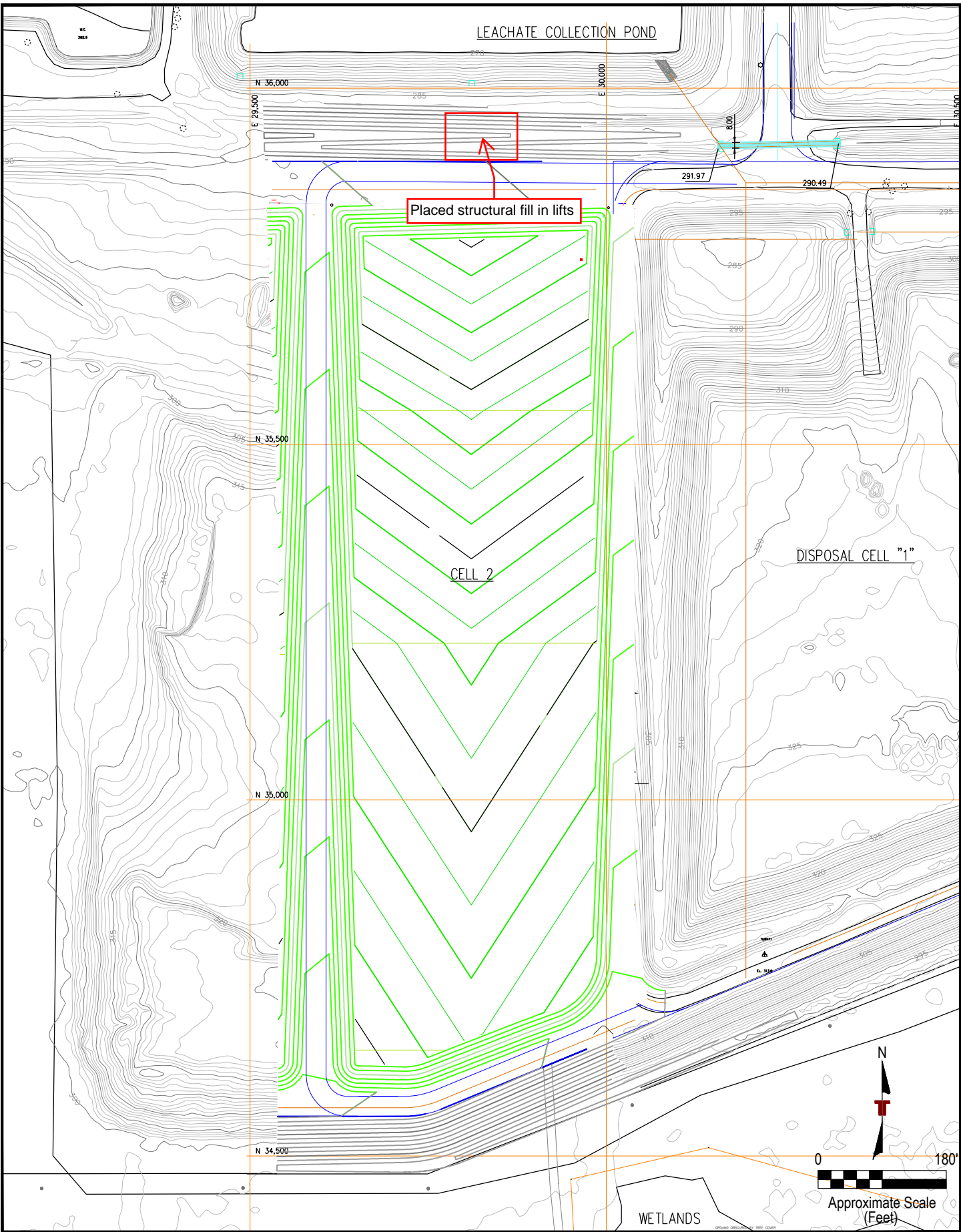
Contractor haulers transported structural fill material from west of cell 2 to north berm and borrow area stockpile

Contractor excavators cut overburden from west side of cell

Contractor dozers spread dumped overburden material and graded protective cover

## OPERATIONAL CONCERNS & SOLUTIONS:

**Note:** Copies of all completed "Project Field Record Forms" are to be submitted to the Project Manager at the end of each day and should be maintained with the Project Records.



Project Mngr:	TLB
Drawn By:	MJA
Checked By:	TLB
Approved By:	TLB

Project No.	35177127
Scale:	AS SHOWN
File No.	000
Date:	12.04.18

**Terracon**  
 Consulting Engineers and Scientists  
 25809 I-30 SOUTH BRYANT, AR 72022  
 PH. (501) 847-9292 FAX. (501) 847-9210

**CELL 2 DAILY CONSTRUCTION MAP**  
**CELL 2 BOTTOM LINER CONSTRUCTION**  
**SWEPCO**  
 JOHN W. TURK JR. POWER PLANT  
 FULTON ARKANSAS

FIG. No.	1
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APPENDIX C  
PRE-CONSTRUCTION & CONSTRUCTION  
TESTING



**TABLE 1**  
**SOIL PRE-CONSTRUCTION TEST SUMMARY**  
**SWEPKO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

Material ID	Max Dry Density (PCF)	Optimum Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index (>10)	Passing 1" (100%)	Passing #4 (>80%)	Passing #200 (>30%)	Soil Class	Permeability (1.0 E-7 cm/sec)	Soil Description
BA-1	102.1	19.7	51	18	33	100.0	96.1	68.0	CH	1.50E-08	Dark Gray Sandy Fat Clay
BA-2	95.3	24.6	75	23	52	100.0	100.0	97.7	CH	1.20E-08	Brown Fat Clay
BA-3	92.4	28.1	98	30	68	100.0	100.0	97.4	CH	9.60E-09	Brown Fat Clay
BA-4	89.4	29.0	82	25	57	100.0	100.0	97.8	CH	9.30E-09	Brown Fat Clay



A unit of American Electric Power

**TABLE 2**  
**SOIL CONSTRUCTION TEST SUMMARY**  
**SWEPCO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

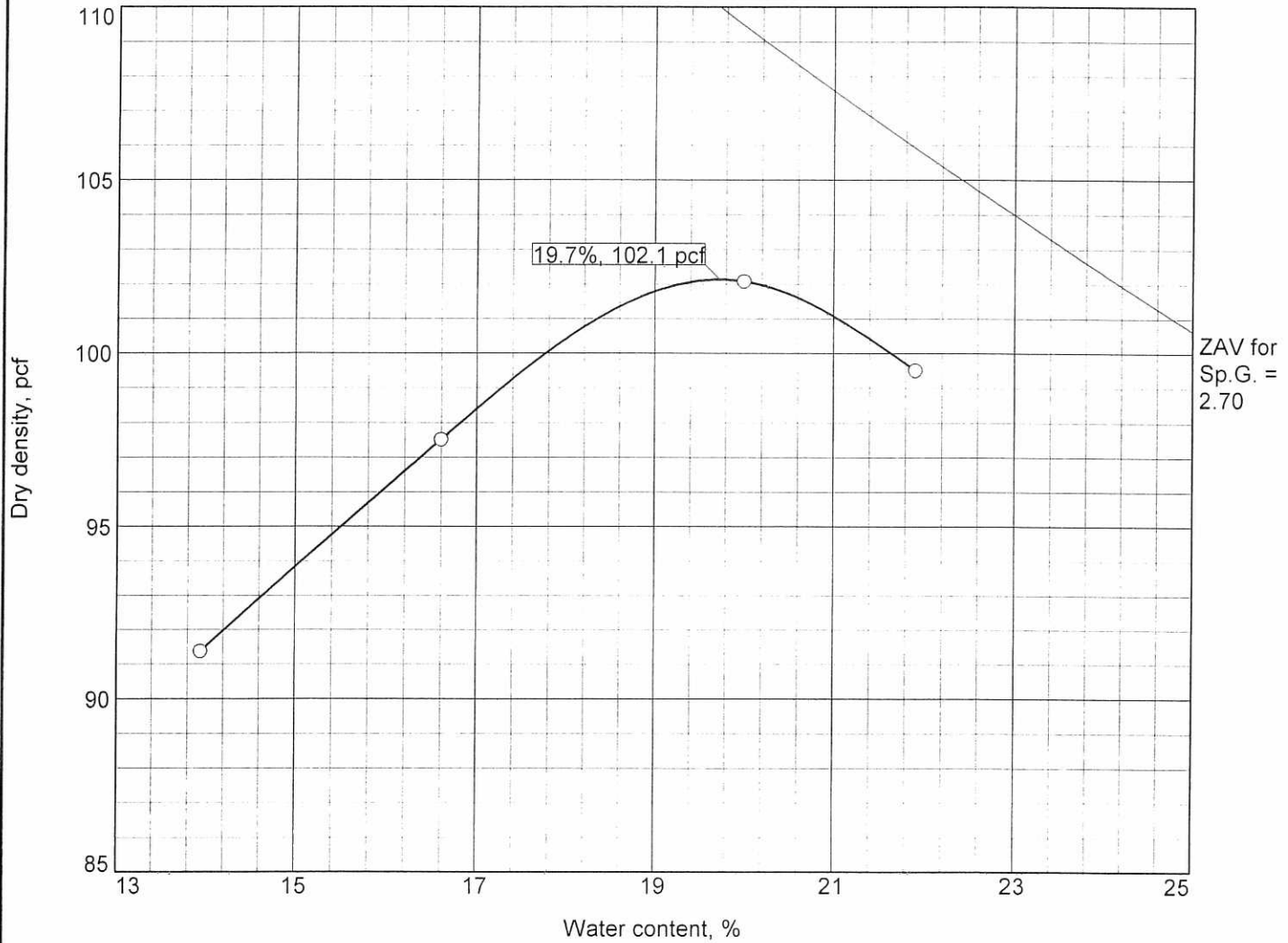
Material ID	Max Dry Density (PCF)	Optimum Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index (>10)	Passing 1" (100%)	Passing #4 (>80%)	Passing #200 (>30%)	Soil Class	Permeability (1.0 E-7 cm/sec)	Soil Description
BA-5	89.1	28.8	82	27	55	100.0	100.0	95.1	CH	2.40E-08	Gray Fat Clay
BA-6	94.0	25.5	86	26	60	100.0	100.0	97.6	CH	2.60E-08	Brown Fat Clay
BA-7	96.2	25.3	81	27	54	100.0	100.0	98.1	CH	2.90E-08	Brown Fat Clay
BA-8 (1)	92.3	27.6	113	20	93	100.0	100.0	93.4	CH	-	Fat Clay
BA-9 (1)	90.9	27.2	115	22	93	100.0	100.0	92.6	CH	-	Fat Clay
BA-10 (1)	106.3	18.4	61	15	46	100.0	98.0	86.7	CH	-	Fat Clay
BA-11 (1)	93.2	26.9	96	21	75	100.0	100.0	95.4	CH	-	Red Fat Clay
BA-12	103.3	22.6	78	21	57	100.0	100.0	97.0	CH	1.10E-08	Brown Fat Clay
BA-13	93.2	26.9	73	23	50	100.0	99.0	92.0	CH	2.00E-08	Gray Fat Clay
BA-14	91.5	28.1	73	21	52	100.0	99.0	97.0	CH	1.60E-08	Brown Fat Clay
BA-15	89.0	30.7	73	22	51	100.0	100.0	97.0	CH	1.50E-08	Brown Fat Clay
BA-16	90.8	27.9	81	21	60	100.0	100.0	99.0	CH	1.90E-08	Brown Fat Clay
BA-17 (1)	94.7	25.2	96	19	77	100.0	100.0	97.0	CH	-	Fat Clay
BA-18	89.9	27.7	83	22	61	100.0	100.0	99.0	CH	2.70E-08	Brown Fat Clay
BA-19	95.7	24.7	72	22	50	100.0	100.0	98.0	CH	1.20E-08	Brown Fat Clay
BA-20	94.2	24.5	74	21	53	100.0	100.0	98.0	CH	1.70E-08	Brown Fat Clay

Notes:

1. Sample was not tested or used as compacted clay liner material.

# PRE-CONSTRUCTION TESTING

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
3-6'	CH	A-7-6(21)	18.5	2.70	51	33	3.9	68.0

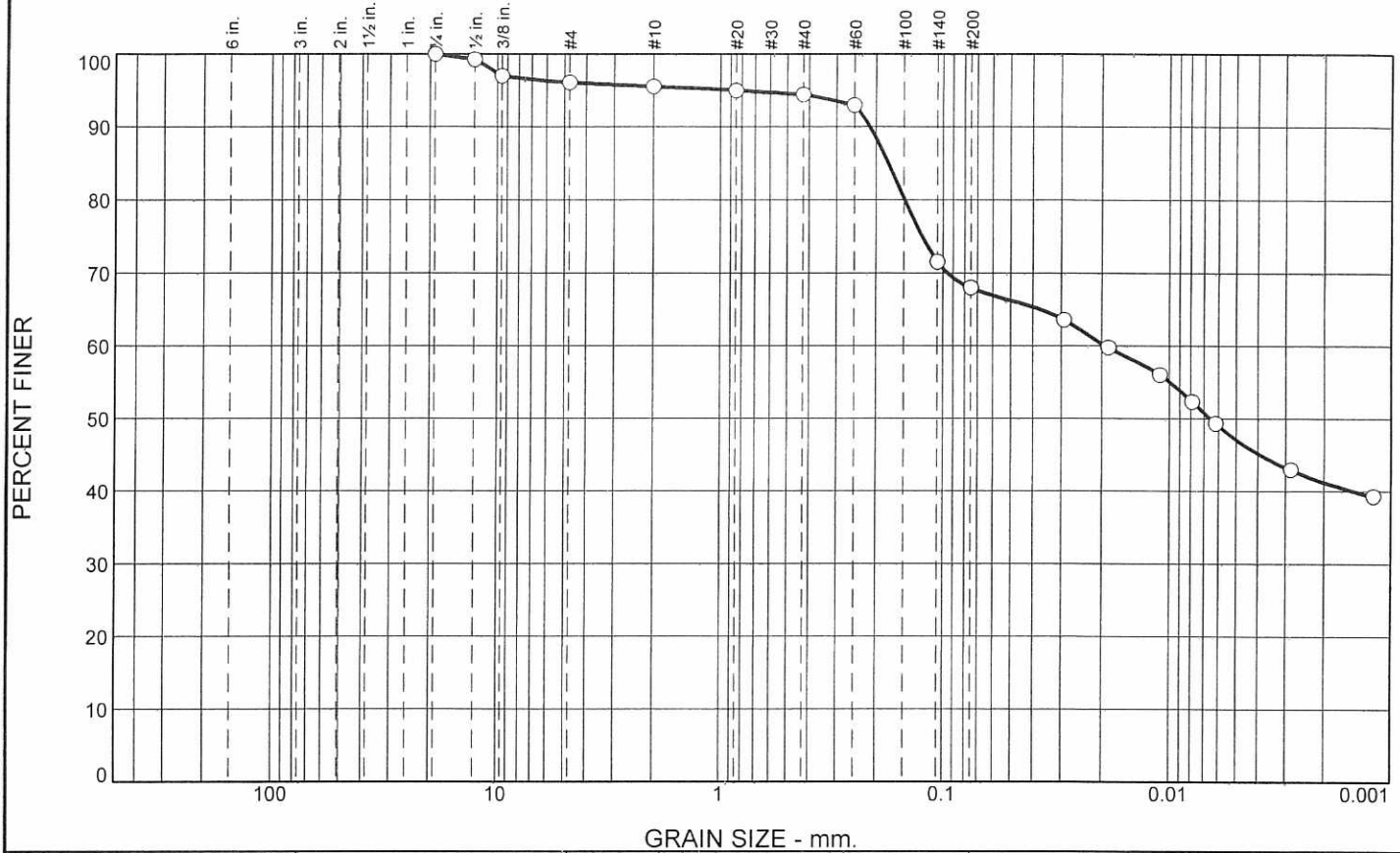
TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 102.1 pcf Optimum moisture = 19.7 %	DARK GRAY SANDY FAT CLAY
<b>Project No.</b> 35167172 <b>Client:</b> AEP ENVIRONMENTAL SERVICES <b>Project:</b> TURK CELL 2 AND FINAL COVER BID DOCUMENTS FULTON, AR ○ <b>Source of Sample:</b> 7141 <b>Sample Number:</b> BA-1	<b>Remarks:</b>
<b>Terracon, Inc.</b> Cincinnati, Ohio	

Figure 7141

Tested By: DW

Checked By: GS

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.9	0.6	1.1	26.4	26.7	41.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75\	100.0		
.5	99.3		
.375	97.0		
#4	96.1		
#10	95.5		
#20	95.0		
#40	94.4		
#60	92.9		
#140	71.5		
#200	68.0		

**Material Description**

DARK GRAY SANDY FAT CLAY

**Atterberg Limits**

PL= 18      LL= 51      PI= 33

**Coefficients**

D<sub>90</sub>= 0.2136      D<sub>85</sub>= 0.1766      D<sub>60</sub>= 0.0192  
D<sub>50</sub>= 0.0066      D<sub>30</sub>=              D<sub>15</sub>=  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= CH      AASHTO= A-7-6(21)

**Remarks**

WC = 18.5%

\* (no specification provided)

Source of Sample: 7141  
Sample Number: BA-1

Depth: 3-6'

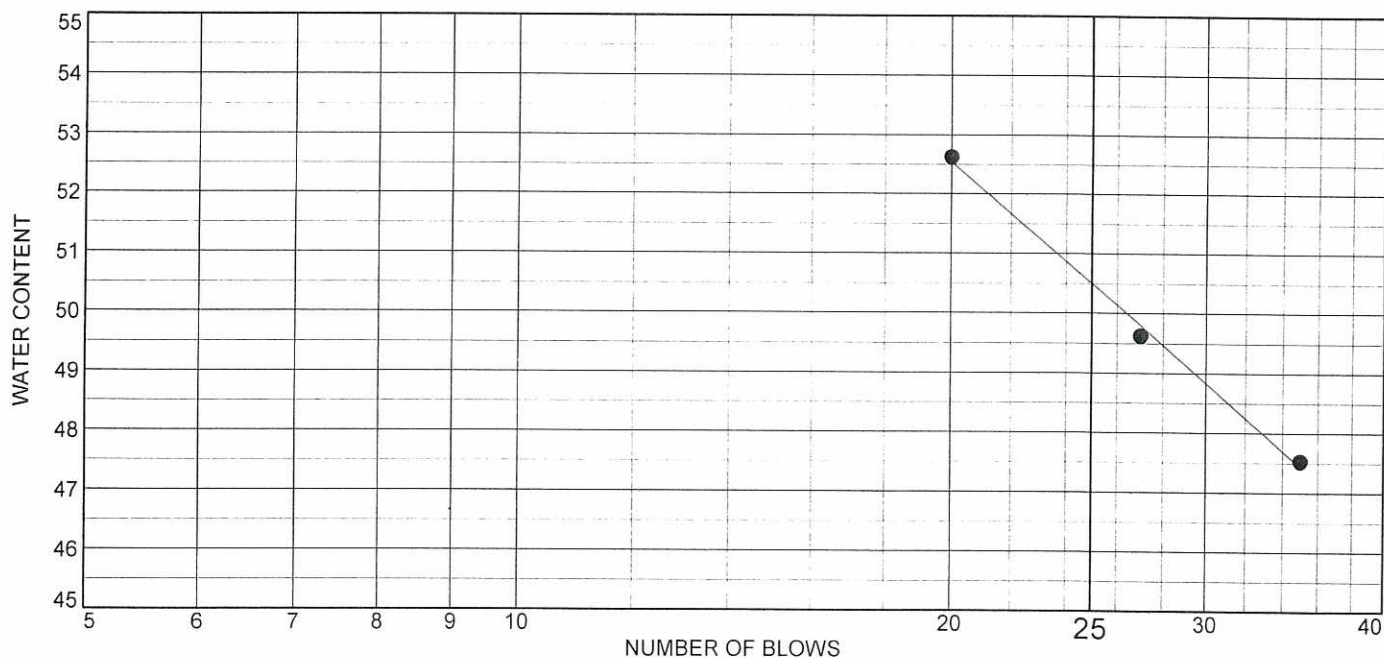
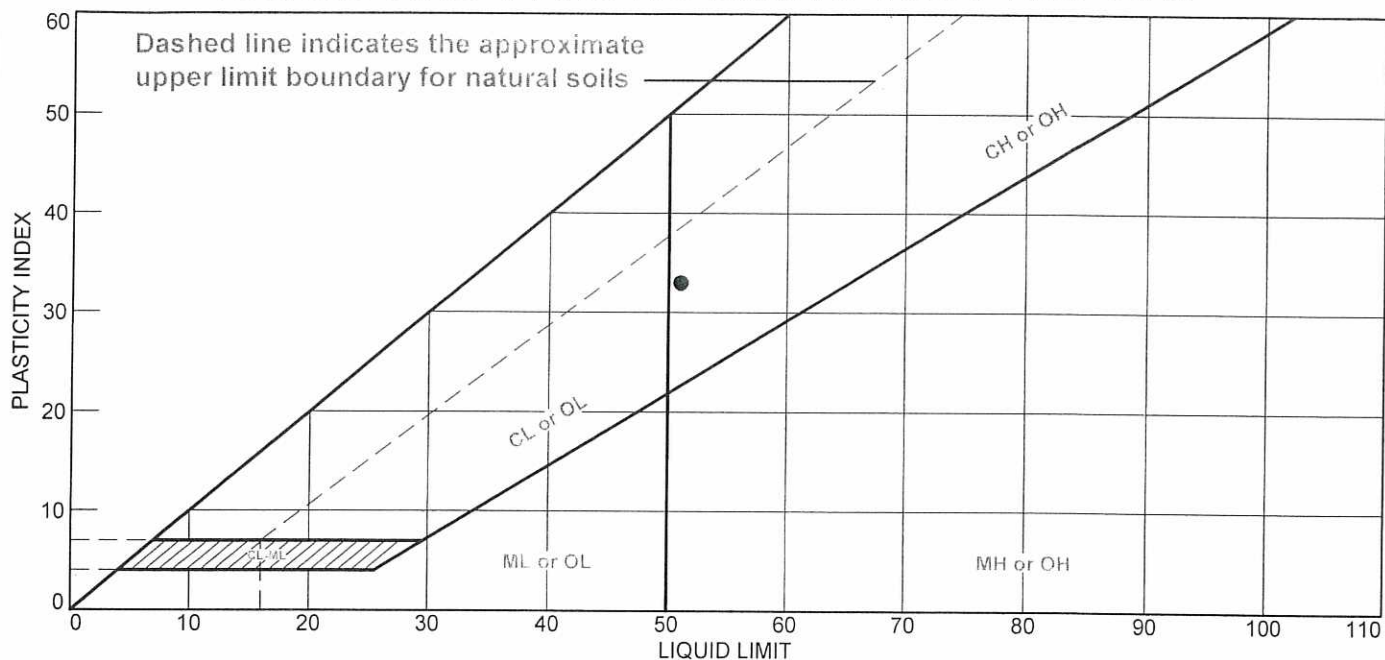
Date: 10-20-16

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AEP ENVIRONMENTAL SERVICES</p> <p><b>Project:</b> TURK CELL 2 AND FINAL COVER BID DOCUMENTS  FULTON, AR</p> <p><b>Project No:</b> 35167172</p>
<p><b>Figure</b> 71741</p>	

Tested By: DR

Checked By: GS

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
DARK GRAY SANDY FAT CLAY	51	18	33	94.4	68.0	CH

**Project No.** 35167172      **Client:** AEP ENVIRONMENTAL SERVICES

**Project:** TURK CELL 2 AND FINAL COVER BID DOCUMENTS

FULTON, AR

**Source of Sample:** 7141

**Depth:** 3-6'

**Sample Number:** BA-1

**Remarks:**

● WC = 18.5%

**Terracon, Inc.**

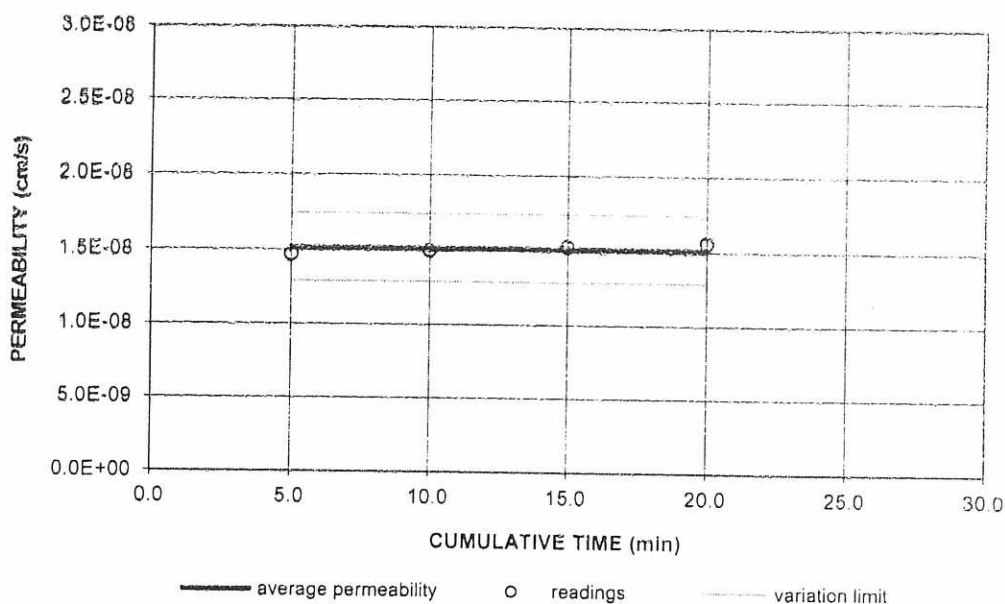
Cincinnati, Ohio

Figure 7141

Tested By: JJ

Checked By: GS

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.80	1.47E-08	<b>1.5E-08</b>
21.00	5.00	10.00	13.52	1.50E-08	
21.00	5.00	15.00	13.24	1.53E-08	
21.00	5.00	20.00	12.97	1.56E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	102.1	Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)	19.7	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.81
% Recompact.	95.0	Moisture Content, (%)		19.70	26.48
Test Pressures (psi)		Percent Saturation (%)		72.18	96.25
Backpressure	90.00	Wet Mass Density (pcf)		116.10	122.27
Cell pressure	100.00	Dry Mass Density (pcf)		96.99	96.67
Eff. Stress	10.00	Void Ratio		0.74	0.74
Specific Gravity	2.70	Calculated Porosity, %		42.43	42.62

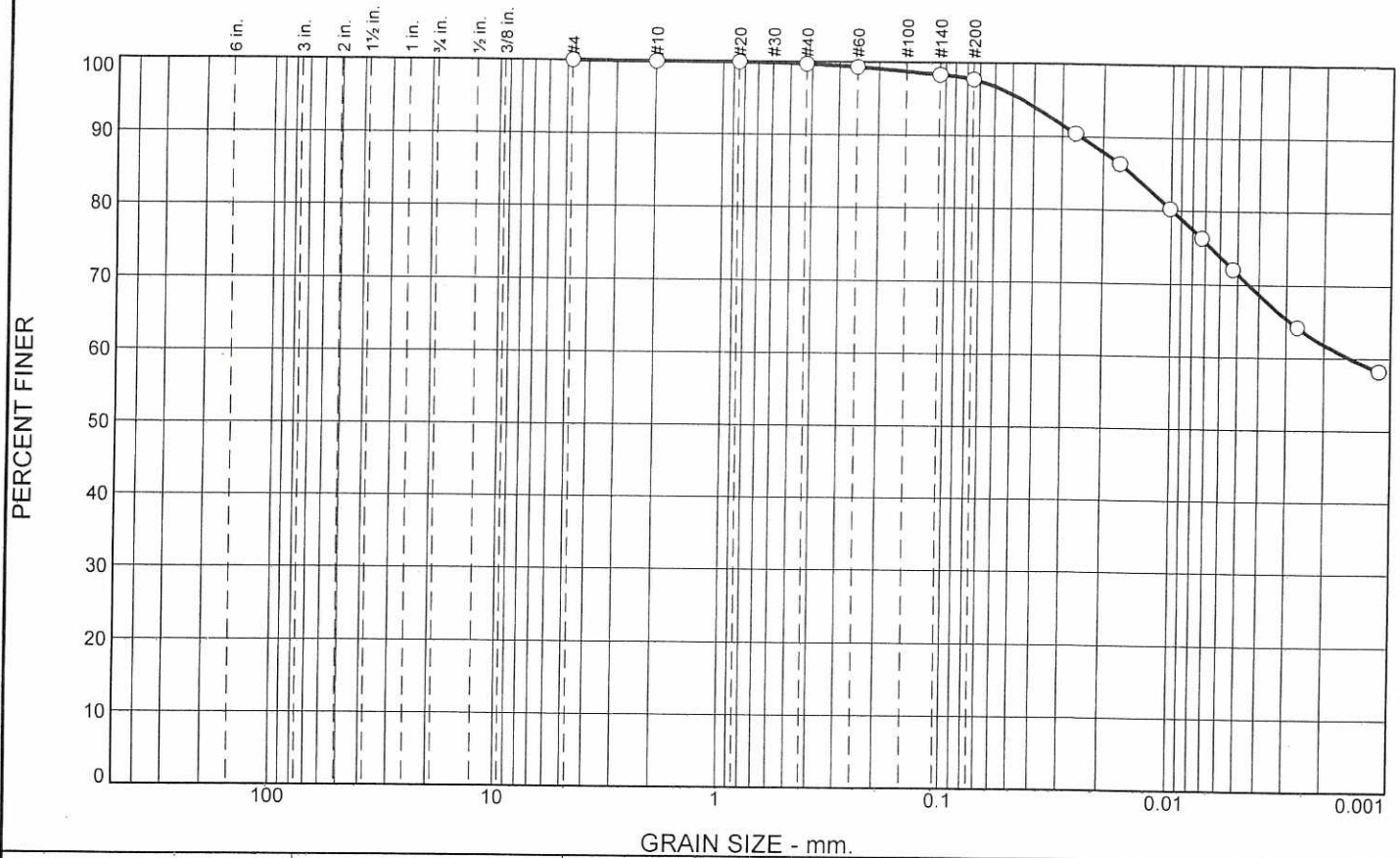
USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY SANDY FAT CLAY
Project Name	Turk Cell 2 Bid Documents		Tested by FCE Reviewed by TGG
Client	AEP	W.O.# 35167172	
Sample Number	BA-1	3-6'	
Sample Location			
Date	10/20/2016	Lab No. 7141	

FLEXIBLE WALL PERMEABILITY TEST  
**Terracon**





# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	0.2	2.0	35.8	61.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.9		
#20	99.9		
#40	99.7		
#60	99.3		
#140	98.3		
#200	97.7		

**Material Description**

BROWN FAT CLAY

**Atterberg Limits**

PL= 23      LL= 75      PI= 52

**Coefficients**

D<sub>90</sub>= 0.0251      D<sub>85</sub>= 0.0150      D<sub>60</sub>= 0.0015  
D<sub>50</sub>=              D<sub>30</sub>=              D<sub>15</sub>=  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= CH      AASHTO= A-7-6(58)

**Remarks**

WC = 28.3%

\* (no specification provided)

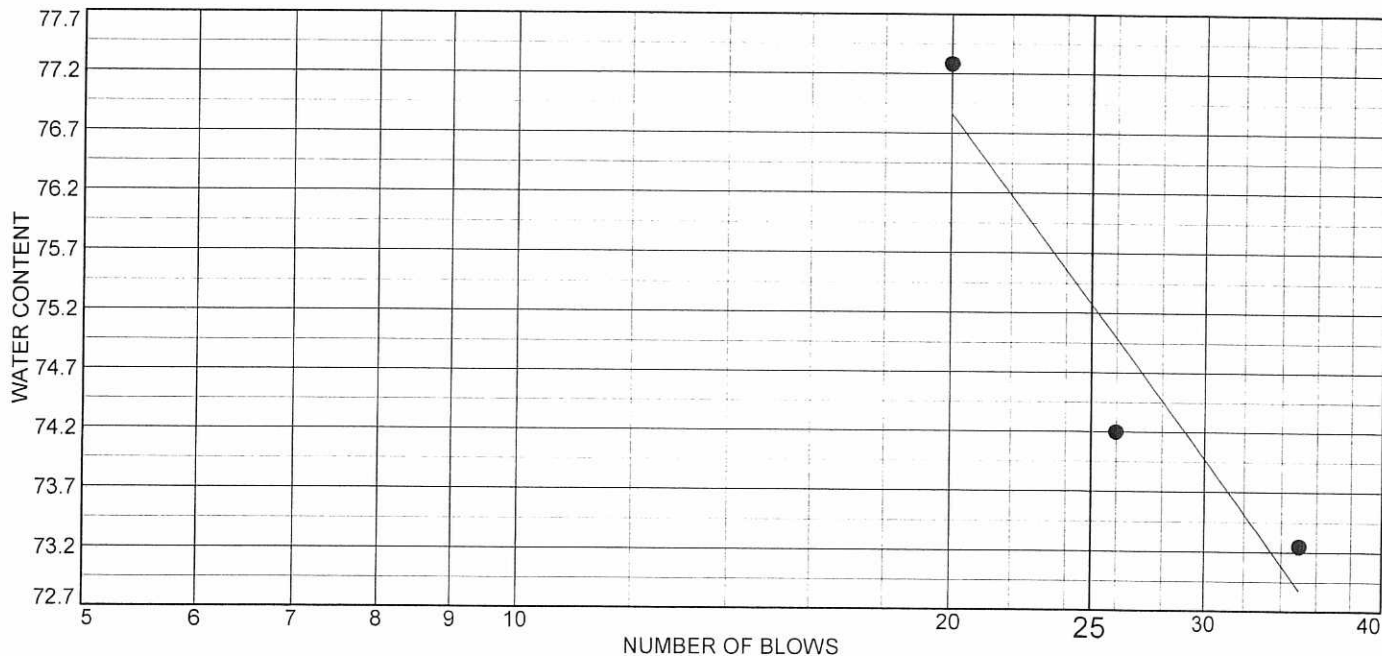
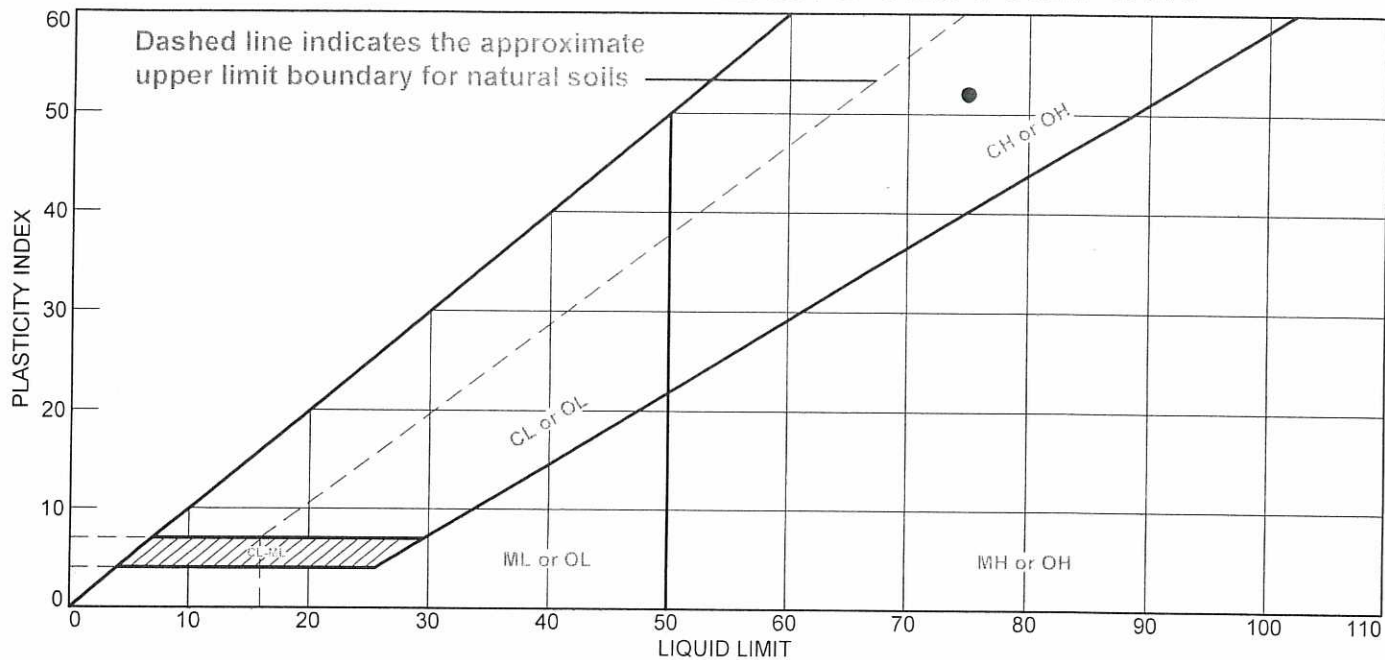
Source of Sample: 7142      Depth: 1-6'  
Sample Number: BA-2

Date: 10-20-16

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AEP ENVIRONMENTAL SERVICES</p> <p><b>Project:</b> TURK CELL 2 AND FINAL COVER BID DOCUMENTS FULTON, AR</p> <p><b>Project No:</b> 35167172</p>
<p><b>Figure</b> 7142</p>	

Tested By: DR      Checked By: GS

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
BROWN FAT CLAY	75	23	52	99.7	97.7	CH

**Project No.** 35167172      **Client:** AEP ENVIRONMENTAL SERVICES  
**Project:** TURK CELL 2 AND FINAL COVER BID DOCUMENTS  
 FULTON, AR  
**Source of Sample:** 7142      **Depth:** 1-6'  
**Sample Number:** BA-2

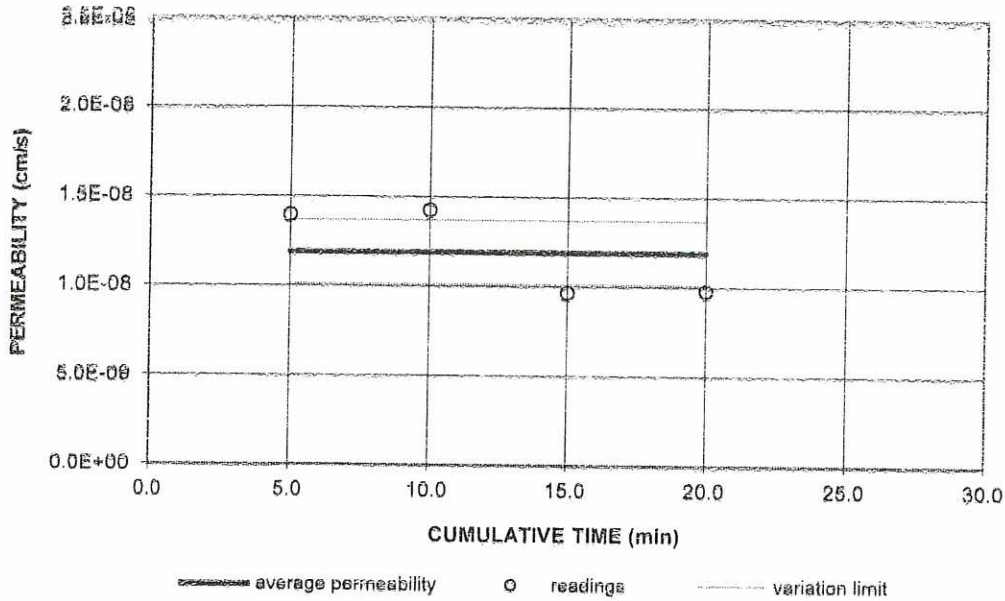
**Terracon, Inc.**  
Cincinnati, Ohio

**Remarks:**  
● WC = 28.3%

**Figure** 7142

Tested By: FE      Checked By: GS

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

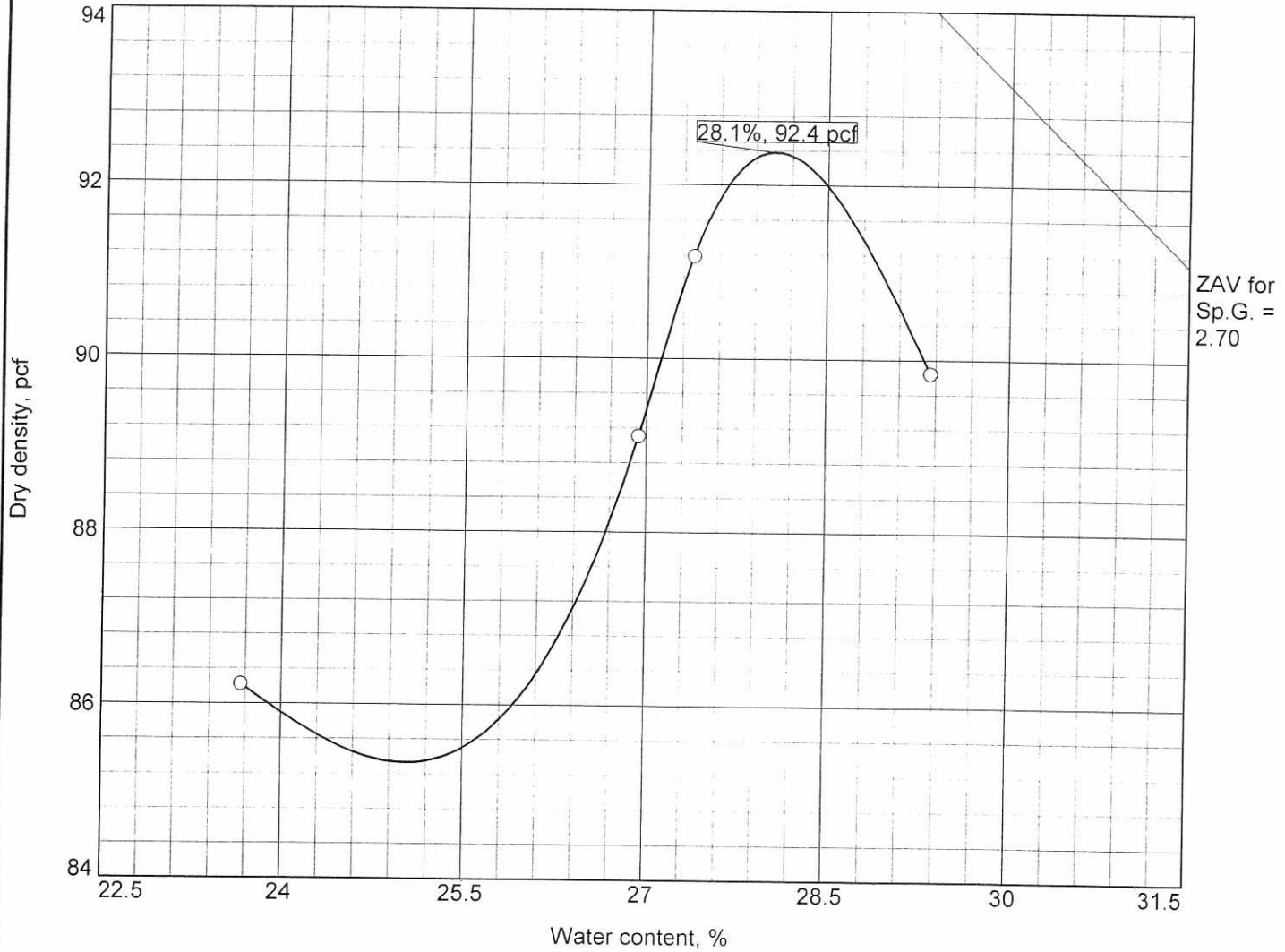
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.54	1.40E-08	<b>1.2E-08</b>
21.00	5.00	10.00	14.26	1.42E-08	
21.00	5.00	15.00	14.08	9.64E-09	
21.00	5.00	20.00	13.89	9.77E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	95.3	Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)	24.6	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.81
% Recompct.	95.1	Moisture Content, (%)		24.40	34.58
Test Pressures (psi)		Percent Saturation (%)		76.80	100.00
Backpressure	90.00	Wet Mass Density (pcf)		112.81	121.63
Cell pressure	100.00	Dry Mass Density (pcf)		90.68	90.38
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.86	0.93
Specific Gravity	2.70	Calculated Porosity, %		46.18	48.29

USCS                      SG Assumed      LL                                      PI  
 Permeant Used:      WATER      Remarks      BROWN FAT CLAY

Project Name	Turk Cell 2 Bid Documents	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35167172	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-2      1-6'				
Sample Location					
Date	10/20/2016      Lab No.      7142				

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
1-6'	CH	A-7-5(78)	30.8	2.70	98	68	0.0	97.4

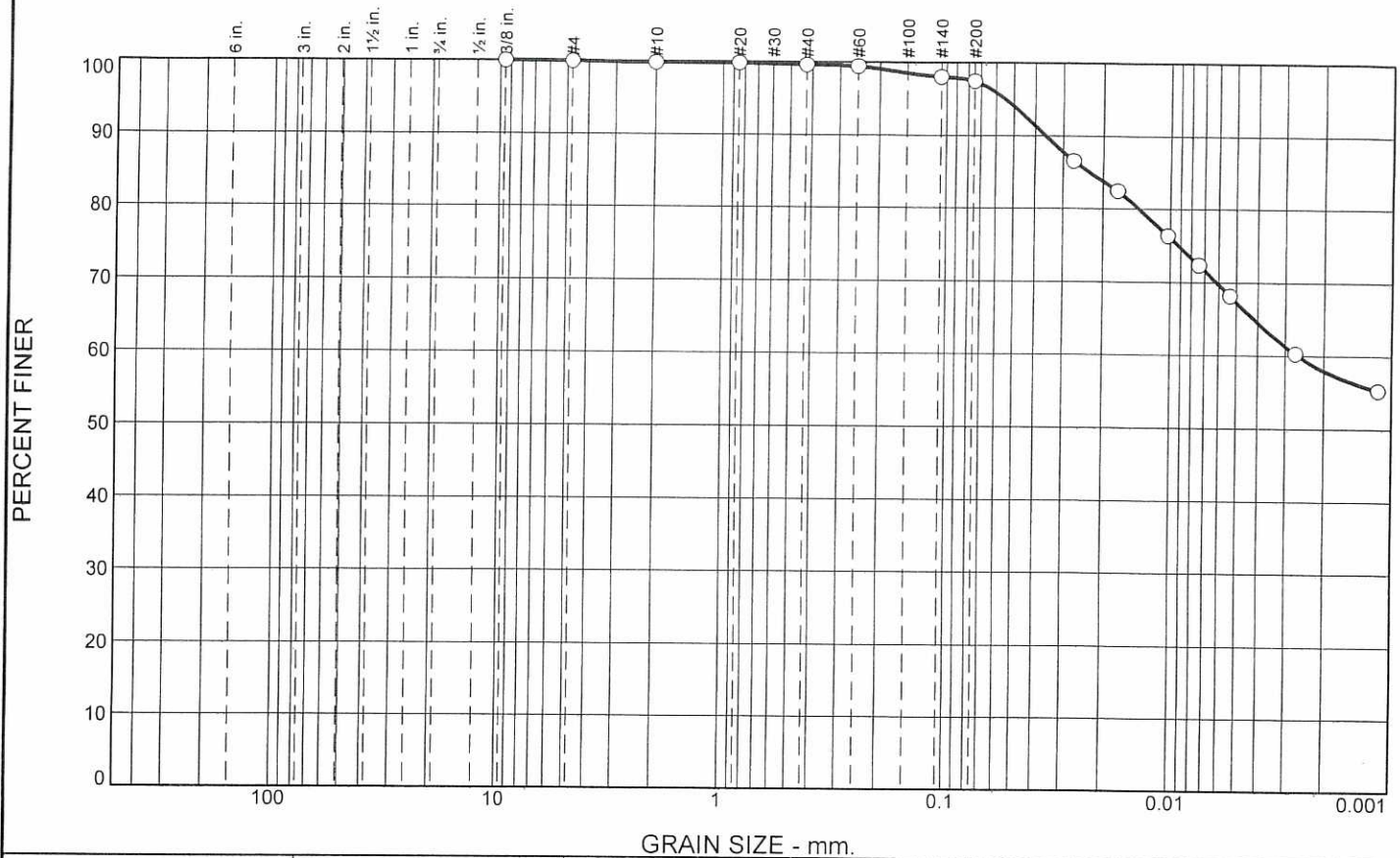
TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 92.4 pcf Optimum moisture = 28.1 %	BROWN FAT CLAY
<b>Project No.</b> 35167172 <b>Client:</b> AEP ENVIRONMENTAL SERVICES <b>Project:</b> TURK CELL 2 AND FINAL COVER BID DOCUMENTS FULTON, AR ○ <b>Source of Sample:</b> 7143 <b>Sample Number:</b> B-3	Remarks:
<b>Terracon, Inc.</b> Cincinnati, Ohio	

Figure 7143

Tested By: BW

Checked By: GS

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	0.2	2.2	39.3	58.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	100.0		
#10	99.8		
#20	99.8		
#40	99.6		
#60	99.4		
#140	98.0		
#200	97.4		

**Material Description**

BROWN FAT CLAY

**Atterberg Limits**

PL= 30      LL= 98      PI= 68

**Coefficients**

D<sub>90</sub>= 0.0360      D<sub>85</sub>= 0.0229      D<sub>60</sub>= 0.0026  
D<sub>50</sub>=              D<sub>30</sub>=              D<sub>15</sub>=  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= CH              AASHTO= A-7-5(78)

**Remarks**

WC = 30.8%

\* (no specification provided)

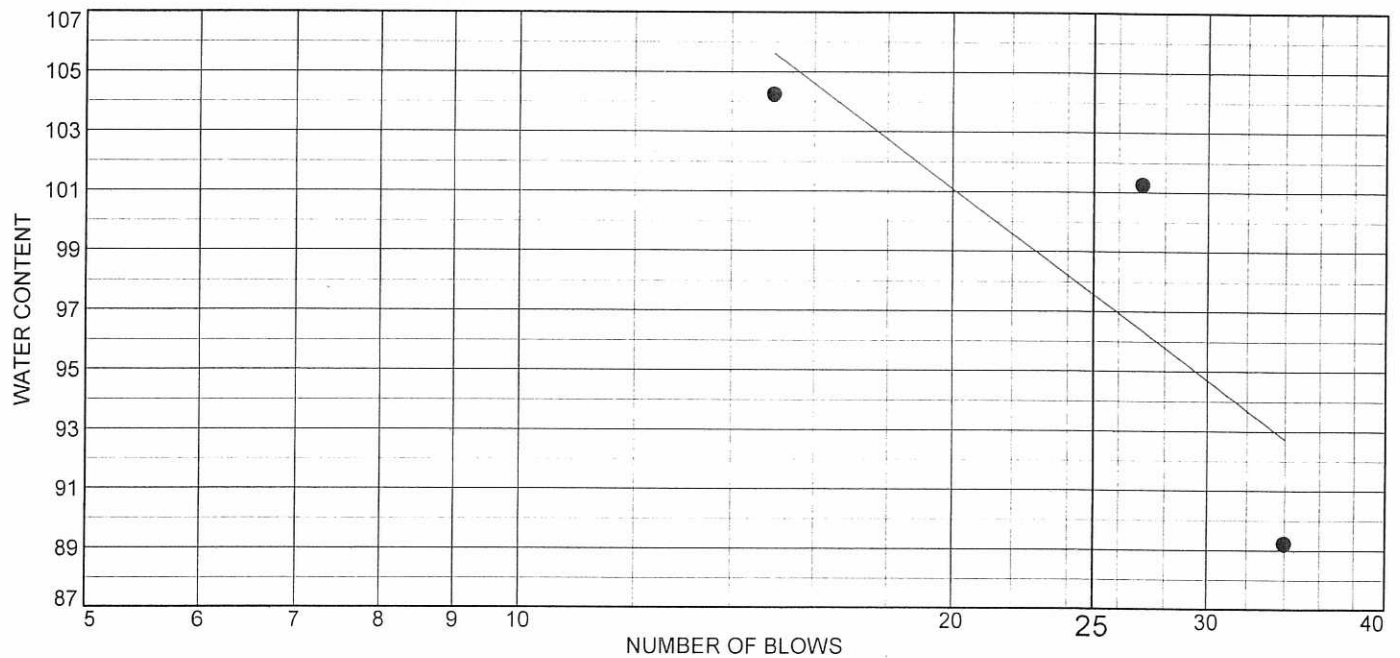
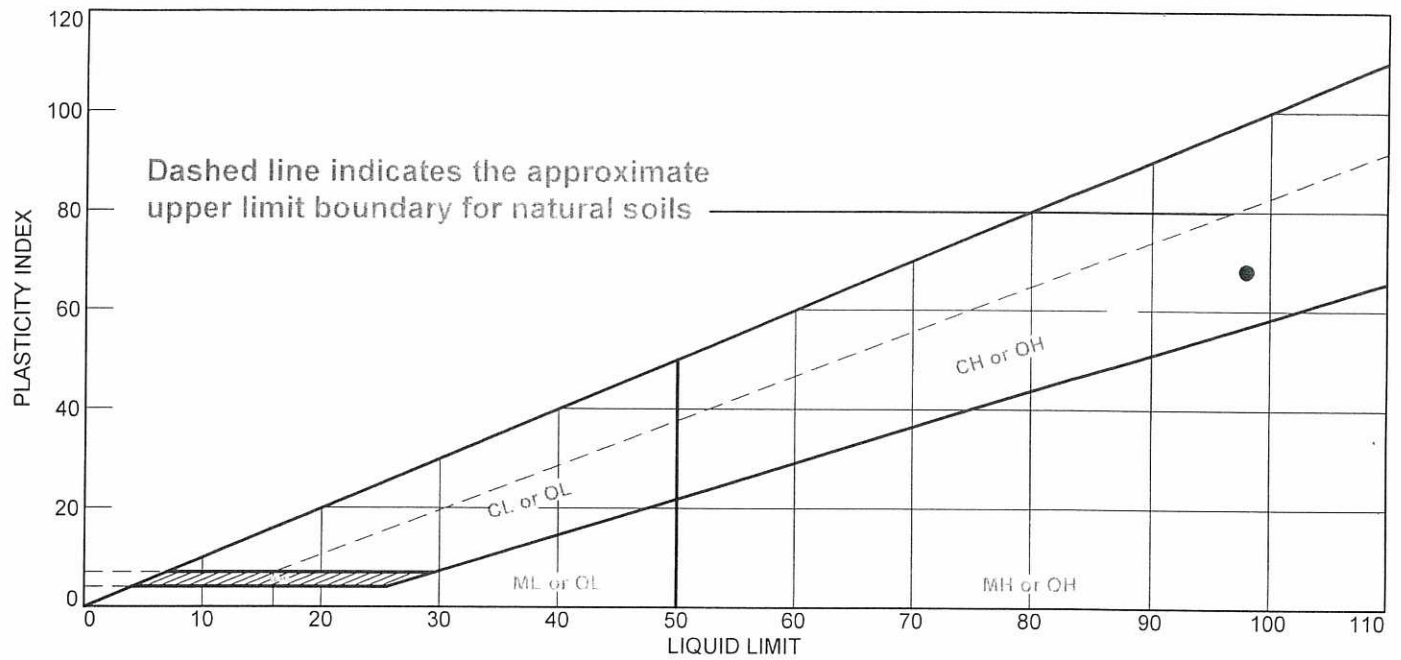
Source of Sample: 7143      Depth: 1-6'  
Sample Number: B-3

Date: 10-20-16

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AEP ENVIRONMENTAL SERVICES</p> <p><b>Project:</b> TURK CELL 2 AND FINAL COVER BID DOCUMENTS FULTON, AR</p> <p><b>Project No:</b> 35167172</p>
<p><b>Figure</b>      7143</p>	

Tested By: DR      Checked By: GS

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
BROWN FAT CLAY	98	30	68	99.6	97.4	CH

**Project No.** 35167172    **Client:** AEP ENVIRONMENTAL SERVICES  
**Project:** TURK CELL 2 AND FINAL COVER BID DOCUMENTS  
 FULTON, AR  
**Source of Sample:** 7143    **Depth:** 1-6'  
**Sample Number:** B-3

**Remarks:**  
 ● WC = 30.8%

**Terracon, Inc.**

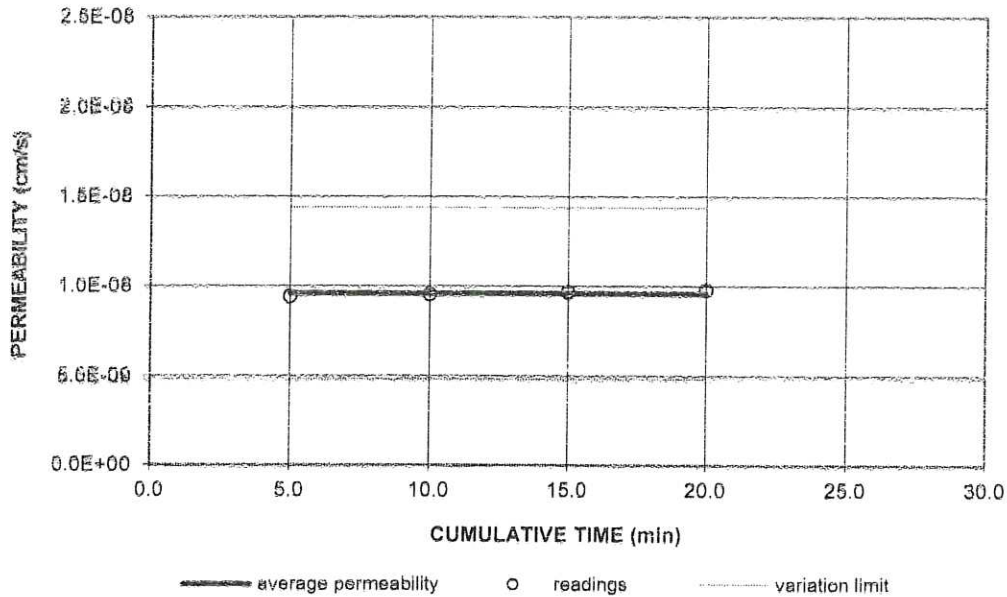
Cincinnati, Ohio

Figure 7143

Tested By: JJ

Checked By: GS

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.45	9.39E-09	<b>9.6E-09</b>
21.00	5.00	10.00	14.26	9.52E-09	
21.00	5.00	15.00	14.08	9.64E-09	
21.00	5.00	20.00	13.89	9.77E-09	

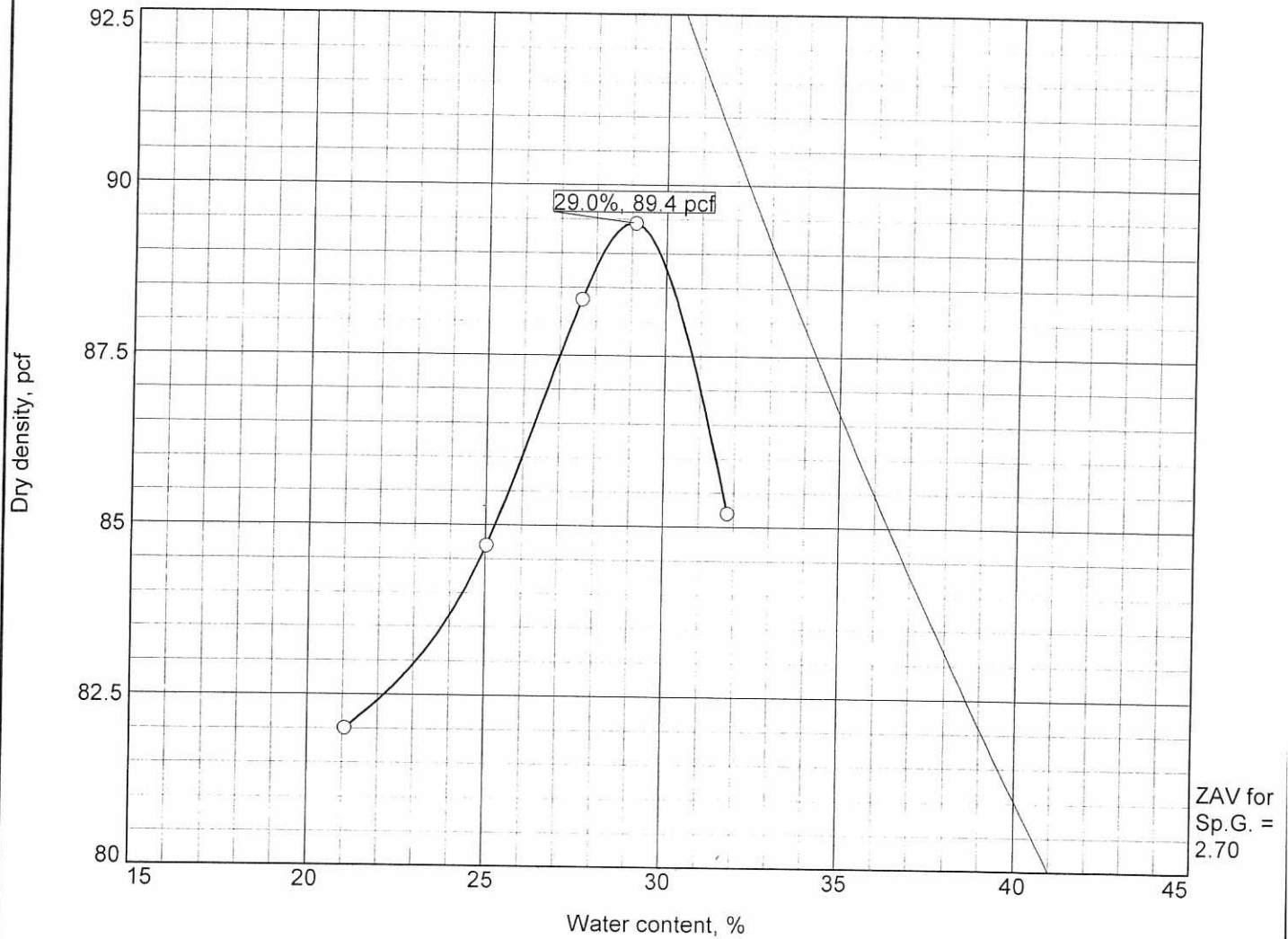
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	95.3	Specimen Height, (inches)		3.00	3.02
Opti. M.C., (%)	24.6	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.93
% Recompact.	95.1	Moisture Content, (%)		27.99	32.78
Test Pressures (psi)		Percent Saturation (%)		82.35	95.11
Backpressure	90.00	Wet Mass Density (pcf)		112.44	115.88
Cell pressure	100.00	Dry Mass Density (pcf)		87.85	87.27
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.92	0.93
Specific Gravity	2.70	Calculated Porosity, %		47.85	48.20

USCS SG Assumed LL PI  
 Permeant Used: WATER Remarks BROWN FAT CLAY

Project Name	Turk Cell 2 Bid Documents		Tested by	FCE	Reviewed by	TGG
Client	AEP	W.O.# 35167172	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-3	1-6'				
Sample Location						
Date	10/20/2016	Lab No. 7143				



# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
1-6'	CH	A-7-6(65)	25.9	2.70	82	57	0.0	97.8

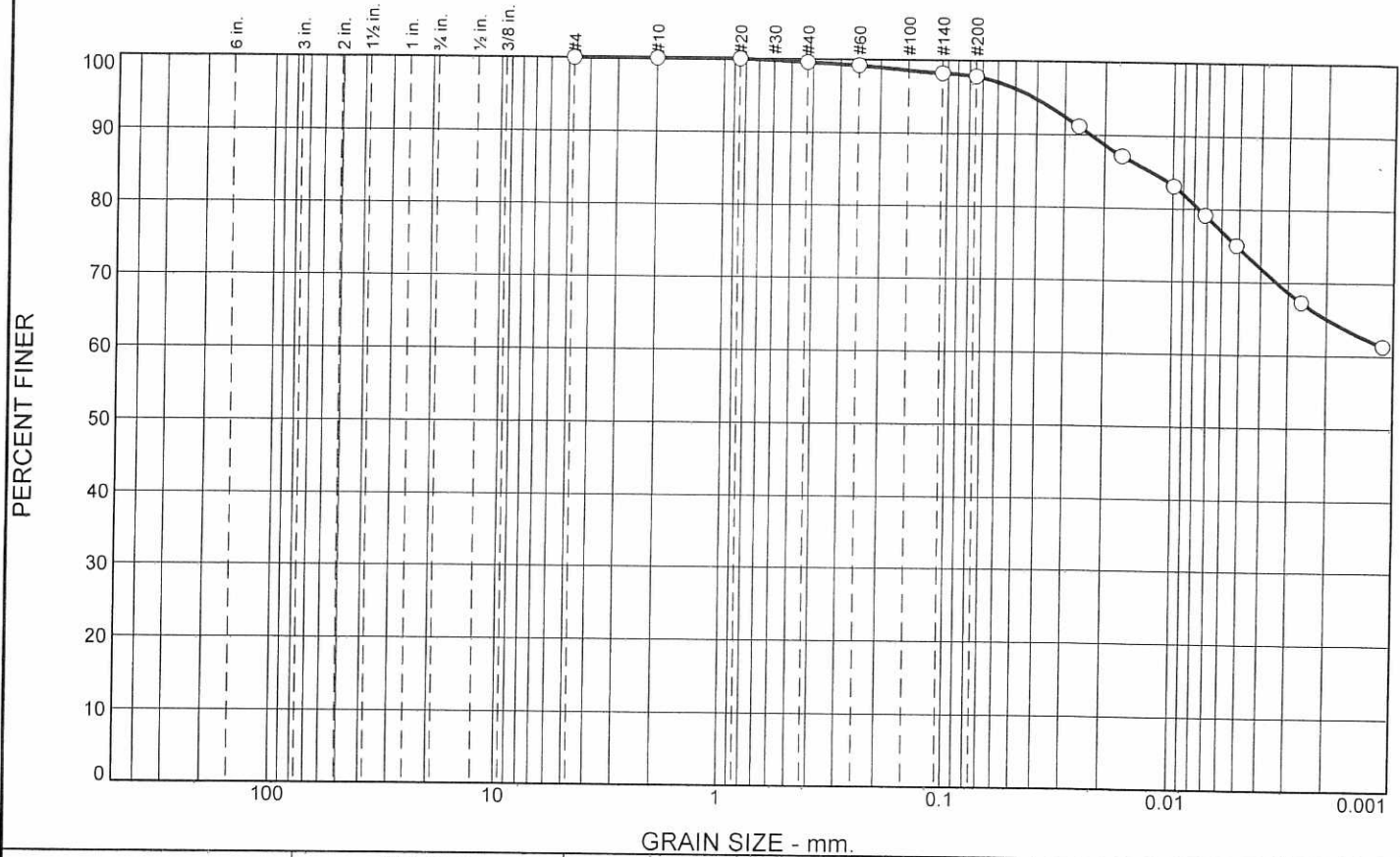
TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 89.4 pcf Optimum moisture = 29.0 %	BROWN FAT CLAY
Project No. 35167172    Client: AEP ENVIRONMENTAL SERVICES Project: TURK CELL 2 AND FINAL COVER BID DOCUMENTS FULTON, AR Source of Sample: 7144    Sample Number: BA-4	Remarks:
<b>Terracon, Inc.</b> Cincinnati, Ohio	

Figure 7144

Tested By: BW

Checked By: GS

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.4	1.8	32.7	65.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	100.0		
#40	99.6		
#60	99.2		
#140	98.2		
#200	97.8		

**Material Description**

BROWN FAT CLAY

PL= 25	<b>Atterberg Limits</b>	LL= 82	PI= 57
	<b>Coefficients</b>		
D <sub>90</sub> = 0.0231	D <sub>85</sub> = 0.0124	D <sub>60</sub> =	
D <sub>50</sub> =	D <sub>30</sub> =	D <sub>15</sub> =	
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =	

USCS= CH      **Classification**      AASHTO= A-7-6(65)

**Remarks**

WC = 25.9%

\* (no specification provided)

Source of Sample: 7144      Depth: 1-6'  
 Sample Number: BA-4

Date: 10-20-16

**Terracon, Inc.**

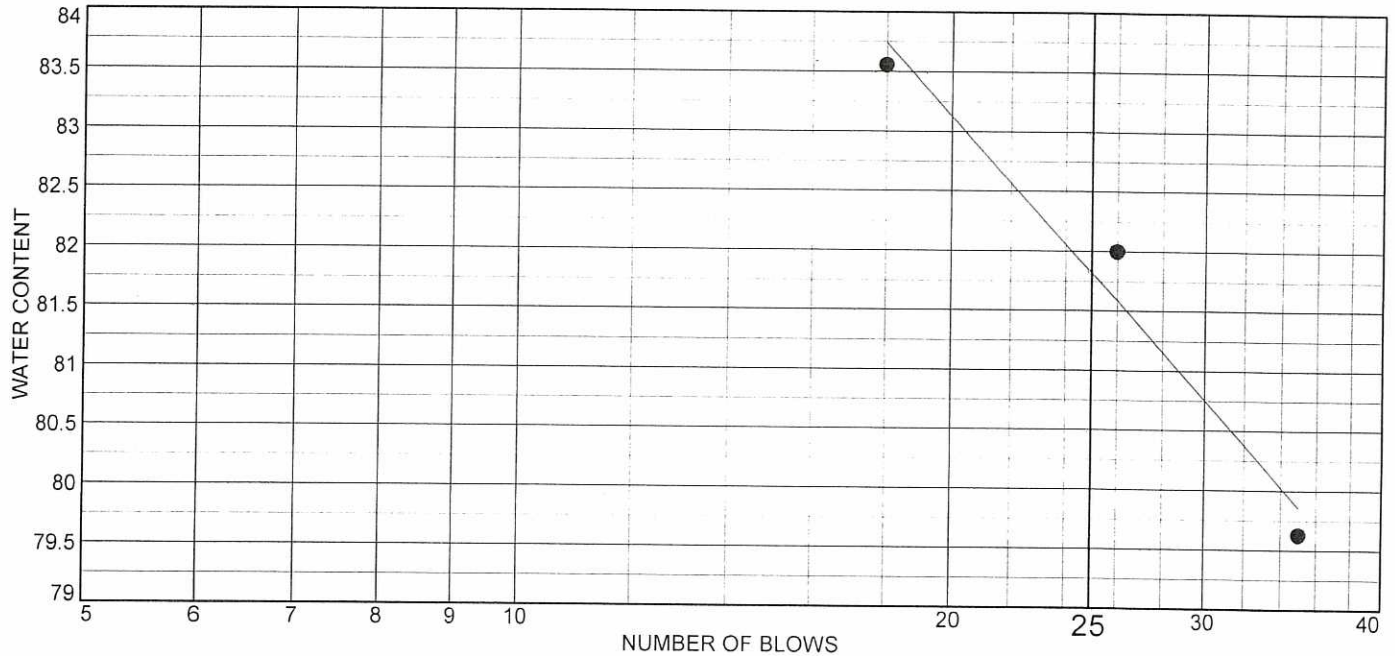
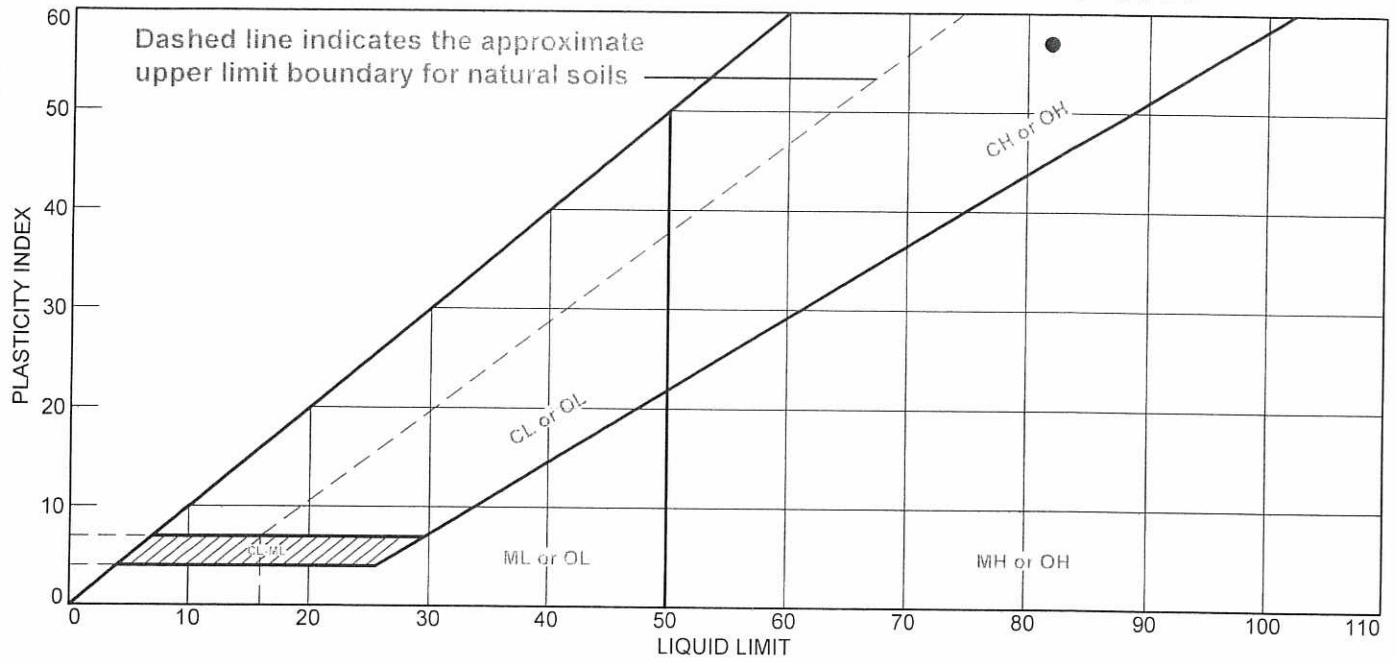
Cincinnati, Ohio

Client: AEP ENVIRONMENTAL SERVICES  
 Project: TURK CELL 2 AND FINAL COVER BID DOCUMENTS  
 FULTON, AR  
 Project No: 35167172

Figure 7144

Tested By: FE      Checked By: GS

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
BROWN FAT CLAY	82	25	57	99.6	97.8	CH

Project No. 35167172 Client: AEP ENVIRONMENTAL SERVICES  
 Project: TURK CELL 2 AND FINAL COVER BID DOCUMENTS  
 FULTON, AR  
 Source of Sample: 7144 Depth: 1-6'  
 Sample Number: BA-4

Remarks:  
 ● WC = 25.9%

**Terracon, Inc.**

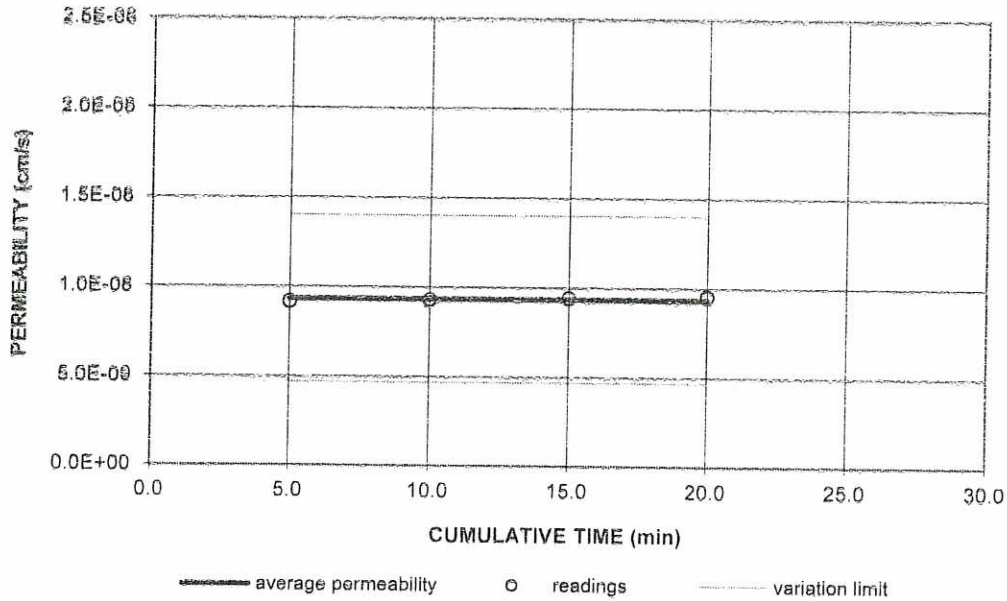
Cincinnati, Ohio

Figure 7144

Tested By: FE

Checked By: GS

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.82	9.16E-09	<b>9.3E-09</b>
21.00	5.00	10.00	14.63	9.28E-09	
21.00	5.00	15.00	14.45	9.39E-09	
21.00	5.00	20.00	14.26	9.52E-09	

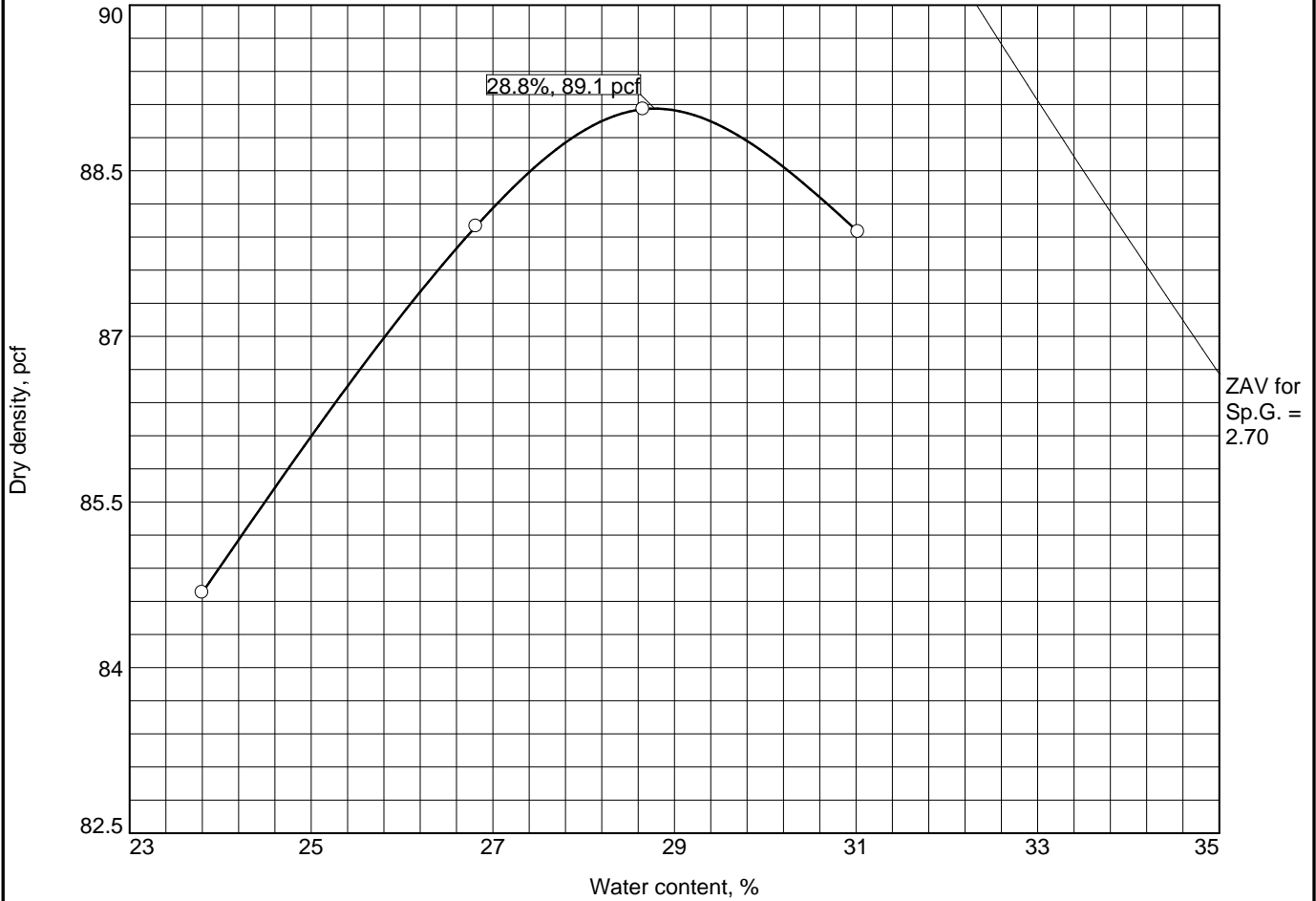
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	89.4	Specimen Height, (inches)		3.00	3.02
Opti. M.C., (%)	29.0	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.93
% Reompct.	95.0	Moisture Content, (%)		28.99	36.64
Test Pressures (psi)		Percent Saturation (%)		79.56	99.24
Backpressure	90.00	Wet Mass Density (pcf)		109.55	115.29
Cell pressure	100.00	Dry Mass Density (pcf)		84.93	84.37
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.98	1.00
Specific Gravity	2.70	Calculated Porosity, %		49.59	49.92

USCS                      SG Assumed      LL                                      PI  
 Permeant Used:      WATER      Remarks                      BROWN FAT CLAY

Project Name      Turk Cell 2 Bid Documents	Tested by              FCE      Reviewed by      TGG
Client              AEP              W.O.#              35167172	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 
Sample Number      BA-4              1-6'	
Sample Location	
Date              10/20/2016      Lab No.              7144	

# CONSTRUCTION TESTING

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

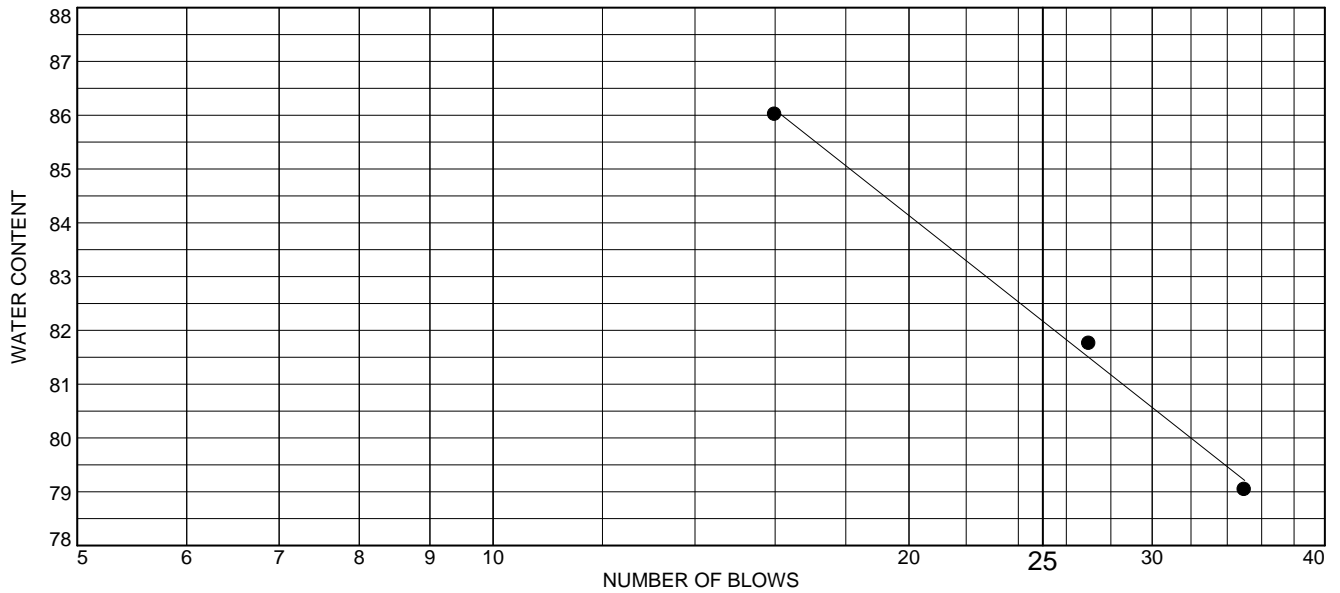
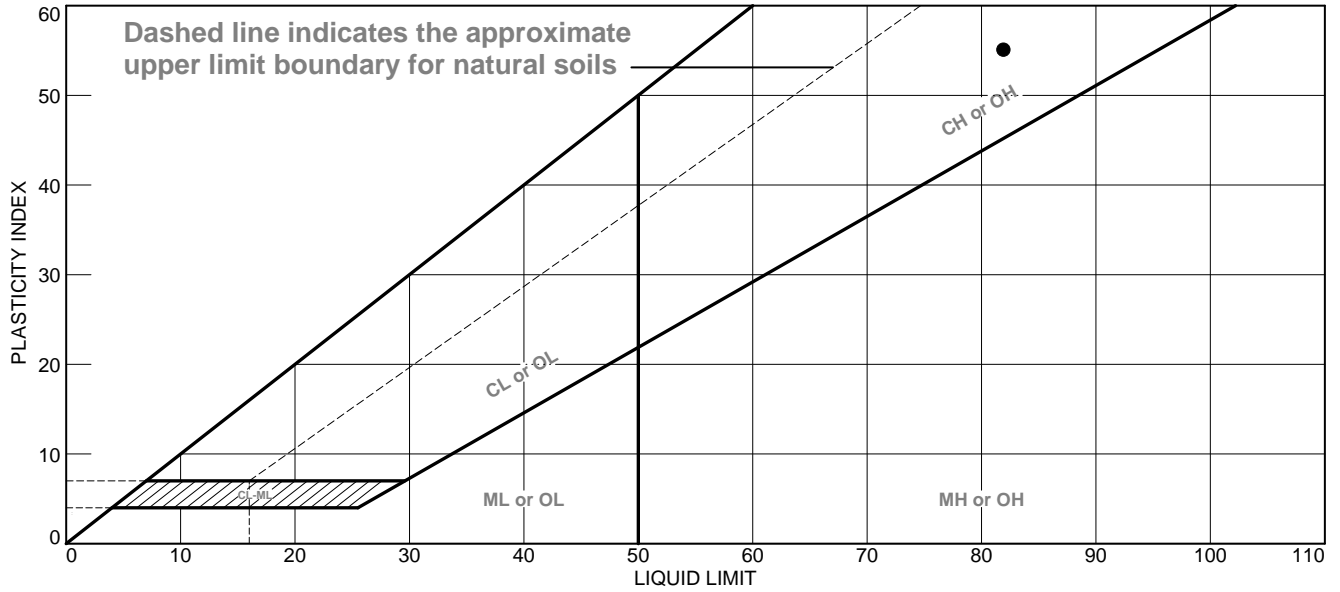
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
	CH			2.70	82	55		

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 89.1 pcf Optimum moisture = 28.8 %	GRAY FAT CLAY LOCATION: CELL BORROW
<b>Project No.</b> 35177127 <b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR ○ <b>Source of Sample:</b> 9010 <b>Sample Number:</b> BA-5	<b>Remarks:</b> P-200 = 94.9%
<b>Terracon, Inc.</b> Cincinnati, Ohio	

Figure 9010

Tested By:   JJ   Checked By:   TG

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● GRAY FAT CLAY LOCATION: CELL BORROW	82	27	55	100.0	95.1	CH

**Project No.** 35177127      **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 9010  
**Sample Number:** BA-5

**Remarks:**  
 ● P-200 = 95.1% (100% Passing 1" and the #4)

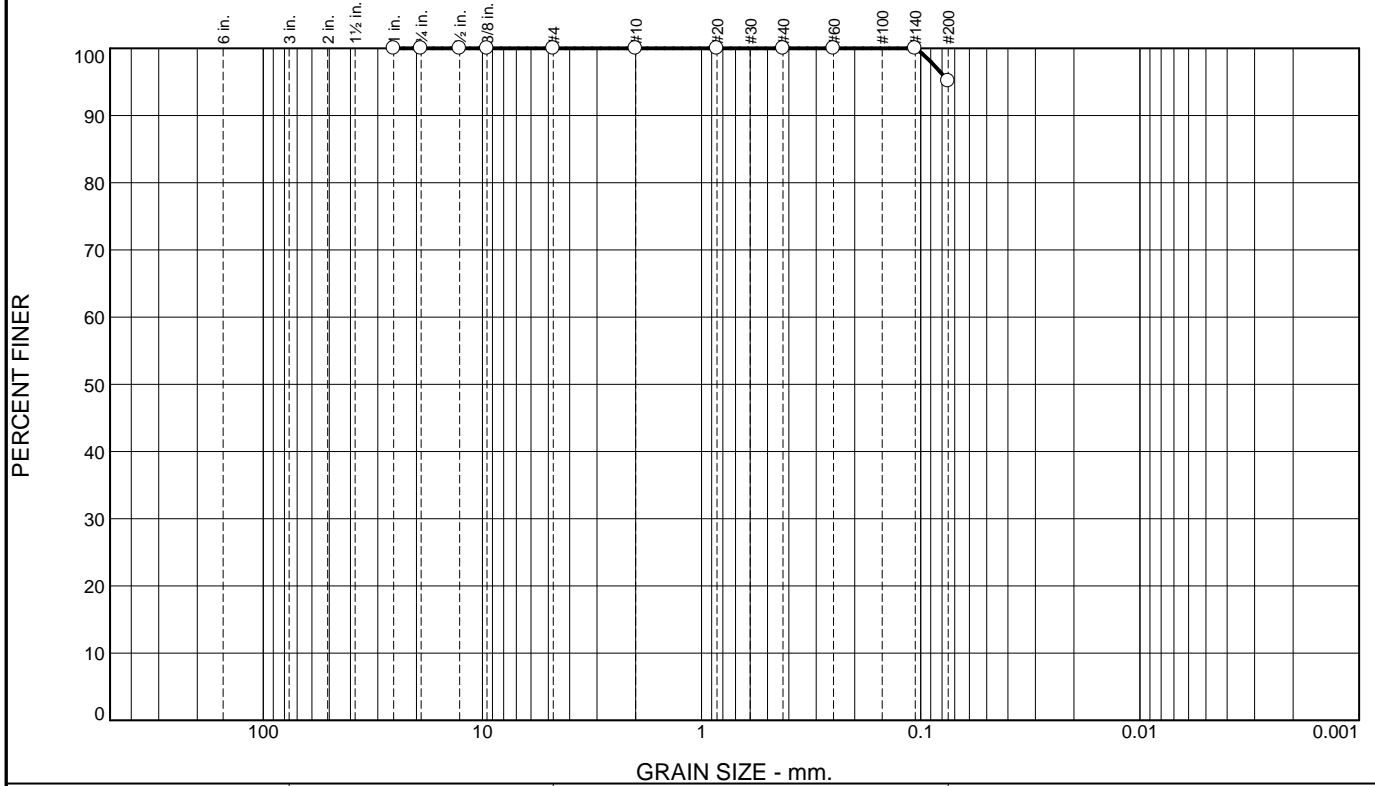
**Terracon, Inc.**

Cincinnati, Ohio

**Figure** 9010

**Tested By:** FE \_\_\_\_\_ **Checked By:** TG \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.0	4.9	95.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	100.0		
#40	100.0		
#60	100.0		
#140	100.0		
#200	95.1		

**Material Description**

GRAY FAT CLAY

LOCATION: CELL BORROW

PL= 27      **Atterberg Limits**      PI= 55

LL= 82

**Coefficients**

D<sub>90</sub>=      D<sub>85</sub>=      D<sub>60</sub>=

D<sub>50</sub>=      D<sub>30</sub>=      D<sub>15</sub>=

D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

**Classification**

USCS= CH      AASHTO= A-7-6(61)

**Remarks**

\* (no specification provided)

Source of Sample: 9010  
Sample Number: BA-5

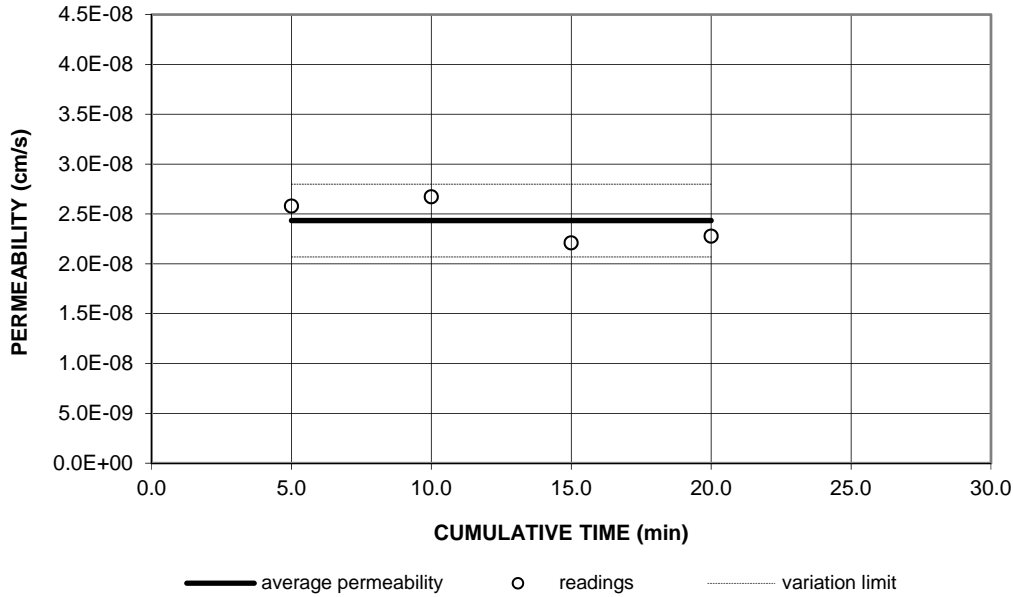
Date: 3-2-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<p><b>Figure</b> 9010</p>	

Tested By: FE      Checked By: TG



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

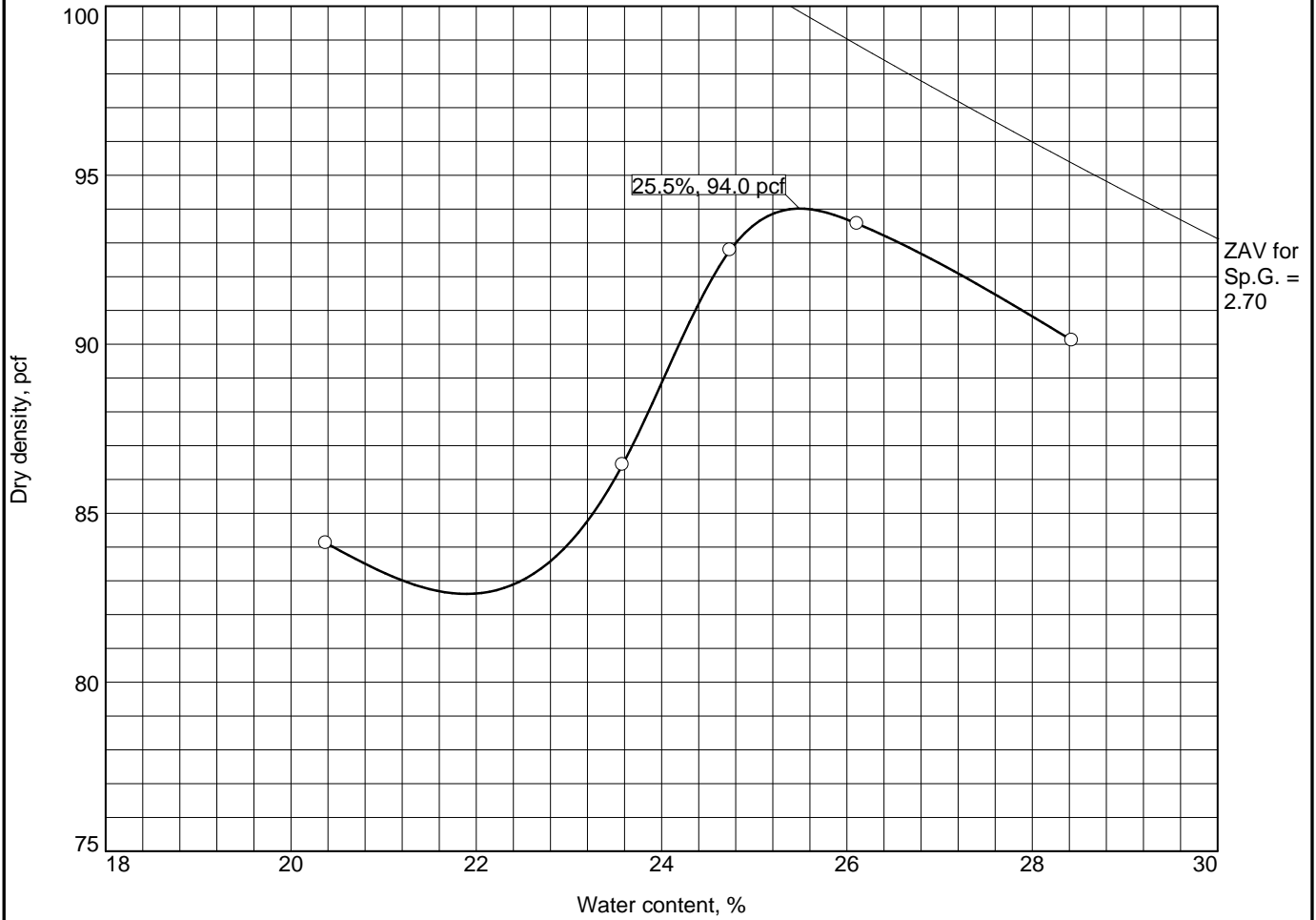
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.02	2.58E-08	<b>2.4E-08</b>
21.00	5.00	10.00	12.55	2.67E-08	
21.00	5.00	15.00	12.18	2.21E-08	
21.00	5.00	20.00	11.82	2.28E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	89.1	Specimen Height, (inches)		3.01	3.09
Opti. M.C., (%)	28.8	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.81	38.81
% Reompct.	94.9	Moisture Content, (%)		28.74	39.90
Test Pressures (psi)		Percent Saturation (%)		78.17	100.00
Backpressure	90.00	Wet Mass Density (pcf)		108.86	115.24
Cell pressure	93.00	Dry Mass Density (pcf)		84.56	82.37
<b>Eff. Stress</b>	<b>3.00</b>	Void Ratio		0.99	1.08
Specific Gravity	2.70	Calculated Porosity, %		49.81	51.86

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	

Project Name	Turk Cell 2	Tested by	FCE	Reviewed by	TGG
Client	Confid.      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-5				
Sample Location					
Date	11/21/2017      Lab No.      9010				

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

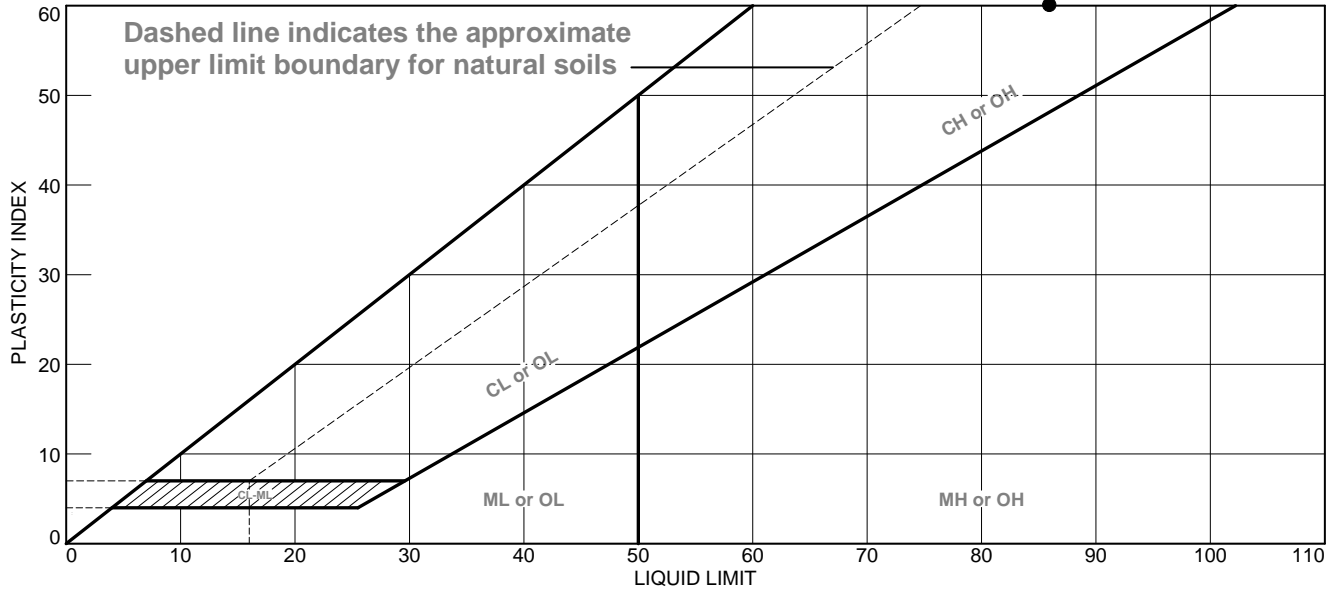
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
	CH			2.70	86	60		

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 94.0 pcf Optimum moisture = 25.5 %	BROWN FAT CLAY  LOCATION: SOUTH BORROW
<b>Project No.</b> 35177127 <b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR ○ <b>Source of Sample:</b> 9011 <b>Sample Number:</b> BA-6	<b>Remarks:</b> P-200 = 97.6%
<b>Terracon, Inc.</b> Cincinnati, Ohio	
<b>Figure</b> 9011	

Tested By: JJ \_\_\_\_\_

Checked By: TG \_\_\_\_\_

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● BROWN FAT CLAY LOCATION: SOUTH BORROW	86	26	60	100.0	97.6	CH

**Project No.** 35177127      **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 9011  
**Sample Number:** BA-6

**Remarks:**  
 ● P-200 = 97.6% (100% passing 1" and the #4)

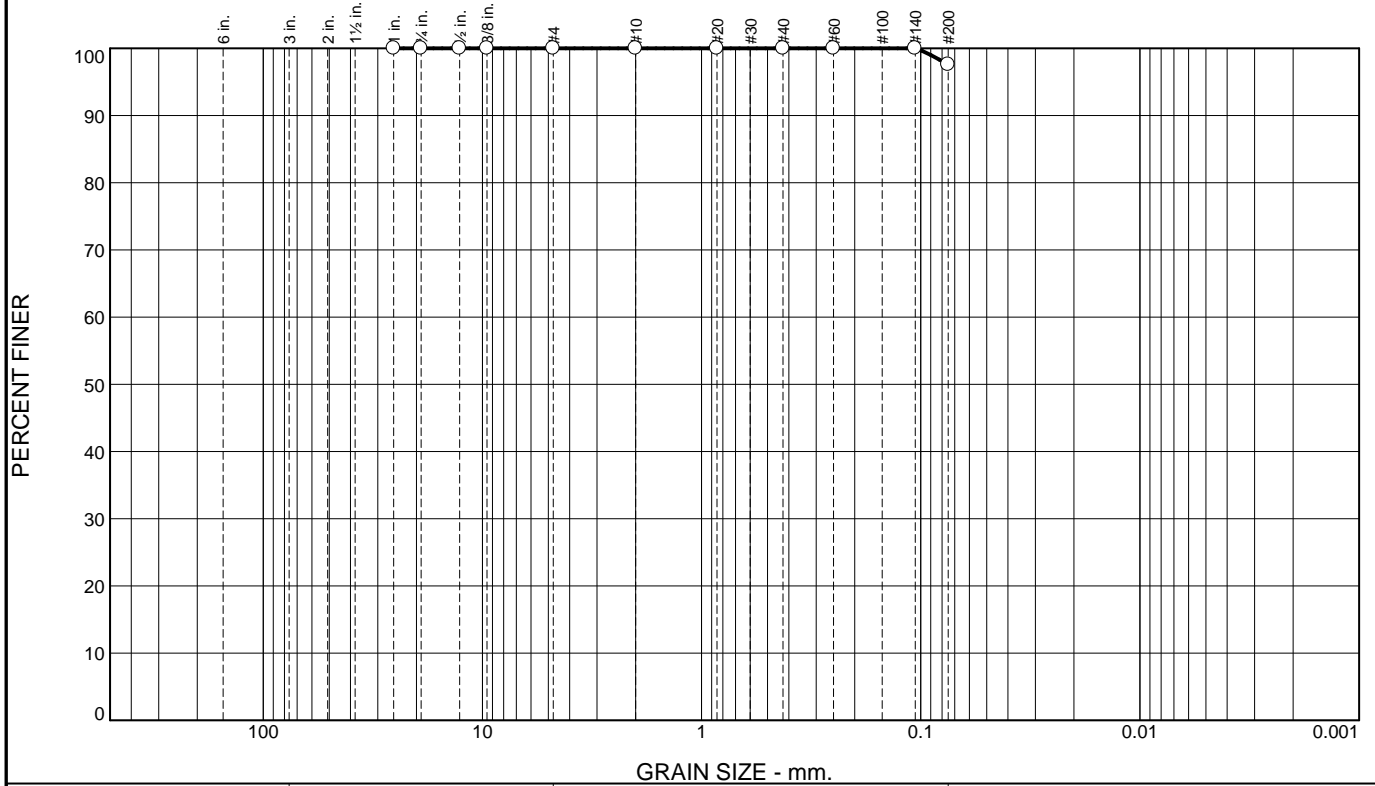
## Terracon, Inc.

Cincinnati, Ohio

**Figure** 9011

**Tested By:** DJ \_\_\_\_\_      **Checked By:** TG \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.0	2.4	97.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	100.0		
#40	100.0		
#60	100.0		
#140	100.0		
#200	97.6		

**Material Description**

BROWN FAT CLAY

LOCATION: SOUTH BORROW

PL= 26      **Atterberg Limits**      PI= 60  
 LL= 86

**Coefficients**

D<sub>90</sub>=      D<sub>85</sub>=      D<sub>60</sub>=  
 D<sub>50</sub>=      D<sub>30</sub>=      D<sub>15</sub>=  
 D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

**Classification**

USCS= CH      AASHTO= A-7-6(69)

**Remarks**

\* (no specification provided)

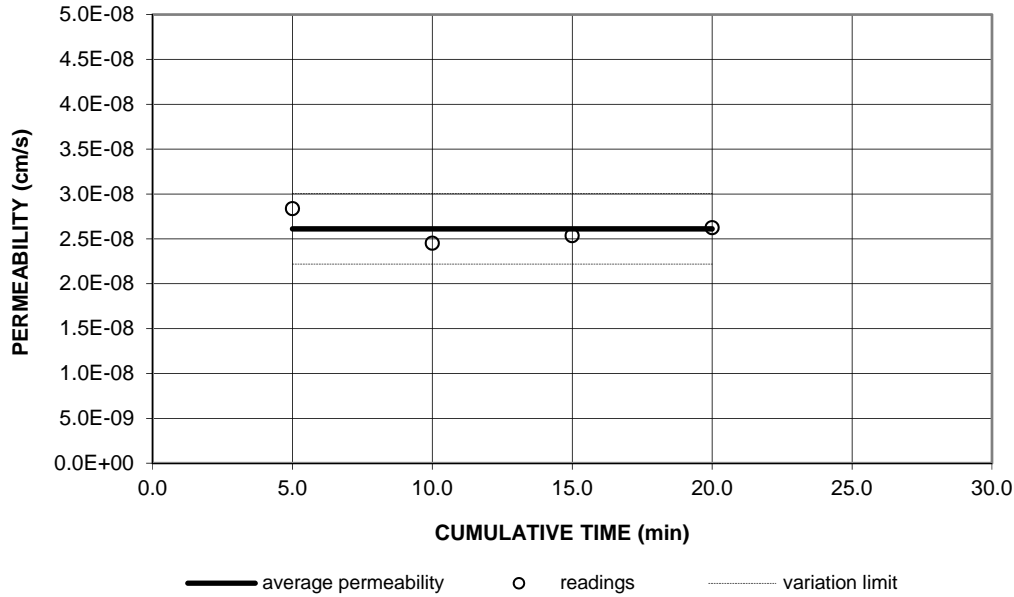
Source of Sample: 9011  
 Sample Number: BA-6

Date: 3-2-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<p><b>Figure</b> 9011</p>	

Tested By: FE      Checked By: TG

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

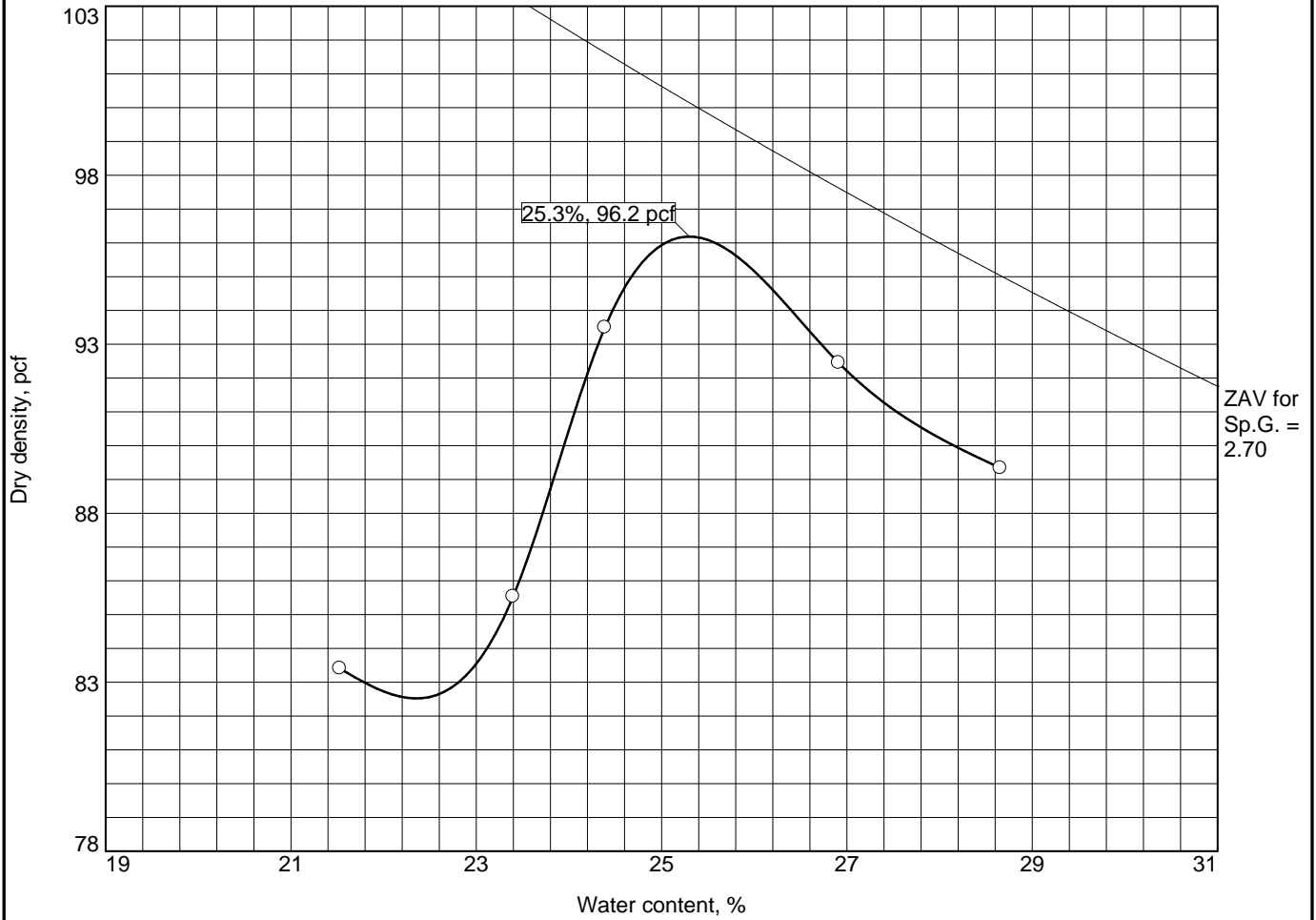
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.17	2.84E-08	<b>2.6E-08</b>
21.00	5.00	10.00	13.71	2.45E-08	
21.00	5.00	15.00	13.24	2.53E-08	
21.00	5.00	20.00	12.78	2.62E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	94.0	Specimen Height, (inches)		3.00	3.06
Opti. M.C., (%)	25.5	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	38.43
% Recompct.	94.8	Moisture Content, (%)		25.74	36.44
Test Pressures (psi)		Percent Saturation (%)		78.07	100.00
Backpressure	90.00	Wet Mass Density (pcf)		112.07	119.22
Cell pressure	93.00	Dry Mass Density (pcf)		89.13	87.38
<b>Eff. Stress</b>	<b>3.00</b>	Void Ratio		0.89	0.98
Specific Gravity	2.70	Calculated Porosity, %		47.10	49.59

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	

Project Name	Turk Cell 2	Tested by	FCE	Reviewed by	TGG
Client	Confid.      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-6				
Sample Location					
Date	11/21/2017      Lab No.      9011				

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

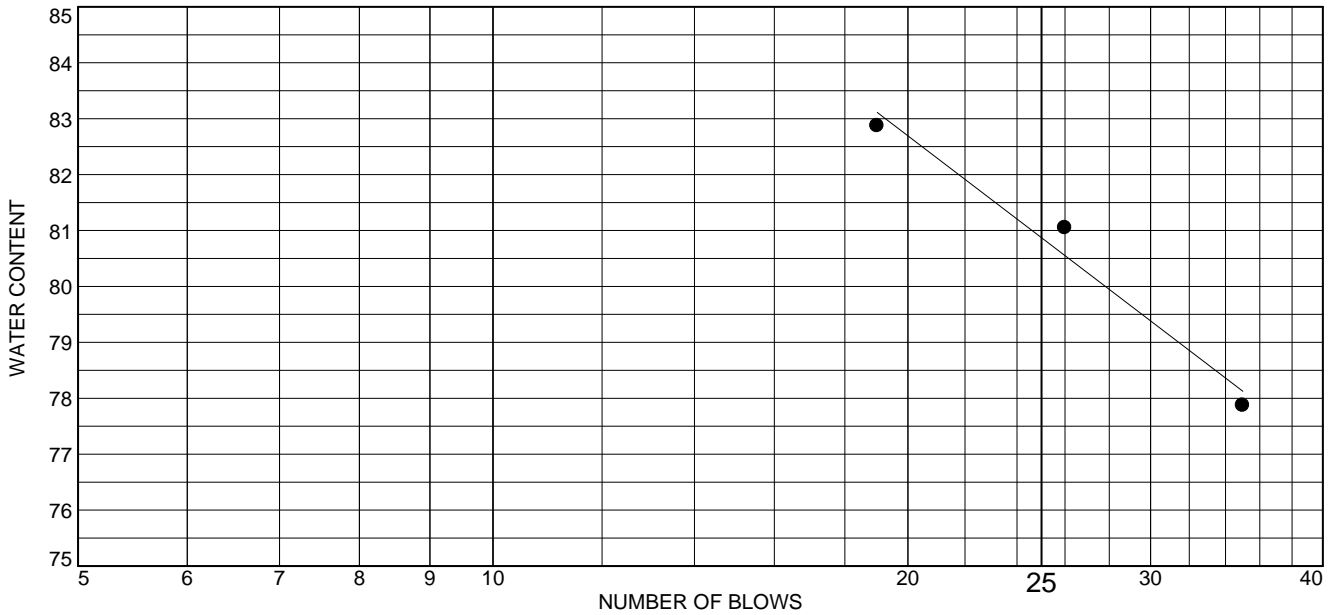
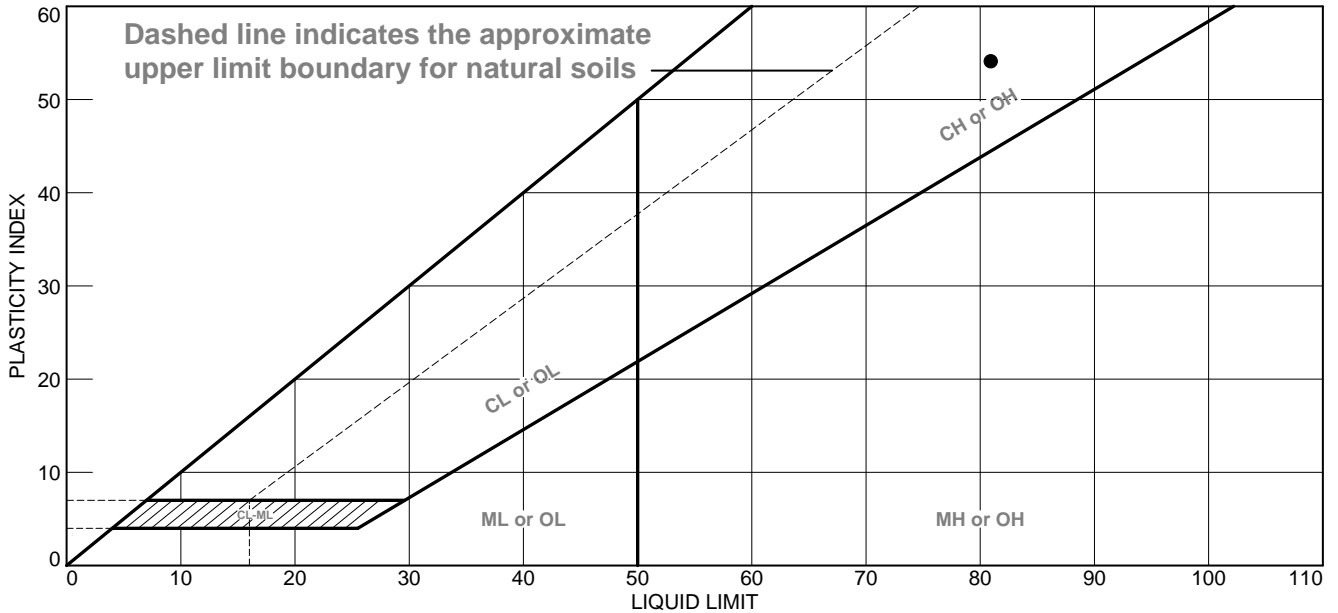
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.70				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 96.2 pcf Optimum moisture = 25.3 %	BROWN  LOCATION: SOUTH BORROW
<b>Project No.</b> 35177127 <b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR ○ <b>Source of Sample:</b> 9012 <b>Sample Number:</b> BA-7	<b>Remarks:</b>
<b>Terracon, Inc.</b>  Cincinnati, Ohio	

**Figure** 9012

Tested By:   JJ   Checked By:   TG

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
BROWN FAT CLAY LOCATION: SOUTH BORROW	81	27	54	100.0	98.1	CH

**Project No.** 35177127    **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 9012  
**Sample Number:** BA-7

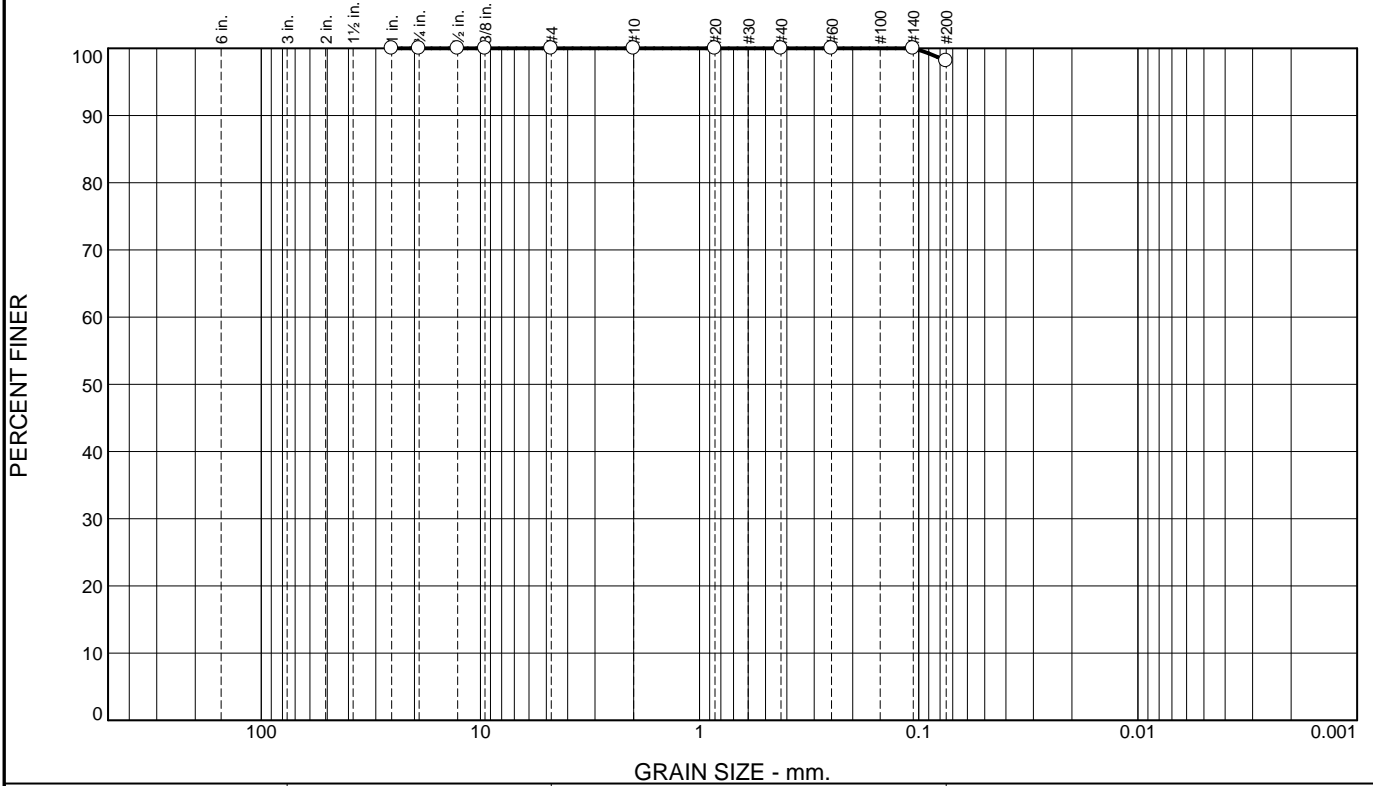
**Remarks:**  
 ● P-200 = 98.1% (100% passing 1" and the #4)

**Terracon, Inc.**

Cincinnati, Ohio

**Figure** 9012

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.0	1.9	98.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	100.0		
#40	100.0		
#60	100.0		
#140	100.0		
#200	98.1		

<b>Material Description</b>		
BROWN FAT CLAY		
LOCATION: SOUTH BORROW		
<b>Atterberg Limits</b>		
PL= 27	LL= 81	PI= 54
<b>Coefficients</b>		
D <sub>90</sub> =	D <sub>85</sub> =	D <sub>60</sub> =
D <sub>50</sub> =	D <sub>30</sub> =	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<b>Classification</b>		
USCS= CH	AASHTO= A-7-6(62)	
<b>Remarks</b>		

\* (no specification provided)

Source of Sample: 9012  
 Sample Number: BA-7

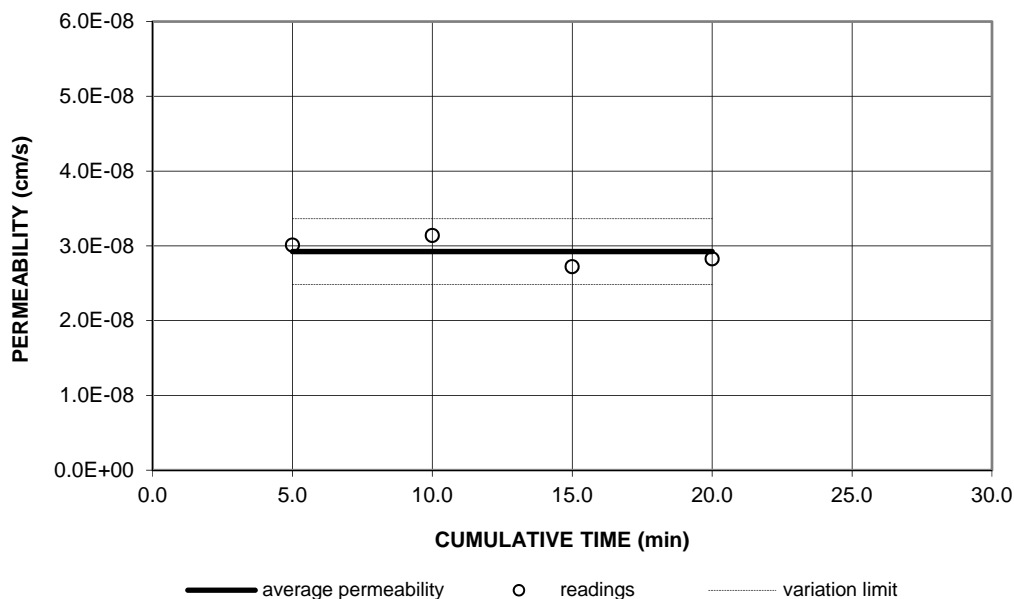
Date: 3-1-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER                  FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<p><b>Figure</b> 9012</p>	

Tested By: FE Checked By: TG



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.34	3.01E-08	<b>2.9E-08</b>
21.00	5.00	10.00	12.78	3.14E-08	
21.00	5.00	15.00	12.32	2.72E-08	
21.00	5.00	20.00	11.86	2.83E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	96.2	Specimen Height, (inches)		3.00	3.11
Opti. M.C., (%)	25.3	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	39.06
% Recompct.	94.9	Moisture Content, (%)		25.49	37.59
Test Pressures (psi)		Percent Saturation (%)		81.31	100.00
Backpressure	90.00	Wet Mass Density (pcf)		114.51	121.11
Cell pressure	93.00	Dry Mass Density (pcf)		91.25	88.02
<b>Eff. Stress</b>	<b>3.00</b>	Void Ratio		0.85	1.01
Specific Gravity	2.70	Calculated Porosity, %		45.84	50.37

USCS                      SG Assumed      LL                                      PI

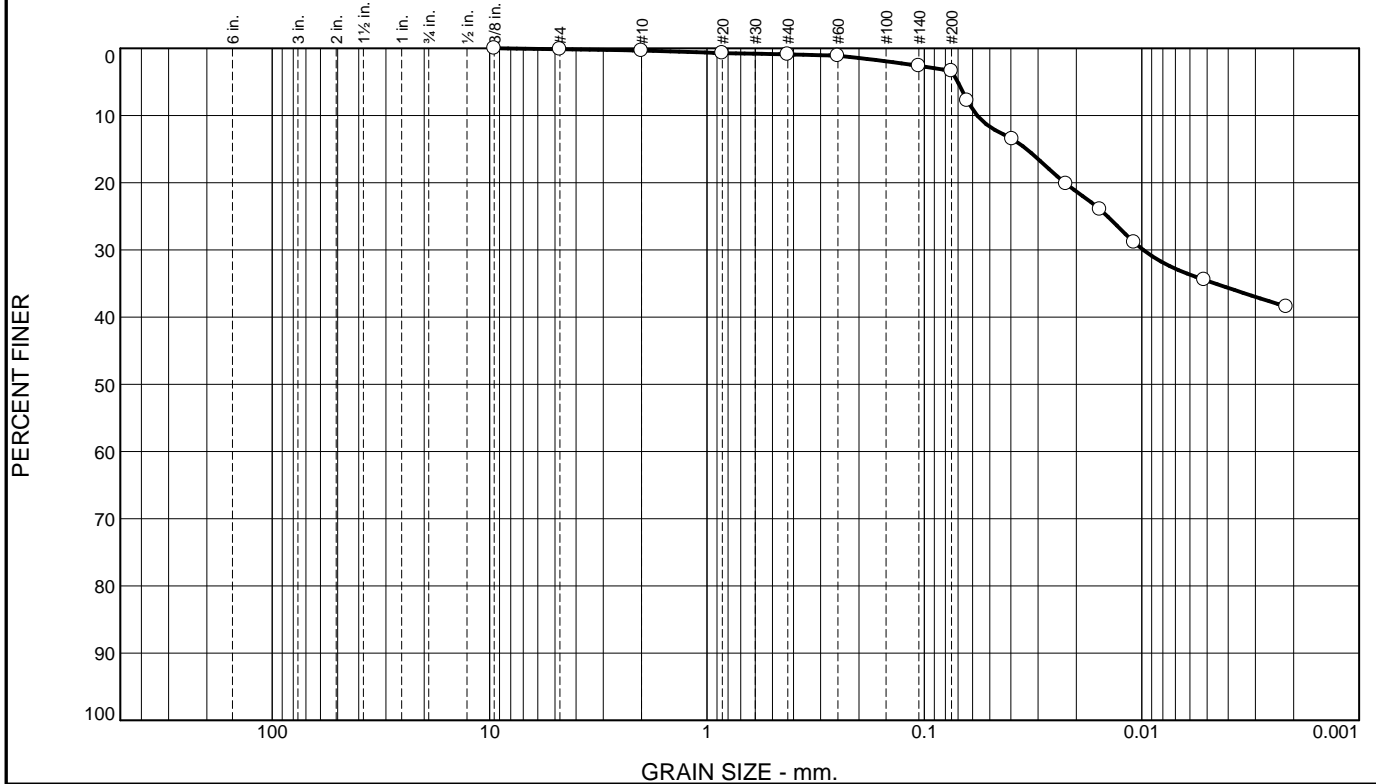
Permeant Used:      WATER      Remarks

Project Name	Turk Cell 2	Tested by	FCE	Reviewed by	TGG
Client	Confid.      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-7				
Sample Location					
Date	11/21/2017      Lab No.      9012				





# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	1	2	97	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100		
#4	100		
#10	100		
#20	99		
#40	99		
#60	99		
#140	97		
#200	97		

**Material Description**  
BROWN AND GRAY FAT CLAY

**Atterberg Limits**  
 PL= 21      LL= 78      PI= 57

**Coefficients**  
 D<sub>90</sub>= 0.0571      D<sub>85</sub>= 0.0339      D<sub>60</sub>=  
 D<sub>50</sub>=                  D<sub>30</sub>=                  D<sub>15</sub>=  
 D<sub>10</sub>=                  C<sub>u</sub>=                  C<sub>c</sub>=

**Classification**  
 USCS= CH      AASHTO= A-7-6(63)

**Remarks**  
 WC = 29.1%

\* (no specification provided)

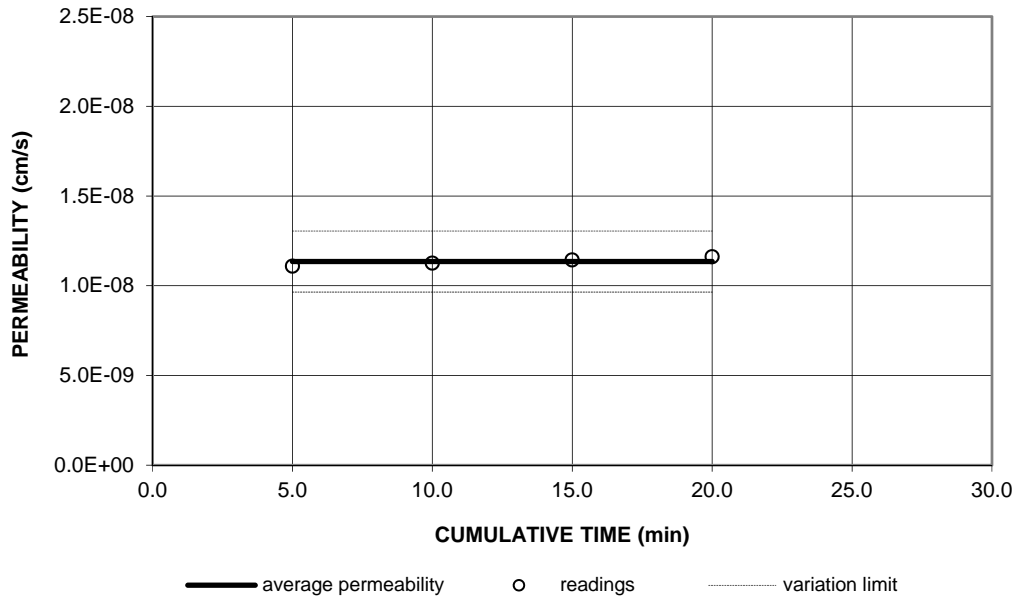
Source of Sample: 4054  
 Sample Number: BA-12

Date: 5-30-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<p><b>Figure</b> 4054</p>	

Tested By: VL      Checked By: TG

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

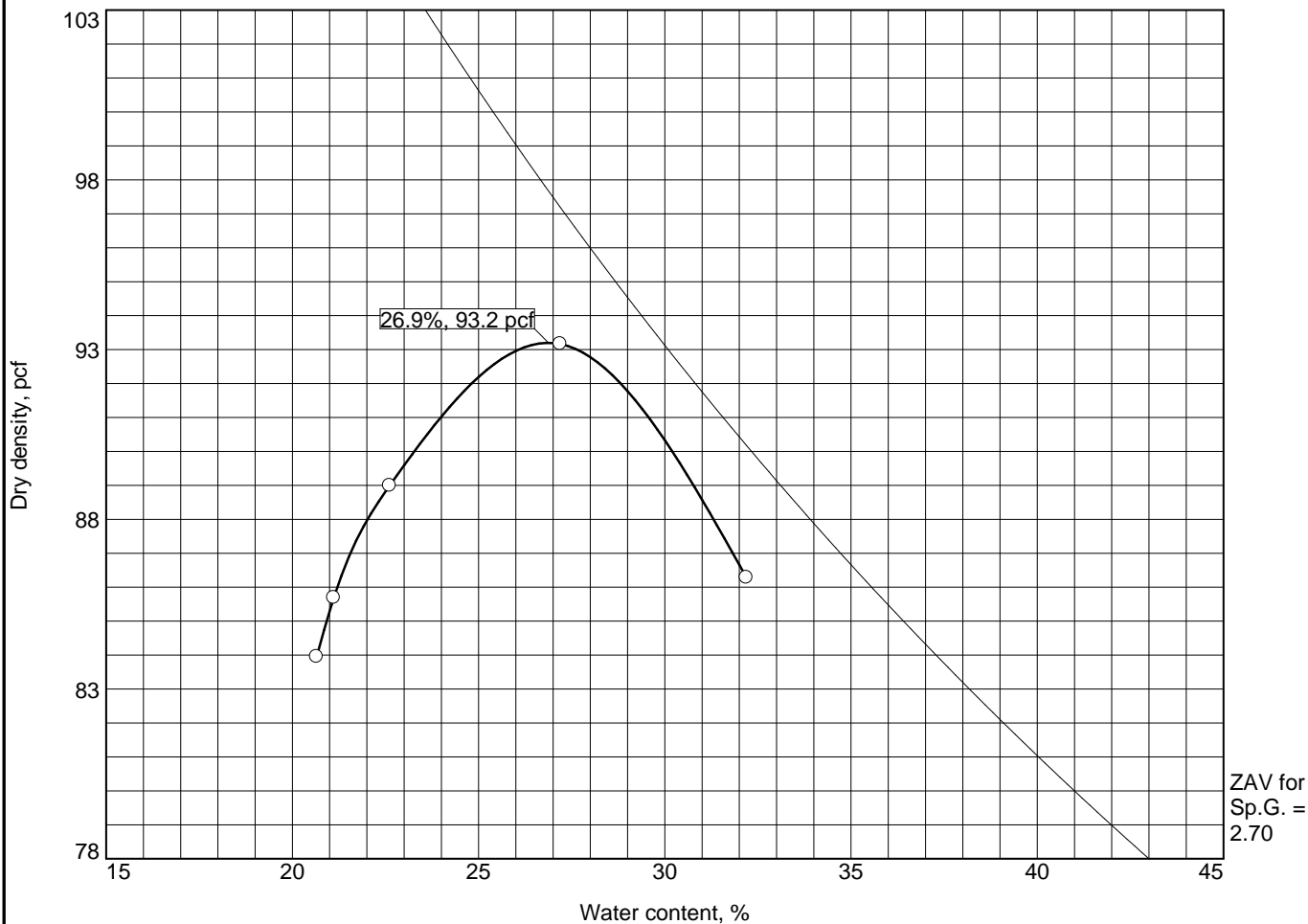
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.23	1.11E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.04	1.13E-08	
21.00	5.00	15.00	11.86	1.14E-08	
21.00	5.00	20.00	11.67	1.16E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	103.3	Specimen Height, (inches)		3.00	3.02
Opti. M.C., (%)	22.6	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.93
% Recompct.	94.8	Moisture Content, (%)		22.83	26.82
Test Pressures (psi)		Percent Saturation (%)		85.60	99.00
Backpressure	90.00	Wet Mass Density (pcf)		120.31	123.40
Cell pressure	100.00	Dry Mass Density (pcf)		97.95	97.30
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.72	0.73
Specific Gravity	2.70	Calculated Porosity, %		41.86	42.25

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-12				
Sample Location					
Date	5/30/2018      Lab No.      4054				

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

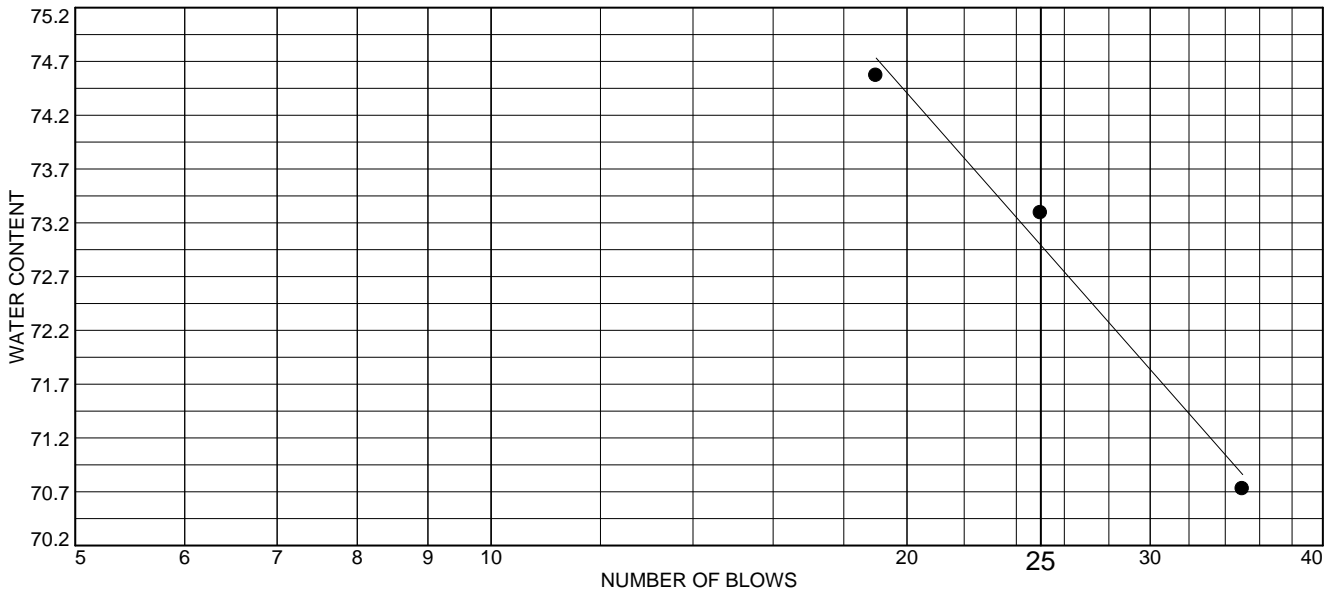
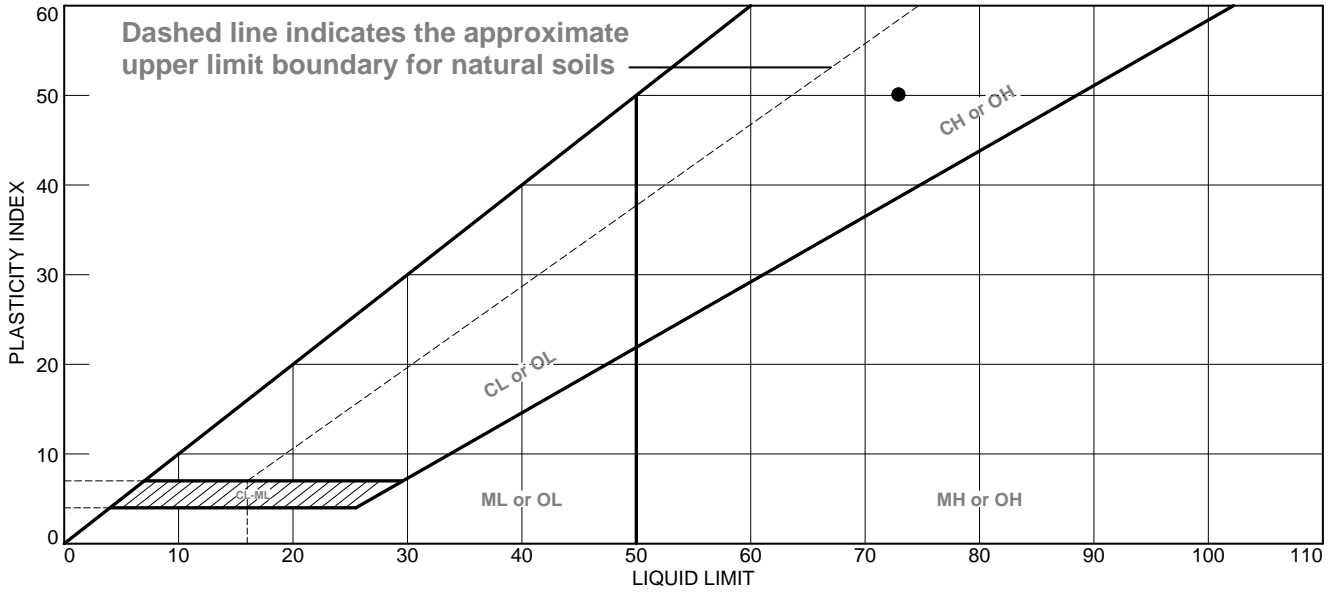
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
10'	CH	A-7-6(52)	31.0	2.70	73	50	1	92

TEST RESULTS		MATERIAL DESCRIPTION
Maximum dry density = 93.2 pcf Optimum moisture = 26.9 %		GRAY FAT CLAY
<b>Project No.</b> 35177127 <b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR <input type="radio"/> <b>Source of Sample:</b> 4368 <b>Sample Number:</b> BA-13		<b>Remarks:</b> LOCATION: SOUTH BORROW AT 10'
<h3>Terracon, Inc.</h3> Cincinnati, Ohio		

Figure 4368

Tested By: GB Checked By: TG

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● GRAY FAT CLAY	73	23	50	96	92	CH

**Project No.** 35177127      **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 4368      **Depth:** 10'  
**Sample Number:** BA-13

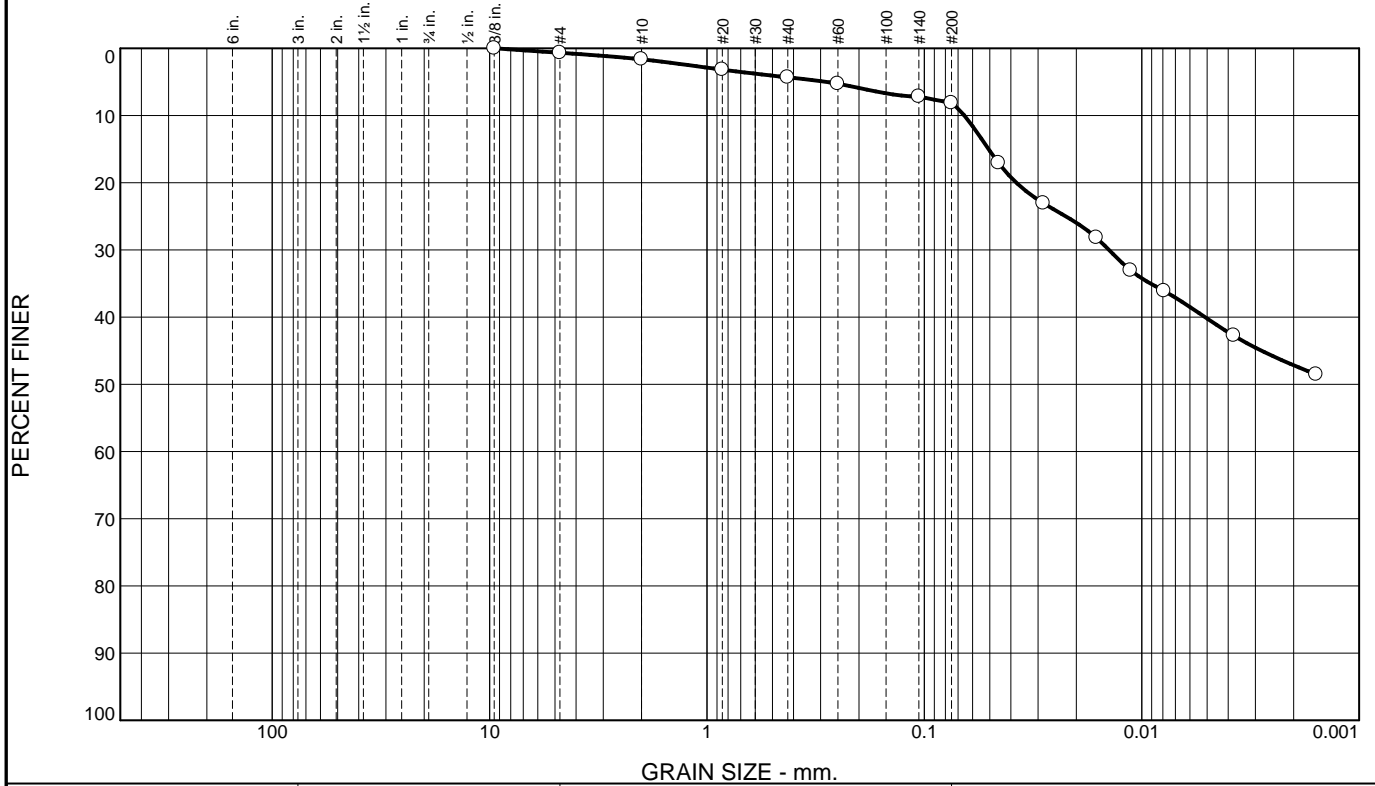
**Remarks:**  
 ● WC = 31.0%

**Terracon, Inc.**  
 Cincinnati, Ohio

**Figure** 4368

**Tested By:** SS      **Checked By:** GS

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	1	1	2	4	39	53

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100		
#4	99		
#10	98		
#20	97		
#40	96		
#60	95		
#140	93		
#200	92		

**Material Description**

GRAY FAT CLAY

**Atterberg Limits**  
 PL= 23      LL= 73      PI= 50

**Coefficients**  
 D<sub>90</sub>= 0.0654      D<sub>85</sub>= 0.0507      D<sub>60</sub>= 0.0051  
 D<sub>50</sub>=              D<sub>30</sub>=              D<sub>15</sub>=  
 D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**  
 USCS= CH      AASHTO= A-7-6(52)

**Remarks**  
 LOCATION: SOUTH BORROW AT 10'  
 WC = 31.0%

\* (no specification provided)

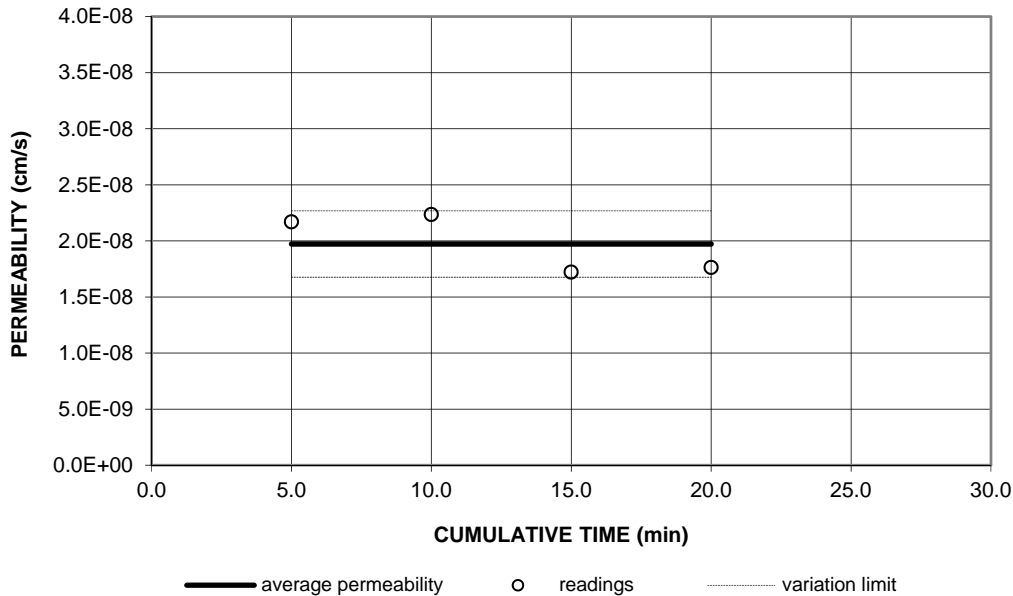
Source of Sample: 4368      Depth: 10'      Date: 6-7-18  
 Sample Number: BA-13

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<p><b>Figure</b> 4368</p>	

Tested By: SS      Checked By: GS



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.41	2.17E-08	<b>2.0E-08</b>
21.00	5.00	10.00	12.04	2.23E-08	
21.00	5.00	15.00	11.76	1.72E-08	
21.00	5.00	20.00	11.48	1.76E-08	

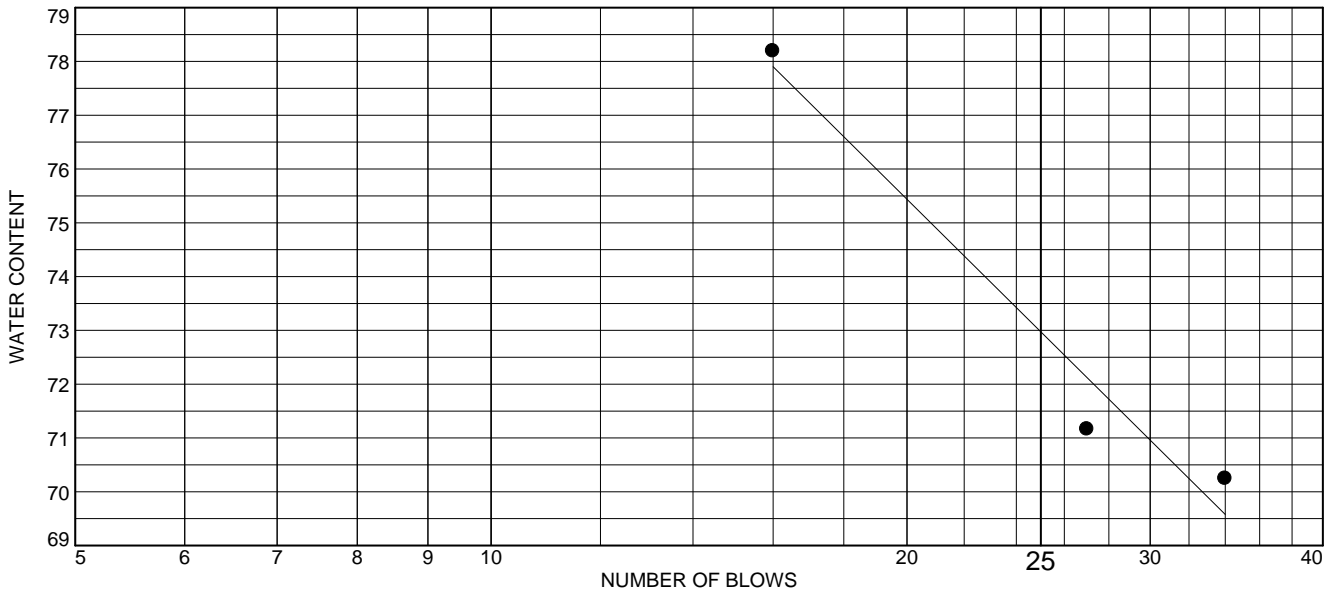
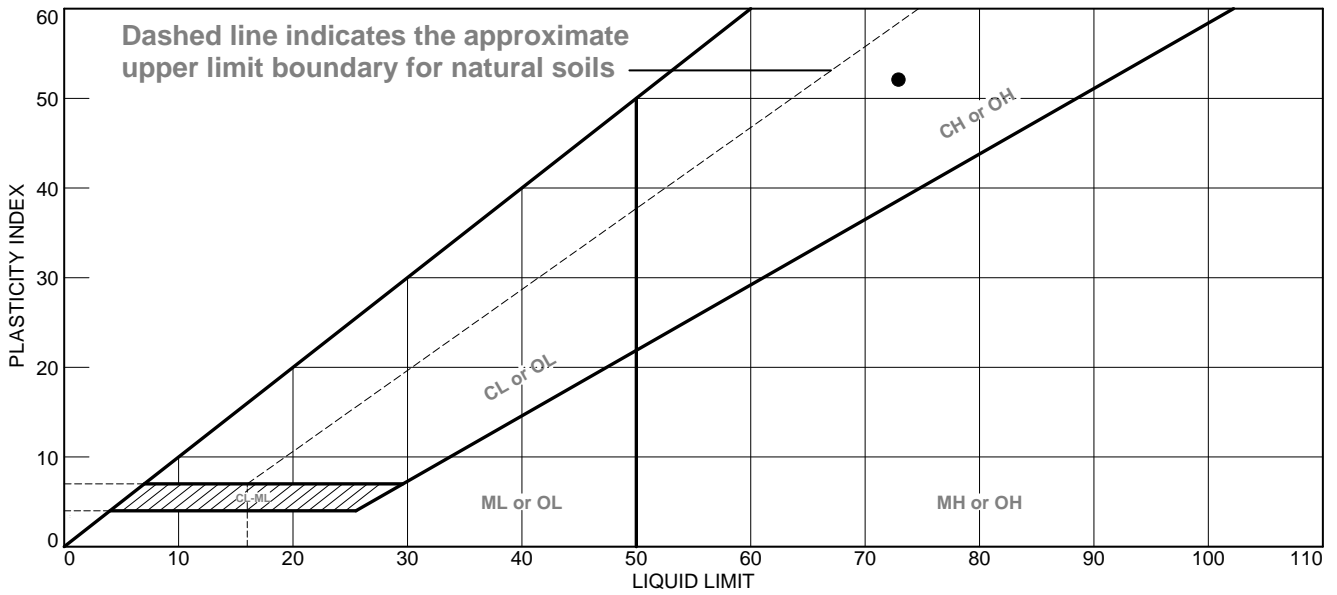
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	93.2	Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)	26.9	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.81
% Reompct.	94.8	Moisture Content, (%)		27.15	33.35
Test Pressures (psi)		Percent Saturation (%)		80.85	98.63
Backpressure	90.00	Wet Mass Density (pcf)		112.35	117.44
Cell pressure	100.00	Dry Mass Density (pcf)		88.36	88.07
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.91	0.91
Specific Gravity	2.70	Calculated Porosity, %		47.55	47.73

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-13      10.0'				
Sample Location	S. Borrow Area				
Date	6/14/2018      Lab No.      4368				



# LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	BROWN FAT CLAY	73	21	52	99	97	CH

**Project No.** 35177127    **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 4369    **Depth:** 10'  
**Sample Number:** BA-14

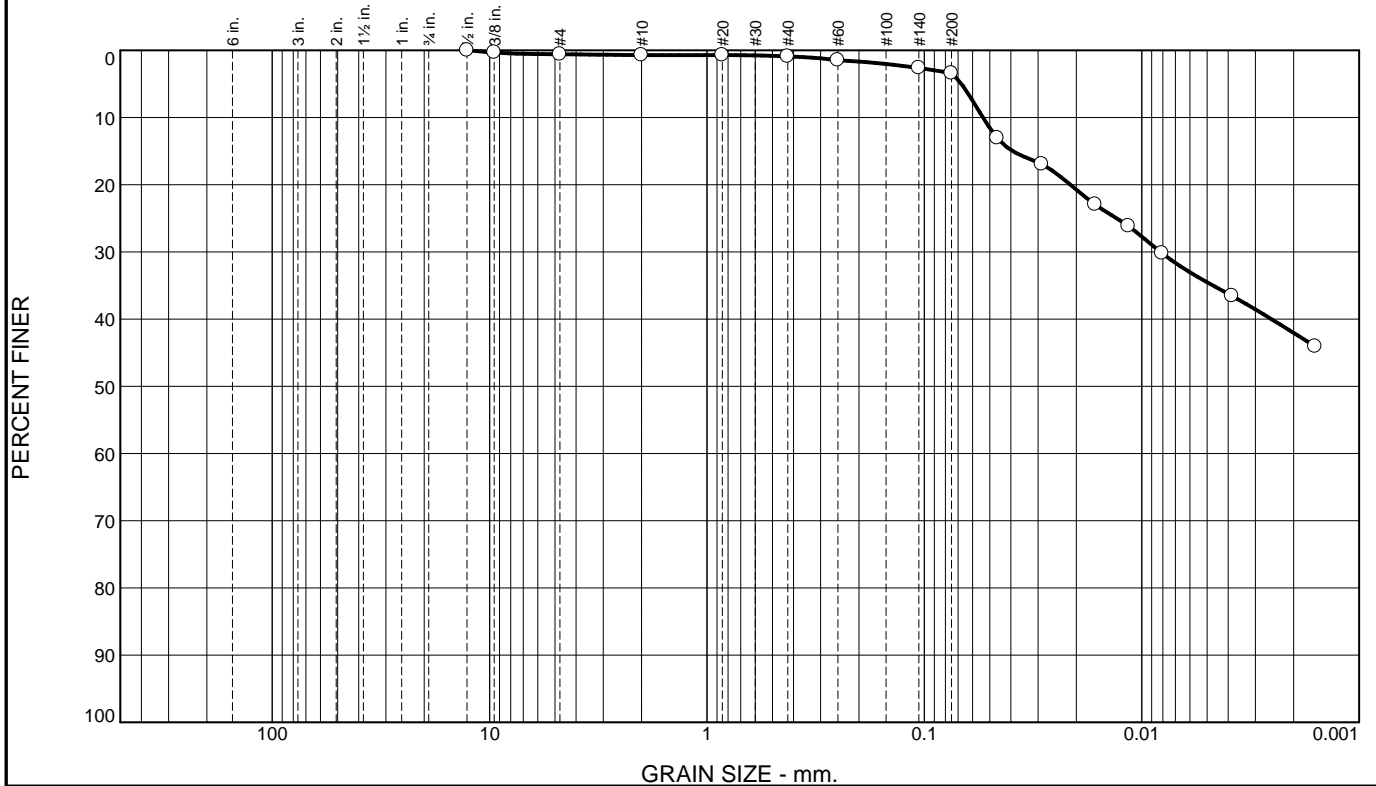
**Remarks:**  
 ●WC = 35.4%

**Terracon, Inc.**  
 Cincinnati, Ohio

Figure 4369

**Tested By:** DT                      **Checked By:** GS

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	1	0	0	2	39	58

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.5	100		
.375	100		
#4	99		
#10	99		
#20	99		
#40	99		
#60	99		
#140	97		
#200	97		

**Material Description**

BROWN FAT CLAY

**Atterberg Limits**  
 PL= 21      LL= 73      PI= 52

**Coefficients**  
 D<sub>90</sub>= 0.0538      D<sub>85</sub>= 0.0393      D<sub>60</sub>= 0.0025  
 D<sub>50</sub>=                      D<sub>30</sub>=                      D<sub>15</sub>=  
 D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**  
 USCS= CH      AASHTO= A-7-6(57)

**Remarks**  
 WC = 35.4%  
 LOCATION: SOUTH BORROW AT 10'

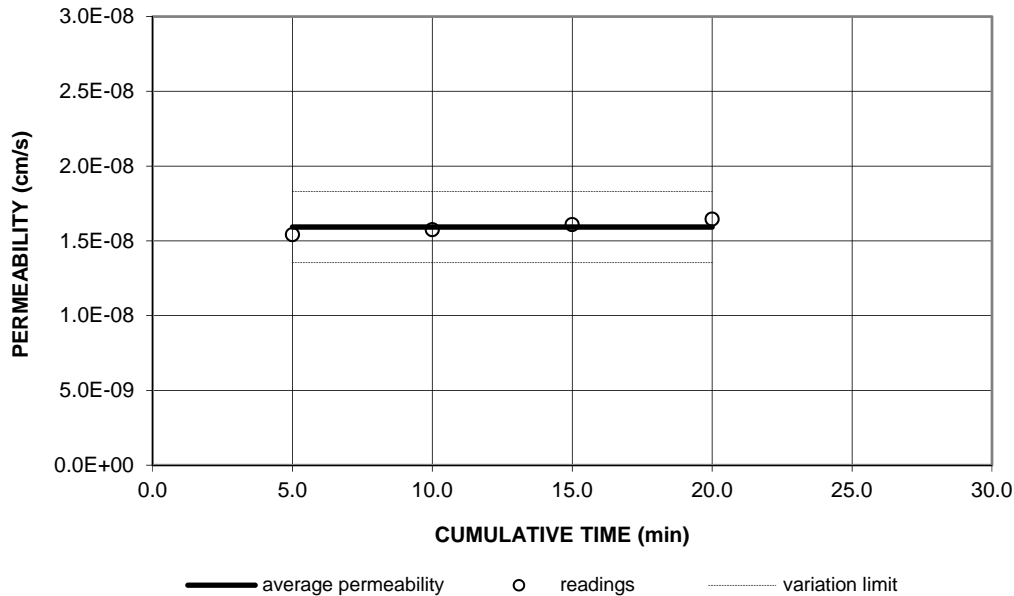
\* (no specification provided)

Source of Sample: 4369      Depth: 10'      Date: 6-5-18  
 Sample Number: BA-14

<b>Terracon, Inc.</b>  Cincinnati, Ohio	<b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR <b>Project No:</b> 35177127
<b>Figure</b> 4369	

Tested By: VL      Checked By: GS

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

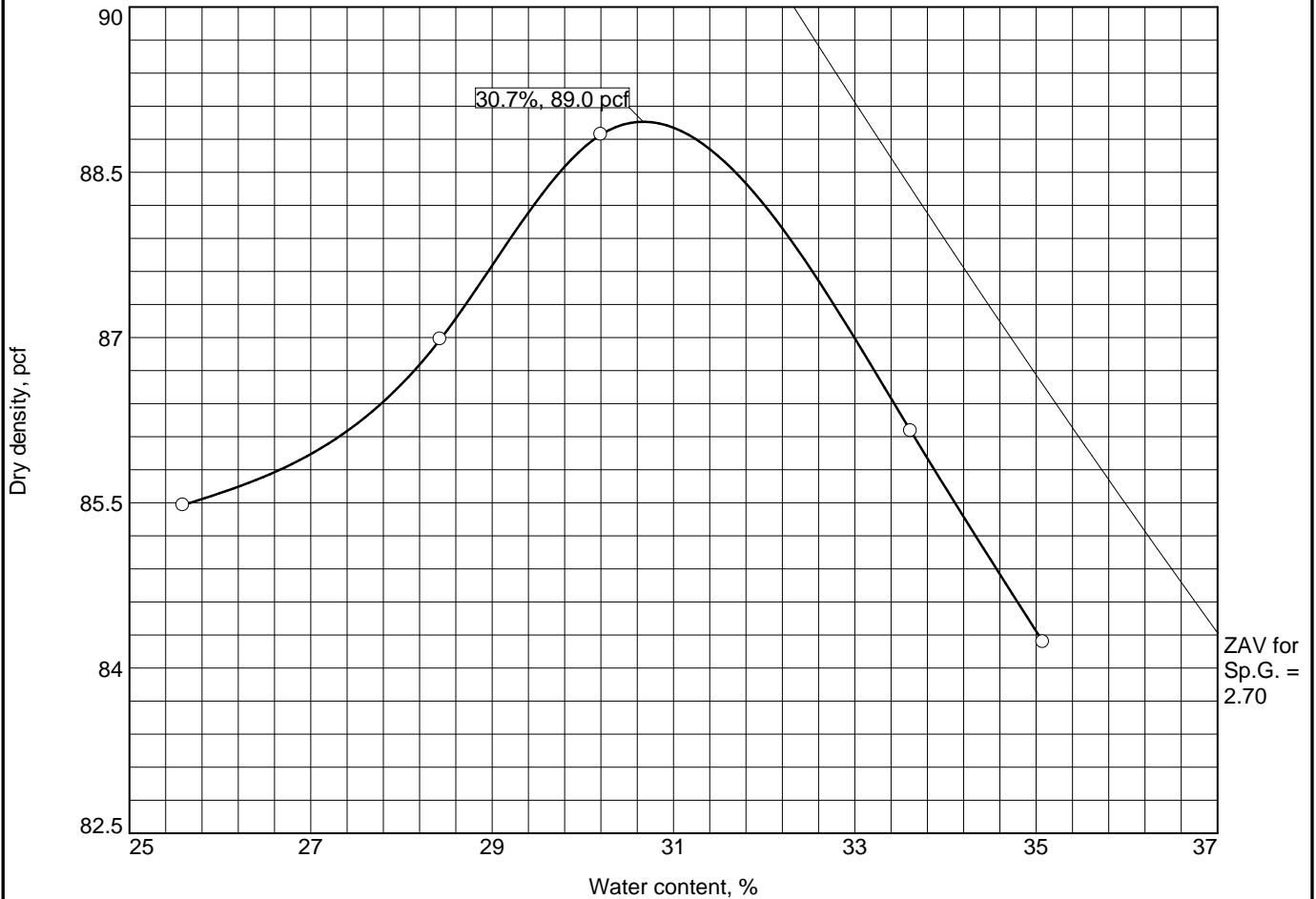
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.15	1.54E-08	<b>1.6E-08</b>
21.00	5.00	10.00	12.87	1.57E-08	
21.00	5.00	15.00	12.60	1.61E-08	
21.00	5.00	20.00	12.32	1.64E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	91.5	Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)	28.1	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.81
% Recompct.	94.9	Moisture Content, (%)		28.18	33.37
Test Pressures (psi)		Percent Saturation (%)		81.00	95.26
Backpressure	90.00	Wet Mass Density (pcf)		111.35	115.48
Cell pressure	100.00	Dry Mass Density (pcf)		86.87	86.58
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.94	0.95
Specific Gravity	2.70	Calculated Porosity, %		48.44	48.61

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction			Tested by	FCE	Reviewed by	TGG
Client	AEP	W.O.#	35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-14	10.0'					
Sample Location	S. Borrow Area						
Date	6/14/2018	Lab No.	4369				

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

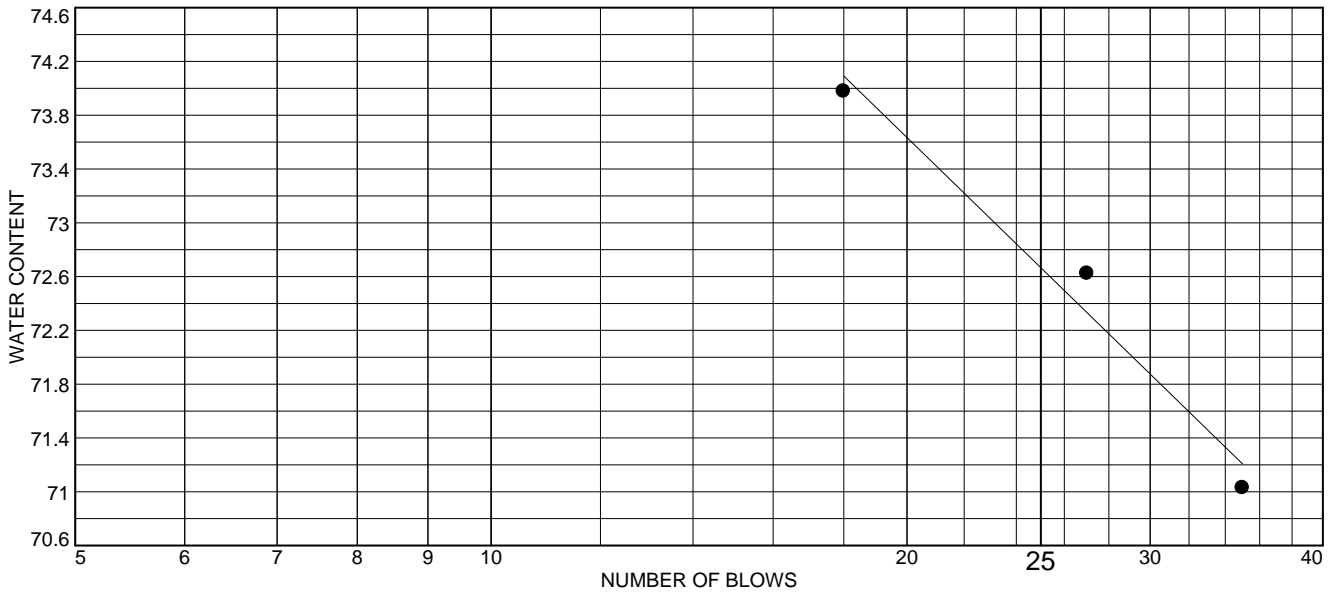
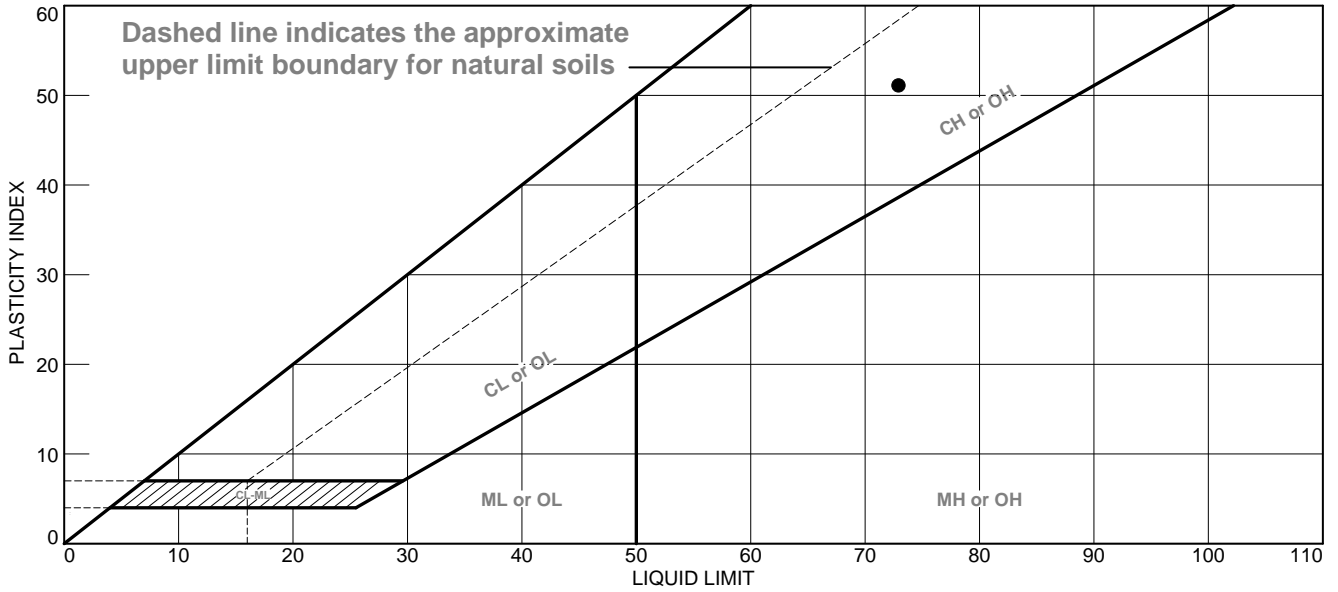
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
10'	CH	A-7-6(56)	31.6	2.70	73	51	0	97

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 89.0 pcf Optimum moisture = 30.7 %	BROWN FAT CLAY  LOCATION: SOUTH BORROW
Project No. 35177127 Client: AMERICAN ELECTRIC POWER Project: TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR Source of Sample: 4370 Sample Number: BA-15  <div style="text-align: center;"> <b>Terracon, Inc.</b>                          Cincinnati, Ohio                     </div>	Remarks: DATE TYPED 6-5-18

Figure 4370

Tested By: GB Checked By: GS

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● BROWN FAT CLAY LOCATION: SOUTH BORROW	73	22	51	99	97	CH

**Project No.** 35177127      **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 4370      **Depth:** 10'  
**Sample Number:** BA-15

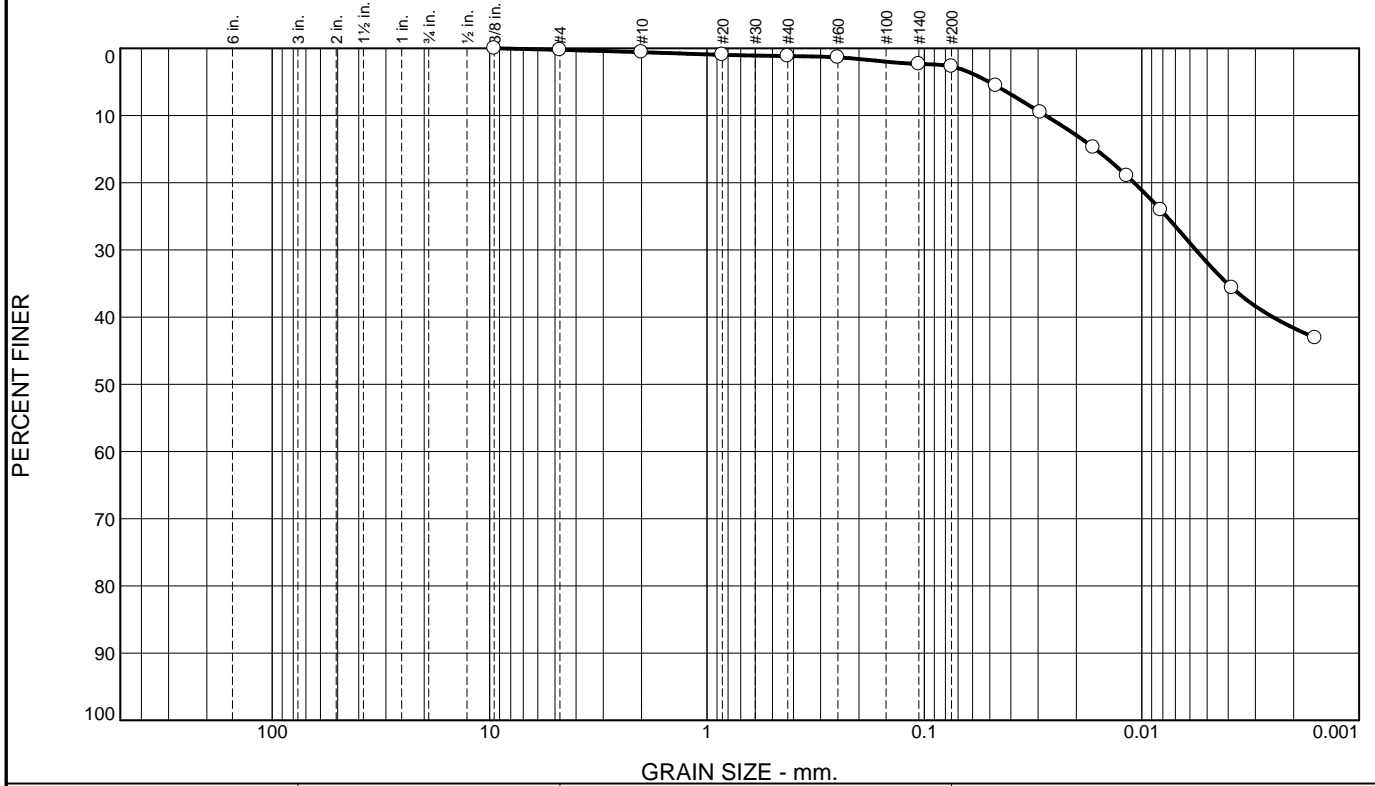
**Remarks:**  
 ● WC = 31.6%

**Terracon, Inc.**  
 Cincinnati, Ohio

**Figure** 4370

**Tested By:** SS      **Checked By:** GS

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	1	0	2	39	58

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100		
#4	100		
#10	99		
#20	99		
#40	99		
#60	99		
#140	98		
#200	97		

**Material Description**

BROWN FAT CLAY

LOCATION: SOUTH BORROW

PL= 22      **Atterberg Limits**      LL= 73      PI= 51

**Coefficients**

D<sub>90</sub>= 0.0277      D<sub>85</sub>= 0.0163      D<sub>60</sub>= 0.0025  
D<sub>50</sub>=              D<sub>30</sub>=              D<sub>15</sub>=  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= CH      AASHTO= A-7-6(56)

**Remarks**

WC = 31.5%  
LOCATION: SOUTH BORROW AT 10'

\* (no specification provided)

Source of Sample: 4370      Depth: 10'  
Sample Number: BA-15

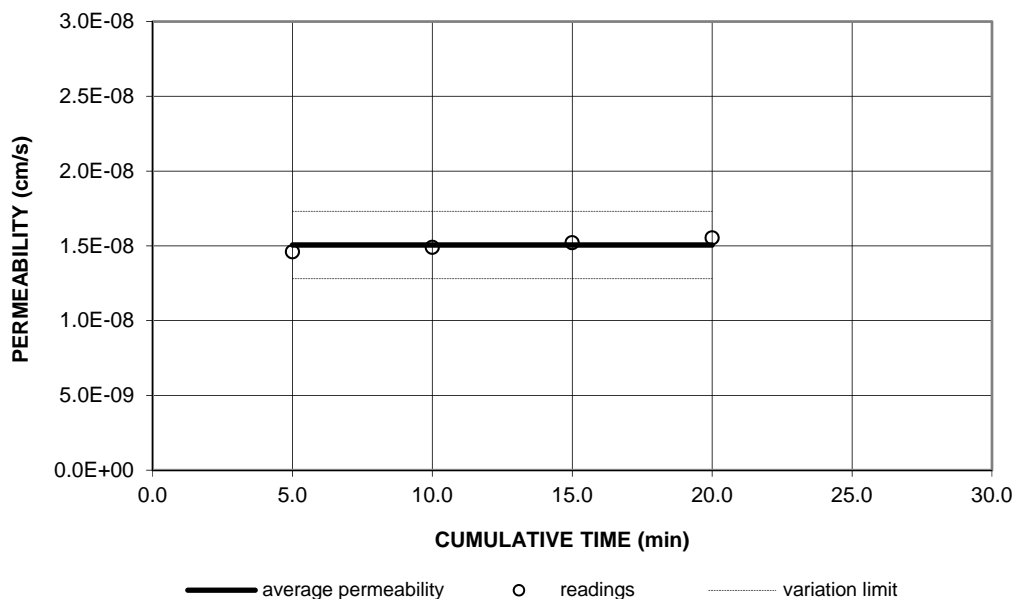
Date: 6-6-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR <b>Project No:</b> 35177127
<b>Figure</b> 4370	

Tested By: VL      Checked By: GS



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.89	1.46E-08	<b>1.5E-08</b>
21.00	5.00	10.00	13.61	1.49E-08	
21.00	5.00	15.00	13.34	1.52E-08	
21.00	5.00	20.00	13.06	1.55E-08	

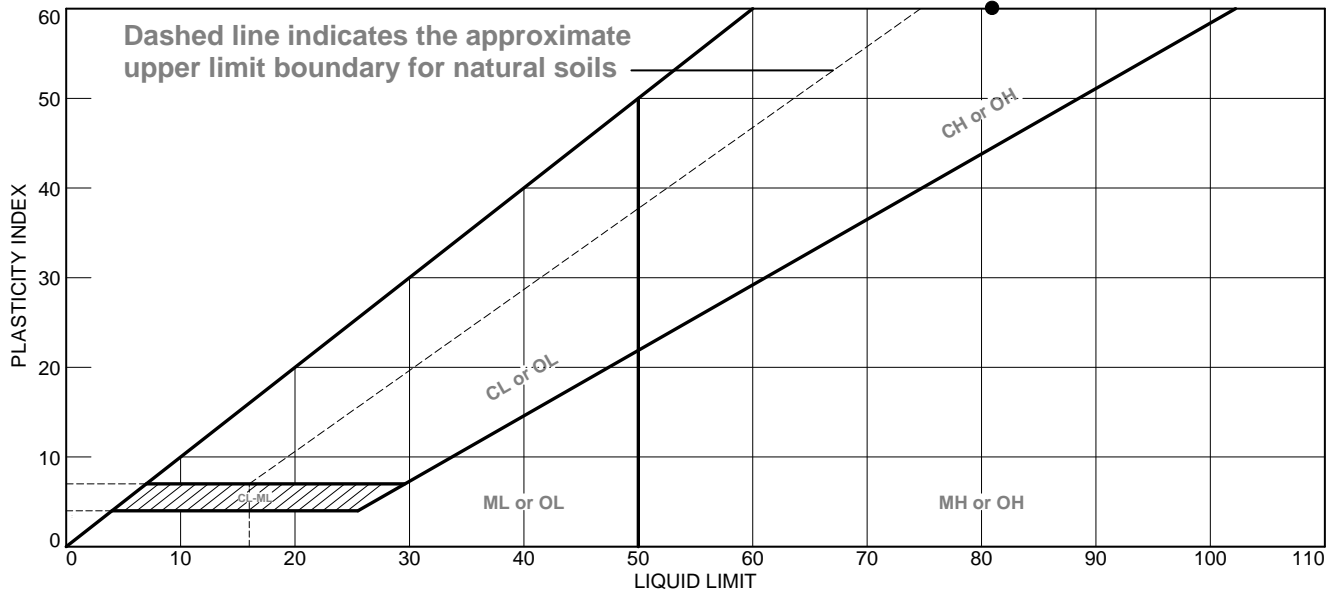
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	89.0	Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)	30.7	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.81
% Recompct.	95.1	Moisture Content, (%)		30.50	35.25
Test Pressures (psi)		Percent Saturation (%)		83.20	95.55
Backpressure	90.00	Wet Mass Density (pcf)		110.50	114.15
Cell pressure	100.00	Dry Mass Density (pcf)		84.68	84.40
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.99	1.00
Specific Gravity	2.70	Calculated Porosity, %		49.74	49.91

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction			Tested by	FCE	Reviewed by	TGG
Client	AEP	W.O.#	35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-15	10.0'					
Sample Location	S. Borrow Area						
Date	6/14/2018	Lab No.	4370				



# LIQUID AND PLASTIC LIMITS TEST REPORT

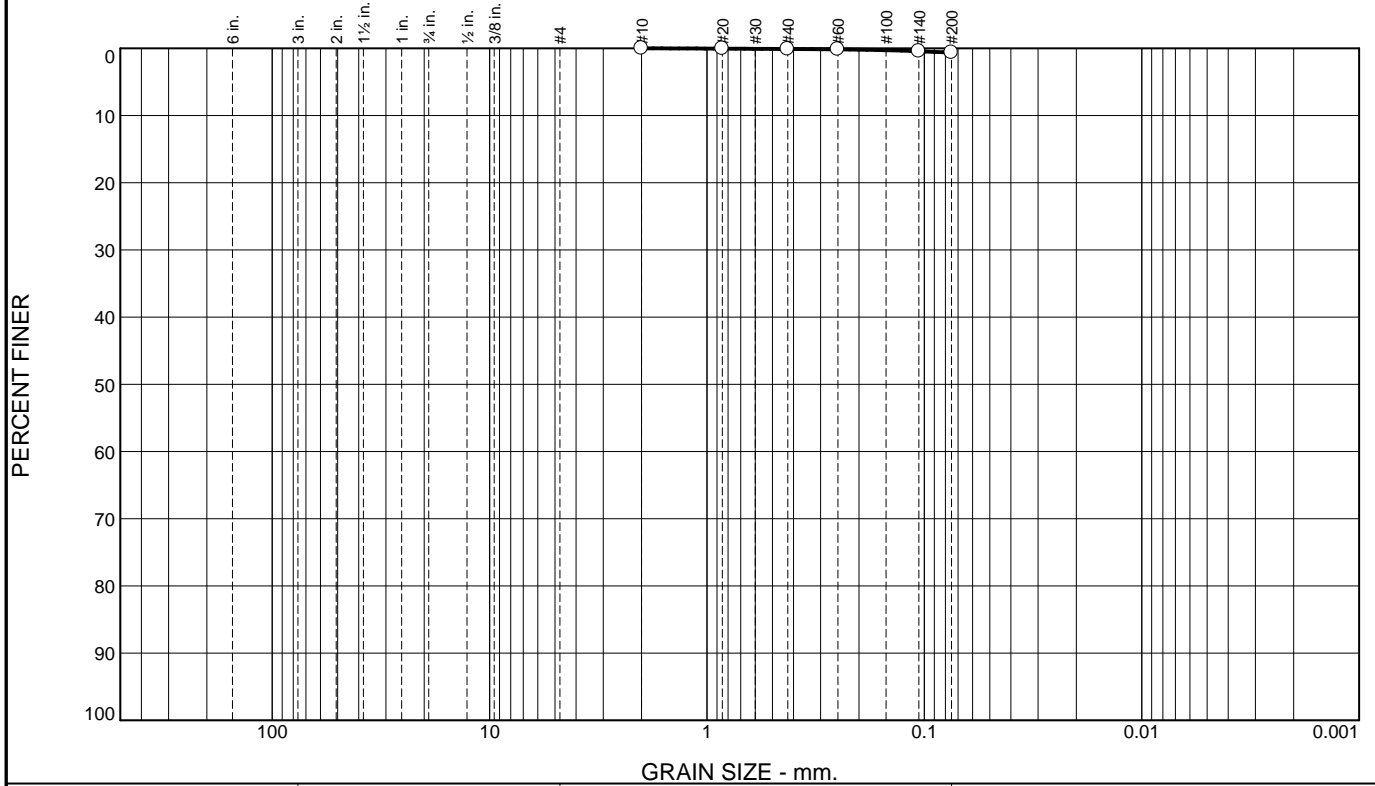


MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● BROWN FAT CLAY	81	21	60	100	99	CH

<b>Project No.</b> 35177127 <b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR <b>Source of Sample:</b> 5161 <b>Depth:</b> 0.5' <b>Sample Number:</b> BA-16	<b>Remarks:</b> ● WC = 33.3%
<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	
<b>Figure</b> 5161	

**Tested By:** DT \_\_\_\_\_ **Checked By:** GS \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	1	99	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100		
#20	100		
#40	100		
#60	100		
#140	100		
#200	99		

**Material Description**

BROWN FAT CLAY

PL= 21      **Atterberg Limits**      LL= 81      PI= 60

**Coefficients**

D<sub>90</sub>=      D<sub>85</sub>=      D<sub>60</sub>=  
D<sub>50</sub>=      D<sub>30</sub>=      D<sub>15</sub>=  
D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

USCS= CH      **Classification**      AASHTO= A-7-6(68)

**Remarks**

WC = 33.3%

\* (no specification provided)

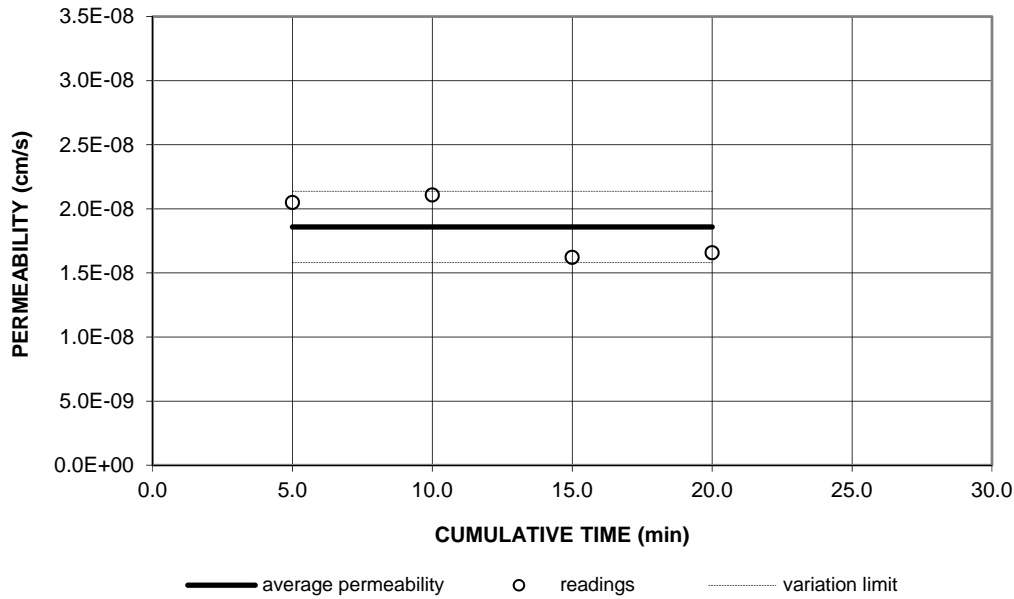
Source of Sample: 5161      Depth: 0.5'  
Sample Number: BA-16

Date: 7-12-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR <b>Project No:</b> 35177127
<b>Figure</b> 5161	

Tested By: DR      Checked By: GS

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

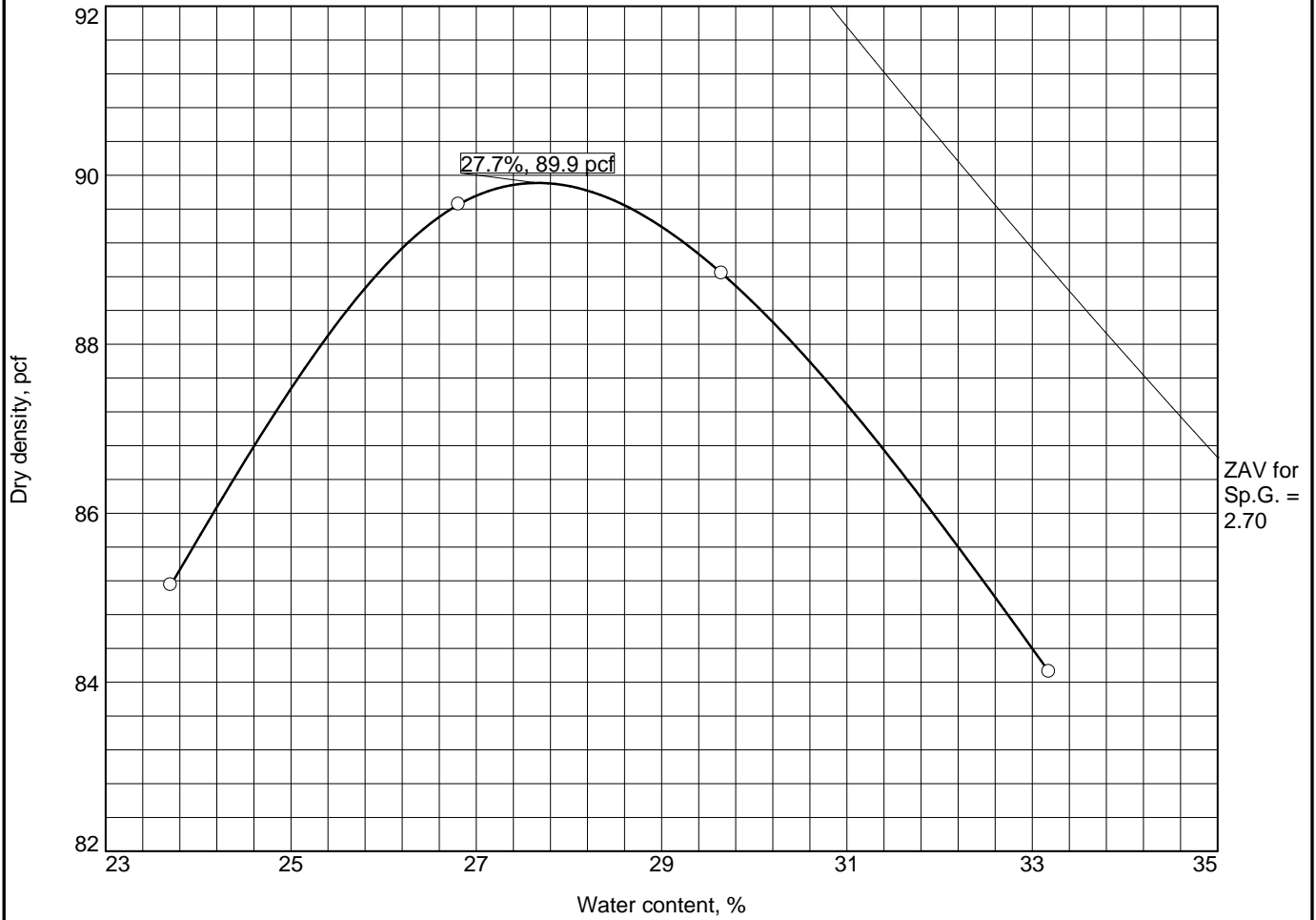
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.15	2.05E-08	<b>1.9E-08</b>
21.00	5.00	10.00	12.78	2.11E-08	
21.00	5.00	15.00	12.50	1.62E-08	
21.00	5.00	20.00	12.23	1.66E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	90.8	Specimen Height, (inches)		3.00	2.99
Opti. M.C., (%)	27.9	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.55
% Recompct.	95.2	Moisture Content, (%)		27.65	33.36
Test Pressures (psi)		Percent Saturation (%)		78.63	95.52
Backpressure	90.00	Wet Mass Density (pcf)		110.32	115.64
Cell pressure	100.00	Dry Mass Density (pcf)		86.42	86.71
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.95	0.94
Specific Gravity	2.70	Calculated Porosity, %		48.70	48.53

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-16				
Sample Location					
Date	6/13/2018      Lab No.      5161				

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

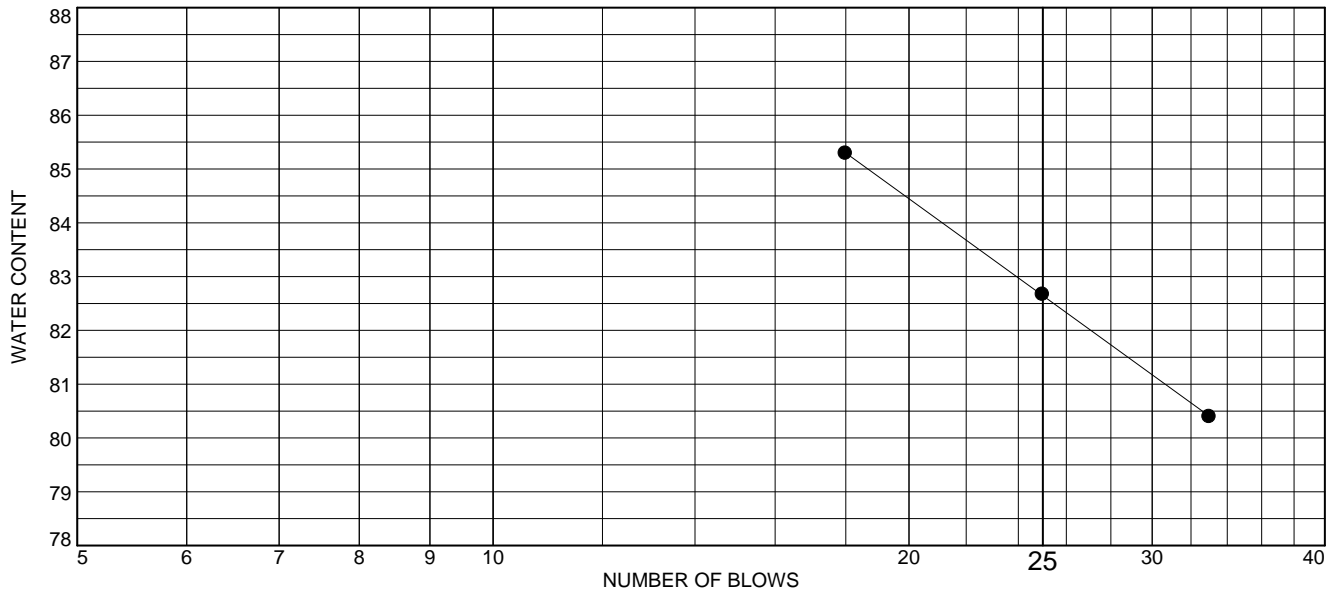
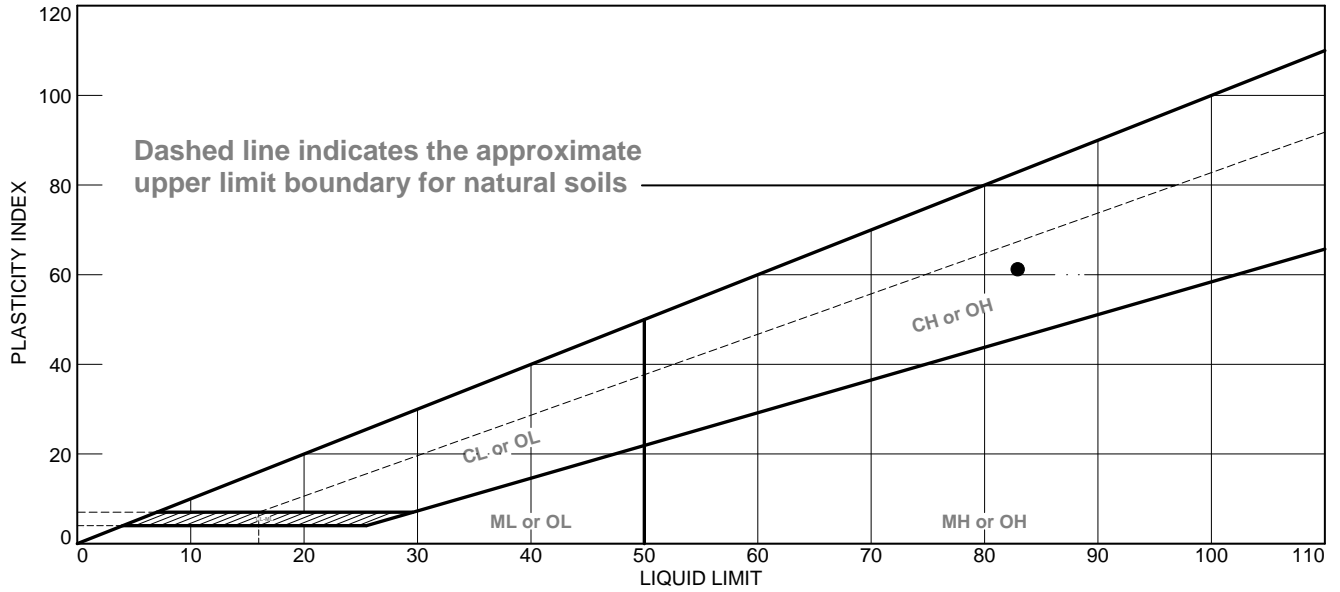
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
0.5'	CH	A-7-6(69)	34.3	2.70	83	61	0	99

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 89.9 pcf Optimum moisture = 27.7 %	BROWN FAT CLAY
<b>Project No.</b> 35177127 <b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR ○ <b>Source of Sample:</b> 5162 <b>Sample Number:</b> BA-18	<b>Remarks:</b>
<b>Terracon, Inc.</b> Cincinnati, Ohio	

**Figure** 5162

**Tested By:** BV \_\_\_\_\_ **Checked By:** GS \_\_\_\_\_

# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● BROWN FAT CLAY	83	22	61	100	99	CH

**Project No.** 35177127      **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 5162      **Depth:** 0.5'  
**Sample Number:** BA-18

**Remarks:**  
 ● WC = 34.3%

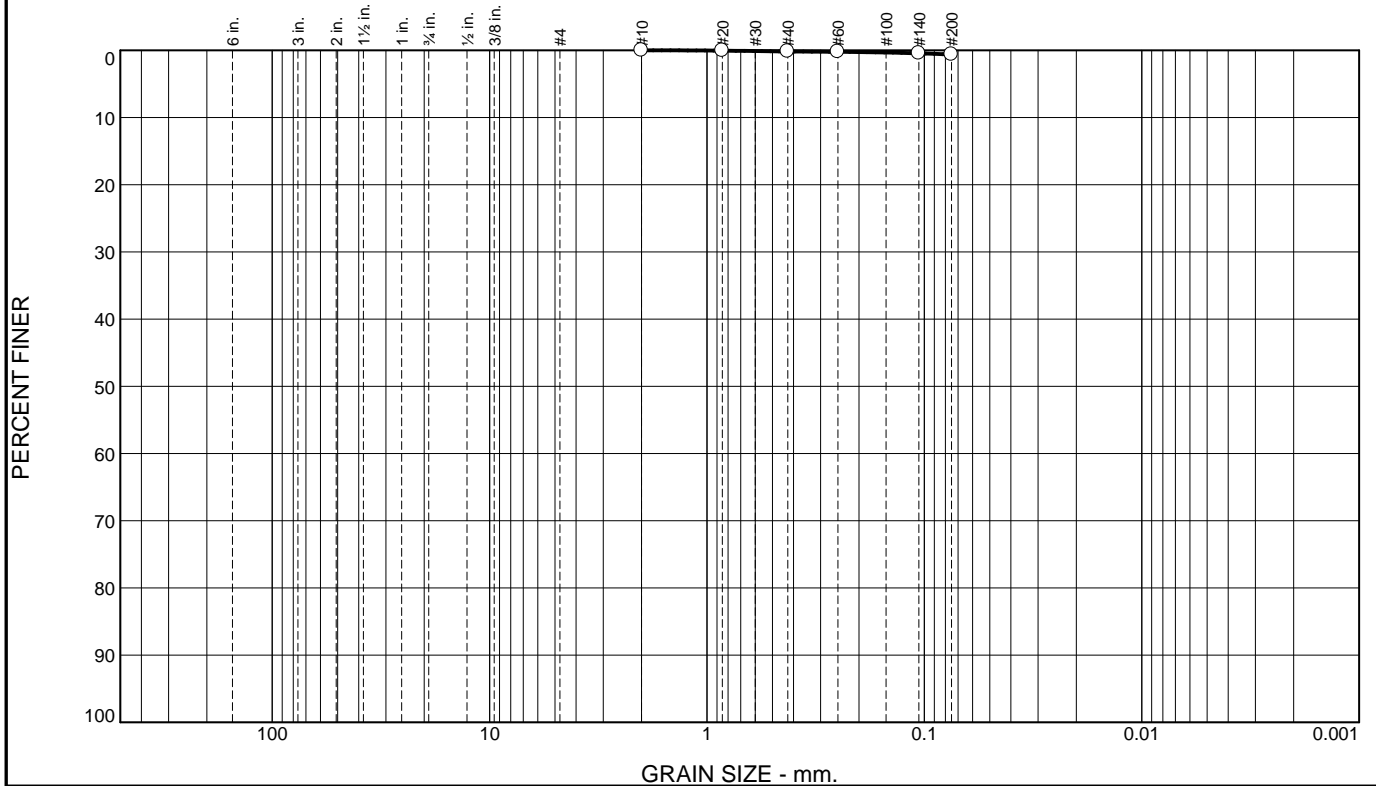
## Terracon, Inc.

Cincinnati, Ohio

**Figure** 5162

**Tested By:** DT \_\_\_\_\_      **Checked By:** GS \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	1	99	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100		
#20	100		
#40	100		
#60	100		
#140	100		
#200	99		

**Material Description**

BROWN FAT CLAY

PL= 22      **Atterberg Limits**      LL= 83      PI= 61

**Coefficients**

D<sub>90</sub>=      D<sub>85</sub>=      D<sub>60</sub>=  
D<sub>50</sub>=      D<sub>30</sub>=      D<sub>15</sub>=  
D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

**Classification**

USCS= CH      AASHTO= A-7-6(69)

**Remarks**

WC = 34.3%

\* (no specification provided)

Source of Sample: 5162  
Sample Number: BA-18

Depth: 0.5'

Date: 7-12-18

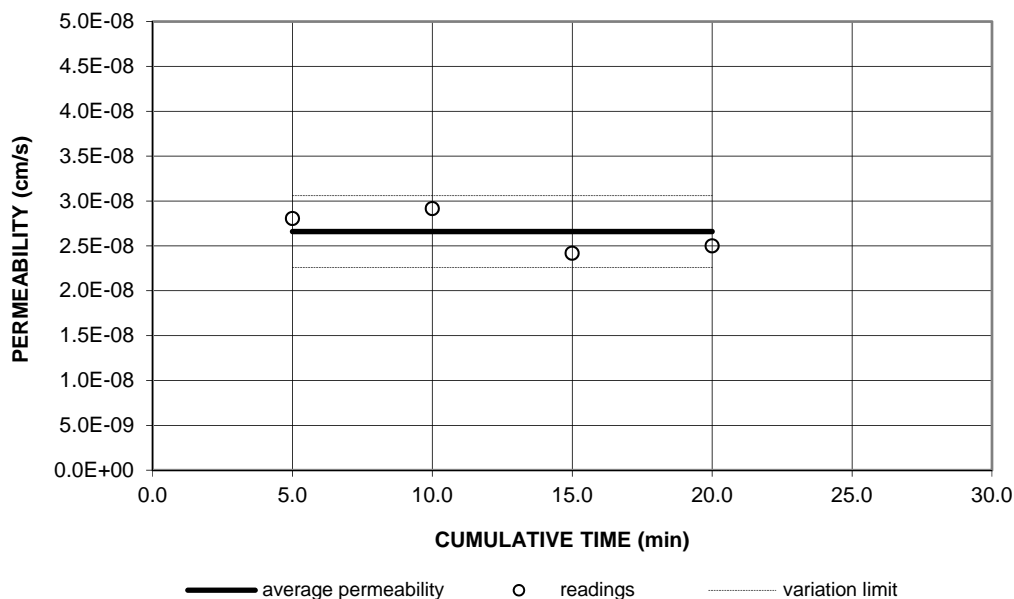
<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<b>Figure</b> 5162	

Tested By: DR

Checked By: GS



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.95	2.80E-08	<b>2.7E-08</b>
21.00	5.00	10.00	11.48	2.92E-08	
21.00	5.00	15.00	11.11	2.42E-08	
21.00	5.00	20.00	10.74	2.50E-08	

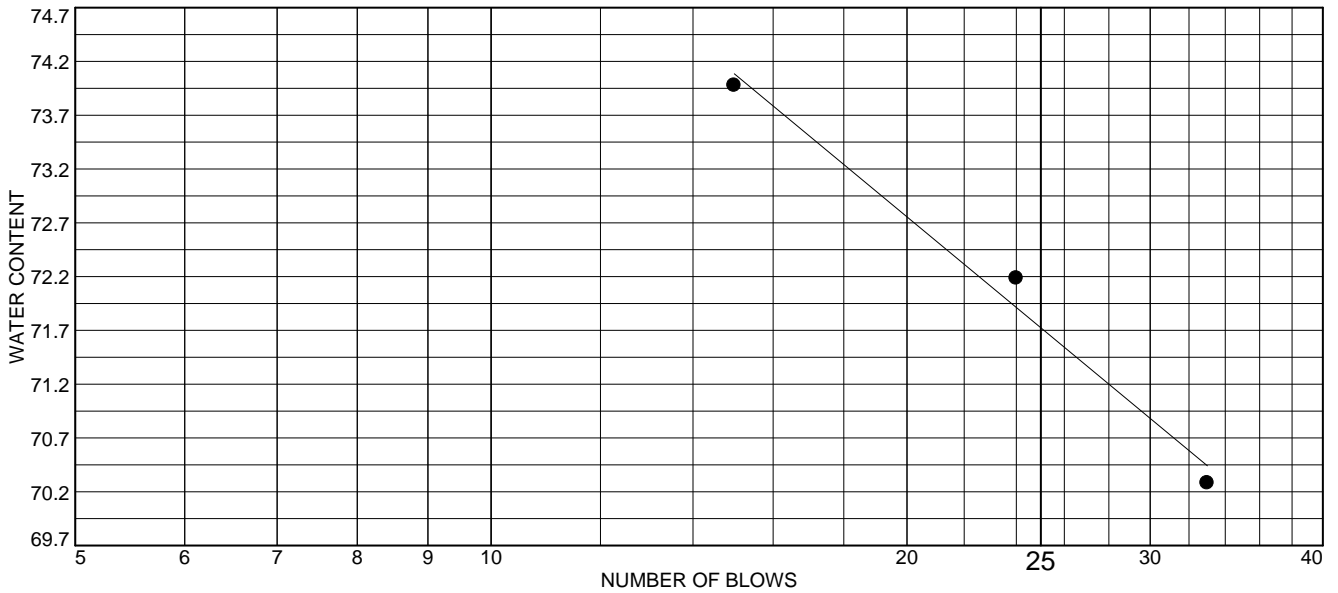
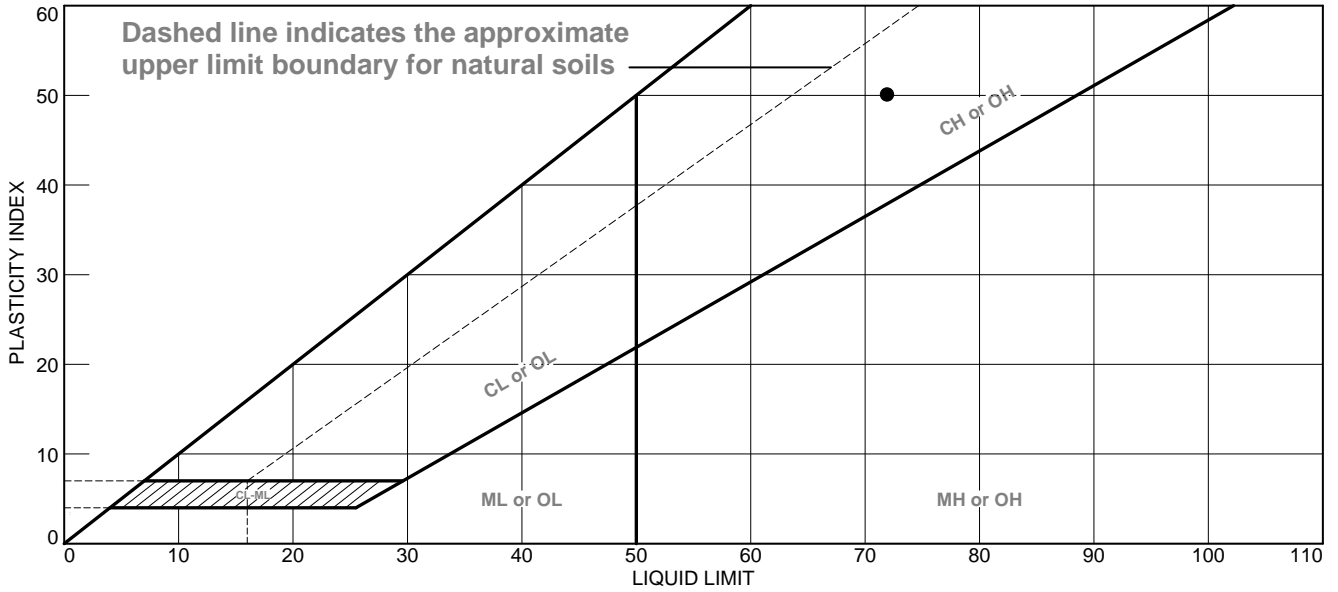
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	89.9	Specimen Height, (inches)		3.00	3.03
Opti. M.C., (%)	27.7	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	38.06
% Recompct.	95.0	Moisture Content, (%)		27.75	34.94
Test Pressures (psi)		Percent Saturation (%)		76.96	94.97
Backpressure	90.00	Wet Mass Density (pcf)		109.06	114.05
Cell pressure	100.00	Dry Mass Density (pcf)		85.37	84.52
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	0.99
Specific Gravity	2.70	Calculated Porosity, %		49.33	49.83

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-18				
Sample Location					
Date	6/13/2018      Lab No.      5162				



# LIQUID AND PLASTIC LIMITS TEST REPORT

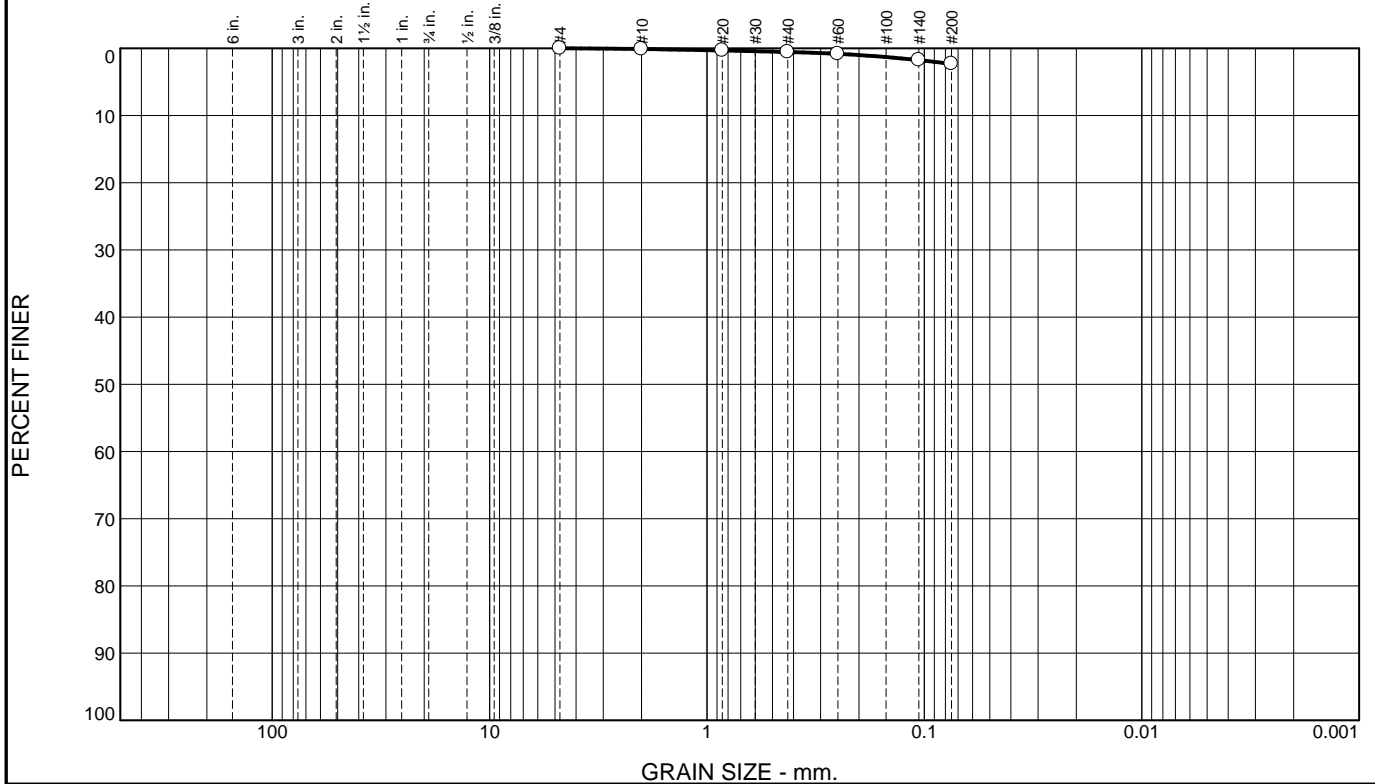


	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	BROWN FAT CLAY	72	22	50	99	98	CH

<b>Project No.</b> 35177127 <b>Client:</b> AMERICAN ELECTRIC POWER <b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR <b>Source of Sample:</b> 5533 <b>Sample Number:</b> BA-19	<b>Remarks:</b> ● WC = 18.6%
<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	
<b>Figure</b> 5533	

**Tested By:** VL \_\_\_\_\_ **Checked By:** GS \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	1	1	98	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100		
#10	100		
#20	100		
#40	99		
#60	99		
#140	98		
#200	98		

**Material Description**

BROWN FAT CLAY

**Atterberg Limits**  
 PL= 22      LL= 72      PI= 50

**Coefficients**  
 D<sub>90</sub>=      D<sub>85</sub>=      D<sub>60</sub>=  
 D<sub>50</sub>=      D<sub>30</sub>=      D<sub>15</sub>=  
 D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

**Classification**  
 USCS= CH      AASHTO= A-7-6(56)

**Remarks**  
 WC = 18.6%

\* (no specification provided)

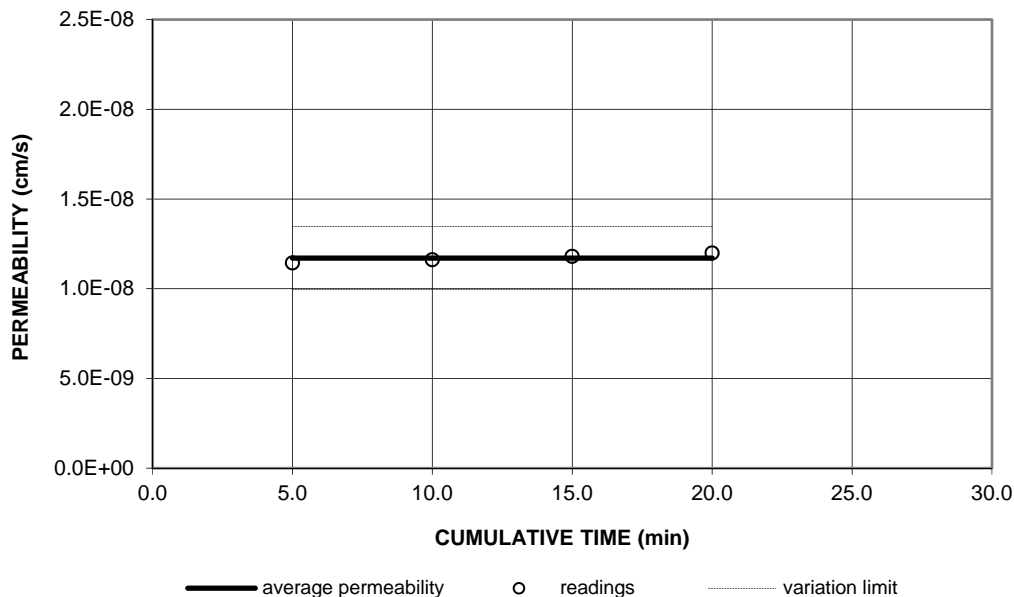
Source of Sample: 5533  
 Sample Number: BA-19

Date: 7-19-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<p><b>Figure</b> 5533</p>	

Tested By: VL      Checked By: GS

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.86	1.14E-08	<b>1.2E-08</b>
21.00	5.00	10.00	11.67	1.16E-08	
21.00	5.00	15.00	11.48	1.18E-08	
21.00	5.00	20.00	11.30	1.20E-08	

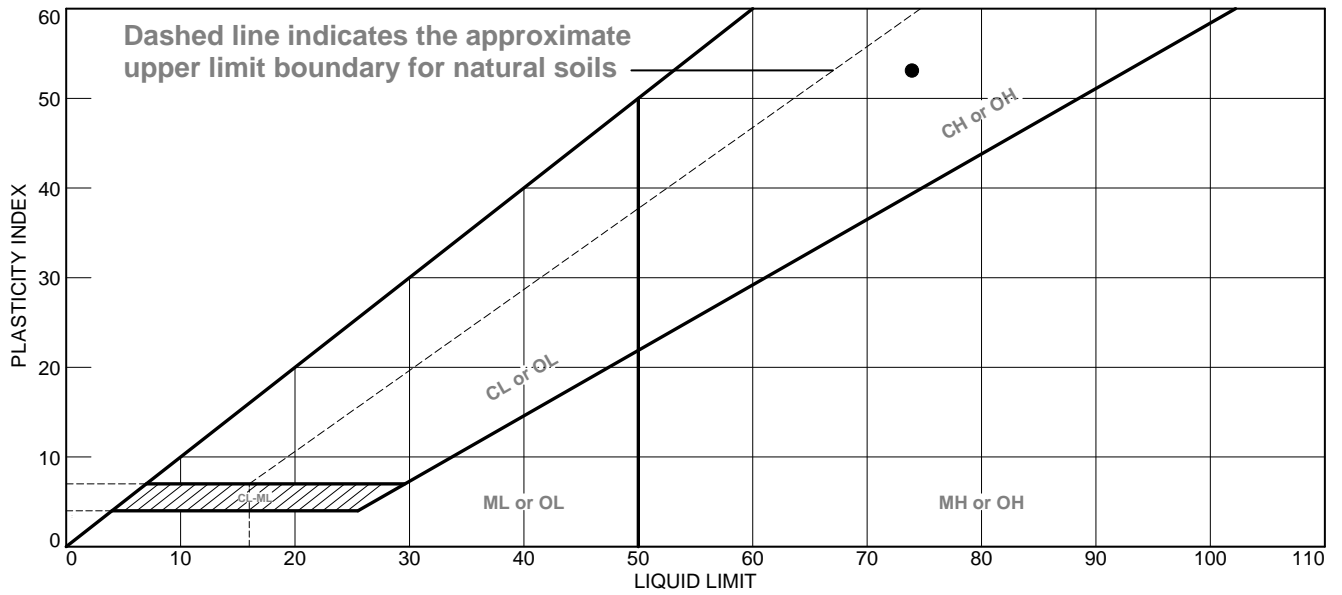
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	95.7	Specimen Height, (inches)		3.00	3.02
Opti. M.C., (%)	24.7	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.93
% Recompct.	95.1	Moisture Content, (%)		24.60	31.28
Test Pressures (psi)		Percent Saturation (%)		77.98	97.73
Backpressure	90.00	Wet Mass Density (pcf)		113.36	118.65
Cell pressure	100.00	Dry Mass Density (pcf)		90.98	90.38
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.85	0.86
Specific Gravity	2.70	Calculated Porosity, %		46.00	46.36

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction			Tested by	FCE	Reviewed by	TGG
Client	AEP	W.O.#	35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-19						
Sample Location							
Date	7/16/2018	Lab No.	5534				



# LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● BROWN FAT CLAY	74	21	53	99	98	CH

**Project No.** 35177127      **Client:** AMERICAN ELECTRIC POWER  
**Project:** TURK CELL 2 AND CELL 1 PARTIAL COVER  
 FULTON, AR  
**Source of Sample:** 5534  
**Sample Number:** BA-20

**Remarks:**

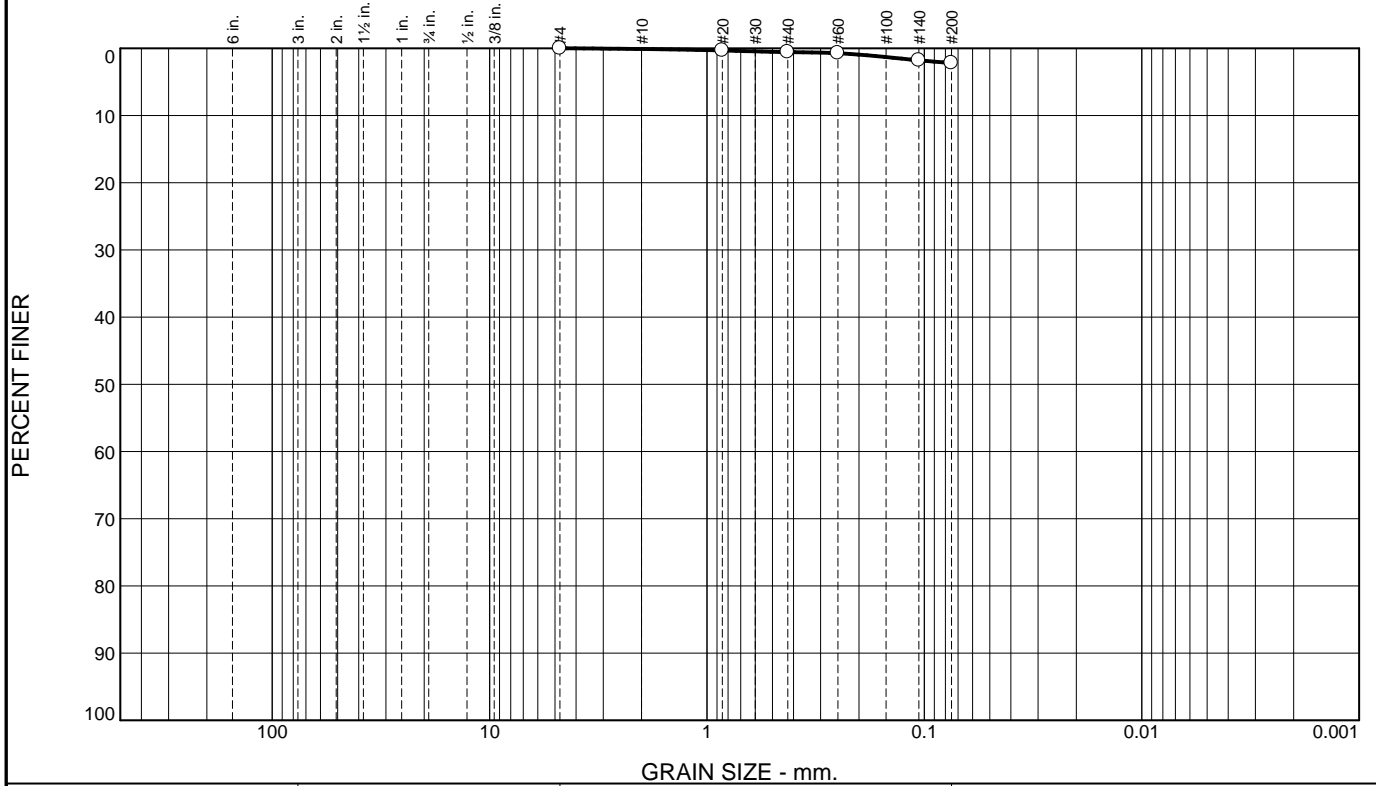
**Terracon, Inc.**

Cincinnati, Ohio

**Figure** 5534

**Tested By:** VL                      **Checked By:** GS

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	1	1	98	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100		
#20	100		
#40	99		
#60	99		
#140	98		
#200	98		

**Material Description**  
BROWN FAT CLAY

**Atterberg Limits**  
 PL= 21      LL= 74      PI= 53

**Coefficients**  
 D<sub>90</sub>=      D<sub>85</sub>=      D<sub>60</sub>=  
 D<sub>50</sub>=      D<sub>30</sub>=      D<sub>15</sub>=  
 D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

**Classification**  
 USCS= CH      AASHTO= A-7-6(59)

**Remarks**

\* (no specification provided)

Source of Sample: 5534  
 Sample Number: BA-20

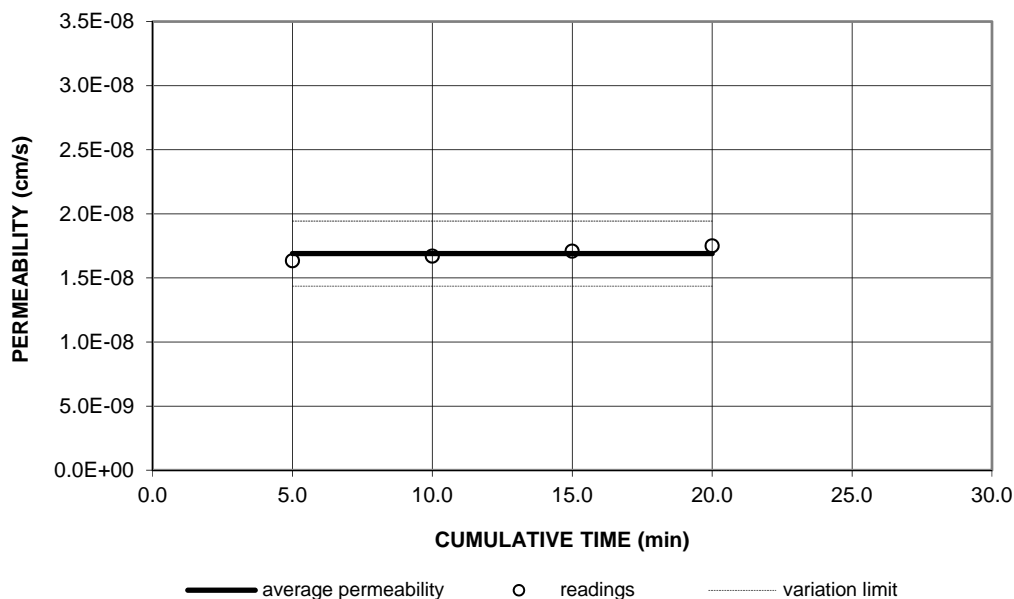
Date: 7-19-18

<b>Terracon, Inc.</b>  Cincinnati, Ohio	Client: AMERICAN ELECTRIC POWER Project: TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR Project No: 35177127
Figure 5534	

Tested By: VL      Checked By: GS



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	
21.00	5.00	5.00	12.41	1.63E-08	<b>1.7E-08</b>
21.00	5.00	10.00	12.13	1.67E-08	
21.00	5.00	15.00	11.86	1.71E-08	
21.00	5.00	20.00	11.58	1.75E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)	94.2	Specimen Height, (inches)		3.00	2.99
Opti. M.C., (%)	24.5	Specimen Diameter, (inches)		4.00	4.00
Comp. Method		Specimen Volume, (cu. In.)		37.68	37.55
% Recompct.	95.1	Moisture Content, (%)		24.35	33.92
Test Pressures (psi)		Percent Saturation (%)		74.67	100.00
Backpressure	90.00	Wet Mass Density (pcf)		111.41	120.39
Cell pressure	100.00	Dry Mass Density (pcf)		89.60	89.90
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.88	0.92
Specific Gravity	2.70	Calculated Porosity, %		46.82	47.80

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	BA-20				
Sample Location					
Date	7/16/2018     Lab No.     5534				

# APPENDIX D FIELD MOISTURE/DENSITY TEST RESULTS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, Arkansas  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
1.30.18	1S	SUB	Cell 2 Floor	N/A	BA-5	111.5	81.2	89.1	91.1	95.0	37.3	28.8	FAIL
2.1.18	1SR	SUB	Cell 2 Floor	N/A	BA-5	114.2	85.2	89.1	95.6	95.0	34.0	28.8	PASS
1.30.18	2S	SUB	Cell 2 Floor	N/A	BA-5	113.1	83.6	89.1	93.8	95.0	35.3	28.8	FAIL
2.1.18	2SR	SUB	Cell 2 Floor	N/A	BA-5	114.2	87.6	89.1	98.3	95.0	30.4	28.8	PASS
1.30.18	3S	SUB	Cell 2 Floor	N/A	BA-5	116.6	88.0	89.1	98.8	95.0	32.5	28.8	PASS
1.31.18	4S	SUB	Cell 2 Floor	N/A	BA-5	113.4	85.8	89.1	96.3	95.0	32.1	28.8	PASS
1.31.18	5S	SUB	Cell 2 Floor	N/A	BA-5	113.5	86.6	89.1	97.2	95.0	31.1	28.8	PASS
2.1.18	6S	SUB	Cell 2 Floor	N/A	BA-4	117.7	89.6	89.4	100.2	95.0	31.4	29.0	PASS
2.1.18	7S	SUB	Cell 2 Floor	N/A	BA-4	115.3	88.1	89.4	98.6	95.0	30.8	29.0	PASS
2.2.18	8S	SUB	Cell 2 Floor	N/A	BA-5	113.6	86.6	89.1	97.2	95.0	31.2	28.8	PASS
2.2.18	9S	SUB	Cell 2 Floor	N/A	BA-5	113.6	84.8	89.1	95.2	95.0	33.9	28.8	PASS
2.2.18	10S	SUB	Cell 2 Floor	N/A	BA-5	117.8	89.7	89.1	100.7	95.0	31.3	28.8	PASS
2.2.18	11S	SUB	Cell 2 Floor	N/A	BA-2	118.0	93.9	95.3	98.5	95.0	25.7	24.6	PASS
2.2.18	12S	SUB	Cell 2 Floor	N/A	BA-4	117.8	87.6	89.4	98.0	95.0	34.4	29.0	PASS
2.2.18	13S	SUB	Cell 2 Floor	N/A	BA-2	117.8	91.0	95.3	95.5	95.0	29.5	24.6	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, Arkansas  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
2.2.18	14S	SUB	Cell 2 Floor	N/A	BA-4	114.6	87.8	89.4	98.2	95.0	30.5	29.0	PASS
2.2.18	15S	SUB	Cell 2 Floor	N/A	BA-2	121.7	96.8	95.3	101.6	95.0	25.7	24.6	PASS
2.2.18	16S	SUB	Cell 2 Floor	N/A	BA-2	117.9	91.2	95.3	95.7	95.0	29.3	24.6	PASS
2.3.18	17S	SUB	Cell 2 Floor	N/A	BA-4	112.7	84.9	89.4	95.0	95.0	32.7	29.0	PASS
2.3.18	18S	SUB	Cell 2 Floor	N/A	BA-4	114.3	86.2	89.4	96.4	95.0	32.6	29.0	PASS
3.13.18	19S	SUB	Cell 2 Floor	N/A	BA-5	113.1	86.3	89.1	96.8	95.0	31.1	28.8	PASS
5.8.18	20S	SUB	Cell 2 Floor	N/A	BA-4	110.8	85.8	89.4	96.0	95.0	29.1	29.0	PASS
5.8.18	21S	SUB	Cell 2 Floor	N/A	BA-4	115.4	90.7	89.4	101.4	95.0	27.3	29.0	PASS
5.8.18	22S	SUB	Cell 2 Floor	N/A	BA-4	113.0	87.3	89.4	97.6	95.0	29.5	29.0	PASS
5.8.18	23S	SUB	Cell 2 Floor	N/A	BA-4	115.1	91.1	89.4	101.9	95.0	26.4	29.0	PASS
5.8.18	24S	SUB	Cell 2 Floor	N/A	BA-4	112.2	88.2	89.4	98.7	95.0	27.2	29.0	PASS
5.8.18	25S	SUB	Cell 2 Floor	N/A	BA-4	111.8	86.9	89.4	97.2	95.0	28.7	29.0	PASS
5.8.18	26S	SUB	Cell 2 Floor	N/A	BA-4	113.7	87.6	89.4	98.0	95.0	29.8	29.0	PASS
5.8.18	27S	SUB	Cell 2 Floor	N/A	BA-4	114.5	88.1	89.4	98.6	95.0	29.9	29.0	PASS
5.8.18	28S	SUB	Cell 2 Floor	N/A	BA-1	125.1	104.3	102.1	102.2	95.0	19.9	19.7	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, Arkansas  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.8.18	29S	SUB	Cell 2 Floor	N/A	BA-1	125.5	105.7	102.1	103.6	95.0	18.7	19.7	PASS
5.8.18	30S	SUB	Cell 2 Floor	N/A	BA-1	123.4	101.1	102.1	99.1	95.0	22.0	19.7	PASS
5.8.18	31S	SUB	Cell 2 Floor	N/A	BA-1	125.4	105.5	102.1	103.3	95.0	18.9	19.7	PASS
5.8.18	32S	SUB	Cell 2 Floor	N/A	BA-4	114.7	88.8	89.4	99.4	95.0	29.1	29.0	PASS
5.8.18	33S	SUB	Cell 2 Floor	N/A	BA-4	115.2	88.8	89.4	99.4	95.0	29.7	29.0	PASS
5.8.18	34S	SUB	Cell 2 Floor	N/A	BA-4	113.9	88.1	89.4	98.5	95.0	29.3	29.0	PASS
5.17.18	35S	SUB	Cell 2 Floor	N/A	BA-4	116.2	98.1	89.4	109.7	95.0	18.5	29.0	FAIL
5.17.18	35SR	SUB	Cell 2 Floor	N/A	BA-4	107.0	87.7	89.4	98.1	95.0	22.0	29.0	PASS
5.17.18	36S	SUB	Cell 2 Floor	N/A	BA-4	109.2	87.9	89.4	98.3	95.0	24.3	29.0	PASS
5.17.18	37S	SUB	Cell 2 Floor	N/A	BA-4	110.6	90.1	89.4	100.7	95.0	22.8	29.0	PASS
5.17.18	38S	SUB	Cell 2 Floor	N/A	BA-4	111.3	90.0	89.4	100.6	95.0	23.7	29.0	PASS
5.30.18	39S	SUB	Cell 2 Floor	N/A	BA-4	113.3	88.4	89.4	98.9	95.0	28.1	29.0	PASS
5.30.18	40S	SUB	Cell 2 Floor	N/A	BA-4	116.7	90.9	89.4	101.7	95.0	28.4	29.0	PASS
5.30.18	41S	SUB	Cell 2 Floor	N/A	BA-4	112.6	89.2	89.4	99.7	95.0	26.3	29.0	PASS
5.30.18	42S	SUB	Cell 2 Floor	N/A	BA-4	118.0	92.3	89.4	103.2	95.0	27.9	29.0	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, Arkansas  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.30.18	43S	SUB	Cell 2 Floor	N/A	BA-4	114.9	89.8	89.4	100.4	95.0	28.0	29.0	PASS
5.30.18	44S	SUB	Cell 2 Floor	N/A	BA-4	115.8	91.3	89.4	102.1	95.0	26.9	29.0	PASS
5.30.18	45S	SUB	Cell 2 Floor	N/A	BA-4	119.2	93.9	89.4	105.0	95.0	27.0	29.0	PASS
5.30.18	46S	SUB	Cell 2 Floor	N/A	BA-6	118.7	95.6	94.0	101.7	95.0	24.2	25.5	PASS
5.30.18	47S	SUB	Cell 2 Floor	N/A	BA-4	113.5	89.7	89.4	100.4	95.0	26.5	29.0	PASS
5.30.18	48S	SUB	Cell 2 Floor	N/A	BA-4	114.3	90.6	89.4	101.4	95.0	26.1	29.0	PASS
5.30.18	49S	SUB	Cell 2 Floor	N/A	BA-4	114.7	91.2	89.4	102.0	95.0	25.8	29.0	PASS
5.30.18	50S	SUB	Cell 2 Floor	N/A	BA-6	120.8	96.4	94.0	102.6	95.0	25.3	25.5	PASS
7.10.18	51S	SUB	Cell 2 Floor	N/A	BA-13	125.6	103.4	103.3	100.1	95.0	21.5	22.6	PASS
7.10.18	52S	SUB	Cell 2 Floor	N/A	BA-6	119.1	94.6	94.0	100.6	95.0	25.9	25.5	PASS
7.10.18	53S	SUB	Cell 2 Floor	N/A	BA-6	119.9	96.0	94.0	102.1	95.0	24.9	25.5	PASS
7.10.18	54S	SUB	Cell 2 Floor	N/A	BA-2	120.1	96.2	95.3	101.0	95.0	24.8	24.6	PASS
7.10.18	55S	SUB	Cell 2 Floor	N/A	BA-13	126.2	106.6	103.3	103.2	95.0	18.4	22.6	PASS
7.10.18	56S	SUB	Cell 2 Floor	N/A	BA-6	119.8	94.0	94.0	100.0	95.0	27.4	25.5	PASS
7.10.18	57S	SUB	Cell 2 Floor	N/A	BA-13	128.1	104.6	103.3	101.2	95.0	22.5	22.6	PASS



# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.8.18	1	1	Cell 2 Floor		BA-4	119.8	91.9	89.4	102.8	95.0	30.4	29.0	PASS
5.8.18	2	1	Cell 2 Floor		BA-4	120.0	92.7	89.4	103.7	95.0	29.4	29.0	PASS
5.8.18	3	1	Cell 2 Floor		BA-4	118.2	90.8	89.4	101.5	95.0	30.2	29.0	PASS
5.8.18	4	1	Cell 2 Floor		BA-4	120.4	92.8	89.4	103.8	95.0	29.8	29.0	PASS
5.8.18	5	1	Cell 2 Floor		BA-4	119.2	91.3	89.4	102.1	95.0	30.6	29.0	PASS
5.8.18	6	1	Cell 2 Floor		BA-4	118.7	91.6	89.4	102.4	95.0	29.6	29.0	PASS
5.8.18	7	1	Cell 2 Floor		BA-4	118.3	91.6	89.4	102.5	95.0	29.1	29.0	PASS
5.8.18	8	1	Cell 2 Floor		BA-4	118.9	91.9	89.4	102.8	95.0	29.4	29.0	PASS
5.8.18	9	1	Cell 2 Floor		BA-4	118.5	90.2	89.4	100.9	95.0	31.4	29.0	PASS
5.8.18	10	1	Cell 2 Floor	P1	BA-4	119.7	91.6	89.4	102.4	95.0	30.7	29.0	PASS
5.8.18	11	1	Cell 2 Floor		BA-6	118.9	94.7	94.0	100.8	95.0	25.5	25.5	PASS
5.8.18	12	1	Cell 2 Floor		BA-6	117.6	91.9	94.0	97.8	95.0	27.9	25.5	PASS
5.9.18	13	2	Cell 2 Floor		BA-4	115.9	89.1	89.4	99.6	95.0	30.1	29.0	PASS
5.9.18	14	2	Cell 2 Floor		BA-4	116.5	89.3	89.4	99.9	95.0	30.4	29.0	PASS



# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.9.18	15	2	Cell 2 Floor		BA-4	117.0	90.7	89.4	101.5	95.0	29.0	29.0	PASS
5.9.18	16	2	Cell 2 Floor	P2	BA-4	116.4	88.5	89.4	99.0	95.0	31.5	29.0	PASS
5.9.18	17	2	Cell 2 Floor		BA-6	119.6	93.6	94.0	99.6	95.0	27.8	25.5	PASS
5.9.18	18	2	Cell 2 Floor		BA-4	114.1	87.1	89.4	97.4	95.0	31.0	29.0	PASS
5.9.18	19	2	Cell 2 Floor		BA-4	117.8	89.7	89.4	100.4	95.0	31.3	29.0	PASS
5.9.18	20	2	Cell 2 Floor		BA-4	116.0	89.1	89.4	99.7	95.0	30.2	29.0	PASS
5.10.18	21	2	Cell 2 Floor	P3	BA-4	112.7	85.3	89.4	95.4	95.0	32.1	29.0	PASS
5.10.18	22	2	Cell 2 Floor		BA-4	114.8	86.6	89.4	96.9	95.0	32.5	29.0	PASS
5.10.18	23	2	Cell 2 Floor		BA-4	119.6	92.0	89.4	102.9	95.0	30.0	29.0	PASS
5.10.18	24	2	Cell 2 Floor		BA-4	115.1	87.9	89.4	98.3	95.0	31.0	29.0	PASS
5.10.18	25	3	Cell 2 Floor	P4	BA-4	115.9	88.2	89.4	98.7	95.0	31.4	29.0	PASS
5.10.18	26	3	Cell 2 Floor		BA-4	117.6	89.6	89.4	100.3	95.0	31.2	29.0	PASS
5.14.18	27	3	Cell 2 Floor		BA-4	116.4	88.4	89.4	98.9	95.0	31.6	29.0	PASS
5.14.18	28	3	Cell 2 Floor		BA-4	115.5	88.7	89.4	99.2	95.0	30.2	29.0	PASS

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**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.15.18	29	3	Cell 2 Floor		BA-4	116.3	89.2	89.4	99.8	95.0	30.4	29.0	PASS
5.15.18	30	3	Cell 2 Floor		BA-4	112.6	85.6	89.4	95.7	95.0	31.6	29.0	PASS
5.15.18	31	3	Cell 2 Floor		BA-4	114.1	85.9	89.4	96.1	95.0	32.8	29.0	PASS
5.15.18	32	3	Cell 2 Floor		BA-4	117.7	91.0	89.4	101.7	95.0	29.4	29.0	PASS
5.15.18	33	3	Cell 2 Floor		BA-4	116.8	89.2	89.4	99.7	95.0	31.0	29.0	PASS
5.15.18	34	3	Cell 2 Floor	P5	BA-4	114.6	85.8	89.4	96.0	95.0	33.5	29.0	PASS
5.15.18	35	3	Cell 2 Floor		BA-4	115.2	87.1	89.4	97.4	95.0	32.3	29.0	PASS
5.15.18	36	3	Cell 2 Floor		BA-4	115.9	88.3	89.4	98.7	95.0	31.3	29.0	PASS
5.15.18	37	4	Cell 2 Floor		BA-4	116.2	87.5	89.4	97.9	95.0	32.8	29.0	PASS
5.15.18	38	4	Cell 2 Floor		BA-4	116.2	86.6	89.4	96.9	95.0	34.2	29.0	PASS
5.15.18	39	4	Cell 2 Floor	P6	BA-4	120.2	92.8	89.4	103.8	95.0	29.5	29.0	PASS
5.15.18	40	4	Cell 2 Floor		BA-4	115.4	87.2	89.4	97.6	95.0	32.3	29.0	PASS
5.16.18	41	4	Cell 2 Floor		BA-4	111.0	86.0	89.4	96.2	95.0	29.0	29.0	PASS
5.16.18	42	4	Cell 2 Floor		BA-4	115.2	86.4	89.4	96.7	95.0	33.3	29.0	PASS

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**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.16.18	43	4	Cell 2 Floor		BA-4	111.7	86.6	89.4	96.9	95.0	29.0	29.0	PASS
5.16.18	44	4	Cell 2 Floor		BA-4	115.7	88.3	89.4	98.8	95.0	31.0	29.0	PASS
5.16.18	45	4	Cell 2 Floor	P7	BA-4	115.6	87.4	89.4	97.7	95.0	32.3	29.0	PASS
5.16.18	46	4	Cell 2 Floor		BA-4	115.3	88.4	89.4	98.9	95.0	30.4	29.0	PASS
5.16.18	47	4	Cell 2 Floor		BA-4	113.3	85.6	89.4	95.8	95.0	32.3	29.0	PASS
5.16.18	48	4	Cell 2 Floor		BA-4	118.8	91.8	89.4	102.7	95.0	29.4	29.0	PASS
5.17.18	49	5	Cell 2 Floor		BA-6	116.4	90.5	94.0	96.3	95.0	28.6	25.5	PASS
5.17.18	50	5	Cell 2 Floor		BA-4	117.3	90.0	89.4	100.7	95.0	30.3	29.0	PASS
5.17.18	51	5	Cell 2 Floor		BA-4	115.8	87.3	89.4	97.6	95.0	32.7	29.0	PASS
5.17.18	52	5	Cell 2 Floor		BA-4	115.3	87.3	89.4	97.7	95.0	32.0	29.0	PASS
5.17.18	53	5	Cell 2 Floor		BA-4	115.1	87.7	89.4	98.1	95.0	31.3	29.0	PASS
5.17.18	54	5	Cell 2 Floor		BA-4	114.9	87.7	89.4	98.1	95.0	31.0	29.0	PASS
5.17.18	55	5	Cell 2 Floor		BA-4	114.3	87.8	89.4	98.2	95.0	30.2	29.0	PASS
5.17.18	56	5	Cell 2 Floor		BA-4	116.2	88.8	89.4	99.4	95.0	30.8	29.0	PASS

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**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.17.18	57	5	Cell 2 Floor		BA-4	113.3	86.5	89.4	96.7	95.0	31.0	29.0	PASS
5.17.18	58	5	Cell 2 Floor		BA-4	114.6	87.9	89.4	98.3	95.0	30.4	29.0	PASS
5.17.18	59	5	Cell 2 Floor		BA-4	114.7	86.4	89.4	96.7	95.0	32.7	29.0	PASS
5.17.18	60	5	Cell 2 Floor		BA-4	115.5	89.3	89.4	99.9	95.0	29.3	29.0	PASS
5.18.18	61	1	Cell 2 Floor		BA-4	113.5	87.8	89.4	98.2	95.0	29.3	29.0	PASS
5.18.18	62	1	Cell 2 Floor		BA-4	110.8	85.7	89.4	95.9	95.0	29.3	29.0	PASS
5.18.18	63	1	Cell 2 Floor	P8	BA-4	115.5	86.1	89.4	96.3	95.0	34.2	29.0	PASS
5.18.18	64	1	Cell 2 Floor		BA-4	114.2	85.4	89.4	95.5	95.0	33.7	29.0	PASS
5.18.18	65	1	Cell 2 Floor		BA-4	116.0	87.8	89.4	98.2	95.0	32.1	29.0	PASS
5.18.18	66	1	Cell 2 Floor		BA-4	113.4	85.6	89.4	95.7	95.0	32.5	29.0	PASS
5.19.18	67	1	Cell 2 Floor	P9	BA-4	117.2	89.9	89.4	100.6	95.0	30.3	29.0	PASS
5.19.18	68	1	Cell 2 Floor		BA-4	114.4	85.6	89.4	95.8	95.0	33.6	29.0	PASS
5.19.18	69	1	Cell 2 Floor		BA-4	118.5	90.3	89.4	101.0	95.0	31.3	29.0	PASS
5.19.18	70	1	Cell 2 Floor		BA-4	121.2	93.2	89.4	104.2	95.0	30.1	29.0	PASS

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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.19.18	71	2	Cell 2 Floor		BA-4	115.7	89.6	89.4	100.2	95.0	29.2	29.0	PASS
5.19.18	72	2	Cell 2 Floor		BA-4	115.6	86.7	89.4	97.0	95.0	33.3	29.0	PASS
5.19.18	73	2	Cell 2 Floor	P10	BA-4	117.9	90.2	89.4	100.9	95.0	30.7	29.0	PASS
5.19.18	74	2	Cell 2 Floor		BA-4	113.4	86.2	89.4	96.5	95.0	31.5	29.0	PASS
5.19.18	75	2	Cell 2 Floor		BA-4	111.9	85.2	89.4	95.3	95.0	31.3	29.0	PASS
5.19.18	76	2	Cell 2 Floor		BA-4	116.8	89.0	89.4	99.5	95.0	31.3	29.0	PASS
5.19.18	77	2	Cell 2 Floor		BA-4	116.3	87.2	89.4	97.6	95.0	33.3	29.0	PASS
5.19.18	78	2	Cell 2 Floor		BA-4	115.0	86.5	89.4	96.8	95.0	32.9	29.0	PASS
5.20.18	79	2	Cell 2 Floor		BA-4	113.7	85.0	89.4	95.1	95.0	33.8	29.0	PASS
5.20.18	80	2	Cell 2 Floor		BA-4	114.1	87.6	89.4	97.9	95.0	30.3	29.0	PASS
5.20.18	81	3	Cell 2 Floor		BA-4	118.5	91.2	89.4	102.0	95.0	29.9	29.0	PASS
5.20.18	82	3	Cell 2 Floor		BA-4	114.0	86.3	89.4	96.5	95.0	32.1	29.0	PASS
5.20.18	83	3	Cell 2 Floor		BA-6	116.5	92.2	94.0	98.1	95.0	26.3	25.5	PASS
5.20.18	84	3	Cell 2 Floor	P11	BA-6	120.4	95.0	94.0	101.1	95.0	26.7	25.5	PASS

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(501) 847-9292

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**Contractor:** SFC

**Technician:** Matt Acree  
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**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.20.18	85	3	Cell 2 Floor		BA-6	117.1	91.3	94.0	97.2	95.0	28.2	25.5	PASS
5.20.18	86	3	Cell 2 Floor		BA-6	116.7	90.3	94.0	96.0	95.0	29.3	25.5	PASS
5.21.18	87	3	Cell 2 Floor		BA-6	118.3	92.3	94.0	98.2	95.0	28.1	25.5	PASS
5.21.18	88	3	Cell 2 Floor	P12	BA-6	116.5	89.5	94.0	95.3	95.0	30.1	25.5	PASS
5.21.18	89	3	Cell 2 Floor		BA-6	118.3	93.1	94.0	99.0	95.0	27.1	25.5	PASS
5.22.18	90	3	Cell 2 Floor		BA-6	118.0	90.6	94.0	96.4	95.0	30.2	25.5	PASS
5.22.18	91	4	Cell 2 Floor		BA-6	116.7	91.0	94.0	96.8	95.0	28.2	25.5	PASS
5.22.18	92	4	Cell 2 Floor		BA-6	118.3	94.0	94.0	100.0	95.0	25.8	25.5	PASS
5.22.18	93	4	Cell 2 Floor	P13	BA-6	118.4	91.1	94.0	97.0	95.0	29.9	25.5	PASS
5.22.18	94	4	Cell 2 Floor		BA-4	114.1	87.2	89.4	97.6	95.0	30.8	29.0	PASS
5.28.18	95	4	Cell 2 Floor		BA-4	116.1	87.9	89.4	98.3	95.0	32.1	29.0	PASS
5.28.18	96	4	Cell 2 Floor		BA-4	113.6	85.5	89.4	95.7	95.0	32.8	29.0	PASS
5.28.18	97	4	Cell 2 Floor		BA-4	113.0	85.1	89.4	95.2	95.0	32.8	29.0	PASS
5.28.18	98	4	Cell 2 Floor	P14	BA-4	116.4	87.6	89.4	98.0	95.0	32.9	29.0	PASS

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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.29.18	99	4	Cell 2 Floor		BA-4	114.0	86.4	89.4	96.6	95.0	32.0	29.0	PASS
5.29.18	100	4	Cell 2 Floor	P15	BA-4	117.3	90.6	89.4	101.3	95.0	29.5	29.0	PASS
5.29.18	101	5	Cell 2 Floor		BA-4	118.3	91.1	89.4	101.9	95.0	29.9	29.0	PASS
5.29.18	102	5	Cell 2 Floor		BA-4	118.0	90.6	89.4	101.3	95.0	30.3	29.0	PASS
5.29.18	103	5	Cell 2 Floor		BA-4	117.3	89.6	89.4	100.2	95.0	30.9	29.0	PASS
5.29.18	104	5	Cell 2 Floor		BA-4	116.1	89.2	89.4	99.8	95.0	30.1	29.0	PASS
5.29.18	105	5	Cell 2 Floor		BA-4	117.1	87.4	89.4	97.7	95.0	34.0	29.0	PASS
5.29.18	106	5	Cell 2 Floor		BA-4	113.8	85.4	89.4	95.6	95.0	33.2	29.0	PASS
5.30.18	107	5	Cell 2 Floor		BA-4	116.4	88.4	89.4	98.9	95.0	31.6	29.0	PASS
5.30.18	108	5	Cell 2 Floor		BA-4	116.2	87.0	89.4	97.3	95.0	33.6	29.0	PASS
5.30.18	109	5	Cell 2 Floor		BA-4	115.9	87.7	89.4	98.1	95.0	32.1	29.0	PASS
5.30.18	110	5	Cell 2 Floor		BA-4	114.7	88.0	89.4	98.5	95.0	30.3	29.0	PASS
5.31.18	111	1	Cell 2 Floor		BA-4	116.6	89.6	89.4	100.2	95.0	30.2	29.0	PASS
5.31.18	112	1	Cell 2 Floor		BA-4	113.4	86.2	89.4	96.4	95.0	31.6	29.0	PASS

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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
5.31.18	113	1	Cell 2 Floor		BA-4	115.2	88.5	89.4	99.0	95.0	30.1	29.0	PASS
5.31.18	114	1	Cell 2 Floor	P16	BA-4	116.4	87.6	89.4	98.0	95.0	32.9	29.0	PASS
5.31.18	115	1	Cell 2 Floor	P17	BA-4	116.7	90.3	89.4	101.0	95.0	29.2	29.0	PASS
5.31.18	116	1	Cell 2 Floor		BA-4	117.2	91.7	89.4	102.6	95.0	27.8	29.0	FAIL
5.31.18	116R	1	Cell 2 Floor	P18	BA-4	113.6	86.9	89.4	97.2	95.0	30.7	29.0	PASS
5.31.18	117	1	Cell 2 Floor		BA-4	115.3	87.5	89.4	97.9	95.0	31.7	29.0	PASS
5.31.18	118	1	Cell 2 Floor		BA-4	114.2	87.6	89.4	98.0	95.0	30.3	29.0	PASS
5.31.18	119	1	Cell 2 Floor		BA-4	117.4	90.4	89.4	101.1	95.0	29.9	29.0	PASS
5.31.18	120	1	Cell 2 Floor	P19	BA-4	111.9	85.2	89.4	95.3	95.0	31.4	29.0	PASS
5.31.18	121	1	Cell 2 Floor	P20	BA-4	113.3	85.2	89.4	95.3	95.0	33.0	29.0	PASS
5.31.18	122	1	Cell 2 Floor	P21	BA-4	115.7	88.9	89.4	99.4	95.0	30.2	29.0	PASS
6.1.18	123	2	Cell 2 Floor	P22	BA-4	113.4	86.0	89.4	96.2	95.0	31.8	29.0	PASS
6.1.18	124	2	Cell 2 Floor	P23	BA-4	115.8	87.9	89.4	98.3	95.0	31.8	29.0	PASS
6.1.18	125	2	Cell 2 Floor	P24	BA-4	116.6	89.7	89.4	100.3	95.0	30.0	29.0	PASS



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**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.1.18	126	2	Cell 2 Floor		BA-4	114.2	87.2	89.4	97.6	95.0	30.9	29.0	PASS
6.1.18	127	2	Cell 2 Floor		BA-4	112.8	86.9	89.4	97.2	95.0	29.8	29.0	PASS
6.1.18	128	2	Cell 2 Floor		BA-4	112.7	85.8	89.4	95.9	95.0	31.4	29.0	PASS
6.1.18	129	2	Cell 2 Floor		BA-4	116.4	86.7	89.4	96.9	95.0	34.3	29.0	PASS
6.1.18	130	2	Cell 2 Floor		BA-4	114.9	88.9	89.4	99.5	95.0	29.2	29.0	PASS
6.2.18	131	2	Cell 2 Floor		BA-4	116.7	88.9	89.4	99.5	95.0	31.2	29.0	PASS
6.2.18	132	2	Cell 2 Floor		BA-4	114.9	87.1	89.4	97.4	95.0	31.9	29.0	PASS
6.2.18	133	2	Cell 2 Floor		BA-4	116.1	89.0	89.4	99.5	95.0	30.5	29.0	PASS
6.2.18	134	2	Cell 2 Floor		BA-4	116.1	87.3	89.4	97.6	95.0	33.0	29.0	PASS
6.2.18	135	2	Cell 2 Floor		BA-4	112.6	87.1	89.4	97.4	95.0	29.3	29.0	PASS
6.2.18	136	2	Cell 2 Floor	P25	BA-4	115.8	89.0	89.4	99.6	95.0	30.1	29.0	PASS
6.2.18	137	2	Cell 2 Floor	P26	BA-4	113.0	85.7	89.4	95.8	95.0	31.9	29.0	PASS
6.2.18	138	2	Cell 2 Floor	P27	BA-4	115.8	89.1	89.4	99.7	95.0	29.9	29.0	PASS
6.2.18	139	3	Cell 2 Floor	P28	BA-4	115.5	88.6	89.4	99.1	95.0	30.4	29.0	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
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**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.2.18	140	3	Cell 2 Floor	P29	BA-4	116.2	88.6	89.4	99.1	95.0	31.1	29.0	PASS
6.2.18	141	3	Cell 2 Floor	P30	BA-4	116.9	90.5	89.4	101.2	95.0	29.2	29.0	PASS
6.2.18	142	3	Cell 2 Floor		BA-4	113.2	86.3	89.4	96.6	95.0	31.1	29.0	PASS
6.2.18	143	3	Cell 2 Floor		BA-4	112.7	85.4	89.4	95.6	95.0	31.9	29.0	PASS
6.2.18	144	3	Cell 2 Floor		BA-4	114.2	87.7	89.4	98.1	95.0	30.2	29.0	PASS
6.2.18	145	3	Cell 2 Floor		BA-4	114.9	87.8	89.4	98.2	95.0	30.9	29.0	PASS
6.2.18	146	3	Cell 2 Floor		BA-4	114.7	87.6	89.4	97.9	95.0	31.0	29.0	PASS
6.3.18	147	3	Cell 2 Floor		BA-5	116.8	88.7	89.1	99.5	95.0	31.7	28.8	PASS
6.3.18	148	3	Cell 2 Floor	P31	BA-5	117.0	89.3	89.1	100.2	95.0	31.0	28.8	PASS
6.3.18	149	3	Cell 2 Floor		BA-5	115.8	86.4	89.1	97.0	95.0	34.0	28.8	PASS
6.3.18	150	3	Cell 2 Floor	P32	BA-5	117.0	89.6	89.1	100.5	95.0	30.6	28.8	PASS
6.3.18	151	3	Cell 2 Floor		BA-5	115.1	86.0	89.1	96.5	95.0	33.9	28.8	PASS
6.3.18	152	3	Cell 2 Floor	P33	BA-5	118.2	90.3	89.1	101.3	95.0	30.9	28.8	PASS
6.3.18	153	3	Cell 2 Floor		BA-5	115.0	88.4	89.1	99.2	95.0	30.1	28.8	PASS

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6.3.18	154	3	Cell 2 Floor	P34	BA-5	115.8	89.7	89.1	100.7	95.0	29.1	28.8	PASS
6.3.18	155	4	Cell 2 Floor	P35	BA-5	114.8	87.0	89.1	97.7	95.0	31.9	28.8	PASS
6.3.18	156	4	Cell 2 Floor	P36	BA-5	114.8	88.7	89.1	99.6	95.0	29.4	28.8	PASS
6.3.18	157	4	Cell 2 Floor		BA-5	114.2	85.5	89.1	96.0	95.0	33.5	28.8	PASS
6.3.18	158	4	Cell 2 Floor		BA-5	116.0	88.2	89.1	99.0	95.0	31.5	28.8	PASS
6.4.18	159	4	Cell 2 Floor		BA-4	116.2	88.4	89.4	98.9	95.0	31.4	29.0	PASS
6.4.18	160	4	Cell 2 Floor		BA-4	111.9	85.4	89.4	95.5	95.0	31.0	29.0	PASS
6.4.18	161	4	Cell 2 Floor		BA-4	114.9	87.1	89.4	97.4	95.0	31.9	29.0	PASS
6.4.18	162	4	Cell 2 Floor	P37	BA-4	114.6	87.8	89.4	98.2	95.0	30.5	29.0	PASS
6.4.18	163	4	Cell 2 Floor	P38	BA-4	112.6	85.4	89.4	95.5	95.0	31.9	29.0	PASS
6.4.18	164	4	Cell 2 Floor		BA-4	113.5	86.5	89.4	96.8	95.0	31.2	29.0	PASS
6.4.18	165	4	Cell 2 Floor		BA-4	114.0	87.0	89.4	97.3	95.0	31.1	29.0	PASS
6.4.18	166	4	Cell 2 Floor	P39	BA-4	113.8	85.1	89.4	95.2	95.0	33.7	29.0	PASS
6.4.18	167	4	Cell 2 Floor		BA-4	113.1	85.2	89.4	95.3	95.0	32.8	29.0	PASS

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**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.4.18	168	4	Cell 2 Floor	P40	BA-4	113.1	85.5	89.4	95.6	95.0	32.3	29.0	PASS
6.4.18	169	4	Cell 2 Floor		BA-4	114.9	88.2	89.4	98.6	95.0	30.3	29.0	PASS
6.4.18	170	4	Cell 2 Floor		BA-4	114.0	87.0	89.4	97.3	95.0	31.0	29.0	PASS
6.5.18	171	5	Cell 2 Floor		BA-4	113.6	85.7	89.4	95.9	95.0	32.5	29.0	PASS
6.5.18	172	5	Cell 2 Floor		BA-4	114.3	88.4	89.4	98.9	95.0	29.3	29.0	PASS
6.5.18	173	5	Cell 2 Floor		BA-4	115.2	88.3	89.4	98.7	95.0	30.5	29.0	PASS
6.5.18	174	5	Cell 2 Floor		BA-6	114.8	89.7	94.0	95.4	95.0	28.0	25.5	PASS
6.5.18	175	5	Cell 2 Floor		BA-4	114.3	88.3	89.4	98.7	95.0	29.5	29.0	PASS
6.5.18	176	5	Cell 2 Floor		BA-4	114.3	88.5	89.4	99.0	95.0	29.1	29.0	PASS
6.5.18	177	5	Cell 2 Floor		BA-6	117.3	92.3	94.0	98.2	95.0	27.1	25.5	PASS
6.5.18	178	5	Cell 2 Floor		BA-5	114.5	88.8	89.1	99.7	95.0	28.9	28.8	PASS
6.6.18	179	1	South Berm		BA-6	116.5	91.5	94.0	97.4	95.0	27.3	25.5	PASS
6.6.18	180	1	South Berm	P41	BA-6	117.0	92.1	94.0	98.0	95.0	27.0	25.5	PASS
6.6.18	181	1	South Berm		BA-6	116.7	91.8	94.0	97.7	95.0	27.1	25.5	PASS

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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.6.18	182	5	Cell 2 Floor		BA-1	123.0	100.2	102.1	98.1	95.0	22.8	19.7	PASS
6.6.18	183	5	Cell 2 Floor		BA-1	121.5	97.9	102.1	95.9	95.0	24.1	19.7	PASS
6.6.18	184	5	Cell 2 Floor		BA-6	114.5	90.7	94.0	96.5	95.0	26.2	25.5	PASS
6.6.18	185	5	Cell 2 Floor		BA-6	119.2	94.8	94.0	100.9	95.0	25.7	25.5	PASS
6.6.18	186	5	Cell 2 Floor		BA-1	120.0	97.6	102.1	95.6	95.0	22.9	19.7	PASS
6.6.18	187	5	Cell 2 Floor		BA-6	115.2	91.2	94.0	97.0	95.0	26.3	25.5	PASS
6.6.18	188	5	Cell 2 Floor		BA-6	119.6	94.9	94.0	101.0	95.0	26.0	25.5	PASS
6.6.18	189	5	Cell 2 Floor		BA-6	117.0	92.8	94.0	98.7	95.0	26.1	25.5	PASS
6.6.18	190	2	South Berm		BA-1	121.3	100.2	102.1	98.1	95.0	21.1	19.7	PASS
6.6.18	191	2	South Berm		BA-1	119.7	97.1	102.1	95.1	95.0	23.3	19.7	PASS
6.6.18	192	2	South Berm	P42	BA-6	116.6	92.1	94.0	98.0	95.0	26.6	25.5	PASS
6.6.18	193	3	South Berm	P43	BA-6	115.3	91.1	94.0	97.0	95.0	26.5	25.5	PASS
6.6.18	194	3	South Berm		BA-6	120.2	94.9	94.0	101.0	95.0	26.6	25.5	PASS
6.6.18	195	3	South Berm		BA-6	120.4	95.9	94.0	102.0	95.0	25.6	25.5	PASS

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6.7.18	196	4	South Berm		BA-6	118.2	93.1	94.0	99.0	95.0	27.0	25.5	PASS
6.7.18	197	4	South Berm	P44	BA-6	119.3	94.7	94.0	100.7	95.0	26.0	25.5	PASS
6.7.18	198	4	South Berm		BA-6	118.9	94.0	94.0	100.0	95.0	26.5	25.5	PASS
6.7.18	199	1	West Berm		BA-1	119.6	98.0	102.1	96.0	95.0	22.0	19.7	PASS
6.7.18	200	1	West Berm		BA-4	113.1	87.3	89.4	97.6	95.0	29.6	29.0	PASS
6.7.18	201	1	West Berm		BA-1	122.0	99.0	102.1	97.0	95.0	23.2	19.7	PASS
6.7.18	202	5	South Berm		BA-6	117.0	91.3	94.0	97.2	95.0	28.1	25.5	PASS
6.7.18	203	5	South Berm		BA-6	115.8	89.4	94.0	95.1	95.0	29.5	25.5	PASS
6.8.18	204	1	West Berm	P-45	BA-1	123.2	99.1	102.1	97.1	95.0	24.3	19.7	PASS
6.8.18	205	2	West Berm		BA-1	120.9	98.9	102.1	96.9	95.0	22.2	19.7	PASS
6.8.18	206	2	West Berm	P-46	BA-1	120.6	97.7	102.1	95.7	95.0	23.4	19.7	PASS
6.9.18	207	2	West Berm		BA-6	119.4	95.1	94.0	101.1	95.0	25.6	25.5	PASS
6.9.18	208	2	West Berm		BA-6	118.8	94.3	94.0	100.3	95.0	26.0	25.5	PASS
6.9.18	209	3	West Berm		BA-1	120.3	98.5	102.1	96.5	95.0	22.1	19.7	PASS

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6.9.18	210	3	West Berm		BA-1	120.5	97.3	102.1	95.3	95.0	23.8	19.7	PASS
6.9.18	211	3	West Berm	P47	BA-1	121.9	98.1	102.1	96.1	95.0	24.2	19.7	PASS
6.9.18	212	3	West Berm		BA-6	115.6	91.5	94.0	97.3	95.0	26.4	25.5	PASS
6.9.18	213	3	West Berm		BA-1	120.9	97.5	102.1	95.5	95.0	24.0	19.7	PASS
6.11.18	214	4	West Berm		BA-6	116.5	92.6	94.0	98.5	95.0	25.8	25.5	PASS
6.11.18	215	4	West Berm		BA-6	115.7	91.3	94.0	97.1	95.0	26.7	25.5	PASS
6.11.18	216	4	West Berm		BA-6	118.6	94.3	94.0	100.3	95.0	25.8	25.5	PASS
6.11.18	217	4	West Berm	P-48	BA-2	119.6	95.8	95.3	100.6	95.0	24.8	24.6	PASS
6.11.18	218	4	West Berm		BA-2	113.5	90.6	95.3	95.0	95.0	25.3	24.6	PASS
6.11.18	219	4	West Berm		BA-2	116.3	92.3	95.3	96.9	95.0	26.0	24.6	PASS
6.11.18	220	4	West Berm		BA-2	117.3	93.4	95.3	98.0	95.0	25.6	24.6	PASS
6.11.18	221	4	West Berm		BA-2	117.4	93.8	95.3	98.5	95.0	25.1	24.6	PASS
6.11.18	222	4	West Berm	P-49	BA-2	116.1	92.4	95.3	96.9	95.0	25.7	24.6	PASS
6.11.18	223	4	West Berm		BA-2	116.7	93.5	95.3	98.1	95.0	24.8	24.6	PASS

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6.12.18	224	5	West Berm		BA-1	118.8	97.3	102.1	95.3	95.0	22.1	19.7	PASS
6.12.18	225	5	West Berm		BA-1	122.5	100.0	102.1	97.9	95.0	22.5	19.7	PASS
6.12.18	226	5	West Berm		BA-2	117.0	93.2	95.3	97.7	95.0	25.6	24.6	PASS
6.12.18	227	5	West Berm		BA-1	122.5	99.2	102.1	97.2	95.0	23.5	19.7	PASS
6.12.18	228	5	West Berm		BA-1	123.0	100.9	102.1	98.8	95.0	21.9	19.7	PASS
6.12.18	229	5	West Berm		BA-2	118.4	94.5	95.3	99.2	95.0	25.3	24.6	PASS
6.12.18	230	5	West Berm		BA-2	118.1	94.3	95.3	98.9	95.0	25.3	24.6	PASS
6.12.18	231	5	West Berm		BA-2	117.2	93.8	95.3	98.5	95.0	24.9	24.6	PASS
6.12.18	232	5	West Berm		BA-1	123.9	101.1	102.1	99.0	95.0	22.6	19.7	PASS
6.13.18	233	1	West Berm		BA-2	114.8	90.8	95.3	95.3	95.0	26.4	24.6	PASS
6.13.18	234	1	West Berm		BA-1	120.6	98.4	102.1	96.4	95.0	22.5	19.7	PASS
6.13.18	235	1	West Berm		BA-2	115.6	91.9	95.3	96.4	95.0	25.8	24.6	PASS
6.13.18	236	2	West Berm		BA-2	115.7	90.7	95.3	95.1	95.0	27.6	24.6	PASS
6.13.18	237	2	West Berm		BA-2	119.8	94.9	95.3	99.6	95.0	26.2	24.6	PASS



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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.13.18	238	2	West Berm		BA-2	119.9	95.9	95.3	100.7	95.0	25.0	24.6	PASS
6.13.18	239	1	West Berm		BA-2	115.3	91.5	95.3	96.0	95.0	26.0	24.6	PASS
6.13.18	240	1	West Berm		BA-1	121.9	98.9	102.1	96.9	95.0	23.2	19.7	PASS
6.13.18	241	3	West Berm		BA-1	119.7	98.1	102.1	96.1	95.0	22.0	19.7	PASS
6.13.18	242	3	West Berm		BA-2	115.3	91.2	95.3	95.7	95.0	26.4	24.6	PASS
6.13.18	243	3	West Berm		BA-2	120.5	96.2	95.3	101.0	95.0	25.2	24.6	PASS
6.13.18	244	2	West Berm		BA-2	118.9	95.4	95.3	100.1	95.0	24.6	24.6	PASS
6.13.18	245	2	West Berm		BA-1	120.6	97.7	102.1	95.7	95.0	23.4	19.7	PASS
6.13.18	246	2	West Berm		BA-2	117.6	93.3	95.3	97.9	95.0	26.0	24.6	PASS
6.19.18	247	1	East Berm/Tie-in		BA-1	122.3	100.2	102.1	98.2	95.0	22.0	19.7	PASS
6.19.18	248	1	East Berm/Tie-in	P-50	BA-1	124.3	100.3	102.1	98.3	95.0	23.9	19.7	PASS
6.19.18	249	1	East Berm/Tie-in		BA-2	119.8	94.7	95.3	99.4	95.0	26.5	24.6	PASS
6.19.18	250	2	East Berm/Tie-in		BA-2	120.4	95.8	95.3	100.5	95.0	25.7	24.6	PASS
6.19.18	251	2	East Berm/Tie-in		BA-2	117.7	93.2	95.3	97.8	95.0	26.3	24.6	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.19.18	252	2	East Berm/Tie-in	P-51	BA-2	121.1	95.6	95.3	100.3	95.0	26.7	24.6	PASS
6.19.18	253	3	West Berm		BA-2	118.7	93.8	95.3	98.5	95.0	26.5	24.6	PASS
6.19.18	254	3	West Berm		BA-4	113.7	85.4	89.4	95.5	95.0	33.2	29.0	PASS
6.19.18	255	3	West Berm		BA-4	112.5	85.4	89.4	95.5	95.0	31.8	29.0	PASS
6.20.18	256	3	East Berm/Tie-in		BA-4	111.3	80.8	89.4	90.3	95.0	37.8	29.0	FAIL
6.23.18	256R	3	East Berm/Tie-in		BA-4	114.6	85.4	89.4	95.5	95.0	34.2	29.0	PASS
6.23.18	257	3	East Berm/Tie-in		BA-4	116.1	89.4	89.4	100.0	95.0	29.9	29.0	PASS
6.23.18	258	3	East Berm/Tie-in	P-52	BA-4	114.0	86.0	89.4	96.2	95.0	32.6	29.0	PASS
6.23.18	259	4	East Berm/Tie-in		BA-4	114.5	87.4	89.4	97.8	95.0	31.0	29.0	PASS
6.23.18	260	4	East Berm/Tie-in		BA-4	114.4	88.0	89.4	98.4	95.0	30.0	29.0	PASS
6.23.18	261	4	East Berm/Tie-in		BA-4	119.0	91.9	89.4	102.8	95.0	29.5	29.0	PASS
6.24.18	262	1	East Berm	P-53	BA-6	120.9	94.6	94.0	100.6	95.0	27.8	25.5	PASS
6.24.18	263	1	East Berm		BA-6	118.6	92.2	94.0	98.1	95.0	28.6	25.5	PASS
6.24.18	264	1	East Berm		BA-6	121.3	93.6	94.0	99.6	95.0	29.6	25.5	PASS

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**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.24.18	265	5	East Berm/Tie-in		BA-6	119.8	93.4	94.0	99.3	95.0	28.3	25.5	PASS
6.24.18	266	5	East Berm/Tie-in		BA-6	118.1	92.3	94.0	98.2	95.0	27.9	25.5	PASS
6.24.18	267	5	East Berm/Tie-in		BA-6	120.9	94.3	94.0	100.3	95.0	28.2	25.5	PASS
6.24.18	268	2	East Berm		BA-6	119.6	94.3	94.0	100.3	95.0	26.8	25.5	PASS
6.24.18	269	2	East Berm		BA-6	119.5	95.1	94.0	101.1	95.0	25.7	25.5	PASS
6.24.18	270	2	East Berm		BA-6	119.8	93.8	94.0	99.8	95.0	27.7	25.5	PASS
6.24.18	271	3	East Berm		BA-6	119.2	94.5	94.0	100.6	95.0	26.1	25.5	PASS
6.24.18	272	3	East Berm		BA-4	116.6	89.1	89.4	99.6	95.0	30.9	29.0	PASS
6.24.18	273	3	East Berm		BA-6	119.7	93.5	94.0	99.5	95.0	28.0	25.5	PASS
6.25.18	274	4	West Berm		BA-4	112.4	85.2	89.4	95.2	95.0	32.0	29.0	PASS
6.25.18	275	4	West Berm		BA-4	115.5	88.2	89.4	98.7	95.0	30.9	29.0	PASS
6.25.18	276	4	West Berm		BA-4	115.7	88.9	89.4	99.4	95.0	30.2	29.0	PASS
6.25.18	277	5	West Berm		BA-4	114.0	87.0	89.4	97.3	95.0	31.0	29.0	PASS
6.25.18	278	5	West Berm		BA-6	118.0	92.1	94.0	98.0	95.0	28.1	25.5	PASS

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**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.25.18	279	5	West Berm		BA-6	116.8	91.3	94.0	97.1	95.0	28.0	25.5	PASS
6.25.18	280	5	West Berm		BA-4	114.1	88.0	89.4	98.4	95.0	29.7	29.0	PASS
6.25.18	281	4	East Berm		BA-6	119.2	93.5	94.0	99.5	95.0	27.5	25.5	PASS
6.25.18	282	4	East Berm		BA-6	118.0	92.5	94.0	98.4	95.0	27.6	25.5	PASS
6.25.18	283	4	East Berm		BA-6	116.3	90.3	94.0	96.1	95.0	28.8	25.5	PASS
6.25.18	284	5	East Berm		BA-6	117.3	92.1	94.0	98.0	95.0	27.3	25.5	PASS
6.25.18	285	5	East Berm		BA-6	117.3	91.3	94.0	97.1	95.0	28.5	25.5	PASS
6.26.18	286	1	West Berm		BA-4	116.7	90.1	89.4	100.8	95.0	29.5	29.0	PASS
6.26.18	287	1	West Berm		BA-4	113.1	85.6	89.4	95.7	95.0	32.2	29.0	PASS
6.26.18	288	1	West Berm		BA-4	115.0	87.1	89.4	97.4	95.0	32.1	29.0	PASS
6.26.18	289	1	West Berm		BA-4	112.3	86.3	89.4	96.6	95.0	30.1	29.0	PASS
6.26.18	290	1	West Berm		BA-4	113.4	85.8	89.4	95.9	95.0	32.2	29.0	PASS
6.26.18	291	2	West Berm		BA-4	115.8	89.1	89.4	99.7	95.0	29.9	29.0	PASS
6.26.18	292	2	West Berm	P-54	BA-4	114.6	86.9	89.4	97.3	95.0	31.8	29.0	PASS

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**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.26.18	293	2	West Berm		BA-4	114.1	88.3	89.4	98.8	95.0	29.2	29.0	PASS
6.26.18	294	2	West Berm		BA-4	114.3	85.7	89.4	95.9	95.0	33.3	29.0	PASS
6.26.18	295	2	West Berm		BA-4	114.5	86.9	89.4	97.2	95.0	31.7	29.0	PASS
6.27.18	296	3	West Berm		BA-4	115.8	87.5	89.4	97.8	95.0	32.4	29.0	PASS
6.27.18	297	3	West Berm		BA-4	114.1	86.0	89.4	96.2	95.0	32.7	29.0	PASS
6.27.18	298	3	West Berm		BA-4	113.1	85.2	89.4	95.3	95.0	32.8	29.0	PASS
6.27.18	299	1	West Berm		BA-4	113.2	85.1	89.4	95.2	95.0	33.0	29.0	PASS
6.27.18	300	3	West Berm		BA-4	114.5	86.0	89.4	96.2	95.0	33.2	29.0	PASS
6.27.18	301	3	West Berm		BA-4	115.0	87.0	89.4	97.3	95.0	32.2	29.0	PASS
6.27.18	302	1	West Berm		BA-4	114.3	87.7	89.4	98.1	95.0	30.3	29.0	PASS
6.27.18	303	4	West Berm		BA-4	115.8	87.3	89.4	97.7	95.0	32.6	29.0	PASS
6.27.18	304	4	West Berm		BA-4	113.0	85.8	89.4	96.0	95.0	31.7	29.0	PASS
6.27.18	305	4	West Berm	P-55	BA-4	113.8	87.5	89.4	97.9	95.0	30.0	29.0	PASS
6.27.18	306	2	West Berm		BA-4	114.6	86.5	89.4	96.7	95.0	32.5	29.0	PASS

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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.27.18	307	4	West Berm		BA-4	115.9	87.8	89.4	98.2	95.0	32.0	29.0	PASS
6.27.18	308	4	West Berm		BA-4	115.1	87.8	89.4	98.2	95.0	31.1	29.0	PASS
6.27.18	309	2	West Berm		BA-4	113.5	86.3	89.4	96.5	95.0	31.5	29.0	PASS
6.29.18	310	5	West Berm		BA-4	115.7	87.5	89.4	97.9	95.0	32.2	29.0	PASS
6.29.18	311	5	West Berm		BA-4	114.4	86.5	89.4	96.7	95.0	32.3	29.0	PASS
6.29.18	312	5	West Berm		BA-4	114.7	86.5	89.4	96.8	95.0	32.6	29.0	PASS
6.29.18	313	3	West Berm		BA-4	116.4	88.2	89.4	98.7	95.0	31.9	29.0	PASS
6.29.18	314	4	West Berm		BA-4	115.7	88.9	89.4	99.5	95.0	30.1	29.0	PASS
6.29.18	315	3	West Berm		BA-4	114.6	86.9	89.4	97.3	95.0	31.8	29.0	PASS
6.29.18	316	4	East Berm		BA-4	113.8	85.8	89.4	95.9	95.0	32.7	29.0	PASS
6.29.18	317	4	East Berm		BA-4	114.5	88.1	89.4	98.5	95.0	30.0	29.0	PASS
6.29.18	318	4	East Berm	P-56	BA-4	116.1	87.7	89.4	98.1	95.0	32.4	29.0	PASS
6.29.18	319	2	East Berm	P-57	BA-4	112.9	85.9	89.4	96.0	95.0	31.5	29.0	PASS
6.29.18	320	2	East Berm		BA-4	113.2	86.8	89.4	97.1	95.0	30.4	29.0	PASS

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**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
6.29.18	321	4	West Berm		BA-4	113.9	85.4	89.4	95.6	95.0	33.3	29.0	PASS
6.29.18	322	3	West Berm		BA-4	112.6	85.9	89.4	96.1	95.0	31.1	29.0	PASS
6.30.18	323	5	East Berm		BA-6	115.6	90.6	94.0	96.4	95.0	27.6	25.5	PASS
6.30.18	324	5	East Berm		BA-4	115.2	88.8	89.4	99.3	95.0	29.8	29.0	PASS
6.30.18	325	5	East Berm		BA-4	114.0	86.1	89.4	96.3	95.0	32.4	29.0	PASS
6.30.18	326	4	East Berm		BA-4	113.7	86.5	89.4	96.8	95.0	31.4	29.0	PASS
6.30.18	327	4	East Berm		BA-4	115.6	88.0	89.4	98.4	95.0	31.4	29.0	PASS
6.30.18	328	5	East Berm		BA-6	118.5	93.8	94.0	99.8	95.0	26.3	25.5	PASS
6.30.18	329	5	East Berm		BA-6	116.3	90.0	94.0	95.8	95.0	29.2	25.5	PASS
6.30.18	330	5	West Berm		BA-6	119.2	94.2	94.0	100.2	95.0	26.6	25.5	PASS
6.30.18	331	5	West Berm		BA-6	117.8	92.0	94.0	97.8	95.0	28.1	25.5	PASS
7.10.18	332	1	Cell 2 Floor (North)	P-58	BA-6	119.0	93.0	94.0	98.9	95.0	28.0	25.5	PASS
7.10.18	333	1	Cell 2 Floor (North)		BA-6	117.5	90.8	94.0	96.6	95.0	29.4	25.5	PASS
7.10.18	334	1	Cell 2 Floor (North)		BA-6	122.5	96.5	94.0	102.7	95.0	26.9	25.5	PASS

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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
7.10.18	335	1	Cell 2 Floor (North)		BA-6	118.6	91.7	94.0	97.6	95.0	29.3	25.5	PASS
7.10.18	336	1	Cell 2 Floor (North)		BA-6	119.4	93.7	94.0	99.7	95.0	27.4	25.5	PASS
7.10.18	337	1	Cell 2 Floor (North)		BA-6	119.1	93.1	94.0	99.1	95.0	27.9	25.5	PASS
7.10.18	338	1	Cell 2 Floor (North)	P-59	BA-6	120.8	95.0	94.0	101.0	95.0	27.2	25.5	PASS
7.10.18	339	1	Cell 2 Floor (North)		BA-6	116.7	90.7	94.0	96.5	95.0	28.6	25.5	PASS
7.11.18	340	1	East Berm		BA-6	116.2	91.8	94.0	97.6	95.0	26.6	25.5	PASS
7.11.18	341	2	Cell 2 Floor (North)	P-60	BA-6	121.1	94.2	94.0	100.2	95.0	28.6	25.5	PASS
7.11.18	342	2	Cell 2 Floor (North)		BA-13	125.2	99.8	103.3	96.6	95.0	25.5	22.6	PASS
7.11.18	343	2	Cell 2 Floor (North)		BA-6	117.9	90.7	94.0	96.5	95.0	30.0	25.5	PASS
7.11.18	344	2	Cell 2 Floor (North)		BA-6	122.3	96.4	94.0	102.5	95.0	26.9	25.5	PASS
7.11.18	345	2	Cell 2 Floor (North)	P-61	BA-6	119.7	94.1	94.0	100.1	95.0	27.2	25.5	PASS
7.11.18	346	2	Cell 2 Floor (North)		BA-6	118.9	93.9	94.0	99.9	95.0	26.6	25.5	PASS
7.11.18	347	2	Cell 2 Floor (North)		BA-6	118.5	92.0	94.0	97.9	95.0	28.8	25.5	PASS
7.11.18	348	2	Cell 2 Floor (North)		BA-6	116.5	91.8	94.0	97.7	95.0	26.9	25.5	PASS



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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
7.11.18	349	3	Cell 2 Floor (North)	P-62	BA-6	118.6	92.7	94.0	98.6	95.0	27.9	25.5	PASS
7.11.18	350	3	Cell 2 Floor (North)		BA-6	116.2	90.7	94.0	96.5	95.0	28.1	25.5	PASS
7.11.18	351	3	Cell 2 Floor (North)		BA-6	119.5	93.9	94.0	99.9	95.0	27.3	25.5	PASS
7.11.18	352	3	Cell 2 Floor (North)		BA-6	118.2	92.1	94.0	98.0	95.0	28.3	25.5	PASS
7.12.18	353	3	Cell 2 Floor (North)		BA-6	118.1	92.8	94.0	98.8	95.0	27.2	25.5	PASS
7.12.18	354	3	Cell 2 Floor (North)		BA-6	118.5	91.2	94.0	97.0	95.0	29.9	25.5	PASS
7.12.18	355	3	Cell 2 Floor (North)	P-63	BA-6	116.9	90.0	94.0	95.7	95.0	29.9	25.5	PASS
7.12.18	356	3	Cell 2 Floor (North)		BA-6	119.1	93.2	94.0	99.1	95.0	27.8	25.5	PASS
7.12.18	357	4	Cell 2 Floor (North)	P-64	BA-6	116.9	92.4	94.0	98.3	95.0	26.5	25.5	PASS
7.12.18	358	4	Cell 2 Floor (North)		BA-6	118.4	92.5	94.0	98.4	95.0	28.0	25.5	PASS
7.12.18	359	4	Cell 2 Floor (North)		BA-6	116.7	91.0	94.0	96.8	95.0	28.3	25.5	PASS
7.12.18	360	4	Cell 2 Floor (North)		BA-6	118.5	93.2	94.0	99.2	95.0	27.1	25.5	PASS
7.13.18	361	4	Cell 2 Floor (North)		BA-6	121.4	96.3	94.0	102.5	95.0	26.0	25.5	PASS
7.13.18	362	4	Cell 2 Floor (North)		BA-6	121.0	96.2	94.0	102.3	95.0	25.8	25.5	PASS

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Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
7.13.18	363	4	Cell 2 Floor (North)		BA-6	121.0	96.3	94.0	102.4	95.0	25.7	25.5	PASS
7.13.18	364	4	Cell 2 Floor (North)	P-65	BA-6	118.2	93.0	94.0	98.9	95.0	27.1	25.5	PASS
7.14.18	365	2	East Berm		BA-13	123.5	100.5	103.3	97.3	95.0	22.9	22.6	PASS
7.15.18	366	3	East Berm	P-66	BA-2	121.0	95.4	95.3	100.1	95.0	26.9	24.6	PASS
7.15.18	367	4	East Berm	P-67	BA-2	122.3	97.8	95.3	102.6	95.0	25.1	24.6	PASS
7.15.18	368	5	East Berm		BA-2	121.3	97.2	95.3	102.0	95.0	24.8	24.6	PASS
7.23.18	369	1	North Berm/Inside Slope		BA-13	124.3	103.7	103.3	100.4	95.0	19.9	22.6	FAIL
7.23.18	369R	1	North Berm/Inside Slope	P-70	BA-13	122.8	99.0	103.3	95.9	95.0	24.0	22.6	PASS
7.23.18	370	1	West Berm/Inside Slope	P-71	BA-13	123.7	98.8	103.3	95.6	95.0	25.2	22.6	PASS
7.24.18	371	2	North Berm/Inside Slope		BA-13	121.3	98.9	103.3	95.8	95.0	22.6	22.6	PASS
7.24.18	372	2	North Berm/Inside Slope		BA-2	117	93.2	95.3	97.8	95.0	25.5	24.6	PASS
7.24.18	373	2	West Berm/Inside Slope	P-72	BA-2	118.7	93.1	95.3	97.7	95.0	27.5	24.6	PASS
7.24.18	374	3	West Berm/Inside Slope	P-73	BA-2	117	93.6	95.3	98.2	95.0	25.0	24.6	PASS
7.24.18	375	3	North Berm/Inside Slope	P-74	BA-2	114.4	91.5	95.3	96.0	95.0	25.0	24.6	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
7.24.18	376	3	North Berm/Inside Slope		BA-2	118.4	93.5	95.3	98.1	95.0	26.6	24.6	PASS
7.25.18	377	4	West Berm/Inside Slope		BA-2	117.7	93.3	95.3	97.9	95.0	26.1	24.6	PASS
7.25.18	378	4	North Berm/Inside Slope		BA-2	117.9	92.3	95.3	96.8	95.0	27.8	24.6	PASS
7.26.18	379	1	West Berm/Top		BA-5	116.1	87.7	89.1	98.4	95.0	32.4	28.8	PASS
7.26.18	380	1	West Berm/Overbuild		BA-5	118.3	90.2	89.1	101.2	95.0	31.2	28.8	PASS
7.26.18	381	2	West Berm/Top		BA-2	120.0	92.4	95.3	97.0	95.0	29.8	24.6	PASS
7.26.18	382	2	West Berm/Overbuild		BA-5	116.4	88.5	89.1	99.3	95.0	31.5	28.8	PASS
7.27.18	383	3	West Berm/Top		BA-5	118.3	91.4	89.1	102.5	95.0	29.5	28.8	PASS
7.27.18	384	3	West Berm/Overbuild		BA-5	117.2	90.3	89.1	101.3	95.0	29.8	28.8	PASS
7.27.18	385	4	West Berm/Top		BA-5	118.8	90.7	89.1	101.8	95.0	31.0	28.8	PASS
7.27.18	386	4	West Berm/Overbuild		BA-2	119.0	94.7	95.3	99.4	95.0	25.6	24.6	PASS
										95.0			
										95.0			
										95.0			
										95.0			

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
4.9.18	1P	1	South Berm/Pipe		BA-4	117.2	89.2	89.4	99.8	95.0	31.4	29.0	PASS
4.9.18	2P	1	South Berm/Pipe		BA-3	117.3	91.1	92.4	98.6	95.0	28.7	28.1	PASS
4.9.18	3P	2	South Berm/Pipe	ST-1	BA-4	119.3	90.7	89.4	101.5	95.0	31.5	29.0	PASS
4.9.18	4P	2	South Berm/Pipe		BA-4	118.3	91.4	89.4	102.2	95.0	29.5	29.0	PASS
4.10.18	5P	3	South Berm/Pipe		BA-4	118.0	88.7	89.4	99.2	95.0	33.0	29.0	PASS
4.10.18	6P	3	South Berm/Pipe	ST-2	BA-4	118.6	90.1	89.4	100.7	95.0	31.7	29.0	PASS
4.10.18	7P	4	South Berm/Pipe		BA-4	120.0	91.0	89.4	101.8	95.0	31.9	29.0	PASS
4.10.18	8P	4	South Berm/Pipe		BA-4	118.2	91.3	89.4	102.1	95.0	29.5	29.0	PASS
4.10.18	9P	5	South Berm/Pipe		BA-3	118.3	91.9	92.4	99.5	95.0	28.7	28.1	PASS
4.19.18	10P	5	South Berm/Pipe		BA-3	114.0	88.7	92.4	96.0	95.0	28.5	28.1	PASS
4.19.18	11P	6	South Berm/Pipe		BA-3	121.3	93.6	92.4	101.3	95.0	29.6	28.1	PASS
4.19.18	12P	6	South Berm/Pipe		BA-3	119.4	91.4	92.4	98.9	95.0	30.7	28.1	PASS
4.20.18	13P	7	South Berm/Pipe		BA-3	119.5	93.1	92.4	100.7	95.0	28.4	28.1	PASS
4.20.18	14P	7	South Berm/Pipe		BA-3	119.7	93.2	92.4	100.9	95.0	28.4	28.1	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
4.20.18	15P	8	South Berm/Pipe		BA-3	116.5	90.5	92.4	97.9	95.0	28.8	28.1	PASS
4.20.18	16P	8	South Berm/Pipe		BA-3	117.4	89.3	92.4	96.6	95.0	31.5	28.1	PASS
7.15.18	17P	1	North Berm/Manhole		BA-2	120.3	96.2	95.3	100.9	95.0	25.1	24.6	PASS
7.15.18	18P	1	North Berm/Manhole		BA-2	121.2	95.4	95.3	100.1	95.0	27.1	24.6	PASS
7.15.18	19P	2	North Berm/Manhole		BA-2	119.7	95.3	95.3	100.0	95.0	25.6	24.6	PASS
7.15.18	20P	2	North Berm/Manhole		BA-2	121.2	96.9	95.3	101.7	95.0	25.1	24.6	PASS
7.15.18	21P	3	North Berm/Manhole		BA-2	120.6	95.9	95.3	100.6	95.0	25.8	24.6	PASS
7.15.18	22P	3	North Berm/Manhole		BA-2	119.7	95.2	95.3	99.8	95.0	25.8	24.6	PASS
7.16.18	23P	4	North Berm/Manhole		BA-2	121.4	95.9	95.3	100.6	95.0	26.6	24.6	PASS
7.16.18	24P	4	North Berm/Manhole		BA-2	120.8	95.6	95.3	100.3	95.0	26.4	24.6	PASS
7.16.18	25P	5	North Berm/Manhole		BA-2	117.9	94.5	95.3	99.1	95.0	24.8	24.6	PASS
7.16.18	26P	5	North Berm/Manhole		BA-2	117.0	91.9	95.3	96.4	95.0	27.3	24.6	PASS
7.16.18	27P	6	North Berm/Manhole		BA-2	119.0	93.7	95.3	98.3	95.0	27.0	24.6	PASS
7.16.18	28P	6	North Berm/Manhole		BA-2	119.2	95.1	95.3	99.8	95.0	25.3	24.6	PASS

# Summary of Field Density Test Results ASTM D 2922



25809 Interstate 30 South  
Bryant, AR 72022  
(501) 847-9292

**Client Name:** American Electric Power  
**Project Name:** Turk Cell 2  
**Site Location:** Fulton, AR  
**Contractor:** SFC

**Technician:** Matt Acree  
**Reviewed by:** Tony Bardella  
**Approved by:** Tony Bardella  
**Test Location:** Cell 2

Test Date	Test No.	Lift or Elev.	Test Location	Shelby Tube Sample	Mat'l. No.	Wet Density, pcf	Dry Density, pcf	Lab Max. Dry Density, pcf	Percent Compaction %	Percent Compaction Required	Moisture Content	Optimum Moisture %	PASS or FAIL
7.17.18	29P	7	North Berm/Manhole		BA-2	117.1	93.1	95.3	97.7	95.0	25.8	24.6	PASS
7.17.18	30P	7	North Berm/Manhole		BA-2	119.2	93.5	95.3	98.1	95.0	27.5	24.6	PASS
7.18.18	31P	1	North Berm/Manhole		BA-2	116.5	91.5	95.3	96.0	95.0	27.3	24.6	PASS
7.18.18	32P	1	North Berm/Manhole		BA-2	119.2	95.2	95.3	99.9	95.0	25.2	24.6	PASS
7.18.18	33P	1	North Berm/Manhole		BA-2	118.7	95.2	95.3	99.9	95.0	24.7	24.6	PASS
7.18.18	34P	1	North Berm/Manhole		BA-2	116.7	93.2	95.3	97.8	95.0	25.2	24.6	PASS
7.18.18	35P	2	North Berm/Manhole	P-68	BA-2	116.8	92.9	95.3	97.5	95.0	25.7	24.6	PASS
7.18.18	36P	2	North Berm/Manhole	P-69	BA-2	118.2	93.6	95.3	98.2	95.0	26.3	24.6	PASS
7.18.18	37P	8	North Berm/Manhole		BA-2	120.7	96.1	95.3	100.8	95.0	25.6	24.6	PASS
7.18.18	38P	8	North Berm/Manhole		BA-2	121.9	97.5	95.3	102.3	95.0	25.0	24.6	PASS
7.18.18	39P	8	North Berm/Manhole		BA-2	119.9	95.7	95.3	100.4	95.0	25.3	24.6	PASS
7.19.18	40P	9	North Berm/Manhole		BA-2	120	95.1	95.3	99.8	95.0	26.2	24.6	PASS
7.19.18	41P	9	North Berm/Manhole		BA-2	118.2	93.0	95.3	97.6	95.0	27.1	24.6	PASS
7.19.18	42P	9	North Berm/Manhole		BA-2	121.8	97.4	95.3	102.2	95.0	25.0	24.6	PASS



# APPENDIX E PERMEABILITY TEST RESULTS

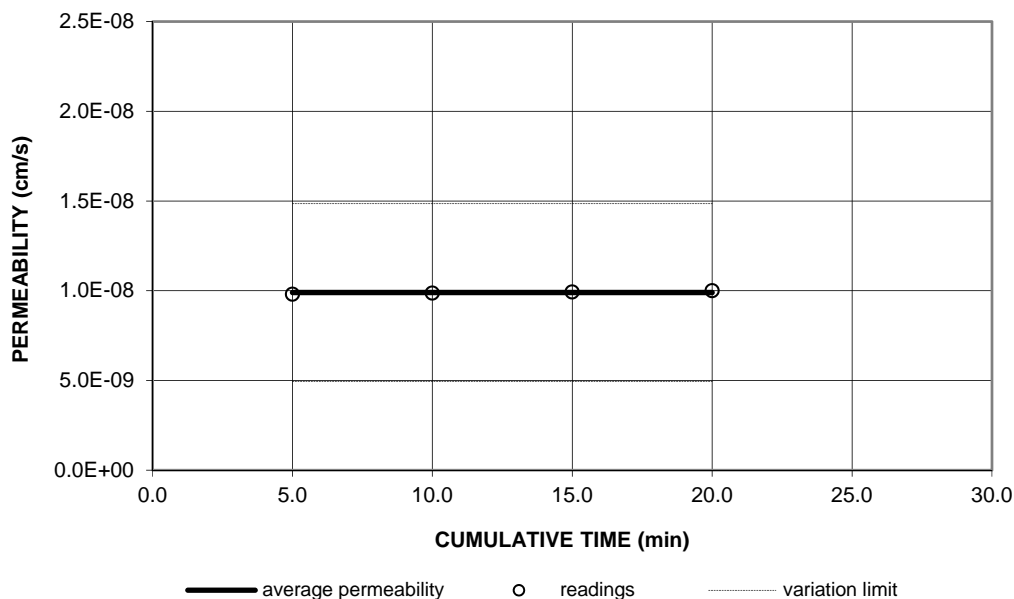


**TABLE 3**  
**SUMMARY OF PERMEABILITY TESTING DATA**  
**SWEPKO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

Test No.	Lift No./ Layer	Test Results	
		K (cm/sec)	Pass/ Fail
ST-1	S. BERM	9.60E-09	Pass
ST-2	S. BERM	1.00E-08	Pass
P-1	LIFT 1	9.90E-09	Pass
P-2	LIFT 2	1.00E-08	Pass
P-3	LIFT 2	9.90E-09	Pass
P-4	LIFT 3	9.60E-09	Pass
P-5	LIFT 3	1.00E-08	Pass
P-6	LIFT 4	1.10E-08	Pass
P-7	LIFT 4	1.00E-08	Pass
P-8	LIFT 1	1.10E-08	Pass
P-9	LIFT 1	9.50E-09	Pass
P-10	LIFT 2	1.10E-08	Pass
P-11	LIFT 3	9.90E-09	Pass
P-12	LIFT 3	1.10E-08	Pass
P-13	LIFT 4	3.50E-08	Pass
P-14	LIFT 4	1.00E-08	Pass
P-15	LIFT 4	9.10E-09	Pass
P-16	LIFT 1	1.00E-08	Pass
P-17	LIFT 1	9.80E-09	Pass
P-18	LIFT 1	9.60E-09	Pass
P-19	LIFT 1	1.00E-08	Pass
P-20	LIFT 1	9.90E-09	Pass
P-21	LIFT 1	1.00E-08	Pass
P-22	LIFT 2	1.00E-08	Pass
P-23	LIFT 2	1.00E-08	Pass
P-24	LIFT 2	2.20E-08	Pass
P-25	LIFT 2	9.30E-09	Pass
P-26	LIFT 2	1.10E-08	Pass
P-27	LIFT 2	9.20E-09	Pass
P-28	LIFT 3	9.40E-09	Pass
P-29	LIFT 3	9.70E-09	Pass
P-30	LIFT 3	1.00E-08	Pass
P-31	LIFT 3	2.00E-08	Pass
P-32	LIFT 3	1.00E-08	Pass
P-33	LIFT 3	1.10E-08	Pass
P-34	LIFT 3	9.70E-09	Pass
P-35	LIFT 4	5.10E-08	Pass
P-36	LIFT 4	1.10E-08	Pass

Test No.	Lift No./ Layer	Test Results	
		K (cm/sec)	Pass/ Fail
P-37	LIFT 4	9.30E-09	Pass
P-38	LIFT 4	1.20E-08	Pass
P-39	LIFT 4	1.00E-08	Pass
P-40	LIFT 4	1.10E-08	Pass
P-41	LIFT 1	1.90E-08	Pass
P-42	LIFT 2	3.00E-08	Pass
P-43	LIFT 3	5.60E-08	Pass
P-44	LIFT 4	1.80E-08	Pass
P-45	LIFT 1	9.60E-09	Pass
P-46	LIFT 2	9.80E-09	Pass
P-47	LIFT 3	1.00E-08	Pass
P-48	LIFT 4	1.90E-08	Pass
P-49	LIFT 4	4.40E-08	Pass
P-50	LIFT 1	3.90E-08	Pass
P-51	LIFT 2	6.30E-08	Pass
P-52	LIFT 3	4.20E-08	Pass
P-53	LIFT 1	2.10E-08	Pass
P-54	LIFT 2	9.60E-09	Pass
P-55	LIFT 4	1.10E-08	Pass
P-56	LIFT 4	1.00E-08	Pass
P-57	LIFT 2	1.10E-08	Pass
P-58	LIFT 1	3.60E-08	Pass
P-59	LIFT 1	1.90E-08	Pass
P-60	LIFT 2	9.70E-09	Pass
P-61	LIFT 2	2.00E-08	Pass
P-62	LIFT 3	4.20E-08	Pass
P-63	LIFT 3	1.00E-08	Pass
P-64	LIFT 4	8.10E-08	Pass
P-65	LIFT 4	2.00E-08	Pass
P-66	LIFT 3	3.70E-08	Pass
P-67	LIFT 4	2.20E-08	Pass
P-68	N. BERM	2.10E-08	Pass
P-69	N. BERM	2.10E-08	Pass
P-70	LIFT 1	2.00E-08	Pass
P-71	LIFT 1	5.80E-08	Pass
P-72	LIFT 2	4.40E-08	Pass
P-73	LIFT 3	2.30E-08	Pass
P-74	LIFT 3	1.20E-08	Pass

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

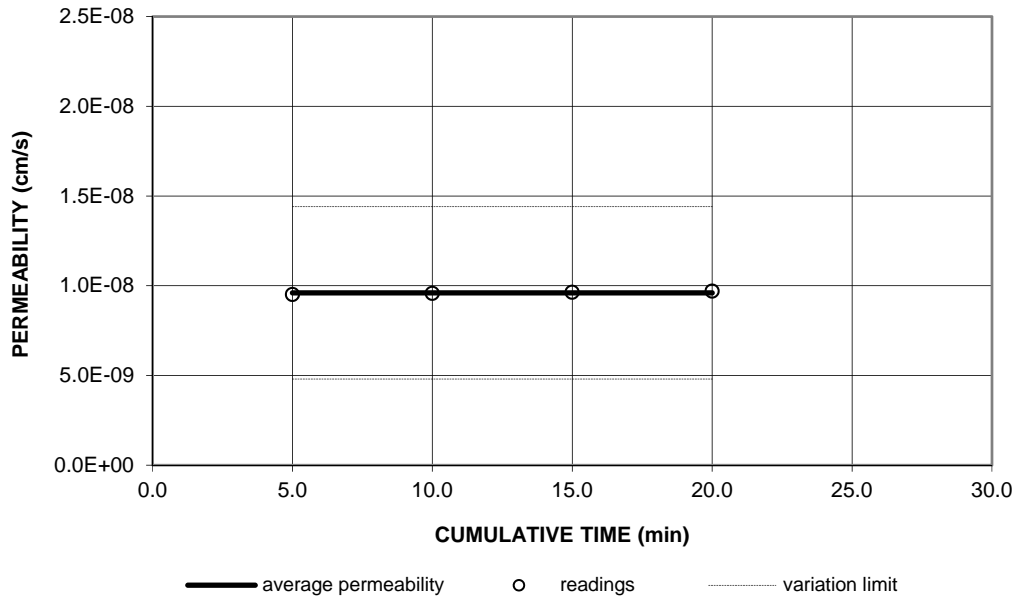
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.93	9.80E-09	<b>9.9E-09</b>
21.00	5.00	10.00	13.84	9.87E-09	
21.00	5.00	15.00	13.75	9.93E-09	
21.00	5.00	20.00	13.66	1.00E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.85	18.79
% Recompct.		Moisture Content, (%)		28.25	29.97
Test Pressures (psi)		Percent Saturation (%)		93.85	100.00
Backpressure	90.00	Wet Mass Density (pcf)		119.19	121.15
Cell pressure	100.00	Dry Mass Density (pcf)		92.94	93.21
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.81	0.81
Specific Gravity	2.70	Calculated Porosity, %		44.84	44.73

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	TAN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P1				
Sample Location					
Date	8/18/2018      Lab No.      4048				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

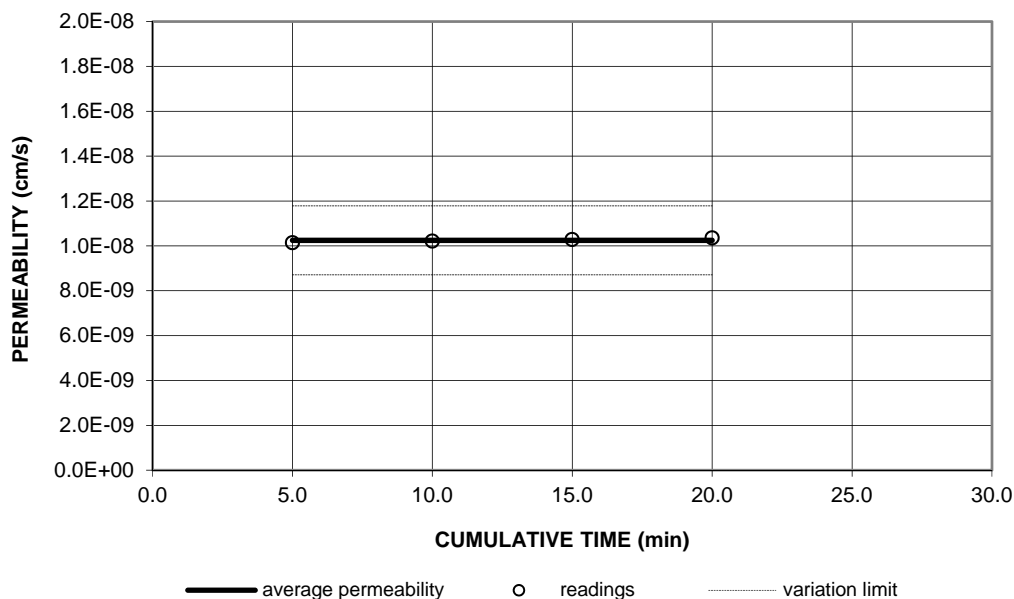
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.23	9.51E-09	<b>9.6E-09</b>
21.00	5.00	10.00	14.13	9.57E-09	
21.00	5.00	15.00	14.04	9.63E-09	
21.00	5.00	20.00	13.94	9.70E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.95	2.95
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.65	18.42
% Recompct.		Moisture Content, (%)		34.36	36.14
Test Pressures (psi)		Percent Saturation (%)		99.89	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.37	120.37
Cell pressure	93.00	Dry Mass Density (pcf)		87.35	88.42
<b>Eff. Stress</b>	<b>3.00</b>	Void Ratio		0.93	0.98
Specific Gravity	2.70	Calculated Porosity, %		48.15	49.39

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY LEAN CLAY

Project Name	Turk Cell 2 CQA	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	ST-1				
Sample Location					
Date	4/19/2018 Lab No. 2658				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

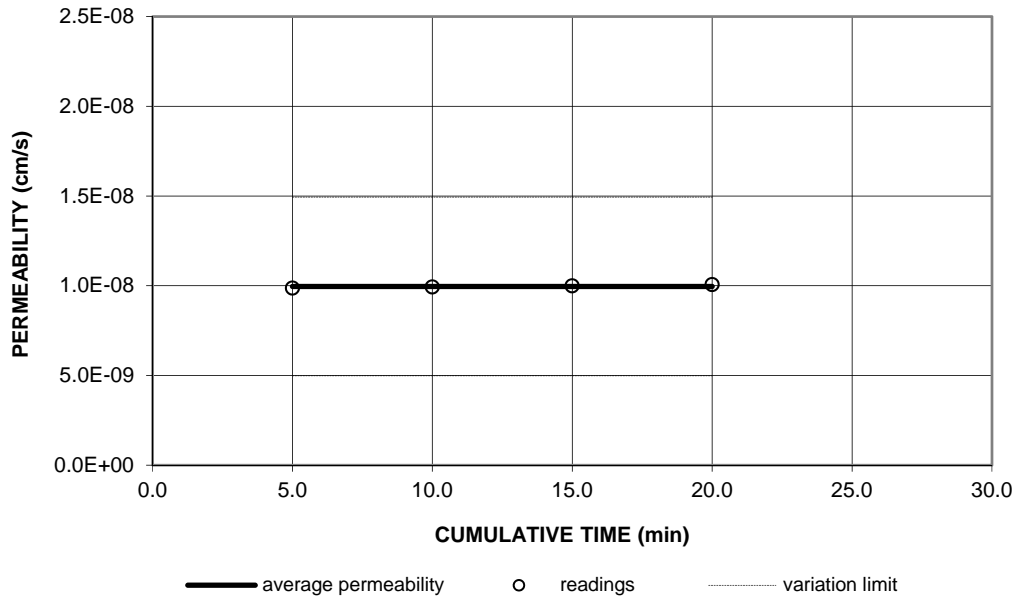
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.49	1.01E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.39	1.02E-08	
21.00	5.00	15.00	13.30	1.03E-08	
21.00	5.00	20.00	13.21	1.04E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.80	18.82
% Recompct.		Moisture Content, (%)		31.74	33.26
Test Pressures (psi)		Percent Saturation (%)		98.52	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.70	119.98
Cell pressure	93.00	Dry Mass Density (pcf)		90.10	90.04
<b>Eff. Stress</b>	<b>3.00</b>	Void Ratio		0.87	0.90
Specific Gravity	2.70	Calculated Porosity, %		46.52	47.31

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY LEAN CLAY

Project Name	Turk Cell 2 CQA	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	ST-2				
Sample Location					
Date	5/1/2018 Lab No. 3004				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

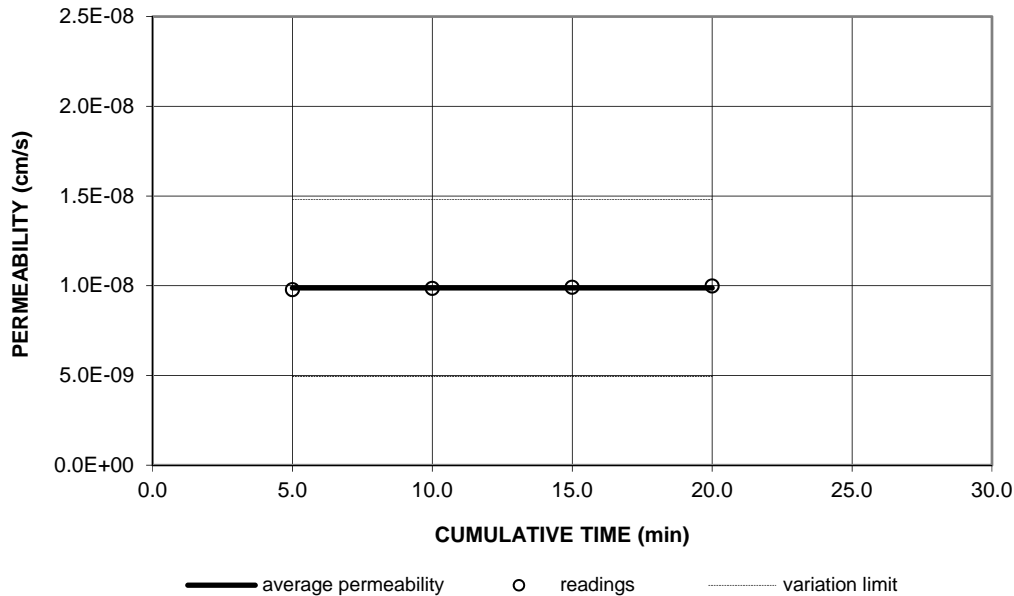
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.96	9.86E-09	<b>1.0E-08</b>
21.00	5.00	10.00	13.87	9.93E-09	
21.00	5.00	15.00	13.77	9.99E-09	
21.00	5.00	20.00	13.68	1.01E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.81	2.81
Comp. Method		Specimen Volume, (cu. In.)		18.67	18.62
% Recompct.		Moisture Content, (%)		34.07	35.90
Test Pressures (psi)		Percent Saturation (%)		98.82	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.98	118.90
Cell pressure	100.00	Dry Mass Density (pcf)		87.26	87.49
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.93	0.97
Specific Gravity	2.70	Calculated Porosity, %		48.21	49.22

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P2				
Sample Location					
Date	8/18/2018 Lab No. 4049				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

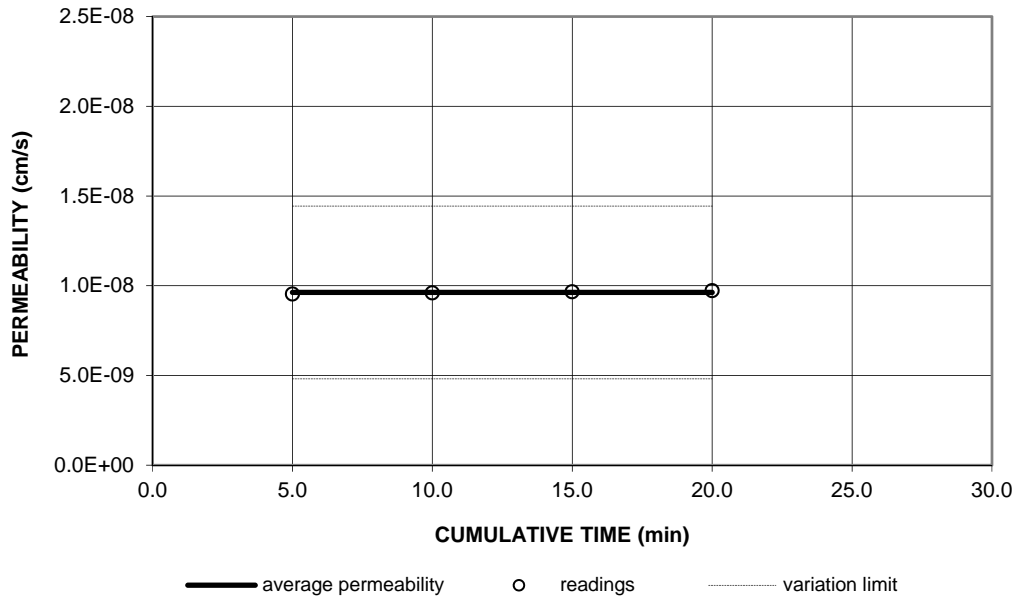
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.78	9.78E-09	<b>9.9E-09</b>
21.00	5.00	10.00	13.69	9.84E-09	
21.00	5.00	15.00	13.59	9.91E-09	
21.00	5.00	20.00	13.50	9.98E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.98	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		18.93	18.95
% Recompct.		Moisture Content, (%)		30.47	32.34
Test Pressures (psi)		Percent Saturation (%)		97.48	100.00
Backpressure	90.00	Wet Mass Density (pcf)		119.21	120.84
Cell pressure	100.00	Dry Mass Density (pcf)		91.38	91.31
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.84	0.87
Specific Gravity	2.70	Calculated Porosity, %		45.76	46.61

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P3				
Sample Location					
Date	8/18/2018      Lab No.      4050				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

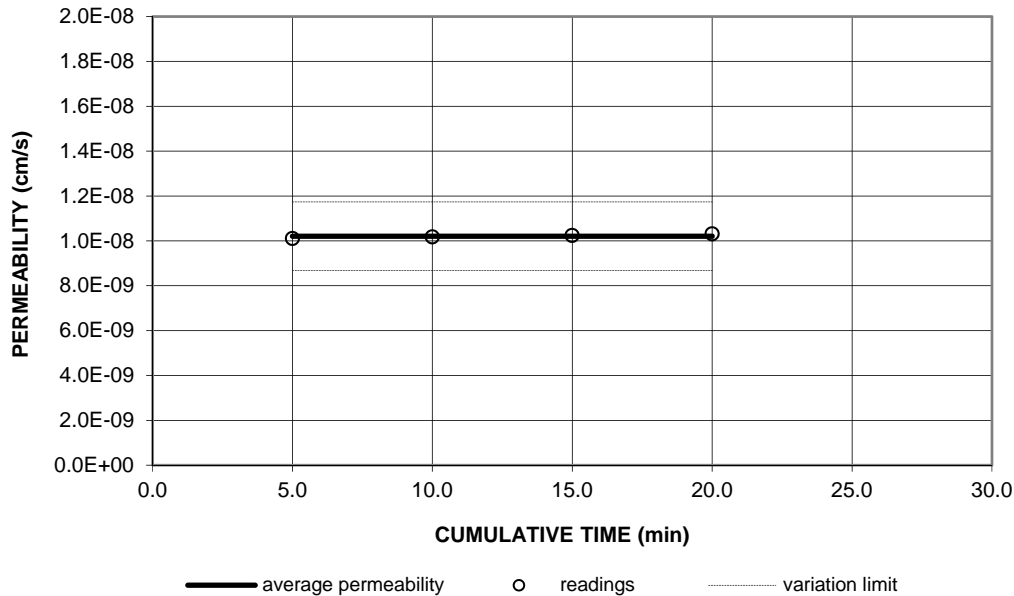
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.32	9.53E-09	<b>9.6E-09</b>
21.00	5.00	10.00	14.23	9.60E-09	
21.00	5.00	15.00	14.13	9.66E-09	
21.00	5.00	20.00	14.04	9.72E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.84	18.82
% Recompct.		Moisture Content, (%)		30.51	33.26
Test Pressures (psi)		Percent Saturation (%)		96.98	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.89	121.56
Cell pressure	100.00	Dry Mass Density (pcf)		91.10	91.22
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.85	0.90
Specific Gravity	2.70	Calculated Porosity, %		45.93	47.31

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P4				
Sample Location					
Date	8/18/2018      Lab No.      4051				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.43	1.01E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.34	1.02E-08	
21.00	5.00	15.00	13.25	1.02E-08	
21.00	5.00	20.00	13.16	1.03E-08	

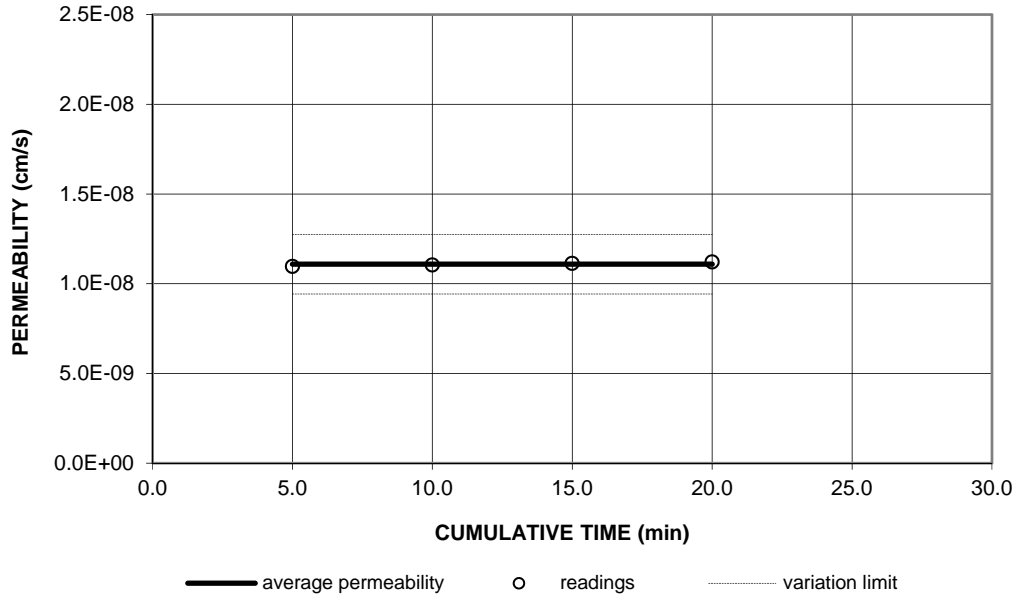
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.06	3.06
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		19.29	19.30
% Recompct.		Moisture Content, (%)		32.38	34.88
Test Pressures (psi)		Percent Saturation (%)		98.22	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.00	120.15
Cell pressure	100.00	Dry Mass Density (pcf)		89.14	89.08
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.89	0.94
Specific Gravity	2.70	Calculated Porosity, %		47.09	48.50

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	Red Brown, Brown and Gray fat clay

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P5				
Sample Location					
Date	5/21/2018     Lab No.     4227				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

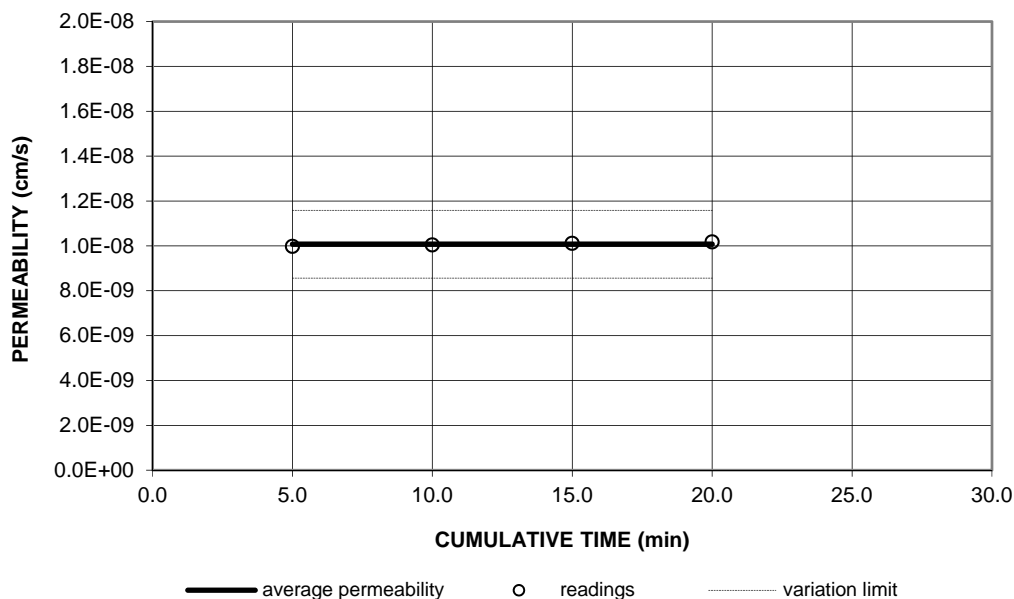
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.29	1.10E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.19	1.10E-08	
21.00	5.00	15.00	12.10	1.11E-08	
21.00	5.00	20.00	12.01	1.12E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.09	19.06
% Recompct.		Moisture Content, (%)		31.05	33.65
Test Pressures (psi)		Percent Saturation (%)		95.35	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.49	119.97
Cell pressure	100.00	Dry Mass Density (pcf)		89.65	89.77
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.88	0.91
Specific Gravity	2.70	Calculated Porosity, %		46.79	47.60

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	Brown and Gray fat clay

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P6				
Sample Location					
Date	5/21/2018     Lab No.     4228				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

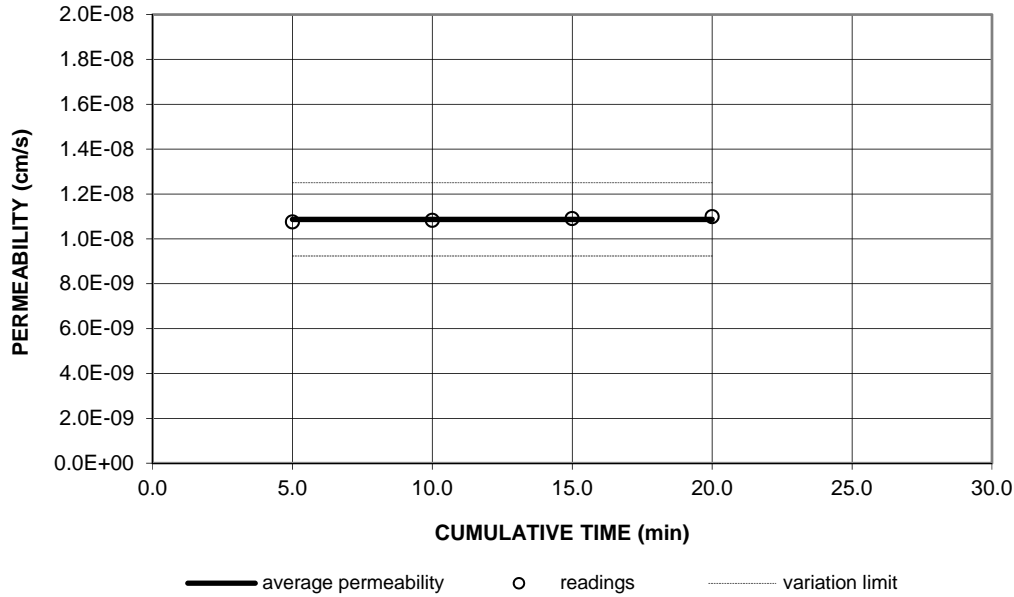
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.70	9.97E-09	<b>1.0E-08</b>
21.00	5.00	10.00	14.60	1.00E-08	
21.00	5.00	15.00	14.50	1.01E-08	
21.00	5.00	20.00	14.40	1.02E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.82	2.82
Opti. M.C., (%)		Specimen Diameter, (inches)		2.73	2.73
Comp. Method		Specimen Volume, (cu. In.)		16.43	16.46
% Recompct.		Moisture Content, (%)		29.56	31.88
Test Pressures (psi)		Percent Saturation (%)		97.52	100.00
Backpressure	90.00	Wet Mass Density (pcf)		120.04	122.03
Cell pressure	100.00	Dry Mass Density (pcf)		92.66	92.53
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.82	0.86
Specific Gravity	2.70	Calculated Porosity, %		45.00	46.26

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	Brown and Gray fat clay

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P7				
Sample Location					
Date	5/23/2018 Lab No. 4257				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

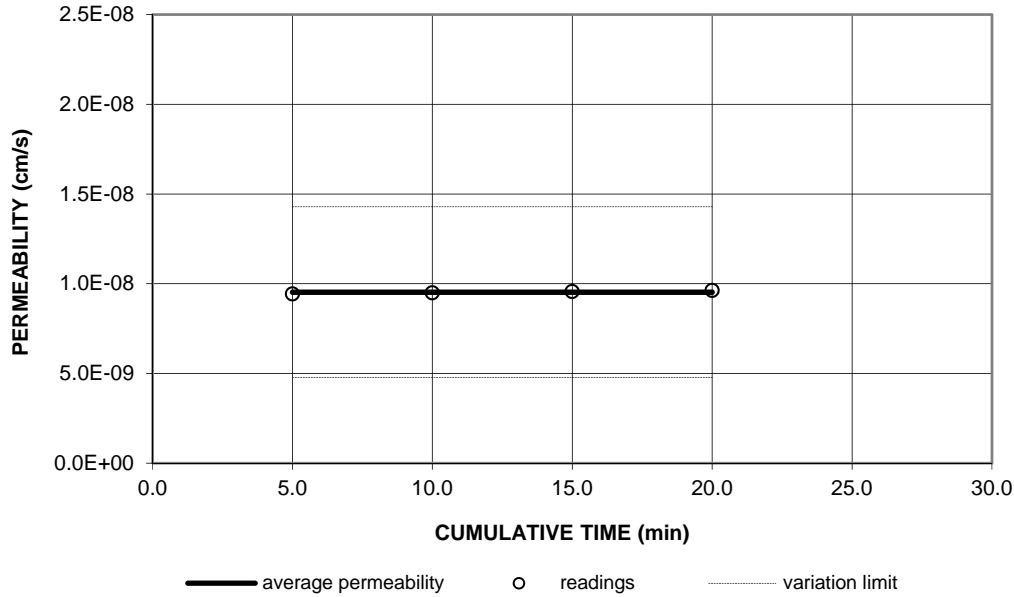
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	
21.00	5.00	5.00	12.80	1.07E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.71	1.08E-08	
21.00	5.00	15.00	12.62	1.09E-08	
21.00	5.00	20.00	12.53	1.10E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.81	2.81
Comp. Method		Specimen Volume, (cu. In.)		18.74	18.72
% Recompct.		Moisture Content, (%)		35.20	36.44
Test Pressures (psi)		Percent Saturation (%)		99.32	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.40	117.58
Cell pressure	100.00	Dry Mass Density (pcf)		86.09	86.18
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	0.98
Specific Gravity	2.70	Calculated Porosity, %		48.90	49.60

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	Brown and Gray fat clay

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P8				
Sample Location					
Date	5/23/2018     Lab No.     4256				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

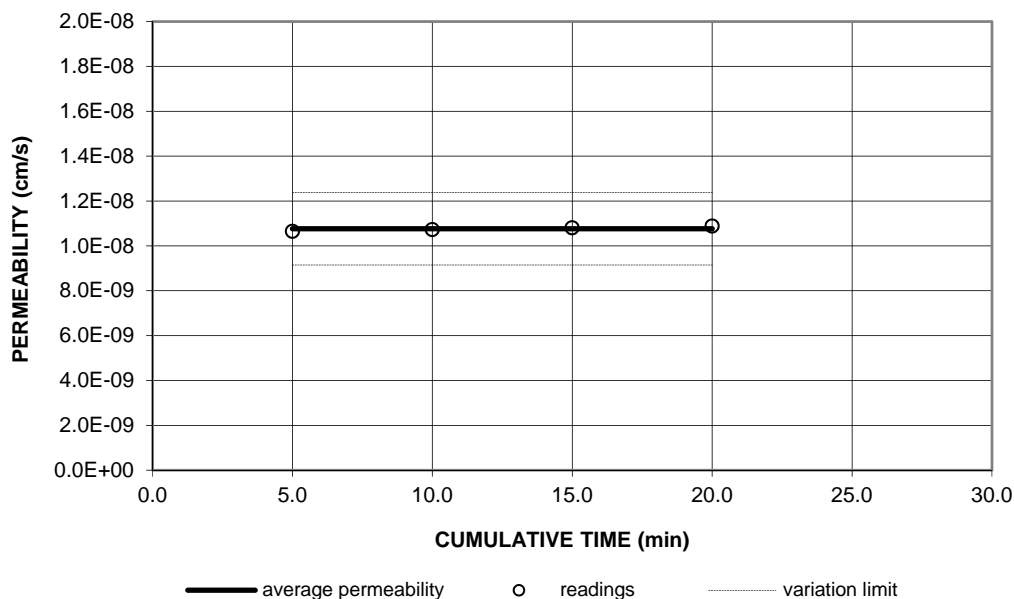
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.29	9.43E-09	<b>9.5E-09</b>
21.00	5.00	10.00	14.19	9.49E-09	
21.00	5.00	15.00	14.10	9.56E-09	
21.00	5.00	20.00	14.00	9.62E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.92	2.89
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.89
Comp. Method		Specimen Volume, (cu. In.)		18.51	18.99
% Recompct.		Moisture Content, (%)		33.71	35.76
Test Pressures (psi)		Percent Saturation (%)		96.71	97.39
Backpressure	90.00	Wet Mass Density (pcf)		116.06	114.86
Cell pressure	100.00	Dry Mass Density (pcf)		86.80	84.60
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.94	0.99
Specific Gravity	2.70	Calculated Porosity, %		48.48	49.78

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P9				
Sample Location					
Date	5/30/2018      Lab No.      4276				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

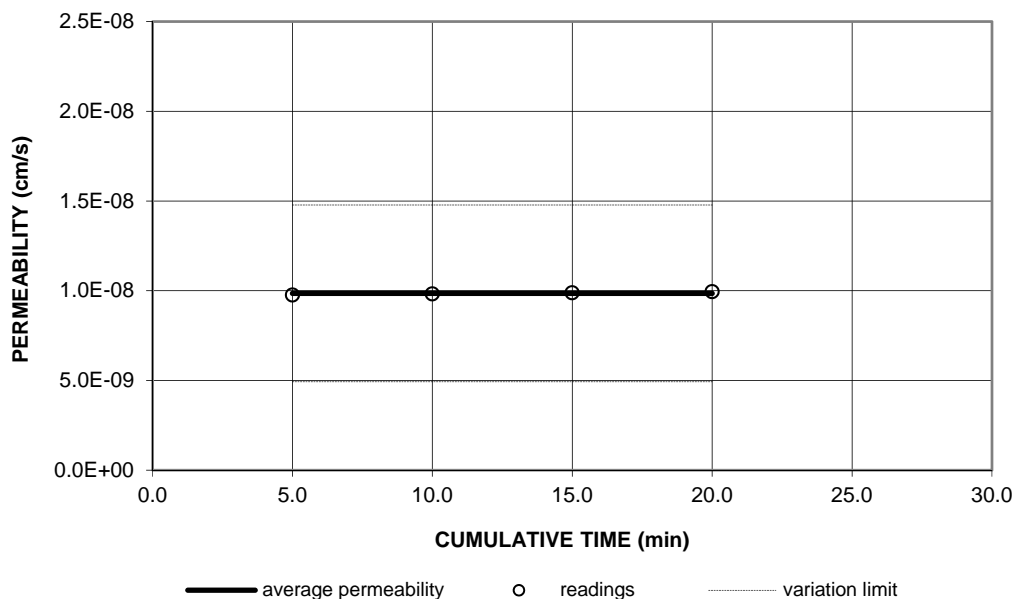
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.81	1.06E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.71	1.07E-08	
21.00	5.00	15.00	12.62	1.08E-08	
21.00	5.00	20.00	12.53	1.09E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.91	18.89
% Recompct.		Moisture Content, (%)		34.46	36.50
Test Pressures (psi)		Percent Saturation (%)		96.63	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.41	117.27
Cell pressure	100.00	Dry Mass Density (pcf)		85.83	85.91
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	0.99
Specific Gravity	2.70	Calculated Porosity, %		49.06	49.64

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P10				
Sample Location					
Date	5/30/2018     Lab No.     4277				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

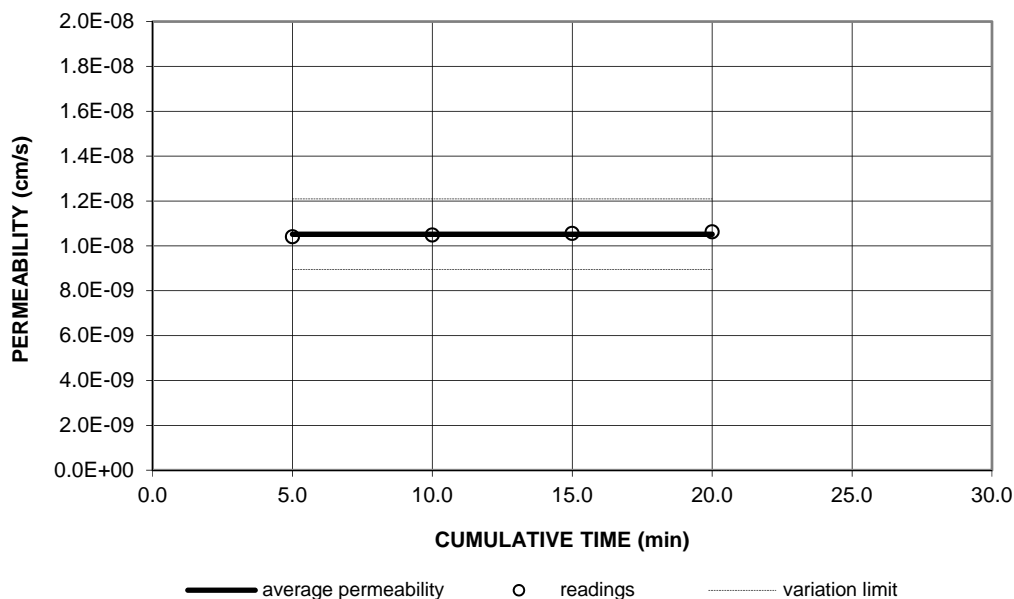
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.02	9.76E-09	<b>9.9E-09</b>
21.00	5.00	10.00	13.93	9.82E-09	
21.00	5.00	15.00	13.84	9.88E-09	
21.00	5.00	20.00	13.75	9.95E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.05	3.04
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		19.08	19.00
% Recompct.		Moisture Content, (%)		35.26	37.10
Test Pressures (psi)		Percent Saturation (%)		97.93	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.55	117.58
Cell pressure	100.00	Dry Mass Density (pcf)		85.43	85.76
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	1.00
Specific Gravity	2.70	Calculated Porosity, %		49.30	50.04

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P11				
Sample Location					
Date	5/30/2018     Lab No.     4278				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

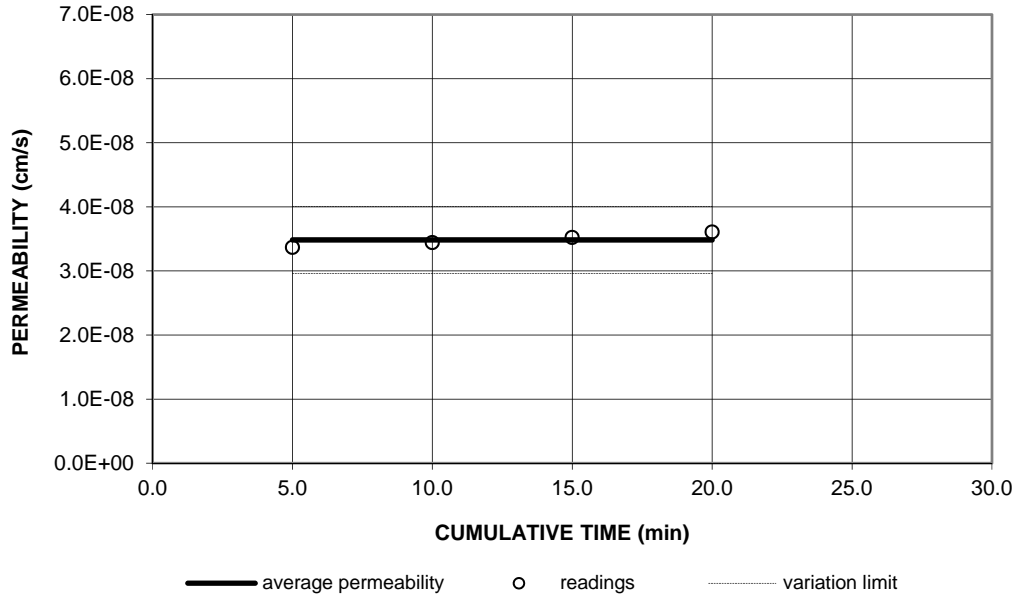
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.17	1.04E-08	<b>1.1E-08</b>
21.00	5.00	10.00	13.08	1.05E-08	
21.00	5.00	15.00	12.99	1.06E-08	
21.00	5.00	20.00	12.89	1.06E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.82	18.75
% Recompct.		Moisture Content, (%)		33.45	34.97
Test Pressures (psi)		Percent Saturation (%)		94.60	99.72
Backpressure	90.00	Wet Mass Density (pcf)		115.02	116.80
Cell pressure	100.00	Dry Mass Density (pcf)		86.19	86.54
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.95	0.95
Specific Gravity	2.70	Calculated Porosity, %		48.84	48.64

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	REDDISH BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P12				
Sample Location					
Date	5/30/2018     Lab No.     4279				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.59	3.37E-08	<b>3.5E-08</b>
21.00	5.00	10.00	12.31	3.44E-08	
21.00	5.00	15.00	12.03	3.52E-08	
21.00	5.00	20.00	11.75	3.61E-08	

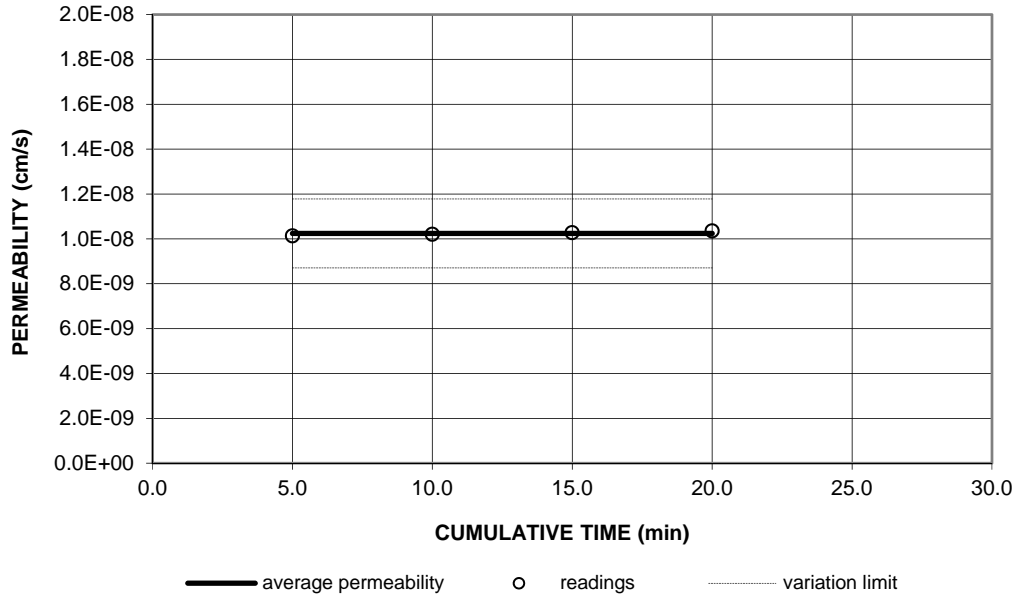
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.96	2.88
Opti. M.C., (%)		Specimen Diameter, (inches)		2.77	2.77
Comp. Method		Specimen Volume, (cu. In.)		17.76	17.32
% Recompct.		Moisture Content, (%)		41.76	41.42
Test Pressures (psi)		Percent Saturation (%)		99.07	100.00
Backpressure	90.00	Wet Mass Density (pcf)		111.70	114.26
Cell pressure	100.00	Dry Mass Density (pcf)		78.80	80.79
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.14	1.12
Specific Gravity	2.70	Calculated Porosity, %		53.23	52.80

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P13				
Sample Location					
Date	5/30/2018 Lab No. 4371				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

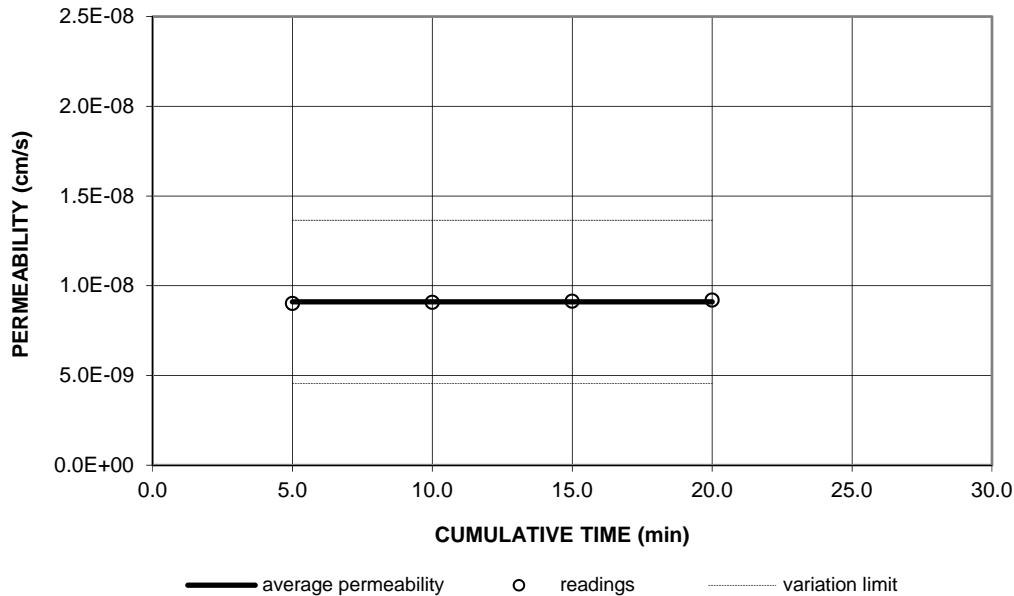
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.47	1.01E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.37	1.02E-08	
21.00	5.00	15.00	13.27	1.03E-08	
21.00	5.00	20.00	13.17	1.04E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.83	2.81
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		17.70	17.57
% Recompct.		Moisture Content, (%)		37.66	38.88
Test Pressures (psi)		Percent Saturation (%)		96.75	100.00
Backpressure	90.00	Wet Mass Density (pcf)		113.08	114.93
Cell pressure	100.00	Dry Mass Density (pcf)		82.14	82.76
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.05	1.05
Specific Gravity	2.70	Calculated Porosity, %		51.24	51.21

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P14				
Sample Location					
Date	5/30/2018 Lab No. 4669				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

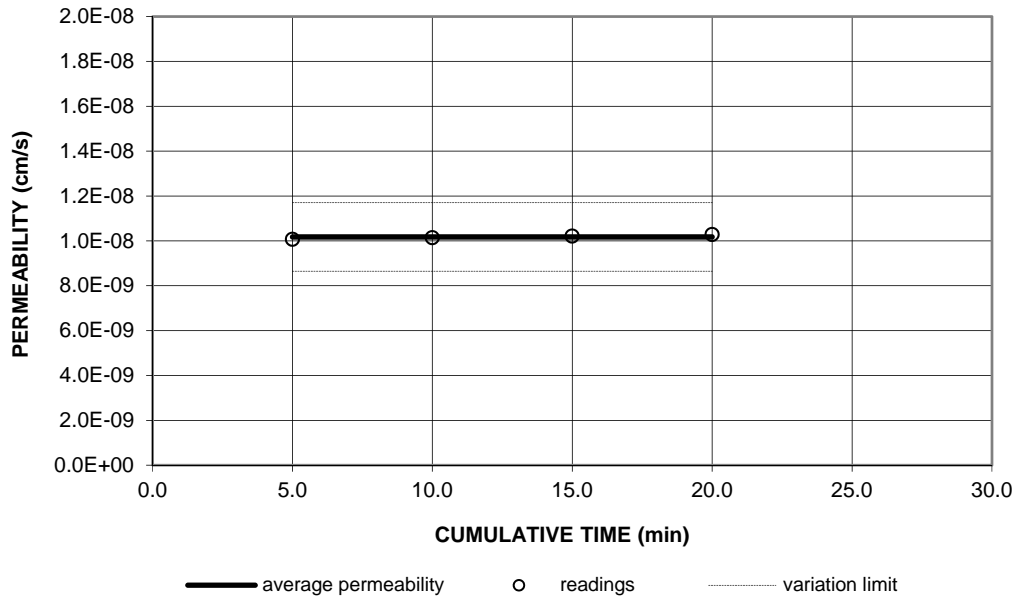
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	15.18	9.01E-09	<b>9.1E-09</b>
21.00	5.00	10.00	15.08	9.07E-09	
21.00	5.00	15.00	14.98	9.13E-09	
21.00	5.00	20.00	14.88	9.19E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.73	2.72
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		17.05	17.03
% Recompct.		Moisture Content, (%)		36.70	38.56
Test Pressures (psi)		Percent Saturation (%)		99.28	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.26	116.97
Cell pressure	100.00	Dry Mass Density (pcf)		84.32	84.41
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.00	1.04
Specific Gravity	2.70	Calculated Porosity, %		49.95	51.01

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P15				
Sample Location					
Date	6/5/2018 Lab No. 4670				

## FLEXIBLE WALL PERMEABILITY TEST




Test Specification: ASTM D 5084 Method F

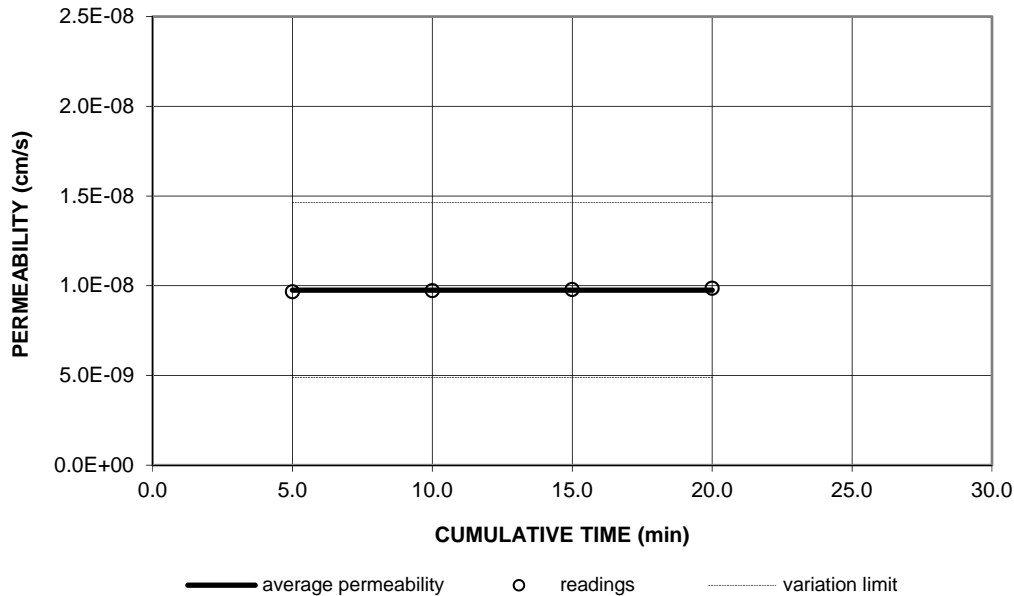
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.50	1.01E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.41	1.01E-08	
21.00	5.00	15.00	13.32	1.02E-08	
21.00	5.00	20.00	13.23	1.03E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.89	18.83
% Recompct.		Moisture Content, (%)		32.84	35.18
Test Pressures (psi)		Percent Saturation (%)		99.97	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.61	121.09
Cell pressure	100.00	Dry Mass Density (pcf)		89.29	89.57
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.89	0.95
Specific Gravity	2.70	Calculated Porosity, %		47.01	48.72

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P16				
Sample Location					
Date	6/5/2018 Lab No. 4696				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

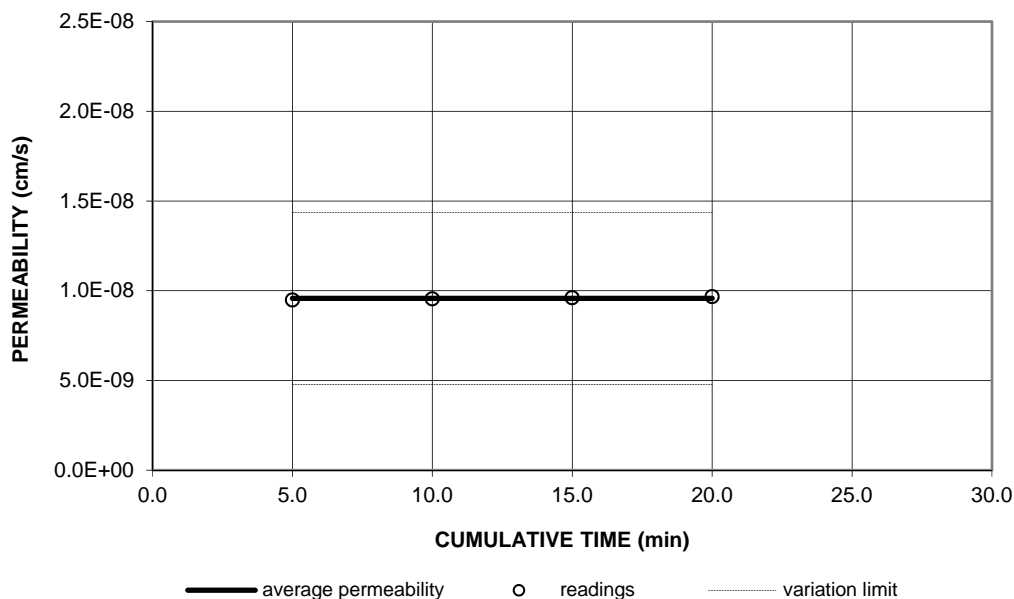
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.06	9.66E-09	9.8E-09
21.00	5.00	10.00	13.97	9.72E-09	
21.00	5.00	15.00	13.87	9.79E-09	
21.00	5.00	20.00	13.78	9.85E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.04
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		19.16	19.15
% Recompct.		Moisture Content, (%)		30.50	31.94
Test Pressures (psi)		Percent Saturation (%)		95.43	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.02	119.45
Cell pressure	100.00	Dry Mass Density (pcf)		90.44	90.53
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.86	0.86
Specific Gravity	2.70	Calculated Porosity, %		46.32	46.31

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P17				
Sample Location					
Date	6/5/2018      Lab No.      4697				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

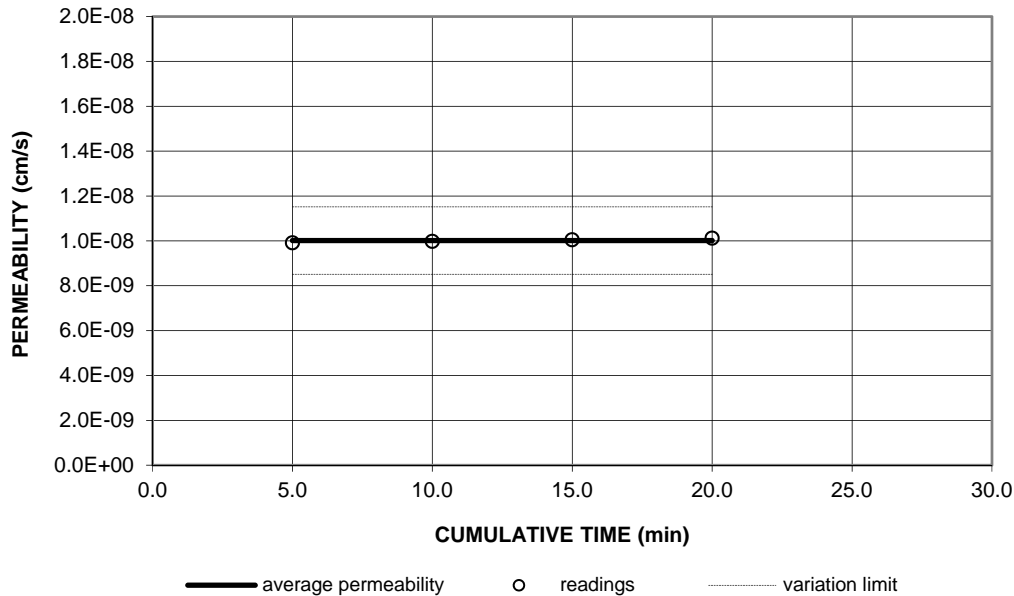
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.41	9.48E-09	<b>9.6E-09</b>
21.00	5.00	10.00	14.31	9.54E-09	
21.00	5.00	15.00	14.22	9.61E-09	
21.00	5.00	20.00	14.13	9.67E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.84	18.87
% Recompct.		Moisture Content, (%)		31.65	32.82
Test Pressures (psi)		Percent Saturation (%)		96.02	99.21
Backpressure	90.00	Wet Mass Density (pcf)		117.36	118.20
Cell pressure	100.00	Dry Mass Density (pcf)		89.14	88.99
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.89	0.89
Specific Gravity	2.70	Calculated Porosity, %		47.09	47.18

USCS                      SG Assumed    LL                                      PI  
 Permeant Used:        WATER        Remarks                      BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction			Tested by	FCE	Reviewed by	TGG
Client	AEP	W.O.#	35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P18						
Sample Location							
Date	6/5/2018	Lab No.	4698				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

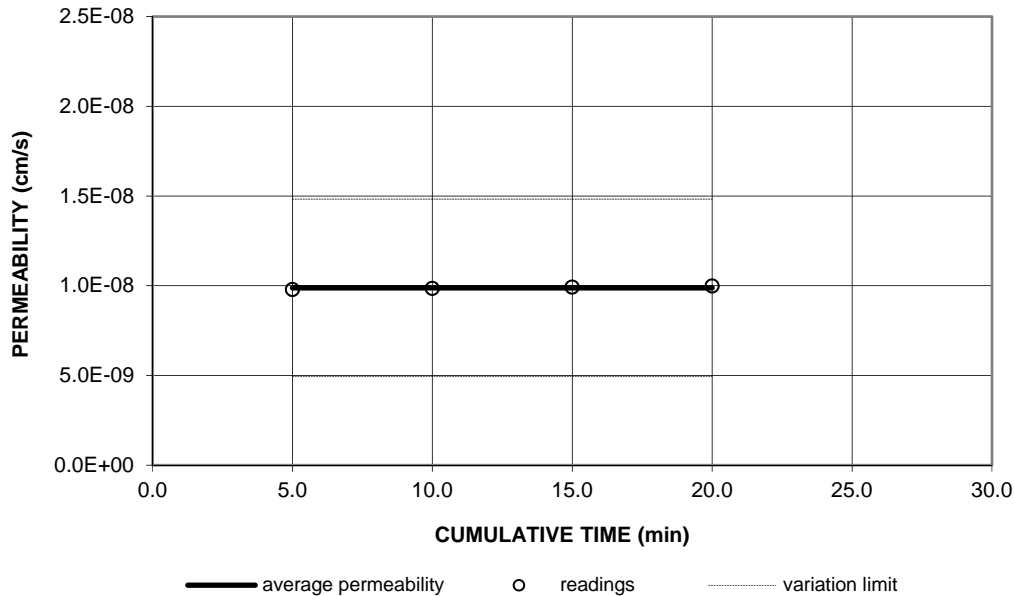
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.79	9.91E-09	<b>1.0E-08</b>
21.00	5.00	10.00	13.70	9.98E-09	
21.00	5.00	15.00	13.60	1.00E-08	
21.00	5.00	20.00	13.51	1.01E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.96	2.97
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.53	18.56
% Recompct.		Moisture Content, (%)		34.86	35.98
Test Pressures (psi)		Percent Saturation (%)		98.84	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.39	117.15
Cell pressure	100.00	Dry Mass Density (pcf)		86.30	86.16
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.95	0.97
Specific Gravity	2.70	Calculated Porosity, %		48.78	49.27

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P19				
Sample Location					
Date	6/5/2018     Lab No.     4699				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

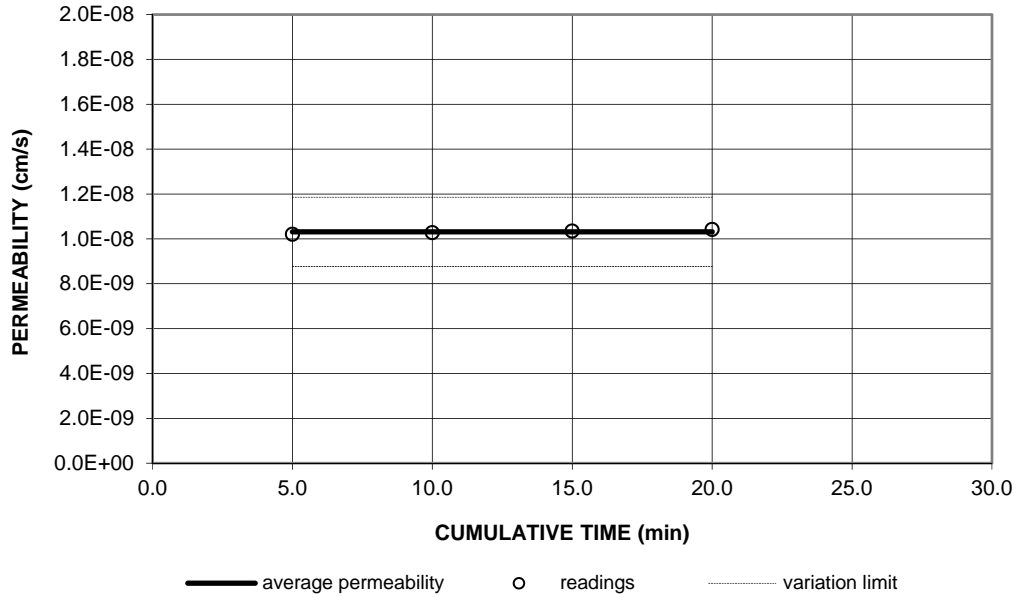
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.04	9.79E-09	9.9E-09
21.00	5.00	10.00	13.95	9.85E-09	
21.00	5.00	15.00	13.86	9.92E-09	
21.00	5.00	20.00	13.77	9.98E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.03	3.02
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.83	18.79
% Recompct.		Moisture Content, (%)		34.02	34.80
Test Pressures (psi)		Percent Saturation (%)		94.41	97.02
Backpressure	90.00	Wet Mass Density (pcf)		114.44	115.37
Cell pressure	100.00	Dry Mass Density (pcf)		85.39	85.59
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	0.97
Specific Gravity	2.70	Calculated Porosity, %		49.32	49.20

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P20				
Sample Location					
Date	6/5/2018      Lab No.      4700				

## FLEXIBLE WALL PERMEABILITY TEST




Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.51	1.02E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.42	1.03E-08	
21.00	5.00	15.00	13.33	1.03E-08	
21.00	5.00	20.00	13.24	1.04E-08	

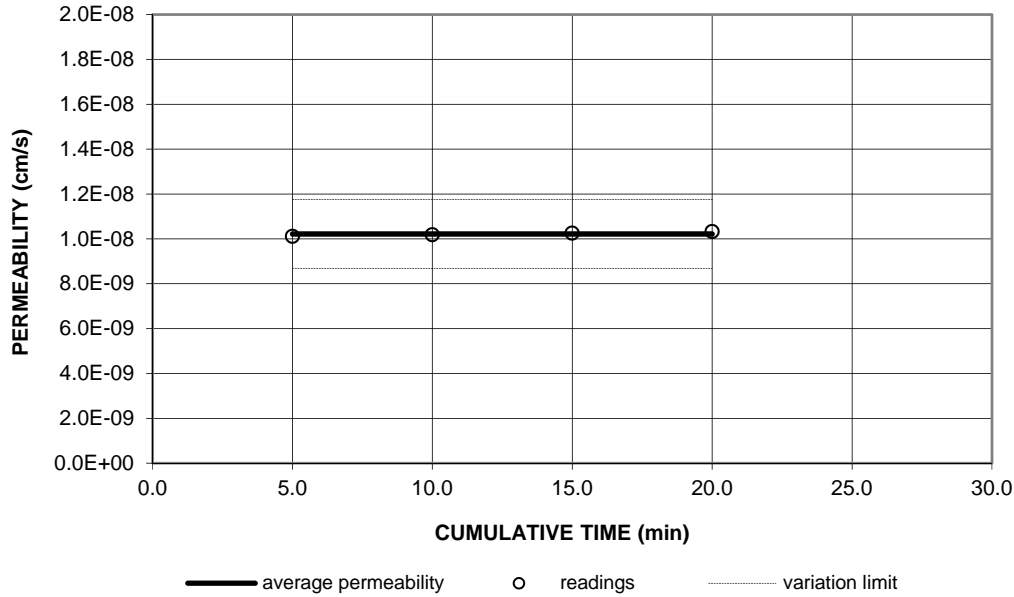
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.81	2.81
Comp. Method		Specimen Volume, (cu. In.)		18.61	18.61
% Recompct.		Moisture Content, (%)		30.74	31.96
Test Pressures (psi)		Percent Saturation (%)		96.76	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.57	119.66
Cell pressure	100.00	Dry Mass Density (pcf)		90.69	90.69
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.86	0.86
Specific Gravity	2.70	Calculated Porosity, %		46.17	46.32

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P21				
Sample Location					
Date	6/5/2018 Lab No. 4701				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

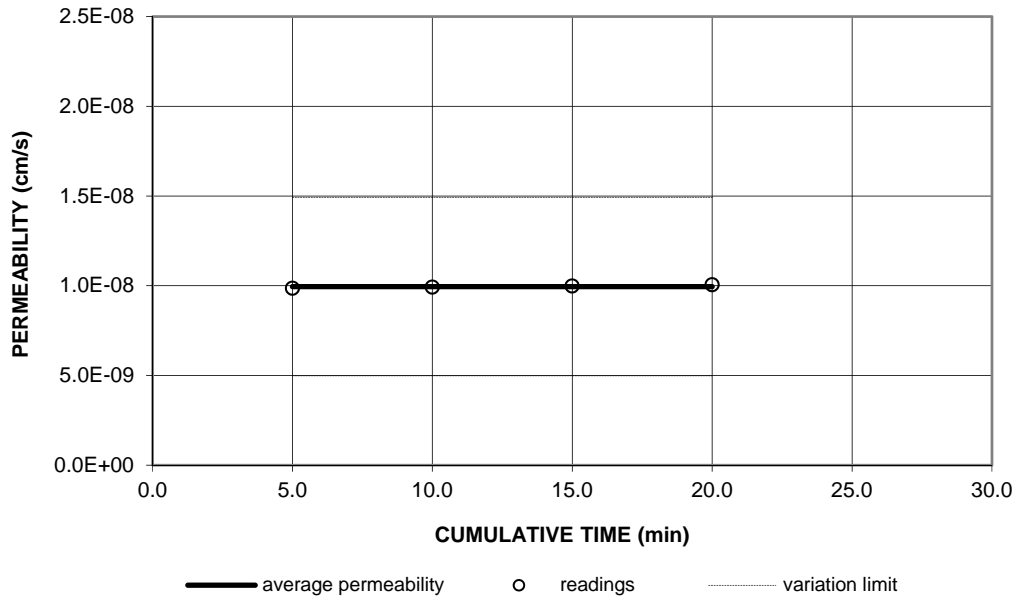
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.56	1.01E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.47	1.02E-08	
21.00	5.00	15.00	13.38	1.03E-08	
21.00	5.00	20.00	13.28	1.03E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.65	18.61
% Recompct.		Moisture Content, (%)		30.74	31.69
Test Pressures (psi)		Percent Saturation (%)		85.86	88.88
Backpressure	90.00	Wet Mass Density (pcf)		112.00	113.04
Cell pressure	100.00	Dry Mass Density (pcf)		85.67	85.84
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	0.96
Specific Gravity	2.70	Calculated Porosity, %		49.15	49.05

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P22				
Sample Location					
Date	6/7/2018     Lab No.     4702				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

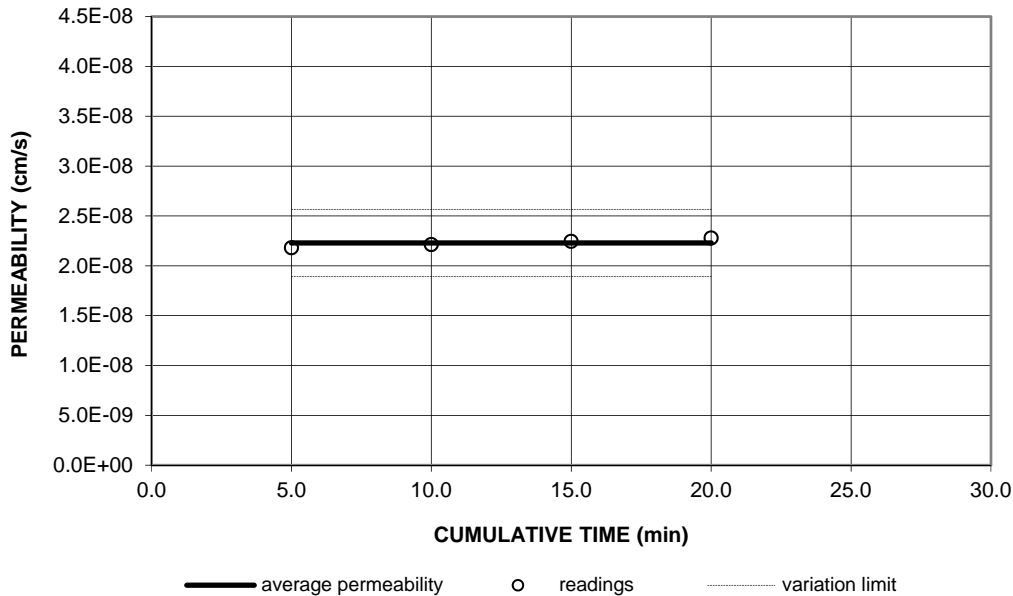
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.86	9.85E-09	<b>1.0E-08</b>
21.00	5.00	10.00	13.77	9.92E-09	
21.00	5.00	15.00	13.68	9.98E-09	
21.00	5.00	20.00	13.59	1.01E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.05	3.04
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		19.08	19.04
% Recompct.		Moisture Content, (%)		34.55	35.84
Test Pressures (psi)		Percent Saturation (%)		97.69	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.96	117.26
Cell pressure	100.00	Dry Mass Density (pcf)		86.18	86.32
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.95	0.97
Specific Gravity	2.70	Calculated Porosity, %		48.85	49.18

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN AND GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P23				
Sample Location					
Date	6/7/2018 Lab No. 4703				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

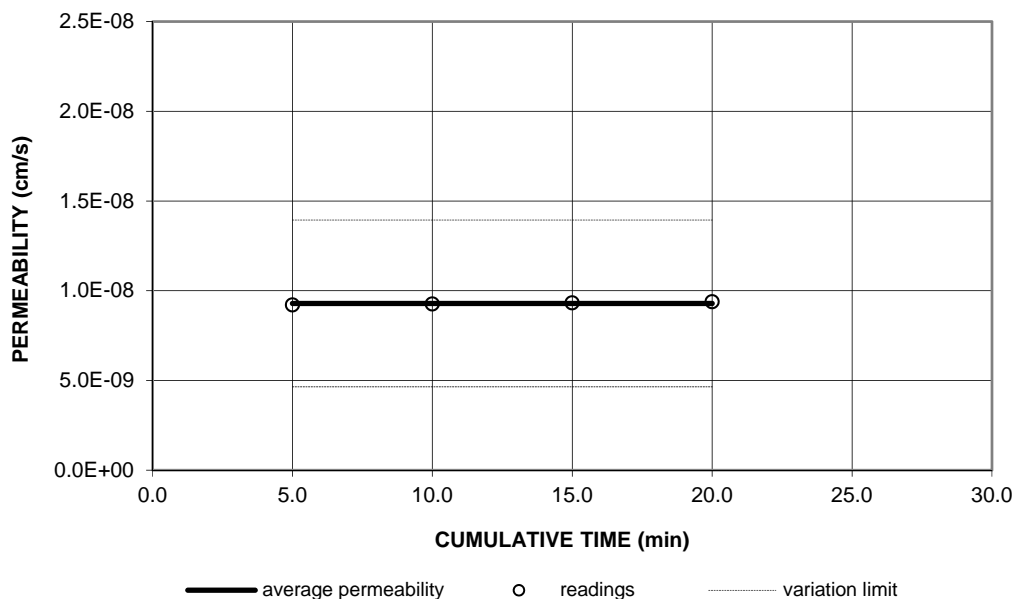
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.63	2.18E-08	<b>2.2E-08</b>
21.00	5.00	10.00	12.45	2.21E-08	
21.00	5.00	15.00	12.26	2.25E-08	
21.00	5.00	20.00	12.08	2.28E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.03
Opti. M.C., (%)		Specimen Diameter, (inches)		2.81	2.81
Comp. Method		Specimen Volume, (cu. In.)		18.78	18.75
% Reompct.		Moisture Content, (%)		35.19	36.29
Test Pressures (psi)		Percent Saturation (%)		98.31	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.83	116.97
Cell pressure	100.00	Dry Mass Density (pcf)		85.68	85.82
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	0.98
Specific Gravity	2.70	Calculated Porosity, %		49.15	49.49

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P24				
Sample Location					
Date	6/7/2018      Lab No.      4704				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

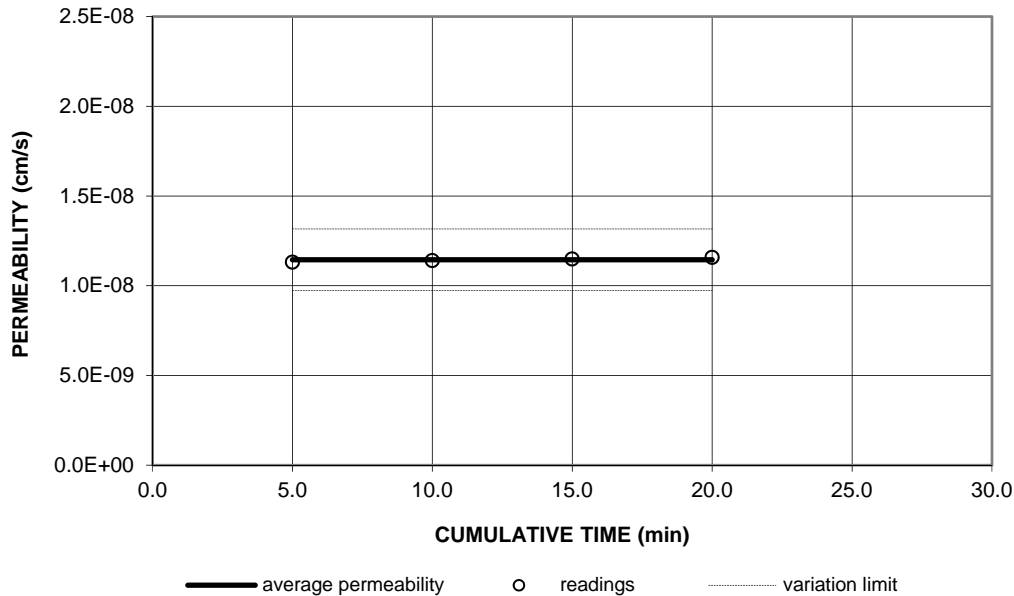
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.81	9.20E-09	<b>9.3E-09</b>
21.00	5.00	10.00	14.72	9.26E-09	
21.00	5.00	15.00	14.62	9.32E-09	
21.00	5.00	20.00	14.53	9.38E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.83	18.85
% Recompct.		Moisture Content, (%)		34.71	35.74
Test Pressures (psi)		Percent Saturation (%)		96.63	99.38
Backpressure	90.00	Wet Mass Density (pcf)		115.22	116.03
Cell pressure	100.00	Dry Mass Density (pcf)		85.53	85.48
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	0.97
Specific Gravity	2.70	Calculated Porosity, %		49.23	49.27

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P25				
Sample Location					
Date	6/7/2018      Lab No.      4757				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

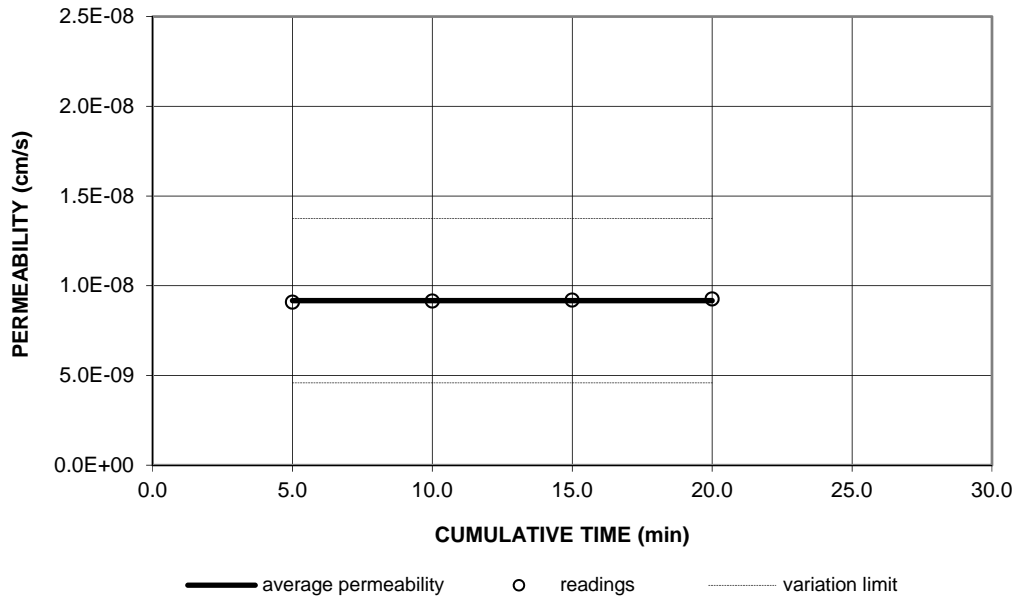
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.12	1.13E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.03	1.14E-08	
21.00	5.00	15.00	11.94	1.15E-08	
21.00	5.00	20.00	11.85	1.16E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.70	18.69
% Recompct.		Moisture Content, (%)		35.19	36.85
Test Pressures (psi)		Percent Saturation (%)		98.84	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.13	117.63
Cell pressure	100.00	Dry Mass Density (pcf)		85.90	85.96
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	0.99
Specific Gravity	2.70	Calculated Porosity, %		49.01	49.87

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P26				
Sample Location					
Date	6/7/2018     Lab No.     4758				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

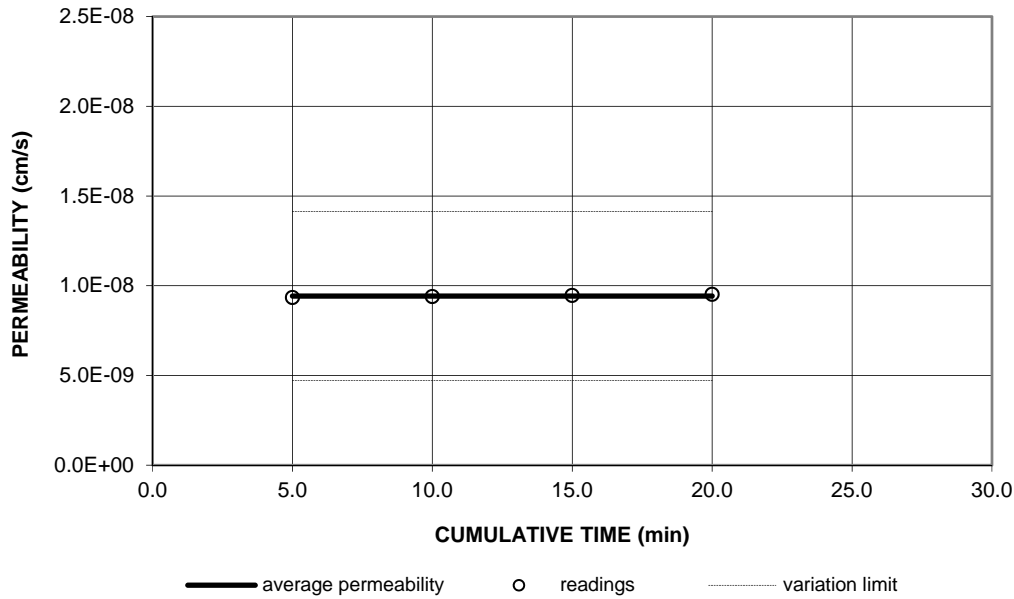
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.82	9.08E-09	<b>9.2E-09</b>
21.00	5.00	10.00	14.73	9.14E-09	
21.00	5.00	15.00	14.63	9.20E-09	
21.00	5.00	20.00	14.54	9.26E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.82
Comp. Method		Specimen Volume, (cu. In.)		19.18	18.78
% Recompct.		Moisture Content, (%)		37.34	38.90
Test Pressures (psi)		Percent Saturation (%)		99.93	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.19	119.01
Cell pressure	100.00	Dry Mass Density (pcf)		83.87	85.68
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.01	1.05
Specific Gravity	2.70	Calculated Porosity, %		50.22	51.22

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P27				
Sample Location					
Date	6/7/2018      Lab No.      4759				

## FLEXIBLE WALL PERMEABILITY TEST




Test Specification: ASTM D 5084 Method F

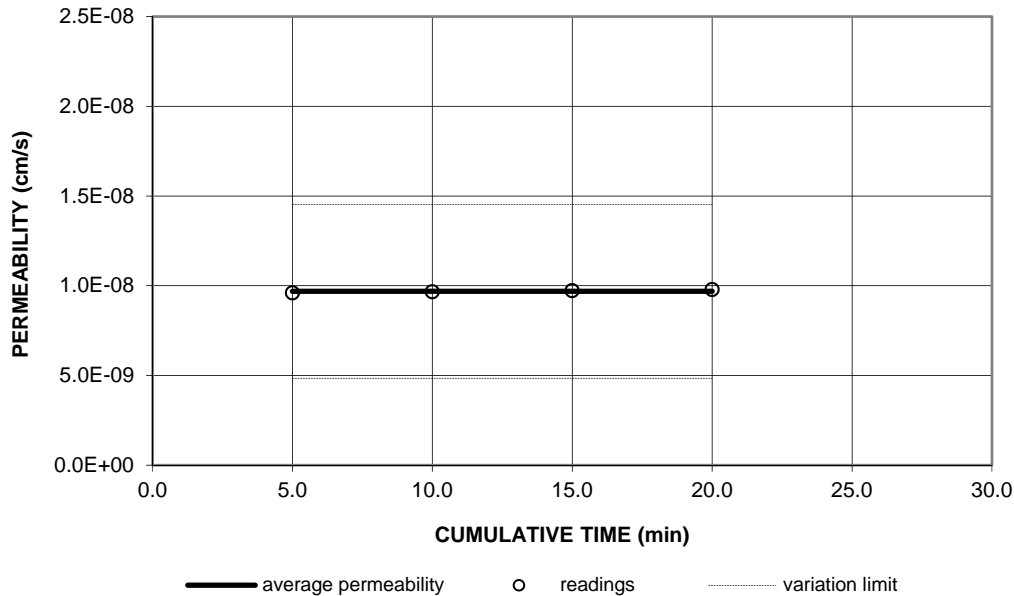
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.53	9.34E-09	<b>9.4E-09</b>
21.00	5.00	10.00	14.44	9.40E-09	
21.00	5.00	15.00	14.34	9.46E-09	
21.00	5.00	20.00	14.25	9.52E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		19.05	18.98
% Recompct.		Moisture Content, (%)		33.89	35.37
Test Pressures (psi)		Percent Saturation (%)		95.19	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.02	116.72
Cell pressure	100.00	Dry Mass Density (pcf)		85.90	86.22
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	0.96
Specific Gravity	2.70	Calculated Porosity, %		49.01	48.85

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P28				
Sample Location					
Date	6/7/2018 Lab No. 4760				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.19	9.60E-09	<b>9.7E-09</b>
21.00	5.00	10.00	14.10	9.66E-09	
21.00	5.00	15.00	14.00	9.73E-09	
21.00	5.00	20.00	13.91	9.79E-09	

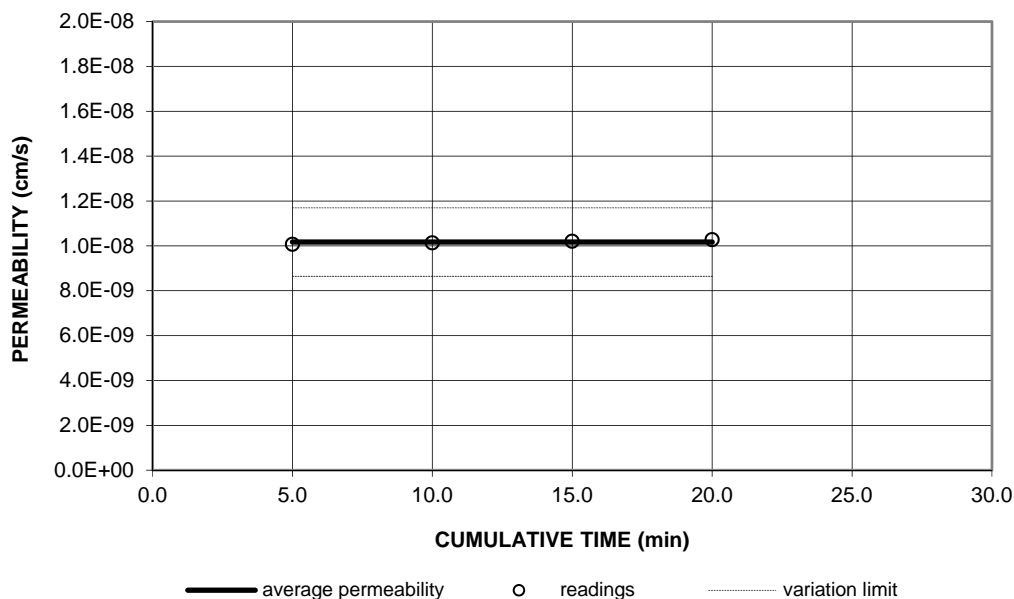
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.81	18.83
% Recompct.		Moisture Content, (%)		34.46	35.30
Test Pressures (psi)		Percent Saturation (%)		97.82	99.93
Backpressure	90.00	Wet Mass Density (pcf)		116.10	116.67
Cell pressure	100.00	Dry Mass Density (pcf)		86.35	86.23
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.95	0.95
Specific Gravity	2.70	Calculated Porosity, %		48.75	48.82

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P29				
Sample Location					
Date	6/7/2018     Lab No.     4761				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

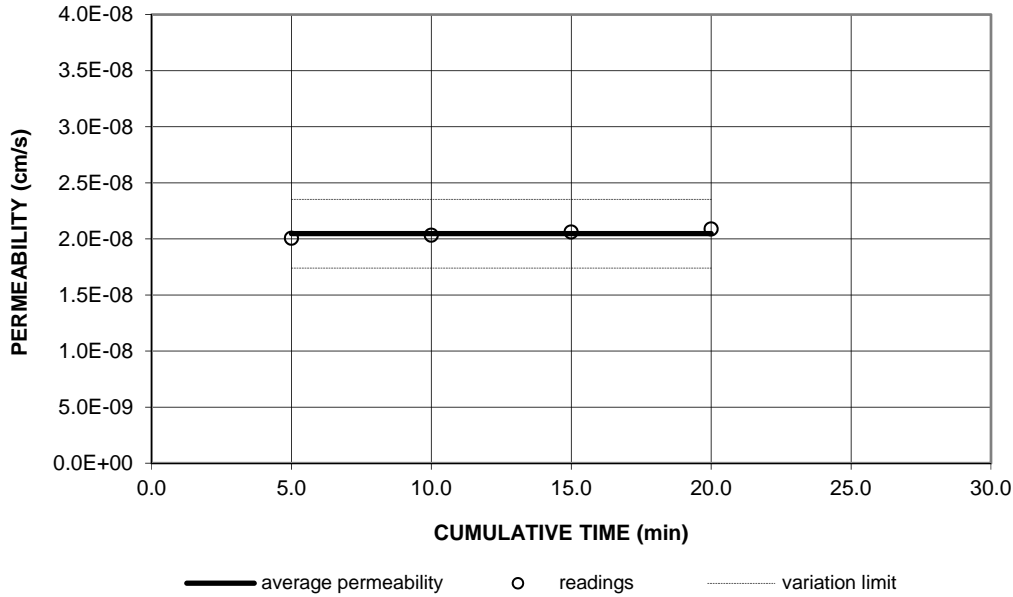
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.62	1.01E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.53	1.01E-08	
21.00	5.00	15.00	13.44	1.02E-08	
21.00	5.00	20.00	13.35	1.03E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.69	18.71
% Recompct.		Moisture Content, (%)		37.03	38.04
Test Pressures (psi)		Percent Saturation (%)		98.83	100.00
Backpressure	90.00	Wet Mass Density (pcf)		114.77	115.50
Cell pressure	100.00	Dry Mass Density (pcf)		83.75	83.67
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.01	1.03
Specific Gravity	2.70	Calculated Porosity, %		50.29	50.67

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P30				
Sample Location					
Date	6/7/2018     Lab No.     4762				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

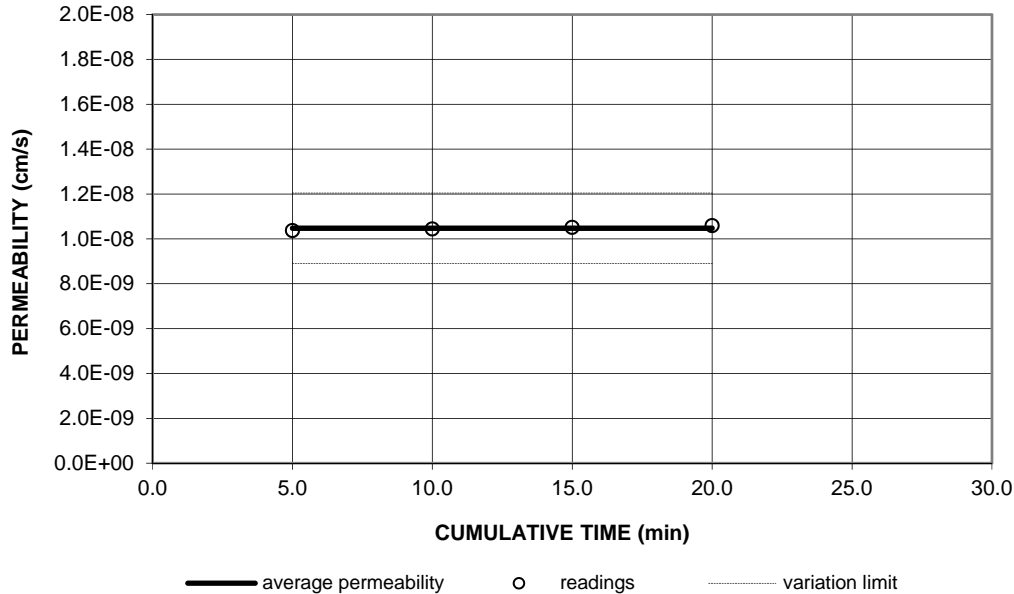
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.96	2.01E-08	<b>2.0E-08</b>
21.00	5.00	10.00	13.77	2.03E-08	
21.00	5.00	15.00	13.59	2.06E-08	
21.00	5.00	20.00	13.40	2.09E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.79	2.79
Comp. Method		Specimen Volume, (cu. In.)		18.18	18.19
% Recompct.		Moisture Content, (%)		35.01	35.93
Test Pressures (psi)		Percent Saturation (%)		96.55	99.03
Backpressure	90.00	Wet Mass Density (pcf)		114.94	115.69
Cell pressure	100.00	Dry Mass Density (pcf)		85.14	85.11
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.98	0.98
Specific Gravity	2.70	Calculated Porosity, %		49.47	49.48

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P31				
Sample Location					
Date	6/7/2018 Lab No. 4811				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

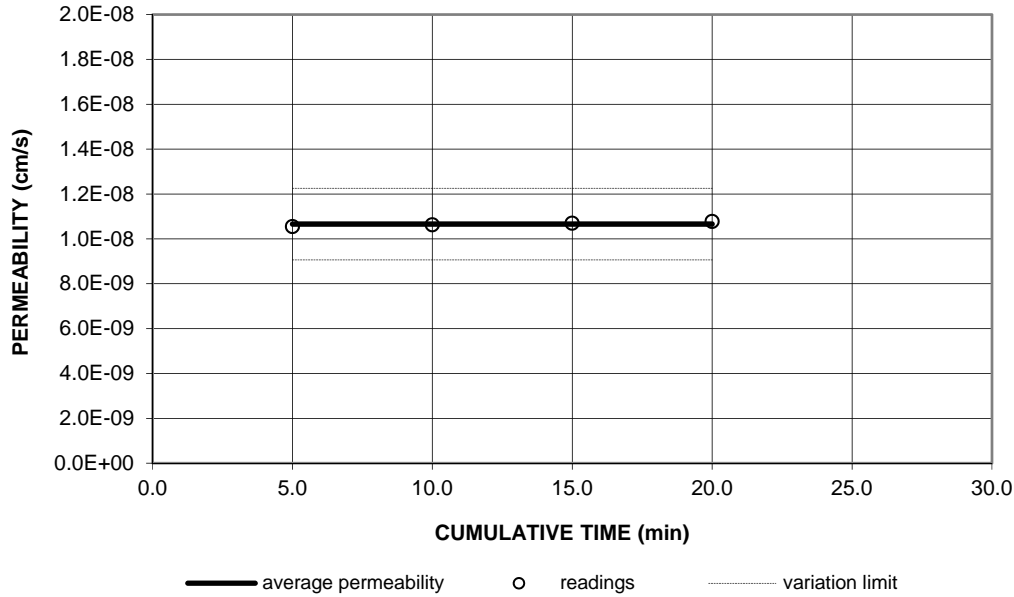
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.23	1.04E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.14	1.04E-08	
21.00	5.00	15.00	13.05	1.05E-08	
21.00	5.00	20.00	12.95	1.06E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.72	18.68
% Recompct.		Moisture Content, (%)		31.70	33.98
Test Pressures (psi)		Percent Saturation (%)		95.57	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.06	119.33
Cell pressure	100.00	Dry Mass Density (pcf)		88.88	89.06
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.90	0.92
Specific Gravity	2.70	Calculated Porosity, %		47.24	47.85

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P32				
Sample Location					
Date	6/11/2018 Lab No. 4812				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

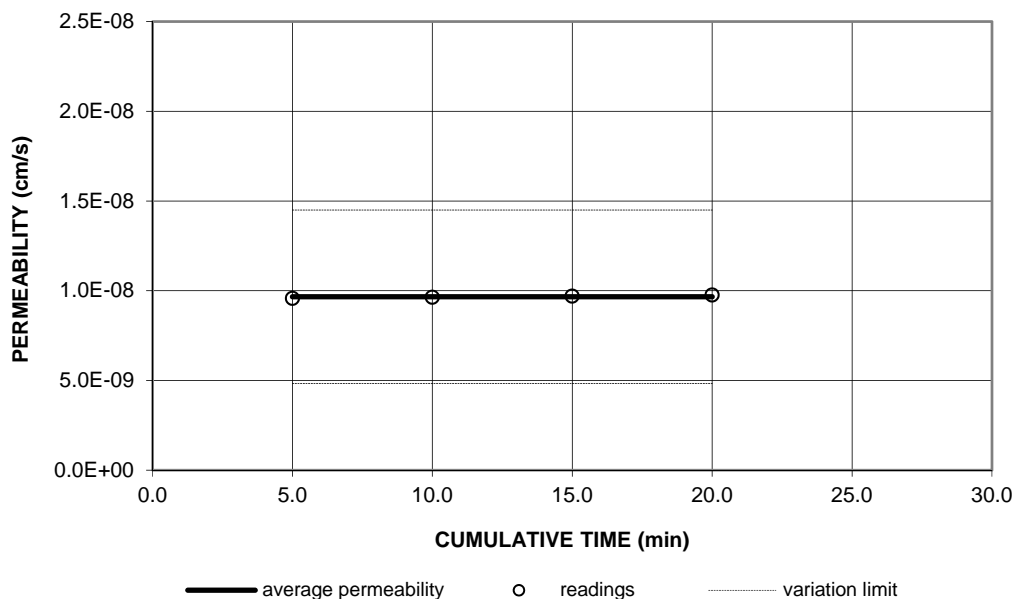
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.98	1.05E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.89	1.06E-08	
21.00	5.00	15.00	12.80	1.07E-08	
21.00	5.00	20.00	12.71	1.08E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.03
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.97	18.93
% Recompct.		Moisture Content, (%)		33.43	35.08
Test Pressures (psi)		Percent Saturation (%)		94.36	99.41
Backpressure	90.00	Wet Mass Density (pcf)		114.90	116.55
Cell pressure	100.00	Dry Mass Density (pcf)		86.11	86.28
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	0.95
Specific Gravity	2.70	Calculated Porosity, %		48.89	48.79

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction			Tested by	FCE	Reviewed by	TGG
Client	AEP	W.O.#	35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P33						
Sample Location							
Date	6/11/2018	Lab No.	4813				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

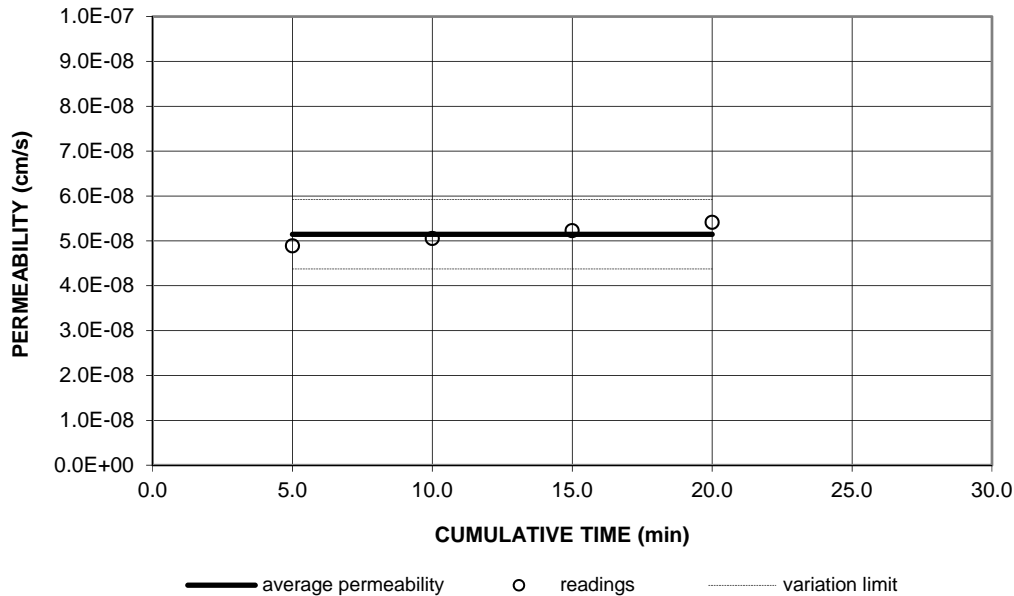
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.20	9.57E-09	<b>9.7E-09</b>
21.00	5.00	10.00	14.11	9.63E-09	
21.00	5.00	15.00	14.02	9.70E-09	
21.00	5.00	20.00	13.93	9.76E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.96	18.90
% Recompct.		Moisture Content, (%)		34.98	36.46
Test Pressures (psi)		Percent Saturation (%)		96.73	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.07	116.67
Cell pressure	100.00	Dry Mass Density (pcf)		85.25	85.50
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.98	0.98
Specific Gravity	2.70	Calculated Porosity, %		49.40	49.61

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P34				
Sample Location					
Date	6/11/2018      Lab No.      4814				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

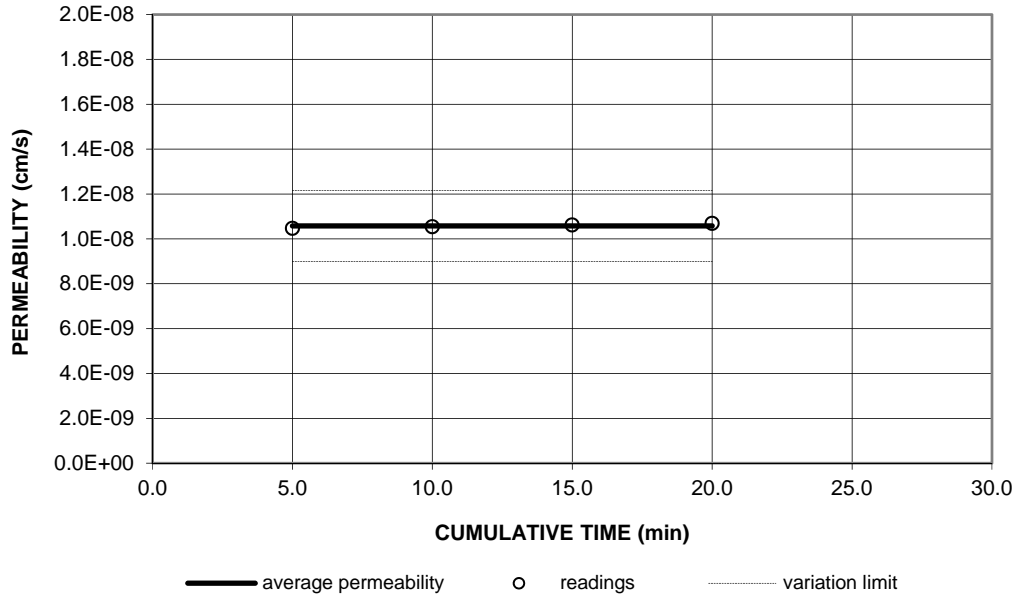
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.33	4.89E-08	<b>5.1E-08</b>
21.00	5.00	10.00	10.95	5.05E-08	
21.00	5.00	15.00	10.58	5.23E-08	
21.00	5.00	20.00	10.21	5.41E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.79	2.79
Comp. Method		Specimen Volume, (cu. In.)		18.25	18.30
% Recompct.		Moisture Content, (%)		35.83	37.44
Test Pressures (psi)		Percent Saturation (%)		98.24	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.30	116.31
Cell pressure	100.00	Dry Mass Density (pcf)		84.88	84.63
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.98	1.01
Specific Gravity	2.70	Calculated Porosity, %		49.62	50.27

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P35				
Sample Location					
Date	6/11/2018      Lab No.      4815				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

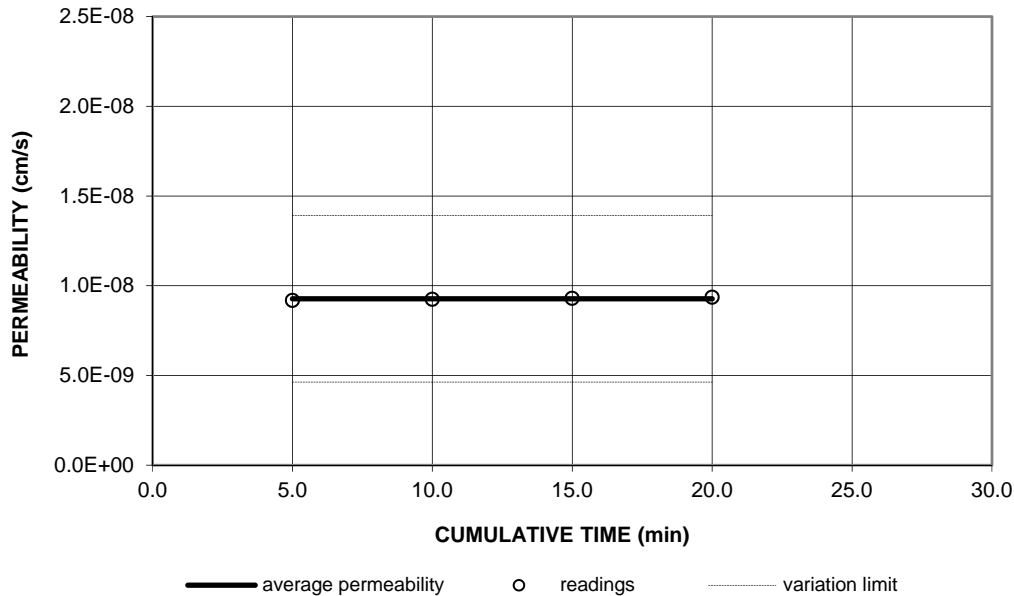
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.15	1.05E-08	<b>1.1E-08</b>
21.00	5.00	10.00	13.06	1.05E-08	
21.00	5.00	15.00	12.96	1.06E-08	
21.00	5.00	20.00	12.87	1.07E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.03
Opti. M.C., (%)		Specimen Diameter, (inches)		2.81	2.81
Comp. Method		Specimen Volume, (cu. In.)		18.77	18.81
% Recompct.		Moisture Content, (%)		33.98	36.09
Test Pressures (psi)		Percent Saturation (%)		97.24	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.15	117.74
Cell pressure	100.00	Dry Mass Density (pcf)		86.69	86.52
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.94	0.97
Specific Gravity	2.70	Calculated Porosity, %		48.55	49.35

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P36				
Sample Location					
Date	6/11/2018     Lab No.     4816				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.86	9.18E-09	<b>9.3E-09</b>
21.00	5.00	10.00	14.76	9.24E-09	
21.00	5.00	15.00	14.67	9.30E-09	
21.00	5.00	20.00	14.57	9.36E-09	

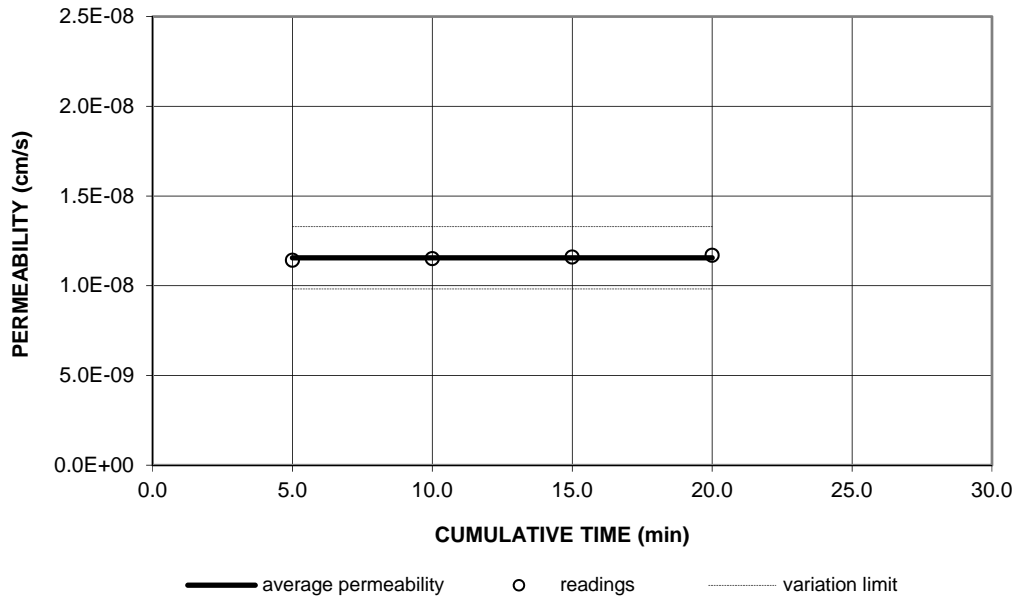
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.97	2.98
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.64	18.66
% Recompct.		Moisture Content, (%)		35.83	37.27
Test Pressures (psi)		Percent Saturation (%)		99.39	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.97	117.08
Cell pressure	100.00	Dry Mass Density (pcf)		85.38	85.29
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	1.01
Specific Gravity	2.70	Calculated Porosity, %		49.32	50.16

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction			Tested by	FCE	Reviewed by	TGG
Client	AEP	W.O.#	35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P37						
Sample Location							
Date	6/11/2018	Lab No.	4817				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

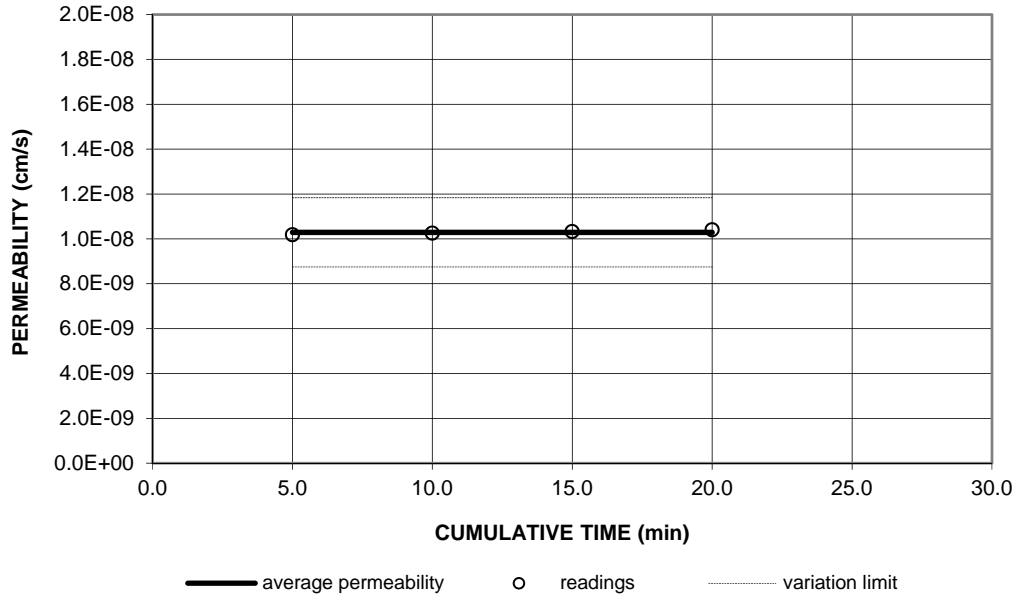
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.91	1.14E-08	<b>1.2E-08</b>
21.00	5.00	10.00	11.82	1.15E-08	
21.00	5.00	15.00	11.73	1.16E-08	
21.00	5.00	20.00	11.63	1.17E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.90	18.84
% Recompct.		Moisture Content, (%)		38.13	39.18
Test Pressures (psi)		Percent Saturation (%)		96.64	100.00
Backpressure	90.00	Wet Mass Density (pcf)		112.68	113.95
Cell pressure	100.00	Dry Mass Density (pcf)		81.57	81.87
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.07	1.06
Specific Gravity	2.70	Calculated Porosity, %		51.58	51.41

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P38				
Sample Location					
Date	6/11/2018      Lab No.      4818				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

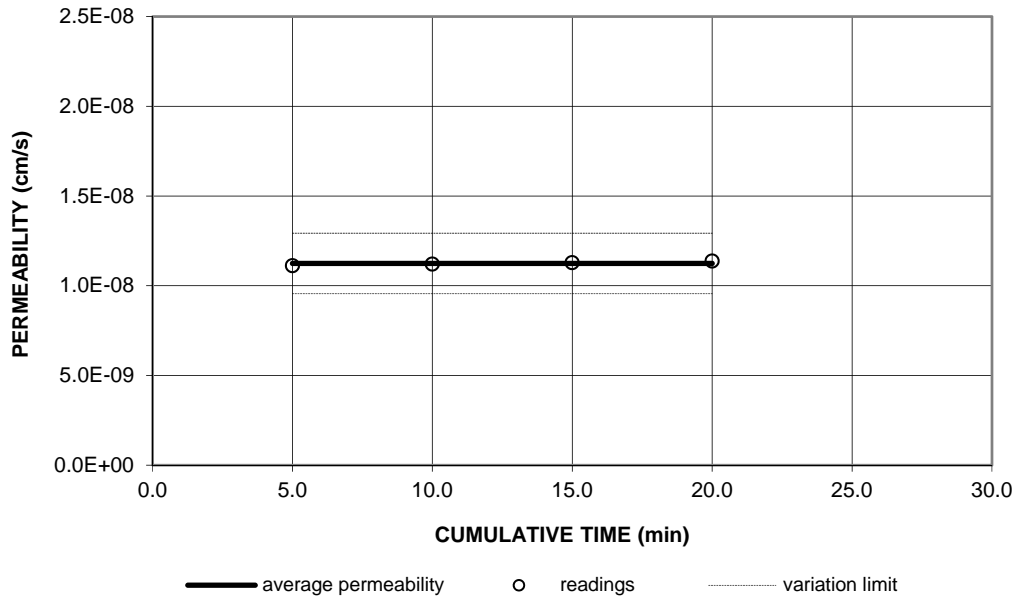
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.39	1.02E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.30	1.03E-08	
21.00	5.00	15.00	13.20	1.03E-08	
21.00	5.00	20.00	13.11	1.04E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.93	2.93
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.34	18.34
% Recompct.		Moisture Content, (%)		36.76	38.74
Test Pressures (psi)		Percent Saturation (%)		94.35	99.44
Backpressure	90.00	Wet Mass Density (pcf)		112.29	113.92
Cell pressure	100.00	Dry Mass Density (pcf)		82.11	82.11
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.05	1.05
Specific Gravity	2.70	Calculated Porosity, %		51.27	51.27

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P39				
Sample Location					
Date	6/11/2018      Lab No.      4819				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

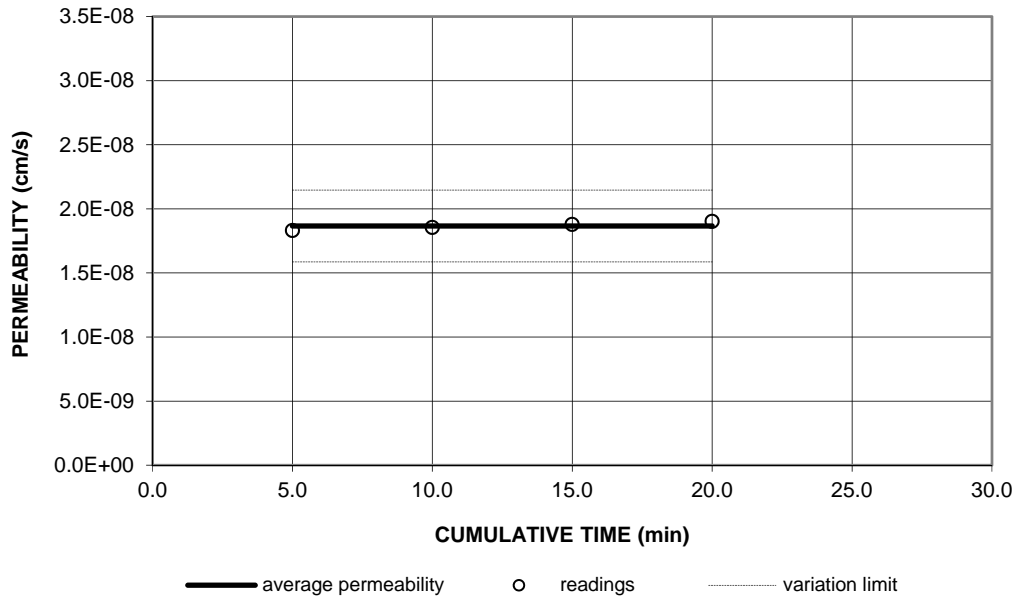
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.38	1.11E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.29	1.12E-08	
21.00	5.00	15.00	12.19	1.13E-08	
21.00	5.00	20.00	12.10	1.14E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.81	2.81
Comp. Method		Specimen Volume, (cu. In.)		18.68	18.71
% Recompct.		Moisture Content, (%)		32.33	34.33
Test Pressures (psi)		Percent Saturation (%)		89.19	94.44
Backpressure	90.00	Wet Mass Density (pcf)		112.67	114.22
Cell pressure	100.00	Dry Mass Density (pcf)		85.14	85.03
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.98	0.98
Specific Gravity	2.70	Calculated Porosity, %		49.46	49.53

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P40				
Sample Location					
Date	6/13/2018 Lab No. 4820				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

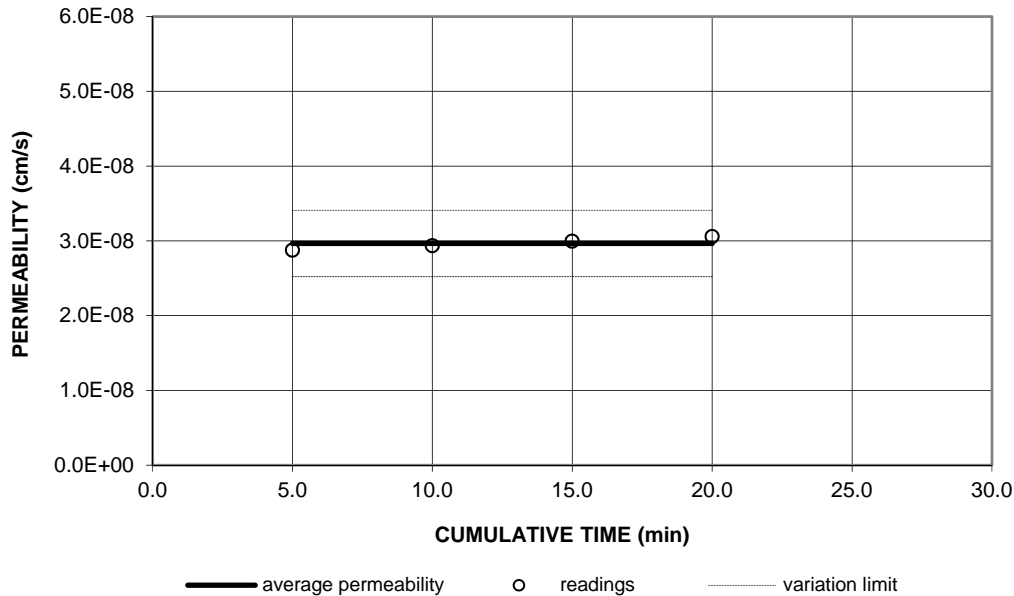
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.75	1.83E-08	<b>1.9E-08</b>
21.00	5.00	10.00	14.57	1.85E-08	
21.00	5.00	15.00	14.38	1.88E-08	
21.00	5.00	20.00	14.20	1.90E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.02
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.03	19.07
% Reompct.		Moisture Content, (%)		31.14	34.18
Test Pressures (psi)		Percent Saturation (%)		97.04	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.37	120.87
Cell pressure	100.00	Dry Mass Density (pcf)		90.26	90.08
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.87	0.92
Specific Gravity	2.70	Calculated Porosity, %		46.42	47.99

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P41				
Sample Location					
Date	6/14/2018 Lab No. 4942				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

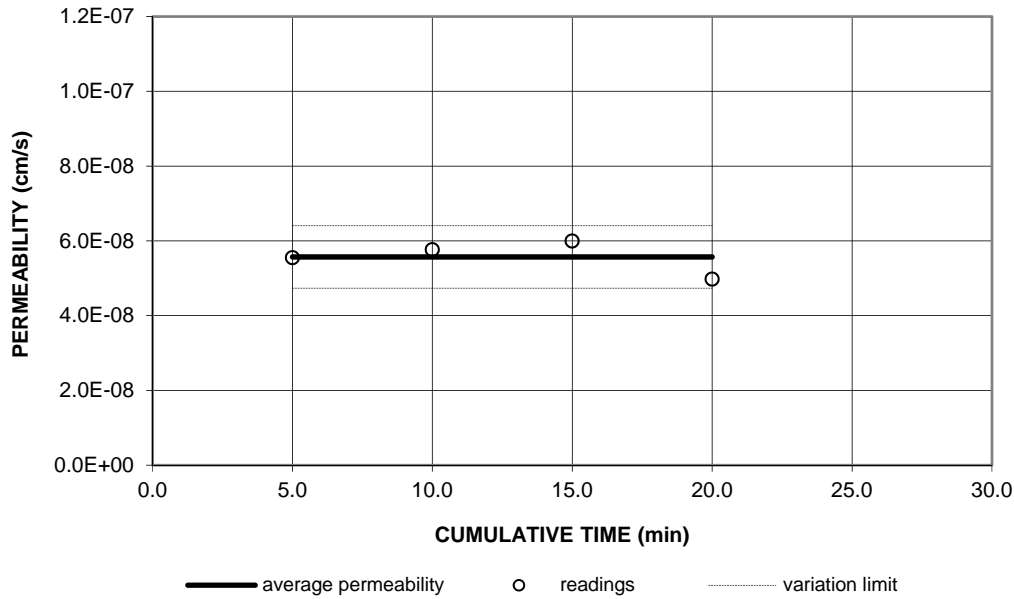
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.93	2.88E-08	<b>3.0E-08</b>
21.00	5.00	10.00	13.65	2.93E-08	
21.00	5.00	15.00	13.37	2.99E-08	
21.00	5.00	20.00	13.09	3.06E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	2.98
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.04	18.96
% Recompct.		Moisture Content, (%)		33.51	34.81
Test Pressures (psi)		Percent Saturation (%)		93.71	98.24
Backpressure	90.00	Wet Mass Density (pcf)		114.44	116.07
Cell pressure	100.00	Dry Mass Density (pcf)		85.72	86.10
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	0.96
Specific Gravity	2.70	Calculated Porosity, %		49.12	48.90

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P42				
Sample Location					
Date	6/14/2018     Lab No.     4943				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

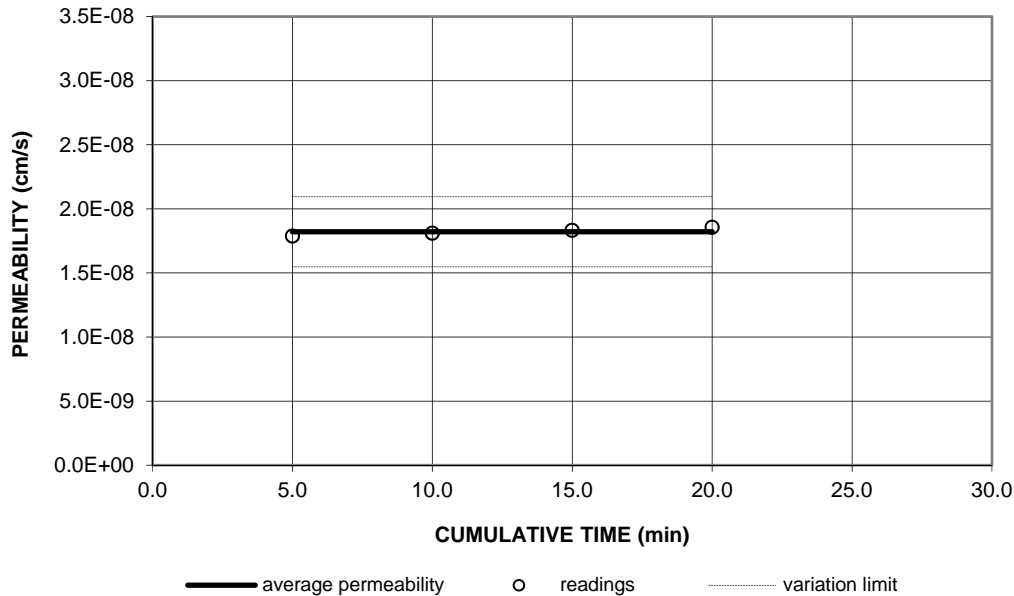
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.04	5.55E-08	<b>5.6E-08</b>
21.00	5.00	10.00	11.59	5.76E-08	
21.00	5.00	15.00	11.13	5.99E-08	
21.00	5.00	20.00	10.77	4.97E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.05	3.06
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		19.18	19.27
% Recompct.		Moisture Content, (%)		32.69	35.41
Test Pressures (psi)		Percent Saturation (%)		97.07	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.09	118.98
Cell pressure	100.00	Dry Mass Density (pcf)		88.24	87.86
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.91	0.96
Specific Gravity	2.70	Calculated Porosity, %		47.63	48.88

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P43				
Sample Location					
Date	6/14/2018      Lab No.      4944				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

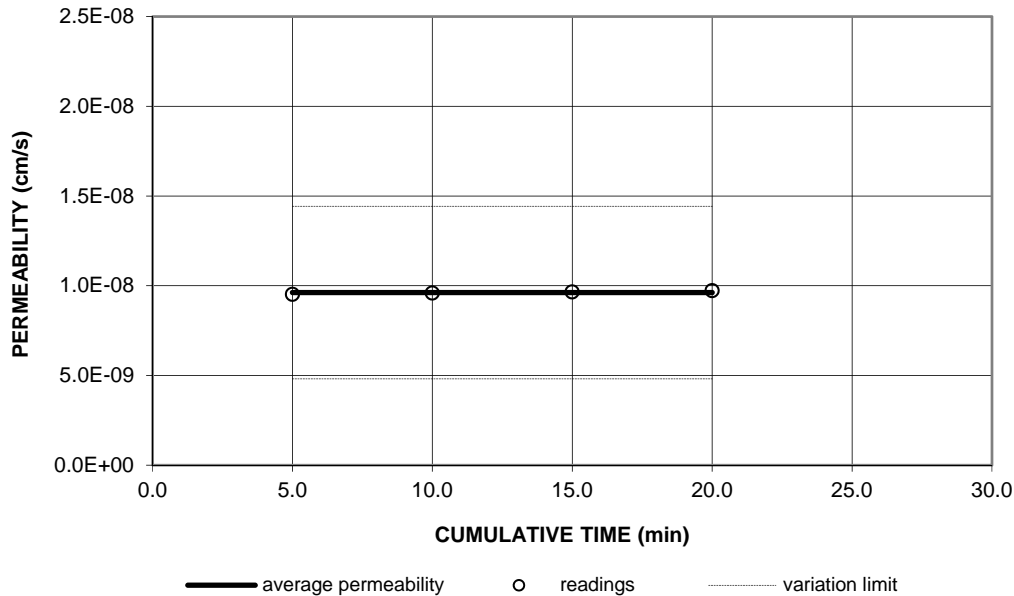
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	15.11	1.79E-08	<b>1.8E-08</b>
21.00	5.00	10.00	14.92	1.81E-08	
21.00	5.00	15.00	14.73	1.83E-08	
21.00	5.00	20.00	14.54	1.86E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.94	2.96
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		18.59	18.71
% Recompct.		Moisture Content, (%)		29.65	33.25
Test Pressures (psi)		Percent Saturation (%)		93.91	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.92	120.41
Cell pressure	100.00	Dry Mass Density (pcf)		90.95	90.37
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.85	0.90
Specific Gravity	2.70	Calculated Porosity, %		46.02	47.30

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P44				
Sample Location					
Date	6/14/2018 Lab No. 5033				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.09	9.52E-09	9.6E-09
21.00	5.00	10.00	13.99	9.59E-09	
21.00	5.00	15.00	13.90	9.65E-09	
21.00	5.00	20.00	13.80	9.72E-09	

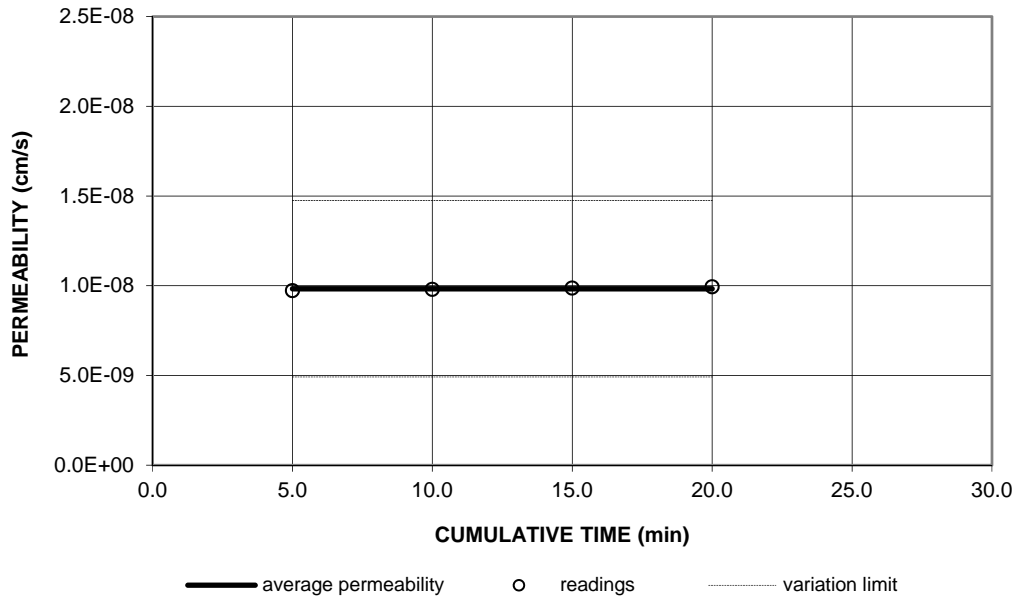
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.88	2.89
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		18.34	18.43
% Recompct.		Moisture Content, (%)		28.07	32.10
Test Pressures (psi)		Percent Saturation (%)		96.14	100.00
Backpressure	90.00	Wet Mass Density (pcf)		120.66	123.86
Cell pressure	100.00	Dry Mass Density (pcf)		94.22	93.76
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.79	0.87
Specific Gravity	2.70	Calculated Porosity, %		44.08	46.43

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P45				
Sample Location					
Date	6/14/2018      Lab No.      5039				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

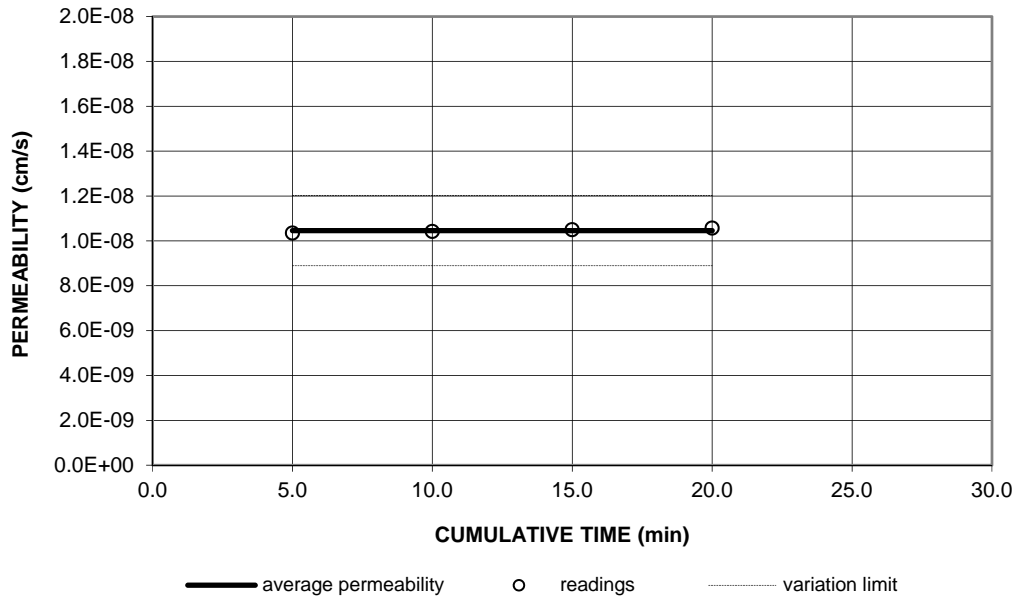
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.75	9.72E-09	<b>9.8E-09</b>
21.00	5.00	10.00	13.65	9.79E-09	
21.00	5.00	15.00	13.55	9.87E-09	
21.00	5.00	20.00	13.44	9.94E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.73	2.72
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		17.44	17.37
% Recompct.		Moisture Content, (%)		32.25	34.31
Test Pressures (psi)		Percent Saturation (%)		96.22	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.97	119.27
Cell pressure	100.00	Dry Mass Density (pcf)		88.45	88.80
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.90	0.93
Specific Gravity	2.70	Calculated Porosity, %		47.50	48.09

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P46				
Sample Location					
Date	6/14/2018 Lab No. 5040				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

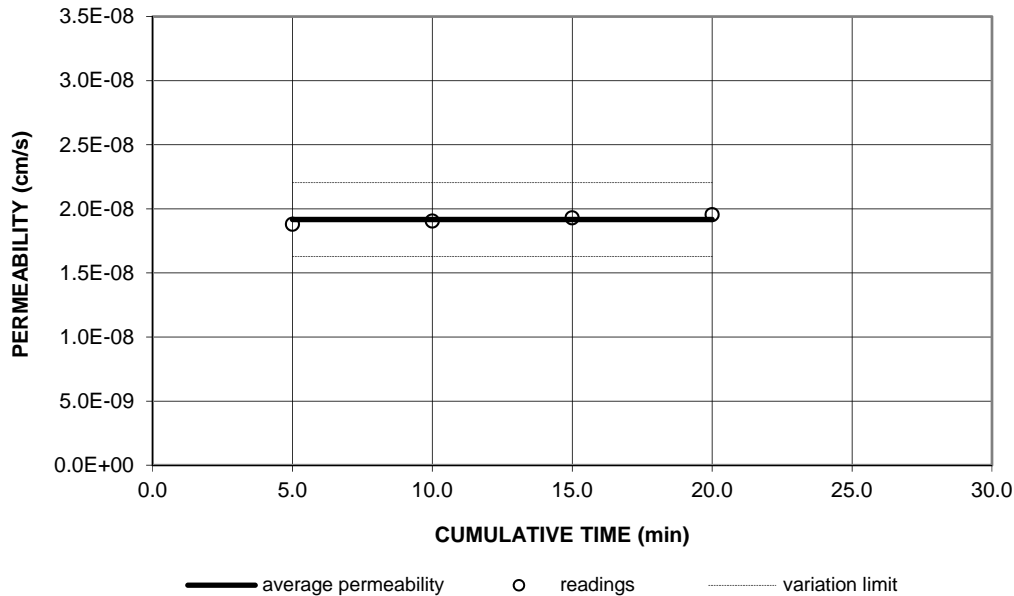
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.07	1.03E-08	<b>1.0E-08</b>
21.00	5.00	10.00	12.98	1.04E-08	
21.00	5.00	15.00	12.88	1.05E-08	
21.00	5.00	20.00	12.79	1.06E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.96	18.81
% Recompct.		Moisture Content, (%)		33.04	34.48
Test Pressures (psi)		Percent Saturation (%)		99.18	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.00	120.20
Cell pressure	100.00	Dry Mass Density (pcf)		88.69	89.38
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.90	0.93
Specific Gravity	2.70	Calculated Porosity, %		47.36	48.21

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P47				
Sample Location					
Date	6/18/2018     Lab No.     5042				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

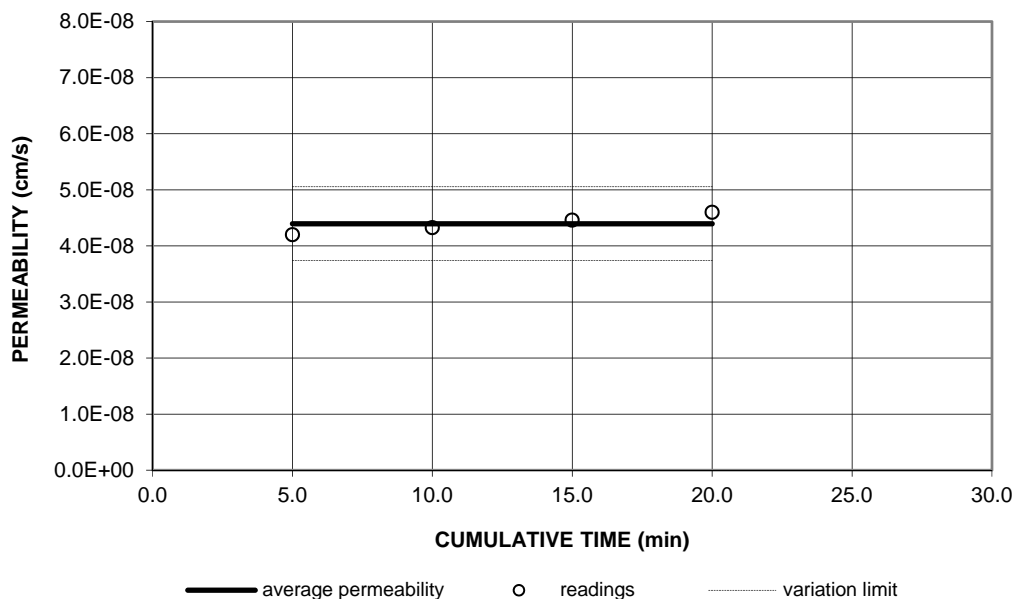
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.18	1.88E-08	<b>1.9E-08</b>
21.00	5.00	10.00	13.99	1.90E-08	
21.00	5.00	15.00	13.81	1.93E-08	
21.00	5.00	20.00	13.63	1.95E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.02
Opti. M.C., (%)		Specimen Diameter, (inches)		2.86	2.86
Comp. Method		Specimen Volume, (cu. In.)		19.31	19.32
% Recompct.		Moisture Content, (%)		31.88	34.32
Test Pressures (psi)		Percent Saturation (%)		96.82	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.62	119.71
Cell pressure	100.00	Dry Mass Density (pcf)		89.18	89.12
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.89	0.93
Specific Gravity	2.70	Calculated Porosity, %		47.07	48.10

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P48				
Sample Location					
Date	6/18/2018 Lab No. 5043				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

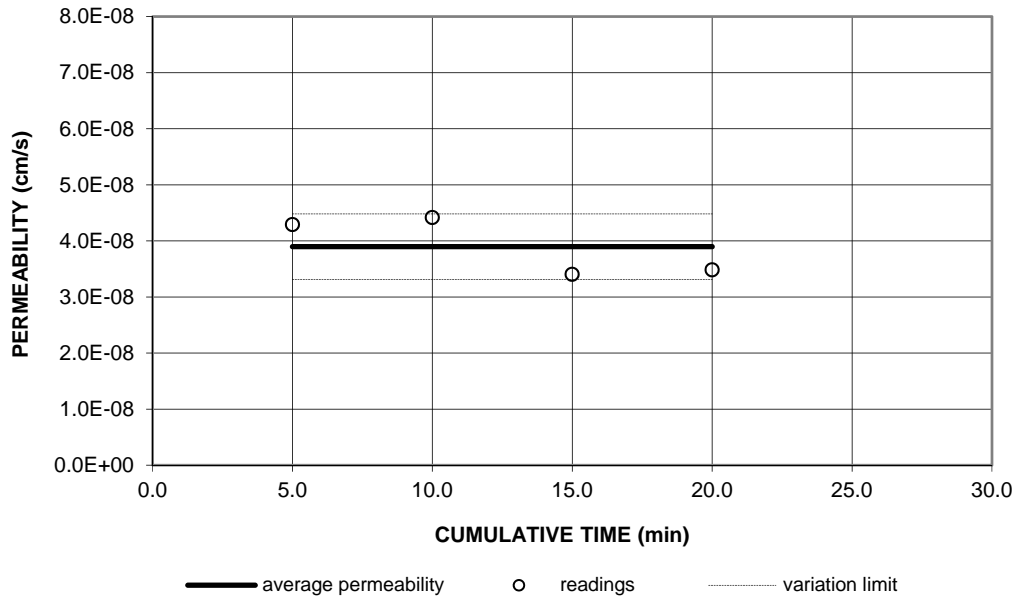
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.65	4.20E-08	<b>4.4E-08</b>
21.00	5.00	10.00	12.28	4.32E-08	
21.00	5.00	15.00	11.91	4.46E-08	
21.00	5.00	20.00	11.53	4.60E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.02	19.01
% Recompct.		Moisture Content, (%)		30.94	33.93
Test Pressures (psi)		Percent Saturation (%)		97.45	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.78	121.58
Cell pressure	100.00	Dry Mass Density (pcf)		90.72	90.78
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.86	0.92
Specific Gravity	2.70	Calculated Porosity, %		46.16	47.81

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P49				
Sample Location					
Date	6/18/2018      Lab No.      5044				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

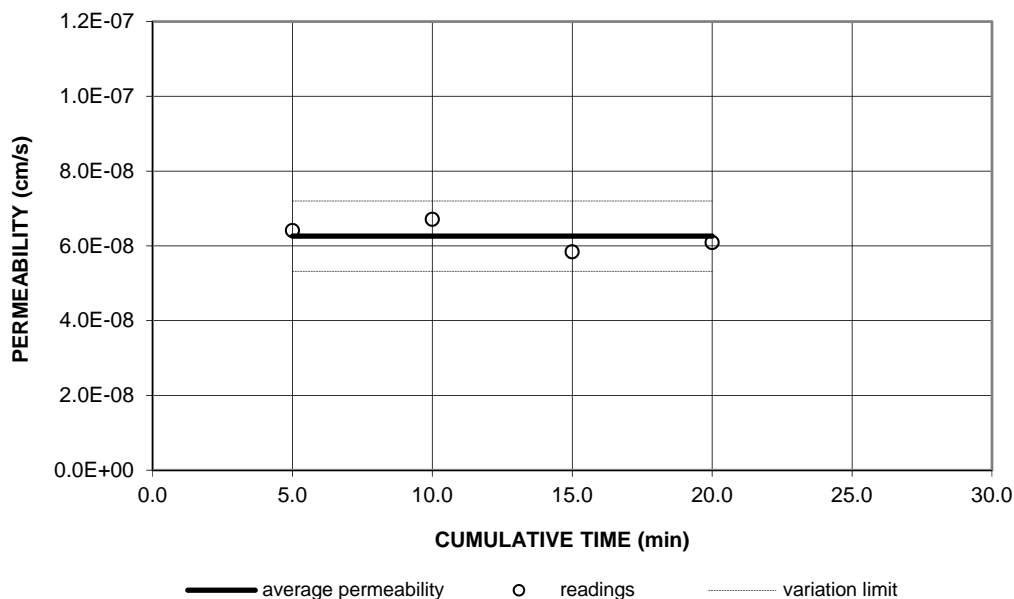
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.51	4.29E-08	<b>3.9E-08</b>
21.00	5.00	10.00	12.14	4.42E-08	
21.00	5.00	15.00	11.86	3.40E-08	
21.00	5.00	20.00	11.59	3.48E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.03
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		19.05	19.12
% Recompct.		Moisture Content, (%)		24.08	28.52
Test Pressures (psi)		Percent Saturation (%)		91.41	100.00
Backpressure	90.00	Wet Mass Density (pcf)		122.16	126.02
Cell pressure	100.00	Dry Mass Density (pcf)		98.45	98.06
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.71	0.77
Specific Gravity	2.70	Calculated Porosity, %		41.57	43.50

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P50				
Sample Location					
Date	6/25/2018      Lab No.      5044				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

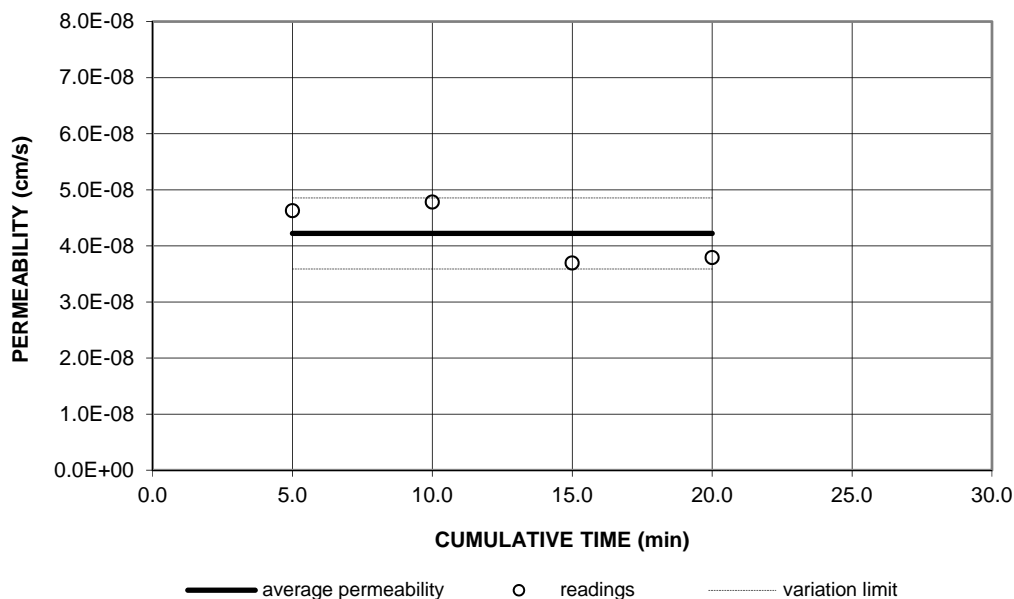
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.35	6.41E-08	<b>6.3E-08</b>
21.00	5.00	10.00	11.79	6.71E-08	
21.00	5.00	15.00	11.32	5.84E-08	
21.00	5.00	20.00	10.85	6.09E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.97	2.97
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		18.88	18.89
% Recompct.		Moisture Content, (%)		28.50	31.65
Test Pressures (psi)		Percent Saturation (%)		97.86	100.00
Backpressure	90.00	Wet Mass Density (pcf)		121.19	124.12
Cell pressure	100.00	Dry Mass Density (pcf)		94.31	94.28
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.79	0.85
Specific Gravity	2.70	Calculated Porosity, %		44.02	46.08

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P51				
Sample Location					
Date	6/25/2018      Lab No.      5313				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

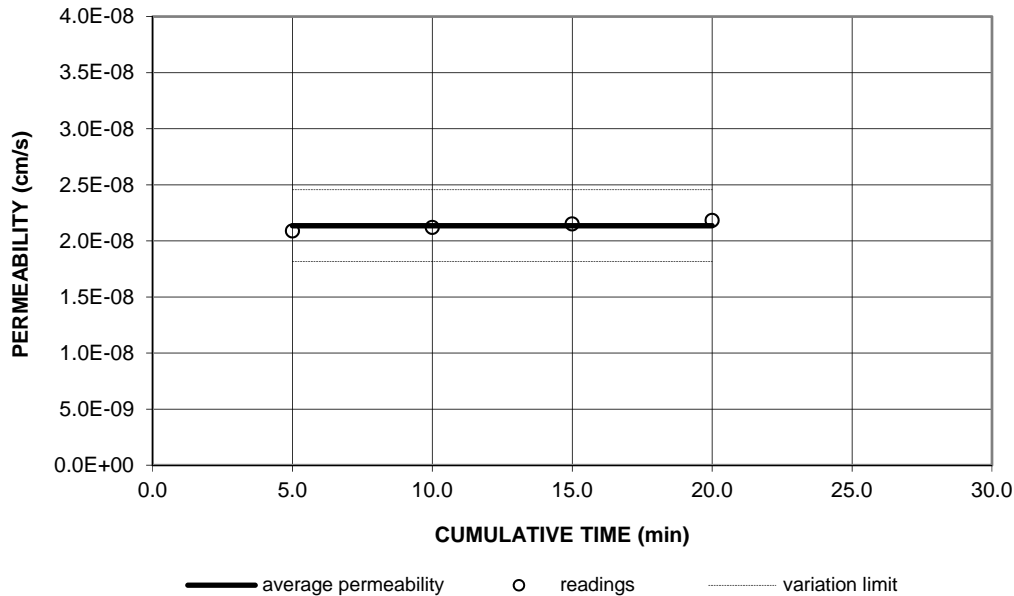
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.34	4.63E-08	<b>4.2E-08</b>
21.00	5.00	10.00	10.97	4.78E-08	
21.00	5.00	15.00	10.69	3.69E-08	
21.00	5.00	20.00	10.41	3.79E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.86	2.86
Comp. Method		Specimen Volume, (cu. In.)		19.23	19.24
% Recompct.		Moisture Content, (%)		35.54	36.93
Test Pressures (psi)		Percent Saturation (%)		99.62	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.31	117.43
Cell pressure	100.00	Dry Mass Density (pcf)		85.81	85.76
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	1.00
Specific Gravity	2.70	Calculated Porosity, %		49.07	49.93

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P52				
Sample Location					
Date	6/28/2018      Lab No.      5366				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.75	2.09E-08	<b>2.1E-08</b>
21.00	5.00	10.00	12.56	2.12E-08	
21.00	5.00	15.00	12.38	2.15E-08	
21.00	5.00	20.00	12.19	2.18E-08	

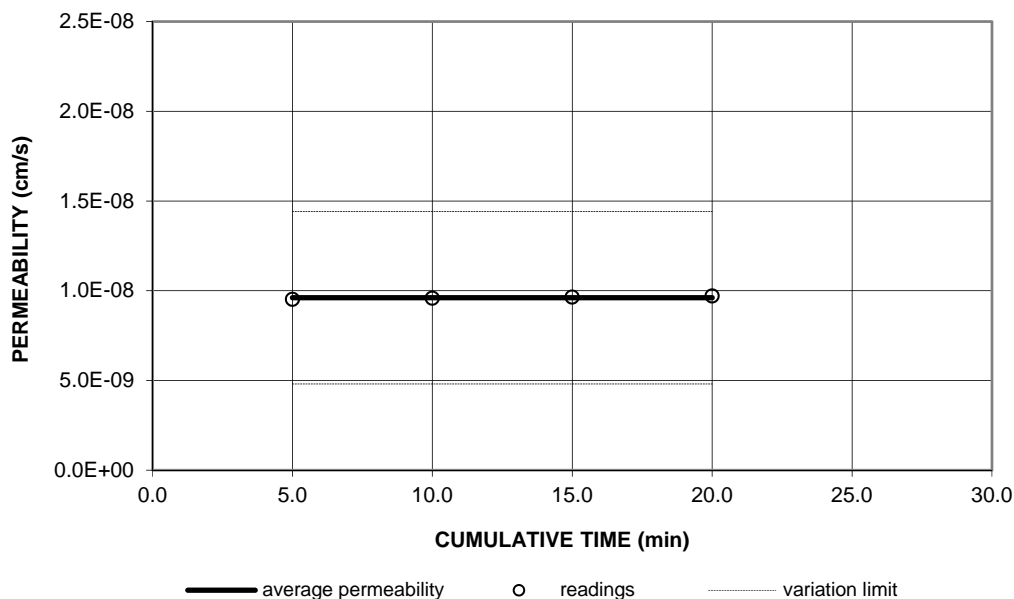
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	2.98
Opti. M.C., (%)		Specimen Diameter, (inches)		2.86	2.86
Comp. Method		Specimen Volume, (cu. In.)		19.25	19.05
% Recompct.		Moisture Content, (%)		30.45	31.52
Test Pressures (psi)		Percent Saturation (%)		95.20	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.93	120.14
Cell pressure	100.00	Dry Mass Density (pcf)		90.40	91.35
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.86	0.85
Specific Gravity	2.70	Calculated Porosity, %		46.34	45.97

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P53				
Sample Location					
Date	6/28/2018 Lab No. 5367				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

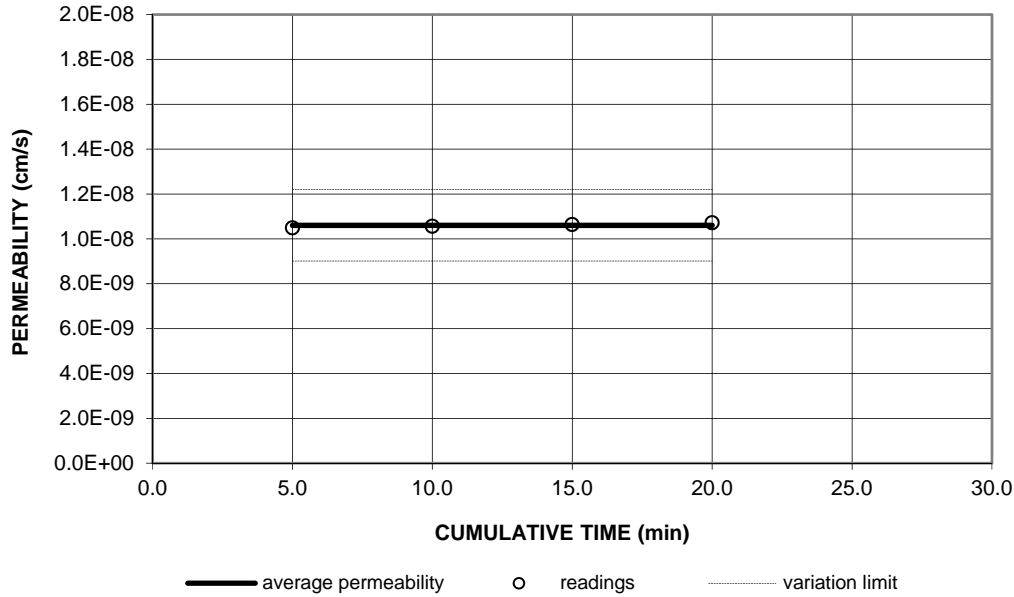
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	14.08	9.52E-09	<b>9.6E-09</b>
21.00	5.00	10.00	13.99	9.58E-09	
21.00	5.00	15.00	13.90	9.64E-09	
21.00	5.00	20.00	13.81	9.71E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.39	19.17
% Recompct.		Moisture Content, (%)		34.35	35.46
Test Pressures (psi)		Percent Saturation (%)		96.10	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.19	117.50
Cell pressure	100.00	Dry Mass Density (pcf)		85.74	86.74
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	0.96
Specific Gravity	2.70	Calculated Porosity, %		49.11	48.91

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P54				
Sample Location					
Date	7/5/2018      Lab No.      5454				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

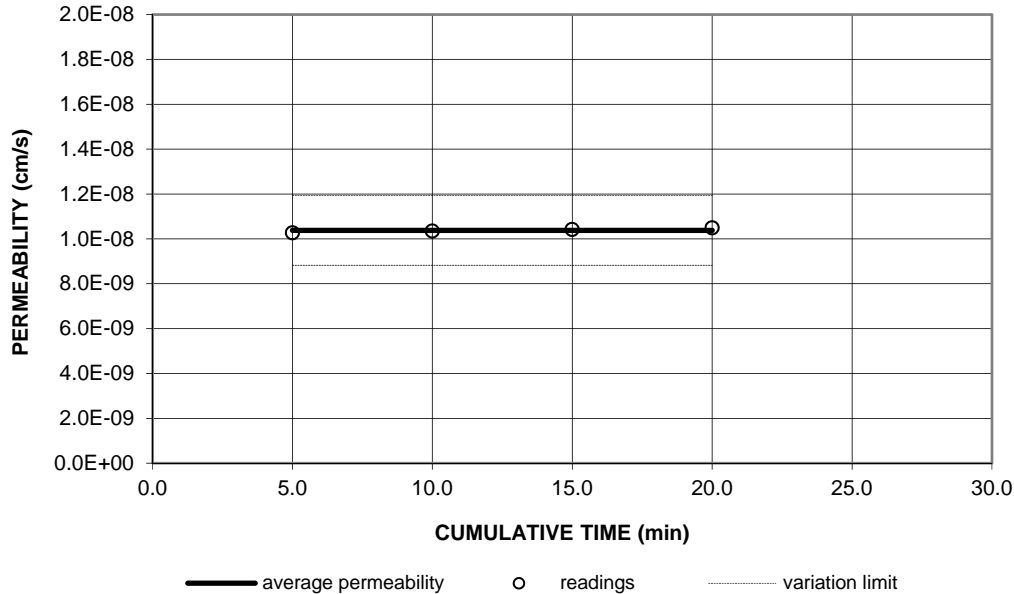
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.80	1.05E-08	<b>1.1E-08</b>
21.00	5.00	10.00	12.71	1.06E-08	
21.00	5.00	15.00	12.62	1.06E-08	
21.00	5.00	20.00	12.53	1.07E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.21	19.03
% Recompct.		Moisture Content, (%)		35.46	36.16
Test Pressures (psi)		Percent Saturation (%)		98.31	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.62	117.34
Cell pressure	100.00	Dry Mass Density (pcf)		85.35	86.18
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.97	0.98
Specific Gravity	2.70	Calculated Porosity, %		49.34	49.40

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P55				
Sample Location					
Date	7/5/2018     Lab No.     5455				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

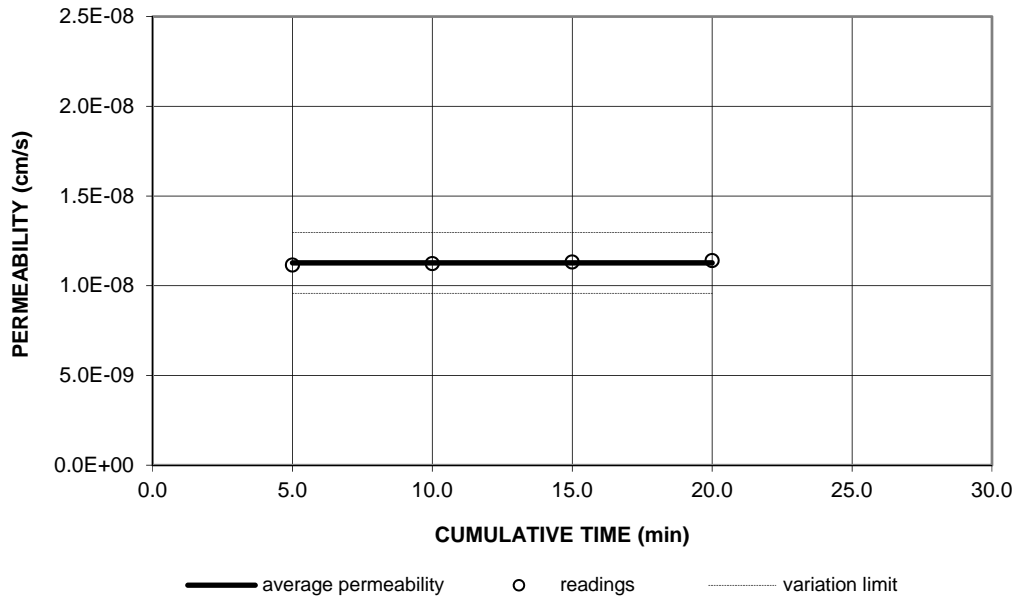
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.12	1.03E-08	<b>1.0E-08</b>
21.00	5.00	10.00	13.03	1.03E-08	
21.00	5.00	15.00	12.93	1.04E-08	
21.00	5.00	20.00	12.84	1.05E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.03	3.03
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.22	19.25
% Recompct.		Moisture Content, (%)		32.67	34.37
Test Pressures (psi)		Percent Saturation (%)		99.43	100.00
Backpressure	90.00	Wet Mass Density (pcf)		119.60	120.93
Cell pressure	100.00	Dry Mass Density (pcf)		90.14	89.99
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.90	0.95
Specific Gravity	2.75	Calculated Porosity, %		47.47	48.59

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P56				
Sample Location					
Date	7/6/2018     Lab No.     5517				

## FLEXIBLE WALL PERMEABILITY TEST




Test Specification: ASTM D 5084 Method F

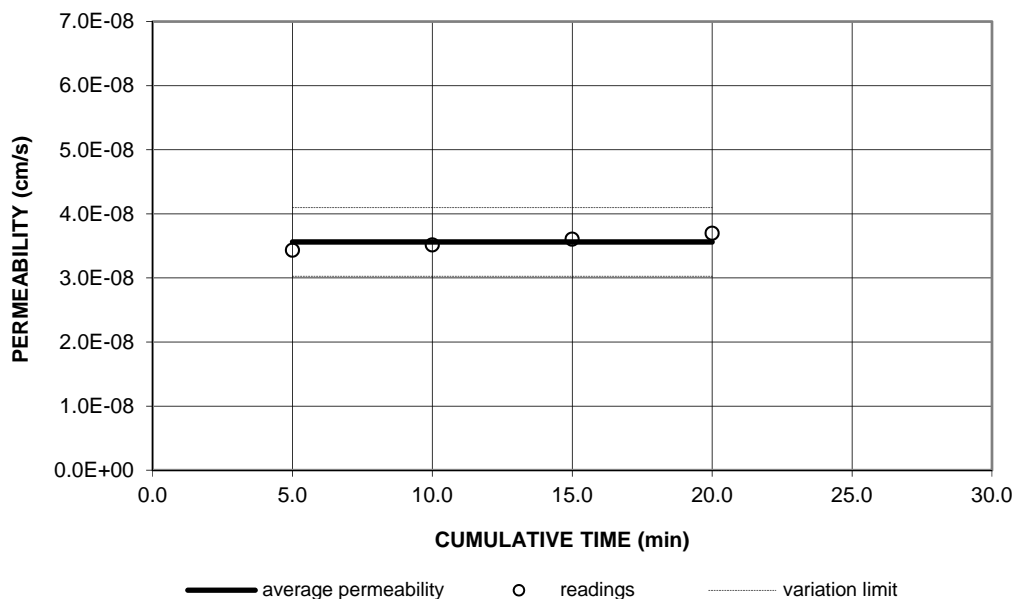
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.08	1.11E-08	<b>1.1E-08</b>
21.00	5.00	10.00	11.99	1.12E-08	
21.00	5.00	15.00	11.89	1.13E-08	
21.00	5.00	20.00	11.80	1.14E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.02
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.28	19.14
% Recompct.		Moisture Content, (%)		37.04	38.86
Test Pressures (psi)		Percent Saturation (%)		95.86	100.00
Backpressure	90.00	Wet Mass Density (pcf)		114.01	116.37
Cell pressure	100.00	Dry Mass Density (pcf)		83.20	83.81
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		1.06	1.07
Specific Gravity	2.75	Calculated Porosity, %		51.52	51.66

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	DARK GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P57				
Sample Location					
Date	7/6/2018 Lab No. 5518				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

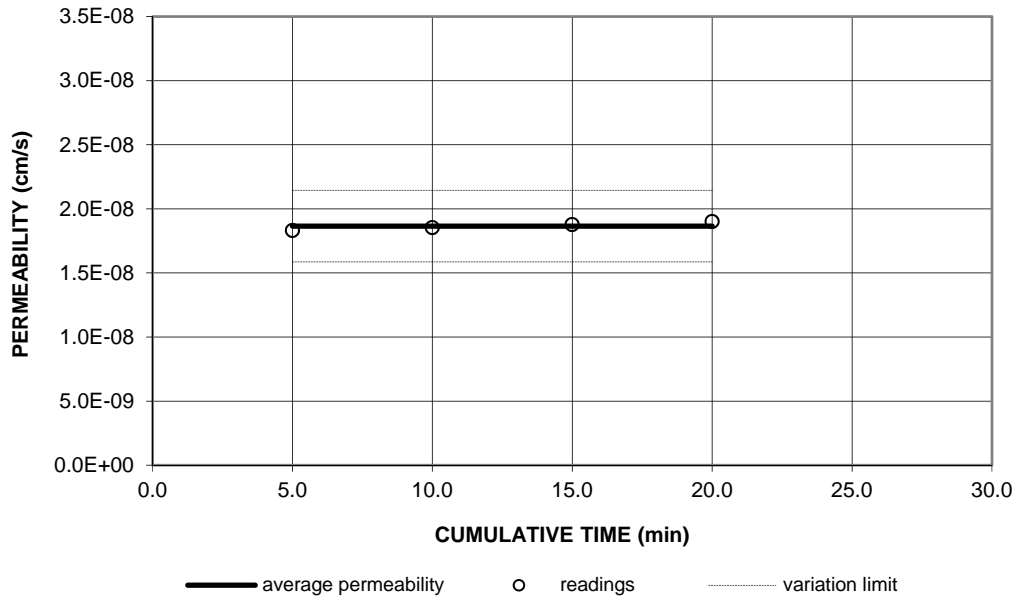
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.50	3.43E-08	<b>3.6E-08</b>
21.00	5.00	10.00	11.22	3.51E-08	
21.00	5.00	15.00	10.94	3.60E-08	
21.00	5.00	20.00	10.66	3.70E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.87	2.87
Comp. Method		Specimen Volume, (cu. In.)		19.32	19.38
% Recompct.		Moisture Content, (%)		28.76	30.69
Test Pressures (psi)		Percent Saturation (%)		98.19	100.00
Backpressure	90.00	Wet Mass Density (pcf)		121.13	122.62
Cell pressure	100.00	Dry Mass Density (pcf)		94.07	93.82
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.79	0.83
Specific Gravity	2.70	Calculated Porosity, %		44.16	45.31

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-58				
Sample Location					
Date	7/16/2018 Lab No. 5691				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

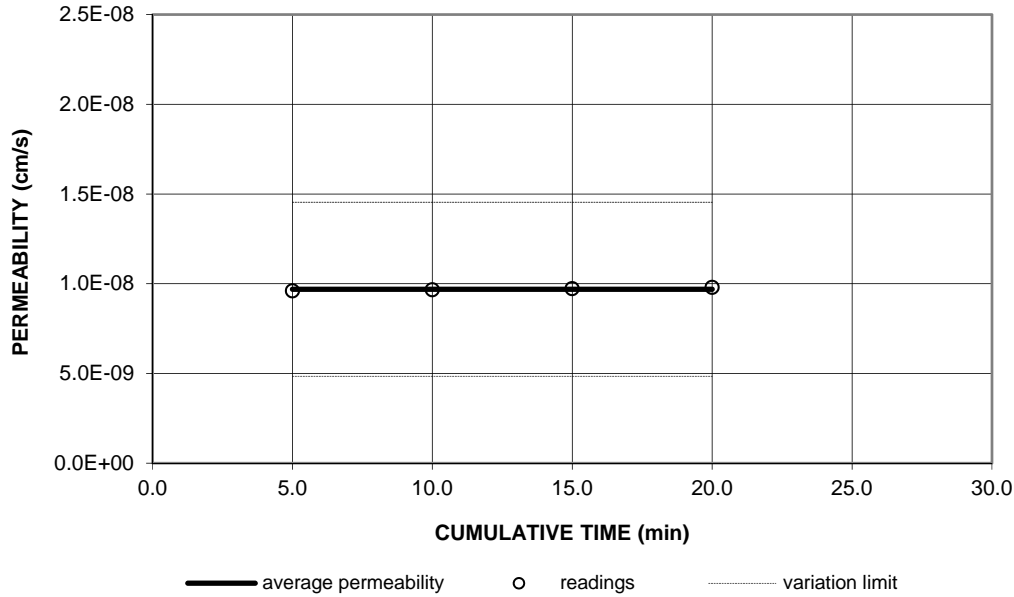
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	15.03	1.83E-08	<b>1.9E-08</b>
21.00	5.00	10.00	14.84	1.85E-08	
21.00	5.00	15.00	14.66	1.88E-08	
21.00	5.00	20.00	14.47	1.90E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.81	2.81
Comp. Method		Specimen Volume, (cu. In.)		18.56	18.58
% Recompct.		Moisture Content, (%)		27.99	30.62
Test Pressures (psi)		Percent Saturation (%)		91.80	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.27	120.62
Cell pressure	100.00	Dry Mass Density (pcf)		92.41	92.35
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.82	0.83
Specific Gravity	2.70	Calculated Porosity, %		45.15	45.25

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-59				
Sample Location					
Date	7/16/2018 Lab No. 5692				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

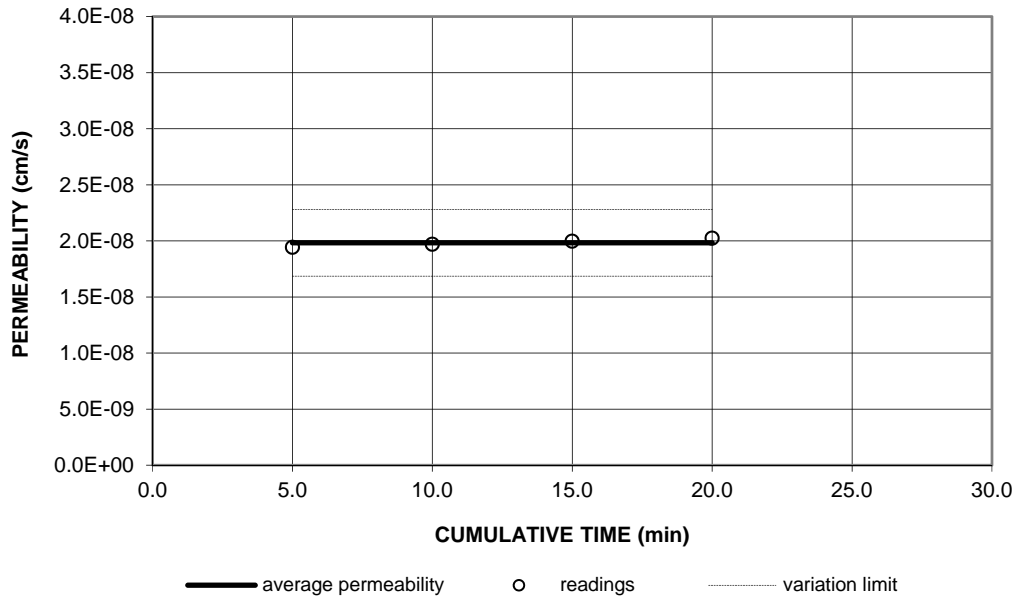
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.84	9.60E-09	<b>9.7E-09</b>
21.00	5.00	10.00	13.74	9.66E-09	
21.00	5.00	15.00	13.65	9.73E-09	
21.00	5.00	20.00	13.56	9.79E-09	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.86	2.86
Comp. Method		Specimen Volume, (cu. In.)		19.27	19.26
% Recompct.		Moisture Content, (%)		30.90	32.06
Test Pressures (psi)		Percent Saturation (%)		98.42	100.00
Backpressure	90.00	Wet Mass Density (pcf)		119.36	120.46
Cell pressure	100.00	Dry Mass Density (pcf)		91.19	91.22
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.85	0.87
Specific Gravity	2.70	Calculated Porosity, %		45.88	46.40

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-60				
Sample Location					
Date	7/18/2018      Lab No.      5755				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.63	1.94E-08	<b>2.0E-08</b>
21.00	5.00	10.00	13.45	1.97E-08	
21.00	5.00	15.00	13.27	2.00E-08	
21.00	5.00	20.00	13.08	2.02E-08	

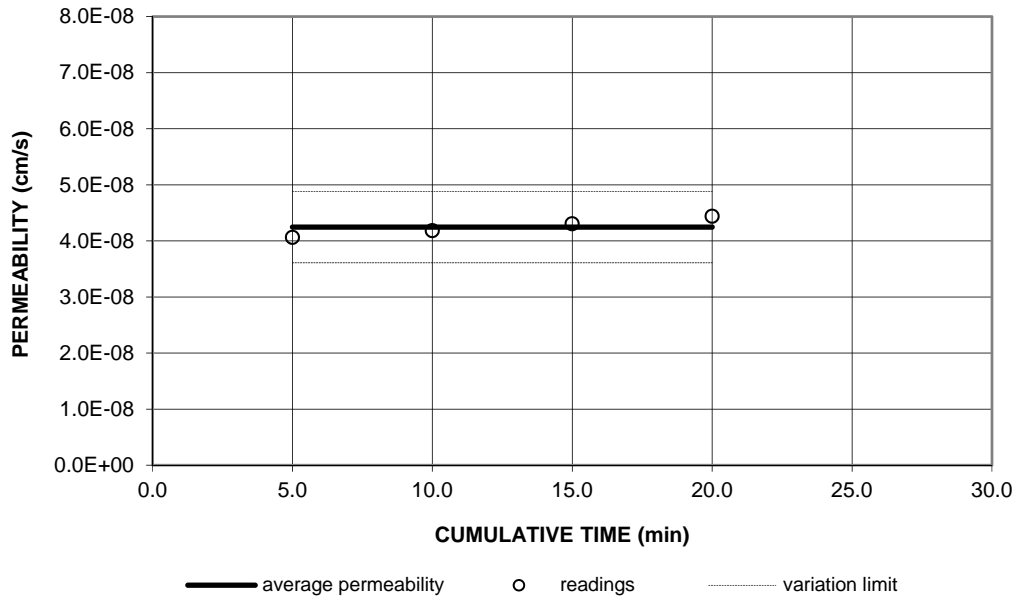
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.86	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.41	19.19
% Recompct.		Moisture Content, (%)		31.54	33.76
Test Pressures (psi)		Percent Saturation (%)		98.73	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.98	122.33
Cell pressure	100.00	Dry Mass Density (pcf)		90.45	91.45
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.86	0.91
Specific Gravity	2.70	Calculated Porosity, %		46.31	47.69

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY TRACE GRAVEL

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-61				
Sample Location					
Date	7/18/2018     Lab No.     5756				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

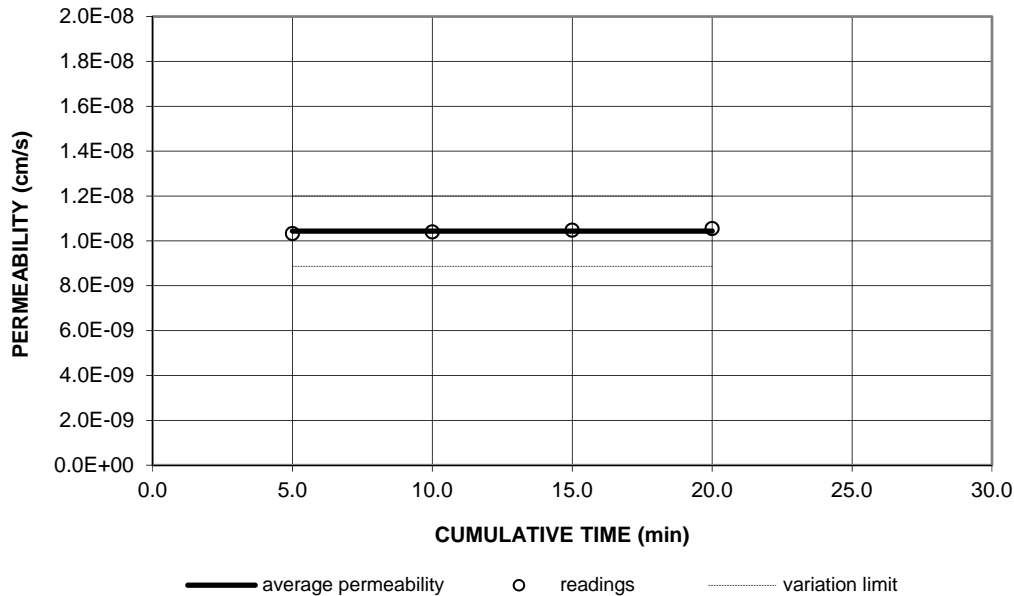
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.96	4.06E-08	<b>4.2E-08</b>
21.00	5.00	10.00	12.59	4.18E-08	
21.00	5.00	15.00	12.22	4.30E-08	
21.00	5.00	20.00	11.85	4.44E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	2.94
Opti. M.C., (%)		Specimen Diameter, (inches)		2.86	2.86
Comp. Method		Specimen Volume, (cu. In.)		19.28	18.92
% Recompct.		Moisture Content, (%)		30.44	34.18
Test Pressures (psi)		Percent Saturation (%)		90.90	100.00
Backpressure	90.00	Wet Mass Density (pcf)		115.42	121.03
Cell pressure	100.00	Dry Mass Density (pcf)		88.48	90.20
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.90	0.92
Specific Gravity	2.70	Calculated Porosity, %		47.48	48.00

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-62				
Sample Location					
Date	7/18/2018 Lab No. 5757				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

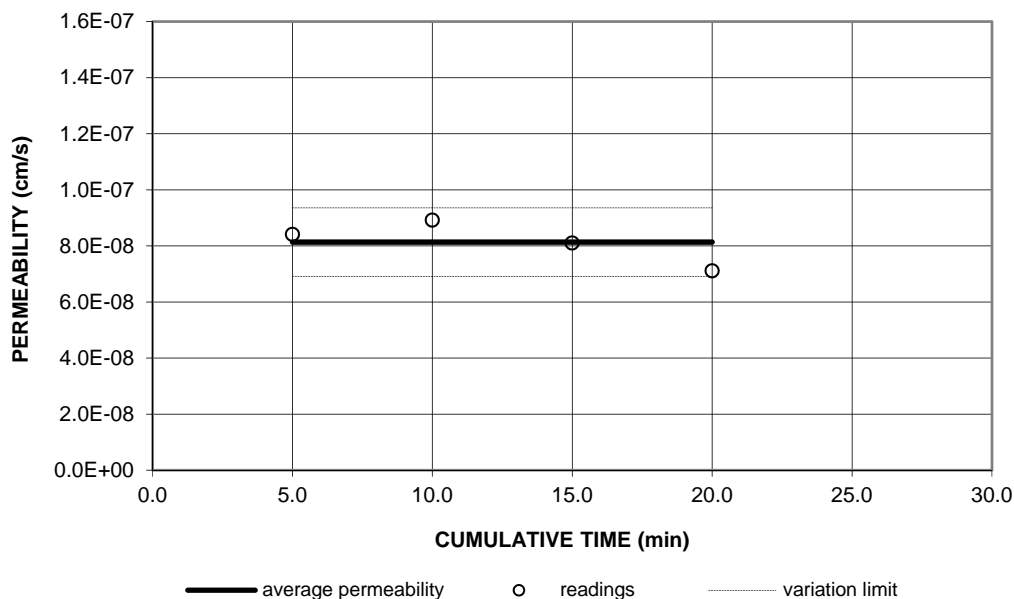
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.07	1.03E-08	<b>1.0E-08</b>
21.00	5.00	10.00	12.97	1.04E-08	
21.00	5.00	15.00	12.88	1.05E-08	
21.00	5.00	20.00	12.79	1.05E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.03
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.27	19.20
% Reompct.		Moisture Content, (%)		35.13	37.27
Test Pressures (psi)		Percent Saturation (%)		98.56	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.01	118.23
Cell pressure	100.00	Dry Mass Density (pcf)		85.85	86.13
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.96	1.01
Specific Gravity	2.70	Calculated Porosity, %		49.05	50.16

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-63				
Sample Location					
Date	7/20/2018 Lab No. 5831				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

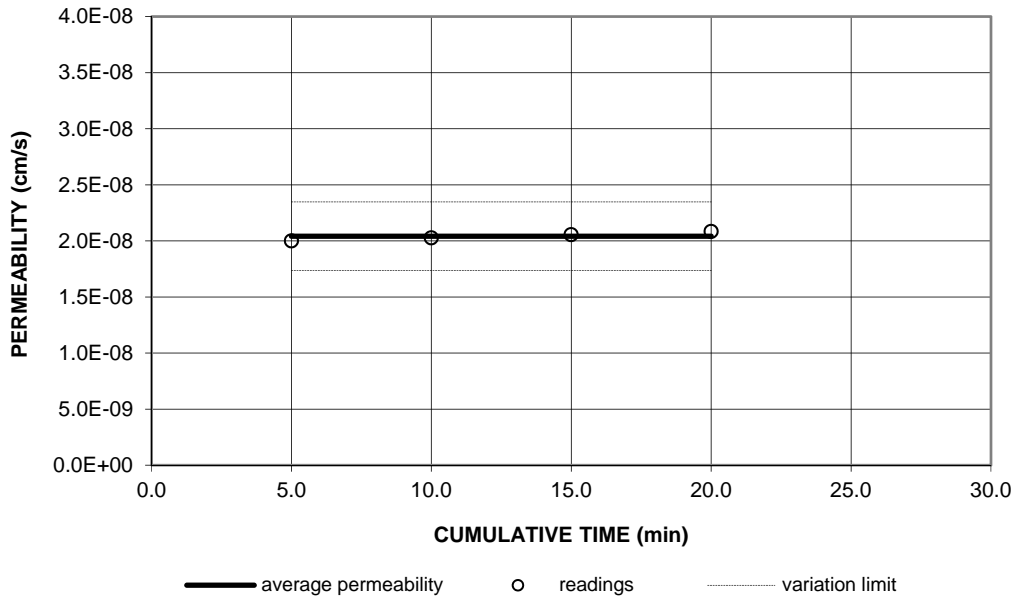
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.01	8.41E-08	<b>8.1E-08</b>
21.00	5.00	10.00	10.37	8.92E-08	
21.00	5.00	15.00	9.81	8.10E-08	
21.00	5.00	20.00	9.35	7.11E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.00	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.91	18.96
% Recompct.		Moisture Content, (%)		31.00	34.33
Test Pressures (psi)		Percent Saturation (%)		96.08	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.96	120.68
Cell pressure	100.00	Dry Mass Density (pcf)		90.05	89.84
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.87	0.93
Specific Gravity	2.70	Calculated Porosity, %		46.55	48.11

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-64				
Sample Location					
Date	7/20/2018      Lab No.      5832				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

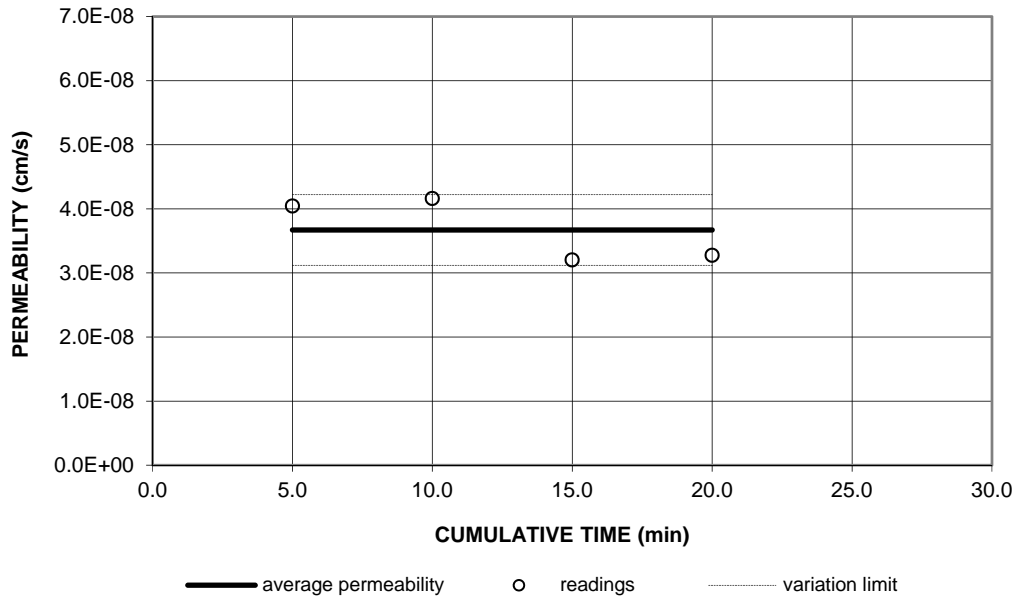
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.33	2.00E-08	<b>2.0E-08</b>
21.00	5.00	10.00	13.15	2.03E-08	
21.00	5.00	15.00	12.97	2.06E-08	
21.00	5.00	20.00	12.78	2.08E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.02
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.46	19.32
% Recompct.		Moisture Content, (%)		32.23	33.39
Test Pressures (psi)		Percent Saturation (%)		98.43	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.24	120.11
Cell pressure	100.00	Dry Mass Density (pcf)		89.43	90.05
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.88	0.90
Specific Gravity	2.70	Calculated Porosity, %		46.92	47.41

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-65				
Sample Location					
Date	7/19/2018 Lab No. 5833				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

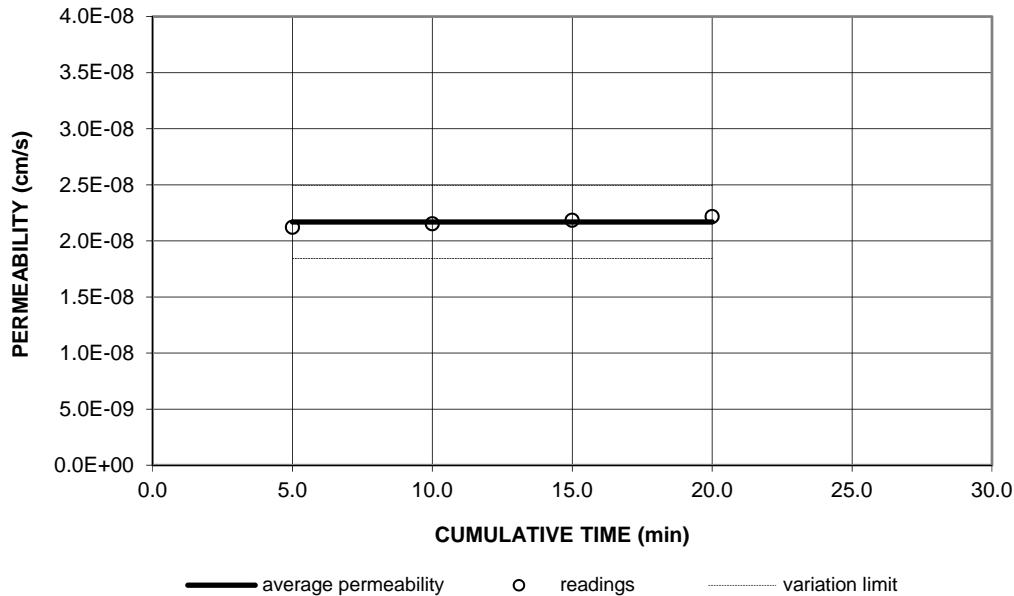
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.06	4.04E-08	<b>3.7E-08</b>
21.00	5.00	10.00	12.68	4.16E-08	
21.00	5.00	15.00	12.41	3.20E-08	
21.00	5.00	20.00	12.13	3.27E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.98	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.86	2.86
Comp. Method		Specimen Volume, (cu. In.)		19.09	19.15
% Reompct.		Moisture Content, (%)		29.27	32.18
Test Pressures (psi)		Percent Saturation (%)		95.53	100.00
Backpressure	90.00	Wet Mass Density (pcf)		119.19	121.51
Cell pressure	100.00	Dry Mass Density (pcf)		92.21	91.93
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.83	0.87
Specific Gravity	2.70	Calculated Porosity, %		45.27	46.49

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN & GRAY FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-66				
Sample Location					
Date	7/20/2018      Lab No.      5845				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

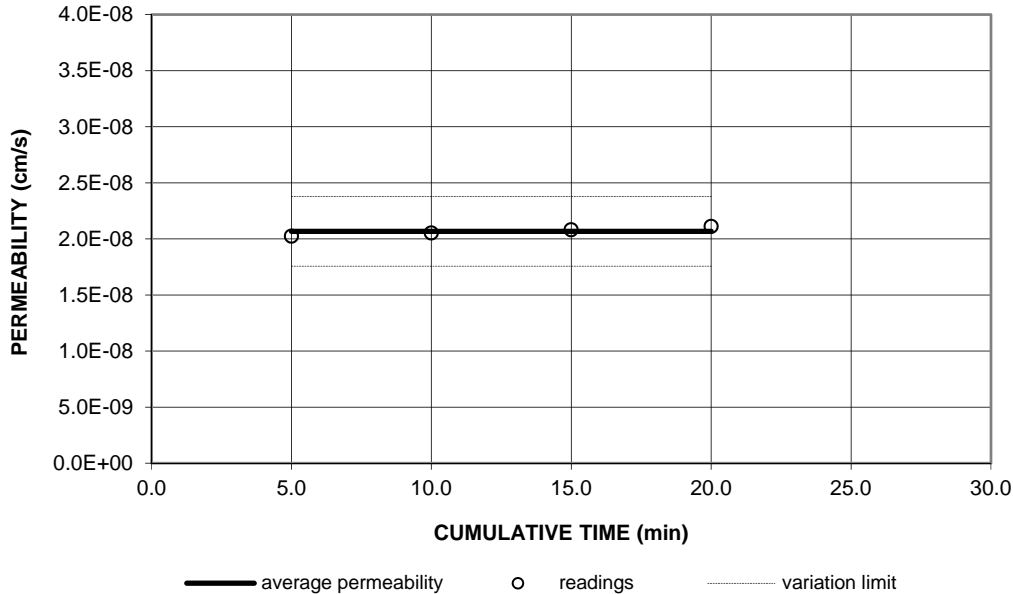
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.62	2.12E-08	<b>2.2E-08</b>
21.00	5.00	10.00	12.44	2.15E-08	
21.00	5.00	15.00	12.26	2.18E-08	
21.00	5.00	20.00	12.07	2.22E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.04	3.05
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.33	19.43
% Reompct.		Moisture Content, (%)		28.21	31.44
Test Pressures (psi)		Percent Saturation (%)		98.46	100.00
Backpressure	90.00	Wet Mass Density (pcf)		121.79	124.21
Cell pressure	100.00	Dry Mass Density (pcf)		95.00	94.50
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.77	0.85
Specific Gravity	2.70	Calculated Porosity, %		43.61	45.91

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-67				
Sample Location					
Date	7/20/2018 Lab No. 5846				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:     ASTM D 5084 Method F

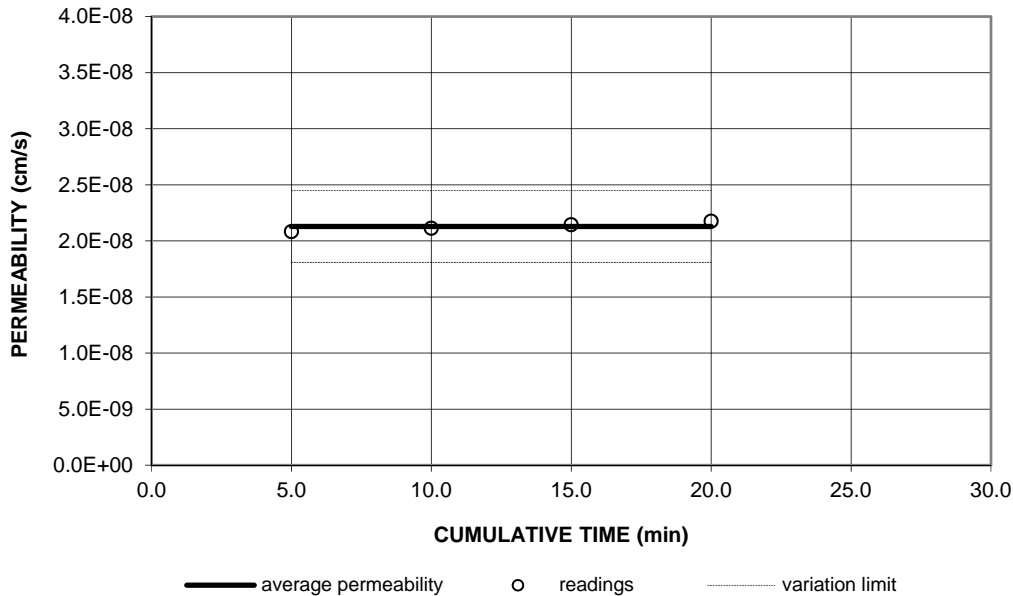
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.26	2.02E-08	<b>2.1E-08</b>
21.00	5.00	10.00	13.08	2.05E-08	
21.00	5.00	15.00	12.89	2.08E-08	
21.00	5.00	20.00	12.71	2.11E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.02
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.16	19.16
% Recompct.		Moisture Content, (%)		31.50	33.97
Test Pressures (psi)		Percent Saturation (%)		95.05	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.93	119.12
Cell pressure	100.00	Dry Mass Density (pcf)		88.92	88.92
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.89	0.92
Specific Gravity	2.70	Calculated Porosity, %		47.22	47.84

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP     W.O.#     35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-68				
Sample Location					
Date	7/23/2018     Lab No.     6022				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.94	2.08E-08	<b>2.1E-08</b>
21.00	5.00	10.00	12.76	2.11E-08	
21.00	5.00	15.00	12.57	2.14E-08	
21.00	5.00	20.00	12.39	2.17E-08	

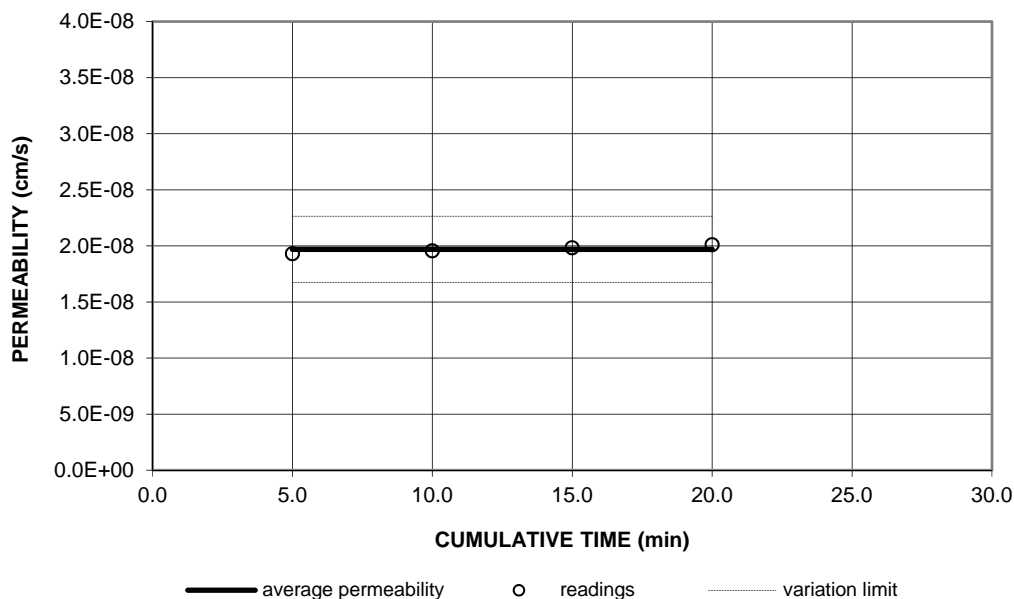
Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.01
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.01	19.01
% Recompct.		Moisture Content, (%)		31.74	33.29
Test Pressures (psi)		Percent Saturation (%)		97.06	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.88	119.26
Cell pressure	100.00	Dry Mass Density (pcf)		89.48	89.48
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.88	0.90
Specific Gravity	2.70	Calculated Porosity, %		46.89	47.33

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-69				
Sample Location					
Date	7/23/2018 Lab No. 6023				



## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

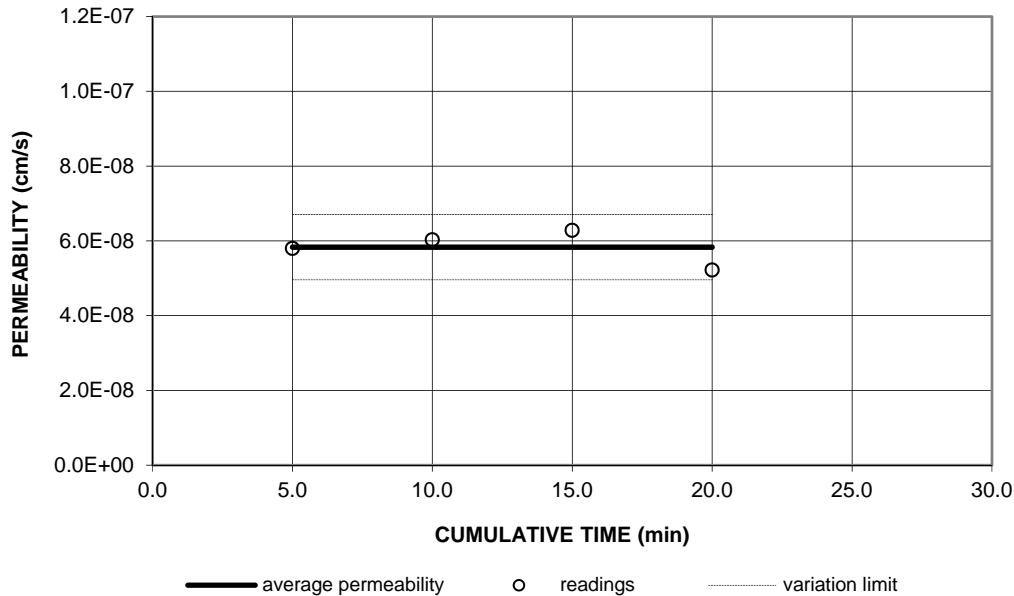
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	13.86	1.93E-08	<b>2.0E-08</b>
21.00	5.00	10.00	13.68	1.96E-08	
21.00	5.00	15.00	13.49	1.98E-08	
21.00	5.00	20.00	13.31	2.01E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	2.99
Opti. M.C., (%)		Specimen Diameter, (inches)		2.85	2.85
Comp. Method		Specimen Volume, (cu. In.)		19.16	19.07
% Recompct.		Moisture Content, (%)		33.32	36.82
Test Pressures (psi)		Percent Saturation (%)		96.38	100.00
Backpressure	90.00	Wet Mass Density (pcf)		116.18	119.78
Cell pressure	100.00	Dry Mass Density (pcf)		87.14	87.55
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.93	0.99
Specific Gravity	2.70	Calculated Porosity, %		48.28	49.85

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-70				
Sample Location					
Date	7/30/2018 Lab No. 6180				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification:      ASTM D 5084 Method F

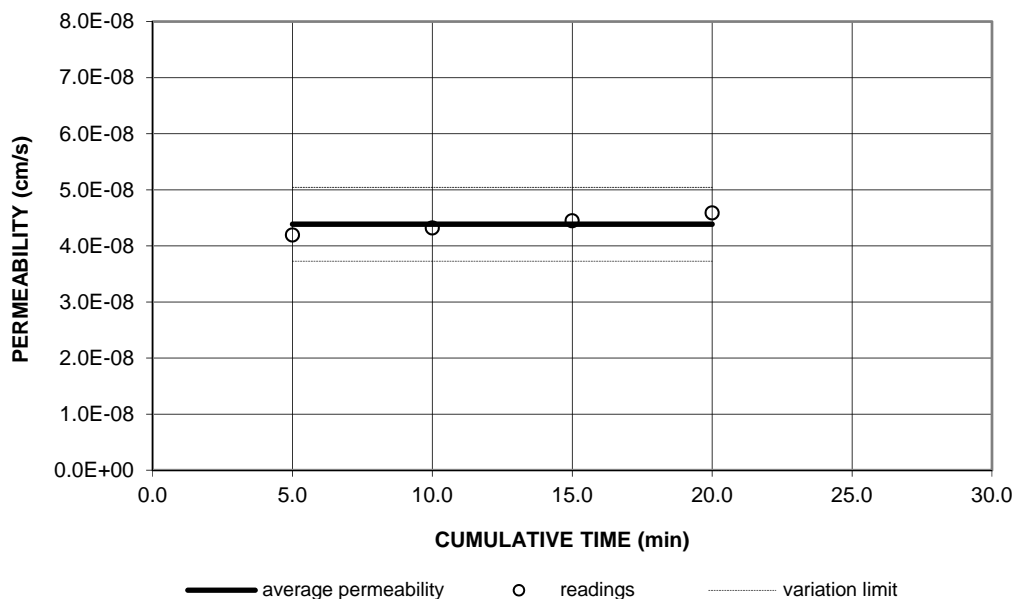
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.51	5.80E-08	<b>5.8E-08</b>
21.00	5.00	10.00	11.06	6.03E-08	
21.00	5.00	15.00	10.61	6.28E-08	
21.00	5.00	20.00	10.24	5.22E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.07	3.09
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		19.32	19.48
% Recompct.		Moisture Content, (%)		25.15	31.01
Test Pressures (psi)		Percent Saturation (%)		87.86	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.94	123.54
Cell pressure	100.00	Dry Mass Density (pcf)		95.04	94.30
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.77	0.84
Specific Gravity	2.70	Calculated Porosity, %		43.59	45.58

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-71				
Sample Location					
Date	7/31/2018      Lab No.      6181				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

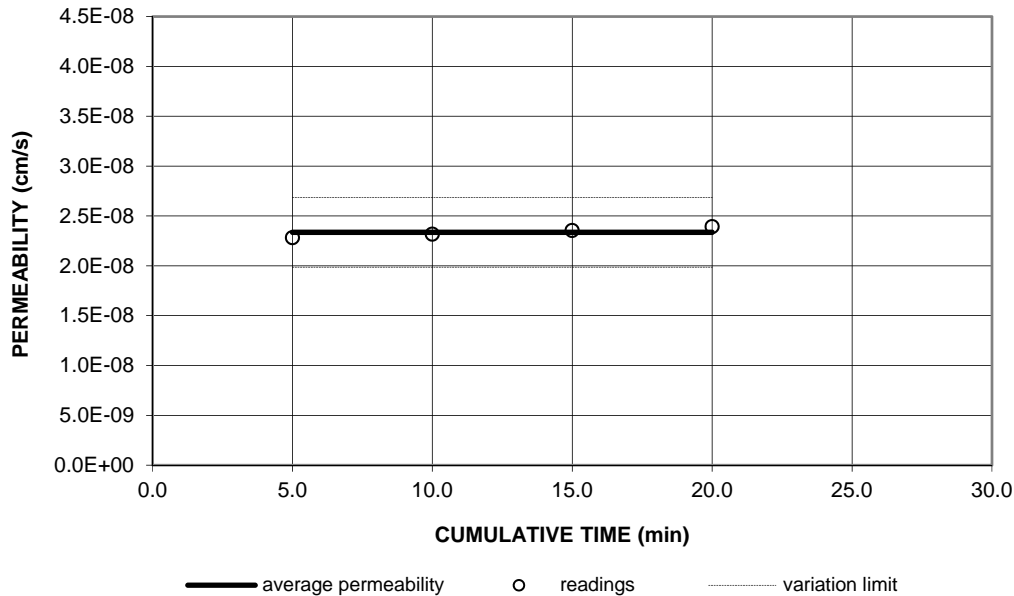
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	12.72	4.19E-08	<b>4.4E-08</b>
21.00	5.00	10.00	12.35	4.32E-08	
21.00	5.00	15.00	11.98	4.45E-08	
21.00	5.00	20.00	11.62	4.59E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.01	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.84	2.84
Comp. Method		Specimen Volume, (cu. In.)		19.11	19.01
% Recompct.		Moisture Content, (%)		26.37	29.92
Test Pressures (psi)		Percent Saturation (%)		88.26	100.00
Backpressure	90.00	Wet Mass Density (pcf)		117.85	121.76
Cell pressure	100.00	Dry Mass Density (pcf)		93.25	93.72
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.81	0.81
Specific Gravity	2.70	Calculated Porosity, %		44.65	44.69

USCS SG Assumed LL PI  
 Permeant Used: WATER Remarks BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-72				
Sample Location					
Date	7/31/2018 Lab No. 6182				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

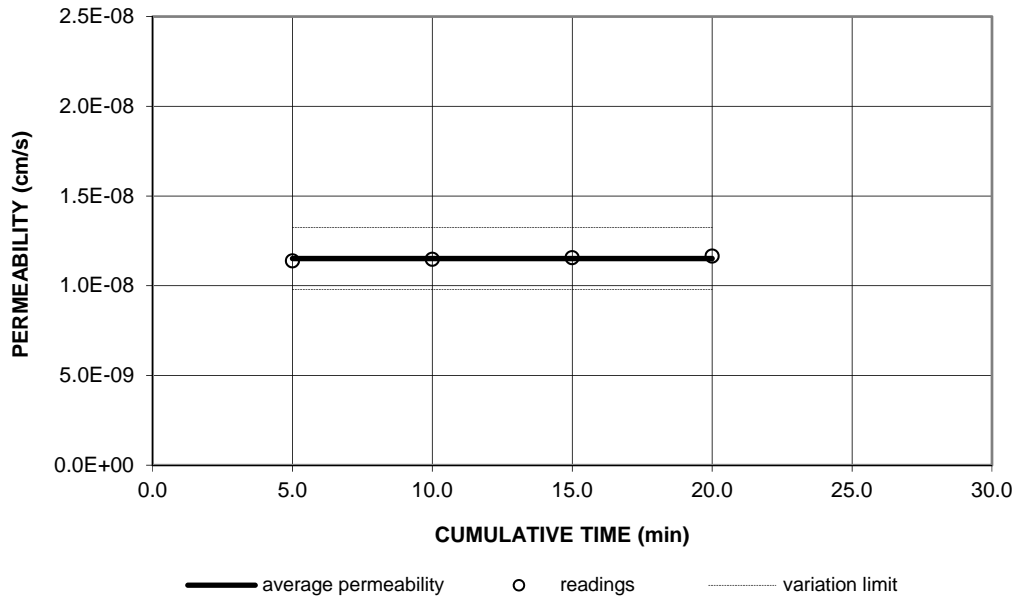
Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.97	2.28E-08	<b>2.3E-08</b>
21.00	5.00	10.00	11.79	2.32E-08	
21.00	5.00	15.00	11.60	2.35E-08	
21.00	5.00	20.00	11.41	2.39E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		2.99	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.82	2.82
Comp. Method		Specimen Volume, (cu. In.)		18.66	18.73
% Recompct.		Moisture Content, (%)		27.87	31.47
Test Pressures (psi)		Percent Saturation (%)		91.27	100.00
Backpressure	90.00	Wet Mass Density (pcf)		118.08	120.99
Cell pressure	100.00	Dry Mass Density (pcf)		92.34	92.03
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.82	0.85
Specific Gravity	2.70	Calculated Porosity, %		45.19	45.93

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP      W.O.#      35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-73				
Sample Location					
Date	7/31/2018      Lab No.      6183				

## FLEXIBLE WALL PERMEABILITY TEST



Test Specification: ASTM D 5084 Method F

Fluid Temp. (°C)	Elapsed Time (min.)	Cumulative Time (min.)	Gradient (cm-Hg)	Calculated Permeability (cm/sec)	Average Permeability (cm/sec)
21.00	5.00	5.00	11.96	1.14E-08	<b>1.2E-08</b>
21.00	5.00	10.00	11.87	1.15E-08	
21.00	5.00	15.00	11.78	1.16E-08	
21.00	5.00	20.00	11.68	1.16E-08	

Compaction Data		Sample Data		Initial	Final
Proctor (pcf)		Specimen Height, (inches)		3.02	3.00
Opti. M.C., (%)		Specimen Diameter, (inches)		2.83	2.83
Comp. Method		Specimen Volume, (cu. In.)		18.96	18.86
% Recompct.		Moisture Content, (%)		26.19	31.12
Test Pressures (psi)		Percent Saturation (%)		81.94	98.49
Backpressure	90.00	Wet Mass Density (pcf)		114.12	119.21
Cell pressure	100.00	Dry Mass Density (pcf)		90.44	90.92
<b>Eff. Stress</b>	<b>10.00</b>	Void Ratio		0.86	0.85
Specific Gravity	2.70	Calculated Porosity, %		46.32	46.04

USCS	SG Assumed	LL	PI
Permeant Used:	WATER	Remarks	BROWN FAT CLAY

Project Name	Turk Cell 2 Construction	Tested by	FCE	Reviewed by	TGG
Client	AEP W.O.# 35177127	<b>FLEXIBLE WALL PERMEABILITY TEST</b> 			
Sample Number	P-74				
Sample Location					
Date	7/31/2018 Lab No. 6184				

# APPENDIX F GEOSYNTHETICS INSTALLER'S RESUMES



**Corporate Office:**

7943 Pecue Lane  
Baton, Rouge, LA 70809  
Phone: 225-291-2700  
Fax: 225-291-2788  
<http://www.esiliners.com>

**Regional Offices:**

**Chapin, SC**

508 D Old Lexington Highway  
Chapin, SC 29036  
Phone: 803-816-4202  
Fax: 803-816-4205

**Reno, NV**

1575 Delucchi Lane # 34  
Reno, NV 89502  
Phone: (775) 825-6797  
Fax: (775) 825-6798

## Projects Superintendent

### Mohammed Malimar

Mohammed has 26 years of experience in the supervision of the installation and seaming of a variety of synthetic liners and components in a wide range of industry applications. He has extensive experience in the on site supervision of safety, quality control, and all required documentation. In addition to his supervisory experience Mohammed also has actual hands on installation experience which far exceed all of the requirements to be qualified as a Leadman, Quality Control Technician and Master Seamer. As the on site ESI Superintendent he is also responsible for the direct, day to day, on site safety management of the crew.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
- 

#### Applications

- Landfill Cells
- Landfill Caps
- Leachate Ponds
- Wastewater Treatment Ponds
- Potable Water Reservoirs
- Evaporation Ponds
- Leach Pads
- Process Ponds
- Tank Liners
- Cut Off Trench
- Methane Barriers
- Tank Farm
- Floating Covers
-



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**Regional Office:**

Chapin, SC  
Oconomowoc, WI

## Technician - Installer

Abdulloh Nematjanov

Abdulloh has 10 months of experience in installation of a variety of geosynthetic liners and components. In addition to his deployment duties, he is in task training to set-up and operate equipment to include the following machines under direct supervision: Vacuum box, hand held hot air, and sewing. As part of his ongoing task training he is allowed to operate the wedge welder, extrusion welder, and air testing equipment under the direct supervision of a ESI Superintendent, Master Seamer, or Quality Control Technician. He is familiar with all currently utilized safety procedures.

**Components Installed**

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
- 

**Applications**

- Landfill Cells
- Landfill Caps
- Leachate Ponds
- Wastewater Treatment Ponds
- Potable Water Reservoirs
- Evaporation Ponds
- Leach Pads
- Process Ponds
- Tank Liners
- Cut Off Trench
- Methane Barriers
- Tank Farm
- Floating Covers
- 

**Geosynthetics  
Installer**





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**Regional Offices:**

**Chapin, SC**

508 D Old Lexington Highway  
Chapin, SC 29036  
Phone: 803-816-4202  
Fax: 803-816-4205

## Master Seamer

Adersys Fernandez Hernandez

Adersys has 15 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Adersys is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

**Components Installed**

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
- 

**Applications**

- Landfill Cells
- Landfill Caps
- Leachate Ponds
- Wastewater Treatment Ponds
- Potable Water Reservoirs
- Evaporation Ponds
- Leach Pads
- Process Ponds
- Tank Liners
- Cut Off Trench
- Methane Barriers
- Tank Farm
- Floating Covers
-



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Phone: (775) 825-6797  
Fax: (775) 825-6798

## Master Seamer

### Bounchan Vongkhamchanh

Bounchan has 13 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Bounchan is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
- 

#### Applications

- Landfill Cells
- Landfill Caps
- Leachate Ponds
- Wastewater Treatment Ponds
- Potable Water Reservoirs
- Evaporation Ponds
- Leach Pads
- Process Ponds
- Tank Liners
- Cut Off Trench
- Methane Barriers
- Tank Farm
- Floating Covers
-



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Fax: 225-291-2788  
<http://www.esiliners.com>

**Regional Offices:**

**Chapin, SC**

508 D Old Lexington Highway  
Chapin, SC 29036  
Phone: 803-816-4202  
Fax: 803-816-4205

**Reno, NV**

1575 Delucchi Lane # 34  
Reno, NV 89502  
Phone: (775) 825-6797  
Fax: (775) 825-6798

## Master Seamer

### Carlos Vanegas

Carlos has 18 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Carlos is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
- 

#### Applications

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## Master Seamer

Chanony Lach

Chanony has 17 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Chanony is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

**Components Installed**

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
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**Applications**

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## Leadman / Foreman

### John Somkhith

John has 35 years of experience in installation and seaming of a variety of synthetic liners and components. He is familiar with all currently utilized deployment techniques, installation and safety procedures. He has experience in on site crew management for the deployment, welding, and quality control testing for a variety of geosynthetics. He also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. John also meets all the requirements to be classified as a Geomembrane Master Seamer and Quality Control Technician. He is also qualified to assist in the training of Geomembrane Welders, Installers, and QC Technicians.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
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#### Applications

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## Quality Control Technician

### Koun Lim

Koun has 18 years of experience in installation and seaming of a variety of synthetic liners and components. He is familiar with current field welding and installation testing and documentation requirements. He has experience and training for the execution of and documentation for required on site testing, QC and safety procedures. He is also qualified to assist in the training of geomembrane Welders, Installers, and QC Technicians.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
- 

#### Applications

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## Master Seamer

### Lewis V. Nou

Lewis has 15 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Lewis is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
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- Geotextiles
- Geonets
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#### Applications

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## Master Seamer

### Mauro Rene Turcios

Mauro has 22 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Mauro is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
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- Polypropylene
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#### Applications

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## Geomembrane Welder

### Ounheune Viravongsa

Ounheune has 6 years of experience in installation and seaming of a variety of synthetic liners and components. A Geomembrane Welder qualification requires a minimum of one million square feet of actual hands on geomembrane welding experience. Ounheune is qualified to set-up and operate seaming equipment to include the following machines: hot wedge, hot air, extrusion, and sewing. He is familiar with all currently utilized welding techniques, installation, and safety procedures.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
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#### Applications

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## Geomembrane Welder

### Phola Som

Phola has 10 years of experience in installation and seaming of a variety of synthetic liners and components. A Geomembrane Welder qualification requires a minimum of one million square feet of actual hands on geomembrane welding experience. Phola is qualified to set-up and operate seaming equipment to include the following machines: hot wedge, hot air, extrusion, and sewing. He is familiar with all currently utilized welding techniques, installation, and safety procedures.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
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- Pipe Boots
- Batten Systems
- HDPE Sumps
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#### Applications

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## Geomembrane Welder

### Phouangsonne Thavikham

Phouangsonne has 20 years of experience in installation and seaming of a variety of synthetic liners and components. A Geomembrane Welder qualification requires a minimum of one million square feet of actual hands on geomembrane welding experience. Phouangsonne is qualified to set-up and operate seaming equipment to include the following machines: hot wedge, hot air, extrusion, and sewing. He is familiar with all currently utilized welding techniques, installation, and safety procedures.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
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#### Applications

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## Master Seamer

### Rogelio Cruz

Rogelio has 17 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Rogelio is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
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#### Applications

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## Master Seamer

Saron Sin

Saron has 17 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Saron is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

**Components Installed**

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
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**Applications**

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## Geomembrane Welder

### So Samnang

So has 7 years of experience in installation and seaming of a variety of synthetic liners and components. A Geomembrane Welder qualification requires a minimum of one million square feet of actual hands on geomembrane welding experience. So is qualified to set-up and operate seaming equipment to include the following machines: hot wedge, hot air, extrusion, and sewing. He is familiar with all currently utilized welding techniques, installation, and safety procedures.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
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- Geotextiles
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## Master Seamer

### Thongsoune Luangdethleuxa

Thongsoune has 15 years of experience in installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Thongsoune is familiar with all currently utilized welding techniques, welder set up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in the training of Geomembrane Welders.

#### Components Installed

- HDPE (Textured and Smooth)
- LLDPE (Textured and Smooth)
- Super Grip Drain Liner
- XR-5
- Polypropylene
- PVC
- Geotextiles
- Geonets
- Geocomposite
- GCL
- Pipe Boots
- Batten Systems
- HDPE Sumps
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-

# APPENDIX G GEOSYNTHETICS INVENTORY LISTING



# Geosynthetics Inventory



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Project No.: 35177127

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Manufacturer: Agru

Transportation: FlatBed

Date of Arrival: November-17

Material Type: 60T HDPE

Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
1	G17F003552	HHK820510	540	23.0	12,420	60	Y	Y	
2	G17F003553	HHK820510	540	23.0	12,420	60	Y		
3	G17F003554	HHK820510	540	23.0	12,420	60	Y		
4	G17F003555	HHK820510	557	23.0	12,811	60	Y		
5	G17F003561	HHK820780	540	23.0	12,420	60	Y		
6	G17F003562	HHK820780	540	23.0	12,420	60	Y		
7	G17F003563	HHK820780	540	23.0	12,420	60	Y		
8	G17F003564	HHK820780	540	23.0	12,420	60	Y		
9	G17F003565	HHK820780	540	23.0	12,420	60	Y	Y	
10	G17F003566	HHK820780	540	23.0	12,420	60	Y		
11	G17F003567	HHK820780	540	23.0	12,420	60	Y		
12	G17F003568	HHK820780	540	23.0	12,420	60	Y		
13	G17F003569	HHK820780	540	23.0	12,420	60	Y		
14	G17F003570	HHK820780	540	23.0	12,420	60	Y		
15	G17F003571	HHK820780	540	23.0	12,420	60	Y		
16	G17F003572	HHK820780	540	23.0	12,420	60	Y		
17	G17F003573	HHK820780	540	23.0	12,420	60	Y	Y	
18	G17F003574	HHK820780	540	23.0	12,420	60	Y		
19	G17F003575	HHK820780	540	23.0	12,420	60	Y		
20	G17F003576	HHK820440	540	23.0	12,420	60	Y		
21	G17F003577	HHK820440	540	23.0	12,420	60	Y		
22	G17F003578	HHK820440	540	23.0	12,420	60	Y		
23	G17F003579	HHK820440	540	23.0	12,420	60	Y		
24	G17F003580	HHK820440	540	23.0	12,420	60	Y		
25	G17F003581	HHK820440	540	23.0	12,420	60	Y	Y	
26	G17F003582	HHK820440	540	23.0	12,420	60	Y		
27	G17F003583	HHK820440	540	23.0	12,420	60	Y		
28	G17F003584	HHK820440	540	23.0	12,420	60	Y		
29	G17F003585	HHK820440	540	23.0	12,420	60	Y		
30	G17F003586	HHK820440	540	23.0	12,420	60	Y		
31	G17F003587	HHK820440	540	23.0	12,420	60	Y		
32	G17F003588	HHK820440	540	23.0	12,420	60	Y		
33	G17F003589	HHK820440	540	23.0	12,420	60	Y	Y	
34	G17F003590	HHK820440	540	23.0	12,420	60	Y		
35	G17F003591	HHK820440	540	23.0	12,420	60	Y		
36	G17F003592	HHK820440	540	23.0	12,420	60	Y		

# Geosynthetics Inventory



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Project No.: 35177127

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Manufacturer: Agru

Transportation: FlatBed

Date of Arrival: November-17

Material Type: 60T HDPE

Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
37	G17F003593	HHK820440	540	23.0	12,420	60	Y		
38	G17F003594	HHK820440	540	23.0	12,420	60	Y		
39	G17F003595	HHK820440	540	23.0	12,420	60	Y		
40	G17F003596	HHK820440	540	23.0	12,420	60	Y		
41	G17F003597	HHK820440	540	23.0	12,420	60	Y		
42	G17F003598	HHK820440	540	23.0	12,420	60	Y		
43	G17F003599	HHK820440	540	23.0	12,420	60	Y		
44	G17F003600	HHK820790	540	23.0	12,420	60	Y		
45	G17F003601	HHK820790	540	23.0	12,420	60	Y		
46	G17F003602	HHK820790	540	23.0	12,420	60	Y		
47	G17F003603	HHK820790	540	23.0	12,420	60	Y		
48	G17F003604	HHK820790	540	23.0	12,420	60	Y		
49	G17F003605	HHK820790	540	23.0	12,420	60	Y	Y	
50	G17F003606	HHK820790	540	23.0	12,420	60	Y		
51	G17F003607	HHK820790	540	23.0	12,420	60	Y		
52	G17F003608	HHK820790	540	23.0	12,420	60	Y		
53	G17F003609	HHK820790	540	23.0	12,420	60	Y		
54	G17F003610	HHK820790	540	23.0	12,420	60	Y		
55	G17F003611	HHK820790	540	23.0	12,420	60	Y		
56	G17F003612	HHK820790	540	23.0	12,420	60	Y		
57	G17F003613	HHK820790	540	23.0	12,420	60	Y	Y	
58	G17F003614	HHK820790	540	23.0	12,420	60	Y		
59	G17F003615	HHK820790	540	23.0	12,420	60	Y		
60	G17F003616	HHK820790	540	23.0	12,420	60	Y		
61	G17F003617	HHK820790	540	23.0	12,420	60	Y		
62	G17F003618	HHK820790	540	23.0	12,420	60	Y		

TOTAL ACCUMULATED: **770,431** ft<sup>2</sup>

**Material Type Legend:**

40S = 40 Mil Smooth HDPE Geomembrane  
 40T = 40 Mil Textured HDPE Geomembrane  
 60S = 60 Mil Smooth HDPE Geomembrane  
 60T = 60 Mil Textured HDPE Geomembrane

DSG = Double Sided Geocomposite  
 SSG = Single Sided Geocomposite  
 6oz Geo = 6 ounce Geotextile  
 12oz Geo = 12 ounce Geotextile

# Geosynthetics Inventory



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Project No.: 35177127

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Manufacturer: SKAPS

Transportation: FlatBed

Date of Arrival: November-17

Material Type: DSG

Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
1	78291010001	XOMX 710608	230	14.5	3,335	222	Y	Y	
2	78291010002	XOMX 710608	230	14.5	3,335				
3	78291010003	XOMX 710608	230	14.5	3,335				
4	78291010004	XOMX 710608	230	14.5	3,335				
5	78291010005	XOMX 710608	230	14.5	3,335				
6	78291010006	XOMX 710608	230	14.5	3,335				
7	78291010007	XOMX 710608	230	14.5	3,335				
8	78291010008	XOMX 710608	230	14.5	3,335				
9	78291010009	XOMX 710608	230	14.5	3,335				
10	78291010010	XOMX 710608	230	14.5	3,335				
11	78291010011	XOMX 710608	230	14.5	3,335				
12	78291010012	XOMX 710608	230	14.5	3,335				
13	78291010013	XOMX 710608	230	14.5	3,335				
14	78291010014	XOMX 710608	230	14.5	3,335				
15	78291010015	XOMX 710608	230	14.5	3,335	220	Y		
16	78291010016	XOMX 710608	230	14.5	3,335				
17	78291010017	XOMX 710608	230	14.5	3,335				
18	78291010018	XOMX 710608	230	14.5	3,335				
19	78291010019	XOMX 710608	230	14.5	3,335				
20	78291010020	XOMX 710608	230	14.5	3,335				
21	78291010021	XOMX 710608	230	14.5	3,335				
22	78291010022	XOMX 710608	230	14.5	3,335				
23	78291010023	XOMX 710608	230	14.5	3,335				
24	78291010024	XOMX 710608	230	14.5	3,335				
25	78291010025	XOMX 710608	230	14.5	3,335				
26	78291010026	XOMX 710608	230	14.5	3,335				
27	78291010027	XOMX 710608	230	14.5	3,335				
28	78291010028	XOMX 710608	230	14.5	3,335				
29	78291010029	XOMX 710608	230	14.5	3,335				
30	78291010030	XOMX 710608	230	14.5	3,335	225	Y	Y	
31	78291010031	XOMX 710608	230	14.5	3,335				
32	78291010032	XOMX 710608	230	14.5	3,335				
33	78291010033	XOMX 710608	230	14.5	3,335				
34	78291010034	XOMX 710608	230	14.5	3,335				
35	78291010035	XOMX 710608	230	14.5	3,335				
36	78291010036	XOMX 710608	230	14.5	3,335				

# Geosynthetics Inventory



25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

Project No.: 35177127  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Address: 3711 HWY 355 S, Fulton AR  
 Location: Cell 2

Manufacturer: SKAPS  
 Transportation: FlatBed  
 Date of Arrival: November-17  
 Material Type: DSG  
 Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
37	78291010037	XOMX 710608	230	14.5	3,335				
38	78291010038	XOMX 710608	230	14.5	3,335				
39	78291010039	XOMX 710608	230	14.5	3,335				
40	78291010040	XOMX 710608	230	14.5	3,335				
41	78291010041	XOMX 710608	230	14.5	3,335				
42	78291010042	XOMX 710608	230	14.5	3,335				
43	78291010043	XOMX 710608	230	14.5	3,335				
44	78291010044	XOMX 710608	230	14.5	3,335				
45	78291010045	XOMX 710608	230	14.5	3,335	228	Y		
46	78291010046	XOMX 710608	230	14.5	3,335				
47	78291010047	XOMX 710608	230	14.5	3,335				
48	78291010048	XOMX 710608	230	14.5	3,335				
49	78291010049	XOMX 710608	230	14.5	3,335				
50	78291010050	XOMX 710608	230	14.5	3,335				
51	78291010051	XOMX 710608	230	14.5	3,335				
52	78291010052	XOMX 710608	230	14.5	3,335				
53	78291010053	XOMX 710608	230	14.5	3,335				
54	78291010054	XOMX 710608	230	14.5	3,335				
55	78291010055	XOMX 710608	230	14.5	3,335				
56	78291010056	XOMX 710608	200	14.5	2,900				
57	78291010057	XOMX 710608	230	14.5	3,335				
58	78291010058	XOMX 710608	230	14.5	3,335				
59	78291010059	XOMX 710608	325	14.5	4,713				
60	78291010060	XOMX 710608	190	14.5	2,755	226	Y	Y	
61	78291010061	XOMX 710608	150	14.5	2,175				
62	78291010062	XOMX 710608	230	14.5	3,335				
63	78291010063	XOMX 710608	225	14.5	3,263				
64	78291010064	XOMX 710608	230	14.5	3,335				
65	78291010065	XOMX 710608	230	14.5	3,335				
66	78291010066	XOMX 710608	230	14.5	3,335				
67	78291010067	XOMX 710608	230	14.5	3,335				
68	78291010068	XOMX 710608	230	14.5	3,335				
69	78291010069	XOMX 710608	230	14.5	3,335				
70	78291010070	XOMX 710608	230	14.5	3,335				
71	78291010071	XOMX 710608	230	14.5	3,335				
72	78291010072	XOMX 710608	230	14.5	3,335				

# Geosynthetics Inventory



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

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Project No.: 35177127

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Manufacturer: SKAPS

Transportation: FlatBed

Date of Arrival: November-17

Material Type: DSG

Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
73	78291010073	XOMX 710608	230	14.5	3,335				
74	78291010074	XOMX 710608	230	14.5	3,335				
75	78291010075	XOMX 710608	230	14.5	3,335	224	Y		
76	78291010076	XOMX 710608	230	14.5	3,335				
77	78291010077	XOMX 710608	230	14.5	3,335				
78	78291010078	XOMX 710608	230	14.5	3,335				
79	78291010079	XOMX 710608	230	14.5	3,335				
80	78291010080	XOMX 710608	230	14.5	3,335				
81	78291010081	XOMX 710608	230	14.5	3,335				
82	78291010082	XOMX 710608	230	14.5	3,335				
83	78291010083	XOMX 710608	230	14.5	3,335				
84	78291010084	XOMX 710608	230	14.5	3,335				
85	78291010085	XOMX 710608	230	14.5	3,335				
86	78291010086	XOMX 710608	230	14.5	3,335				
87	78291010087	XOMX 710608	230	14.5	3,335				
88	78291010088	XOMX 710608	230	14.5	3,335				
89	78291010089	XOMX 710608	230	14.5	3,335				
90	78291010090	XOMX 710608	230	14.5	3,335	227	Y	Y	
91	78291010091	XOMX 710608	230	14.5	3,335				
92	78291010092	XOMX 710608	230	14.5	3,335				
93	78291010093	XOMX 710608	230	14.5	3,335				
94	78291010094	XOMX 710608	230	14.5	3,335				
95	78291010095	XOMX 710608	230	14.5	3,335				
96	78291010096	XOMX 710608	230	14.5	3,335				
97	78291010097	XOMX 710608	230	14.5	3,335				
98	78291010098	XOMX 710608	230	14.5	3,335				
99	78291010099	XOMX 710608	230	14.5	3,335				
100	78291010100	XOMX 710608	230	14.5	3,335				
101	78291010101	XOMX 710608	230	14.5	3,335				
102	78291010102	XOMX 710608	230	14.5	3,335				
103	78291010103	XOMX 710608	230	14.5	3,335				
104	78291010104	XOMX 710608	230	14.5	3,335				
105	78291010105	XOMX 710608	230	14.5	3,335	218	Y		
106	78291010106	XOMX 710608	230	14.5	3,335				
107	78291010107	XOMX 710608	230	14.5	3,335				
108	78291010108	XOMX 710608	230	14.5	3,335				

# Geosynthetics Inventory



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

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Project No.: 35177127

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Manufacturer: SKAPS

Transportation: FlatBed

Date of Arrival: November-17

Material Type: DSG

Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
109	78291010109	XOMX 710608	230	14.5	3,335				
110	78291010110	XOMX 710608	230	14.5	3,335				
111	78291010111	XOMX 710608	170	14.5	2,465				
112	78291010112	XOMX 710608	230	14.5	3,335				
113	78291010113	XOMX 710608	230	14.5	3,335				
114	78291010114	XOMX 710608	230	14.5	3,335				
115	78291010115	XOMX 710608	230	14.5	3,335				
116	78291010116	XOMX 710608	230	14.5	3,335				
117	78291010117	XOMX 710608	230	14.5	3,335				
118	78291010118	XOMX 710608	230	14.5	3,335				
119	78291010119	XOMX 710608	230	14.5	3,335				
120	78291010120	XOMX 710608	230	14.5	3,335	221	Y	Y	
121	78291010121	XOMX 710608	230	14.5	3,335				
122	78291010122	XOMX 710608	230	14.5	3,335				
123	78291010123	XOMX 710608	230	14.5	3,335				
124	78291010124	XOMX 710608	230	14.5	3,335				
125	78291010125	XOMX 710608	230	14.5	3,335				
126	78291010126	XOMX 710608	230	14.5	3,335				
127	78291010127	XOMX 710608	230	14.5	3,335				
128	78291010128	XOMX 710608	230	14.5	3,335				
129	78291010129	XOMX 710608	200	14.5	2,900				
130	78291010130	XOMX 710608	230	14.5	3,335				
131	78291010131	XOMX 710608	230	14.5	3,335				
132	78291010132	XOMX 710608	230	14.5	3,335				
133	78291010133	XOMX 710608	230	14.5	3,335				
134	78291010134	XOMX 710608	230	14.5	3,335				
135	78291010135	XOMX 710608	230	14.5	3,335	223	Y		
136	78291010136	XOMX 710608	230	14.5	3,335				
137	78291010137	XOMX 710608	230	14.5	3,335				
138	78291010138	XOMX 710608	230	14.5	3,335				
139	78291010139	XOMX 710608	230	14.5	3,335				
140	78291010140	XOMX 710608	230	14.5	3,335				
141	78291010141	XOMX 710608	230	14.5	3,335				
142	78291010142	XOMX 710608	230	14.5	3,335				
143	78291010143	XOMX 710608	230	14.5	3,335				
144	78291010144	XOMX 710608	230	14.5	3,335				

# Geosynthetics Inventory



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Project No.: 35177127

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Manufacturer: SKAPS

Transportation: FlatBed

Date of Arrival: November-17

Material Type: DSG

Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
145	78291010145	XOMX 710608	230	14.5	3,335				
146	78291010146	XOMX 710608	230	14.5	3,335				
147	78291010147	XOMX 710608	230	14.5	3,335				
148	78291010148	XOMX 710608	230	14.5	3,335				
149	78291010149	XOMX 710608	230	14.5	3,335				
150	78291010150	XOMX 710608	230	14.5	3,335	228	Y	Y	
151	78291010151	XOMX 710608	230	14.5	3,335				
152	78291010152	XOMX 710608	230	14.5	3,335				
153	78291010153	XOMX 710608	230	14.5	3,335				
154	78291010154	XOMX 710608	230	14.5	3,335				
155	78291010155	XOMX 710608	230	14.5	3,335				
156	78291010156	XOMX 710608	230	14.5	3,335				
157	78291010157	XOMX 710608	230	14.5	3,335				
158	78291010158	XOMX 710608	230	14.5	3,335				
159	78291010159	XOMX 710608	230	14.5	3,335				
160	78291010160	XOMX 710608	230	14.5	3,335				
161	78291010161	XOMX 710608	230	14.5	3,335				
162	78291010162	XOMX 710608	230	14.5	3,335				
163	78291010163	XOMX 710608	230	14.5	3,335				
164	78291010164	XOMX 710608	230	14.5	3,335				
165	78291010165	XOMX 710608	230	14.5	3,335	219	Y		
166	78291010166	XOMX 710608	230	14.5	3,335				
167	78291010167	XOMX 710608	230	14.5	3,335				
168	78291010168	XOMX 710608	130	14.5	1,885				
169	78291010169	XOMX 710608	230	14.5	3,335				
170	78291010170	XOMX 710608	230	14.5	3,335				
171	78291010171	XOMX 710608	230	14.5	3,335				
172	78291010172	XOMX 710608	230	14.5	3,335				
173	78291010173	XOMX 710608	230	14.5	3,335				
174	78291010174	XOMX 710608	230	14.5	3,335				
175	78291010175	XOMX 710608	230	14.5	3,335				
176	78291010176	XOMX 710608	230	14.5	3,335				
177	78291010177	XOMX 710608	230	14.5	3,335				
178	78291010178	XOMX 710608	230	14.5	3,335				
179	78291010179	XOMX 710608	230	14.5	3,335				
180	78291010180	XOMX 710608	230	14.5	3,335	229	Y	Y	

# Geosynthetics Inventory



25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

Project No.: 35177127  
 Client Name: American Electric Power  
 Contractor: SFC  
 Project Name: Turk Cell 2  
 Address: 3711 HWY 355 S, Fulton AR  
 Location: Cell 2

Manufacturer: SKAPS  
 Transportation: FlatBed  
 Date of Arrival: November-17  
 Material Type: DSG  
 Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
181	78291010181	XOMX 710608	230	14.5	3,335				
182	78291010182	XOMX 710608	230	14.5	3,335				
183	78291010183	XOMX 710608	230	14.5	3,335				
184	78291010184	XOMX 710608	230	14.5	3,335				
185	78291010185	XOMX 710608	230	14.5	3,335				
186	78291010186	XOMX 710608	230	14.5	3,335				
187	78291010187	XOMX 710608	230	14.5	3,335				
188	78291010188	XOMX 710608	230	14.5	3,335				
189	78291010189	XOMX 710608	230	14.5	3,335				
190	78291010190	XOMX 710608	230	14.5	3,335				
191	78291010191	XOMX 710608	230	14.5	3,335				
192	78291010192	XOMX 710608	230	14.5	3,335				
193	78291010193	XOMX 710608	230	14.5	3,335				
194	78291010194	XOMX 710608	230	14.5	3,335				
195	78291010195	XOMX 710608	230	14.5	3,335	220	Y		
196	78291010196	XOMX 710608	230	14.5	3,335				
197	78291010197	XOMX 710608	230	14.5	3,335				
198	78291010198	XOMX 710608	230	14.5	3,335				
199	78291010199	XOMX 710608	230	14.5	3,335				
200	78291010200	XOMX 710608	230	14.5	3,335				
201	78291010201	XOMX 710608	230	14.5	3,335				
202	78291010202	XOMX 710608	230	14.5	3,335				
203	78291010203	XOMX 710608	230	14.5	3,335				
204	78291010204	XOMX 710608	230	14.5	3,335				
205	78291010205	XOMX 710608	230	14.5	3,335				
206	78291010206	XOMX 710608	230	14.5	3,335				
207	78291010207	XOMX 710608	230	14.5	3,335				
208	78291010208	XOMX 710608	230	14.5	3,335				
209	78291010209	XOMX 710608	230	14.5	3,335				
210	78291010210	XOMX 710608	230	14.5	3,335	222	Y	Y	
211	78291010211	XOMX 710608	230	14.5	3,335				
212	78291010212	XOMX 710608	230	14.5	3,335				
213	78291010213	XOMX 710608	230	14.5	3,335				
214	78291010214	XOMX 710608	230	14.5	3,335				
215	78291010215	XOMX 710608	230	14.5	3,335				
216	78291010216	XOMX 710608	230	14.5	3,335				



# Geosynthetics Inventory



25809 Interstate 30 South  
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 Project Name: Turk Cell 2  
 Address: 3711 HWY 355 S, Fulton AR  
 Location: Cell 2

Manufacturer: SKAPS  
 Transportation: FlatBed  
 Date of Arrival: November-17  
 Material Type: DSG  
 Condition of Material: Good

ROLL COUNT	ROLL NUMBER	RESIN OR LOT NO.	MATERIAL DIMENSIONS				QC/QA CERT.	CONF. SAMPLE	REMARKS
			LENGTH (FEET)	WIDTH (FEET)	SQUARE FEET	THICK (MILS)			
217	78291010217	XOMX 710608	230	14.5	3,335				
218	78291010218	XOMX 710608	230	14.5	3,335				
219	78291010219	XOMX 710608	230	14.5	3,335				
220	78291010220	XOMX 710608	230	14.5	3,335				
221	78291010221	XOMX 710608	230	14.5	3,335				
222	78291010222	XOMX 710608	230	14.5	3,335				
223	78291010223	XOMX 710608	230	14.5	3,335				
224	78291010224	XOMX 710608	230	14.5	3,335				
225	78291010225	XOMX 710608	230	14.5	3,335	225	Y		
226	78291010226	XOMX 710608	230	14.5	3,335				
227	78291010227	XOMX 710608	230	14.5	3,335				
228	78291010228	XOMX 710608	230	14.5	3,335				
229	78291010229	XOMX 710608	230	14.5	3,335				
230	78291010230	XOMX 710608	250	14.5	3,625				
231	78291010231	XOMX 710608	230	14.5	3,335				
232	78291010232	XOMX 710608	230	14.5	3,335				

TOTAL ACCUMULATED: 770,385 ft<sup>2</sup>

**Material Type Legend:**

- 40S = 40 Mil Smooth HDPE Geomembrane
- 40T = 40 Mil Textured HDPE Geomembrane
- 60S = 60 Mil Smooth HDPE Geomembrane
- 60T = 60 Mil Textured HDPE Geomembrane

- DSG = Double Sided Geocomposite
- SSG = Single Sided Geocomposite
- 6oz Geo = 6 ounce Geotextile
- 12oz Geo = 12 ounce Geotextile

APPENDIX H  
GEOMEMBRANE MANUFACTURER'S  
QC CERTIFICATES






# quality certificate

ROLL #: **G17F003552**    LOT #: **HHK820510**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH		METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>60</b> mil	Thickness:	<b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.7</b> mm	<b>65</b> mil	Length:	<b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.6</b> mm	<b>63</b> mil	Width:	<b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895					<b>171</b> minutes	
Asperity ASTM D7466	Average	Top Bottom		<b>.66</b> mm <b>.71</b> mm	<b>26</b> mil <b>28</b> mil	
Specific Gravity ASTM D792	Average Density				<b>.944</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min				<b>.23</b>	
Carbon Black Content ASTM D4218	Range				<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category				<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>33</b> N/mm	<b>186</b> ppi	<b>2919</b> psi	
		TD	<b>30</b> N/mm	<b>171</b> ppi	<b>2716</b> psi	
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>212</b> ppi	<b>3341</b> psi	
		TD	<b>40</b> N/mm	<b>226</b> ppi	<b>3588</b> psi	
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>14</b> %	
		TD			<b>18</b> %	
	Average Elongation @Break	MD				<b>598</b> %
		TD				<b>455</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD		<b>329.2</b> N	<b>74</b> lbs.	
		TD		<b>329.2</b> N	<b>74</b> lbs.	
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load			<b>627.2</b> N	<b>141</b> lbs.	
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%			500 Hrs.	<b>ONGOING</b>	

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/2/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003553**    LOT #: **HHK820510**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>171</b> minutes
Asperity ASTM D7466	Average	Top	<b>.66</b> mm	<b>26</b> mil
		Bottom	<b>.74</b> mm	<b>29</b> mil
Specific Gravity ASTM D792	Average Density			<b>.944</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>146</b> ppi
		TD	<b>29</b> N/mm	<b>165</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>193</b> ppi
		TD	<b>32</b> N/mm	<b>182</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>18</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>488</b> %
		TD		<b>562</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>329.2</b> N	<b>74</b> lbs.
		TD	<b>329.2</b> N	<b>74</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>627.2</b> N	<b>141</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/2/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003554**      LOT #: **HHK820510**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>59</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>171</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.74</b> mm	<b>26</b> mil <b>29</b> mil
Specific Gravity ASTM D792	Average Density			<b>.944</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>146</b> ppi
		TD	<b>29</b> N/mm	<b>165</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>193</b> ppi
		TD	<b>32</b> N/mm	<b>182</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>18</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>488</b> %
		TD		<b>562</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>329.2</b> N	<b>74</b> lbs.
		TD	<b>329.2</b> N	<b>74</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>627.2</b> N	<b>141</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/2/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003555**    LOT #: **HHK820510**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>169.776</b> m	<b>557</b> feet	
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>171</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.69</b> mm <b>.71</b> mm	<b>27</b> mil <b>28</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.944</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>146</b> ppi	<b>2426</b> psi
		TD	<b>29</b> N/mm	<b>165</b> ppi	<b>2724</b> psi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>193</b> ppi	<b>3214</b> psi
		TD	<b>32</b> N/mm	<b>182</b> ppi	<b>2998</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>18</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>488</b> %
		TD			<b>562</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>329.2</b> N		<b>74</b> lbs.
		TD	<b>329.2</b> N		<b>74</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>627.2</b> N		<b>141</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/2/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003561**      LOT #: **HHK820510**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>64</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>171</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.69</b> mm <b>.76</b> mm	<b>27</b> mil <b>30</b> mil
Specific Gravity ASTM D792	Average Density			<b>.944</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>146</b> ppi
		TD	<b>29</b> N/mm	<b>165</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>193</b> ppi
		TD	<b>32</b> N/mm	<b>182</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>18</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>488</b> %
		TD		<b>562</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>329.2</b> N	<b>74</b> lbs.
		TD	<b>329.2</b> N	<b>74</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>627.2</b> N	<b>141</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department





# quality certificate

ROLL #: **G17F003562**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>174</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.64</b> mm <b>.74</b> mm	<b>25</b> mil <b>29</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.944</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>146</b> ppi	<b>2426</b> psi
		TD	<b>29</b> N/mm	<b>165</b> ppi	<b>2724</b> psi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>193</b> ppi	<b>3214</b> psi
		TD	<b>32</b> N/mm	<b>182</b> ppi	<b>2998</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>18</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>488</b> %
		TD			<b>562</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>329.2</b> N		<b>74</b> lbs.
		TD	<b>329.2</b> N		<b>74</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>627.2</b> N		<b>141</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003563**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>174</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.56</b> mm <b>.79</b> mm	<b>22</b> mil <b>31</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.944</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>139</b> ppi	<b>2356</b> psi
		TD	<b>27</b> N/mm	<b>152</b> ppi	<b>2557</b> psi
	Average Strength @ Break	MD	<b>31</b> N/mm	<b>177</b> ppi	<b>3002</b> psi
		TD	<b>32</b> N/mm	<b>180</b> ppi	<b>3021</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>19</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>470</b> %
		TD			<b>604</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N		<b>61</b> lbs.
		TD	<b>271.3</b> N		<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N		<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003564**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.69</b> mm <b>.79</b> mm	<b>27</b> mil <b>31</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>139</b> ppi
		TD	<b>27</b> N/mm	<b>152</b> ppi
	Average Strength @ Break	MD	<b>31</b> N/mm	<b>177</b> ppi
		TD	<b>32</b> N/mm	<b>180</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>19</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>470</b> %
		TD		<b>604</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>271.3</b> N	<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003565**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>174</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.61</b> mm <b>.79</b> mm	<b>24</b> mil <b>31</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>139</b> ppi	<b>2356</b> psi
		TD	<b>27</b> N/mm	<b>152</b> ppi	<b>2557</b> psi
	Average Strength @ Break	MD	<b>31</b> N/mm	<b>177</b> ppi	<b>3002</b> psi
		TD	<b>32</b> N/mm	<b>180</b> ppi	<b>3021</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>19</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>470</b> %
		TD			<b>604</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N		<b>61</b> lbs.
		TD	<b>271.3</b> N		<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N		<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003566**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>64</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.71</b> mm <b>.74</b> mm	<b>28</b> mil <b>29</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>139</b> ppi
		TD	<b>27</b> N/mm	<b>152</b> ppi
	Average Strength @ Break	MD	<b>31</b> N/mm	<b>177</b> ppi
		TD	<b>32</b> N/mm	<b>180</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>19</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>470</b> %
		TD		<b>604</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>271.3</b> N	<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003567**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top	<b>.66</b> mm	<b>26</b> mil
		Bottom	<b>.76</b> mm	<b>30</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>139</b> ppi
		TD	<b>27</b> N/mm	<b>152</b> ppi
	Average Strength @ Break	MD	<b>31</b> N/mm	<b>177</b> ppi
		TD	<b>32</b> N/mm	<b>180</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>19</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>470</b> %
		TD		<b>604</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>271.3</b> N	<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003568**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.69</b> mm <b>.74</b> mm	<b>27</b> mil <b>29</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>28</b> N/mm	<b>159</b> ppi
		TD	<b>26</b> N/mm	<b>149</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>197</b> ppi
		TD	<b>37</b> N/mm	<b>212</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>19</b> %
	Average Elongation @Break	MD		<b>581</b> %
		TD		<b>489</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>271.3</b> N	<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003569**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.76</b> mm <b>.79</b> mm	<b>30</b> mil <b>31</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>28</b> N/mm	<b>159</b> ppi
		TD	<b>26</b> N/mm	<b>149</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>197</b> ppi
		TD	<b>37</b> N/mm	<b>212</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>19</b> %
	Average Elongation @Break	MD		<b>581</b> %
		TD		<b>489</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>271.3</b> N	<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department





# quality certificate

ROLL #: **G17F003570**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>61</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.79</b> mm	<b>26</b> mil <b>31</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>28</b> N/mm	<b>159</b> ppi
		TD	<b>26</b> N/mm	<b>149</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>197</b> ppi
		TD	<b>37</b> N/mm	<b>212</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>19</b> %
	Average Elongation @Break	MD		<b>581</b> %
		TD		<b>489</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>271.3</b> N	<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003571**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>64</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>174</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.71</b> mm <b>.79</b> mm	<b>28</b> mil <b>31</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>28</b> N/mm	<b>159</b> ppi	<b>2630</b> psi
		TD	<b>26</b> N/mm	<b>149</b> ppi	<b>2490</b> psi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>197</b> ppi	<b>3267</b> psi
		TD	<b>37</b> N/mm	<b>212</b> ppi	<b>3535</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>16</b> %
		TD			<b>19</b> %
	Average Elongation @Break	MD			<b>581</b> %
		TD			<b>489</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N		<b>61</b> lbs.
		TD	<b>271.3</b> N		<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N		<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003572**      LOT #: **HHK820780**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.89</b> mm <b>.86</b> mm	<b>35</b> mil <b>34</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>28</b> N/mm	<b>159</b> ppi
		TD	<b>26</b> N/mm	<b>149</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>197</b> ppi
		TD	<b>37</b> N/mm	<b>212</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>19</b> %
	Average Elongation @Break	MD		<b>581</b> %
		TD		<b>489</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>271.3</b> N	<b>61</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003573**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.61</b> mm <b>.74</b> mm	<b>24</b> mil <b>29</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>136</b> ppi
		TD	<b>26</b> N/mm	<b>146</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>21</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>481</b> %
		TD		<b>605</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>275.8</b> N	<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003574**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.69</b> mm <b>.84</b> mm	<b>27</b> mil <b>33</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>136</b> ppi
		TD	<b>26</b> N/mm	<b>146</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>21</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>481</b> %
		TD		<b>605</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>275.8</b> N	<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003575**    LOT #: **HHK820780**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>174</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.76</b> mm	<b>26</b> mil <b>30</b> mil
Specific Gravity ASTM D792	Average Density			<b>.942</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>136</b> ppi
		TD	<b>26</b> N/mm	<b>146</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>21</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>481</b> %
		TD		<b>605</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>275.8</b> N	<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/3/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003576**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>59</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.64</b> mm <b>.74</b> mm	<b>25</b> mil <b>29</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>136</b> ppi
		TD	<b>26</b> N/mm	<b>146</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>21</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>481</b> %
		TD		<b>605</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>275.8</b> N	<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003577**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.61</b> mm <b>.84</b> mm	<b>24</b> mil <b>33</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>24</b> N/mm	<b>136</b> ppi	<b>2289</b> psi
		TD	<b>26</b> N/mm	<b>146</b> ppi	<b>2467</b> psi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi	<b>3120</b> psi
		TD	<b>31</b> N/mm	<b>177</b> ppi	<b>2999</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>21</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>481</b> %
		TD			<b>605</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N		<b>61</b> lbs.
		TD	<b>275.8</b> N		<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N		<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department





# quality certificate

ROLL #: **G17F003578**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.64</b> mm <b>.76</b> mm	<b>25</b> mil <b>30</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>23</b> N/mm	<b>134</b> ppi	<b>2281</b> psi
		TD	<b>26</b> N/mm	<b>146</b> ppi	<b>2454</b> psi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi	<b>3118</b> psi
		TD	<b>33</b> N/mm	<b>190</b> ppi	<b>3187</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>25</b> %
		TD			<b>17</b> %
	Average Elongation @Break	MD			<b>501</b> %
		TD			<b>590</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N		<b>61</b> lbs.
		TD	<b>275.8</b> N		<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N		<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003579**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.74</b> mm	<b>29</b> mil
			<b>.74</b> mm	<b>29</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>23</b> N/mm	<b>134</b> ppi
		TD	<b>26</b> N/mm	<b>146</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi
		TD	<b>33</b> N/mm	<b>190</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>25</b> %
		TD		<b>17</b> %
	Average Elongation @Break	MD		<b>501</b> %
		TD		<b>590</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>275.8</b> N	<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003580**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>59</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.76</b> mm	<b>30</b> mil
			<b>.76</b> mm	<b>30</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>23</b> N/mm	<b>134</b> ppi
		TD	<b>26</b> N/mm	<b>146</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi
		TD	<b>33</b> N/mm	<b>190</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>25</b> %
		TD		<b>17</b> %
	Average Elongation @Break	MD		<b>501</b> %
		TD		<b>590</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>275.8</b> N	<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003581**      LOT #: **HHK820440**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.74</b> mm <b>.79</b> mm	<b>29</b> mil <b>31</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>23</b> N/mm	<b>134</b> ppi
		TD	<b>26</b> N/mm	<b>146</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi
		TD	<b>33</b> N/mm	<b>190</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>25</b> %
		TD		<b>17</b> %
	Average Elongation @Break	MD		<b>501</b> %
		TD		<b>590</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N	<b>61</b> lbs.
		TD	<b>275.8</b> N	<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N	<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003582**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.71</b> mm <b>.81</b> mm	<b>28</b> mil <b>32</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>23</b> N/mm	<b>134</b> ppi	<b>2281</b> psi
		TD	<b>26</b> N/mm	<b>146</b> ppi	<b>2454</b> psi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>186</b> ppi	<b>3118</b> psi
		TD	<b>33</b> N/mm	<b>190</b> ppi	<b>3187</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>25</b> %
		TD			<b>17</b> %
	Average Elongation @Break	MD			<b>501</b> %
		TD			<b>590</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>271.3</b> N		<b>61</b> lbs.
		TD	<b>275.8</b> N		<b>62</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>556.0</b> N		<b>125</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003583**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.74</b> mm <b>.79</b> mm	<b>29</b> mil <b>31</b> mil
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi
		TD	<b>27</b> N/mm	<b>155</b> ppi
	Average Strength @ Break	MD	<b>35</b> N/mm	<b>202</b> ppi
		TD	<b>30</b> N/mm	<b>171</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>20</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>488</b> %
		TD		<b>545</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N	<b>60</b> lbs.
		TD	<b>289.1</b> N	<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>578.2</b> N	<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003584**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>56</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.69</b> mm	<b>26</b> mil <b>27</b> mil
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi
		TD	<b>27</b> N/mm	<b>155</b> ppi
	Average Strength @ Break	MD	<b>35</b> N/mm	<b>202</b> ppi
		TD	<b>30</b> N/mm	<b>171</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>20</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>488</b> %
		TD		<b>545</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N	<b>60</b> lbs.
		TD	<b>289.1</b> N	<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>578.2</b> N	<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003585**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.5</b> mm	<b>58</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>64</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>60</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.71</b> mm	<b>26</b> mil <b>28</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi	<b>2361</b> psi
		TD	<b>27</b> N/mm	<b>155</b> ppi	<b>2545</b> psi
	Average Strength @ Break	MD	<b>35</b> N/mm	<b>202</b> ppi	<b>3304</b> psi
		TD	<b>30</b> N/mm	<b>171</b> ppi	<b>2806</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>20</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>488</b> %
		TD			<b>545</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N		<b>60</b> lbs.
		TD	<b>289.1</b> N		<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>578.2</b> N		<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department






# quality certificate

ROLL #: **G17F003586**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>56</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.61</b> mm <b>.74</b> mm	<b>24</b> mil <b>29</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi	<b>2361</b> psi
		TD	<b>27</b> N/mm	<b>155</b> ppi	<b>2545</b> psi
	Average Strength @ Break	MD	<b>35</b> N/mm	<b>202</b> ppi	<b>3304</b> psi
		TD	<b>30</b> N/mm	<b>171</b> ppi	<b>2806</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>20</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>488</b> %
		TD			<b>545</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N		<b>60</b> lbs.
		TD	<b>289.1</b> N		<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>578.2</b> N		<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003587**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.64</b> mm <b>.86</b> mm	<b>25</b> mil <b>34</b> mil
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi
		TD	<b>27</b> N/mm	<b>155</b> ppi
	Average Strength @ Break	MD	<b>35</b> N/mm	<b>202</b> ppi
		TD	<b>30</b> N/mm	<b>171</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>20</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>488</b> %
		TD		<b>545</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N	<b>60</b> lbs.
		TD	<b>289.1</b> N	<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>578.2</b> N	<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003588**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.64</b> mm <b>.84</b> mm	<b>25</b> mil <b>33</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>35</b> N/mm	<b>201</b> ppi	<b>3586</b> psi
		TD	<b>37</b> N/mm	<b>214</b> ppi	<b>3837</b> psi
	Average Strength @ Break	MD	<b>45</b> N/mm	<b>257</b> ppi	<b>4582</b> psi
		TD	<b>43</b> N/mm	<b>244</b> ppi	<b>4389</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>23</b> %
		TD			<b>16</b> %
	Average Elongation @Break	MD			<b>462</b> %
		TD			<b>615</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N		<b>60</b> lbs.
		TD	<b>289.1</b> N		<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>578.2</b> N		<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003589**      LOT #: **HHK820440**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH		METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness:	<b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length:	<b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width:	<b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895					<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom		<b>.66</b> mm <b>.84</b> mm	<b>26</b> mil <b>33</b> mil	
Specific Gravity ASTM D792	Average Density				<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min				<b>.22</b>	
Carbon Black Content ASTM D4218	Range				<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category				<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>35</b> N/mm	<b>201</b> ppi	<b>3586</b> psi	
		TD	<b>37</b> N/mm	<b>214</b> ppi	<b>3837</b> psi	
	Average Strength @ Break	MD	<b>45</b> N/mm	<b>257</b> ppi	<b>4582</b> psi	
		TD	<b>43</b> N/mm	<b>244</b> ppi	<b>4389</b> psi	
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>23</b> %	
		TD			<b>16</b> %	
	Average Elongation @Break	MD				<b>462</b> %
		TD				<b>615</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD		<b>266.9</b> N	<b>60</b> lbs.	
		TD		<b>289.1</b> N	<b>65</b> lbs.	
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load			<b>578.2</b> N	<b>130</b> lbs.	
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%			500 Hrs.	<b>ONGOING</b>	

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003590**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH		METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness:	<b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length:	<b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width:	<b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895					<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom		<b>.64</b> mm <b>.84</b> mm	<b>25</b> mil <b>33</b> mil	
Specific Gravity ASTM D792	Average Density				<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min				<b>.22</b>	
Carbon Black Content ASTM D4218	Range				<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category				<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>35</b> N/mm	<b>201</b> ppi	<b>3586</b> psi	
		TD	<b>37</b> N/mm	<b>214</b> ppi	<b>3837</b> psi	
	Average Strength @ Break	MD	<b>45</b> N/mm	<b>257</b> ppi	<b>4582</b> psi	
		TD	<b>43</b> N/mm	<b>244</b> ppi	<b>4389</b> psi	
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>23</b> %	
		TD			<b>16</b> %	
	Average Elongation @Break	MD				<b>462</b> %
		TD				<b>615</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD		<b>266.9</b> N	<b>60</b> lbs.	
		TD		<b>289.1</b> N	<b>65</b> lbs.	
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load			<b>578.2</b> N	<b>130</b> lbs.	
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%			500 Hrs.	<b>ONGOING</b>	

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003591**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.3</b> mm	<b>53</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.86</b> mm	<b>26</b> mil <b>34</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>35</b> N/mm	<b>201</b> ppi	<b>3586</b> psi
		TD	<b>37</b> N/mm	<b>214</b> ppi	<b>3837</b> psi
	Average Strength @ Break	MD	<b>45</b> N/mm	<b>257</b> ppi	<b>4582</b> psi
		TD	<b>43</b> N/mm	<b>244</b> ppi	<b>4389</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>23</b> %
		TD			<b>16</b> %
	Average Elongation @Break	MD			<b>462</b> %
		TD			<b>615</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N		<b>60</b> lbs.
		TD	<b>289.1</b> N		<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>578.2</b> N		<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/4/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003592**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm MAX: <b>1.6</b> mm AVE: <b>1.5</b> mm	<b>54</b> mil <b>63</b> mil <b>59</b> mil	Thickness: <b>1.52</b> mm Length: <b>164.594</b> m Width: <b>7.01</b> m	<b>60</b> mil <b>540</b> feet <b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.71</b> mm <b>.81</b> mm	<b>28</b> mil <b>32</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>35</b> N/mm	<b>201</b> ppi	<b>3586</b> psi
		TD	<b>37</b> N/mm	<b>214</b> ppi	<b>3837</b> psi
	Average Strength @ Break	MD	<b>45</b> N/mm	<b>257</b> ppi	<b>4582</b> psi
		TD	<b>43</b> N/mm	<b>244</b> ppi	<b>4389</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>23</b> %
		TD			<b>16</b> %
	Average Elongation @Break	MD			<b>462</b> %
		TD			<b>615</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>266.9</b> N		<b>60</b> lbs.
		TD	<b>289.1</b> N		<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load			<b>578.2</b> N	<b>130</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%			500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003593**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.81</b> mm	<b>26</b> mil <b>32</b> mil
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>147</b> ppi
		TD	<b>27</b> N/mm	<b>154</b> ppi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi
		TD	<b>33</b> N/mm	<b>186</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>17</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>473</b> %
		TD		<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N	<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department





# quality certificate

ROLL #: **G17F003594**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.69</b> mm <b>.84</b> mm	<b>27</b> mil <b>33</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>147</b> ppi	<b>2413</b> psi
		TD	<b>27</b> N/mm	<b>154</b> ppi	<b>2707</b> psi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi	<b>3438</b> psi
		TD	<b>33</b> N/mm	<b>186</b> ppi	<b>3266</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>17</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>473</b> %
		TD			<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N		<b>64</b> lbs.
		TD	<b>284.7</b> N		<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N		<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003595**      LOT #: **HHK820440**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.86</b> mm <b>.64</b> mm	<b>34</b> mil <b>25</b> mil
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>147</b> ppi
		TD	<b>27</b> N/mm	<b>154</b> ppi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi
		TD	<b>33</b> N/mm	<b>186</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>17</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>473</b> %
		TD		<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N	<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003596**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>56</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.86</b> mm <b>.61</b> mm	<b>34</b> mil <b>24</b> mil
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.8</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>147</b> ppi
		TD	<b>27</b> N/mm	<b>154</b> ppi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi
		TD	<b>33</b> N/mm	<b>186</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>17</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>473</b> %
		TD		<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N	<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003597**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.76</b> mm <b>.74</b> mm	<b>30</b> mil <b>29</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>	
Carbon Black Content ASTM D4218	Range			<b>2.8</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>147</b> ppi	<b>2413</b> psi
		TD	<b>27</b> N/mm	<b>154</b> ppi	<b>2707</b> psi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi	<b>3438</b> psi
		TD	<b>33</b> N/mm	<b>186</b> ppi	<b>3266</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>17</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>473</b> %
		TD			<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N		<b>64</b> lbs.
		TD	<b>284.7</b> N		<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N		<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003598**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.91</b> mm <b>.61</b> mm	<b>36</b> mil <b>24</b> mil
Specific Gravity ASTM D792	Average Density			<b>.945</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.22</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi
		TD	<b>28</b> N/mm	<b>161</b> ppi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi
		TD	<b>34</b> N/mm	<b>194</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>17</b> %
		TD		<b>16</b> %
	Average Elongation @Break	MD		<b>451</b> %
		TD		<b>602</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N	<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003599**    LOT #: **HHK820440**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH		METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness:	<b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length:	<b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width:	<b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895					<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom		<b>.74</b> mm <b>.64</b> mm	<b>29</b> mil <b>25</b> mil	
Specific Gravity ASTM D792	Average Density				<b>.945</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min				<b>.22</b>	
Carbon Black Content ASTM D4218	Range				<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category				<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi	<b>2508</b> psi	
		TD	<b>28</b> N/mm	<b>161</b> ppi	<b>2677</b> psi	
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi	<b>3541</b> psi	
		TD	<b>34</b> N/mm	<b>194</b> ppi	<b>3226</b> psi	
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>17</b> %	
		TD			<b>16</b> %	
	Average Elongation @Break	MD				<b>451</b> %
		TD				<b>602</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD		<b>284.7</b> N	<b>64</b> lbs.	
		TD		<b>284.7</b> N	<b>64</b> lbs.	
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load			<b>564.9</b> N	<b>127</b> lbs.	
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%			500 Hrs.	<b>ONGOING</b>	

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003600**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>56</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.76</b> mm <b>.66</b> mm	<b>30</b> mil <b>26</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi	<b>2508</b> psi
		TD	<b>28</b> N/mm	<b>161</b> ppi	<b>2677</b> psi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi	<b>3541</b> psi
		TD	<b>34</b> N/mm	<b>194</b> ppi	<b>3226</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>17</b> %
		TD			<b>16</b> %
	Average Elongation @Break	MD			<b>451</b> %
		TD			<b>602</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N		<b>64</b> lbs.
		TD	<b>284.7</b> N		<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N		<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003601**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.64</b> mm <b>.81</b> mm	<b>25</b> mil <b>32</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi
		TD	<b>28</b> N/mm	<b>161</b> ppi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi
		TD	<b>34</b> N/mm	<b>194</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>17</b> %
		TD		<b>16</b> %
	Average Elongation @Break	MD		<b>451</b> %
		TD		<b>602</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N	<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department






# quality certificate

ROLL #: **G17F003602**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.84</b> mm	<b>26</b> mil <b>33</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi
		TD	<b>28</b> N/mm	<b>161</b> ppi
	Average Strength @ Break	MD	<b>37</b> N/mm	<b>209</b> ppi
		TD	<b>34</b> N/mm	<b>194</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>17</b> %
		TD		<b>16</b> %
	Average Elongation @Break	MD		<b>451</b> %
		TD		<b>602</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>564.9</b> N	<b>127</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003603**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.61</b> mm <b>.89</b> mm	<b>24</b> mil <b>35</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>37</b> N/mm	<b>210</b> ppi
		TD	<b>39</b> N/mm	<b>223</b> ppi
	Average Strength @ Break	MD	<b>47</b> N/mm	<b>267</b> ppi
		TD	<b>43</b> N/mm	<b>247</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>25</b> %
		TD		<b>17</b> %
	Average Elongation @Break	MD		<b>459</b> %
		TD		<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>342.5</b> N	<b>77</b> lbs.
		TD	<b>346.9</b> N	<b>78</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003604**      LOT #: **HHK820790**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.69</b> mm <b>.84</b> mm	<b>27</b> mil <b>33</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>37</b> N/mm	<b>210</b> ppi
		TD	<b>39</b> N/mm	<b>223</b> ppi
	Average Strength @ Break	MD	<b>47</b> N/mm	<b>267</b> ppi
		TD	<b>43</b> N/mm	<b>247</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>25</b> %
		TD		<b>17</b> %
	Average Elongation @Break	MD		<b>459</b> %
		TD		<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>342.5</b> N	<b>77</b> lbs.
		TD	<b>346.9</b> N	<b>78</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/5/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003605**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.66</b> mm <b>.86</b> mm	<b>26</b> mil <b>34</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>37</b> N/mm	<b>210</b> ppi
		TD	<b>39</b> N/mm	<b>223</b> ppi
	Average Strength @ Break	MD	<b>47</b> N/mm	<b>267</b> ppi
		TD	<b>43</b> N/mm	<b>247</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>25</b> %
		TD		<b>17</b> %
	Average Elongation @Break	MD		<b>459</b> %
		TD		<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>342.5</b> N	<b>77</b> lbs.
		TD	<b>346.9</b> N	<b>78</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003606**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>56</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.58</b> mm <b>.81</b> mm	<b>23</b> mil <b>32</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>37</b> N/mm	<b>210</b> ppi
		TD	<b>39</b> N/mm	<b>223</b> ppi
	Average Strength @ Break	MD	<b>47</b> N/mm	<b>267</b> ppi
		TD	<b>43</b> N/mm	<b>247</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>25</b> %
		TD		<b>17</b> %
	Average Elongation @Break	MD		<b>459</b> %
		TD		<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>342.5</b> N	<b>77</b> lbs.
		TD	<b>346.9</b> N	<b>78</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003607**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>56</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.61</b> mm <b>.79</b> mm	<b>24</b> mil <b>31</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>	
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>37</b> N/mm	<b>210</b> ppi	<b>3491</b> psi
		TD	<b>39</b> N/mm	<b>223</b> ppi	<b>3719</b> psi
	Average Strength @ Break	MD	<b>47</b> N/mm	<b>267</b> ppi	<b>4444</b> psi
		TD	<b>43</b> N/mm	<b>247</b> ppi	<b>4135</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>25</b> %
		TD			<b>17</b> %
	Average Elongation @Break	MD			<b>459</b> %
		TD			<b>587</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>342.5</b> N		<b>77</b> lbs.
		TD	<b>346.9</b> N		<b>78</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N		<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003608**      LOT #: **HHK820790**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.81</b> mm <b>.71</b> mm	<b>32</b> mil <b>28</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi
		TD	<b>28</b> N/mm	<b>161</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>188</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>439</b> %
		TD		<b>555</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>289.1</b> N	<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003609**      LOT #: **HHK820790**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>63</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.84</b> mm <b>.69</b> mm	<b>33</b> mil <b>27</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi
		TD	<b>28</b> N/mm	<b>161</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>188</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>439</b> %
		TD		<b>555</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>289.1</b> N	<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department





# quality certificate

ROLL #: **G17F003610**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top	<b>.84</b> mm	<b>33</b> mil
		Bottom	<b>.66</b> mm	<b>26</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.5</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi
		TD	<b>28</b> N/mm	<b>161</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>188</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>439</b> %
		TD		<b>555</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>289.1</b> N	<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003611**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH		METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>54</b> mil	Thickness:	<b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length:	<b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width:	<b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895					<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom		<b>.84</b> mm <b>.66</b> mm	<b>33</b> mil <b>26</b> mil	
Specific Gravity ASTM D792	Average Density				<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min				<b>.23</b>	
Carbon Black Content ASTM D4218	Range				<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category				<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi	<b>2473</b> psi	
		TD	<b>28</b> N/mm	<b>161</b> ppi	<b>2728</b> psi	
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>188</b> ppi	<b>3153</b> psi	
		TD	<b>31</b> N/mm	<b>177</b> ppi	<b>3004</b> psi	
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>16</b> %	
		TD			<b>15</b> %	
	Average Elongation @Break	MD				<b>439</b> %
		TD				<b>555</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD		<b>284.7</b> N	<b>64</b> lbs.	
		TD		<b>289.1</b> N	<b>65</b> lbs.	
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load			<b>569.3</b> N	<b>128</b> lbs.	
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%			500 Hrs.	<b>ONGOING</b>	

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003612**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.84</b> mm <b>.64</b> mm	<b>33</b> mil <b>25</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>26</b> N/mm	<b>148</b> ppi
		TD	<b>28</b> N/mm	<b>161</b> ppi
	Average Strength @ Break	MD	<b>33</b> N/mm	<b>188</b> ppi
		TD	<b>31</b> N/mm	<b>177</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>439</b> %
		TD		<b>555</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>284.7</b> N	<b>64</b> lbs.
		TD	<b>289.1</b> N	<b>65</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003613**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.84</b> mm <b>.66</b> mm	<b>33</b> mil <b>26</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi	<b>2448</b> psi
		TD	<b>29</b> N/mm	<b>163</b> ppi	<b>2797</b> psi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>196</b> ppi	<b>3327</b> psi
		TD	<b>31</b> N/mm	<b>178</b> ppi	<b>3055</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>16</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>425</b> %
		TD			<b>554</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>302.5</b> N		<b>68</b> lbs.
		TD	<b>284.7</b> N		<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N		<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003614**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.86</b> mm <b>.66</b> mm	<b>34</b> mil <b>26</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi	<b>2448</b> psi
		TD	<b>29</b> N/mm	<b>163</b> ppi	<b>2797</b> psi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>196</b> ppi	<b>3327</b> psi
		TD	<b>31</b> N/mm	<b>178</b> ppi	<b>3055</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>16</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>425</b> %
		TD			<b>554</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>302.5</b> N		<b>68</b> lbs.
		TD	<b>284.7</b> N		<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N		<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department




# quality certificate

ROLL #: **G17F003615**      LOT #: **HHK820790**      LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.6</b> mm	<b>62</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.86</b> mm <b>.66</b> mm	<b>34</b> mil <b>26</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi
		TD	<b>29</b> N/mm	<b>163</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>196</b> ppi
		TD	<b>31</b> N/mm	<b>178</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>425</b> %
		TD		<b>554</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>302.5</b> N	<b>68</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**      OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003616**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>56</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>61</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>59</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top	<b>.84</b> mm	<b>33</b> mil
		Bottom	<b>.66</b> mm	<b>26</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi
		TD	<b>29</b> N/mm	<b>163</b> ppi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>196</b> ppi
		TD	<b>31</b> N/mm	<b>178</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>16</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>425</b> %
		TD		<b>554</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>302.5</b> N	<b>68</b> lbs.
		TD	<b>284.7</b> N	<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N	<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department



# quality certificate

ROLL #: **G17F003617**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH	
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>55</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil	
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length: <b>164.594</b> m	<b>540</b> feet	
	AVE: <b>1.4</b> mm	<b>57</b> mil	Width: <b>7.01</b> m	<b>23</b> feet	
OIT(Standard) ASTM D 3895				<b>168</b> minutes	
Asperity ASTM D7466	Average	Top Bottom	<b>.86</b> mm	<b>34</b> mil	
			<b>.86</b> mm	<b>34</b> mil	
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc	
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>	
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %	
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>	
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>25</b> N/mm	<b>144</b> ppi	<b>2448</b> psi
		TD	<b>29</b> N/mm	<b>163</b> ppi	<b>2797</b> psi
	Average Strength @ Break	MD	<b>34</b> N/mm	<b>196</b> ppi	<b>3327</b> psi
		TD	<b>31</b> N/mm	<b>178</b> ppi	<b>3055</b> psi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD			<b>16</b> %
		TD			<b>15</b> %
	Average Elongation @Break	MD			<b>425</b> %
		TD			<b>554</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>302.5</b> N		<b>68</b> lbs.
		TD	<b>284.7</b> N		<b>64</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>569.3</b> N		<b>128</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.		<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department





# quality certificate

ROLL #: **G17F003618**    LOT #: **HHK820790**    LINER TYPE: **60 HD MICROSPIKE**

	METRIC	ENGLISH	METRIC	ENGLISH
Thickness Measurement ASTM D5994 (Modified)	MIN: <b>1.4</b> mm	<b>57</b> mil	Thickness: <b>1.52</b> mm	<b>60</b> mil
	MAX: <b>1.5</b> mm	<b>60</b> mil	Length: <b>164.594</b> m	<b>540</b> feet
	AVE: <b>1.5</b> mm	<b>58</b> mil	Width: <b>7.01</b> m	<b>23</b> feet
OIT(Standard) ASTM D 3895				<b>168</b> minutes
Asperity ASTM D7466	Average	Top Bottom	<b>.86</b> mm <b>.84</b> mm	<b>34</b> mil <b>33</b> mil
Specific Gravity ASTM D792	Average Density			<b>.947</b> g/cc
MFI ASTM D1238 COND. E Grade: <b>K307</b>	Melt Flow Index 190C/2160 g - g/10 min			<b>.23</b>
Carbon Black Content ASTM D4218	Range			<b>2.6</b> %
Carbon Black Dispersion ASTM D5596	Category			<b>10 in Category 1</b>
Tensile Strength ASTM D6693 (2 inches / minute)	Average Strength @ Yield	MD	<b>37</b> N/mm	<b>214</b> ppi
		TD	<b>41</b> N/mm	<b>233</b> ppi
	Average Strength @ Break	MD	<b>46</b> N/mm	<b>261</b> ppi
		TD	<b>46</b> N/mm	<b>265</b> ppi
Tensile Elongation ASTM D6693 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	MD		<b>20</b> %
		TD		<b>15</b> %
	Average Elongation @Break	MD		<b>442</b> %
		TD		<b>601</b> %
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	MD	<b>409.2</b> N	<b>92</b> lbs.
		TD	<b>382.5</b> N	<b>86</b> lbs.
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load		<b>733.9</b> N	<b>165</b> lbs.
Notched Constant Tensile Load ASTM D5397	Pass/Fail @ 30%		500 Hrs.	<b>ONGOING</b>

Customer: Environmental Specialties  
 PO: 25802 John W. Turk Power Plant  
 Destination: Fulton, AR

Production Date: **11/6/2017**    OA#: **38383**

Signature:   
**Maria Coffey**  
 Quality Control Department

## Certificate of Analysis

Shipped To: AGRU AMERICA INC:GEORGETOWN  
500 GARRISON RD  
GEORGETOWN SC 29440  
USA

Recipient: PALMER  
Fax:

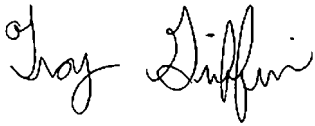
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PO #: 11965  
Weight: 184100.000 LB  
Ship Date: 10/16/2017  
Package: BULK  
Mode: Hopper Car  
Car #: CHVX894059  
Seal No: 102423

Product:  
MARLEX K307 POLYETHYLENE in Bulk

Lot Number: HHK820510

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.23	g/10min
HLMI Flow Rate	ASTM D1238	21	g/10min
Density	D1505 or D4883	0.938	g/cm3
Pellet Count	P02.08.03	27	pelet/gram
Production Date		10/10/2017	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).  
**However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.**



Troy Griffin  
Quality Systems Coordinator

For CoA questions contact Patricia Royall at +1832813

## Certificate of Analysis

Shipped To: AGRU AMERICA INC:GEORGETOWN  
500 GARRISON RD  
GEORGETOWN SC 29440  
USA

Recipient: PALMER  
Fax:

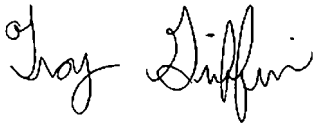
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Ship Date: 10/18/2017  
Package: BULK  
Mode: Hopper Car  
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Seal No: 102223

Product:  
MARLEX K307 POLYETHYLENE in Bulk

Lot Number: HHK820780

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.22	g/10min
HLMI Flow Rate	ASTM D1238	20	g/10min
Density	D1505 or D4883	0.937	g/cm3
Pellet Count	P02.08.03	27	pelet/gram
Production Date		10/14/2017	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).  
**However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.**



Troy Griffin  
Quality Systems Coordinator

For CoA questions contact Patricia Royall at +1832813

## Certificate of Analysis

Shipped To: AGRU AMERICA INC:GEORGETOWN  
500 GARRISON RD  
GEORGETOWN SC 29440  
USA

Recipient: PALMER  
Fax:

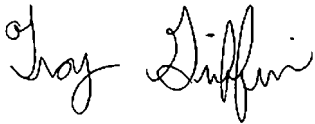
Delivery #: 89544391  
PO #: 11965  
Weight: 180300.000 LB  
Ship Date: 10/12/2017  
Package: BULK  
Mode: Hopper Car  
Car #: NAHX610359  
Seal No: 99372

Product:  
MARLEX K307 POLYETHYLENE in Bulk

Lot Number: HHK820440

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.22	g/10min
HLMI Flow Rate	ASTM D1238	21	g/10min
Density	D1505 or D4883	0.937	g/cm3
Pellet Count	P02.08.03	28	pelet/gram
Production Date		10/08/2017	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).  
**However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.**



Troy Griffin  
Quality Systems Coordinator

For CoA questions contact Patricia Royall at +1832813

## Certificate of Analysis

Shipped To: AGRU AMERICA INC:GEORGETOWN  
500 GARRISON RD  
GEORGETOWN SC 29440  
USA

Recipient: PALMER  
Fax:

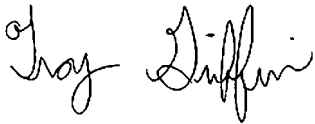
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Package: BULK  
Mode: Hopper Car  
Car #: PSPX003194  
Seal No: 102222

Product:  
MARLEX K307 POLYETHYLENE in Bulk

Lot Number: HHK820790

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.23	g/10min
HLMI Flow Rate	ASTM D1238	21	g/10min
Density	D1505 or D4883	0.938	g/cm3
Pellet Count	P02.08.03	28	pelet/gram
Production Date		10/14/2017	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).  
**However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.**



Troy Griffin  
Quality Systems Coordinator

For CoA questions contact Patricia Royall at +1832813



Yingying Lu, Ph.D., Geomembrane Technical Service & Applications Development  
 Highways 60 & 123, Bartlesville Research and Technology Center, Room 149 PTC  
 Bartlesville, OK 74003  
 ■ 918-977-6894 ■ luyy@cpchem.com ■ Fax: 918-977-7599 ■ [www.cpchem.com](http://www.cpchem.com)

June 17, 2015

**Grant Palmer**  
**Agru America**  
**500 Garrison Road**  
**Georgetown, SC 29440**

Dear Grant:

This letter is to report the final results of oven-aging and UV-aging tests (according to GRI-GM13 and GRI-GM17) on Agru America black sheet samples that you provided to us recently. These tests were performed by CPChem's Materials Evaluation Laboratory in Bartlesville, OK. The tests were completed June 2015.

The GRI-GM13 (HDPE) and GRI-GM17 (LLDPE) durability tests were done according to the following procedures.

Test	Exposure	Method
HP-OIT	150 °C, 500 psi oxygen	D5885
Oven Aging	90 days, 85 °C	D5721
UV Aging	1600 UV hrs (Conditions were 20 hours UVA-340 at 75 °C followed by 4 hrs dark with condensation at 60 °C. Irradiance was 0.72 W/m <sup>2</sup> at 340 nm.)	D7238

**Oven-Aging Results**

Sample	Initial HP-OIT (min)	HP-OIT Value after Oven Aging 90 Days (min)	% HP-OIT Retained after Oven Aging 90 Days	GRI-GM13 and GRI-GM17% Retained Requirement (Oven Aging 90 Days)
60 mil HDPE Roll # G14F514045 from Marlex® K307 Polyethylene Lot # H71-4-1337	1066	883	83	80
40 mil LLDPE Roll # G14C243027 from Marlex® 7104 Polyethylene Lot # CEC810320	512	422	82	60

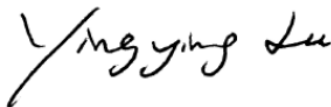
UV-Aging Results

Sample	Initial HP-OIT (min)	HP-OIT Value after UV Aging (min)	% HP-OIT Retained	GRI-GM13 and GRI-GM17 % Retained Requirement
60 mil HDPE Roll # G14F514045 from Marlex® K307 Polyethylene Lot # H71-4-1337	1066	930	87	50
40 mil LLDPE Roll # G14C243027 from Marlex® 7104 Polyethylene Lot # CEC810320	512	351	69	35

According to these test results, the durability requirements are met.

If you have any questions, please call me at 918-977-6894.

Sincerely,



Yingying Lu, Ph. D.

Polyethylene Technical Service and Applications Development

*Any technical advice, recommendations, results, or analysis ("Information") contained herein, including, without limitation, Information as it may relate to the selection of a specific product ("Product") for your use and application, is given **without warranty or guarantee** and is accepted at your sole risk. It is imperative that you test the Information (and Product, if applicable) to determine to your own satisfaction whether the Information (and Product, if applicable) are suitable for your intended use and application. **You expressly assume, and release Chevron Phillips Chemical Company, from all risk and liability, whether based in contract, tort or otherwise, in connection with the use of, or results obtained from, such Information (and Product, if applicable).***

APPENDIX I  
GEOMEMBRANE CONFORMANCE  
TEST RESULTS





GEOMEMBRANE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003552  
 TRI Log #: 33543

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Thickness (ASTM D 5994)</b>													
Thickness (mils)	61	63	60	61	62	62	61	61	61	64	62	1	60 min ave
											60	<< min	57, 8 of 10 54 min ind
<b>Asperity Height (GRI GM 12)</b>													
Asperity Height (mils) - Side A	33	30	31	32	33	29	31	32	32	32	31	1	16 min
Asperity Height (mils) - Side B	27	27	28	27	27	32	29	32	27	28	28	2	16 min
Side A - Shiny Side	Side B - Dull Side												
<b>Density (ASTM D 1505)</b>													
Density (g/cm3)	0.945	0.945	0.945								0.945	0.000	0.940 min
<b>Carbon Black Content (ASTM D 1603, mod.)</b>													
% Carbon Black	2.59	2.59									2.59	0.00	2.0 - 3.0
<b>Carbon Black Dispersion (ASTM D 5596)</b>													
Rating - 1st field view	1	1	1	1	1								Cat 1 or 2
Rating - 2nd field view	1	1	1	1	1								Cat 1 or 2
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>													
MD Yield Strength (ppi)	151	147	149	146	143						147	3	132 min
TD Yield Strength (ppi)	167	163	161	158	157						161	4	132 min
MD Break Strength (ppi)	212	213	220	219	197						212	9	115 min
TD Break Strength (ppi)	201	207	180	199	189						195	11	115 min
MD Yield Elongation (%)	21	19	21	21	21						21	1	12 min
TD Yield Elongation (%)	16	16	16	15	17						16	1	12 min
MD Break Elongation (%)	436	488	482	479	517						480	29	100 min
TD Break Elongation (%)	641	655	566	626	601						618	35	100 min
<b>Tear Resistance (ASTM D 1004)</b>													
MD Tear Strength (lbs)	57	48	53	56	52	46	50	55	51	54	52	3	45 min
TD Tear Strength (lbs)	54	56	50	47	49	45	48	45	46	46	48	4	45 min
MD Machine Direction	TD Transverse Direction												



GEOMEMBRANE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003565  
 TRI Log #: 33576

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Thickness (ASTM D 5994)</b>													
Thickness (mils)	62	63	65	63	62	60	63	61	60	61	62	2	60 min ave
											60	<< min	57, 8 of 10 54 min ind
<b>Asperity Height (GRI GM 12)</b>													
Asperity Height (mils) - Side A	27	28	30	32	31	27	30	30	34	31	30	2	16 min
Asperity Height (mils) - Side B	26	26	28	29	28	25	27	30	28	28	27	1	16 min
Side A: Shiny Side	Side B: Dull Side												
<b>Density (ASTM D 1505)</b>													
Density (g/cm3)	0.944	0.944	0.944								0.944	0.000	0.940 min
<b>Carbon Black Content (ASTM D 1603, mod.)</b>													
% Carbon Black	2.52	2.46									2.49	0.04	2.0 - 3.0
<b>Carbon Black Dispersion (ASTM D 5596)</b>													
Rating - 1st field view	1	1	1	1	1								Cat 1 or 2
Rating - 2nd field view	1	1	1	1	1								Cat 1 or 2
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>													
MD Yield Strength (ppi)	148	141	149	144	150						146	4	132 min
TD Yield Strength (ppi)	149	162	165	151	163						158	7	132 min
MD Break Strength (ppi)	208	184	202	159	197						190	19	115 min
TD Break Strength (ppi)	168	180	175	143	201						173	21	115 min
MD Yield Elongation (%)	21	19	21	18	19						20	1	12 min
TD Yield Elongation (%)	17	15	15	16	16						16	1	12 min
MD Break Elongation (%)	490	518	498	469	472						489	20	100 min
TD Break Elongation (%)	578	576	558	466	642						564	63	100 min
<b>Tear Resistance (ASTM D 1004)</b>													
MD Tear Strength (lbs)	54	46	47	51	53	52	54	46	46	49	50	3	45 min
TD Tear Strength (lbs)	43	44	46	47	48	46	46	45	46	46	46	1	45 min
MD Machine Direction	TD Transverse Direction												



GEOMEMBRANE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003573  
 TRI Log #: 33576

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Thickness (ASTM D 5994)</b>													
Thickness (mils)	61.9	60.5	62.6	61.0	61.0	61.5	62.7	63.5	62.7	60.1	62	1	60 min ave
											60	<< min	57, 8 of 10 54 min ind
<b>Asperity Height (GRI GM 12)</b>													
Asperity Height (mils) - Side A	32	31	30	32	33	34	31	27	30	28	31	2	16 min
Asperity Height (mils) - Side B	27	26	31	28	32	28	28	29	27	29	28	2	16 min
Side A: Shiny Side	Side B: Dull Side												
<b>Density (ASTM D 1505)</b>													
Density (g/cm3)	0.944	0.944	0.944								0.944	0.000	0.940 min
<b>Carbon Black Content (ASTM D 1603, mod.)</b>													
% Carbon Black	2.44	2.41									2.43	0.02	2.0 - 3.0
<b>Carbon Black Dispersion (ASTM D 5596)</b>													
Rating - 1st field view	1	1	1	1	1								Cat 1 or 2
Rating - 2nd field view	1	1	1	1	1								Cat 1 or 2
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>													
MD Yield Strength (ppi)	143	145	145	136	142						142	4	132 min
TD Yield Strength (ppi)	156	157	152	146	154						153	4	132 min
MD Break Strength (ppi)	196	187	211	200	199						199	9	115 min
TD Break Strength (ppi)	188	205	184	175	203						191	13	115 min
MD Yield Elongation (%)	21	21	22	21	23						22	1	12 min
TD Yield Elongation (%)	16	15	16	15	18						16	1	12 min
MD Break Elongation (%)	462	483	485	471	495						479	13	100 min
TD Break Elongation (%)	604	641	590	581	642						612	29	100 min
<b>Tear Resistance (ASTM D 1004)</b>													
MD Tear Strength (lbs)	52	48	50	51	50	51	52	48	49	52	50	1	45 min
TD Tear Strength (lbs)	45	47	44	42	43	45	45	45	47	43	45	2	45 min
MD Machine Direction	TD Transverse Direction												



GEOMEMBRANE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003581  
 TRI Log #: 33576

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.	
	1	2	3	4	5	6	7	8	9	10				
<b>Thickness (ASTM D 5994)</b>														
Thickness (mils)	61.3	61.4	62.2	61.7	61.6	61.3	65.6	61.0	64.3	63.3	<b>62</b> <b>61</b>	2 << min	60 min ave 57, 8 of 10 54 min ind	
<b>Asperity Height (GRI GM 12)</b>														
Asperity Height (mils) - Side A	32	30	31	28	32	34	32	31	34	31	<b>31</b>	2	16 min	
Asperity Height (mils) - Side B	26	28	28	29	25	28	26	24	27	28	<b>27</b>	1	16 min	
Side A: Shiny Side	Side B: Dull Side													
<b>Density (ASTM D 1505)</b>														
Density (g/cm3)	0.944	0.944	0.944								<b>0.944</b>	0.000	0.940 min	
<b>Carbon Black Content (ASTM D 1603, mod.)</b>														
% Carbon Black	2.46	2.53								<b>2.50</b>	0.05	2.0 - 3.0		
<b>Carbon Black Dispersion (ASTM D 5596)</b>														
Rating - 1st field view	1	1	1	1	1							Cat 1 or 2		
Rating - 2nd field view	1	1	1	1	1							Cat 1 or 2		
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>														
MD Yield Strength (ppi)	142	151	147	147	152							<b>148</b>	4	132 min
TD Yield Strength (ppi)	156	166	161	153	166							<b>160</b>	6	132 min
MD Break Strength (ppi)	213	219	212	179	212							<b>207</b>	16	115 min
TD Break Strength (ppi)	178	187	173	145	183							<b>173</b>	17	115 min
MD Yield Elongation (%)	22	22	21	18	21							<b>21</b>	2	12 min
TD Yield Elongation (%)	15	15	15	16	18							<b>16</b>	1	12 min
MD Break Elongation (%)	490	462	470	481	473							<b>475</b>	11	100 min
TD Break Elongation (%)	596	581	552	492	577							<b>560</b>	41	100 min
<b>Tear Resistance (ASTM D 1004)</b>														
MD Tear Strength (lbs)	57	51	54	54	53	55	49	53	53	50	<b>53</b>	2	45 min	
TD Tear Strength (lbs)	47	45	45	44	42	51	48	45	43	45	<b>45</b>	3	45 min	
MD Machine Direction	TD Transverse Direction													



GEOMEMBRANE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003589  
 TRI Log #: 33576

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Thickness (ASTM D 5994)</b>													
Thickness (mils)	63.9	62.2	63.9	61.9	61.6	60.2	63.4	61.0	61.0	61.3	62.0	1	60 min ave
											60.2	<< min	57, 8 of 10 54 min ind
<b>Asperity Height (GRI GM 12)</b>													
Asperity Height (mils) - Side A	32	32	32	32	35	35	31	29	34	32	32	2	16 min
Asperity Height (mils) - Side B	27	27	26	26	27	31	31	29	25	28	27	2	16 min
Side A: Shiny Side	Side B: Dull Side												
<b>Density (ASTM D 1505)</b>													
Density (g/cm3)	0.944	0.944	0.944								0.944	0.000	0.940 min
<b>Carbon Black Content (ASTM D 1603, mod.)</b>													
% Carbon Black	2.50	2.56									2.53	0.04	2.0 - 3.0
<b>Carbon Black Dispersion (ASTM D 5596)</b>													
Rating - 1st field view	1	1	1	1	1								Cat 1 or 2
Rating - 2nd field view	1	1	1	1	1								Cat 1 or 2
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>													
MD Yield Strength (ppi)	141	146	143	150	144						145	3	132 min
TD Yield Strength (ppi)	146	161	156	153	160						155	6	132 min
MD Break Strength (ppi)	160	208	207	205	164						189	25	115 min
TD Break Strength (ppi)	158	197	166	176	206						181	20	115 min
MD Yield Elongation (%)	19	22	21	21	21						21	1	12 min
TD Yield Elongation (%)	16	15	15	16	16						16	1	12 min
MD Break Elongation (%)	444	454	466	474	463						460	12	100 min
TD Break Elongation (%)	541	641	543	573	649						589	52	100 min
<b>Tear Resistance (ASTM D 1004)</b>													
MD Tear Strength (lbs)	56	49	53	54	48	55	49	51	53	47	51	3	45 min
TD Tear Strength (lbs)	48	47	42	46	43	47	46	44	45	43	45	2	45 min
MD Machine Direction	TD Transverse Direction												



GEOMEMBRANE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003597  
 TRI Log #: 33576

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Thickness (ASTM D 5994)</b>													
Thickness (mils)	62.4	64.6	65.5	61.1	63.1	62.4	63.6	62.7	62.8	62.4	63.1	1	60 min ave 57, 8 of 10
											61.1	<< min	54 min ind
<b>Asperity Height (GRI GM 12)</b>													
Asperity Height (mils) - Side A	32	31	32	30	33	34	32	33	34	33	32	1	16 min
Asperity Height (mils) - Side B	27	28	26	27	27	27	25	24	24	25	26	1	16 min
Side A: Shiny Side	Side B: Dull Side												
<b>Density (ASTM D 1505)</b>													
Density (g/cm3)	0.944	0.944	0.945								0.944	0.001	0.940 min
<b>Carbon Black Content (ASTM D 1603, mod.)</b>													
% Carbon Black	2.48	2.45									2.47	0.02	2.0 - 3.0
<b>Carbon Black Dispersion (ASTM D 5596)</b>													
Rating - 1st field view	1	1	1	1	1								Cat 1 or 2
Rating - 2nd field view	1	1	1	1	1								Cat 1 or 2
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>													
MD Yield Strength (ppi)	141	145	146	143	146						144	2	132 min
TD Yield Strength (ppi)	159	163	154	154	162						158	4	132 min
MD Break Strength (ppi)	184	205	224	134	224						194	37	115 min
TD Break Strength (ppi)	179	187	165	179	164						175	10	115 min
MD Yield Elongation (%)	21	23	22	20	22						22	1	12 min
TD Yield Elongation (%)	15	15	17	15	16						16	1	12 min
MD Break Elongation (%)	471	480	465	333	478						445	63	100 min
TD Break Elongation (%)	585	595	553	579	502						563	37	100 min
<b>Tear Resistance (ASTM D 1004)</b>													
MD Tear Strength (lbs)	58	50	56	54	49	56	50	56	52	48	53	3	45 min
TD Tear Strength (lbs)	48	46	45	45	45	47	49	45	45	43	46	2	45 min
MD Machine Direction	TD Transverse Direction												



**GEOMEMBRANE TEST RESULTS**  
**TRI Client: Terracon Consultants, Inc.**  
**Project: John W. Turk Power Plant Cell 2**

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003605  
 TRI Log #: 33576

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Thickness (ASTM D 5994)</b>													
Thickness (mils)	62.6	61.8	60.5	63.5	64.3	63.7	61.2	61.6	64.4	60.7	62.4	1	60 min ave
											60.5	<< min	57, 8 of 10 54 min ind
<b>Asperity Height (GRI GM 12)</b>													
Asperity Height (mils) - Side A	31	33	33	30	33	32	33	31	33	31	32	1	16 min
Asperity Height (mils) - Side B	29	26	25	26	28	29	29	29	26	29	27	2	16 min
Side A: Shiny Side	Side B: Dull Side												
<b>Density (ASTM D 1505)</b>													
Density (g/cm3)	0.943	0.943	0.943								0.943	0.000	0.940 min
<b>Carbon Black Content (ASTM D 1603, mod.)</b>													
% Carbon Black	2.54	2.54									2.54	0.00	2.0 - 3.0
<b>Carbon Black Dispersion (ASTM D 5596)</b>													
Rating - 1st field view	1	1	1	1	1								Cat 1 or 2
Rating - 2nd field view	1	1	1	1	1								Cat 1 or 2
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>													
MD Yield Strength (ppi)	136	141	140	141	141						140	2	132 min
TD Yield Strength (ppi)	150	159	164	157	170						160	8	132 min
MD Break Strength (ppi)	183	194	219	162	208						193	22	115 min
TD Break Strength (ppi)	179	185	178	173	194						182	8	115 min
MD Yield Elongation (%)	19	21	22	20	24						21	2	12 min
TD Yield Elongation (%)	17	17	16	16	15						16	1	12 min
MD Break Elongation (%)	521	508	494	462	467						490	26	100 min
TD Break Elongation (%)	596	599	564	568	619						589	23	100 min
<b>Tear Resistance (ASTM D 1004)</b>													
MD Tear Strength (lbs)	56	50	55	50	48	42	41	38	40	39	46	7	45 min
TD Tear Strength (lbs)	48	46	46	45	43	47	46	45	45	46	46	1	45 min
MD Machine Direction	TD Transverse Direction												



GEOMEMBRANE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Agru 60 mil Microspike HDPE Geomembrane  
 Sample Identification: G17F003613  
 TRI Log #: 33597

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Thickness (ASTM D 5994)</b>													
Thickness (mils)	62	60	61	62	61	67	66	62	62	63	<b>63</b>	2	60 min ave
											<b>60</b>	<< min	57, 8 of 10 54 min ind
<b>Asperity Height (GRI GM 12)</b>													
Asperity Height (mils) - Side A	32	32	33	36	34	30	32	33	35	33	<b>33</b>	2	16 min
Asperity Height (mils) - Side B	24	27	28	31	30	25	25	26	30	30	<b>27</b>	3	16 min
Side A: Shiny Side	Side B: Dull Side												
<b>Density (ASTM D 1505)</b>													
Density (g/cm3)	0.943	0.943	0.943								<b>0.943</b>	0.000	0.940 min
<b>Carbon Black Content (ASTM D 1603, mod.)</b>													
% Carbon Black	2.73	2.71									<b>2.72</b>	0.01	2.0 - 3.0
<b>Carbon Black Dispersion (ASTM D 5596)</b>													
Rating - 1st field view	1	1	1	1	1								Cat 1 or 2
Rating - 2nd field view	1	1	1	1	1								Cat 1 or 2
<b>Tensile Properties (ASTM D 6693, 2 lpm strain rate)</b>													
MD Yield Strength (ppi)	141	143	144	151	138						<b>143</b>	5	132 min
TD Yield Strength (ppi)	156	153	153	152	160						<b>155</b>	3	132 min
MD Break Strength (ppi)	222	206	199	228	211						<b>213</b>	12	115 min
TD Break Strength (ppi)	149	188	189	190	205						<b>184</b>	21	115 min
MD Yield Elongation (%)	24	24	21	22	21						<b>22</b>	2	12 min
TD Yield Elongation (%)	16	13	16	15	16						<b>15</b>	1	12 min
MD Break Elongation (%)	458	462	518	506	479						<b>485</b>	27	100 min
TD Break Elongation (%)	455	604	603	598	618						<b>576</b>	68	100 min
<b>Tear Resistance (ASTM D 1004)</b>													
MD Tear Strength (lbs)	57	53	52	51	53	56	51	52	52	52	<b>53</b>	2	45 min
TD Tear Strength (lbs)	48	47	43	45	43	44	44	47	44	45	<b>45</b>	2	45 min
MD Machine Direction	TD Transverse Direction												



# APPENDIX J EQUIPMENT CALIBRATION CERTIFICATE

Demtech Services, Inc.  
Placerville, California, USA

PT7701

CALIBRATION CERTIFICATE

Tensiometer Model:

Pro-Tester T-0100

Device Calibrated:

S-Type load cell  
0 - 750 lbs. Tension

Calibration Apparatus:

Range:

Model No:

M2405-750#  
684288

Pro-Cal unit, model TC-0100/A

Serial No:

Dead Weight:

Reference Cell:

A/D Module Model No:

T-029  
3012684288  
N/A

A/D Module Serial No:

Channel No:

W1	2
W2	152
W3	302

R1	2
R2	152
R3	302

Indicator reading with no load:

0

Offset:

-5.320708

Scale:

3.170285

Applied Force lbs.

Cell Response:

Deviation Error:

2
52
102
152
202
252
302

2
52
102
152
202
252
302

0.00
0.00
0.00
0.00
0.00
0.00
0.00

Total Deviation Error (%):

0.00%

Temperature at time of calibration:

73 degrees F

Excitation Voltage:

5 V DC

This calibration conforms to the standards set by ASTM E4 and is traceable to NIST standards

Note: A/D Module and load cell above have been systems calibrated and are considered a matched pair. In general, calibrated A/D Modules and load cells are not interchangeable.

Erich Beck

*Erich Beck*

Date:

09/27/17

Demtech Services, Inc.  
Placerville, California, USA

PT7781

CALIBRATION CERTIFICATE

Tensiometer Model: Pro-Tester T-0100

Device Calibrated: S-Type load cell  
Range: 0 - 750 lbs. Tension  
Model No: M2405-750#  
Serial No: 668191

Calibration Apparatus:  
Pro-Cal unit, model TC-0100/A

A/D Module Model No: T-029  
A/D Module Serial No: 2911668191  
Channel No: N/A

Dead Weight: Reference Cell:  
W1 2 R1 2  
W2 152 R2 152  
W3 302 R3 302

Indicator reading with no load: 0

Offset: 4.105727

Scale: 3.201060

Applied Force lbs.

2
52
102
152
202
252
302

Cell Response:

2
52
102
152
202
252
302

Deviation Error:

0.00
0.00
0.00
0.00
0.00
0.00
0.00

Total Deviation Error (%): 0.00%

Temperature at time of calibration: 73 degrees F  
Excitation Voltage: 5 V DC

This calibration conforms to the standards set by ASTM E4 and is traceable to NIST standards

Note: A/D Module and load cell above have been systems calibrated and are considered a matched pair. In general, calibrated A/D Modules and load cells are not interchangeable.

Erich Beck  
*Erich Beck*

Date: 09/27/17

# APPENDIX K SUBGRADE ACCEPTANCE CERTIFICATE



# CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

**INSTALLER: ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.**

PROJECT NAME: **AEP Turk** PROJECT NO: **17 - 06 - 1265**

LOCATION: **FULTON, AK.**

AREA ACCEPTED: **PANEL - 01 THRU. PANEL - 43**

PANEL NUMBERS: **PANEL - 01 THRU. PANEL - 43**

GRADE ACCEPTANCE: INSPECTOR: \_\_\_\_\_

GENERAL CONTRACTOR: *SFC Thomas D. Ashcraft*

OWNER: *AEP*

AUTHORIZED REPRESENTATIVE: *G. Jung*

The undersigned, **MOHAMMED MALIMAR**, certifies that he/she is a representative of Environmental Specialties International, Inc. authorized to execute this certificate, that he/she has visually inspected the subgrade surface described above on **14-Jul** and found the surface to be acceptable for installation of the geomembrane.

This certification is based on observation of the surface of the subgrade only. No subsurface inspections or test have been performed and Environmental Specialties International, Inc. makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

**AUTHORIZED REPRESENTATIVE OF ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.**

*Mohammed Malimar A.*

**SUPERINTENDENT**

**14-Jul**

**Signature**

**Title**

**OWNER REPRESENTATIVE:**

*Clark Moad*

*Environmental Tech*

*14 Jul  
7-18-18*

**Signature**

**Title**

**DATE**

7943 PECUE LANE SUITE A ~ BATON ROUGE, LA. 70809 ~ PHONE 225-291-2700 ~ FAX 225-291-2788



# CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

**INSTALLER: ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.**

PROJECT NAME: **AEP Turk** PROJECT NO: **17 - 06 - 1265**

LOCATION: **FULTON, AK.**

AREA ACCEPTED: **PANEL - 44 THRU. PANEL - 60**

PANEL NUMBERS: **PANEL - 44 THRU. PANEL - 60**

GRADE ACCEPTANCE: INSPECTOR: \_\_\_\_\_

GENERAL CONTRACTOR: *SFC CONTRACT Ser. Thomas & Adley*

OWNER: *AEP*

AUTHORIZED REPRESENTATIVE: *G. Jung*

The undersigned, **MOHAMMED MALIMAR**, certifies that he/she is a representative of Environmental Specialties International, Inc. authorized to execute this certificate, that he/she has visually inspected the subgrade surface described above on **15-Jul** and found the surface to be acceptable for installation of the geomembrane.

This certification is based on observation of the surface of the subgrade only. No subsurface inspections or test have been performed and Environmental Specialties International, Inc. makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

**AUTHORIZED REPRESENTATIVE OF ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.**

*Mohammed Malimar A.*

**SUPERINTENDENT**

**15-Jul**

**Signature**

**Title**

**OWNER REPRESENTATIVE:**

*Chark m... ..*

*Environmental Tech*

*8 7-15-18*

**Signature**

**Title**

**DATE**

**7943 PECUE LANE SUITE A ~ BATON ROUGE, LA. 70809 ~ PHONE 225-291-2700 ~ FAX 225-291-2788**



## CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.

PROJECT NAME: AEP Turk PROJECT NO: 17 - 06 - 1265

LOCATION: FULTON, AK.

AREA ACCEPTED: PANEL - 61 THRU. PANEL - 73

PANEL NUMBERS: PANEL - 61 THRU. PANEL - 73

GRADE ACCEPTANCE: INSPECTOR: \_\_\_\_\_

GENERAL CONTRACTOR: \_\_\_\_\_

OWNER: A.S. White AEP

AUTHORIZED REPRESENTATIVE: A.S. White

The undersigned, MOHAMMED MALIMAR, certifies that he/she is a representative of Environmental Specialties International, Inc. authorized to execute this certificate, that he/she has visually inspected the subgrade surface described above on 19-Jul and found the surface to be acceptable for installation of the geomembrane.

This certification is based on observation of the surface of the subgrade only. No subsurface inspections or test have been performed and Environmental Specialties International, Inc. makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.

Mohammed Malimar A.

SUPERINTENDENT

19-Jul

**Signature**

**Title**

OWNER REPRESENTATIVE:

Charles M. Goulet

Environmental Tech

7-19-18

**Signature**

**Title**

**DATE**

7943 PECUE LANE SUITE A ~ BATON ROUGE, LA. 70809 ~ PHONE 225-291-2700 ~ FAX 225-291-2788



# CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.

PROJECT NAME: AEP Turk PROJECT NO: 17 - 06 - 1265

LOCATION: FULTON, AK.

AREA ACCEPTED: PANEL - 74 THRU. PANEL - 115

PANEL NUMBERS: PANEL - 74 THRU. PANEL - 115

GRADE ACCEPTANCE: INSPECTOR: M. S. W. With AEP 8/4/18

GENERAL CONTRACTOR: SFC Contract Services, Inc. [Signature] 8/4/18

OWNER: AMERICAN ELECTRIC POWER

AUTHORIZED REPRESENTATIVE: G. Y. [Signature] 8/4/18

The undersigned, **MOHAMMED MALIMAR**, certifies that he/she is a representative of Environmental Specialties International, Inc. authorized to execute this certificate, that he/she has visually inspected the subgrade surface described above on 3-Aug and found the surface to be acceptable for installation of the geomembrane.

This certification is based on observation of the surface of the subgrade only. No subsurface inspections or test have been performed and Environmental Specialties International, Inc. makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF ENVIRONMENTAL SPECIALTIES INTERNATIONAL, INC.

Mohammed Malimar A.

**SUPERINTENDENT**

**3-Aug**

**Signature**

**Title**

OWNER REPRESENTATIVE:

[Signature]

Environmental Technician

8.4.18

**Signature**

**Title**

Terracon Consultants  
**DATE**

7943 PECUE LANE SUITE A ~ BATON ROUGE, LA. 70809 ~ PHONE 225-291-2700 ~ FAX 225-291-2788



APPENDIX L  
GEOMEMBRANE DAILY  
DEPLOYMENT LOGS

# Geomembrane Daily Deployment Log



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acrea  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

Date	Panel ID	Roll Number	Weather Conditions		Material Type	Approximate Panel Dimensions			Panel Visually Inspected (Y or N)	CQA Monitor
			Amb. Temp. (°F)	Weather/Wind		Length (ft) Side 1	Length (ft) Side 2	Width (Feet)		
7/14/18	P-1	3589	89	Sun/Breeze	60T	114	114	23	Y	SM
7/14/18	P-2	3589	89	Sun/Breeze	60T	111	111	23	Y	SM
7/14/18	P-3	3589	89	Sun/Breeze	60T	49	49	23	Y	SM
7/14/18	P-4	3589	90	Sun/Breeze	60T	49	0	23	Y	SM
7/14/18	P-5	3589	90	Sun/Breeze	60T	117	106	23	Y	SM
7/14/18	P-6	3554	90	Sun/Breeze	60T	117	104	23	Y	SM
7/14/18	P-7	3554	90	Sun/Breeze	60T	104	106	23	Y	SM
7/14/18	P-8	3554	90	Sun/Breeze	60T	107	106	23	Y	SM
7/14/18	P-9	3554	91	Sun/Breeze	60T	107	108	23	Y	SM
7/14/18	P-10	3582	91	Sun/Breeze	60T	108	108	23	Y	SM
7/14/18	P-11	3582	91	Sun/Breeze	60T	108	108	23	Y	SM
7/14/18	P-12	3582	91	Sun/Breeze	60T	108	109	23	Y	SM
7/14/18	P-13	3582	93	Sun/Breeze	60T	109	109	23	Y	SM
7/14/18	P-14	3582	93	Sun/Breeze	60T	51	60	23	Y	SM
7/14/18	P-15	3568	93	Sun/Breeze	60T	110	110	23	Y	SM
7/14/18	P-16	3568	93	Sun/Breeze	60T	116	110	23	Y	SM
7/14/18	P-17	3568	93	Sun/Breeze	60T	116	97	23	Y	SM
7/14/18	P-18	3568	95	Sun/Breeze	60T	30	74	23	Y	SM
7/14/18	P-19	3568	95	Sun/Breeze	60T	30	0	23	Y	SM
7/14/18	P-20	3568	95	Sun/Breeze	60T	32	23	12	Y	SM
7/14/18	P-21	3593	95	Sun/Breeze	60T	118	118	23	Y	SM
7/14/18	P-22	3593	95	Sun/Breeze	60T	54	54	23	Y	SM
7/14/18	P-23	3593	95	Sun/Breeze	60T	54	34	23	Y	SM
7/14/18	P-24	3593	95	Sun/Breeze	60T	32	32	23	Y	SM
7/14/18	P-25	3593	95	Sun/Breeze	60T	32	29	23	Y	SM
7/14/18	P-26	3593	96	Sun/Breeze	60T	29	30	23	Y	SM
7/14/18	P-27	3593	96	Sun/Breeze	60T	30	30	23	Y	SM
7/14/18	P-28	3593	96	Sun/Breeze	60T	126	92	23	Y	SM

# Geomembrane Daily Deployment Log



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acrec  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

Date	Panel ID	Roll Number	Weather Conditions		Material Type	Approximate Panel Dimensions			Panel Visually Inspected (Y or N)	CQA Monitor
			Amb. Temp. (°F)	Weather/Wind		Length (ft) Side 1	Length (ft) Side 2	Width (Feet)		
7/14/18	P-29	3554	96	Sun/Breeze	60T	53	32	23	Y	SM
7/14/18	P-30	3594	96	Sun/Breeze	60T	164	164	23	Y	SM
7/14/18	P-31	3594	96	Sun/Breeze	60T	164	164	23	Y	SM
7/14/18	P-32	3594	96	Sun/Breeze	60T	164	207	23	Y	SM
7/14/18	P-33	3594	96	Sun/Breeze	60T	39	28	9	Y	SM
7/14/18	P-34	3585	98	Sun/Breeze	60T	246	307	23	Y	SM
7/14/18	P-35	3585	98	Sun/Breeze	60T	236	236	23	Y	SM
7/14/18	P-36	3591	99	Sun/Breeze	60T	71	102	23	Y	SM
7/14/18	P-37	3591	99	Sun/Breeze	60T	404	336	23	Y	SM
7/14/18	P-38	3583	99	Sun/Breeze	60T	425	404	23	Y	SM
7/14/18	P-39	3586	99	Sun/Breeze	60T	540	540	23	Y	SM
7/14/18	P-40	3583	99	Sun/Breeze	60T	110	110	4	Y	SM
7/14/18	P-41	3583	99	Sun/Breeze	60T	53	53	16	Y	SM
7/14/18	P-42	3581	99	Sun/Breeze	60T	540	540	23	Y	SM
7/14/18	P-43	3579	99	Sun/Breeze	60T	540	540	23	Y	SM
7/15/18	P-44	3597	90	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-45	3567	91	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-46	3565	91	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-47	3575	93	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-48	3561	93	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-49	3563	93	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-50	3552	95	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-51	3553	95	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-52	3578	95	Sunny/Breeze	60T	540	540	23	Y	SM
7/15/18	P-53	3599	95	Sunny/Windy	60T	540	540	23	Y	SM
7/15/18	P-54	3606	97	Sunny/Windy	60T	540	540	23	Y	SM
7/15/18	P-55	3602	97	Sunny/Windy	60T	540	540	23	Y	SM
7/15/18	P-56	3584	101	Sunny/Windy	60T	540	540	23	Y	SM

# Geomembrane Daily Deployment Log



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acre  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

Date	Panel ID	Roll Number	Weather Conditions		Material Type	Approximate Panel Dimensions			Panel Visually Inspected (Y or N)	CQA Monitor
			Amb. Temp. (°F)	Weather/Wind		Length (ft) Side 1	Length (ft) Side 2	Width (Feet)		
7/15/18	P-57	3605	101	Sunny/Windy	60T	540	540	23	Y	SM
7/15/18	P-58	3568	102	Sunny/Windy	60T	540	540	23	Y	SM
7/15/18	P-59	3564	103	Sunny/Windy	60T	540	540	23	Y	SM
7/15/18	P-60	3555	103	Sunny/Windy	60T	540	540	23	Y	SM
7/19/18	P-61	3562	74	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-62	3573	74	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-63	3595	74	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-64	3616	74	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-65	3610	80	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-66	3608	80	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-67	3598	80	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-68	3609	80	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-69	3540	91	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-70	3572	91	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-71	3590	91	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-72	3592	91	Sunny/Hot	60T	540	540	23	Y	MA
7/19/18	P-73	3588	91	Sunny/Hot	60T	540	540	23	Y	MA
8/3/18	P-74	3611	73	Clear/Still	60T	535	535	23	Y	MA
8/3/18	P-75	3580	73	Clear/Still	60T	535	535	23	Y	MA
8/3/18	P-76	3615	73	Clear/Still	60T	535	535	23	Y	MA
8/3/18	P-77	3569	74	Clear/Still	60T	535	535	23	Y	MA
8/3/18	P-78	3600	75	Clear/Still	60T	535	535	23	Y	MA
8/3/18	P-79	3587	77	Clear/Light Breeze	60T	535	535	23	Y	MA
8/3/18	P-80	3574	81	Clear/Light Breeze	60T	535	535	23	Y	MA
8/3/18	P-81	3601	86	Clear/Light Breeze	60T	535	535	23	Y	MA
8/3/18	P-82	3576	86	Clear/Light Breeze	60T	535	535	23	Y	MA
8/3/18	P-83	3614	88	Clear/Light Breeze	60T	535	535	23	Y	MA
8/3/18	P-84	3596	88	Clear/Light Breeze	60T	69	69	23	Y	MA

# Geomembrane Daily Deployment Log



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acreo  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

Date	Panel ID	Roll Number	Weather Conditions		Material Type	Approximate Panel Dimensions			Panel Visually Inspected (Y or N)	CQA Monitor
			Amb. Temp. (°F)	Weather/Wind		Length (ft) Side 1	Length (ft) Side 2	Width (Feet)		
8/3/18	P-85	3596	89	Clear/Light Breeze	60T	62	35	23	Y	MA
8/3/18	P-86	3596	89	Clear/Light Breeze	60T	35	17	23	Y	MA
8/3/18	P-87	3596	90	Clear/Breezy	60T	8	8	20	Y	MA
8/3/18	P-88	3596	90	Clear/Breezy	60T	21	8	17	Y	MA
8/3/18	P-89	3596	91	Clear/Breezy	60T	24	18	23	Y	MA
8/3/18	P-90	3596	91	Clear/Breezy	60T	18	42	23	Y	MA
8/3/18	P-91	3596	92	Clear/Breezy	60T	42	66	23	Y	MA
8/3/18	P-92	3596	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-93	3612	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-94	3612	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-95	3612	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-96	3612	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-97	3612	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-98	3617	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-99	3617	92	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-100	3617	91	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-101	3617	91	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-102	3617	91	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-103	3603	90	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-104	3603	90	Clear/Breezy	60T	88	88	23	Y	MA
8/3/18	P-105	3603	90	Clear/Breezy	60T	53	32	23	Y	MA
8/3/18	P-106	3603	90	Clear/Breezy	60T	32	39	23	Y	MA
8/3/18	P-107	3604	89	Clear/Breezy	60T	11	12	23	Y	MA
8/3/18	P-108	3604	89	Clear/Breezy	60T	11	11	23	Y	MA
8/3/18	P-109	3604	89	Clear/Breezy	60T	11	24	23	Y	MA
8/3/18	P-110	3604	88	Clear/Breezy	60T	24	50	23	Y	MA
8/3/18	P-111	3604	88	Clear/Breezy	60T	50	74	23	Y	MA
8/3/18	P-112	3604	87	Clear/Breezy	60T	60	37	23	Y	MA



# APPENDIX M GEOMEMBRANE TRIAL WELD SUMMARY

# Geomembrane Trial Weld Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AF  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Specification for Trial Welds	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Time	Ambient Temp °F	Sample ID	Machine Number	Seamer Initials	Weld & Mat. Type	Fusion Weld		Extrusion Weld		Test Values lbs/inch								Pass or Fail			
							Wedge Temp °F	Speed Setting	Temp °C	Preheat Setting	P	106	98	109	99	107	101	107		102	103	99
7/14/18	8:30	91	TW 1	4181	PT	F	860	7.0	-	-	P	106	98	109	99	107	101	107	102	103	99	PASS
						SS					S	135	131	137	134	133						
7/14/18	8:32	91	TW 2	4181	PT	F	860	4.0	-	-	P	121	122	121	120	122	120	119	124	120	119	PASS
						TT					S	125	127	130	129	126						
7/14/18	8:35	91	TW 3	4181	PT	F	860	5.0	-	-	P	113	122	121	127	113	131	100	124	120	116	PASS
						TS					S	133	130	133	132	131						
7/14/18	8:41	91	TW 4	4153	LN	F	860	7.0	-	-	P	108	104	99	100	99	112	100	106	110	105	PASS
						SS					S	135	133	134	132	134						
7/14/18	8:45	91	TW 5	4153	LN	F	860	2.0	-	-	P	119	120	117	112	125	119	114	119	123	114	PASS
						TT					S	132	133	129	132	128						
7/14/18	9:30	91	TW 6	4179	SS	F	860	7.0	-	-	P	113	99	112	106	99	111	113	116	111	117	PASS
						SS					S	136	135	139	138	135						
7/14/18	1:14	93	TW 7	4179	SS	F	860	7.0	-	-	P	108	99	113	105	98	107	102	99	111	104	PASS
						SS					S	129	132	128	127	130						
7/14/18	1:02	93	TW 8	418	PT	F	860	7.0	-	-	P	107	104	99	114	102	107	99	110	102	106	PASS
						SS					S	129	128	130	127	131						
7/14/18	1:05	93	TW 9	4181	PT	F	860	5.0	-	-	P	104	116	100	108	114	103	100	112	115	110	PASS
						TS					S	131	131	133	131	130						
7/14/18	1:00	93	TW 10	4181	PT	F	860	4.0	-	-	P	116	124	112	114	120	117	122	109	112	99	PASS
						TT					S	136	134	140	139	139						
7/14/18	1:12	93	TW 11	4153	LN	F	860	7.0	-	-	P	101	99	101	106	110	99	104	101	99	102	PASS
						SS					S	130	129	127	131	129						
7/14/18	1:15	93	TW 12	4153	LN	F	860	2.0	-	-	P	100	110	103	117	111	115	109	110	113	116	PASS
						TT					S	140	139	136	141	135						
7/14/18	1:17	93	TW 13	4153	LN	F	860	3.0	-	-	P	104	99	111	113	100	112	101	109	107	116	PASS
						TS					S	132	133	126	129	131						
7/15/18	7:42	87	TW 14	4181	PT	F	860	7.0	-	-	P	110	102	109	100	105	108	119	108	112	107	PASS
						SS					S	143	140	142	143	141						



# Geomembrane Trial Weld Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AF  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Specification for Trial Welds	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Time	Ambient Temp °F	Sample ID	Machine Number	Seamer Initials	Weld & Mat. Type	Fusion Weld		Extrusion Weld		Test Values lbs/inch										Pass or Fail	
							Wedge Temp °F	Speed Setting	Temp °C	Preheat Setting												
7/15/18	7:45	87	TW 15	4153	LN	F	860	7.0	-	-	P	117	108	117	116	109	106	119	112	118	101	PASS
						SS					S	145	145	144	139	143						
7/15/18	7:50	87	TW 16	4179	SS	F	860	7.0	-	-	P	98	103	105	110	100	106	104	107	106	112	PASS
						SS					S	141	138	140	141	138						
7/15/18	8:06	87	TW 17	314	BV	E	-	-	500	550	P	113	-	123	-	118	-	120	-	125	-	PASS
						TT					S	129	131	132	134	130						
7/15/18	12:50	93	TW 18	314	BV	E	-	-	500	550	P	116	-	109	-	110	-	105	-	117	-	PASS
						TT					S	127	129	130	132	127						
7/15/18	1:00	93	TW 19	4153	LN	E	860	2.0	-	-	P	104	110	120	111	112	109	119	114	124	117	PASS
						TT					S	131	133	128	129	132						
7/15/18	1:05	93	TW 20	4153	LN	E	860	7.0	-	-	P	110	106	98	112	99	113	102	111	100	99	PASS
						SS					S	126	130	129	127	131						
7/15/18	1:07	93	TW 21	4179	SS	E	860	7.0	-	-	P	117	112	108	115	99	107	99	111	113	102	PASS
						SS					S	132	130	133	131	132						
7/15/18	1:00	93	TW 22	4181	PT	F	860	7.0	-	-	P	119	114	110	103	101	116	99	112	104	107	PASS
						SS					S	134	135	132	128	134						
7/15/18	1:02	93	TW 23	4181	PT	F	860	4.0	-	-	P	117	108	122	105	119	110	112	103	106	111	PASS
						TT					S	130	128	132	126	127						
7/16/18	7:19	80	TW 24	5173	AF	E	-	-	500	550	P	116	-	120	-	122	-	119	-	124	-	PASS
						TT					S	134	134	132	135	130						
7/16/18	7:37	80	TW 25	0215	BV	E	-	-	500	550	P	107	-	117	-	121	-	123	-	109	-	PASS
						TT					S	132	130	133	134	132						
7/16/18	12:40	93	TW 26	0215	BV	E	-	-	500	550	P	110	-	105	-	115	-	107	-	116	-	PASS
						TT					S	126	129	130	127	131						
7/18/18	7:45	78	TW 27	0215	BV	E	-	-	500	550	P	122	-	125	-	119	-	120	-	126	-	PASS
						TT					S	135	133	134	131	133						
7/18/18	7:23	91	TW 28	0215	BV	E	-	-	500	550	P	109	-	115	-	120	-	124	-	118	-	PASS
						TT					S	131	132	129	131	130						
7/19/18	7:32	78	TW 29	4181	PT	F	860	8.0	-	-	P	119	123	116	109	116	128	116	118	114	102	PASS
						SS					S	141	140	142	141	142						

# Geomembrane Trial Weld Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AF  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Specification for Trial Welds	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Time	Ambient Temp °F	Sample ID	Machine Number	Seamer Initials	Weld & Mat. Type	Fusion Weld		Extrusion Weld		Test Values lbs/inch										Pass or Fail	
							Wedge Temp °F	Speed Setting	Temp °C	Preheat Setting												
7/19/18	7:34	78	TW 30	4153	LN	F	860	8.0	-	-	P	124	125	121	111	105	116	106	115	109	115	PASS
						SS					S	144	137	144	142	136						
7/19/18	7:50	78	TW 31	4179	SS	F	860	8.0	-	-	P	111	110	108	117	117	111	104	114	109	109	PASS
						SS					S	141	142	142	139	138						
7/19/18	9:14	86	TW 32	0215	BV	F	-	-	500	550	P	128	-	121	-	135	-	128	-	125	-	PASS
						SS					S	135	137	143	140	138						
7/19/18	1:10	96	TW 33	0215	BV	E	-	-	500	550	P	125	-	125	-	126	-	119	-	120	-	PASS
						TT					S	141	135	138	140	137						
7/19/18	1:20	96	TW 34	4181	PT	F	4	860.0	-	-	P	123	124	122	125	119	120	122	119	116	121	PASS
						TT					S	134	131	132	131	133						
8/3/18	8:30	73	TW 35	4181	PT	F	860	7.0	-	-	P	110	106	106	100	112	100	116	106	115	112	PASS
						SS					S	141	139	143	138	140						
8/3/18	8:35	73	TW 36	4179	SS	F	860	8.0	-	-	P	127	106	114	117	113	105	111	123	120	110	PASS
						SS					S	145	145	144	142	143						
8/3/18	8:35	73	TW 37	4153	LN	F	860	8.0	-	-	P	120	112	119	111	125	117	131	126	130	114	PASS
						SS					S	146	143	146	147	145						
8/3/18	8:40	73	TW 38	4153	LN	F	860	4.0	-	-	P	138	132	129	137	140	136	125	134	133	138	PASS
						TT					S	148	146	147	145	144						
8/3/18	12:50	89	TW 39	4181	PT	F	860	7.0	-	-	P	110	104	100	112	113	106	116	111	105	109	PASS
						SS					S	135	137	138	140	135						
8/3/18	12:53	89	TW 40	4179	SS	F	860	8.0	-	-	P	114	102	117	113	108	119	121	110	123	111	PASS
						SS					S	138	141	136	139	140						
8/3/18	12:55	89	TW 41	4153	LN	F	860	8.0	-	-	P	121	107	109	118	123	112	103	120	122	121	PASS
						SS					S	134	136	137	136	135						
8/3/18	12:57	89	TW 42	4153	LN	F	860	4.0	-	-	P	138	133	129	130	125	133	135	125	139	127	PASS
						SS					S	146	144	145	143	142						
8/3/18	12:55	89	TW 43	4181	PT	F	860	5.0	-	-	P	134	121	134	123	137	120	122	131	128	130	PASS
						SS					S	142	137	139	140	141						
8/3/18	12:53	89	TW 44	4181	PT	F	860	4.0	-	-	P	120	106	122	110	119	115	107	115	122	102	PASS
						SS					S	137	139	136	133	135						



APPENDIX N  
GEOMEMBRANE PANEL SEAMING AND  
NON-DESTRUCTIVE TEST LOG SUMMARY

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Project Number: 35177127

CQA Monitor: Scott McDonald/Matt Acree

Reviewed By: Tony Bardella

Approved By: Dave McCormick

Liner Installer: ESI

PRODUCTION SEAM				LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING							QA ID	Destruct No.		
Date	Time	Seamer Initials	Seam Number	Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time				Air Test P/F	Vac Box P/F
							Start			End	+/-	Start	End					
7/14/18	9:18	PT	P-1 - P-2	114.0	SAT -P33	114.0	F	RC	7/14/18	30	30	0	9:22	9:27	P		SM	
7/14/18	9:25	PT	P-2 - P-3	111.0	SAT-P33	225.0	F	RC	7/14/18	30	29	-1	9:25	9:30	P		SM	DS1
7/14/18	9:20	LN	P-3 - P-4	49.0	SAT-P5	274.0	F	RC	7/14/18	30	30	0	9:27	9:32	P		SM	DS2
7/14/18	11:13	PT	P-3 - P-5	59.0	P4-P33	333.0	F	RC	7/14/18	30	30	0	9:35	9:40	P		SM	
7/14/18	9:32	PT	P-4 - P-5	47.0	SAT-P33	380.0	F	RC	7/14/18	30	30	0	9:37	9:42	P		SM	
7/14/18	10:42	LN	P-5 - P-6	117.0	SAT-P34	497.0	F	RC	7/14/18	30	29	-1	9:40	9:45	P		SM	
7/14/18	9:42	PT	P-6 - P-7	104.0	SAT-P34	601.0	F	RC	7/14/18	30	30	0	9:55	10:00	P		SM	
7/14/18	9:49	SS	P-8 - P-9	107.0	SAT-P34	708.0	F	RC	7/14/18	30	30	0	10:10	10:15	P		SM	DS3
7/14/18	10:00	LN	P-9 - P-10	108.0	SAT-P36	816.0	F	RC	7/14/18	30	29	-1	10:06	10:11	P		SM	DS4
7/14/18	10:06	LN	P-10 - P-11	108.0	SAT-P36	924.0	F	RC	7/14/18	30	30	0	10:16	10:21	P		SM	DS5
7/14/18	10:05	SS	P-11 - P-12	108.0	SAT-P37	1032.0	F	RC	7/14/18	30	29	-1	10:20	10:25	P		SM	
7/14/18	9:49	LN	P-7 - P-8	106.0	SAT-P34	1138.0	F	RC	7/14/18	30	29	-1	10:04	10:09	P		SM	
7/14/18	10:20	PT	P-12 - P-13	109.0	SAT-P37	1247.0	F	RC	7/14/18	30	30	0	10:30	10:35	P		SM	DS6
7/14/18	10:27	SS	P-13 - P-14	60.0	SAT-P17	1307.0	F	RC	7/14/18	30	30	0	10:37	10:42	P		SM	
7/14/18	11:33	PT	P-13 - P-16	23.0	P17-P15	1330.0	F	RC	7/14/18	30	29	-1	11:38	11:43	P		SM	
7/14/18	11:35	PT	P-13 - P-15	11.0	P16-P38	1341.0	F	RC	7/14/18	30	30	0	11:40	11:45	P		SM	
7/14/18	11:22	PT	P-14 - P-19	20.0	SAT-P14	1361.0	F	RC	7/14/18	30	30	0	11:42	11:47	P		SM	
7/14/18	11:23	PT	P-14 - P-18	19.0	P19-P20	1380.0	F	RC	7/14/18	30	30	0	11:27	11:32	P		SM	
7/14/18	11:13	PT	P-14 - P-20	12.0	P18-P17	1392.0	F	RC	7/14/18	30	30	0	11:29	11:34	P		SM	
7/14/18	11:30	PT	P-14 - P-17	33.0	P20-P13	1425.0	F	RC	7/14/18	30	29	-1	11:36	11:41	P		SM	
7/14/18	10:42	PT	P-15 - P-16	110.0	E.ext-P13	1535.0	F	RC	7/14/18	30	30	0	10:53	10:58	P		SM	DS7
7/14/18	10:47	LN	P-16 - P-17	116.0	E.ext-P13	1651.0	F	RC	7/14/18	30	29	-1	11:00	11:05	P		SM	
7/14/18	10:58	PT	P-17 - P-18	74.0	E.ext-P20	1725.0	F	RC	7/14/18	30	30	0	11:12	11:17	P		SM	
7/14/18	11:11	PT	P-17 - P-20	23.0	P18-P14	1748.0	F	RC	7/14/18	30	30	0	11:17	11:22	P		SM	
7/14/18	11:05	LN	P-18 - P-19	30.0	E.ext-P14	1778.0	F	RC	7/14/18	30	30	0	11:10	11:15	P		SM	
7/14/18	11:13	PT	P-18 - P-20	32.0	P17-P14	1810.0	F	RC	7/14/18	30	30	0	11:21	11:26	P		SM	

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Project Number: 35177127

CQA Monitor: Scott McDonald/Matt Acree

Reviewed By: Tony Bardella

Approved By: Dave McCormick

Liner Installer: ESI

PRODUCTION SEAM					LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number		Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
											Start	End	+/-	Start	End					
7/14/18	11:27	LN	P-1	P-21	118.0	SAT-P33	1928.0	F	RC	7/14/18	30	30	0	11:48	11:53	P		SM		
7/14/18	11:35	SS	P-21	P-22	54.0	SAT-P30	1982.0	F	RC	7/14/18	30	29	-1	11:50	11:55	P		SM		
7/14/18	14:08	LN	P-21	P-30	21.0	P22-P31	2003.0	F	RC	7/14/18	30	30	0	14:13	14:18	P		SM		
7/14/18	14:05	LN	P-21	P-31	23.0	P31-P32	2026.0	F	RC	7/14/18	30	29	-1	14:10	14:15	P		SM		
7/14/18	14:01	LN	P-21	P-32	14.0	N-S	2040.0	F	RC	7/14/18	30	30	0	14:08	14:13	P		SM		
7/14/18	14:17	LN	P-21	P-32	23.0	E-W	2063.0	F	RC	7/14/18	30	30	0	11:52	11:57	P		SM		
7/14/18	11:46	LN	P-22	P-23	54.0	SAT-P30	2117.0	F	RC	7/14/18	30	30	0	13:38	13:43	P		SM		
7/14/18	13:30	PT	P-22	P-30	24.0	P23-P21	2141.0	F	RC	7/14/18	30	30	0	11:55	12:00	P		SM		
7/14/18	11:45	SS	P-23	P-24	34.0	SAT-P28	2175.0	F	RC	7/14/18	30	30	0	13:18	13:23	P		SM		
7/14/18	12:07	PT	P-23	P-28	32.0	P24-P22	2207.0	F	RC	7/14/18	30	30	0	12:00	12:05	P		SM		
7/14/18	11:56	LN	P-24	P-25	32.0	SAT-P28	2239.0	F	RC	7/14/18	30	29	-1	11:59	12:04	P		SM		
7/14/18	12:06	PT	P-24	P-28	23.0	P25-P23	2262.0	F	RC	7/14/18	30	30	0	13:16	13:21	P		SM		
7/14/18	11:52	PT	P-25	P-26	29.0	SAT-P28	2291.0	F	RC	7/14/18	30	30	0	13:12	13:17	P		SM		
7/14/18	12:04	PT	P-25	P-28	23.0	P26-P24	2314.0	F	RC	7/14/18	30	29	-1	13:13	13:18	P		SM		
7/14/18	11:52	SS	P-26	P-27	30.0	SAT-P28	2344.0	F	RC	7/14/18	30	30	0	13:00	13:05	P		SM		
7/14/18	12:02	PT	P-26	P-28	23.0	P27-P25	2367.0	F	RC	7/14/18	30	30	0	13:09	13:14	P		SM		
7/14/18	12:00	PT	P-27	P-28	23.0	P29-P26	2390.0	F	RC	7/14/18	30	29	-1	13:03	13:08	P		SM		
7/14/18	11:58	PT	P-27	P-29	32.0	SAT-P30	2422.0	F	RC	7/14/18	30	30	0	12:08	12:13	P		SM		
7/14/18	13:19	PT	P-29	P-30	26.0	P27-P30	2448.0	F	RC	7/14/18	30	29	-1	13:36	13:41	P		SM		
7/14/18	13:25	SS	P-30	P-31	164.0	E.ext-P21	2612.0	F	RC	7/14/18	30	29	-1	13:41	13:46	P		SM		
7/14/18	13:32	LN	P-31	P-32	164.0	E.ext-P21	2776.0	F	RC	7/14/18	30	30	0	13:45	13:50	P		SM		
7/14/18	13:18	PT	P-28	P-30	126.0	P28-P31	2902.0	F	RC	7/14/18	30	29	-1	13:35	13:40	P		SM		
7/14/18	13:38	PT	P-32	P-34	207.0	E.ext-P33	3109.0	F	RC	7/14/18	30	30	0	13:51	13:56	P		SM	DS9	
7/14/18	13:50	SS	P-34	P-35	236.0	E.ext-P36	3345.0	F	RC	7/14/18	30	30	0	14:15	14:20	P		SM	DS8	
7/14/18	14:10	PT	P-35	P-37	236.0	E.ext-P36	3581.0	F	RC	7/14/18	30	30	0	14:57	15:02	P		SM	DS10	
7/14/18	14:30	PT	P-36	P-37	115.0	P-35-P10	3696.0	F	RC	7/14/18	30	29	-1	13:05	13:10	P		SM		

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

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Contractor: SFC

CQA Monitor: Scott McDonald/Matt Acree

Project Name: Turk Cell 2

Reviewed By: Tony Bardella

Address: 3711 HWY 355 S, Fulton AR

Approved By: Dave McCormick

Location: Cell 2

Liner Installer: ESI

PRODUCTION SEAM				LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number	Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
							Start			End	+/-	Start	End						
7/14/18	14:22	SS	P-37 - P-38	404.0	E.ext-P13	4100.0	F	RC	7/14/18	30	29	-1	15:20	15:25	P		SM	DS12	
7/14/18	14:45	PT	P-38 - P-39	425.0	E.ext-P40	4525.0	F	RC	7/14/18	30	30	0	16:00	16:05	P		SM		
7/14/18	14:02	PT	P-35 - P-36	23.0	P37-P34	4548.0	F	RC	7/14/18	30	30	0	15:00	15:05	P		SM		
7/14/18	14:10	LN	P-34 - P-36	71.0	P35-P8	4619.0	F	RC	7/14/18	30	30	0	14:57	15:02	P		SM		
7/14/18	14:54	LN	P-8 - P-34	12.0	P7-P36	4631.0	F	RC	7/14/18	30	29	-1	14:56	15:01	P		SM		
7/14/18	14:44	LN	P-7 - P-34	23.0	P6-P8	4654.0	F	RC	7/14/18	30	30	0	14:56	15:01	P		SM		
7/14/18	14:38	LN	P-6 - P-34	23.0	P5-P7	4677.0	F	RC	7/14/18	30	30	0	14:48	14:53	P		SM		
7/14/18	14:36	LN	P-5 - P-34	6.0	P33-P6	4683.0	F	RC	7/14/18	30	30	0	14:49	14:54	P		SM		
7/14/18	13:56	LN	P-33 - P-34	39.0	P32-P5	4722.0	F	RC	7/14/18	30	30	0	14:02	14:07	P		SM		
7/14/18	14:25	LN	P-2 - P-33	23.0	P1-P3	4745.0	F	RC	7/14/18	30	30	0	14:31	14:36	P		SM		
7/14/18	14:29	LN	P-5 - P-33	19.0	P3-P34	4764.0	F	RC	7/14/18	30	29	-1	14:38	14:43	P		SM		
7/14/18	13:52	LN	P-32 - P-33	9.0	P1-P34	4773.0	F	RC	7/14/18	30	30	0	13:55	14:00	P		SM		
7/14/18	14:54	LN	P-8 - P-36	9.0	P34-P9	4782.0	F	RC	7/14/18	30	30	0	15:00	15:05	P		SM		
7/14/18	14:56	LN	P-9 - P-36	23.0	P8-P10	4805.0	F	RC	7/14/18	30	29	-1	15:03	15:08	P		SM	DS14	
7/14/18	14:59	LN	P-10 - P-36	17.0	P9-P37	4822.0	F	RC	7/14/18	30	30	0	15:07	15:12	P		SM		
7/14/18	15:01	LN	P-10 - P-37	6.0	P36-P11	4828.0	F	RC	7/14/18	30	30	0	15:10	15:15	P		SM		
7/14/18	15:02	LN	P-11 - P-37	23.0	P10-P12	4851.0	F	RC	7/14/18	30	30	1	15:15	15:20	P		SM		
7/14/18	15:05	LN	P-12 - P-37	23.0	P11-P13	4874.0	F	RC	7/14/18	30	30	0	15:15	15:20	P		SM		
7/14/18	15:03	LN	P-13 - P-38	18.0	P37-P15	4892.0	F	RC	7/14/18	30	30	0	15:27	15:32	P		SM		
7/14/18	15:15	LN	P-15 - P-38	11.0	P13-P40	4903.0	F	RC	7/14/18	30	30	0	15:30	15:35	P		SM		
7/14/18	15:22	LN	P-15 - P-40	110.0	P16-P38	5013.0	F	RC	7/14/18	30	30	0	15:35	15:40	P		SM		
7/14/18	15:02	SS	P-39 - P-40	110.0	P38-E.ext	5123.0	F	RC	7/14/18	30	29	-1	15:38	15:43	P		SM		
7/14/18	15:32	PT	P-39 - P-42	533.0	W EOS-E Ext	5656.0	F	RC	7/14/18	30	29	-1	16:18	16:23	P		SM	DS11	
7/14/18	15:55	SS	P-42 - P-43	533.0	W EOS-E Ext	6189.0	F	RC	7/14/18	30	30	0	16:55	17:00	P		SM	DS13	
7/14/18	15:28	SS	P-29 - P-41	53.0	SAT-P30	6242.0	F	RC	7/14/18	30	30	0	15:50	15:55	P		SM		
7/14/18	12:08	LN	P-28 - P-29	25.0	P27-P30	6267.0	F	RC	7/14/18	30	30	0	13:00	13:05	P		SM		

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Project Number: 35177127

CQA Monitor: Scott McDonald/Matt Acree

Reviewed By: Tony Bardella

Approved By: Dave McCormick

Liner Installer: ESI

PRODUCTION SEAM					LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number		Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
											Start	End	+/-	Start	End					
7/14/18	14:23	LN	P-1	P-33	23.0	P21-P2	6290.0	F	RC	7/14/18	30	29	-1	14:20	14:25	P		SM		
7/14/18	15:02	LN	P-13	P-37	6.0	P12-P38	6296.0	F	RC	7/14/18	30	29	-1	15:17	15:22	P		SM		
7/15/18	8:01	PT	P-43	P-44	533.0	W EOS-E Ext	6829.0	F	RC	7/15/18	30	30	0	8:31	8:36	P		SM	DS15	
7/15/18	8:24	LN	P-44	P-45	535.0	W EOS-E Ext	7364.0	F	RC	7/15/18	30	29	-1	9:20	9:25	P		SM	DS16	
7/15/18	8:37	SS	P-45	P-46	533.0	W EOS-E Ext	7897.0	F	RC	7/15/18	30	29	-1	9:33	9:38	P		SM	DS17	
7/15/18	9:05	PT	P-46	P-47	537.0	W EOS-E Ext	8434.0	F	RC	7/15/18	30	30	0	9:55	10:00	P		SM	DS18	
7/15/18	9:19	LN	P-47	P-48	537.0	W EOS-E Ext	8971.0	F	RC	7/15/18	30	29	-1	10:10	10:15	P		SM	DS19,19A,19E	
7/15/18	9:36	SS	P-48	P-49	537.0	W EOS-E Ext	9508.0	F	RC	7/15/18	30	30	0	10:23	10:28	P		SM	DS20	
7/15/18	10:05	PT	P-49	P-50	533.0	W EOS-E Ext	10041.0	F	RC	7/15/18	30	30	0	10:35	10:40	P		SM	DS21,21A,21E	
7/15/18	10:23	LN	P-50	P-51	534.0	W EOS-E Ext	10575.0	F	RC	7/15/18	30	29	-1	10:55	11:00	P		SM	DS22	
7/14/18	16:52	LN	P-43	E.ext	23.0	P44-P42	10598.0	F	RC	7/14/18	30	29	-1	16:58	17:03	P		SM		
7/14/18	16:56	LN	P-42	E.ext	23.0	P43-P39	10621.0	F	RC	7/14/18	30	29	-1	17:02	17:07	P		SM		
7/14/18	17:00	LN	P-39	E.ext	23.0	P42-P40	10644.0	F	RC	7/14/18	30	30	0	17:08	17:13	P		SM		
7/14/18	16:26	LN	P-15	E.ext	23.0	P40-P16	10667.0	F	RC	7/14/18	30	29	-1	16:33	16:38	P		SM		
7/14/18	16:31	LN	P-16	E.ext	23.0	P15-P17	10690.0	F	RC	7/14/18	30	30	0	16:38	16:43	P		SM		
7/14/18	16:36	LN	P-17	E.ext	19.0	P16-P18	10709.0	F	RC	7/14/18	30	30	0	16:42	16:47	P		SM		
7/14/18	16:40	LN	P-17	E.ext	16.0	W.EOS-S.AT	10725.0	F	RC	7/14/18	30	30	0	16:47	16:52	P		SM		
7/15/18	11:01	SS	P-51	P-52	534.0	W EOS-E Ext	11259.0	F	RC	7/16/18	30	30	0	11:49	11:54	P		SM	DS23	
7/15/18	11:00	PT	P-52	P-53	534.0	W EOS-E Ext	11793.0	F	RC	7/16/18	30	29	-1	11:50	11:55	P		SM	DS24	
7/15/18	11:16	LN	P-53	P-54	535.0	W EOS-E Ext	12328.0	F	RC	7/16/18	30	29	1	11:50	11:55	P		SM	DS25	
7/15/18	13:08	PT	P-54	P-55	535.0	W EOS-E Ext	12863.0	F	RC	7/15/18	30	29	-1	14:00	14:05	P		SM	DS26,36	
7/15/18	13:34	LN	P-55	P-56	535.0	W EOS-E Ext	13398.0	F	RC	7/15/18	30	30	0	14:23	14:28	P		SM	DS27,28	
7/15/18	13:51	SS	P-56	P-57	535.0	W EOS-E Ext	13933.0	F	RC	7/15/18	30	30	0	14:45	14:50	P		SM	DS29, 37	
7/15/18	14:05	PT	P-57	P-58	535.0	W EOS-E Ext	14468.0	F	RC	7/15/18	30	30	0	15:05	15:10	P		SM	DS30	
7/15/18	14:38	LN	P-58	P-59	535.0	W EOS-E Ext	15003.0	F	RC	7/15/18	30	30	0	15:09	15:14	P		SM	DS31	
7/15/18	14:50	SS	P-59	P-60	535.0	W EOS-E Ext	15538.0	F	RC	7/16/18	30	29	-1	7:05	7:10	P		SM	DS32	



# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Project Number: 35177127

CQA Monitor: Scott McDonald/Matt Acree

Reviewed By: Tony Bardella

Approved By: Dave McCormick

Liner Installer: ESI

PRODUCTION SEAM					LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number		Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
			Start	End							+/-	Start	End							
7/14/18	15:25	SS	P-41	P-30	8.0	W EOS-P29	15546.0	F	RC	7/16/18	30	30	0	7:06	7:11	P		SM		
7/15/18	15:14	PT	P-44	E.ext	23.0	P45-P43	15569.0	F	RC	7/16/18	30	29	-1	7:08	7:13	P		SM		
7/15/18	15:16	PT	P-45	E.ext	23.0	P46-P44	15592.0	F	RC	7/16/18	30	30	0	7:18	7:23	P		SM		
7/15/18	15:17	PT	P-46	E.ext	23.0	P47-P45	15615.0	F	RC	7/16/18	30	30	0	7:18	7:23	P		SM		
7/15/18	15:20	PT	P-47	E.ext	23.0	P48-P46	15638.0	F	RC	7/16/18	30	29	-1	7:25	7:30	P		SM		
7/15/18	15:22	PT	P-48	E.ext	23.0	P49-P47	15661.0	F	RC	7/16/18	30	29	-1	7:33	7:38	P		SM		
7/15/18	15:20	PT	P-49	E.ext	23.0	P50-P48	15684.0	F	RC	7/16/18	30	29	-1	7:50	7:55	P		SM		
7/15/18	15:19	PT	P-50	E.ext	23.0	P51-P49	15707.0	F	RC	7/15/18	30	30	0	16:10	16:15	P		SM		
7/15/18	15:18	PT	P-51	E.ext	23.0	P52-P50	15730.0	F	RC	7/15/18	30	30	0	15:50	15:55	P		SM		
7/15/18	15:15	PT	P-52	E.ext	23.0	P53-P51	15753.0	F	RC	7/15/18	30	30	0	15:40	15:45	P		SM		
7/15/18	15:13	PT	P-53	E.ext	23.0	P54-P52	15776.0	F	RC	7/15/18	30	29	-1	15:33	15:38	P		SM		
7/15/18	15:11	PT	P-54	E.ext	23.0	P55-P53	15799.0	F	RC	7/15/18	30	30	0	15:38	15:43	P		SM		
7/15/18	15:10	PT	P-55	E.ext	23.0	P56-P54	15822.0	F	RC	7/15/18	30	30	1	15:22	15:27	P		SM		
7/15/18	15:08	PT	P-56	E.ext	23.0	P57-P55	15845.0	F	RC	7/15/18	30	30	0	15:28	15:33	P		SM	DS33	
7/15/18	15:06	PT	P-57	E.ext	23.0	P58-P56	15868.0	F	RC	7/15/18	30	30	0	15:13	15:18	P		SM		
7/15/18	15:04	PT	P-58	E.ext	23.0	P59-P57	15891.0	F	RC	7/15/18	30	30	0	15:08	15:13	P		SM		
7/15/18	15:00	PT	P-59	E.ext	23.0	P60-P58	15914.0	F	RC	7/15/18	30	30	0	15:09	15:14	P		SM		
7/15/18	15:41	PT	P-60	E.ext	23.0	P61-P59	15937.0	F	RC	7/16/18	30	30	0	7:04	7:09	P		SM		
7/19/18	8:08	PT	P-60	P-61	535.0	W EOS-E Ext	16472.0	F	RC	7/19/18	30	30	0	8:55	9:00	P		MA	DS38,41	
7/19/18	8:34	SS	P-61	P-62	535.0	W EOS-E Ext	17007.0	F	RC	7/19/18	30	29	-1	9:15	9:20	P		MA	DS39,42	
7/19/18	8:48	LN	P-62	P-63	535.0	W EOS-E Ext	17542.0	F	RC	7/19/18	30	30	0	9:33	9:38	P		MA	DS40,43	
7/19/18	9:00	PT	P-63	P-64	535.0	W EOS-E Ext	18077.0	F	RC	7/19/18	30	30	0	9:45	9:50	P		MA	DS44	
7/19/18	9:20	SS	P-64	P-65	535.0	W EOS-E Ext	18612.0	F	RC	7/19/18	30	30	0	10:10	10:15	P		MA	DS45	
7/19/18	9:39	LN	P-65	P-66	535.0	W EOS-E Ext	19147.0	F	RC	7/19/18	30	29	-1	10:25	10:30	P		MA	DS46	
7/19/18	9:58	PT	P-66	P-67	535.0	W EOS-E Ext	19682.0	F	RC	7/19/18	30	30	0	10:37	10:42	P		MA	DS47,50	
7/19/18	10:08	SS	P-67	P-68	535.0	W EOS-E Ext	20217.0	F	RC	7/19/18	30	30	0	11:05	11:10	P		MA	DS48,51	

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Client Name: American Electric Power

Project Number: 35177127

Contractor: SFC

CQA Monitor: Scott McDonald/Matt Acree

Project Name: Turk Cell 2

Reviewed By: Tony Bardella

Address: 3711 HWY 355 S, Fulton AR

Approved By: Dave McCormick

Location: Cell 2

Liner Installer: ESI

PRODUCTION SEAM					LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number		Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
											Start	End	+/-	Start	End					
7/19/18	10:22	LN	P-68	- P-69	535.0	W EOS-E Ext	20752.0	F	RC	7/19/18	30	29	-1	11:12	11:17	P		MA	DS49,52	
7/19/18	10:42	PT	P-69	- P-70	535.0	W EOS-E Ext	21287.0	F	RC	7/19/18	30	29	-1	11:25	11:30	P		MA	DS53	
7/19/18	10:56	SS	P-70	- P-71	535.0	W EOS-E Ext	21822.0	F	RC	7/19/18	30	29	-1	11:53	11:58	P		MA	DS54	
7/19/18	11:22	LN	P-71	- P-72	535.0	W EOS-E Ext	22357.0	F	RC	7/19/18	30	30	0	12:05	12:10	P		MA	DS55	
7/19/18	11:32	PT	P-72	- P-73	535.0	W EOS-E Ext	22892.0	F	RC	7/19/18	30	30	0	12:18	12:23	P		MA	DS56	
7/19/18	2:28	PT	P-61	- Exis	5.0	Existing	22897.0	F	RC	7/19/18	30	30	0	2:45	2:50	P		MA		
7/19/18	2:26	PT	P-61	- Exis	18.0	Existing	22915.0	F	RC	7/19/18	30	29	-1	2:38	2:43	P		MA		
7/19/18	2:25	PT	P-62	- Exis	6.0	Existing	22921.0	F	RC	7/19/18	30	30	0	2:35	2:40	P		MA		
7/19/18	2:24	PT	P-62	- Exis	17.0	Existing	22938.0	F	RC	7/19/18	30	29	-1	2:33	2:38	P		MA		
7/19/18	2:22	PT	P-63	- Exis	23.0	Existing	22961.0	F	RC	7/19/18	30	30	0	2:30	2:35	P		MA		
7/19/18	2:20	PT	P-64	- Exis	23.0	Existing	22984.0	F	RC	7/19/18	30	29	-1	2:26	2:31	P		MA		
7/19/18	2:16	PT	P-65	- Exis	23.0	Existing	23007.0	F	RC	7/19/18	30	30	0	2:23	2:28	P		MA		
7/19/18	2:14	PT	P-66	- Exis	23.0	Existing	23030.0	F	RC	7/19/18	30	30	0	2:20	2:25	P		MA		
7/19/18	2:12	PT	P-67	- Exis	23.0	Existing	23053.0	F	RC	7/19/18	30	30	0	2:17	2:22	P		MA	DS57	
7/19/18	2:10	PT	P-68	- Exis	23.0	Existing	23076.0	F	RC	7/19/18	30	30	0	2:15	2:20	P		MA		
7/19/18	2:08	PT	P-69	- Exis	23.0	Existing	23099.0	F	RC	7/19/18	30	30	0	2:13	2:18	P		MA		
7/19/18	2:06	PT	P-70	- Exis	23.0	Existing	23122.0	F	RC	7/19/18	30	29	-1	2:10	2:15	P		MA		
7/19/18	2:04	PT	P-71	- Exis	23.0	Existing	23145.0	F	RC	7/19/18	30	30	0	2:08	2:13	P		MA		
7/19/18	2:02	PT	P-72	- Exis	23.0	Existing	23168.0	F	RC	7/19/18	30	29	-1	2:06	2:11	P		MA		
7/19/18	2:00	PT	P-73	- Exis	23.0	Existing	23191.0	F	RC	7/19/18	30	30	0	2:03	2:08	P		MA		
8/3/18	9:02	PT	P-73	- P-74	535.0	W EOS-E Ext	23726.0	F	RC	8/3/18	30	30	0	9:45	9:50	P		MA	DS58	
8/3/18	9:11	SS	P-74	- P-75	535.0	W EOS-E Ext	24261.0	F	RC	8/3/18	30	29	-1	9:48	9:53	P		MA	DS59	
8/3/18	2:45	BV	P-74	- Exis	18.0	Existing	24279.0	F	RC	8/3/18	30	30	0	2:53	2:58	P		MA		
8/3/18	2:45	BV	P-74	- Exis	5.0	Existing	24284.0	F	RC	8/3/18	30	30	0	2:55	3:00	P		MA		
8/3/18	9:20	PT	P-75	- P-76	535.0	W EOS-E Ext	24819.0	F	RC	8/3/18	30	30	0	10:00	10:05	P		MA	DS60	
8/3/18	2:35	BV	P-75	- Exis	18.0	Existing	24837.0	F	RC	8/3/18	30	30	0	2:47	2:52	P		MA		

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

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Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Project Number: 35177127

CQA Monitor: Scott McDonald/Matt Acree

Reviewed By: Tony Bardella

Approved By: Dave McCormick

Liner Installer: ESI

PRODUCTION SEAM					LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number		Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
											Start	End	+/-	Start	End					
8/3/18	2:35	BV	P-75	Exis	5.0	Existing	24842.0		RC	8/3/18	30	30	0	2:50	2:55	P		MA		
8/3/18	9:50	PT	P-76	P-77	535.0	W EOS-E Ext	25377.0	F	RC	8/3/18	30	29	-1	10:53	10:58	P		MA	DS65	
8/3/18	2:30	BV	P-76	Exis	18.0	Existing	25395.0	F	RC	8/3/18	30	30	0	2:42	2:47	P		MA		
8/3/18	2:30	BV	P-76	Exis	5.0	Existing	25400.0	F	RC	8/3/18	30	29	-1	2:45	2:50	P		MA		
8/3/18	9:55	SS	P-77	P-78	535.0	W EOS-E Ext	25935.0	F	RC	8/3/18	30	29	-1	10:55	11:00	P		MA	DS66	
8/3/18	2:26	BV	P-77	Exis	18.0	Existing	25953.0	F	RC	8/3/18	30	30	0	2:37	2:42	P		MA		
8/3/18	2:26	BV	P-77	Exis	5.0	Existing	25958.0	F	RC	8/3/18	30	30	0	2:40	2:45	P		MA		
8/3/18	10:11	LN	P-78	P-79	535.0	W EOS-E Ext	26493.0	F	RC	8/3/18	30	29	-1	11:05	11:10	P		MA	DS67	
8/3/18	2:22	BV	P-78	Exis	18.0	Existing	26511.0	F	RC	8/3/18	30	30	0	2:32	2:37	P		MA		
8/3/18	2:22	BV	P-78	Exis	5.0	Existing	26516.0	F	RC	8/3/18	30	29	-1	2:35	2:40	P		MA		
8/3/18	10:40	PT	P-79	P-80	535.0	W EOS-E Ext	27051.0	F	RC	8/3/18	30	30	0	11:22	11:27	P		MA	DS61,69	
8/3/18	2:18	BV	P-79	Exis	18.0	Existing	27069.0	F	RC	8/3/18	30	30	0	2:28	2:33	P		MA		
8/3/18	2:18	BV	P-79	Exis	5.0	Existing	27074.0	F	RC	8/3/18	30	30	0	2:30	2:35	P		MA		
8/3/18	10:49	SS	P-80	P-81	535.0	W EOS-E Ext	27609.0	F	RC	8/3/18	30	30	0	11:30	11:35	P		MA	DS62,70	
8/3/18	2:14	BV	P-80	Exis	18.0	Existing	27627.0	F	RC	8/3/18	30	30	0	2:23	2:28	P		MA		
8/3/18	2:14	BV	P-80	Exis	5.0	Existing	27632.0	F	RC	8/3/18	30	30	0	2:26	2:31	P		MA		
8/3/18	11:01	LN	P-81	P-82	535.0	W EOS-E Ext	28167.0	F	RC	8/3/18	30	29	-1	11:45	11:50	P		MA	DS63,71	
8/3/18	2:09	BV	P-81	Exis	18.0	Existing	28185.0	F	RC	8/3/18	30	29	-1	2:19	2:24	P		MA	DS81	
8/3/18	2:09	BV	P-81	Exis	5.0	Existing	28190.0	F	RC	8/3/18	30	30	0	2:21	2:26	P		MA		
8/3/18	11:28	PT	P-82	P-83	366.0	W EOS-E Ext	28556.0	F	RC	8/3/18	30	29	-1	12:03	12:08	P		MA	DS64	
8/3/18	2:06	BV	P-82	Exis	18.0	Existing	28574.0	F	RC	8/3/18	30	30	0	2:15	2:20	P		MA		
8/3/18	2:06	BV	P-82	Exis	5.0	Existing	28579.0	F	RC	8/3/18	30	30	0	2:17	2:23	P		MA		
8/3/18	11:34	SS	P-83	P-84	100.0	P-92 - E Ext	28679.0	F	RC	8/3/18	30	29	-1	11:43	11:48	P		MA		
8/3/18	11:45	SS	P-84	P-85	88.0	P-91 - E Ext	28767.0	F	RC	8/3/18	30	30	0	11:51	11:56	P		MA		
8/3/18	2:00	BV	P-83	Exis	18.0	Existing	28785.0	F	RC	8/3/18	30	29	-1	2:10	2:15	P		MA		
8/3/18	2:00	BV	P-83	Exis	5.0	Existing	28790.0	F	RC	8/3/18	30	30	0	2:13	2:18	P		MA		

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Project Number: 35177127

CQA Monitor: Scott McDonald/Matt Acree

Reviewed By: Tony Bardella

Approved By: Dave McCormick

Liner Installer: ESI

PRODUCTION SEAM					LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number		Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
											Start	End	+/-	Start	End					
8/3/18	1:57	BV	P-84	- Exis	18.0	Existing	28808.0	F	RC	8/3/18	30	30	0	2:06	2:11	P		MA		
8/3/18	1:57	BV	P-84	- Exis	5.0	Existing	28813.0	F	RC	8/3/18	30	30	0	2:08	2:13	P		MA		
8/3/18	1:54	BV	P-85	- Exis	18.0	Existing	28831.0	F	RC	8/3/18	30	30	0	2:01	2:06	P		MA		
8/3/18	1:54	BV	P-85	- Exis	5.0	Existing	28836.0	F	RC	8/3/18	30	29	-1	2:03	2:08	P		MA		
8/3/18	11:53	SS	P-85	- P-86	67.0	P-90 - E Ext	28903.0	F	RC	8/3/18	30	30	0	12:53	12:58	P		MA		
8/3/18	12:03	SS	P-86	- P-88	41.0	P-89 - P-87 - E Ext	28944.0	F	RC	8/3/18	30	29	-1	1:02	1:07	P		MA		
8/3/18	12:09	LN	P-87	- P-88	17.0	P-86 - NAT	28961.0	F	RC	8/3/18	30	30	0	1:00	1:05	P		MA		
8/3/18	11:49	LN	P-82	- P-83	172.0	W EOS-E Ext	29133.0	F	RC	8/3/18	30	30	0	12:50	12:55	P		MA	DS68	
8/3/18	1:36	LN	P-88	- P-89	24.0	P-87 - P-86	29157.0	F	RC	8/3/18	30	29	-1	1:40	1:45	P		MA		
8/3/18	1:09	SS	P-89	- P-90	18.0	NAT - P-86	29175.0	F	RC	8/3/18	30	30	0	1:11	1:16	P		MA		
8/3/18	1:31	LN	P-90	- P-86	19.0	P-89 - P-85	29194.0	F	RC	8/3/18	30	30	0	1:37	1:42	P		MA	DS80	
8/3/18	1:12	SS	P-90	- P-91	42.0	NAT - P-85	29236.0	F	RC	8/3/18	30	30	0	1:17	1:23	P		MA	DS72	
8/3/18	1:26	LN	P-91	- P-85	27.0	P-90 - P-92	29263.0	F	RC	8/3/18	30	30	0	1:32	1:37	P		MA		
8/3/18	1:15	LN	P-91	- P-92	66.0	NAT - P-83	29329.0	F	RC	8/3/18	30	30	0	1:39	1:44	P		MA	DS73	
8/3/18	2:22	LN	P-92	- P-83	23.0	P-84 - P-93	29352.0	F	RC	8/3/18	30	30	0	3:10	3:15	P		MA		
8/3/18	1:26	PT	P-92	- P-84	119.0	P-91 - P-P-83	29471.0	F	RC	8/3/18	30	30	0	1:28	1:33	P		MA		
8/3/18	1:27	SS	P-92	- P-93	88.0	NAT - P-83	29559.0	F	RC	8/3/18	30	30	0	1:41	1:46	P		MA		
8/3/18	2:20	LN	P-93	- P-83	23.0	P-92 - P-94	29582.0	F	RC	8/3/18	30	30	0	3:15	3:20	P		MA		
8/3/18	1:28	PT	P-93	- P-94	88.0	NAT - P-83	29670.0	F	RC	8/3/18	30	29	-1	1:43	1:48	P		MA	DS74	
8/3/18	2:18	LN	P-94	- P-83	23.0	P-93 - P-95	29693.0	F	RC	8/3/18	30	30	0	3:24	3:29	P		MA		
8/3/18	1:32	PT	P-94	- P-95	88.0	NAT - P-83	29781.0	F	RC	8/3/18	30	29	-1	3:26	3:31	P		MA		
8/3/18	2:16	LN	P-95	- P-83	23.0	P-94 - P-96	29804.0	F	RC	8/3/18	30	30	0	3:31	3:36	P		MA		
8/3/18	1:38	SS	P-95	- P-96	88.0	NAT - P-83	29892.0	F	RC	8/3/18	30	30	0	3:33	3:38	P		MA		
8/3/18	2:14	LN	P-96	- P-83	23.0	P-95 - P-97	29915.0	F	RC	8/3/18	30	29	-1	3:52	3:57	P		MA		
8/3/18	1:42	LN	P-96	- P-97	88.0	NAT - P-83	30003.0	F	RC	8/3/18	30	29	-1	15:54	15:59	P		MA		
8/3/18	2:12	LN	P-97	- P-83	23.0	P-96 - P-98	30026.0	F	RC	8/3/18	30	30	0	3:58	4:03	P		MA		

# Geomembrane Seaming and Non-Destructive Test Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

Client Name: American Electric Power

Contractor: SFC

Project Name: Turk Cell 2

Address: 3711 HWY 355 S, Fulton AR

Location: Cell 2

Project Number: 35177127

CQA Monitor: Scott McDonald/Matt Acree

Reviewed By: Tony Bardella

Approved By: Dave McCormick

Liner Installer: ESI

PRODUCTION SEAM					LOCATION AND DISTANCE			Weld Type Fusion/ Extrusion	NON-DESTRUCTIVE TESTING										QA ID	Destruct No.
Date	Time	Seamer Initials	Seam Number		Length (ft)	Location From - To	Accum Length (ft)		Tester Initials	Date	Pressure			Time		Air Test P/F	Vac Box P/F			
			Start	End							+/-	Start	End							
8/3/18	1:58	SS	P-97	P-98	17.0	NAT - P-83	30043.0	F	RC	8/3/18	30	29	-1	4:00	4:07	P		MA		
8/3/18	2:05	SS	P-97	P-98	71.0	NAT - P-83	30114.0	F	RC	8/3/18	30	29	-1	4:06	4:11	P		MA		
8/3/18	2:08	LN	P-98	P-83	23.0	P-97 - P-99	30137.0	F	RC	8/3/18	30	30	0	4:10	4:15	P		MA		
8/3/18	2:14	LN	P-98	P-99	71.0	NAT - P-83	30208.0	F	RC	8/3/18	30	30	0	4:12	4:17	P		MA		
8/3/18	2:21	LN	P-98	P-99	17.0	NAT - P-83	30225.0	F	RC	8/3/18	30	30	0	4:06	4:11	P		MA		
8/3/18	3:03	PT	P-99	P-83	23.0	P-98 - P-100	30248.0	F	RC	8/3/18	30	30	0	4:17	4:23	P		MA		
8/3/18	2:17	SS	P-99	P-100	88.0	NAT - P-83	30336.0	F	RC	8/3/18	30	29	-1	4:15	4:20	P		MA		
8/3/18	3:01	PT	P-100	P-83	23.0	P-99 - P-101	30359.0	F	RC	8/3/18	30	30	0	4:19	4:24	P		MA		
8/3/18	2:29	SS	P-100	P-101	88.0	NAT - P-83	30447.0	F	RC	8/3/18	30	29	-1	3:18	3:23	P		MA	DS75	
8/3/18	2:59	PT	P-101	P-83	23.0	P-100 - P-102	30470.0	F	RC	8/3/18	30	29	-1	4:21	4:26	P		MA		
8/3/18	2:27	LN	P-101	P-102	88.0	NAT - P-83	30558.0	F	RC	8/3/18	30	30	0	3:20	3:25	P		MA	DS76	
8/3/18	2:57	PT	P-102	P-83	23.0	P-101 - P-103	30581.0	F	RC	8/3/18	30	30	0	4:23	4:28	P		MA		
8/3/18	2:37	PT	P-102	P-103	88.0	NAT - P-83	30669.0	F	RC	8/3/18	30	29	-1	3:23	3:28	P		MA	DS77	
8/3/18	2:35	PT	P-103	P-83	23.0	P-102 - P-104	30692.0	F	RC	8/3/18	30	30	0	3:35	3:40	P		MA	DS78	
8/3/18	3:18	PT	P-103	P-104	82.0	NAT - P-83	30774.0	F	RC	8/3/18	30	29	-1	4:32	4:37	P		MA		
8/3/18	3:18	PT	P-103	P-114	14.0	P-104 - P-83	30788.0	F	RC	8/3/18	30	30	0	4:30	4:35	P		MA		
8/3/18	1:44	BV	P-87	Exis	6.0	Existing	30794.0	F	RC	8/3/18	30	30	0	1:50	1:55	P		MA		
8/3/18	1:44	BV	P-87	Exis	5.0	Existing	30799.0	F	RC	8/3/18	30	30	0	1:54	1:59	P		MA		
8/3/18	1:44	BV	P-87	Exis	13.0	Existing	30812.0	F	RC	8/3/18	30	30	0	1:50	1:55	P		MA		
8/3/18	1:50	BV	P-86	Exis	11.0	Existing	30823.0	F	RC	8/3/18	30	29	-1	1:56	2:01	P		MA		
8/3/18	1:51	BV	P-86	Exis	7.0	Existing	30830.0	F	RC	8/3/18	30	30	0	1:58	2:03	P		MA		
8/3/18	3:03	LN	P-83	P-114	180.0	W EOS - P-103	31010.0	F	RC	8/3/18	30	30	0	4:58	5:03	P		MA	DS83	
8/3/18	3:41	PT	P-114	P-104	18.0	P-103 - P-113	31028.0	F	RC	8/3/18	30	30	0	4:43	4:48	P		MA		
8/3/18	3:04	SS	P-114	P-113	84.0	P-104 - P-112	31112.0	F	RC	8/3/18	30	29	-1	5:02	5:07	P		MA	DS82	
8/3/18	4:01	PT	P-114	P-111	18.0	W EOS - P-112	31130.0	F	RC	8/4/18	30	29	-1	8:00	8:05	P		MA		
8/3/18	3:34	LN	P-110	P-111	50.0	NAT - P-112	31180.0	F	RC	8/4/18	30	29	-1	7:40	7:45	P		MA		



APPENDIX O  
GEOMEMBRANE DESTRUCTIVE TEST LOG  
SUMMARY & LABORATORY TEST RESULTS

# Geomembrane Destructive Test Log Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Destructive Testing Specifications	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Sample ID	Seam Number	Machine Number	Seamer Initials	Test Values lbs/inch										Field Pass/Fail	Lab Pass/Fail	Comments/Location	
					P	S	P	S	P	S	P	S	P	S				P
7/14/18	DS-1	P2/P3	4181	PT	P	118	112	114	99	117	100	106	99	111	116	P	P	72' SAT
					S	135		131		133		134		130				
7/14/18	DS-2	P3/P4	4153	LN	P	99	117	102	117	98	113	103	117	112	119	P	P	20' SAT
					S	136		135		140		139		137				
7/14/18	DS-3	P8/P9	4179	SS	P	109	105	114	110	118	105	113	110	120	113	P	P	73' SAT
					S	140		139		141		138		136				
7/14/18	DS-4	P9/P10	4153	LN	P	100	121	99	109	95	121	102	111	97	115	P	P	85'SAT
					S	135		132		133		137		135				
7/14/18	DS-5	P10/P11	4153	LN	P	108	99	100	107	101	109	98	106	104	108	P	P	69'SAT
					S	140		136		139		138		141				
7/14/18	DS-6	P12/P13	4181	PT	P	100	98	105	111	109	102	99	100	99	110	P	P	76'SAT
					S	133		133		130		132		134				
7/14/18	DS-7	P15/P16	4181	PT	P	103	102	100	99	102	99	104	98	111	100	P	P	82' FROM W.EOS
					S	133		130		135		131		132				
7/14/18	DS-8	P34/P35	4179	SS	P	110	106	99	112	103	114	99	112	120	106	P	P	165' FROM W.EOS
					S	130		132		129		133		128				
7/14/18	DS-9	P32/P34	4181	PT	P	116	103	98	117	120	110	99	114	115	121	P	P	168' FROM W.EOS
					S	129		134		136		132		135				
7/14/18	DS-10	P35/P37	4181	PT	P	106	111	100	113	105	117	109	116	118	102	P	P	170' FROM W.EOS
					S	130		132		128		127		131				
7/14/18	DS-11	P39/P42	4181	PT	P	99	102	98	113	115	103	114	98	99	100	P	P	210' FROM W.EOS
					S	126		128		131		129		132				
7/14/18	DS-12	P37/P38	4179	SS	P	111	106	109	118	119	117	114	98	99	112	P	P	180' FROM W.EOS
					S	131		133		134		136		133				
7/14/18	DS-13	P42/P43	4179	SS	P	121	119	108	116	107	110	100	118	120	106	P	P	250' FROM W.EOS
					S	132		130		128		131		129				
7/14/18	DS-14	P9/P36	4153	LN	P	103	118	105	113	99	102	102	116	107	118	P	P	10'P-10
					S	128		127		130		132		130				
7/16/18	DS-15	P43/P44	4181	PT	P	101	116	104	109	102	99	98	102	104	111	P	P	190' FROM W.EOS
					S	129		126		127		130		128				



# Geomembrane Destructive Test Log Summary



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**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
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**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Destructive Testing Specifications	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Sample ID	Seam Number	Machine Number	Seamer Initials	Test Values lbs/inch								Field Pass/Fail	Lab Pass/Fail	Comments/Location			
					P	S	103	103	103	101	99	98				98	107	100
7/16/18	DS-16	P44/P45	4153	LN	P	103	103	103	101	99	98	98	107	100	112	P	P	220' FROM W.EOS
					S	129	131	128	130	132								
7/16/18	DS-17	P45/P46	4149	SS	P	111	101	99	103	106	102	100	99	98	113	P	P	250' FROM W.EOS
					S	129	134	127	126	131								
7/16/18	DS-18	P46/P47	4181	PT	P	103	98	100	98	111	105	101	104	102	100	P	P	280' FROM W.EOS
					S	127	129	130	126	132								
7/16/18	DS-19	P47/P48	4153	LN	P	99	112	100	99	101	108	98	112	103	110	P	FAIL	310' FROM W.EOS
					S	131	129	128	132	126								
7/18/18	DS-19A	P47/P48	4153	LN	P	112	108	109	98	117	110	113	120	104	112	P	P	320' FROM W.EOS
					S	131	129	132	130	127								
7/18/18	DS-19B	P47/P48	4153	LN	P	103	111	110	99	106	115	114	107	105	101	P	P	295' FROM W.EOS
					S	127	130	129	128	131								
7/16/18	DS-20	P48/P49	4179	SS	P	103	105	105	98	98	107	98	115	99	118	P	P	340' FROM W.EOS
					S	126	127	130	129	132								
7/16/18	DS-21	P49/P50	4181	PT	P	103	109	96	110	100	105	113	104	118	109	P	FAIL	376' FROM W.EOS
					S	133	131	128	129	130								
7/18/18	DS-21A	P49/P50	4181	PT	P	105	109	117	121	119	106	110	116	113	102	P	P	380' FROM W.EOS
					S	130	128	132	131	133								
7/18/18	DS-21B	P49/P50	4181	PT	P	111	116	103	114	115	118	118	102	110	113	P	P	360' FROM W.EOS
					S	132	130	127	131	129								
7/16/18	DS-22	P50/P51	4153	LN	P	113	106	105	102	99	110	105	112	98	106	P	P	401' FROM W.EOS
					S	126	127	130	129	132								
7/16/18	DS-23	P51/P52	4179	SS	P	99	101	106	100	98	111	100	110	102	113	P	P	430' FROM W.EOS
					S	128	129	130	132	128								
7/16/18	DS-24	P52/P53	4181	PT	P	98	106	98	99	99	104	100	98	105	114	P	P	455' FROM W.EOS
					S	128	126	128	129	130								
7/16/18	DS-25	P53/P54	4153	LN	P	103	99	98	99	109	99	104	103	99	110	P	P	486' FROM W.EOS
					S	130	128	132	131	127								
7/16/18	DS-26	P54/P55	4181	PT	P	99	100	104	101	99	106	99	102	99	109	P	P	510' FROM W.EOS
					S	129	127	129	131	132								

# Geomembrane Destructive Test Log Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Destructive Testing Specifications	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Sample ID	Seam Number	Machine Number	Seamer Initials	Test Values lbs/inch										Field Pass/Fail	Lab Pass/Fail	Comments/Location	
					P	99	107	106	111	99	112	102	117	106				105
7/16/18	DS-27	P55/P56	4153	LN	P	99	107	106	111	99	112	102	117	106	105	P	P	490' FROM W.EOS
					S	134	132	133	130	131								
7/16/18	DS-28	P55/P56	4153	LN	P	107	100	101	105	99	104	102	103	106	99	P	P	36' FROM W.EOS
					S	133	132	127	130	131								
7/16/18	DS-29	P56/P57	4179	SS	P	102	100	106	102	104	106	98	108	104	99	P	P	80' FROM W.EOS
					S	127	133	130	129	132								
7/16/18	DS-30	P57/P58	4181	PT	P	99	104	104	108	103	107	98	107	98	111	P	P	110' FROM W.EOS
					S	131	129	133	132	128								
7/16/18	DS-31	P58/P59	4153	LN	P	98	114	98	111	100	106	102	107	110	102	P	P	140' FROM W.EOS
					S	132	130	129	127	130								
7/16/18	DS-32	P59/P60	4179	SS	P	100	96	99	104	101	97	99	112	102	110	P	P	160' FROM W.EOS
					S	131	128	132	129	131								
7/16/18	DS-33	P56/TIE IN	4181	PT	P	110	117	112	106	113	106	110	107	109	105	P	P	P56 4' FROM 57
					S	134	133	131	130	132								
7/16/18	DS-34	R63/P46	215	BV	P	101	-	116	-	115	-	106	-	117	-	P	P	ETI ON P46
					S	132	133	130	129	132								
7/16/18	DS-35	DS25/P53	5173	AF	P	110	-	109	-	103	-	118	-	122	-	P	P	DS25 ON P53 SIDE
					S	138	135	140	136	139								
7/16/18	DS-36	P54/P55	4181	PT	P	101	104	99	104	99	109	97	99	112	107	P	P	110' FROM W.EOS
					S	133	130	129	128	132								
7/16/18	DS-37	P56/P57	4179	SS	P	110	102	101	99	106	113	101	97	99	107	P	P	110' FROM W.EOS
					S	126	128	131	132	129								
7/19/18	DS-38	P60/P61	4181	PT	P	101	106	100	101	110	104	107	105	114	102	P	P	510' FROM W.EOS
					S	131	130	127	129	130								
7/19/18	DS-39	P61/P62	4179	SS	P	102	115	99	121	111	107	117	102	100	112	P	P	510' FROM W.EOS
					S	134	132	128	131	133								
7/19/18	DS-40	P62/P63	4153	LN	P	101	110	103	113	99	105	102	113	111	106	P	P	515' FROM W.EOS
					S	130	127	129	131	132								
7/19/18	DS-41	P60/P61	4181	PT	P	114	100	108	106	99	104	107	106	105	102	P	P	85' FROM W.EOS
					S	129	131	133	127	130								
7/19/18	DS-42	P61/P62	4179	SS	P	103	102	105	109	100	103	107	99	108	103	P	P	85' FROM W.EOS
					S	131	126	127	130	129								

# Geomembrane Destructive Test Log Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Destructive Testing Specifications	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Sample ID	Seam Number	Machine Number	Seamer Initials	Test Values lbs/inch										Field Pass/Fail	Lab Pass/Fail	Comments/Location		
					P	S	103	106	100	102	115	104	99	112				115	100
7/19/18	DS-43	P62/P63	4153	LN	P	S	103	106	100	102	115	104	99	112	115	100	P	P	85' FROM W.EOS
							132	129	130	128	131								
7/19/18	DS-44	P63/P64	4181	PT	P	S	101	107	113	114	104	100	112	105	112	108	P	P	415' FROM W.EOS
							131	131	130	132	129								
7/19/18	DS-45	P64/P65	4179	SS	P	S	103	109	119	108	107	105	117	106	101	107	P	P	415' FROM W.EOS
							128	130	126	132	131								
7/19/18	DS-46	P65/P66	4153	LN	P	S	104	105	119	105	106	99	112	99	107	110	P	P	415' FROM W.EOS
							129	129	131	128	130								
7/19/18	DS-47	P66/P67	4189	PT	P	S	118	103	111	111	106	99	109	102	110	114	P	P	205' FROM W.EOS
							131	129	132	127	129								
7/19/18	DS-48	P67/P68	4179	SS	P	S	99	107	111	117	108	109	115	118	103	115	P	P	205' FROM W.EOS
							132	128	130	129	132								
7/19/18	DS-49	P68/P69	4153	LN	P	S	100	110	106	104	100	103	103	113	116	107	P	P	205' FROM W.EOS
							127	128	127	130	131								
7/19/18	DS-50	P66/P67	4181	PT	P	S	103	106	113	109	107	101	100	99	103	102	P	P	520' FROM W.EOS
							133	128	132	129	133								
7/19/18	DS-51	P67/P68	4179	SS	P	S	112	101	105	112	100	107	99	108	105	113	P	P	515' FROM W.EOS
							130	132	129	131	132								
7/19/18	DS-52	P68/P69	4153	LN	P	S	110	112	112	109	103	110	100	103	103	114	P	P	515' FROM W.EOS
							131	130	133	128	127								
7/19/18	DS-53	P69/P70	4181	PT	P	S	109	99	111	102	108	103	109	105	107	108	P	P	420' FROM W.EOS
							130	132	127	131	129								
7/19/18	DS-54	P70/P71	4171	SS	P	S	106	112	116	110	110	111	116	120	111	106	P	P	420' FROM W.EOS
							128	128	130	129	133								
7/19/18	DS-55	P71/P72	4153	LN	P	S	100	103	109	101	105	109	112	113	104	109	P	P	420' FROM W.EOS
							131	128	132	134	133								
7/19/18	DS-56	P72/P73	4181	PT	P	S	105	102	111	100	106	99	103	105	110	112	P	P	380' FROM W.EOS
							130	128	131	129	132								
7/19/18	DS-57	P67/TIE IN	4181	PT	P	S	131	130	121	125	116	121	128	117	129	132	P	P	At Tie In
							135	133	131	134	135								
8/3/18	DS-58	P73/P74	4181	PT	P	S	110	107	112	103	116	120	121	109	110	121	P	P	85' FROM W.EOS
							133	130	134	135	132								

# Geomembrane Destructive Test Log Summary



25809 Interstate 30 South

Bryant, AR 72022

Phone: 501.847.9292

Fax: 501.847.9210

**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

Destructive Testing Specifications	
Peel Extrusion =	78
Shear Extrusion =	121
Peel Fusion =	98
Shear Fusion =	121

Date	Sample ID	Seam Number	Machine Number	Seamer Initials	Test Values lbs/inch										Field Pass/Fail	Lab Pass/Fail	Comments/Location	
					P	S	P	S	P	S	P	S	P	S				P
8/3/18	DS-59	P74/P75	4179	SS	P	117	108	115	112	119	112	122	108	117	123	P	P	85' FROM W.EOS
					S	135	136	131	133	134								
8/3/18	DS-60	P75/P76	4153	LN	P	123	101	106	115	121	111	110	121	107	113	P	P	85' FROM W.EOS
					S	132	134	130	132	136								
8/3/18	DS-61	P79/P80	4181	PT	P	106	110	114	116	118	121	119	121	122	107	P	P	90' FROM W.EOS
					S	129	131	133	135	130								
8/3/18	DS-62	P80/P81	4179	SS	P	112	106	115	111	119	110	120	102	103	115	P	P	90' FROM W.EOS
					S	134	136	137	132	134								
8/3/18	DS-63	P81/P82	4153	LN	P	109	116	118	111	120	103	104	115	116	119	P	P	85' FROM W.EOS
					S	132	129	131	133	134								
8/3/18	DS-64	P82/P83	4181	PT	P	122	110	114	119	117	123	124	116	109	114	P	P	85' FROM W.EOS
					S	130	132	134	135	131								
8/3/18	DS-65	P76/P77	4181	PT	P	102	113	116	105	109	116	123	109	119	120	P	P	180' FROM W.EOS
					S	133	135	136	137	132								
8/3/18	DS-66	P77/P78	4179	SS	P	122	108	106	110	111	121	112	116	119	117	P	P	180' FROM W.EOS
					S	132	128	134	132	129								
8/3/18	DS-67	P78/P79	4153	LN	P	120	103	104	117	122	112	114	115	122	106	P	P	180' FROM W.EOS
					S	134	131	136	130	133								
8/3/18	DS-68	P82/P83	4153	LN	P	110	116	112	119	108	115	111	121	122	109	P	P	450' FROM W.EOS
					S	130	132	135	130	131								
8/3/18	DS-69	P79/P80	4181	PT	P	113	118	108	116	109	121	107	114	113	111	P	P	520' FROM W.EOS
					S	128	131	129	133	134								
8/3/18	DS-70	P80/P81	4179	SS	P	116	119	120	106	107	113	102	110	99	115	P	P	520' FROM W.EOS
					S	132	130	133	131	130								
8/3/18	DS-71	P81/P82	4153	LN	P	121	108	107	113	104	116	115	113	120	106	P	P	520' FROM W.EOS
					S	131	134	129	132	133								
8/3/18	DS-72	P90/P91	4179	SS	P	101	111	110	113	103	115	117	120	99	119	P	P	15' NAT
					S	133	135	131	132	130								
8/3/18	DS-73	P91/P92	4153	LN	P	122	111	119	107	117	110	105	114	112	106	P	P	15' NAT
					S	129	132	130	129	133								
8/3/18	DS-74	P93/P94	4181	PT	P	109	110	111	116	112	119	122	114	107	113	P	P	15' NAT
					S	131	130	132	133	131								





DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39344

TEST REPLICATE NUMBER

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-1 | Weld: Heat Fusion, Side: A (Peel Strength 120, Peel Incursion <5, etc.), Side: B (Peel Strength 111, Peel Incursion <5, etc.), and Shear (Shear Strength 151, Shear Elongation >50).

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-2 | Weld: Heat Fusion, Side: A (Peel Strength 105, Peel Incursion <5, etc.), Side: B (Peel Strength 132, Peel Incursion <5, etc.), and Shear (Shear Strength 155, Shear Elongation >50).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39344

TEST REPLICATE NUMBER

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-3 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-4 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39344

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-5 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-6 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.





DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39344

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-7 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Sample ID: DS-8 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-8 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39344

TEST REPLICATE NUMBER

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-9 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-10 | Weld: Heat Fusion

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39344

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN

Sample ID: DS-11 | Weld: Heat Fusion

Table for Sample DS-11 showing Peel A, Peel B, and Shear results across 5 replicates.

Sample ID: DS-12 | Weld: Heat Fusion

Table for Sample DS-12 showing Peel A, Peel B, and Shear results across 5 replicates.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39344

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-13 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-14 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-15 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-16 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-17 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-18 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-19 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-20 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

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DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-21 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-22 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.





DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-23 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Sample ID: DS-24 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-25 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-26 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-27 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-28 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-29 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-30 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-31   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	105	107	106	125	101	<b>109</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	129	135	128	122	126	<b>128</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	150	149	148	148	151	<b>149</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
<b>Sample ID: DS-32   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	108	111	108	109	111	<b>109</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	119	117	112	115	111	<b>115</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	161	161	163	157	162	<b>161</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

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DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-36 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-37 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-33   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	124	134	127	124	124	<b>127</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	136	129	136	118	136	<b>131</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	145	142	145	140	147	<b>144</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS - SINGLE TRACK

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39333

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-34   Weld: Single Extrusion</b>						
<b>Side: Peel</b>						<b>Peel</b>
Peel Strength (ppi)	119	114	117	113	118	<b>116</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	138	133	137	134	132	<b>135</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
<b>Sample ID: DS-35   Weld: Single Extrusion</b>						
<b>Side: Peel</b>						<b>Peel</b>
Peel Strength (ppi)	124	128	116	93	124	<b>117</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	163	160	156	159	159	<b>159</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.





DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39442

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-19A | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-19B | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39442

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-21A | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-21B | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-38 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-39 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-40 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-41 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-42   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	108	107	105	105	109	<b>107</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	134	133	123	127	127	<b>129</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	151	156	153	156	155	<b>154</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

<b>Sample ID: DS-43   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	115	109	107	116	107	<b>111</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	117	104	104	125	121	<b>114</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	160	159	158	152	161	<b>158</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

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DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-44 | Weld: Heat Fusion, Side: A (Peel Strength 113, Peel Incursion <5, etc.), Side: B (Peel Strength 124, Peel Incursion <5, etc.), and Shear (Shear Strength 158, Shear Elongation >50).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-45 | Weld: Heat Fusion, Side: A (Peel Strength 129, Peel Incursion <5, etc.), Side: B (Peel Strength 121, Peel Incursion <5, etc.), and Shear (Shear Strength 155, Shear Elongation >50).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-46 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Sample ID: DS-47 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-48 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes data for Sample ID: DS-49 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.





DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-50 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-51 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-52   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	111	114	117	116	107	<b>113</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	116	115	121	117	125	<b>119</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	157	156	156	154	157	<b>156</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
<b>Sample ID: DS-53   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	119	118	112	130	113	<b>118</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	126	130	132	130	131	<b>130</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	157	158	158	156	159	<b>158</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-54 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-55 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39477

TEST REPLICATE NUMBER

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes sections for Sample ID: DS-56 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes sections for Sample ID: DS-57 | Weld: Heat Fusion, Side: A, Side: B, and Shear.

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-58 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-59 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-60 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-61 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-62 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-63 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-64 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-65 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.





DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-66   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	119	118	114	124	131	<b>121</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	122	118	118	118	117	<b>119</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	156	159	159	159	158	<b>158</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

<b>Sample ID: DS-67   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	132	121	119	119	134	<b>125</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	108	106	123	108	111	<b>111</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	158	159	162	160	159	<b>160</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

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DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-68 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-69 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes sections for Side: A (Peel A), Side: B (Peel B), and Shear (Shear).

Sample ID: DS-71 | Weld: Heat Fusion

Table with columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Includes sections for Side: A (Peel A), Side: B (Peel B), and Shear (Shear).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-72 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-73 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-74   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	113	111	112	118	116	<b>114</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	115	121	103	105	109	<b>111</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	150	152	153	150	150	<b>151</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

<b>Sample ID: DS-75   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	111	110	125	109	112	<b>113</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	120	112	119	123	107	<b>116</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	156	157	155	155	156	<b>156</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

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DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-76   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	123	129	142	123	132	<b>130</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	118	118	120	118	119	<b>119</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	154	155	154	154	155	<b>154</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

<b>Sample ID: DS-77   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	110	112	110	111	113	<b>111</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	102	107	107	104	105	<b>105</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	154	156	154	155	152	<b>154</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

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DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-78   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	107	107	107	106	108	<b>107</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	148	138	119	107	105	<b>123</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	148	148	148	147	146	<b>147</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
<b>Sample ID: DS-79   Weld: Heat Fusion</b>						
<b>Side: A</b>						<b>Peel A</b>
Peel Strength (ppi)	134	134	136	130	133	<b>133</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Side: B</b>						<b>Peel B</b>
Peel Strength (ppi)	124	123	125	124	129	<b>125</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	142	142	142	140	139	<b>141</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-80 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-81 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.





DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 39970

TEST REPLICATE NUMBER

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Sample ID: DS-82 | Weld: Heat Fusion, Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

Sample ID: DS-83 | Weld: Heat Fusion

Table with 7 columns: PARAMETER, 1, 2, 3, 4, 5, MEAN. Rows include Side: A (Peel Strength, Incursion, Locus, NSF), Side: B (Peel Strength, Incursion, Locus, NSF), and Shear (Strength, Elongation).

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS - SINGLE TRACK

TRI Client: Terracon Consultants Inc

Project: Turk Cell 2

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 40029

PARAMETER	TEST REPLICATE NUMBER					MEAN
	1	2	3	4	5	
<b>Sample ID: DS-84   Weld: Single Extrusion</b>						
<b>Side: Peel</b>						<b>Peel</b>
Peel Strength (ppi)	125	108	117	114	119	<b>117</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	144	146	144	148	147	<b>146</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
<b>Sample ID: DS-85   Weld: Single Extrusion</b>						
<b>Side: Peel</b>						<b>Peel</b>
Peel Strength (ppi)	135	131	121	145	144	<b>135</b>
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
<b>Shear</b>						<b>Shear</b>
Shear Strength (ppi)	150	151	146	150	151	<b>150</b>
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

# APPENDIX P GEOMEMBRANE REPAIR LOG SUMMARY

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	Primary
<input type="checkbox"/>	Secondary
<input type="checkbox"/>	Other: _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID			QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID	DATE		OPER ID	PASS/ FAIL	ACTION	QA ID	
					(1)	(2)													
7/15/18	P-15	-	5 E. ext	7 from P16	R1	P	E	3.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P15 P16 E.ext	-	-	R2	P	E	2.0	1.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P14 P18 P19	-	-	R3	P	E	2.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P18 E.ext	15	P19	R4	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P53 P54	486	W EOS	R5	DS25	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P17 P18 P20	-	-	R6	P	E	3.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P3 P4 P5	-	-	R7	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P3 P4	20	SAT	R8	DS2	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P24 P25 P28	-	-	R9	P	E	3.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P25 P26 P28	-	-	R10	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P26 P27 P28	-	-	R11	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P27 P28 P29	-	-	R12	P	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P28 P29 P30	-	-	R13	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P29 P30 P41	-	-	R14	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P23 P24 P28	-	-	R15	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P22 P23 P28 P30	-	-	R16	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P21 P22 P30	-	-	R17	P	E	4.0	4.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P21 P30 P31	164	E.ext	R18	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P21 P31 P32	-	-	R19	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P21 P31	112	SAT	R20	P	E	4.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P32 P34	168	W EOS	R21	DS9	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P34 P35	165	W EOS	R22	DS8	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P35 P37	170	W EOS	R23	DS10	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P37 P38	180	W EOS	R24	DS12	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P39 P42	210	W EOS	R25	DS11	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P42 P43	252	W EOS	R26	DS13	E	2.0	1.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	<b>Primary</b>
<input type="checkbox"/>	<b>Secondary</b>
<input type="checkbox"/>	<b>Other:</b> _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID		DATE	OPER ID	PASS/ FAIL	ACTION	QA ID
					(1)	(2)												
7/15/18	-	P15 P38 P39 P40	-	-	R27	P	E	8.0	6.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P13 P15 P38	-	-	R28	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P13 P15 P16	-	-	R29	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P15 P16	82	E.ext	R30	DS7	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P13 P16 P17	-	-	R31	P	E	4.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P13 P14 P17	-	-	R32	P	E	7.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P12 P13	76	SAT	R33	DS6	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P12 P13 P37 P38	-	-	R34	P	E	7.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P11 P12 P37	-	-	R35	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P10 P11 P37	-	-	R36	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P10 P36 P37	-	-	R37	P	E	4.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P9 P10 P36	-	-	R38	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P8 P9 P36	-	-	R39	P	E	3.0	7.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P8 P34 P36	-	-	R40	P	E	4.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P7 P8 P34	-	-	R41	P	E	7.0	1.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P8 P9	33	SAT	R42	DS3	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P9 P10	85	SAT	R43	DS4	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P10 P11	69	SAT	R44	DS5	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P14 P17 P20	-	-	R45	P	E	4.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P6 P7 P34	-	-	R46	P	E	2.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P5 P6	55	SAT	R47	P	E	2.0	8.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P5 P6 P34	-	-	R48	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P5 P33 P34	-	-	R49	P	E	3.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P2 P3 P5 P33	-	-	R50	P	E	8.0	4.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P2 P3	72	SAT	R51	DS1	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/15/18	-	P1 P2 P33	-	-	R52	P	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	<b>Primary</b>
<input type="checkbox"/>	<b>Secondary</b>
<input type="checkbox"/>	<b>Other:</b> _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID			QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID	DATE		OPER ID	PASS/ FAIL	ACTION	QA ID	
					(1)	(2)													
7/15/18	-	P32 P33 P34	-	-	R53	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P1 P21 P33	-	-	R54	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P34 P35 P36	-	-	R55	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P35 P36 P37	-	-	R56	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P15 P39 P40 E.ext	-	-	R57	P	E	4.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P39 P42 E.ext	-	-	R58	P	E	4.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P42 P43 E.ext	-	-	R59	P	E	7.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P43 P44 E. ext	-	-	R60	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P44 P45 E. ext	-	-	R61	P	E	2.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P45 P46 E. ext	-	-	R62	P	E	3.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P46 P47 E. ext	-	-	R63	P	E	8.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P47 P48 E.ext	-	-	R64	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P48 P49 E. ext	-	-	R65	P	E	3.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P16 P17 E.ext	-	-	R66	P	E	7.0	5.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P17 E.ext	22	P16	R67	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	P-17	-	25 TIE IN	8 W	R68	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P14 P18 P20	-	-	R69	P	E	8.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P43 P44	35	E. ext	R70	P	E	4.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P9 P36	106	SAT	R71	DS14	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/15/18	-	P43 P44	297	W EOS	R72	P	E	5.0	4.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P46 E. ext	0	Repair 63	R73	DS34	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P47 E.ext	3	P46	R74	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P48 E.ext	5	P47	R75	P	E	3.0	3.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P49 P50 E.ext	-	-	R76	P	E	8.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P50 E.ext	3	P49	R77	P	E	8.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P50 P51 E.ext	-	-	R78	P	E	8.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	Primary
<input type="checkbox"/>	Secondary
<input type="checkbox"/>	Other: _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID			NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID	QA ID	DATE	OPER ID	PASS/ FAIL	ACTION	QA ID
					(1)	(2)												
7/16/18	-	P51 E.ext	7	P50	R79	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P51 P52 E.ext	-	-	R80	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P52 E.ext	10	P51	R81	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P52 P53 E.ext	-	-	R82	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P53 E.ext	10	P52	R83	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P53 P54 E.ext	-	-	R84	P	E	2.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P54 E.ext	10	P53	R85	P	E	4.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P54 P55 E.ext	-	-	R86	P	E	3.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P54 P55	20	E.ext	R87	DS26	E	5.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P55 E.ext	10	P56	R88	P	E	5.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P55 P56 E.ext	-	-	R89	P	E	2.0	3.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P56 E.ext	10	P55	R90	P	E	2.0	3.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P56 E.ext	5	P55	R91	P	E	4.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P56 P57 E.ext	-	-	R92	P	E	2.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P57 E.ext	10	P56	R93	P	E	2.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P57 P58 E.ext	-	-	R94	P	E	3.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P58 E.ext	14	P57	R95	P	E	3.0	4.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	P-58		2 E.ext	10 from P57	R96	P	E	2.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P58 P59 E.ext	-	-	R97	P	E	3.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P59 E.ext	6	P58	R98	P	E	3.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P59 P60 E.ext	-	-	R99	P	E	5.0	3.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P60 E.ext	6	P59	R100	P	E	3.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P44 P45	220	W EOS	R101	DS16	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P43 P44	190	W EOS	R102	DS15	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P45 P46	250	W EOS	R103	DS17	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM
7/16/18	-	P46 P47	280	W EOS	R104	DS18	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	Primary
<input type="checkbox"/>	Secondary
<input type="checkbox"/>	Other: _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
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DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID			QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID	DATE		OPER ID	PASS/ FAIL	ACTION	QA ID	
					(1)	(2)													
7/16/18	-	P48 P49	340	W EOS	R105	DS20	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P47 P48	310	W EOS	R106	DS19	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P49 P50	370	W EOS	R107	DS21	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P50 P51	401	W EOS	R108	DS22	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P52 P53	455	W EOS	R109	DS24	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P51 P52	430	W EOS	R110	DS23	E	5.0	2.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P53 P54	110	W EOS	R111	P	E	5.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	P-54	-	146	W 6N 53	R112	P	E	3.0	3.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P54 P55	145	W EOS	R113	DS36	E	10.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	R52 P53	480	W EOS	R114	DS35	E	5.0	3.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P55 P56	490	W EOS	R115	DS27	E	5.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P56 P57	110	W EOS	R116	DS37	E	5.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P57 P58	110	W EOS	R117	DS30	E	5.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P59 P60	160	W EOS	R118	DS32	E	5.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P58 P59	140	W EOS	R119	DS31	E	5.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P56 P57	80	W EOS	R120	DS29	E	5.0	2.0	-	5133	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P55 P56	36	W EOS	R121	DS28	E	5.0	2.0	-	5173	AF	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	P57 P58	10	W EOS	R122	P	E	3.0	2.0	-	5173	AE	SM	7/16/18	RC	P	VT	SM	
7/16/18	-	PIPE S end	-	-	R123	PB	E	16.0	6.0	-	215	BV	SM	7/16/18	RC	P	VT	SM	
7/18/18	P-9	-	AT	10' FROM P10	R124	P	E	2.0	2.0	-	215	BV	SM	7/18/18	RC	P	VT	SM	
7/18/18	P-9	P47 P48	295	W EOS	R125	DS19B	E	19.0	2.0	-	215	BV	SM	7/18/18	RC	P	VT	SM	
7/18/18	-	P47 P48	310	W EOS	R126	DS19A	E	10.0	2.0	-	215	BV	SM	7/18/18	RC	P	VT	SM	
7/18/18	-	P49 P50	360	W EOS	R127	DS21B	E	10.0	2.0	-	215	BV	SM	7/18/18	RC	P	VT	SM	
7/18/18	-	P49 P50	380	W EOS	R128	DS21A	E	10.0	2.0	-	215	BV	SM	7/18/18	RC	P	VT	SM	
7/19/18	-	P60 P61	32	W EOS	R129	P	E	6.0	3.0	-	215	BV	MA	7/19/18	RC	P	VT	MA	
7/19/18	-	P60 P61	62	W EOS	R130	P	E	4.0	3.0	-	215	BV	MA	7/19/18	RC	P	VT	MA	



# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	Primary
<input type="checkbox"/>	Secondary
<input type="checkbox"/>	Other: _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID		DATE	OPER ID	PASS/ FAIL	ACTION	QA ID
					(1)	(2)												
7/19/18	-	P60 P61	80	W EOS	R131	DS41	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P61 P62	80	W EOS	R132	DS42	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P62 P63	80	W EOS	R133	DS43	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P60 P61	141	W EOS	R134	P	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P60 P61	511	W EOS	R135	DS38	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P60 P61 E.ext	-	-	R136	P	E	3.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P61 E.ext	4 ft	N of P60	R137	P	E	2.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P61 P62 E.ext	-	-	R138	P	E	3.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P61 P62	511	-	R139	DS39	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P62 E.ext	4 ft	N of P61	R140	P	E	2.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P62 P63 E.ext	-	-	R141	P	E	7.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P62 P63	511	-	R142	DS40	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P63 P64 E.ext	-	-	R143	P	E	4.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P64 P65 E.ext	-	-	R144	P	E	4.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	P-65	-	9,5	N P64, W of EXT	R145	P	E	2.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	P-65	-	9,12	N P64, W of EXT	R146	P	E	2.0	1.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P65 P66 E.ext	-	-	R147	P	E	4.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P66 P67 E.ext	-	-	R148	P	E	4.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P66 P67	521	-	R149	DS50	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P67 E.ext	-	8 ft N P66	R150	DS57	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P67 P68 E.ext	-	-	R151	P	E	3.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P67 P68	515	-	R152	DS51	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P68 P69 E.ext	-	-	R153	P	E	3.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P68 P69	515	-	R154	DS52	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	P-69	-	11,7	N P68, W of EXT	R155	P	E	2.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P69 P70 E.ext	-	-	R156	P	E	2.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	Primary
<input type="checkbox"/>	Secondary
<input type="checkbox"/>	Other: _____

25809 Interstate 30 South  
 Bryant, AR 72022  
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DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID		DATE	OPER ID	PASS/ FAIL	ACTION	QA ID
					(1)	(2)												
7/19/18	-	P70 P71 E.ext	-	-	R157	P	E	4.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P71 P72 E.ext	-	-	R158	P	E	6.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P72 P73 E.ext	-	-	R159	P	E	4.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	P-73	-	12,4	N P72, W of EXT	R160	P	E	1.0	1.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	P-73	-	12,11	N P72, W of EXT	R161	P	E	1.0	1.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P71 P72	228	W EOS	R162	P	E	4.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P68 P69	148	W EOS	R163	P	E	3.0	3.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P68 P69	208	W EOS	R164	DS49	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P67 P68	208	W EOS	R165	DS48	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P69 P70	420	W EOS	R166	DS53	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P65 P66	415	W EOS	R167	DS46	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P66 P67	208	W EOS	R168	DS47	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P62 P63	134	W EOS	R169	P	E	3.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P63 P64	415	W EOS	R170	DS44	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P64 P65	415	W EOS	R171	DS45	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P72 P73	380	W EOS	R172	DS56	E	5.0	2.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P71 P72	425	W EOS	R173	DS55	E	4.0	1.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
7/19/18	-	P70 P71	425	W EOS	R174	DS54	E	2.0	1.0	-	215	BV	MA	7/19/18	RC	P	VT	MA
8/4/18	-	P-81 - P-82	520'	W EOS	R-175	DS-71	E	5.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-73 - P-74 - E.ext	-	-	R-176	P	E	4.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-74 - E.ext	11	P73	R-177	P	E	2.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-74 - P-75 - E.ext	-	-	R-178	P	E	15.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-75 - E.ext	11	P74	R-179	P	E	4.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-75 - P-76 - E.ext	-	-	R-180	P	E	5.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-76 - E.ext	20	P75	R-181	P	E	1.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-76 - P-77 - E.ext	-	-	R-182	P	E	2.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	<b>Primary</b>
<input type="checkbox"/>	<b>Secondary</b>
<input type="checkbox"/>	<b>Other:</b> _____

25809 Interstate 30 South  
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DATE	LOCATION				REPAIR NO. AND		REPAIR TYPE (3)	SIZE			WELDER ID			NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID	QA ID	DATE	OPER ID	PASS/ FAIL	ACTION	QA ID
					(1)	(2)												
8/4/18	-	P-77 - E.ext	19	P76	R-183	P	E	3.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-77 - P-78 - E.ext	-	-	R-184	P	E	2.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-78 - E.ext	18	P77	R-185	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-78 - P-79 - E.ext	-	-	R-186	P	E	2.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-79 - E.ext	18	P78	R-187	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-79 - P-80 - E.ext	-	-	R-188	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-79 - P-80	520'	W EOS	R-189	DS69	E	4.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-80 - P-81	520'	W EOS	R-190	DS70	E	5.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-81 - P-82	520'	W EOS	R-191	DS84	E	5.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-80 - E.ext	18	P79	R-192	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-80 - P-81 - E.ext	-	-	R-193	P	E	2.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-81 - E.ext	10	P80	R-194	DS81	E	6.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-81 - E.ext	18	P80	R-195	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-81 - P-82 - E.ext	-	-	R-196	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-82 - E.ext	15	P81	R-197	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-82 - P-83 - E.ext	-	-	R-198	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - E.ext	15	P82	R-199	P	E	2.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-84 - E.ext	-	-	R-200	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-84 - E.ext	15	P83	R-201	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-84 - P-85 - E.ext	-	-	R-202	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-85 - E.ext	11	P84	R-203	P	E	2.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-85 - P-86 - E.ext	-	-	R-204	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-86 - E.ext	8	P85	R-205	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-86/87/88/E.ext	-	-	R-206	P	E	5.0	5.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-87 - E.ext	10	P86	R-207	P	E	2.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-87 - E.ext	13	P86	R-208	P	E	2.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
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**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	<b>Primary</b>
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DATE	LOCATION				REPAIR NO. AND		REPAIR TYPE (3)	SIZE			WELDER ID			NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID	QA ID	DATE	OPER ID	PASS/ FAIL	ACTION	QA ID
					(1)	(2)												
8/4/18	-	P-87 - E.ext	20	P86	R-209	P	E	2.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-86/88/89/90	-	-	R-210	P	E	5.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-86 - P-90	17	P85	R-211	DS-80	E	4.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-90 - P-91	73	NAT	R-212	DS-72	E	6.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-91 - P-92	73	NAT	R-213	DS-73	E	5.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-93 - P-94	73	NAT	R-214	DS-74	E	4.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-85/86/90/91	-	-	R-215	P	E	5.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-84/85/91/92	-	-	R-216	P	E	5.0	5.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-84 - P-92	-	-	R-217	P	E	3.0	3.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-82 - P-83	-	-	R-218	DS-68	E	4.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-92	12	P84	R-219	P	E	3.0	3.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-92 - P-93	-	-	R-220	P	E	2.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-93 - P-94	-	-	R-221	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-94 - P-95	-	-	R-222	P	E	2.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-95 - P-96	-	-	R-223	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-96 - P-97	-	-	R-224	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-82 - P-83	368	W.EOS	R-225	P	E	3.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-97 - P-98	15' N	-	R-226	P	E	6.0	3.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	P-98	-	20' N	12' W P-97	R-227	PB	E	10.0	7.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-97 - P-98	-	-	R-228	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-98 - P-99	-	-	R-229	P	E	3.0	3.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-98 - P-99	15' N	-	R-230	P	E	3.0	3.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-99 - P-100	-	-	R-231	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-100 - P-101	-	-	R-232	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-101 - P-102	-	-	R-233	P	E	3.0	1.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-102 - P-103	-	-	R-234	P	E	2.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	<b>Primary</b>
<input type="checkbox"/>	<b>Secondary</b>
<input type="checkbox"/>	<b>Other:</b> _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	CODE			LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID		DATE	OPER ID	PASS/ FAIL	ACTION	QA ID
					(1)	(2)												
8/4/18	-	P-83 - P-103	-	-	R-235	DS-78	E	6.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-103 - P-104	-	-	R-236	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-103 - P-104 - P-113	-	-	R-237	P	E	4.0	3.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-104 - P-113 - P-114	-	-	R-238	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-104 - P-105 - P-113	-	-	R-239	P	E	2.0	1.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-104 - P-105	20' N	-	R-240	P	E	2.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-100 - P-101	15	N.AT	R-241	DS-75	E	4.0	2.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-101 - P-102	15	N.AT	R-242	DS-76	E	4.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-102 - P-103	15	N.AT	R-243	DS-77	E	4.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-102 - P-103	15	N.AT	R-244	P	E	4.0	3.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-105/106/113/115	-	-	R-245	P	E	6.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-106 - P-115	15' NW	-	R-246	DS-79	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-106 - P-107 - P-113	-	-	R-247	P	E	3.0	4.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-107 - P-108 - P-113	-	-	R-248	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-108 - P-109 - P-113	-	-	R-249	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-109 - P-110 - P-113	-	-	R-250	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-110 - P-112 - P-113	-	-	R-251	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-110 - P-111 - P-113	-	-	R-252	P	E	2.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-111 - P-112 - P-113	-	-	R-253	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-115 - P-112	17	P113	R-254	P	E	3.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-112 - P-113 P-115	-	-	R-255	P	E	2.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-112 - P-113 P-114	-	-	R-256	P	E	4.0	3.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-113 - P-114	10	P112	R-257	DS-82	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-83 - P-114	85'	-	R-258	DS-83	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-82 - P-83	85'	-	R-259	DS-64	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA
8/4/18	-	P-81 - P-82	85'	-	R-260	DS-63	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA

# Geomembrane Repair Log Summary



**Client Name:** American Electric Power  
**Contractor:** SFC  
**Project Name:** Turk Cell 2  
**Address:** 3711 HWY 355 S, Fulton AR  
**Location:** Cell 2

**Project Number:** 35177127  
**CQA Monitor:** Scott McDonald/Matt Acree  
**Reviewed By:** Tony Bardella  
**Approved By:** Dave McCormick  
**Liner Installer:** ESI

**Liner System**

<input checked="" type="checkbox"/>	Primary
<input type="checkbox"/>	Secondary
<input type="checkbox"/>	Other: _____

25809 Interstate 30 South  
 Bryant, AR 72022  
 Phone: 501.847.9292  
 Fax: 501.847.9210

DATE	LOCATION				REPAIR NO. AND CODE		REPAIR TYPE (3)	SIZE			WELDER ID			QA ID	NON-DESTRUCTIVE TESTING				
	PANEL	SEAM	DIST (ft)	OFFSET	(1)	(2)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO	OPER ID	DATE		OPER ID	PASS/FAIL	ACTION	QA ID	
8/4/18	-	P-80 - P-81	90'	-	R-261	DS-62	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-79 - P-80	90'	-	R-262	DS-61	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-78 - P-79	90'	-	R-263	DS-67	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-77 - P-78	180'	-	R-264	DS-66	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-76 - P-77	180'	-	R-265	DS-65	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-75 - P-76	180'	-	R-266	DS-60	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-74 - P-75	85'	-	R-267	DS-59	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-73 - P-74	85'	-	R-268	DS-58	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	-	P-114 - R-258	85'	-	R-269	DS-85	E	5.0	2.0	-	215	BV	MA	8/4/18	RC	P	VT	MA	
8/4/18	P93	-	2,5	P83,P92	R-270	P	E	2.0	1.0	-	5173	AF	MA	8/4/18	RC	P	VT	MA	

- (1) Repair No.: Repairs should be numbered sequentially
- (2) Repair Codes.: P = Patch, C = Cap, S = Seam, D = Destructive Sample, G = Grind and Weld, PB = Pipe Boot
- (3) Repair Types: E = Extrusion and F = Fusion

**ABBREVIATIONS:**

GV = Gas Vent      AT = Anchor Trench  
 EXT = Existing      PP = Pipe Penetration

APPENDIX Q  
GEOCOMPOSITE MANUFACTURER'S QC  
CERTIFICATES



October 13, 2017  
 Environmental Specialties Int'l, Inc  
 7943 Pecue Lane, Suite A  
 Baton Rouge, LA, 70809

**Ref. : AEP John W. Turk Power Plant, AR**  
**Customer P.O. # 25801**  
**Product : TN 220-2-8**

We hereby certify that the TN 220-2-8 drainage geocomposite, meets or exceeds the project requirements as stated in the specifications. The properties listed in this section are:

Property	Test Method	Unit	Value	Qualifier
<b>Geonet<sup>3</sup></b>				
Thickness	ASTM D 5199	mil	200	MAV <sup>6</sup>
Carbon Black	ASTM D 4218	%	2.0	MAV
Tensile Strength	ASTM D 7179	lbs/in	45	MAV
Melt Flow	ASTM D 1238 <sup>2</sup>	g/10 min	1.0	Maximum
Density	ASTM D 1505	g/cm <sup>3</sup>	0.94	MAV
Transmissivity <sup>1a</sup>	ASTM D 4716	m <sup>2</sup> /sec	2.0 x 10 <sup>-3</sup>	MAV
<b>Composite</b>				
Ply Adhesion	ASTM D 7005	lb/in	1.0	MAV
Transmissivity <sup>1b</sup>	ASTM D 4716	m <sup>2</sup> /sec	1.0 x 10 <sup>-4</sup>	MAV
<b>Geotextile<sup>3 &amp; 4</sup></b>				
Fabric Weight	ASTM D 5261	oz/yd <sup>2</sup>	8.0	MARV <sup>5</sup>
Grab Strength	ASTM D 4632	lbs	220	MARV
Grab Elongation	ASTM D 4632	%	50	MARV
Trap Tear Strength	ASTM D 4533	lbs	90	MARV
Puncture Resistance	ASTM D 4833	lbs	120	MARV
Permittivity	ASTM D 4491	sec <sup>-1</sup>	1.26	MARV
AOS	ASTM D 4751	US Sieve	80	MaxARV
UV Resistance	ASTM D 4355	%/hrs	70/500	MARV

**Notes:**

- 1a. Transmissivity measured using water at 21 ± 2 ° C (70 ± 4 ° F) with a gradient of 0.1 and a confining pressure of 10,000 psf between steel plates after 15 minutes.
- 1b. Transmissivity measured using water at 21 ± 2 ° C (70 ± 4 ° F) with a gradient of 0.1 and a confining pressure of 10,000 psf between steel plates after 15 minutes.
2. Condition 190/2.16
3. Geotextile and Geonet properties are prior to lamination.
4. Geotextile data is provided by the supplier.
5. MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.
6. Minimum average value

Sincerely,  
*Rajesh Patel*  
 Rajesh Patel  
 QA Manager







**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010001	1.94	1.48	3.93 x 10 <sup>-4</sup>	XOMX 710608	0.9556	222	2.63	58	3.89 x 10 <sup>-3</sup>
78291010002				XOMX 710608	0.9556				
78291010003				XOMX 710608	0.9556				
78291010004				XOMX 710608	0.9556				
78291010005				XOMX 710608	0.9556				
78291010006				XOMX 710608	0.9556				
78291010007				XOMX 710608	0.9556				
78291010008				XOMX 710608	0.9556				
78291010009				XOMX 710608	0.9556				
78291010010				XOMX 710608	0.9556				
78291010011				XOMX 710608	0.9556				
78291010012				XOMX 710608	0.9556				
78291010013				XOMX 710608	0.9556				
78291010014				XOMX 710608	0.9556				
78291010015	1.66	2.13		XOMX 710608	0.9560	220	2.69	56	
78291010016				XOMX 710608	0.9560				
78291010017				XOMX 710608	0.9560				
78291010018				XOMX 710608	0.9560				
78291010019				XOMX 710608	0.9560				
78291010020				XOMX 710608	0.9560				
78291010021				XOMX 710608	0.9560				
78291010022				XOMX 710608	0.9560				
78291010023				XOMX 710608	0.9560				
78291010024				XOMX 710608	0.9560				



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010025				XOMX 710608	0.9560				
78291010026				XOMX 710608	0.9560				
78291010027				XOMX 710608	0.9560				
78291010028				XOMX 710608	0.9560				
78291010029				XOMX 710608	0.9560				
78291010030	2.10	2.27		XOMX 710608	0.9555	225	2.52	52	
78291010031				XOMX 710608	0.9555				
78291010032				XOMX 710608	0.9555				
78291010033				XOMX 710608	0.9555				
78291010034				XOMX 710608	0.9555				
78291010035				XOMX 710608	0.9555				
78291010036				XOMX 710608	0.9555				
78291010037				XOMX 710608	0.9555				
78291010038				XOMX 710608	0.9555				
78291010039				XOMX 710608	0.9555				
78291010040				XOMX 710608	0.9555				
78291010041				XOMX 710608	0.9555				
78291010042				XOMX 710608	0.9555				
78291010043				XOMX 710608	0.9555				
78291010044				XOMX 710608	0.9555				
78291010045	2.29	2.55		XOMX 710608	0.9561	228	2.65	55	
78291010046				XOMX 710608	0.9561				
78291010047				XOMX 710608	0.9561				
78291010048				XOMX 710608	0.9561				



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010049				XOMX 710608	0.9561				
78291010050				XOMX 710608	0.9561				
78291010051				XOMX 710608	0.9561				
78291010052				XOMX 710608	0.9561				
78291010053				XOMX 710608	0.9561				
78291010054				XOMX 710608	0.9561				
78291010055				XOMX 710608	0.9561				
78291010056				XOMX 710608	0.9561				
78291010057				XOMX 710608	0.9561				
78291010058				XOMX 710608	0.9561				
78291010059				XOMX 710608	0.9561				
78291010060	2.09	1.70		XOMX 710608	0.9554	226	2.51	57	
78291010061				XOMX 710608	0.9554				
78291010062				XOMX 710608	0.9554				
78291010063				XOMX 710608	0.9554				
78291010064				XOMX 710608	0.9554				
78291010065				XOMX 710608	0.9554				
78291010066				XOMX 710608	0.9554				
78291010067				XOMX 710608	0.9554				
78291010068				XOMX 710608	0.9554				
78291010069				XOMX 710608	0.9554				
78291010070				XOMX 710608	0.9554				
78291010071				XOMX 710608	0.9554				
78291010072				XOMX 710608	0.9554				



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010073				XOMX 710608	0.9554				
78291010074				XOMX 710608	0.9554				
78291010075	2.07	2.25	4.3 x 10 <sup>-4</sup>	XOMX 710608	0.9562	224	2.43	53	3.47 x 10 <sup>-3</sup>
78291010076				XOMX 710608	0.9562				
78291010077				XOMX 710608	0.9562				
78291010078				XOMX 710608	0.9562				
78291010079				XOMX 710608	0.9562				
78291010080				XOMX 710608	0.9562				
78291010081				XOMX 710608	0.9562				
78291010082				XOMX 710608	0.9562				
78291010083				XOMX 710608	0.9562				
78291010084				XOMX 710608	0.9562				
78291010085				XOMX 710608	0.9562				
78291010086				XOMX 710608	0.9562				
78291010087				XOMX 710608	0.9562				
78291010088				XOMX 710608	0.9562				
78291010089				XOMX 710608	0.9562				
78291010090	1.81	1.43		XOMX 710608	0.9559	227	2.33	59	
78291010091				XOMX 710608	0.9559				
78291010092				XOMX 710608	0.9559				
78291010093				XOMX 710608	0.9559				
78291010094				XOMX 710608	0.9559				
78291010095				XOMX 710608	0.9559				
78291010096				XOMX 710608	0.9559				



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010097				XOMX 710608	0.9559				
78291010098				XOMX 710608	0.9559				
78291010099				XOMX 710608	0.9559				
78291010100				XOMX 710608	0.9559				
78291010101				XOMX 710608	0.9559				
78291010102				XOMX 710608	0.9559				
78291010103				XOMX 710608	0.9559				
78291010104				XOMX 710608	0.9559				
78291010105	1.50	1.69		XOMX 710608	0.9557	218	2.72	51	
78291010106				XOMX 710608	0.9557				
78291010107				XOMX 710608	0.9557				
78291010108				XOMX 710608	0.9557				
78291010109				XOMX 710608	0.9557				
78291010110				XOMX 710608	0.9557				
78291010111				XOMX 710608	0.9557				
78291010112				XOMX 710608	0.9557				
78291010113				XOMX 710608	0.9557				
78291010114				XOMX 710608	0.9557				
78291010115				XOMX 710608	0.9557				
78291010116				XOMX 710608	0.9557				
78291010117				XOMX 710608	0.9557				
78291010118				XOMX 710608	0.9557				
78291010119				XOMX 710608	0.9557				
78291010120	1.74	2.07		XOMX 710608	0.9553	221	2.26	54	



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010121				XOMX 710608	0.9553				
78291010122				XOMX 710608	0.9553				
78291010123				XOMX 710608	0.9553				
78291010124				XOMX 710608	0.9553				
78291010125				XOMX 710608	0.9553				
78291010126				XOMX 710608	0.9553				
78291010127				XOMX 710608	0.9553				
78291010128				XOMX 710608	0.9553				
78291010129				XOMX 710608	0.9553				
78291010130				XOMX 710608	0.9553				
78291010131				XOMX 710608	0.9553				
78291010132				XOMX 710608	0.9553				
78291010133				XOMX 710608	0.9553				
78291010134				XOMX 710608	0.9553				
78291010135	2.21	1.95		XOMX 710608	0.9558	223	2.67	52	
78291010136				XOMX 710608	0.9558				
78291010137				XOMX 710608	0.9558				
78291010138				XOMX 710608	0.9558				
78291010139				XOMX 710608	0.9558				
78291010140				XOMX 710608	0.9558				
78291010141				XOMX 710608	0.9558				
78291010142				XOMX 710608	0.9558				
78291010143				XOMX 710608	0.9558				
78291010144				XOMX 710608	0.9558				



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010145				XOMX 710608	0.9558				
78291010146				XOMX 710608	0.9558				
78291010147				XOMX 710608	0.9558				
78291010148				XOMX 710608	0.9558				
78291010149				XOMX 710608	0.9558				
78291010150	2.65	2.38	4.16 x 10 <sup>-4</sup>	XOMX 710608	0.9555	228	2.37	59	3.71 x 10 <sup>-3</sup>
78291010151				XOMX 710608	0.9555				
78291010152				XOMX 710608	0.9555				
78291010153				XOMX 710608	0.9555				
78291010154				XOMX 710608	0.9555				
78291010155				XOMX 710608	0.9555				
78291010156				XOMX 710608	0.9555				
78291010157				XOMX 710608	0.9555				
78291010158				XOMX 710608	0.9555				
78291010159				XOMX 710608	0.9555				
78291010160				XOMX 710608	0.9555				
78291010161				XOMX 710608	0.9555				
78291010162				XOMX 710608	0.9555				
78291010163				XOMX 710608	0.9555				
78291010164				XOMX 710608	0.9555				
78291010165	2.30	2.63		XOMX 710608	0.9562	219	2.27	56	
78291010166				XOMX 710608	0.9562				
78291010167				XOMX 710608	0.9562				
78291010168				XOMX 710608	0.9562				



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010169				XOMX 710608	0.9562				
78291010170				XOMX 710608	0.9562				
78291010171				XOMX 710608	0.9562				
78291010172				XOMX 710608	0.9562				
78291010173				XOMX 710608	0.9562				
78291010174				XOMX 710608	0.9562				
78291010175				XOMX 710608	0.9562				
78291010176				XOMX 710608	0.9562				
78291010177				XOMX 710608	0.9562				
78291010178				XOMX 710608	0.9562				
78291010179				XOMX 710608	0.9562				
78291010180	1.67	2.23		XOMX 710608	0.9557	229	2.45	53	
78291010181				XOMX 710608	0.9557				
78291010182				XOMX 710608	0.9557				
78291010183				XOMX 710608	0.9557				
78291010184				XOMX 710608	0.9557				
78291010185				XOMX 710608	0.9557				
78291010186				XOMX 710608	0.9557				
78291010187				XOMX 710608	0.9557				
78291010188				XOMX 710608	0.9557				
78291010189				XOMX 710608	0.9557				
78291010190				XOMX 710608	0.9557				
78291010191				XOMX 710608	0.9557				
78291010192				XOMX 710608	0.9557				





**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet						
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010193				XOMX 710608	0.9557				
78291010194				XOMX 710608	0.9557				
78291010195	2.37	2.56		XOMX 710608	0.9561	220	2.36	51	
78291010196				XOMX 710608	0.9561				
78291010197				XOMX 710608	0.9561				
78291010198				XOMX 710608	0.9561				
78291010199				XOMX 710608	0.9561				
78291010200				XOMX 710608	0.9561				
78291010201				XOMX 710608	0.9561				
78291010202				XOMX 710608	0.9561				
78291010203				XOMX 710608	0.9561				
78291010204				XOMX 710608	0.9561				
78291010205				XOMX 710608	0.9561				
78291010206				XOMX 710608	0.9561				
78291010207				XOMX 710608	0.9561				
78291010208				XOMX 710608	0.9561				
78291010209				XOMX 710608	0.9561				
78291010210	2.04	2.37		XOMX 710608	0.9556	222	2.61	57	
78291010211				XOMX 710608	0.9556				
78291010212				XOMX 710608	0.9556				
78291010213				XOMX 710608	0.9556				
78291010214				XOMX 710608	0.9556				
78291010215				XOMX 710608	0.9556				
78291010216				XOMX 710608	0.9556				



**Product: TN 220-2-8**  
**Project : AEP John W. Turk Power Plant, AR**

We hereby certify the following test results for the above referenced product/project :

Geocomposite				Geonet					
Roll Number	Ply Adhesion (lb/in)		Transmissivity (m <sup>2</sup> /sec)	Resin Lot Number	Density (g/cm <sup>3</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m <sup>2</sup> /sec)
	Side "A"	Side "B"							
78291010217				XOMX 710608	0.9556				
78291010218				XOMX 710608	0.9556				
78291010219				XOMX 710608	0.9556				
78291010220				XOMX 710608	0.9556				
78291010221				XOMX 710608	0.9556				
78291010222				XOMX 710608	0.9556				
78291010223				XOMX 710608	0.9556				
78291010224				XOMX 710608	0.9556				
78291010225	1.99	2.32	4.48 x 10 <sup>-4</sup>	XOMX 710608	0.9559	225	2.64	54	3.84 x 10 <sup>-3</sup>
78291010226				XOMX 710608	0.9559				
78291010227				XOMX 710608	0.9559				
78291010228				XOMX 710608	0.9559				
78291010229				XOMX 710608	0.9559				
78291010230				XOMX 710608	0.9559				
78291010231				XOMX 710608	0.9559				
78291010232				XOMX 710608	0.9559				



# POLYETHYLENE RESIN CERTIFICATION

**Customer Name :** Environmental Specialties Int'l, Inc  
**Project Name :** AEP John W. Turk Power Plant, AR  
**Geocomposite Manufacturer :** SKAPS Industries  
**Geocomposite Production Plant :** Commerce, GA  
**Geocomposite Brand Name :** TN 220-2-8

We hereby certify the following test results for the above referenced product/project:

Resin Manufacturer	Resin Lot Number	Property	Test Method	Units	Resin Manufacturer Value	Tested Value*
ExxonMobile Chemical	XOMX 710608	Density	ASTM D1505	g/cm <sup>3</sup>	0.9510	0.9508
		Melt flow Index	ASTM D1238 <sup>(a)</sup>	g/10 min	0.27	0.29

(a) Condition 190/2.16  
\* Data from SKAPS Quality Control



# Geotextile Certification

**Product:** TN 220-2-8  
**Project :** AEP John W. Turk Power Plant, AR

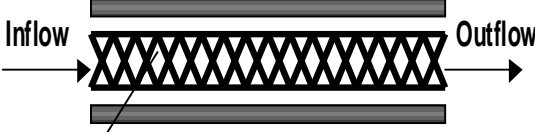
We hereby certify the following test results for the above referenced product/project :

GEOCOMP ROLL#	FABRIC SIDE	WEIGHT oz/yd <sup>2</sup>	GRAB lbs. (MD)	GRAB ELG % (MD)	GRAB lbs. (XMD)	GRAB ELG % (XMD)	TRAP lbs. (MD)	TRAP lbs. (XMD)	PUNCTURE lbs.	AOS us sieve	PERM-ITY sec <sup>-1</sup>
78291010001	Side A	8.32	231	68	235	83	97	115	136	80	1.34
	Side B	8.16	225	69	231	76	96	110	138	80	1.34
78291010025	Side A	8.10	229	75	234	81	105	116	131	80	1.34
	Side B	8.35	226	72	232	80	102	120	130	80	1.36
78291010050	Side A	8.15	226	66	242	76	97	113	136	80	1.37
	Side B	8.43	235	72	239	78	101	109	134	80	1.37
78291010075	Side A	8.60	235	70	238	75	95	104	134	80	1.34
	Side B	8.55	229	74	236	80	99	106	138	80	1.37
78291010100	Side A	8.32	231	68	235	83	97	115	136	80	1.34
	Side B	8.56	234	71	244	77	104	108	139	80	1.36
78291010125	Side A	8.51	230	67	245	78	103	119	140	80	1.36
	Side B	8.16	225	69	231	76	96	110	138	80	1.34
78291010150	Side A	8.22	231	71	243	84	104	118	140	80	1.37
	Side B	8.15	226	66	242	76	97	113	136	80	1.37
78291010175	Side A	8.16	225	69	231	76	96	110	138	80	1.34
	Side B	8.58	228	74	242	84	99	103	133	80	1.36
78291010200	Side A	8.42	234	67	238	85	98	111	137	80	1.39
	Side B	8.56	234	71	244	77	104	108	139	80	1.36
78291010225	Side A	8.17	233	65	237	85	100	105	137	80	1.36
	Side B	8.32	231	68	235	83	97	115	136	80	1.34

APPENDIX R  
GEOCOMPOSITE CONFORMANCE TEST  
RESULTS

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010001  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.	
	1	2	3	4	5	6	7	8	9	10				
<b>Hydraulic Transmissivity (ASTM D 4716)</b>														
<b>Plate</b>														
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 25%;">                     Direction Tested: Machine Direction                      Normal Load (psf): 10,000                      Hydraulic Gradient: 1                      Test Length (in): 12                      Test Width (in): 12                 </div> <div style="width: 50%; text-align: center;">  </div> </div>														
Plate / Sample / Plate														
Seat Time (hours)	Specimen													
			1							2				
Volume (cc)		610	608	602	626	628	631							
Time (s)		5.59	5.51	5.51	5.47	5.43	5.46							
0.25 Flow Rate (GPM/ft width)		1.72	1.74	1.72	1.81	1.83	1.83					1.78	0.05	
Transmissivity (m <sup>2</sup> /s)		3.56E-04	3.60E-04	3.57E-04	3.75E-04	3.79E-04	3.79E-04					3.68E-04	1.12E-05	1.00E-04 min
Test Temp (C)			20.4			20.2								
Temp. Corr. Factor			0.995			0.999								
<b>Peel Strength (ASTM D 7005)</b>														
A - MD Average Peel Strength (ppi)	2.57	0.98	3.43	1.91	2.88							2.35	0.94	1.0 min
A - MD Average Peel Strength (g/in)	1167	447	1557	867	1308							1069	428	
B - MD Average Peel Strength (ppi)	3.36	3.46	2.67	1.80	4.12							3.08	0.88	1.0 min
B - MD Average Peel Strength (g/in)	1525	1571	1212	817	1870							1399	400	
Note: A and B represent a randomly assigned top and bottom of the sample														
<b>Thickness (ASTM D 5199)</b>														
GEONET COMPONENT														
Thickness (mils)	233	240	242	237	238	233	238	240	240	238		238	3	200 min
												233	<< min	
<b>Density (ASTM D 1505)</b>														
GEONET COMPONENT														
Density (g/cm <sup>3</sup> )	0.952	0.953	0.953									0.953	0.001	0.940 min
<b>Carbon Black Content (ASTM D 4218)</b>														
GEONET COMPONENT														
% Carbon Black	2.46	2.47										2.47	0.01	
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>														
GEONET COMPONENT														
MD Max. Strength (ppi)	61	63	78	63	69							67	7	
MD Elong. @ Max. Strength (%)	41	31	34	33	36							35	4	
MD Machine Direction	TD Transverse Direction													

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010001  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.19	3.85	3.76	3.39	4.05	3.74	3.96	4.10	3.73	4.48	3.93	0.30	
Mass/Unit Area (oz/sq.yd)	9.75	8.96	8.75	7.89	9.42	8.70	9.21	9.54	8.68	10.42	9.13	0.70	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	256	264	235	224	336	345	244	256	209	240	261	45	220 min
TD - Tensile Strength (lbs)	295	299	282	277	313	297	302	335	249	290	294	23	220 min
MD - Elong. @ Max. Load (%)	97	85	88	89	83	76	83	85	80	82	85	6	50 min
TD - Elong. @ Max. Load (%)	101	92	99	97	116	103	91	99	98	102	100	7	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	929	929	873	885	932	907	887	931	923	903	910	22	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.103	0.103	0.095	0.099	0.105						0.101	0.004	
Sieve No.	140	140	140	140	140						140		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010001  
 TRI Log #: 32447

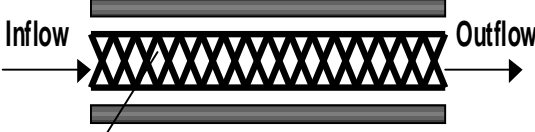
GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	3.85	3.35	3.91	4.10	4.49	4.13	3.68	3.28	3.62	3.79	<b>3.82</b>	0.37	
Mass/Unit Area (oz/sq.yd)	8.96	7.79	9.09	9.54	10.44	9.61	8.56	7.63	8.42	8.82	<b>8.89</b>	0.85	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	241	244	232	217	336	215	225	232	206	285	<b>243</b>	39	220 min
TD - Tensile Strength (lbs)	276	270	274	262	273	235	313	288	307	339	<b>284</b>	29	220 min
MD - Elong. @ Max. Load (%)	83	83	91	83	84	79	99	85	85	80	<b>85</b>	6	50 min
TD - Elong. @ Max. Load (%)	100	92	92	93	93	96	99	93	95	107	<b>96</b>	5	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	860	848	911	868	839	830	897	828	794	874	<b>855</b>	35	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.096	0.089	0.096	0.100	0.105						<b>0.097</b>	0.006	
Sieve No.	140	140	140	140	140						<b>140</b>		80 min
MD Machine Direction	TD Transverse Direction												



**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010030  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.	
	1	2	3	4	5	6	7	8	9	10				
<b>Hydraulic Transmissivity (ASTM D 4716)</b>														
<b>Plate</b>														
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">                     Direction Tested: Machine Direction                      Normal Load (psf): 10,000                      Hydraulic Gradient: 1                      Test Length (in): 12                      Test Width (in): 12                 </div>  </div>														
Plate / Sample / Plate														
Seat Time (hours)	Specimen													
			1							2				
Volume (cc)			911	918	911	591	589	580						
Time (s)			10.39	10.44	10.39	5.44	5.44	5.45						
0.25 Flow Rate (GPM/ft width)			1.40	1.41	1.40	1.74	1.74	1.71				1.57	0.18	
Transmissivity (m <sup>2</sup> /s)			2.91E-04	2.92E-04	2.91E-04	3.61E-04	3.60E-04	3.54E-04				3.25E-04	3.69E-05	
Temp. (C)				19.7			19.6						1.00E-04 min	
Temp. Corr. Factor				1.011			1.013							
<b>Peel Strength (ASTM D 7005)</b>														
A - MD Average Peel Strength (ppi)	2.60	0.42	2.46	2.59	3.21							2.26	1.07	1.0 min
A - MD Average Peel Strength (g/in)	1180	190	1117	1176	1457							1024	485	
B - MD Average Peel Strength (ppi)	0.44	0.64	1.09	2.02	2.02							1.24	0.75	1.0 min
B - MD Average Peel Strength (g/in)	200	290	495	917	917							564	340	
Note: A and B represent a randomly assigned top and bottom of the sample														
<b>Thickness (ASTM D 5199)</b>														
GEONET COMPONENT														
Thickness (mils)	229	234	228	238	239	236	233	232	240	231		234	4	200 min
												228	<< min	
<b>Density (ASTM D 1505)</b>														
GEONET COMPONENT														
Density (g/cm <sup>3</sup> )	0.953	0.953	0.954									0.953	0.001	0.940 min
<b>Carbon Black Content (ASTM D 4218)</b>														
GEONET COMPONENT														
% Carbon Black	2.53	2.53										2.53	0.00	
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>														
GEONET COMPONENT														
MD Max. Strength (ppi)	65	65	55	69	62							63	5	
MD Elong. @ Max. Strength (%)	31	33	29	32	38							33	3	
MD Machine Direction	TD Transverse Direction													

**GECOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010030  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	3.82	4.06	3.78	3.52	3.92	4.48	3.62	3.55	4.10	3.51	<b>3.84</b>	0.31	
Mass/Unit Area (oz/sq.yd)	8.89	9.44	8.79	8.19	9.12	10.42	8.42	8.26	9.54	8.16	<b>8.92</b>	0.73	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	320	228	198	293	211	284	244	244	250	276	<b>255</b>	38	220 min
TD - Tensile Strength (lbs)	286	302	283	302	299	260	307	275	301	262	<b>288</b>	17	220 min
MD - Elong. @ Max. Load (%)	87	81	71	72	85	81	89	88	100	80	<b>83</b>	9	50 min
TD - Elong. @ Max. Load (%)	105	96	93	107	104	101	93	91	98	99	<b>99</b>	6	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	859	928	869	883	876	893	813	820	749	923	<b>861</b>	54	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.092	0.075	0.102	0.100	0.138						<b>0.102</b>	0.023	
Sieve No.	140	200	140	140	100						<b>140</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

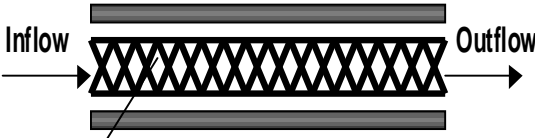
Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010030  
 TRI Log #: 32447

GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.19	3.34	3.39	3.78	4.40	3.74	3.75	3.76	4.19	4.73	<b>3.93</b>	0.44	
Mass/Unit Area (oz/sq.yd)	9.75	7.77	7.89	8.79	10.23	8.70	8.72	8.75	9.75	11.00	<b>9.13</b>	1.03	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	272	259	210	284	233	278	197	210	247	283	<b>247</b>	33	220 min
TD - Tensile Strength (lbs)	263	316	277	313	389	248	297	226	283	397	<b>301</b>	56	220 min
MD - Elong. @ Max. Load (%)	83	91	97	85	89	77	88	83	85	87	<b>86</b>	6	50 min
TD - Elong. @ Max. Load (%)	103	101	96	97	117	99	94	99	88	116	<b>101</b>	9	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	847	832	753	849	975	802	894	884	830	1052	<b>872</b>	86	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.094	0.099	0.103	0.103	0.148						<b>0.110</b>	0.022	
Sieve No.	140	140	140	140	100						<b>100</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010060  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.				
	1	2	3	4	5	6	7	8	9	10							
<b>Hydraulic Transmissivity (ASTM D 4716)</b>																	
<b>Plate</b>																	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 25%;">                     Direction Tested: Machine Direction                      Normal Load (psf): <table border="1" style="display: inline-table;"><tr><td>10,000</td></tr></table>                      Hydraulic Gradient: <table border="1" style="display: inline-table;"><tr><td>1</td></tr></table>                      Test Length (in): <table border="1" style="display: inline-table;"><tr><td>12</td></tr></table>                      Test Width (in): <table border="1" style="display: inline-table;"><tr><td>12</td></tr></table> </div> <div style="width: 50%; text-align: center;">  </div> </div>														10,000	1	12	12
10,000																	
1																	
12																	
12																	
<b>DS GC Plate</b>																	
Plate / Sample / Plate																	
Seat Time (hours)																	
	Specimen	1	2														
0.25	Volume (cc)	904	898	892	935	928	933						2.65	0.04			
	Time (s)	5.45	5.46	5.47	5.56	5.50	5.57						5.49E-04	7.97E-06	1.00E-04 min		
	Flow Rate (GPM/ft width)	2.65	2.62	2.60	2.69	2.70	2.68										
	Transmissivity (m <sup>2</sup> /s)	5.47E-04	5.43E-04	5.38E-04	5.56E-04	5.58E-04	5.54E-04										
	Test Temp (C)						19.9	19.8									
	Temp. Corr. Factor						1.006	1.008									
<b>Peel Strength (ASTM D 7005)</b>																	
A - MD Average Peel Strength (ppi)	1.43	3.96	3.01	3.18	2.37						2.79	0.95	1.0 min				
A - MD Average Peel Strength (g/in)	649	1798	1367	1444	1076						1267	430					
B - MD Average Peel Strength (ppi)	4.01	0.78	3.08	1.91	2.25						2.41	1.22	1.0 min				
B - MD Average Peel Strength (g/in)	1821	354	1398	867	1022						1092	553					
Note: A and B represent a randomly assigned top and bottom of the sample																	
<b>Thickness (ASTM D 5199)</b>																	
GEONET COMPONENT																	
Thickness (mils)	229	229	234	234	238	229	230	236	235	238	233	4	200 min				
											229	<< min					
<b>Density (ASTM D 1505)</b>																	
GEONET COMPONENT																	
Density (g/cm <sup>3</sup> )	0.953	0.954	0.954								0.954	0.001	0.940 min				
<b>Carbon Black Content (ASTM D 4218)</b>																	
GEONET COMPONENT																	
% Carbon Black	2.43	2.40								2.42	0.02						
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>																	
GEONET COMPONENT																	
MD Max. Strength (ppi)	62	64	58	61	51						59	5					
MD Elong. @ Max. Strength (%)	41	32	35	48	38						39	6					
MD Machine Direction	TD Transverse Direction																

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010060  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.16	3.55	3.41	3.55	3.64	4.00	3.95	3.69	3.91	3.85	3.77	0.24	
Mass/Unit Area (oz/sq.yd)	9.68	8.26	7.93	8.26	8.47	9.30	9.19	8.58	9.09	8.96	8.77	0.56	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	276	210	225	280	269	279	209	231	226	237	244	29	220 min
TD - Tensile Strength (lbs)	263	261	299	308	294	272	265	278	287	283	281	16	220 min
MD - Elong. @ Max. Load (%)	81	79	86	81	85	79	77	78	82	69	80	5	50 min
TD - Elong. @ Max. Load (%)	99	95	96	99	103	99	97	95	102	110	99	5	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	795	770	791	886	827	869	879	798	915	963	849	63	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.101	0.071	0.103	0.119	0.123						0.104	0.020	
Sieve No.	140	200	140	100	100						140		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

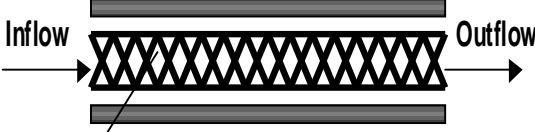
Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010060  
 TRI Log #: 32447

GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.29	3.92	3.67	3.91	3.73	3.63	3.60	3.78	3.75	3.94	<b>3.82</b>	0.20	
Mass/Unit Area (oz/sq.yd)	9.98	9.12	8.54	9.09	8.68	8.44	8.37	8.79	8.72	9.16	<b>8.89</b>	0.47	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	306	218	235	236	242	313	238	233	215	293	<b>253</b>	36	220 min
TD - Tensile Strength (lbs)	306	303	342	268	291	272	327	309	301	298	<b>302</b>	22	220 min
MD - Elong. @ Max. Load (%)	77	90	86	81	82	81	88	83	80	92	<b>84</b>	5	50 min
TD - Elong. @ Max. Load (%)	108	89	97	91	99	95	95	115	92	109	<b>99</b>	9	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	1022	943	875	840	886	884	838	854	857	849	<b>885</b>	57	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.103	0.103	0.104	0.104	0.142						<b>0.111</b>	0.017	
Sieve No.	140	140	140	140	100						<b>100</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010090  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.				
	1	2	3	4	5	6	7	8	9	10							
<b>Hydraulic Transmissivity (ASTM D 4716)</b>																	
<b>Plate</b>																	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 25%;">                     Direction Tested: Machine Direction                      Normal Load (psf): <table border="1" style="display: inline-table;"><tr><td>10,000</td></tr></table>                      Hydraulic Gradient: <table border="1" style="display: inline-table;"><tr><td>1</td></tr></table>                      Test Length (in): <table border="1" style="display: inline-table;"><tr><td>12</td></tr></table>                      Test Width (in): <table border="1" style="display: inline-table;"><tr><td>12</td></tr></table> </div> <div style="width: 50%; text-align: center;">  <p style="text-align: center;"><b>DS GC</b>      <b>Plate</b></p> </div> <div style="width: 20%;"></div> </div>														10,000	1	12	12
10,000																	
1																	
12																	
12																	
Plate / Sample / Plate																	
Seat Time (hours)																	
	Specimen		1				2										
0.25	Volume (cc)	581	589	585	632	623	631				1.77	0.07					
	Time (s)	5.44	5.52	5.57	5.52	5.46	5.51				3.66E-04	1.51E-05	1.00E-04 min				
	Flow Rate (GPM/ft width)	1.71	1.71	1.69	1.84	1.83	1.84										
	Transmissivity (m <sup>2</sup> /s)	3.55E-04	3.55E-04	3.49E-04	3.80E-04	3.79E-04	3.81E-04										
	Test Temp (C)	19.6															
	Temp. Corr. Factor	1.013															
<b>Peel Strength (ASTM D 7005)</b>																	
A - MD Average Peel Strength (ppi)	2.45	3.92	3.47	2.22	2.93						3.00	0.70	1.0 min				
A - MD Average Peel Strength (g/in)	1112	1780	1575	1008	1330						1361	320					
B - MD Average Peel Strength (ppi)	1.96	2.71	1.98	2.16	2.31						2.22	0.31	1.0 min				
B - MD Average Peel Strength (g/in)	890	1230	899	981	1049						1010	139					
Note: A and B represent a randomly assigned top and bottom of the sample																	
<b>Thickness (ASTM D 5199)</b>																	
GEONET COMPONENT																	
Thickness (mils)	230	229	231	225	230	227	231	235	227	227	229	3	200 min				
											225	<< min					
<b>Density (ASTM D 1505)</b>																	
GEONET COMPONENT																	
Density (g/cm <sup>3</sup> )	0.951	0.951	0.951										0.951	0.000	0.940 min		
<b>Carbon Black Content (ASTM D 4218)</b>																	
GEONET COMPONENT																	
% Carbon Black	2.49	2.49										2.49	0.00				
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>																	
GEONET COMPONENT																	
MD Max. Strength (ppi)	60	66	69	60	60						63	4					
MD Elong. @ Max. Strength (%)	36	31	34	33	40						35	4					
MD Machine Direction	TD Transverse Direction																

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010090  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.03	3.86	3.59	3.85	4.03	3.44	4.07	3.30	3.47	3.87	3.75	0.28	
Mass/Unit Area (oz/sq.yd)	9.37	8.98	8.35	8.96	9.37	8.00	9.47	7.68	8.07	9.00	8.72	0.65	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	291	238	215	273	214	266	247	262	236	294	254	29	220 min
TD - Tensile Strength (lbs)	233	253	266	292	300	250	255	282	321	337	279	33	220 min
MD - Elong. @ Max. Load (%)	79	77	89	77	85	75	81	82	87	79	81	5	50 min
TD - Elong. @ Max. Load (%)	108	97	107	100	104	113	91	103	101	103	103	6	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	905	890	882	875	868	945	730	800	786	846	853	64	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.099	0.075	0.100	0.103	0.078						0.091	0.014	
Sieve No.	140	200	140	140	140						140		80 min
MD Machine Direction	TD Transverse Direction												



**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010090  
 TRI Log #: 32447

GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.50	3.83	3.72	3.57	3.64	3.76	4.11	3.70	3.69	3.76	<b>3.83</b>	0.28	
Mass/Unit Area (oz/sq.yd)	10.47	8.91	8.65	8.30	8.47	8.75	9.56	8.61	8.58	8.75	<b>8.90</b>	0.64	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	246	232	248	275	284	282	237	248	239	269	<b>256</b>	20	220 min
TD - Tensile Strength (lbs)	276	272	259	266	279	333	305	283	271	319	<b>286</b>	24	220 min
MD - Elong. @ Max. Load (%)	79	101	77	80	84	81	90	79	73	82	<b>83</b>	8	50 min
TD - Elong. @ Max. Load (%)	109	94	99	99	95	109	96	95	89	115	<b>100</b>	8	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	945	914	798	912	809	846	833	794	781	951	<b>858</b>	66	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.101	0.102	0.102	0.105	0.146						<b>0.111</b>	0.020	
Sieve No.	140	140	140	140	100						<b>100</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010120  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.	
	1	2	3	4	5	6	7	8	9	10				
<b>Hydraulic Transmissivity (ASTM D 4716)</b>														
<b>Plate</b>														
Direction Tested: Machine Direction														
Normal Load (psf):	10,000													
Hydraulic Gradient:	1													
Test Length (in)	12													
Test Width (in)	12													
Plate / Sample / Plate														
Seat Time (hours)	Specimen													
			1							2				
Volume (cc)		878	874	868	867	857	857					2.53	0.04	
Time (s)		5.38	5.46	5.46	5.46	5.46	5.53					5.24E-04	9.22E-06	1.00E-04 min
0.25 Flow Rate (GPM/ft width)		2.60	2.55	2.54	2.53	2.50	2.47							
Transmissivity (m <sup>2</sup> /s)		5.39E-04	5.28E-04	5.25E-04	5.24E-04	5.18E-04	5.11E-04							
Test Temp (C)		19.9												
Temp. Corr. Factor		1.006												
<b>Peel Strength (ASTM D 7005)</b>														
A - MD Average Peel Strength (ppi)	3.16	1.19	1.44	2.49	1.07							1.87	0.91	1.0 min
A - MD Average Peel Strength (g/in)	1435	540	654	1130	486							849	415	
B - MD Average Peel Strength (ppi)	0.86	2.07	2.53	1.96	1.54							1.79	0.63	1.0 min
B - MD Average Peel Strength (g/in)	389	940	1149	890	699							813	286	
Note: A and B represent a randomly assigned top and bottom of the sample														
<b>Thickness (ASTM D 5199)</b>														
GEONET COMPONENT														
Thickness (mils)	234	231	226	229	227	235	233	226	231	231		230	3	200 min
												226	<< min	
<b>Density (ASTM D 1505)</b>														
GEONET COMPONENT														
Density (g/cm <sup>3</sup> )	0.951	0.951	0.952									0.951	0.001	0.940 min
<b>Carbon Black Content (ASTM D 4218)</b>														
GEONET COMPONENT														
% Carbon Black	2.46	2.43										2.45	0.02	
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>														
GEONET COMPONENT														
MD Max. Strength (ppi)	57	49	57	58	62							57	5	
MD Elong. @ Max. Strength (%)	38	33	43	38	32							37	4	
MD Machine Direction	TD Transverse Direction													

**GECOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010120  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.58	4.03	3.66	3.47	4.01	4.14	3.66	3.48	3.41	3.89	3.83	0.37	
Mass/Unit Area (oz/sq.yd)	10.65	9.37	8.51	8.07	9.33	9.63	8.51	8.09	7.93	9.05	8.92	0.86	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	317	244	248	237	321	291	241	282	238	285	271	33	220 min
TD - Tensile Strength (lbs)	299	282	267	247	258	338	316	307	288	297	290	28	220 min
MD - Elong. @ Max. Load (%)	79	79	82	83	84	76	81	85	89	85	82	4	50 min
TD - Elong. @ Max. Load (%)	109	97	93	89	98	109	100	96	100	111	100	7	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	1019	889	858	884	962	886	914	726	795	914	885	81	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.104	0.097	0.101	0.104	0.105						0.102	0.003	
Sieve No.	140	140	140	140	140						140		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

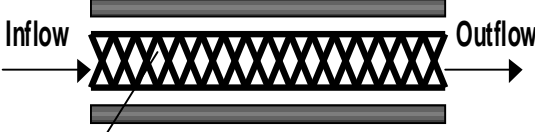
Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010120  
 TRI Log #: 32447

GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.22	3.87	3.57	3.60	3.95	3.97	3.60	3.57	3.77	3.75	3.79	0.22	
Mass/Unit Area (oz/sq.yd)	9.82	9.00	8.30	8.37	9.19	9.23	8.37	8.30	8.77	8.72	8.81	0.50	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	286	224	283	265	249	298	241	270	232	290	264	26	220 min
TD - Tensile Strength (lbs)	245	329	286	252	283	324	285	282	262	247	280	29	220 min
MD - Elong. @ Max. Load (%)	75	79	89	81	87	72	87	85	76	85	82	6	50 min
TD - Elong. @ Max. Load (%)	103	103	98	91	97	103	93	102	94	99	98	4	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	895	1034	824	876	820	935	879	920	830	979	899	70	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.102	0.103	0.104	0.109	0.138						0.111	0.015	
Sieve No.	140	140	140	100	100						100		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010150  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Hydraulic Transmissivity (ASTM D 4716)</b>													
<b>Plate</b>													
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">                     Direction Tested: Machine Direction                      Normal Load (psf): 10,000                      Hydraulic Gradient: 1                      Test Length (in): 12                      Test Width (in): 12                 </div>  </div>													
Plate / Sample / Plate													
Seat Time (hours)	Specimen												
			1							2			
Volume (cc)		616	595	610	649	641	633				1.81	0.06	
Time (s)		5.58	5.40	5.58	5.52	5.50	5.51				3.75E-04	1.20E-05	1.00E-04 min
0.25 Flow Rate (GPM/ft width)		1.77	1.77	1.75	1.88	1.87	1.84						
Transmissivity (m <sup>2</sup> /s)		3.66E-04	3.65E-04	3.62E-04	3.90E-04	3.86E-04	3.81E-04						
Test Temp (C)			19.7			19.7							
Temp. Corr. Factor			1.011			1.011							
<b>Peel Strength (ASTM D 7005)</b>													
A - MD Average Peel Strength (ppi)	1.26	3.19	3.92	1.67	3.91						2.79	1.25	1.0 min
A - MD Average Peel Strength (g/in)	572	1448	1780	758	1775						1267	569	
B - MD Average Peel Strength (ppi)	1.42	2.57	1.90	1.60	3.52						2.20	0.86	1.0 min
B - MD Average Peel Strength (g/in)	645	1167	863	726	1598						1000	389	
Note: A and B represent a randomly assigned top and bottom of the sample													
<b>Thickness (ASTM D 5199)</b>													
GEONET COMPONENT													
Thickness (mils)	231	232	232	229	230	229	226	229	227	230	230	2	200 min
											226	<< min	
<b>Density (ASTM D 1505)</b>													
GEONET COMPONENT													
Density (g/cm <sup>3</sup> )	0.953	0.954	0.954								0.954	0.001	0.940 min
<b>Carbon Black Content (ASTM D 4218)</b>													
GEONET COMPONENT													
% Carbon Black	2.49	2.51									2.50	0.01	
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>													
GEONET COMPONENT													
MD Max. Strength (ppi)	62	72	60	62	54						62	6	
MD Elong. @ Max. Strength (%)	34	30	35	36	33						33	2	
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010150  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	3.43	3.60	3.75	3.65	4.32	3.87	3.74	3.34	3.40	3.71	<b>3.68</b>	0.28	
Mass/Unit Area (oz/sq.yd)	7.98	8.37	8.72	8.49	10.05	9.00	8.70	7.77	7.91	8.63	<b>8.56</b>	0.66	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	315	240	239	277	234	269	279	292	254	304	<b>270</b>	28	220 min
TD - Tensile Strength (lbs)	291	237	305	284	317	275	333	261	315	346	<b>296</b>	34	220 min
MD - Elong. @ Max. Load (%)	84	79	87	82	89	79	77	85	80	85	<b>83</b>	4	50 min
TD - Elong. @ Max. Load (%)	109	89	105	96	111	114	97	95	100	111	<b>103</b>	8	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	838	901	975	925	901	832	914	800	793	993	<b>887</b>	69	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.102	0.091	0.101	0.103	0.131						<b>0.106</b>	0.015	
Sieve No.	140	140	140	140	100						<b>140</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

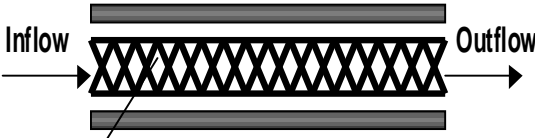
Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010150  
 TRI Log #: 32447

GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	3.73	3.48	3.68	3.86	4.68	3.74	3.44	3.52	3.81	3.68	<b>3.76</b>	0.35	
Mass/Unit Area (oz/sq.yd)	8.68	8.09	8.56	8.98	10.89	8.70	8.00	8.19	8.86	8.56	<b>8.75</b>	0.82	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	312	252	251	280	200	281	263	248	262	326	<b>267</b>	35	220 min
TD - Tensile Strength (lbs)	273	348	279	303	338	284	347	255	322	304	<b>305</b>	33	220 min
MD - Elong. @ Max. Load (%)	79	81	82	64	95	82	81	77	87	81	<b>81</b>	8	50 min
TD - Elong. @ Max. Load (%)	112	98	100	97	115	107	99	92	99	103	<b>102</b>	7	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	835	915	841	904	914	829	764	819	771	796	<b>839</b>	56	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.090	0.075	0.071	0.090	0.136						<b>0.092</b>	0.026	
Sieve No.	140	200	200	140	100						<b>140</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010180  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.		
	1	2	3	4	5	6	7	8	9	10					
<b>Hydraulic Transmissivity (ASTM D 4716)</b>															
															
Direction Tested: Machine Direction															
Normal Load (psf):	10,000														
Hydraulic Gradient:	1														
Test Length (in)	12														
Test Width (in)	12														
Plate / Sample / Plate															
Seat Time (hours)	Specimen														
		1	2	3	4	5	6	7	8	9	10				
Volume (cc)		746	765	738	926	926	923						2.43	0.27	
Time (s)		5.41	5.53	5.53	5.50	5.50	5.53						5.03E-04	5.64E-05	1.00E-04 min
0.25 Flow Rate (GPM/ft width)		2.20	2.21	2.13	2.68	2.68	2.66								
Transmissivity (m <sup>2</sup> /s)		4.56E-04	4.58E-04	4.41E-04	5.56E-04	5.56E-04	5.51E-04								
Test Temp (C)		19.8					19.9								
Temp. Corr. Factor		1.008					1.006								
<b>Peel Strength (ASTM D 7005)</b>															
A - MD Average Peel Strength (ppi)	2.18	3.38	2.93	2.52	1.25						2.45	0.81	1.0 min		
A - MD Average Peel Strength (g/in)	990	1535	1330	1144	568						1113	367			
B - MD Average Peel Strength (ppi)	2.30	0.35	1.25	2.41	1.58						1.58	0.84	1.0 min		
B - MD Average Peel Strength (g/in)	1044	157	568	1094	717						716	382			
Note: A and B represent a randomly assigned top and bottom of the sample															
<b>Thickness (ASTM D 5199)</b>															
GEONET COMPONENT															
Thickness (mils)	229	234	229	228	227	233	227	229	229	229		229	2	200 min	
												227	<< min		
<b>Density (ASTM D 1505)</b>															
GEONET COMPONENT															
Density (g/cm <sup>3</sup> )	0.951	0.951	0.951									0.951	0.000	0.940 min	
<b>Carbon Black Content (ASTM D 4218)</b>															
GEONET COMPONENT															
% Carbon Black	2.45	2.54									2.50	0.06			
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>															
GEONET COMPONENT															
MD Max. Strength (ppi)	58	74	64	65	63						65	6			
MD Elong. @ Max. Strength (%)	36	35	35	35	35						35	1			
MD Machine Direction	TD Transverse Direction														



**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010180  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.07	4.25	3.69	3.33	3.75	3.72	3.72	3.78	3.88	4.13	<b>3.83</b>	0.26	
Mass/Unit Area (oz/sq.yd)	9.47	9.89	8.58	7.75	8.72	8.65	8.65	8.79	9.02	9.61	<b>8.91</b>	0.61	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	323	288	238	270	253	303	273	269	255	308	<b>278</b>	27	220 min
TD - Tensile Strength (lbs)	317	281	300	288	267	215	289	314	314	299	<b>288</b>	30	220 min
	68	82	71	74	67	70	74	80	75	75	<b>74</b>	5	50 min
TD - Elong. @ Max. Load (%)	103	97	86	90	95	97	93	91	88	95	<b>94</b>	5	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	929	990	882	825	851	828	799	701	859	942	<b>861</b>	82	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.075	0.075	0.102	0.090	0.104						<b>0.089</b>	0.014	
Sieve No.	200	200	140	140	140						<b>140</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

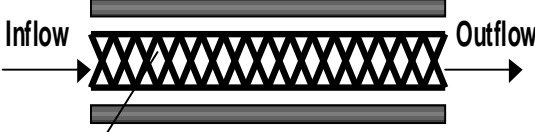
Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010180  
 TRI Log #: 32447

GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.13	3.30	3.65	3.67	4.08	3.75	3.55	3.54	4.00	4.27	<b>3.79</b>	0.31	
Mass/Unit Area (oz/sq.yd)	9.61	7.68	8.49	8.54	9.49	8.72	8.26	8.23	9.30	9.93	<b>8.82</b>	0.72	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	293	271	216	240	310	339	236	206	244	282	<b>263</b>	43	220 min
TD - Tensile Strength (lbs)	240	288	260	307	315	282	252	325	307	294	<b>287</b>	28	220 min
MD - Elong. @ Max. Load (%)	73	76	71	71	80	73	80	75	75	70	<b>74</b>	4	50 min
TD - Elong. @ Max. Load (%)	97	95	82	95	96	100	89	92	87	103	<b>94</b>	6	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	876	802	790	792	912	767	877	882	776	939	<b>841</b>	62	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.106	0.092	0.104	0.105	0.131						<b>0.107</b>	0.014	
Sieve No.	140	140	140	140	100						<b>140</b>		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010210  
 TRI Log #: 32447

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.				
	1	2	3	4	5	6	7	8	9	10							
<b>Hydraulic Transmissivity (ASTM D 4716)</b>																	
<b>Plate</b>																	
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">                     Direction Tested: Machine Direction                      Normal Load (psf): <table border="1" style="display: inline-table;"><tr><td>10,000</td></tr></table>                      Hydraulic Gradient: <table border="1" style="display: inline-table;"><tr><td>1</td></tr></table>                      Test Length (in): <table border="1" style="display: inline-table;"><tr><td>12</td></tr></table>                      Test Width (in): <table border="1" style="display: inline-table;"><tr><td>12</td></tr></table> </div>  </div>														10,000	1	12	12
10,000																	
1																	
12																	
12																	
<b>Plate / Sample / Plate</b>																	
Seat Time (hours)	Specimen		1	2													
Volume (cc)	819	818	823	623	616	616											
Time (s)	5.43	5.50	5.69	5.52	5.45	5.50											
0.25 Flow Rate (GPM/ft width)	2.42	2.38	2.32	1.81	1.81	1.79							2.09	0.31			
Transmissivity (m <sup>2</sup> /s)	5.00E-04	4.93E-04	4.80E-04	3.74E-04	3.75E-04	3.71E-04							4.32E-04	6.47E-05	1.00E-04 min		
Test Temp (C)	19.7																
Temp. Corr. Factor	1.011																
<b>Peel Strength (ASTM D 7005)</b>																	
A - MD Average Peel Strength (ppi)	2.35	1.97	0.87	2.18	2.55									1.98	0.66	1.0 min	
A - MD Average Peel Strength (g/in)	1067	894	394	990	1158									901	299		
B - MD Average Peel Strength (ppi)	1.52	3.45	0.92	0.89	0.36									1.43	1.20	1.0 min	
B - MD Average Peel Strength (g/in)	690	1566	417	406	165									649	546		
Note: A and B represent a randomly assigned top and bottom of the sample																	
<b>Thickness (ASTM D 5199)</b>																	
GEONET COMPONENT																	
Thickness (mils)	235	233	231	231	231	236	234	229	229	233							
											232	2	200 min				
											229	<< min					
<b>Density (ASTM D 1505)</b>																	
GEONET COMPONENT																	
Density (g/cm <sup>3</sup> )	0.953	0.953	0.953											0.953	0.000	0.940 min	
<b>Carbon Black Content (ASTM D 4218)</b>																	
GEONET COMPONENT																	
% Carbon Black	2.56	2.50											2.53	0.04			
<b>Tensile Properties (ASTM D 5035, 12 lpm strain rate)</b>																	
GEONET COMPONENT																	
MD Max. Strength (ppi)	58	50	60	64	62									59	5		
MD Elong. @ Max. Strength (%)	39	31	39	36	31									35	4		
MD Machine Direction	TD Transverse Direction																

**GECOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010210  
 TRI Log #: 32447

GEOTEXTILE - SIDE A

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.27	3.90	3.44	3.49	3.63	4.20	3.54	3.54	3.96	3.74	3.77	0.30	
Mass/Unit Area (oz/sq.yd)	9.93	9.07	8.00	8.12	8.44	9.77	8.23	8.23	9.21	8.70	8.77	0.69	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	288	252	225	242	279	295	243	243	251	257	257	22	220 min
TD - Tensile Strength (lbs)	308	317	302	300	258	286	345	302	316	331	306	24	220 min
MD - Elong. @ Max. Load (%)	73	79	80	85	77	72	75	77	82	68	77	5	50 min
TD - Elong. @ Max. Load (%)	103	97	91	95	95	97	108	91	91	103	97	6	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	965	812	820	769	824	832	858	782	751	839	825	59	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.075	0.075	0.102	0.102	0.105						0.092	0.016	
Sieve No.	200	200	140	140	140						140		80 min
MD Machine Direction	TD Transverse Direction												

**GEOCOMPOSITE TEST RESULTS**  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W. Turk Power Plant Cell 2

Material: Skaps TN220-2-8 Double Sided Geocomposite  
 Sample Identification: 78291010210  
 TRI Log #: 32447

GEOTEXTILE - SIDE B

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
<b>Mass/Unit Area (ASTM D 5261)</b>													
5" diameter Circle - Mass (g)	4.18	3.82	4.12	3.32	3.39	4.04	4.63	3.72	3.93	4.52	3.97	0.43	
Mass/Unit Area (oz/sq.yd)	9.72	8.89	9.58	7.72	7.89	9.40	10.77	8.65	9.14	10.51	9.23	1.00	8 min
<b>Grab Tensile Properties (ASTM D 4632)</b>													
MD - Tensile Strength (lbs)	314	267	286	252	276	286	271	212	211	296	267	34	220 min
TD - Tensile Strength (lbs)	233	277	263	290	316	308	323	302	272	279	286	27	220 min
MD - Elong. @ Max. Load (%)	77	82	79	73	75	69	78	75	73	75	76	4	50 min
TD - Elong. @ Max. Load (%)	100	93	91	91	94	85	97	88	92	107	94	6	50 min
<b>CBR Puncture Strength (ASTM D 6241)</b>													
Puncture Resistance (lbs)	950	730	710	853	930	905	966	879	782	901	861	91	600 min
<b>Apparent Opening Size (ASTM D 4751)</b>													
Opening Size Diameter (mm)	0.075	0.075	0.075	0.075	0.106						0.081	0.014	
Sieve No.	200	200	200	200	140						140		80 min
MD Machine Direction	TD Transverse Direction												

APPENDIX S  
LEACHATE COLLECTION SYSTEM MATERIAL  
TEST RESULTS

# GEOTEXTILE



SKAPS Industries (Nonwoven Division)  
335, Athena Drive  
Athens, GA 30601 (U.S.A.)  
Phone (706) 354-3700 Fax (706) 354-3737  
E-mail: contact@skaps.com

Sales Office:  
Engineered Synthetic Product Inc.  
Phone: (770)564-1857  
Fax: (770)564-1818

**September 5, 2017**

**Environmental Specialties Int'l, Inc**

7943 Pecue Lane, Suite A  
Baton Rouge, LA 70809  
Ref : John W. Turk Power Plant  
**PO : 25801**

Dear Sir/Madam:

This is to certify that SKAPS GE180 is a high quality needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, randomly networked to form a high strength dimensionally stable fabric. SKAPS GE180 resists ultraviolet deterioration, rotting, biological degradation. The fabric is inert to commonly encountered soil chemicals. Polypropylene is stable within a pH range of 2 to 13. SKAPS GE180 conforms to the property values listed below:

<b>PROPERTY</b>	<b>TEST METHOD</b>	<b>UNITS</b>	<b>M.A.R.V. Minimum Average Roll Value</b>
Weight	ASTM D 5261	oz/sy (g/m <sup>2</sup> )	8.00 (271)
Grab Tensile	ASTM D 4632	lbs (kN)	220 (0.98)
Grab Elongation	ASTM D 4632	%	50
Trapezoidal Tear	ASTM D 4533	lbs (kN)	90 (0.40)
Puncture Resistance	ASTM D 4833	lbs (kN)	120 (0.53)
Permittivity*	ASTM D 4491	sec <sup>-1</sup>	1.30
AOS*	ASTM D 4751	US Sieve (mm)	80 (0.18)
UV Resistance	ASTM D 4355	%/hrs	70/500

**Notes:**

\* At the time of manufacturing. Handling may change these properties.

**KOUROSH SABZEVARI**  
QUALITY CONTROL MANAGER



**Product : GE180-180**

ROLL #	WEIGHT	MD TENSILE	MD ELONG	XMD TENSILE	XMD ELONG	MD TRAP	XMD TRAP	PUNCTURE	AOS	PERMITTIVITY
ASTM METHOD	D5261	D4632	D4632	D4632	D4632	D4533	D4533	D4833	D4751	D4491
UNITS	oz/sq yd	lbs.	%	lbs	%	lbs.	lbs	lbs.	US Sieve	sec <sup>1</sup>
TARGET	8.00	220	50	220	50	90	90	120	80	1.30
49001.1	8.14	226	66	231	75	95	107	133	80	1.38
49001.2	8.14	226	66	231	75	95	107	133	80	1.38
49001.3	8.14	226	66	231	75	95	107	133	80	1.38
49001.4	8.14	226	66	231	75	95	107	133	80	1.38
49001.5	8.52	231	70	242	80	95	107	133	80	1.38
49001.6	8.52	231	70	242	80	95	107	133	80	1.38
49001.7	8.52	231	70	242	80	95	107	133	80	1.38
49001.8	8.52	231	70	242	80	95	107	133	80	1.38
49001.9	8.52	231	70	242	80	95	107	133	80	1.38
49001.10	8.29	229	68	235	84	101	119	139	80	1.38
49001.11	8.29	229	68	235	84	101	119	139	80	1.38
49001.12	8.29	229	68	235	84	101	119	139	80	1.38
49001.13	8.29	229	68	235	84	101	119	139	80	1.38
49001.14	8.29	229	68	235	84	101	119	139	80	1.38
49001.15	8.44	234	72	244	76	101	119	139	80	1.38
49001.16	8.44	234	72	244	76	101	119	139	80	1.38
49001.17	8.44	234	72	244	76	101	119	139	80	1.38
49001.18	8.44	234	72	244	76	101	119	139	80	1.38
49001.19	8.44	234	72	244	76	101	119	139	80	1.38
49001.20	8.35	225	75	240	79	104	113	135	80	1.38
49001.21	8.35	225	75	240	79	104	113	135	80	1.38

\*All Values are MARV.



GEOTEXTILE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W Turk Power Plant Cell 2

Material: Skaps GE180 Nonwoven Geotextile  
 Sample Identification: 49001.1  
 TRI Log #: 32210

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.
	1	2	3	4	5	6	7	8	9	10		
<b>Mass/Unit Area (ASTM D 5261)</b>												
5" diameter circle (grams)	4.02	3.85	3.82	3.93	4.37	4.02	3.43	3.68	3.73	4.01	3.89	0.25
Mass/Unit Area (oz/sq.yd)	9.35	8.96	8.89	9.14	10.16	9.35	7.98	8.56	8.68	9.33	9.04	0.58
<b>Grab Tensile Properties (ASTM D 4632)</b>												
MD - Tensile Strength (lbs)	263	239	253	220	345	303	314	266	251	347	280	45
TD - Tensile Strength (lbs)	243	329	297	281	327	260	292	266	278	308	288	28
MD - Elong. @ Max. Load (%)	66	74	79	67	83	73	99	74	69	79	76	10
TD - Elong. @ Max. Load (%)	104	112	99	93	117	104	114	89	94	112	104	10
<b>CBR Puncture Strength (ASTM D 6241)</b>												
Puncture Resistance (lbs)	970	869	885	859	1029	996	822	843	852	934	906	72
<b>Apparent Opening Size (ASTM D 4751, Method B)</b>												
Opening Size Diameter (mm)	0.165	0.146	0.124	0.154	0.143						0.146	0.015
Sieve No.	70	100	100	70	100						100	
MD Machine Direction	TD Transverse Direction											



GEOTEXTILE TEST RESULTS  
 TRI Client: Terracon Consultants, Inc.  
 Project: John W Turk Power Plant Cell 2

Material: Skaps GE180 Nonwoven Geotextile  
 Sample Identification: 49001.12  
 TRI Log #: 32210

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.
	1	2	3	4	5	6	7	8	9	10		
<b>Mass/Unit Area (ASTM D 5261)</b>												
5" diameter circle (grams)	4.01	3.94	4.00	3.98	4.29	4.26	4.10	3.80	3.84	4.33	4.06	0.19
Mass/Unit Area (oz/sq.yd)	9.33	9.16	9.30	9.26	9.98	9.91	9.54	8.84	8.93	10.07	9.43	0.43
<b>Grab Tensile Properties (ASTM D 4632)</b>												
MD - Tensile Strength (lbs)	308	303	274	260	337	292	300	260	296	325	296	26
TD - Tensile Strength (lbs)	273	357	276	338	366	248	308	336	306	373	318	43
MD - Elong. @ Max. Load (%)	71	91	77	80	77	67	99	81	80	84	81	9
TD - Elong. @ Max. Load (%)	100	143	94	104	148	95	107	109	86	123	111	21
<b>CBR Puncture Strength (ASTM D 6241)</b>												
Puncture Resistance (lbs)	859	826	956	1001	1031	990	948	1120	917	1040	969	87
<b>Apparent Opening Size (ASTM D 4751, Method B)</b>												
Opening Size Diameter (mm)	0.166	0.149	0.131	0.158	0.157						0.152	0.013
Sieve No.	70	100	100	70	70						70	
<b>Apparent Opening Size (ASTM D 4751, Method A)</b>												
Opening Size Diameter (mm)	0.094	0.092	0.075	0.088	0.105		RETEST				0.091	0.011
Sieve No.	140	140	140	140	140						140	
MD Machine Direction	TD Transverse Direction											

# GRAVEL

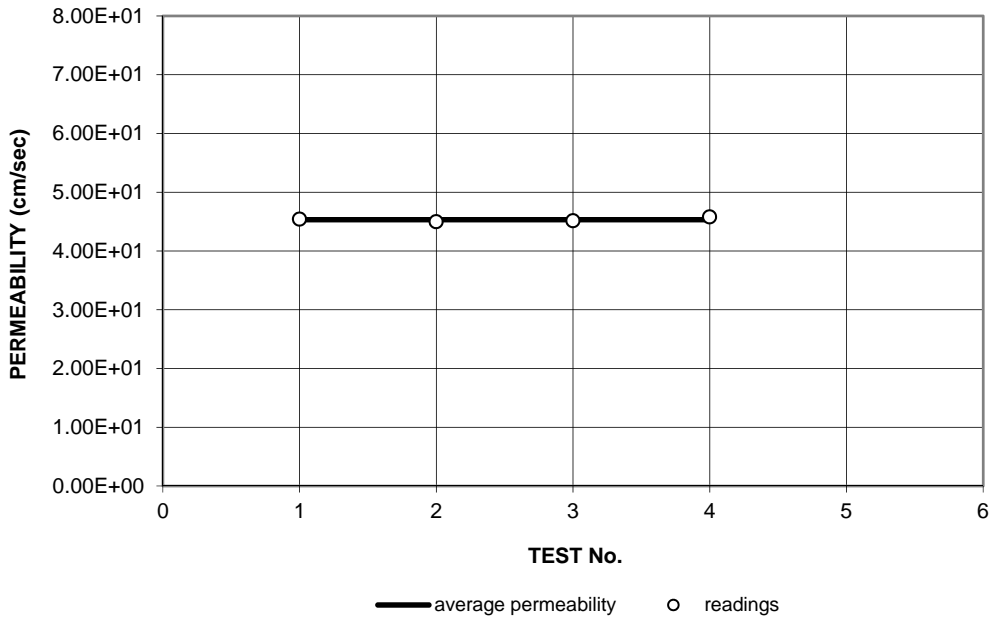


**TABLE 4**  
**LEACHATE COLLECTION SYSTEM GRAVEL TEST SUMMARY**  
**SWEPCO - John W. Turk, Jr. Power Plant - Landfill Cell 2**

<b>Material ID</b>	<b>Calcium Carbonate (15% max)</b>	<b>Passing 1"</b>	<b>Passing 1/2"</b>	<b>Passing 3/8" (&lt;5%)</b>	<b>Soil Class (GW or GP)</b>	<b>Permeability (&gt;1.0 E-3 cm/sec)</b>	<b>Soil Description</b>
G-1	0.3	100.0	0.9	0.1	GP	4.53E+01	Poorly Graded Gravel
G-2	-	96.0	11.0	2.0	GP	2.76E+01	Poorly Graded Gravel



## CONSTANT HEAD PERMEABILITY TEST



Test Specification:      ASTM D 2434

Test No.	Manometers		Water Levels		Water Head (cm)	Flow Volume (cm <sup>3</sup> )	Elapsed Time (s)	Calculated Permeability (cm/s)
	H1 (cm)	H2 (cm)	L1 (cm)	L2 (cm)				
1	16.5	16.4	1000		0.1	1000	18.41	4.54E+01
2	16.5	16.4	1000		0.1	1000	18.59	4.50E+01
3	16.5	16.4	1000		0.1	1000	18.52	4.51E+01
4	16.5	16.4	1000		0.1	1000	18.26	4.58E+01
<b>Average</b>								<b>4.53E+01</b>

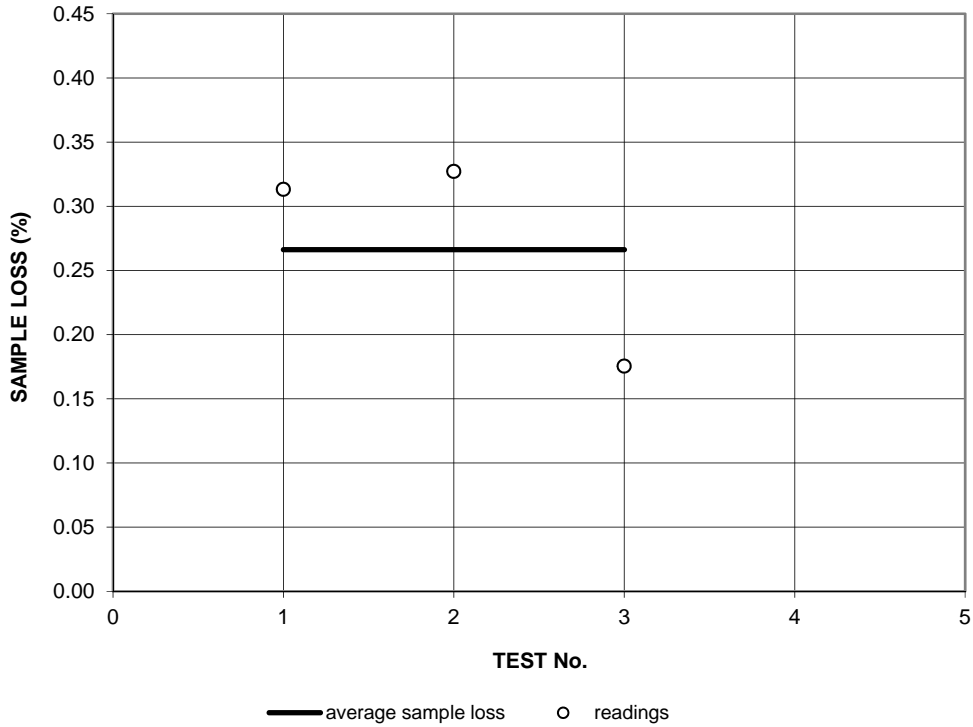
### Specimen Conditions

Diameter D (in)	6.0	Weight of Specimen (gms)	5635.0
Length of Specimen (in)	8.5	Density of Specimen (pcf)	89.3
Length of Flow (in)	6.0	Approximate Porosity(%)	47.0

Material Description	Remarks
Carbonate Content (%)      0.27 USCS Water Content (%)	

Project Name      Turk Cell 2 Const.	Tested by      FCE      Review. by      TGG
Client      AEP      W.O.#      35177127	<b>CONSTANT HEAD PERMEABILITY TEST</b>
Sample Number      G-1	
Sample Location	
Date      4-Oct-17      Lab No.      7549	

## INSOLUBLE CARBONATE CONTENT TEST



Test Specification:     ASTM D 3042

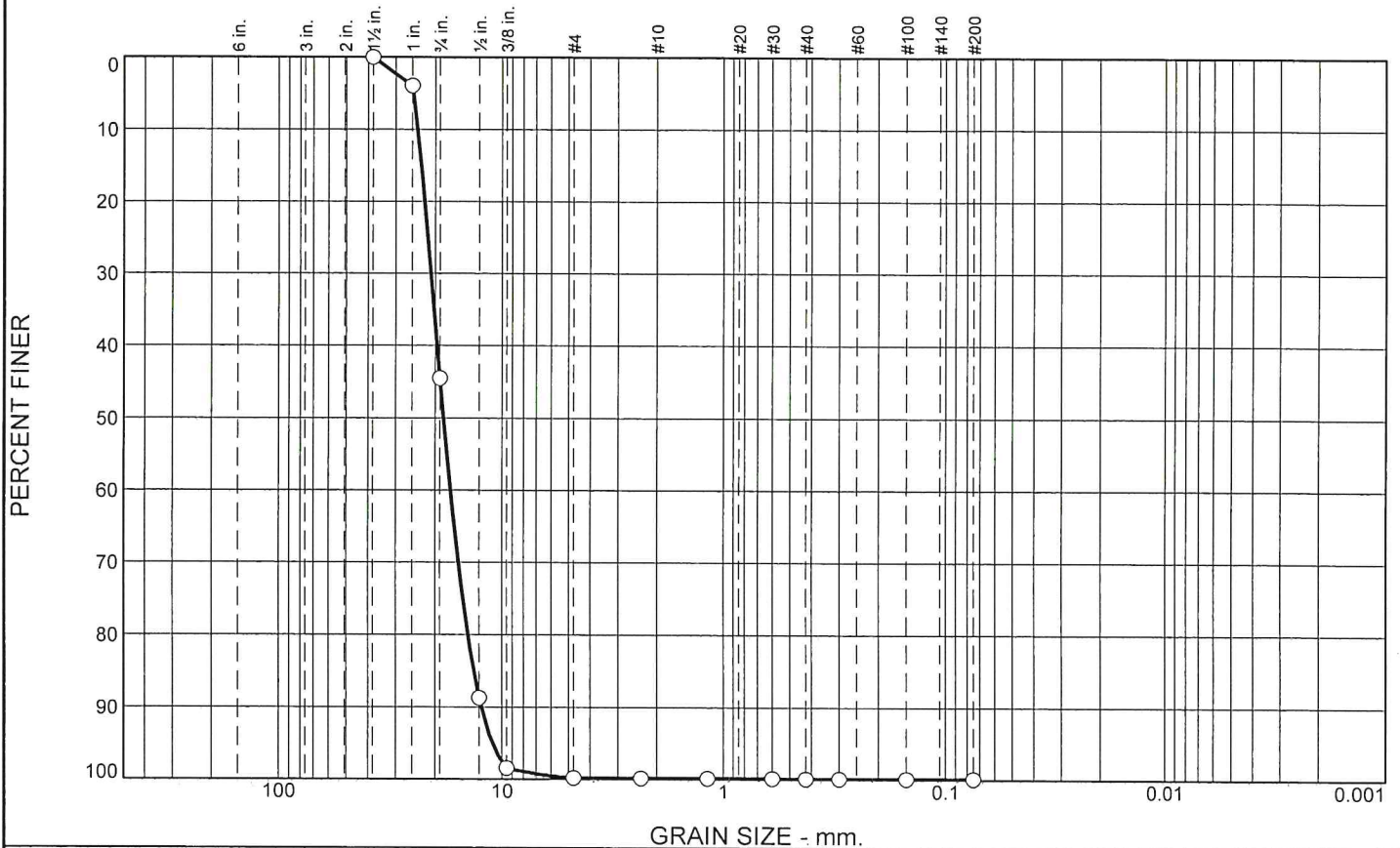
Trial No.	Sample+ Tare Weight (g)	Tare Weight (g)	Sample Weight (g)	Sample+ Tare Weight (g)	Tare Weight (g)	Sample Weight (g)	Sample Loss (g)	Sample Loss (%)
1	386.43		386.43	385.22		385.22	1.21	0.31
2	391.35		391.35	390.07		390.07	1.28	0.33
3	461.9		461.9	461.09		461.09	0.81	0.18
<b>Total</b>	<b>1239.68</b>		<b>1239.68</b>	<b>1236.38</b>		<b>1236.38</b>	<b>3.3</b>	<b>0.27</b>

Material Description Permeability (cm/s)     4.53E+01 USCS	Remarks Solution:     Acid
--	-------------------------------

Project Name     Turk Cell 2 Const. Client     AEP     W.O.#     35177127 Sample Number     S-7549 Sample Location Date     6-Oct-17     Lab No.     7549	Tested by     DBR     Review. by     GAS  <b>INSOLUBLE CARBONATE CONTENT TEST</b> 
---	---



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	44	56	0	0	0	0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100		
1	96		
.75	56		
.5	11		
.375	2		
#4	0		
#8	0		
#16	0		
#30	0		
#40	0		
#50	0		
#100	0		
#200	0		

**Material Description**

GRAVEL

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 24.0131      D<sub>85</sub>= 23.1028      D<sub>60</sub>= 19.6118  
D<sub>50</sub>= 18.3544      D<sub>30</sub>= 15.7195      D<sub>15</sub>= 13.4087  
D<sub>10</sub>= 12.4262      C<sub>u</sub>= 1.58              C<sub>c</sub>= 1.01

**Classification**

USCS= GP                      AASHTO=

**Remarks**

\* (no specification provided)

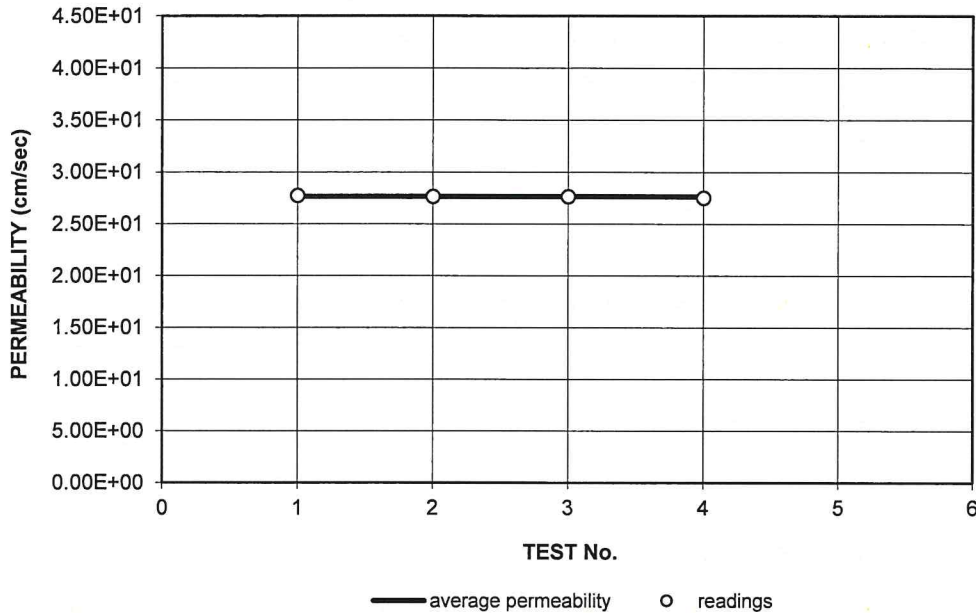
Source of Sample: 6381  
Sample Number: G-2

Date: 8-3-18

<h2 style="margin: 0;">Terracon, Inc.</h2> <p style="margin: 0;">Cincinnati, Ohio</p>	<p><b>Client:</b> AMERICAN ELECTRIC POWER</p> <p><b>Project:</b> TURK CELL 2 AND CELL 1 PARTIAL COVER FULTON, AR</p> <p><b>Project No:</b> 35177127</p>
<p><b>Figure</b>      6381</p>	

Tested By: DR                      Checked By: TG

## CONSTANT HEAD PERMEABILITY TEST



Test Specification:     **ASTM D 2434**

Test No.	Manometers		Water Levels		Water Head (cm)	Flow Volume (cm <sup>3</sup> )	Elapsed Time (s)	Calculated Permeability (cm/s)
	H1 (cm)	H2 (cm)	L1 (cm)	L2 (cm)				
1	9	8.9	1000		0.1	1000	30.12	2.78E+01
2	9	8.9	1000		0.1	1000	30.22	2.77E+01
3	9	8.9	1000		0.1	1000	30.25	2.76E+01
4	9	8.9	1000		0.1	1000	30.37	2.75E+01
<b>Average</b>								<b>2.76E+01</b>

### Specimen Conditions

Diameter D (in)	6.0	Weight of Specimen (gms)	5450.0
Length of Specimen (in)	8.5	Density of Specimen (pcf)	86.4
Length of Flow (in)	6.0	Approximate Porosity(%)	48.7

Material Description	Remarks
Carbonate Content (%) USCS Water Content (%)	

Project Name     Turk Cell 2	Tested by     SF     Review. by     TGG
Client     AEP     W.O.#     35177127	<b>CONSTANT HEAD PERMEABILITY TEST</b>
Sample Number     G-2	<b>Terracon</b>
Sample Location	
Date     14-Aug-18     Lab No.     6381	

# PIPE PRESSURE TESTING

	<b>PIPE TEST RECORD</b>	
--	-------------------------	--

Project <u>Tuck Cell 2</u>	Job Number <u>35177127</u>
Tag No.	Owner
Description <u>Cross Pipe North South Berm</u>	Data Sheet
Sub System	Location <u>Fulton, AR</u>
Sub System	Drawing
Descriptor:	Date <u>4.18.2018</u>

APPLICABLE DOCUMENTS:

1. PRETEST COMPLETION		
	QC INSPECTION	DATE
Verify B17.01A is correct and attached	<i>[Signature]</i>	4.18.2018
Verify B17.01C is correct and attached	<i>[Signature]</i>	4.18.2018
Pressure Test Procedure approved	<i>[Signature]</i>	4.18.2018
Pre-Test Punch List complete	<i>[Signature]</i>	4.18.2018

2. TEST DATA					
Test Type	Test Medium/Temp	Pressure	Duration	Pressure Gauge ID#	Pressure Gauge Range
<u>Hydrostatic</u>	<u>101°F</u>	<u>8 psi</u>	<u>4 hrs</u>		<u>0-30</u>

Stainless Steel Line(s): Yes / <input checked="" type="radio"/> No	Chloride Content of Test Water: <u>N/A</u>
Other:	

4. TEST ACCEPTED AND RELEASED FOR RESTORATION			
Test Supervisor: <u>Thomas D. Ashcraft</u>	Date: <u>4-18-18</u>		
QC: <u>[Signature]</u>	Date: <u>4.18.18</u>		
Owner: <u>G. Young</u>	Date: <u>4/18/18</u>		

Remarks:

DESCRIPTION	Foreman	Superintendent	QC/Eng.
Print Name		<u>THOMAS D. ASHCRAFT</u>	<u>Matt Agree</u>
Signature	<u>N/A</u>	<u>Thomas D. Ashcraft</u>	<u>[Signature]</u>
Date		<u>4-18-18</u>	<u>4.18.18</u>

	PIPE TEST RECORD	
--	------------------	--

Project <u>Tuck Cell 2</u>	Job Number <u>35177127</u>
Tag No.	Owner
Description <u>Cross Pipe North South Berm</u>	Data Sheet
Sub System	Location <u>Fulton, AR</u>
Sub System	Drawing
Descriptor:	Date

APPLICABLE DOCUMENTS:

1. PRETEST COMPLETION		
	QC INSPECTION	DATE
Verify B17.01A is correct and attached	<i>[Signature]</i>	4.18.2018
Verify B17.01C is correct and attached	<i>[Signature]</i>	4.18.2018
Pressure Test Procedure approved	<i>[Signature]</i>	4.18.2018
Pre-Test Punch List complete	<i>[Signature]</i>	4.18.2018

2. TEST DATA					
Test Type	Test Medium/Temp	Pressure	Duration	Pressure Gauge ID#	Pressure Gauge Range
<u>Pneumatic</u>	<u>119°F</u>	<u>8.25 psi</u>	<u>2 min</u>		<u>0-30</u>

3. LIMITING CONDITIONS	Stainless Steel Line(s): Yes / <input checked="" type="radio"/> No	Chloride Content of Test Water: <u>N/A</u>
Other:		

4. TEST ACCEPTED AND RELEASED FOR RESTORATION			
Test Supervisor: <u>Thomas D. Ashcraft</u>	Date: <u>4-18-18</u>		
QC: <u>[Signature]</u>	Date: <u>4.18.18</u>		
Owner: <u>G. Jones</u>	Date: <u>4/18/18</u>		

Remarks:

DESCRIPTION	Foreman	Superintendent	QC/Eng.
Print Name		<u>Thomas D. Ashcraft</u>	<u>Matt Arce</u>
Signature		<u>Thomas D. Ashcraft</u>	<u>[Signature]</u>
Date		<u>4-18-18</u>	<u>4.18.18</u>

**PIPE TEST RECORD**

Project <i>Tuck Cell 2</i>	Job Number <i>35177127</i>
Tag No.	Owner <i>AEP</i>
Description <i>"4" Pipe, South Bern</i>	Data Sheet
Sub System	Location <i>Fulton, AR</i>
Sub System	Drawing
Descriptor:	Date <i>4.19.18</i>

APPLICABLE DOCUMENTS:

1. PRETEST COMPLETION

	QC INSPECTION	DATE
Verify B17.01A is correct and attached	<i>[Signature]</i>	<i>4.19.18</i>
Verify B17.01C is correct and attached	<i>[Signature]</i>	<i>4.19.18</i>
Pressure Test Procedure approved	<i>[Signature]</i>	<i>4.19.18</i>
Pre-Test Punch List complete	<i>[Signature]</i>	<i>4.19.18</i>

2. TEST DATA

Test Type	Test Medium/Temp	Pressure	Duration	Pressure Gauge ID#	Pressure Gauge Range
<i>Hydrostatic</i>	<i>55°F</i>	<i>14 psi</i>	<i>4 hrs</i>		<i>0 - 30</i>

3. LIMITING CONDITIONS

Stainless Steel Line(s): Yes /  No

Chloride Content of Test Water: *N/A*

Other:

4. TEST ACCEPTED AND RELEASED FOR RESTORATION

Test Supervisor: <i>[Signature]</i>	Date: <i>04-19-2018</i>
QC: <i>[Signature]</i>	Date: <i>4.19.18</i>
Owner: <i>[Signature]</i>	Date: <i>4/19/18</i>

Remarks:

DESCRIPTION	Foreman	Superintendent	QC/Eng.
Print Name		<i>THOMAS D. ASHCRAFT</i>	<i>Math. Acree</i>
Signature		<i>[Signature]</i>	<i>[Signature]</i>
Date		<i>4-19-18</i>	<i>4.19.18</i>

	PIPE TEST RECORD	
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Project <u>Furk Cell 2</u>	Job Number <u>3577127</u>
Tag No.	Owner <u>AEP</u>
Description <u>"Y" Pipe, South Berm</u>	Data Sheet
Sub System	Location <u>Fulton, AR</u>
Sub System	Drawing
Descriptor:	Date <u>4.19.18</u>

APPLICABLE DOCUMENTS:

1. PRETEST COMPLETION		
	QC INSPECTION	DATE
Verify B17.01A is correct and attached	<u>[Signature]</u>	<u>4.19.18</u>
Verify B17.01C is correct and attached	<u>[Signature]</u>	<u>4.19.18</u>
Pressure Test Procedure approved	<u>[Signature]</u>	<u>4.19.18</u>
Pre-Test Punch List complete	<u>[Signature]</u>	<u>4.19.18</u>

2. TEST DATA					
Test Type	Test Medium/Temp	Pressure	Duration	Pressure Gauge ID#	Pressure Gauge Range
<u>Pneumatic</u>	<u>49°F</u>	<u>8 psi</u>	<u>2 min</u>		<u>0 - 30</u>

3. LIMITING CONDITIONS	
Stainless Steel Line(s): Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Chloride Content of Test Water: <u>N/A</u>
Other:	

4. TEST ACCEPTED AND RELEASED FOR RESTORATION			
Test Supervisor: <u>[Signature]</u>	Date: <u>04-19-2018</u>		
QC: <u>[Signature]</u>	Date: <u>4.19.18</u>		
Owner: <u>[Signature]</u>	Date: <u>4/19/18</u>		

Remarks:

DESCRIPTION	Foreman	Superintendent	QC/Eng.
Print Name		<u>Thomas D. Aspratt</u>	<u>Matt Arcu</u>
Signature		<u>[Signature]</u>	<u>[Signature]</u>
Date		<u>4-19-18</u>	<u>4.19.18</u>

	PIPE TEST RECORD	
--	------------------	--

Project <i>Tuck Cell 2</i>	Job Number <i>35177127</i>
Tag No.	Owner <i>AEP</i>
Description <i>Manhole Pipe, North Berm</i>	Data Sheet
Sub System	Location <i>Fulton, AR</i>
Sub System	Drawing
Descriptor:	Date

APPLICABLE DOCUMENTS:

1. PRETEST COMPLETION		
	QC INSPECTION	DATE
Verify B17.01A is correct and attached	<i>[Signature]</i>	<i>4.21.18</i>
Verify B17.01C is correct and attached	<i>[Signature]</i>	<i>4.21.18</i>
Pressure Test Procedure approved	<i>[Signature]</i>	<i>4.21.18</i>
Pre-Test Punch List complete	<i>[Signature]</i>	<i>4.21.18</i>

2. TEST DATA					
Test Type	Test Medium/Temp	Pressure	Duration	Pressure Gauge ID#	Pressure Gauge Range
<i>Hydrostatic</i>	<i>60°F</i>	<i>9.75 psi</i>	<i>4 hrs</i>		<i>0-30</i>

3. LIMITING CONDITIONS	
Stainless Steel Line(s): Yes / <input checked="" type="radio"/> No	Chloride Content of Test Water: <i>N/A</i>
Other:	

4. TEST ACCEPTED AND RELEASED FOR RESTORATION			
Test Supervisor: <i>[Signature]</i>		Date: <i>4.21.18</i>	
QC: <i>[Signature]</i>		Date: <i>4.21.18</i>	
Owner: <i>[Signature]</i>		Date: <i>4/21/18</i>	

Remarks:

DESCRIPTION	Foreman	Superintendent	QC/Eng.
Print Name		<i>THOMAS D. ASHCRAFT</i>	<i>Matt Acree</i>
Signature		<i>[Signature]</i>	<i>[Signature]</i>
Date		<i>4-21-18</i>	<i>4.21.18</i>



PIPE TEST RECORD

Project <i>Tuck Cell 2</i>	Job Number <i>35177127</i>
Tag No.	Owner <i>AEP</i>
Description <i>Manhole Pipe, North Basin</i>	Data Sheet
Sub System	Location <i>Fulton, AR</i>
Sub System	Drawing
Descriptor:	Date

APPLICABLE DOCUMENTS:

1. PRETEST COMPLETION

	QC INSPECTION	DATE
Verify B17.01A is correct and attached	<i>[Signature]</i>	<i>4.21.18</i>
Verify B17.01C is correct and attached	<i>[Signature]</i>	<i>4.21.18</i>
Pressure Test Procedure approved	<i>[Signature]</i>	<i>4.21.18</i>
Pre-Test Punch List complete	<i>[Signature]</i>	<i>4.21.18</i>

2. TEST DATA

Test Type	Test Medium/Temp	Pressure	Duration	Pressure Gauge ID#	Pressure Gauge Range
<i>Pneumatic</i>	<i>60°F</i>	<i>8.5 psi</i>	<i>2 min</i>		<i>0-30</i>

3. LIMITING CONDITIONS

Stainless Steel Line(s): Yes / <input checked="" type="checkbox"/> No	Chloride Content of Test Water: <i>N/A</i>
Other:	

4. TEST ACCEPTED AND RELEASED FOR RESTORATION

Test Supervisor: <i>[Signature]</i>	Date: <i>4.21.18</i>
QC: <i>[Signature]</i>	Date: <i>4.21.18</i>
Owner: <i>G. Young</i>	Date: <i>4/21/18</i>

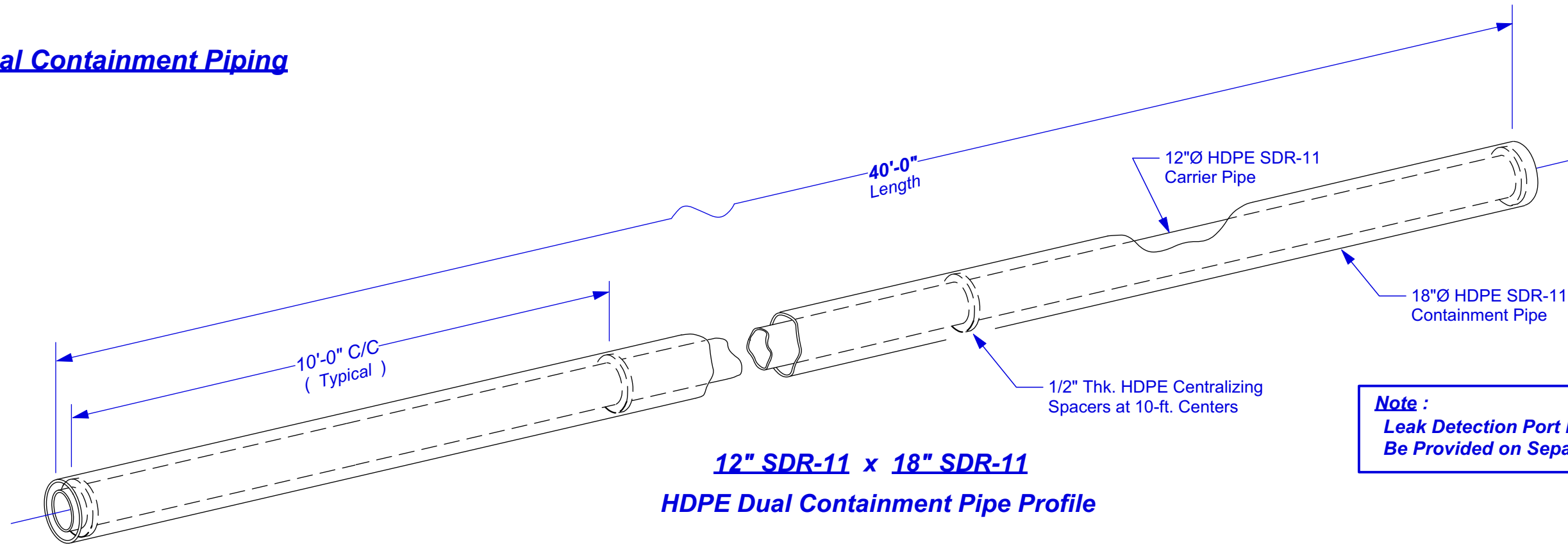
Remarks:

DESCRIPTION	Foreman	Superintendent	QC/Eng.
Print Name		<i>Thomas D. Ashcraft</i>	<i>Matt Arce</i>
Signature		<i>[Signature]</i>	<i>[Signature]</i>
Date		<i>4-21-18</i>	<i>4.21.18</i>

# APPENDIX T CONTRACTOR MATERIAL SUBMITTALS

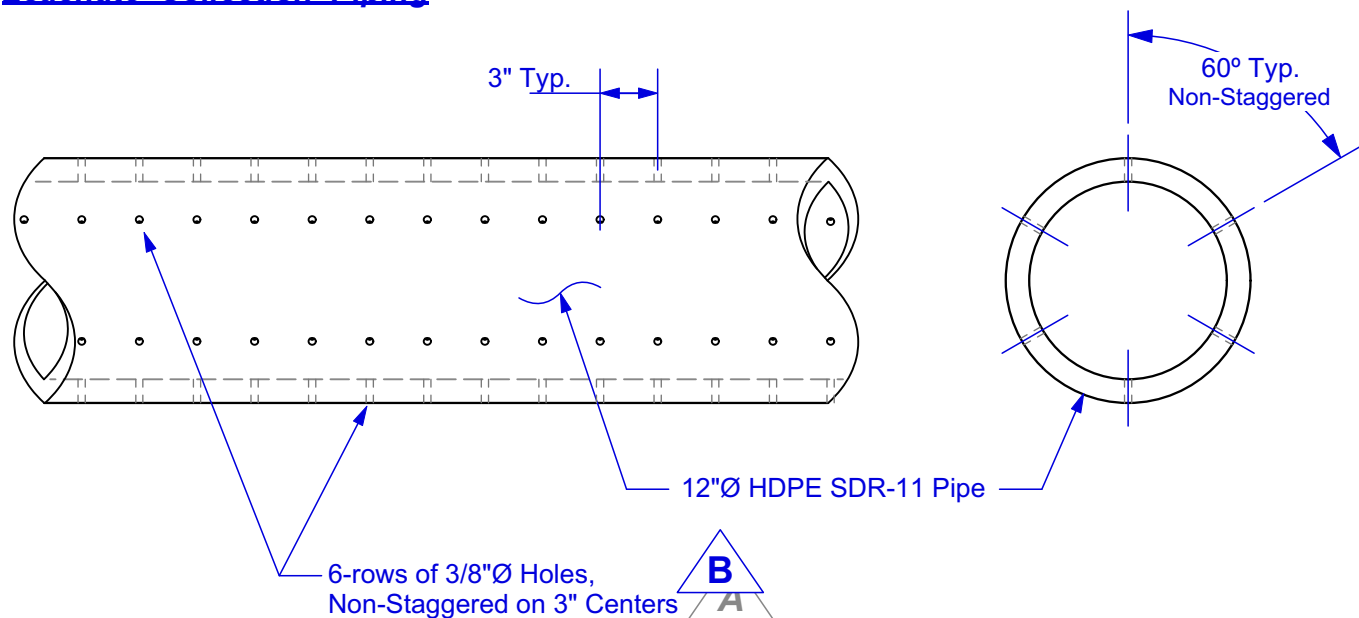
Leachate Collection Pipe

## Dual Containment Piping

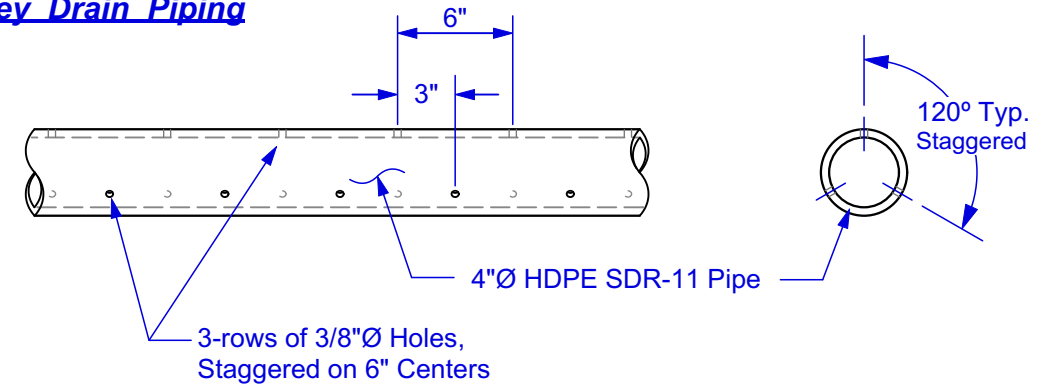


**Note :**  
Leak Detection Port Details Will Be Provided on Separate Drawing

## 12"-Dia. HDPE Perforated Leachate Collection Piping



## 4"Ø HDPE Perforated Chimney Drain Piping



**Note :**  
This is in lieu of slotted pipe:  $.128" \times 1.25" = .16 \text{ sq.in.}$  of open area  $\times 15\text{-slots per foot} = 2.4 \text{ sq.in}$  open area per foot.  
Perforated pipe with 3/8"Ø hole:  $.1104 \text{ sq.in.} \times 6 \text{ holes per row} = .6624 \text{ sq. in.} \times 4 \text{ Rows per foot} = 2.65 \text{ sq.in.}$   
(based on 3" Centers = 24-holes per Ft.)

Customer PO #: 43672

NO.	DATE	REVISIONS	BY
B	9-18-17	Revised Perforation Pattern for 12" Pipe to 6-rows 3/8"Ø Holes, on 3" Ctrs. (per Engineer's Request)	
A	9-11-17	Changed Perforations & Pattern for 12" Pipe from 1/2" to 3/8" Ø (per Engineer's Request)	JY

REVISIONS	
Drawn By: J. Yoder (Draftsman / Designer)	Date: 9-01-2017
Technician:	Date:
PFF Estimator:	Date:
Q/C:	Date:
Customer Approval:	Date:

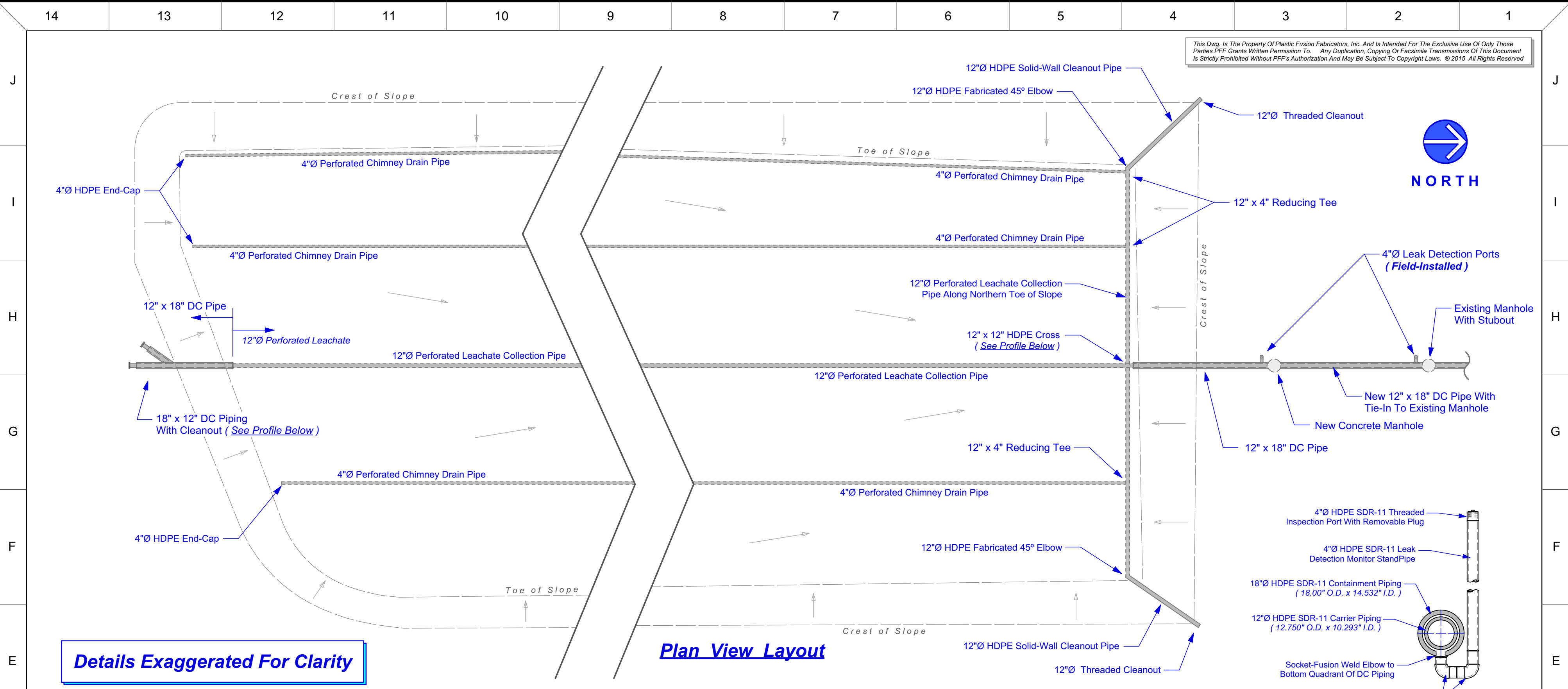
**PFF** Plastic Fusion Fabricators, Inc.  
Your Total Containment Resource

3455 Stanwood Blvd. - Huntsville, Alabama 35811  
Tel: 256-852-0378 / Fax: 256-852-0388 / <http://www.plasticfusion.com>

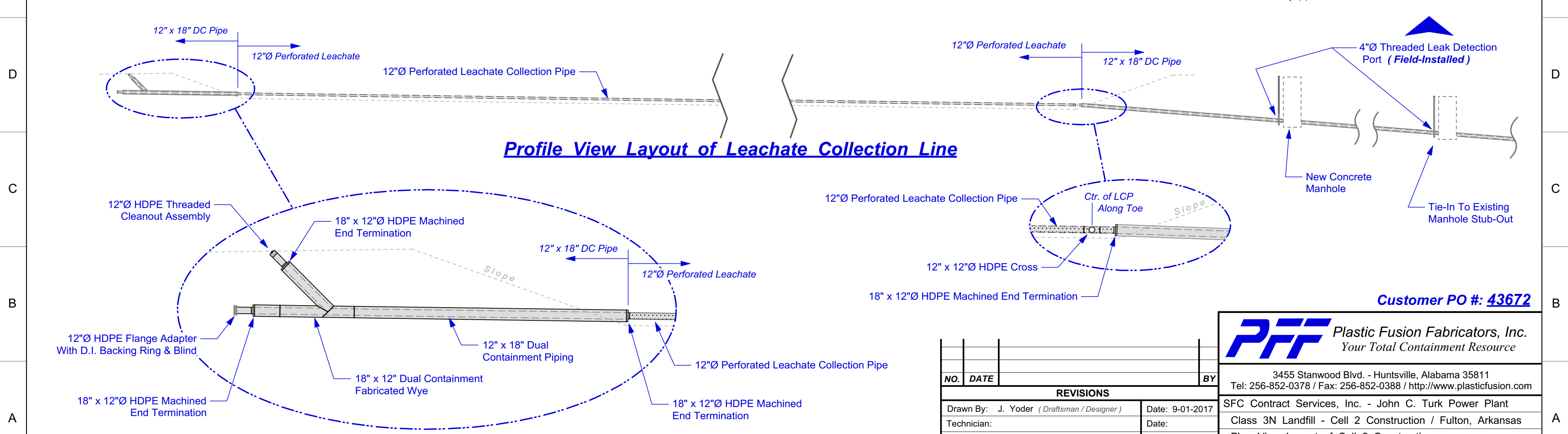
SFC Contract Services, Inc. - John C. Turk Power Plant  
Class 3N Landfill - Cell 2 Construction / Fulton, Arkansas  
HDPE DC Piping Profile & Perforated Piping Layout Details

PFF Drawing No: 03301-151 a	Scale: N. T. S.	Rev. <b>B</b>
PFF Job No: F-17151	Sheet: 1 of 2	

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**Details Exaggerated For Clarity**



Customer PO #: 43672

**PFF** Plastic Fusion Fabricators, Inc.  
Your Total Containment Resource

3455 Stanwood Blvd. - Huntsville, Alabama 35811  
Tel: 256-852-0378 / Fax: 256-852-0388 / http://www.plasticfusion.com

SFC Contract Services, Inc. - John C. Turk Power Plant  
Class 3N Landfill - Cell 2 Construction / Fulton, Arkansas  
Plan View Layout of Cell 2 Construction

NO.	DATE	BY
<b>REVISIONS</b>		
Drawn By:	J. Yoder (Draftsman / Designer)	Date: 9-01-2017
Technician:		Date:
PFF Estimator:		Date:
Q/C:		Date:
Customer Approval:		Date:

PFF Drawing No: 03301-151 b Scale: N. T. S. Rev. 0  
PFF Job No: F-17151 Sheet: 2 of 2

Leachate Manhole

PETERSON MANHOLE SCHEDULE SHEET # \_\_\_\_\_

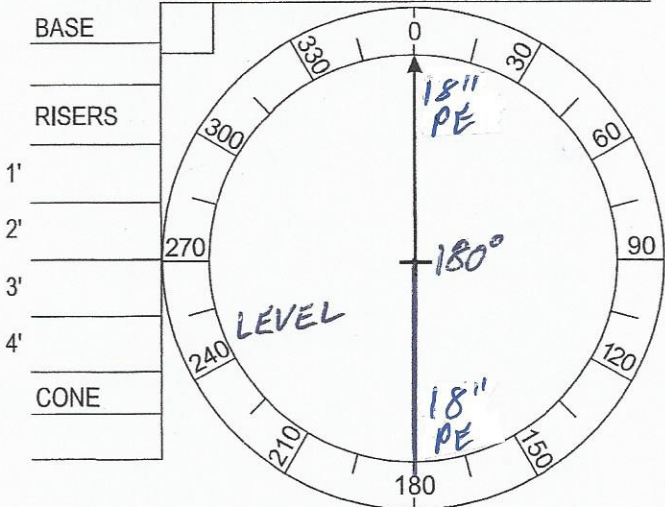
CUSTOMER NAME: LUSCO

JOB NAME: John W. Turk Jr. Power Plant Unit 1

MARK: L-JWT PP#1

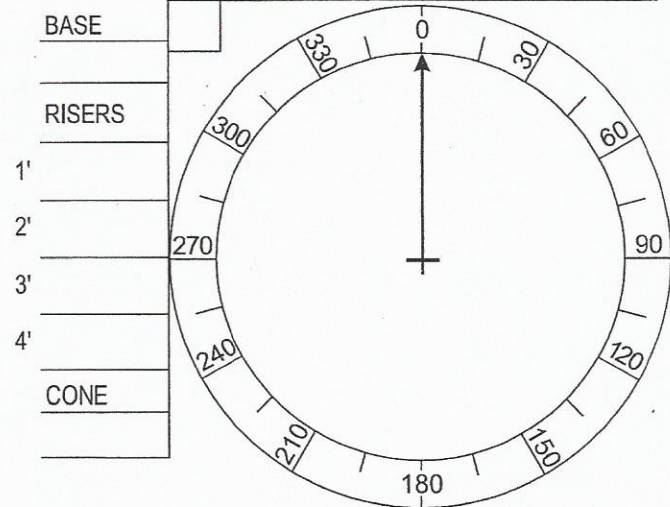
INSTRUCTIONS: External Bituminous Coating, Standard Ring & Cover  
Cast on, Carboline 300M Coal Tar Epoxy Exterior

UNIT FT.	MH NO.	STA. NO.
<u>19.67</u>	<u>MHP-02-A</u>	



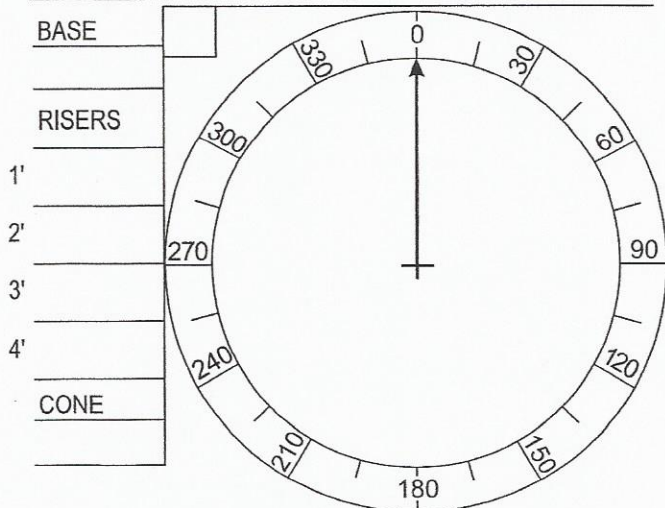
HOLES CUT: 2 INVERTS POURED: 2  
 BOOTS: 2 - 18" PE  
 BOTTOM THICKNESS: 6" Ext. x 8" Thick  
 STEPS: No - Grout Step Holes

UNIT FT.	MH NO.	STA. NO.



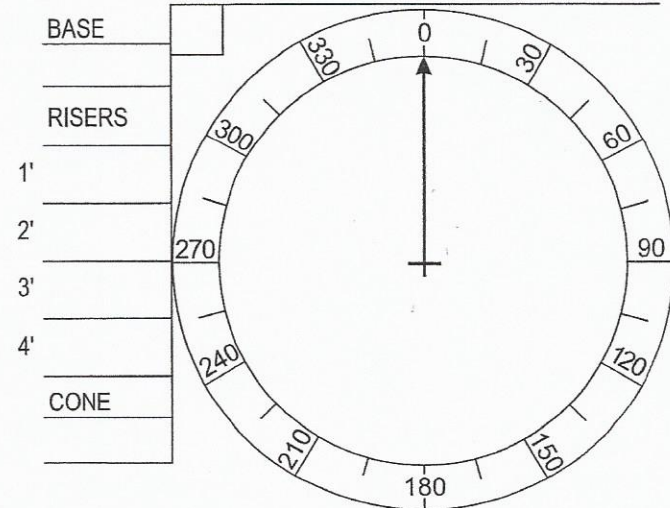
HOLES CUT: \_\_\_\_\_ INVERTS POURED: \_\_\_\_\_  
 BOOTS: \_\_\_\_\_  
 BOTTOM THICKNESS: \_\_\_\_\_  
 STEPS: \_\_\_\_\_

UNIT FT.	MH NO.	STA. NO.



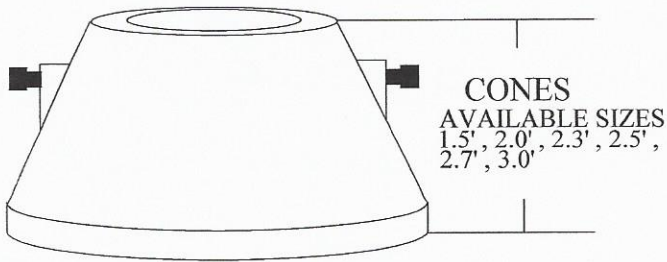
HOLES CUT: \_\_\_\_\_ INVERTS POURED: \_\_\_\_\_  
 BOOTS: \_\_\_\_\_  
 BOTTOM THICKNESS: \_\_\_\_\_  
 STEPS: \_\_\_\_\_

UNIT FT.	MH NO.	STA. NO.

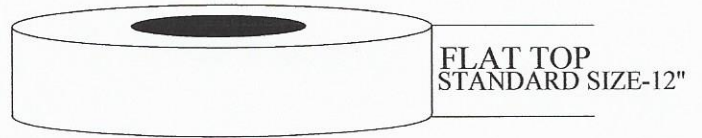


HOLES CUT: \_\_\_\_\_ INVERTS POURED: \_\_\_\_\_  
 BOOTS: \_\_\_\_\_  
 BOTTOM THICKNESS: \_\_\_\_\_  
 STEPS: \_\_\_\_\_

AVAILABLE WITH 24" ROUND HOLE CAST IN OR CASTING AS SPECIFIED BY CUSTOMER



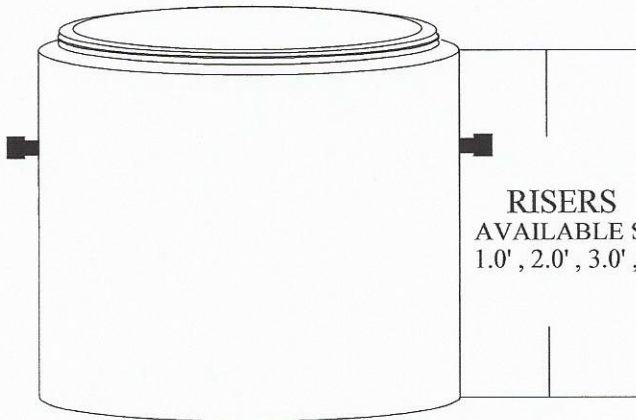
**CONES**  
AVAILABLE SIZES  
1.5', 2.0', 2.3', 2.5',  
2.7', 3.0'



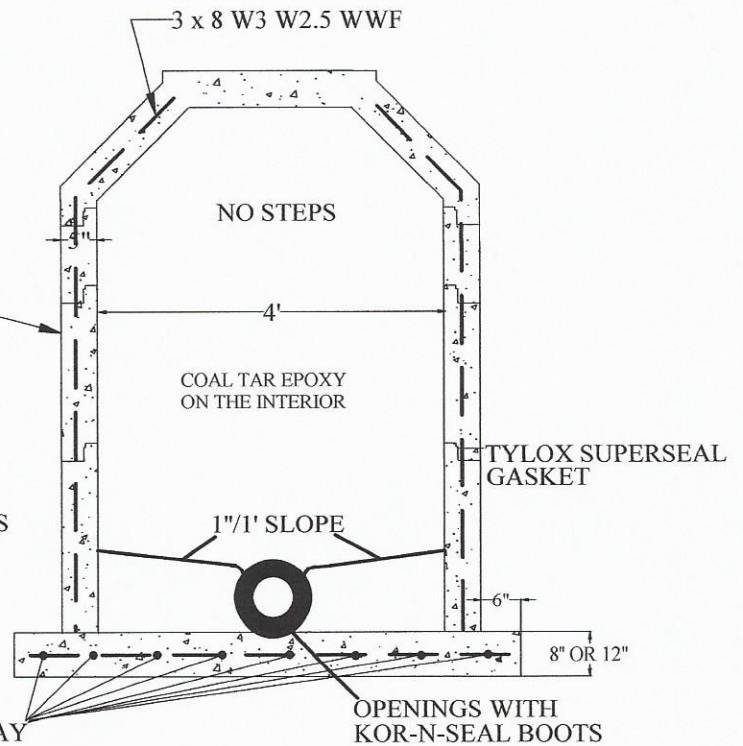
**FLAT TOP**  
STANDARD SIZE-12"

MANHOLES SHALL BE COATED ON THE INTERIOR WITH CARBOLINE 300M COAL TAR EPOXY  
OUTSIDE COATED WITH REGULAR BITUMASTIC

ALL MANHOLES SHALL HAVE 8" THICK BOTTOMS 0' - 12'  
OVER 12' SHALL HAVE 12" BOTTOMS



**RISERS**  
AVAILABLE SIZES  
1.0', 2.0', 3.0', 4.0'



REGULAR BITUMASTIC  
ON THE EXTERIOR

NO STEPS

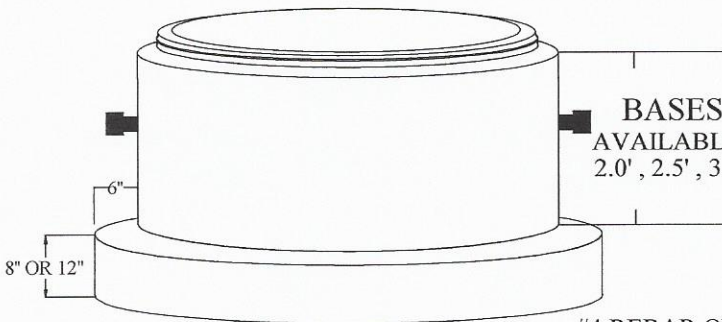
COAL TAR EPOXY  
ON THE INTERIOR

TYLOX SUPERSEAL  
GASKET

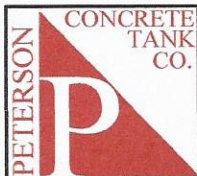
1" / 1" SLOPE

#4 REBAR ON 12"  
CENTERS EACH WAY

OPENINGS WITH  
KOR-N-SEAL BOOTS



**BASES**  
AVAILABLE SIZES  
2.0', 2.5', 3.0', 4.0'



18010 MacArthur Drive  
North Little Rock, Arkansas 72118  
Plant: 1-501-851-1955  
Fax: 1-501-851-2290  
1-800-323-2540  
E MAIL rhpconcrete@sbcglobal.net

**JOHN W. TURK JR**  
**POWER PLANT**  
**UNIT #1**

STANDARD 4.0'  
DIAMETER M.H.  
MANUFACTURED  
ACCORDING TO  
A.S.T.M C-478



## SPECIFICATION

### FLEXIBLE PIPE-TO-MANHOLE CONNECTOR

A flexible pipe-to-manhole connector shall be employed in the connection of the sanitary and drain sewer pipe to precast manholes.

The connector shall be Kor-N-Seal® as manufactured by NPC Inc., Milford, New Hampshire, or equal.

The connector shall be the sole element relied on to assure a flexible watertight seal of the pipe to the manhole. No adhesives or lubricants shall be employed in the installation of the connector into the manhole. The rubber for the connector shall comply with ASTM C443 and ASTM C923 and consist of EPDM and elastomers designed to be resistant to ozone, weather elements, chemicals, including acids, alkalis, animal and vegetable fats, oils and petroleum products from spills.

All stainless steel elements of the connector shall be totally non-magnetic Series 304 Stainless, excluding the worm screw for tightening the steel band around the pipe which shall be Series 305 Stainless. The worm screw for tightening the steel band shall be torqued by a break-away torque wrench available from the precast manhole supplier, and set for 60 - 70 inch/lbs.

The connector shall be installed in the manhole wall by activating the expanding mechanism in strict accordance with the recommendation of the connector manufacturer.

The connector shall be of a size specifically designed for the pipe material and size being utilized on the project.

Rubber seals used in concrete sewer pipe and culvert joints must meet the requirements given in ASTM Specification C923.

**NPC Inc.**

**KOR<sup>N</sup> SEAL®**

Elm Street, P.O. Box 301, Milford, N.H. 03055, U.S.A. Telephone: (603) 673-8680

FORM SFC 10/87



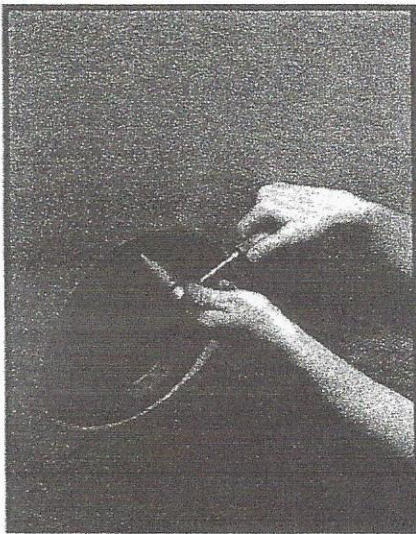
# KOR-N-SEAL® I & II

FLEXIBLE PIPE-TO-MANHOLE CONNECTORS

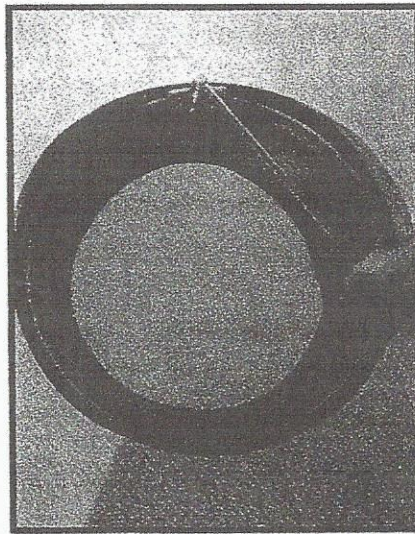
## SPECIFICATION SHEET



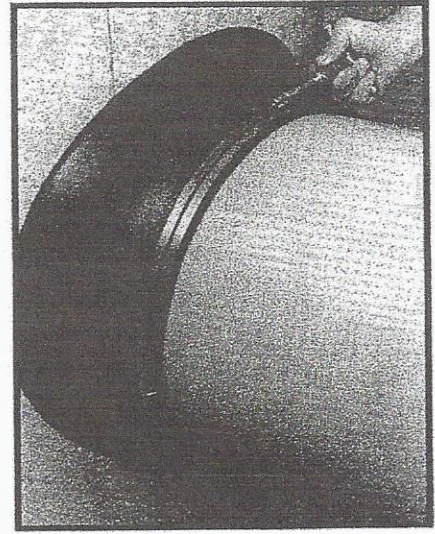
**KOR-N-SEAL I - WEDGE KORBAND CONNECTOR ASSEMBLY**



**Install Kor-N-Seal I - Wedge Korbond  
With Socket Wrench & Torque Limiter**



**Install Kor-N-Seal II - Wedge Korbond  
With Standard Torque Wrench**



**Install Pipe Clamp(s)  
With T-Handle Torque Wrench**

NPC Inc.  
250 Elm Street P.O. Box 301  
Milford, N.H. 03055, U.S.A.

Tel: (603) 673-8680 (800) 626-2180  
Fax: (603) 673-7271





# KOR-N-SEAL® I & II

FLEXIBLE PIPE-TO-MANHOLE CONNECTORS

## SPECIFICATION SHEET

### PERFORMANCE

Test	ASTM Method	Test Requirements	Kor-N-Seal® I & II
Head Pressure	C923 - 7.1	10 psi (23 ft) for 10 min.	+10 psi for 10 min.
Deflection Test	C923 - 7.2.2	7° in any direction	Over 7° in any direction
Load Test	C923 - 7.2.3	150 lbs/in. pipe dia.	Over 150 lbs/in. pipe dia.

Performed on all sizes of Kor-N-Seal® Connectors with no leakage occurring initially nor during the 24 hour test period.

### RESILIENT EPDM OR POLYISOPRENE RUBBER

Conforms to ASTM C923

Test	ASTM Method	Test Requirements	Kor-N-Seal® I & II
Chemical Resistance	D543, at 22°C for 48 h		
1 N Sulfuric Acid		No weight loss	No weight loss
1 N Hydrochloric Acid		No weight loss	No weight loss
Tensile Strength	D412	1200 psi	1580 psi
Elongation at Break		350% min.	500%
Hardness	D2240 (shore A durometer)	± 5 from the manufacturer's specified hardness	48 ± 5
Accelerated Oven-aging	D573 70 ± 1°C for 7 days	Decrease of 15%, max. of original tensile strength, decrease of 20% max. of elongation	10.1% tensile decrease 14.0% elongation decrease
Compression Set	D395, method B, at 70°C for 22 h	Decrease of 25%, max. of original deflection	13% decrease
Water Absorption	D471, immerse 0.75 by 2-in. specimen in distilled water at 70°C for 48 h	Increase of 10%, max. of original by weight	.8% increase
Ozone Resistance	D1171	Rating 0	Rating 0
Low-temperature Brittle Point	D746	No fracture at -40°C	No fracture at -40°C
Tear Resistance	D624, method B	200 lbf/in.	No tear at 210 lbf/in.

### INTERNAL KORBAND

Conforms to ASTM C923 and ASTM A167

Korband Assembly with toggle-type expander is manufactured of 304 series non-magnetic stainless steel. Korband Assembly with wedge-type expander is manufactured of 304 series non-magnetic stainless steel. The Kor-N-Seal® I wedge assembly is manufactured from reinforced nylon or 316SS Cast Steel.

### EXTERNAL PIPE CLAMP

Conforms to ASTM C923 and ASTM A167

External take-up clamps are manufactured of 304 series non-magnetic stainless steel. The bolt assembly is manufactured of 305 Series non-magnetic stainless steel.

[www.npc.com](http://www.npc.com)

250 Elm Street • P.O. Box 301  
Milford, NH 03055, U.S.A.

Tel: 603-673-8680 • 800-626-2180 • Fax: 603-673-7271

# BIDCO C-56 BUTYL MASTIC SEALANT

NPC's Bidco C-56 Preformed Butyl Mastic Sealant is custom engineered to meet the most exacting standards of the precast concrete industry.

C-56 remains flexible and forms a permanent bond to a wide variety of substrates including concrete, metals and plastics. Adhesion and cohesion at the time of installation are excellent and actually improve after the joint has been formed and placed into service.

This sealant is designed not to shrink, oxidize or harden and has excellent resistance to temperature extremes, acid and alkaline environments. It is also non-toxic.

Bidco C-56 bonds instantly to joint surfaces and to itself. Always butt ends of preformed sealant together – never overlap. Leave protective release paper on sealant during application and remove only after structure is ready for coupling.

### Product Features:

- Available in coil or strip form
- New, crush-proof packaging
- Non-stick, non-tear plastic backing

### Primary Applications:

- Concrete Pipe
- Box Culverts
- Utility Vaults
- Burial Vaults
- Septic Tanks
- Wet Wells
- Sanitary & Storm Sewer Manoles
- Concrete Wall Panel Systems

### ALSO AVAILABLE:

- High-Grade Butyl Sealant,
  - Waterstop Hydrophilic Sealant,
  - Hydrocarbon Resistant Sealant
- Call 800-626-2180 for more information.



### NPC Bidco C-56 Meets or Exceeds:

- Federal Specifications SS-S-210 A "Sealing Compound, Preformed Plastic for Pipe Joints", Type 1, Rope Form
- AASHTO Designation M-198 75 I, Type B, Flexible Plastic Gasket (Bitumin)
- ASTM Designation C-990-91.

Available Standard Sizes*				
COILS				
Width & Length	Cross Section	Pieces Per Carton	Linear Feet Per Carton	Pallet Size # Cartons/lbs.
.5" x 21.0'	oval	10	210	45 ctns./24 lbs.
.75" x 14.5'	.66 x .66	10	145	45 ctns./36 lbs.
1.0" x 14.5'	.88 x .88	8	116	45 ctns./50 lbs.
1.25" x 14.5'	.78 x 1.38	5	72.5	45 ctns./49 lbs.
1.5" x 10.0'	1 1/8 x 1.5	5	50	45 ctns./49 lbs.
2.0" x 10.0'	2.5 x 2 1/16	4	40	45 ctns./68 lbs.
STRIPS				
Width & Length	Cross Section	Pieces Per Carton	Linear Feet Per Carton	Pallet Size # Cartons/lbs.
.75" x 30"	.478 x 1.0	50	125	36 ctns./35 lbs.
1.0 x 30"	.58 x 1.6	35	87	36 ctns./37 lbs.
1.25 x 42"	.5 x 2.5	28	98	36 ctns./71 lbs.
1.5 x 42"	.75 x 2.5	20	70	36 ctns./75 lbs.
1.75 x 42"	.75 x 3.25	13	45	36 ctns./61 lbs.
2.0" x 42"	1.0 x 3.25	10	35	36 ctns./65 lbs.

\* Custom sizes also available



Call today for more information: 800-442-0141



# BUTYL MASTIC JOINT SEALANT

## Technical Specifications

<b>Chemical Composition</b>	<b>Specification</b>	<b>Requirements</b>	<b>NPC Sealant</b>
Content of Hydrocarbon — % by weight	ASTM D4-86	50-70	56.0
Inert Material Filler — % by weight	AASHTO T III	30-50	44.0
Volatile Matter — % by weight	ASTM D-6	2.0 max	below 1
<b>Chemical Resistance</b> (Total Immersion 30 days)			
5% Sulfuric Acid			No visible deterioration
5% Hydrochloric Acid			No visible deterioration
5% Potassium Hydroxide			No visible deterioration
Saturated Hydrogen Sulfide Solution			No visible deterioration
<b>Physical Properties</b>			
Specific Gravity — 77°F	ASTM D-71	1.2 – 1.35	1.27
Ductility — 77°F	ASTM D-113	5.0 min.	10.0
Softening Point — °F	ASTM D-36	320 min.	380
Penetration — 77°F	ASTM D-217	50-120	85
Accelerated Aging (mechanical oven 4 hours @ 212°F)			Maintained 99+% of solids. Flexibility not affected.)
Elongation Initial — 77°F			300% min.
Two Weeks, Total Water Immersion			300% min.
Flow resistance (1" wide overhead joint exposed to 135°F for 7 days)			No Flow
Storage Life			Indefinite
Application Temperature Range			10° - 125°F
Service Temperature Range			-20°F - 200°F

Conforms to AASHTO M-198B — SS-S-210A — ASTM C990

[www.npc.com](http://www.npc.com)

250 Elm Street • P.O. Box 301  
Milford, NH 03055, U.S.A.

Tel: 603-673-8680 • 800-626-2180 • Fax: 603-673-7271

# **HK** Hamilton Kent

*make the connection*

**Tylox<sup>®</sup>**  
**SuperSeal<sup>™</sup>**  
**Pre-Lubricated**  
**Gasket**

Say *Goodbye* to the lube bucket and brush .....  
Say *Hello* to fast, clean, simple installation

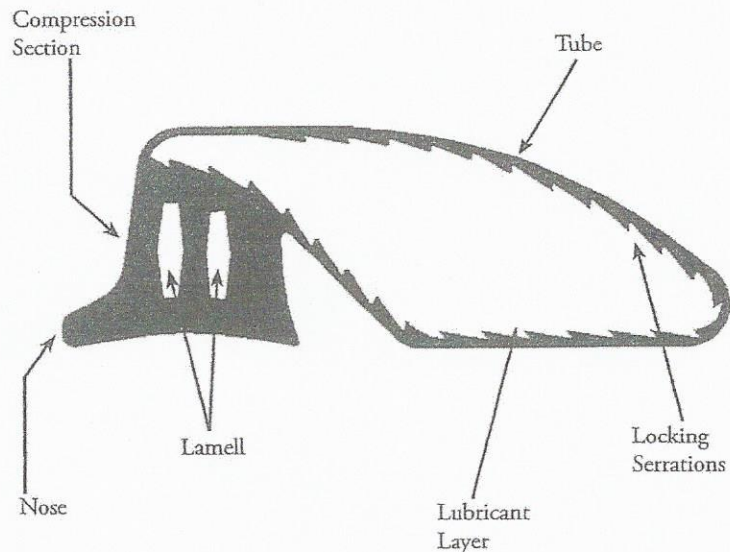
*Requiring no field lubrication*, the Tylox<sup>®</sup> SuperSeal<sup>™</sup> gasket\* has a layer of silicone lubricant installed on the inner surface of the tube during the manufacturing process; saving you time, and money, on the job-site.

*Self-contained Lubricant*. Sealed within the tube, the lube is impervious to mud, dirt and debris. If you drop it in the trench, simply wipe the gasket surface clean and you're ready to install. No special handling or packaging is required.

*Easier installation, without equalization*, is made possible due to the reduced gasket stretch required by the unique lamell/rolling tube design. Quick and easy to install means you save even more time.

*No gasket "roll" or "twist" during coupling* is another benefit of the unique lamell/rolling tube design, which reduces the insertion force required. Manual coupling of up to 36" pipe is possible.

## For Single Offset Joints ...



**... in Round or Elliptical Pipe, Man-Holes and Boxes**

*Self-Centering of the Spigot within the Bell* is carried out as the tube rolls into the annular space during the homing process.

*ASTM C443, ASTM C361, AASHTO M198.4 and CSA A-257* material requirement compliance.

*Elimination of Joint Kick Back*, is caused by the rearward locking action of the serrations as the tube rolls forward

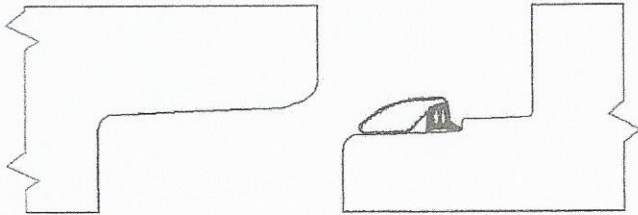
*Pipe sizes to 144"* can be accommodated.

*Bell and Spigot protection under deflection* is accomplished by the cushioning effect of the tube, as it rests within the annular space.

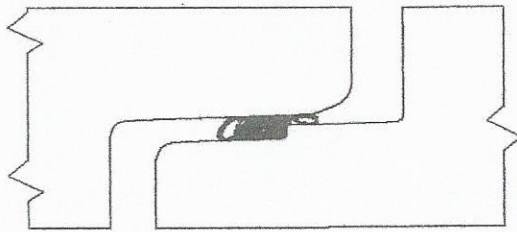
## INSTALLATION

Ensure Bell, Spigot and Gasket are free from loose debris or foreign material.

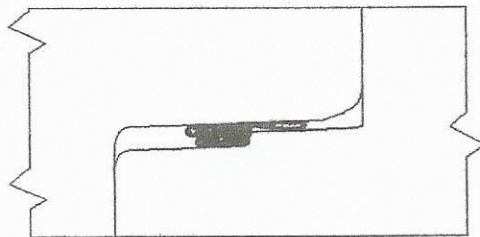
Stretch the gasket around the spigot, with the nose against the step, and the tube laying flat against the spigot. **DO NOT LUBRICATE.**



Align the spigot with the bell, and thrust the spigot home using suitable mechanical means. The homing process will cause the lubricated tube to "roll" over itself, above the compression section, allowing the pipe to slide forward.



Once fully homed, the compression section seals the total annular space; the rolling tube comes to rest within the small annular space - acting as a cushion against side loads, and the serrations act to resist pipe pull-out.



## MATERIALS

Tylox® SuperSeal™ gaskets\* are available in the following materials:

- Isoprene

Optional Materials

- Nitrile (Oil Resistant)

- Isoprene / EPDM blend (Ozone Resistant)

- Neoprene (Oil and Ozone Resistant)

Other materials may be available as special order.

Consult your Hamilton Kent agent for your specific requirements.

## SPECIFICATIONS

Tylox® SuperSeal™ gaskets\* are manufactured to meet the material requirements of the following specifications:

- ASTM C361

- ASTM C443

- AASHTO M198.4

- CSA A257

- "Green Book"

Other specifications may be available as special order. Please consult your Hamilton Kent agent for your specific requirements.

## CONTACT US

### Hamilton Kent

77, Carlingview Drive  
Toronto, Ontario, Canada.  
M9W 5J6

Phone (800) 268-8479

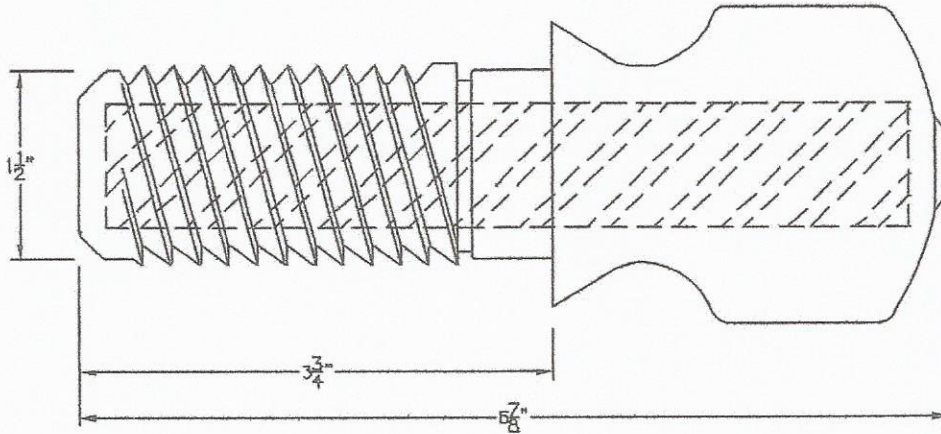
Fax (888) 674-6960

Web-Site [www.hamiltonkent.com](http://www.hamiltonkent.com)

E-Mail [sales@hamiltonkent.com](mailto:sales@hamiltonkent.com)

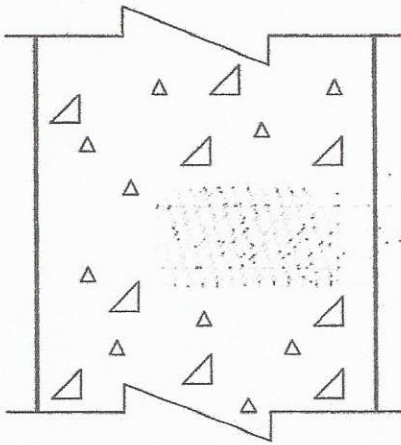
\*Tylox SuperSeal Gaskets are patented under US Patent 4934716

# EZ LIFT PINS



### Pin Composition:

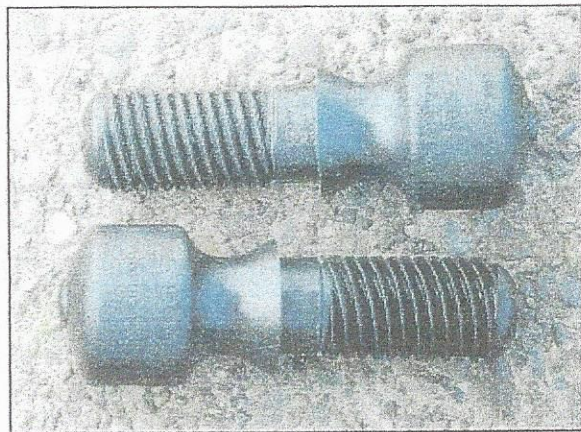
Each pin is injection molded polypropylene around a 1" diameter ASTM A-615 Grade 60 reinforcing bar. The polypropylene material conforms to ASTM D-4101 specifications.



### Load Capacity:

The *working load limit* is 7,500 lbs. per pin\*

\* Ultimate load is four times the working load.



**LANE** INTERNATIONAL CORPORATION



**EAST JORDAN  
IRON WORKS, INC.**  
P.O. BOX 439  
EAST JORDAN, MI. 49727  
1-800-874-4100  
FAX 231-536-4458

DRAWN	DATE
DEW	06/28/01
APPROVED	DATE

**MANHOLE  
ASSEMBLY**

PRODUCT NO.  
**00134801**

CATALOG NO.  
**1348A  
1348Z**

REF. PRODUCT NO.  
**00134839  
00134811**

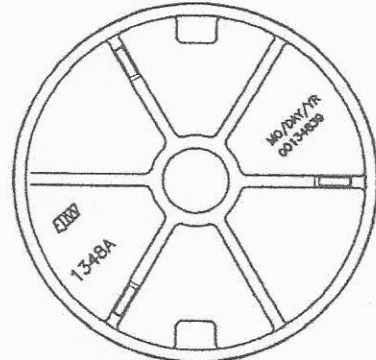
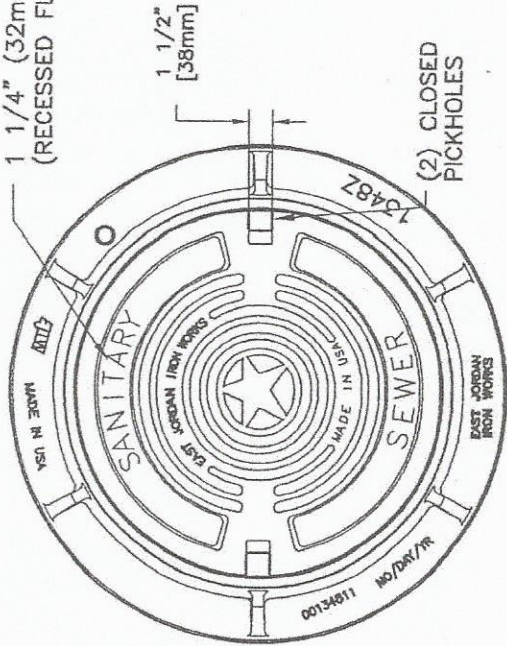
EST. WT.  
COVER: 120 LBS 54kg  
FRAME: 140 LBS 64kg  
UNIT: 260 LBS 118kg

OPEN AREA  
N/A

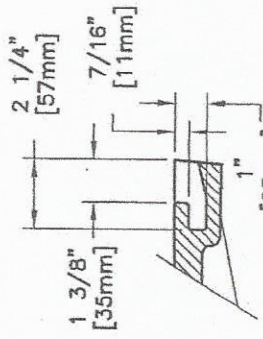
MAT'L SPEC.  
COVER - GRAY IRON  
ASTM A48 CL35  
FRAME - GRAY IRON  
ASTM A48 CL35

LOAD RATING  
**HEAVY DUTY**

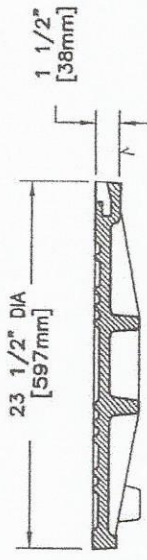
1 1/4" (32mm) LETTERING  
(RECESSED FLUSH)



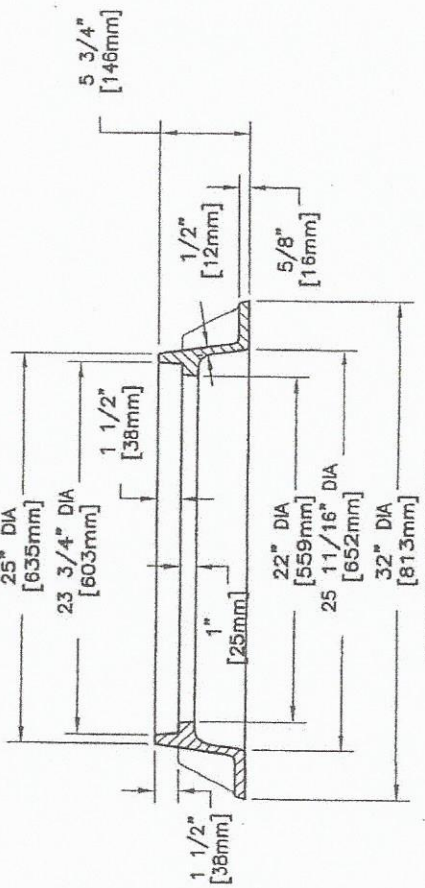
BOTTOM VIEW



PICKHOLE DETAIL



COVER SECTION



FRAME SECTION

✓ MACHINED SURFACE

**SEALMASTIC™ Solvent**  
Dampproofing

**DESCRIPTION**

SEALMASTIC solvent-type dampproofing is an asbestos-free, fibered and non-fibered asphalt compound. Both the brush-on and trowel-applied versions are flexible and will span small holes and hairline cracks. All three grades withstand temperature changes and will not crack under normal expansion and contraction. The three types offered are SPRAY-MASTIC™, a non-fibered asphalt compound for use where spray application is desired; SEMI-MASTIC™, a brush or spray-on fibered asphalt compound designed to protect exterior below-grade masonry walls; and TROWEL-MASTIC™, a trowel-applied, heavy-bodied, fibered asphalt compound for exterior, below-grade masonry wall surface applications. It is recommended to protect porous or irregular surfaces.

**USES**

SEALMASTIC solvent-type dampproofing is ideal for reducing dampness and moisture infiltration through foundation walls, parapets, firewalls, tanks, culverts, cisterns, and bridge abutments. It is also applicable for stone backing, above-grade cavity wall applications and below-grade masonry wall dampproofing. The SEALMASTIC product line also helps to minimize internal structural damage from mildew and mold.

**PACKAGING**

5 Gallon (18.93 Liter) Pails  
55 Gallon (208.20 Liter) Drums

**SPECIFICATIONS**

SPRAY-MASTIC      ASTM D 4479, Type 1  
SEMI-MASTIC      ASTM D 4479, Type 1  
TROWEL-MASTIC    ASTM D 4586, Type 1  
All products comply with U.S. EPA VOC content requirement.

**FEATURES/BENEFITS**

- Ready to use ... no heating or thinning required.
- Dries rapidly ... fast and economical way to protect concrete and masonry foundation walls from moisture penetration.
- Easy to apply ... no special equipment needed.
- Available in spray-, brush-, and trowel-grades ... meets a broad range of applications for maximum versatility.
- VOC compliant ... meets the U.S. EPA Architectural Coatings Rule requirements

**COVERAGE\***

**SPRAY-MASTIC**

As a primer (two-coat system): Approximately 70-100 ft.<sup>2</sup>/gal. (1.71 to 2.45 m<sup>2</sup>/L)

**Exterior Below-Grade Dense Surfaces, Exterior Below-Grade Porous Surfaces, Interior Above-Grade Surfaces:**

(One coat, 1/16" wet film thickness): Approximately 20-25 ft.<sup>2</sup>/gal. (0.5 to 0.6 m<sup>2</sup>/L)

(One coat, 1/8" wet film thickness): Approximately 10-12.5 ft.<sup>2</sup>/gal. (0.25 to 0.3 m<sup>2</sup>/L)

**SEMI-MASTIC & TROWEL-MASTIC**

**Exterior Below-Grade Dense Surfaces, Exterior Below-Grade Porous Surfaces, Interior Above-Grade Surfaces:**

(One-coat, 1/16" wet film thickness): Approximately 20-25 ft.<sup>2</sup>/gal. (0.5 to 0.6 m<sup>2</sup>/L).

(One-coat, 1/8" wet film thickness): Approximately 10-12.5 ft.<sup>2</sup>/gal. (0.25 to 0.3 m<sup>2</sup>/L)

\*Coverage may vary due to porosity and condition of concrete.

**LEED INFORMATION**

May help contribute to LEED credits:

- EQ Credit 3.1: Construction IAQ Management Plan: During Construction
- MR Credit 5.1: Regional Materials: 10% Extracted, Processed & Manufactured Regionally
- MR Credit 5.2: Regional Materials: 20% Extracted, Processed & Manufactured Regionally

*CONTINUED ON REVERSE SIDE...*

**W. R. MEADOWS, INC.**

P.O. Box 338 • HAMPSHIRE, IL 60140-0338  
Phone: 847/214-2100 • Fax: 847/683-4544  
1-800-342-5976  
[www.wrmeadows.com](http://www.wrmeadows.com)

HAMPSHIRE, IL / CARTERSVILLE, GA / YORK, PA  
FORT WORTH, TX / BENICIA, CA / POMONA, CA  
GOODYEAR, AZ / MILTON, ON / ST. ALBERT, AB

# Exterior Coating

PAGE 2 ... SEALMASTIC Solvent #720 ... DECEMBER 2008

## APPLICATION

**Surface Preparation ...** All surfaces to be coated must be thoroughly cleaned of all scale, loose mortar, dust, rust, dirt, oil, grease, and other foreign matter. Use a wire brush, sandblast, or other methods in keeping with good construction practices. Before product application, fill voids, cracks, and holes in concrete with cement mortar and allow to dry. If primer is required, use SEALMASTIC SPRAY-MASTIC. Do not apply when temperatures below 35° F (2° C) are anticipated. Do not apply in rain or when rain is threatening.

**MIXING ...** SEMI-MASTIC and SPRAY-MASTIC should be thoroughly stirred in their respective containers prior to application. TROWEL-MASTIC can be applied directly from the container.

## EXTERIOR BELOW-GRADE DENSE SURFACES

Apply SEMI-MASTIC (brush- or spray-grade) and SPRAY-MASTIC (spray-grade) by soft bristle brush or suitable spray equipment\* or TROWEL-MASTIC by trowel.

Dampproofing should be applied to properly prepared surfaces in a continuous, unbroken film, free of pinholes, filling and spreading around all joints, slots and grooves and penetrating into all crevices, chases, reveals, soffits, and corners. Carry coating over the exposed footing's top and outside edge up to finished grade.

NOTE: Fillers, extenders, and additives in concrete mixes can produce a higher than normal porosity and as a result, additional coverage coats may be required.

\*Consult spray equipment manufacturer for instructions

## EXTERIOR BELOW-GRADE POROUS SURFACES (3 OPTIONS)

1. **MEMBRANE SYSTEM:** For severe conditions or for added protection, apply one coat of TROWEL-MASTIC, SEMI-MASTIC, or SPRAY-MASTIC on porous surfaces, such as block, according to dense surface application. Within four hours, apply a glass fabric membrane cloth over all coating surfaces. Overlap all edges by 3" (76 mm) minimum. Press firmly into place without wrinkles. Application of the second coat of TROWEL-MASTIC, SEMI-MASTIC, or SPRAY-MASTIC should be within 24 hours.

2. **TWO-COAT SYSTEM:** Apply SEALMASTIC SPRAY-MASTIC as a prime coat. Allow coat to dry tacky to touch and then apply TROWEL-MASTIC in one coat, as described under dense surface application.

3. **PARGE-COAT SYSTEM:** Before application of SEALMASTIC, apply a heavy parge-coat of cement mortar for surface preparation. The coat should cover the bottom of the footings to grade level, forming a cove at the junction of the wall and footing. Once the parge-coat cures, apply two brush or spray coats of SEMI-MASTIC or SPRAY-MASTIC, or one coat of TROWEL-MASTIC, as described under dense surface application.

## BACKFILLING

Backfilling should be done within 24 to 48 hours after application. No longer than seven days maximum should elapse. Be careful not to damage or rupture the film or displace coating or membranes. To assure maximum protection, PROTECTION COURSE from W. R. MEADOWS should be used. Prolonged exposure to ultraviolet sunrays should be minimized.

**INTERIOR ABOVE-GRADE SURFACES - VAPOR RETARDER**  
TROWEL-MASTIC, SEMI-MASTIC, and SPRAY-MASTIC can be used individually or in combination for dampproofing the exterior face of interior walls in cavity wall construction.

**CLEANUP ...** While still wet, material may be removed with soap and water. Once dried, the material can be removed with kerosene or petroleum naphtha. Solvent manufacturer precautions should be adhered to when using a solvent for cleanup.

## PRECAUTIONS

Handle as a combustible product. Read and follow application information and precautions. Refer to Material Safety Data Sheet for complete health and safety information.

For most current data sheet, further LEED information, and MSDS, visit [www.wrmeadows.com](http://www.wrmeadows.com).

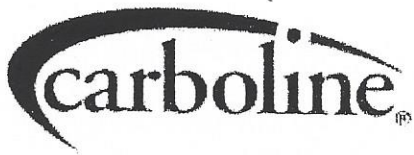


## LIMITED WARRANTY

"W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order." Read complete warranty. Copy furnished upon request.

## Disclaimer

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.



# Carboline Bitumastic 300M Coal Tar Epoxy Coating

Bitumastics | Bitumastic 300M | Bitumastic 50 | Super Service Black | Carboguard A-788

---

## Selection & Specification Data

<b>Generic</b>	Coal Tar Epoxy
<b>Description</b>	Renowned high build coal tar epoxy for protection for steel and concrete in single or two-coat applications in a broad variety of aggressive industrial applications.
<b>Features</b>	Excellent chemical, corrosion and abrasion resistance High-build up to 35 mils (875 microns) in a single coat Compatible with controlled cathodic protection Meets or exceeds all requirements of: - Corp of Engineers C-200, C200a - AWWA C-210-92 for exterior - SSPC-Paint 16 - Steel Tank Institute Corrosion Control System STI-P <sub>3</sub>
<b>Color</b>	Black (C900)
<b>Finish</b>	Will discolor, chalk and lose gloss in sunlight exposure.
<b>Primers</b>	Self-priming, Carboguard 888
<b>Topcoats</b>	Not recommended
<b>Dry Film Thickness</b>	16.0 mils (400 microns) in one or two coats. Total dry film thickness less than 8 mils (200 microns) or in excess of 35 mils (875 microns) not recommended.
<b>Solids Content</b>	By Volume: 74% ± 2%
<b>Theoretical Coverage Rate</b>	1187 mil ft <sup>2</sup> (29.1 m <sup>2</sup> /l at 25 microns). Allow for loss in mixing and application.
<b>Nominal VOC Values</b>	As supplied: 2.0 lbs/gal (192 g/l) Thinned: 20 oz/gal w/ #10: 2.6 lbs/gal (307 g/l) Thinned: 25 oz/gal w/ #10: 2.7 lbs/gal (325 g/l)
<b>Dry Temperature Resistance</b>	Continuous: 350°F (177°C) Non-Continuous: 370°F (190°C)
<b>Wet Temperature Resistance</b>	Immersion temperature should not exceed 120°F (49°C).
<b>Limitations</b>	Do not use for potable water requirements.

---

## Substrates & Surface Preparation

<b>General</b>	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
<b>Steel</b>	Immersion: SSPC-SP10. Non-Immersion: SSPC-SP6 for maximum protection. SSPC-SP2 or SP3 as minimum requirement. Surface Profile: 2.0-3.0 mils (50-75 micron).
<b>Concrete</b>	Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing.

## Performance Data

Test Method	System	Results	Report #
ASTM D4060 Abrasion	Blasted Steel 2 cts. 300M	130 mg. loss after 1000 cycles. CS 17 wheel, 1000 gm load.	02877
ASTM D4541 Adhesion	Blasted Steel 2 cts. 300M	1443 psi (pneumatic)	02877
ASTM D2794 Impact	Blasted Steel 2 cts. 300M	Impact site diameter. Inches: 3/8, 3/8, 1/2. 100 in/lbs Gardner Impactor at 1/2 in. diam.	02877
ASTM B117 Salt Fog	Blasted Steel 2 cts. 300M	No blistering, rusting or delamination. No mea- surable undercutting at scribe after 2000 hrs.	02938

## Application Equipment

<b>Spray Application (General)</b>	This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.
<b>Conventional Spray</b>	Pressure pot equipped with dual regulators, 3/8" LD. minimum material hose, with 50' maximum material hose .086" LD. fluid tip and appropriate air cap.
<b>Airless Spray</b>	Pump Ratio: 30:1 GPM Output: 3.0 (min.) Material Hose: 1/2" ID. (min.) Tip Size: 023-.035" Output PSI: 2300-2500 Filter Size: 30 mesh Teflon packings are recommended and available from the pump manufacturer.
<b>Brush &amp; Roller (General)</b>	Recommended for touch up, striping of weld seams (General) and hard-to-coat areas only. Avoid excessive rebrushing or re-rolling.
<b>Brush</b>	Use a medium bristle brush.
<b>Roller</b>	Use a short-nap synthetic roller cover with phenolic core.

# APPENDIX U PROJECT PHOTOGRAPHIC LOG



Looking north at proof-rolling subgrade.



Looking at proof-roll results.



Looking northeast at hauling operation of subgrade.



Haulers transporting structural fill material.





Looking south at excavators cutting structural fill material and loading into haulers to be transported.



Looking east at dozer spreading subgrade material to bring to elevation.



Looking northeast at Excavators cutting overburden and loading into haulers to be used as structural fill.



Looking south at Excavator cutting overburden and loading into hauler.



Looking south at sheep's foot compacting subgrade.



Looking southeast at grading, moisture conditioning and compacting clay liner.



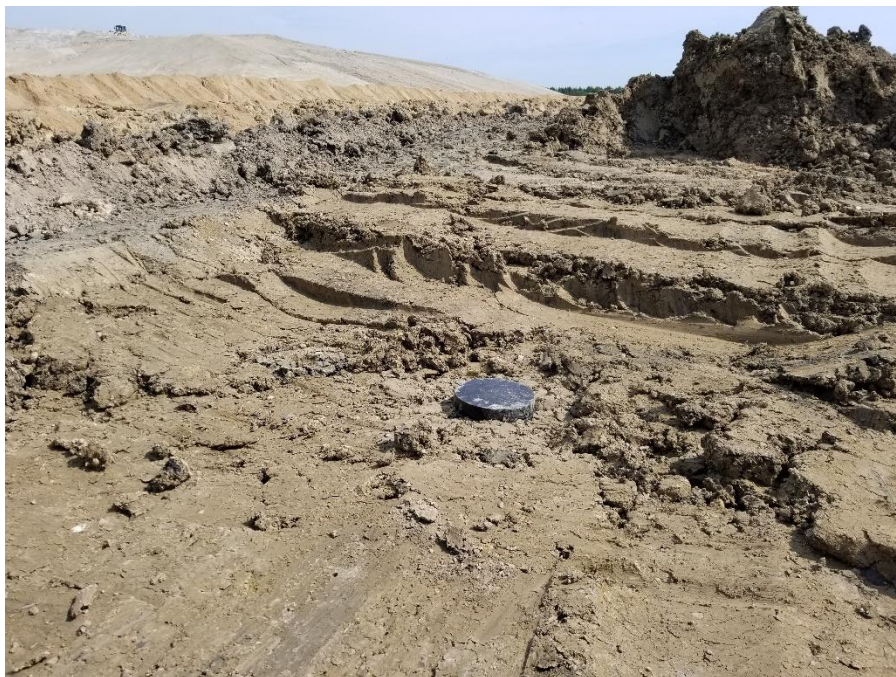
Looking southeast at smooth drum roller left in place after creating density testing pads following clay liner placement.



Looking southeast at ponded material outside beginnings of west berm after a heavy rain.



Pipe after cutting cleanout to reduce top elevation.



Pipe cap after welding and backfilling around cleanout.



Bentonite placement over cap before concrete cover.



Looking east at dozer grading cell floor before placement of clay liner material.



Looking east at west berm after smooth drum sealed it to prevent moisture infiltration.



Looking southeast at smooth drum sealing west berm before expected rain.

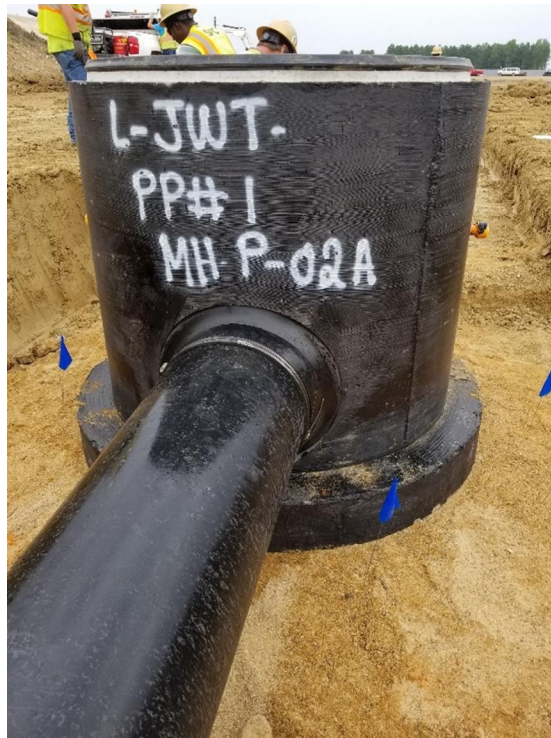


Looking east at excavators moving south leachate line to place in berm.



Looking south at placement of the south leachate line.





Looking at north manhole in place in north berm.



Looking north at excavators placing north leachate line in north berm.



Looking east at manhole in north berm after placing material above leachate line.



Looking south at completed clay liner and geomembrane being staged prior to deployment.



Looking east at cutting the south geosynthetics anchor trench.



Looking south at exposing the geosynthetics tie in on the east berm.



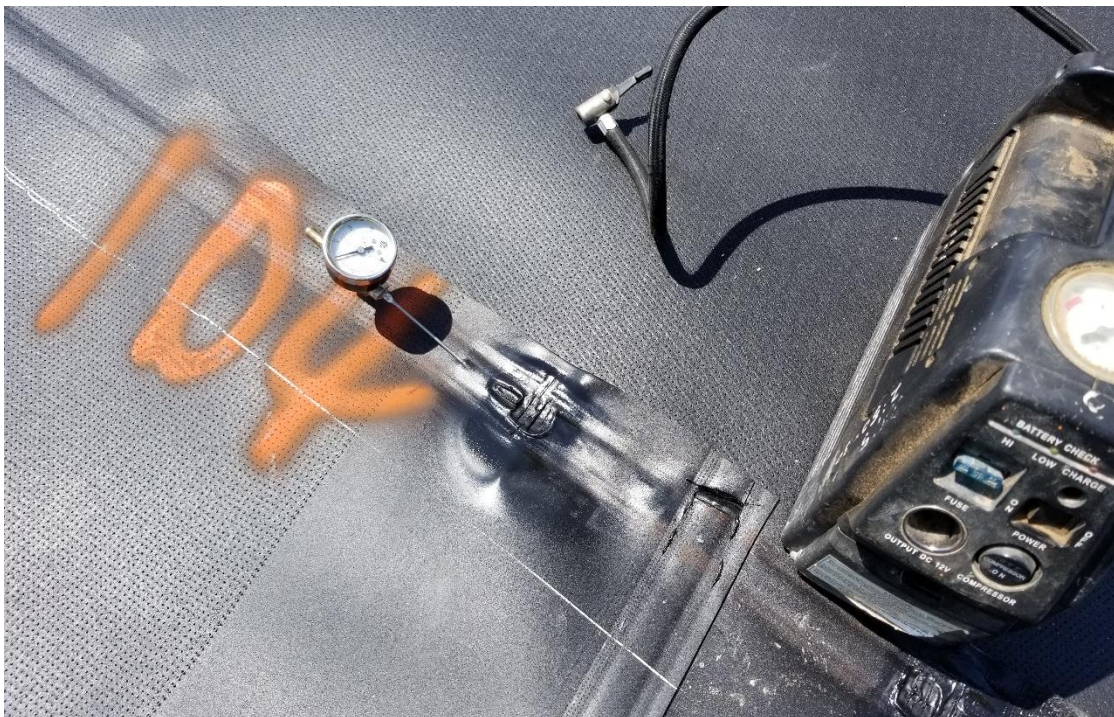
Looking southwest at smooth rolling subgrade in preparation for geomembrane deployment.



Looking east at deployed and seamed geomembrane on the south slope.



Looking east at cleaning and fusion welding geomembrane seam.



Looking at air pressure test on fusion seam.



Looking at extrusion seaming preparation and welding geomembrane repair.



Looking south at completed geomembrane deployment and partial deployment of geocomposite.



Looking at south leachate line penetration at south berm.



Looking east at ESI deploying geocomposite on north berm.



Looking southwest at deployment of geocomposite on west slope.



Zip-ties used to connect geonet between geocomposite panels.





Looking at sewing the geotextile layer of the geocomposite.



Looking southwest at skidsteer backfilling south geosynthetics anchor trench



Looking west moisture conditioning anchor trench material prior to compaction.



Compacting south geosynthetics anchor trench.



Looking west at drum compacting north geosynthetics anchor trench.



Looking northeast at dozer beginning to spread protective cover material into cell floor.



Looking south at placement of protective cover material. Also shown is plywood placed for protection of geosynthetics for future chimney drain and leachate line trench excavation.



Looking south at excavator cutting protective cover for leachate lines.



Looking south at placement of geotextile in leachate trench.



Looking at placement of gravel in leachate trench, and surveyor verifying gravel thickness.



Looking east at north leachate line connections.



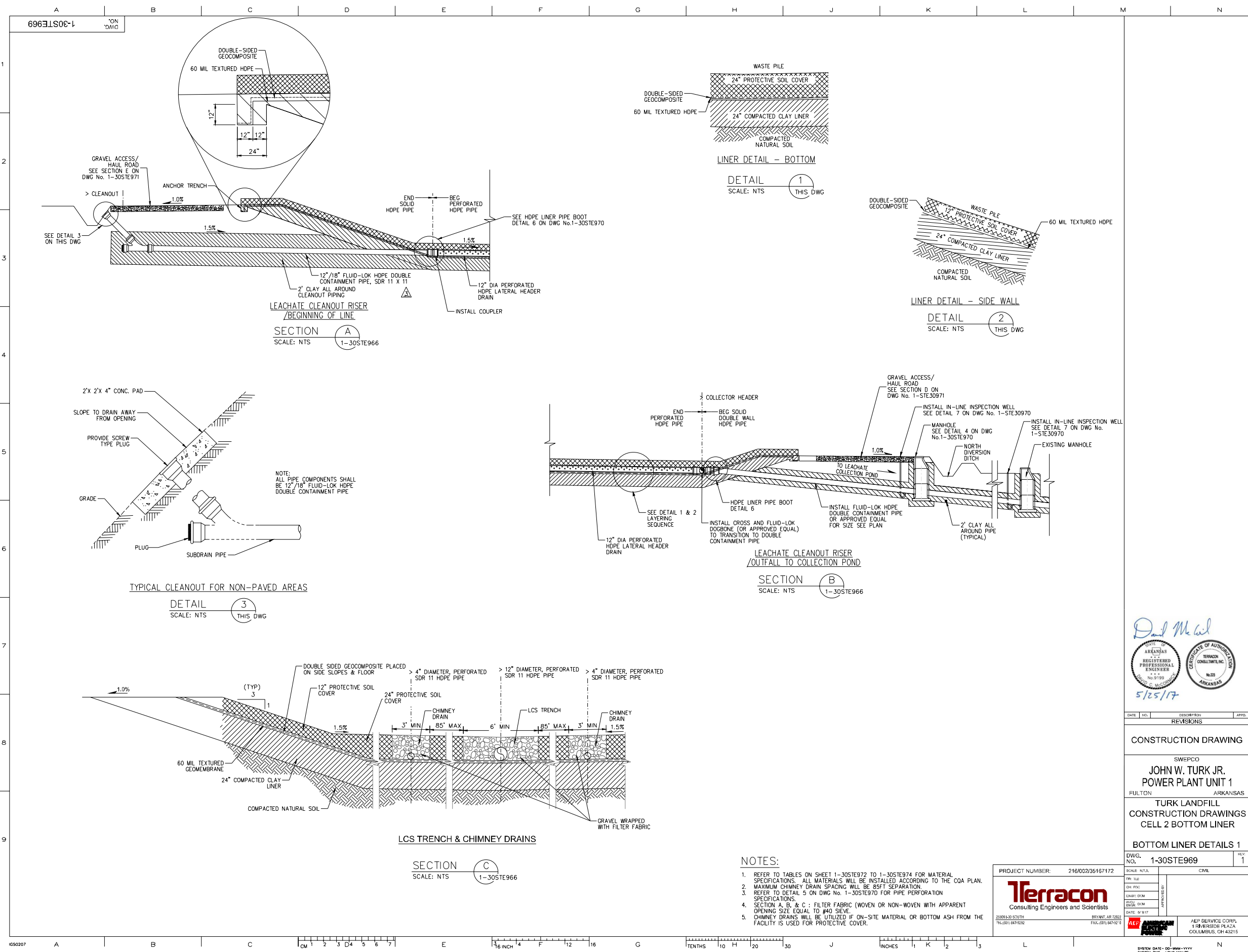
Looking southwest at leachate lines and gravel covered by geotextile.



Looking north at completed protective cover layer.

# APPENDIX V UPDATED DRAWINGS





- NOTES:**
- REFER TO TABLES ON SHEET 1-30STE972 TO 1-30STE974 FOR MATERIAL SPECIFICATIONS. ALL MATERIALS WILL BE INSTALLED ACCORDING TO THE COA PLAN.
  - MAXIMUM CHIMNEY DRAIN SPACING WILL BE 85FT SEPARATION.
  - REFER TO DETAIL 5 ON DWG No. 1-30STE970 FOR PIPE PERFORATION SPECIFICATIONS.
  - SECTION A, B, & C : FILTER FABRIC (WOVEN OR NON-WOVEN WITH APPARENT OPENING SIZE EQUAL TO #40 SIEVE).
  - CHIMNEY DRAINS WILL BE UTILIZED IF ON-SITE MATERIAL OR BOTTOM ASH FROM THE FACILITY IS USED FOR PROTECTIVE COVER.

*David McNeil*  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 9199  
 ARKANSAS  
 5/25/17

DATE	NO.	DESCRIPTION	APPROVED
REVISIONS			
CONSTRUCTION DRAWING			
SWEPCO JOHN W. TURK JR. POWER PLANT UNIT 1 FULTON ARKANSAS			
TURK LANDFILL CONSTRUCTION DRAWINGS CELL 2 BOTTOM LINER			
BOTTOM LINER DETAILS 1			
DWG. NO.	1-30STE969		REV. 1

PROJECT NUMBER: 216/002/35167/172

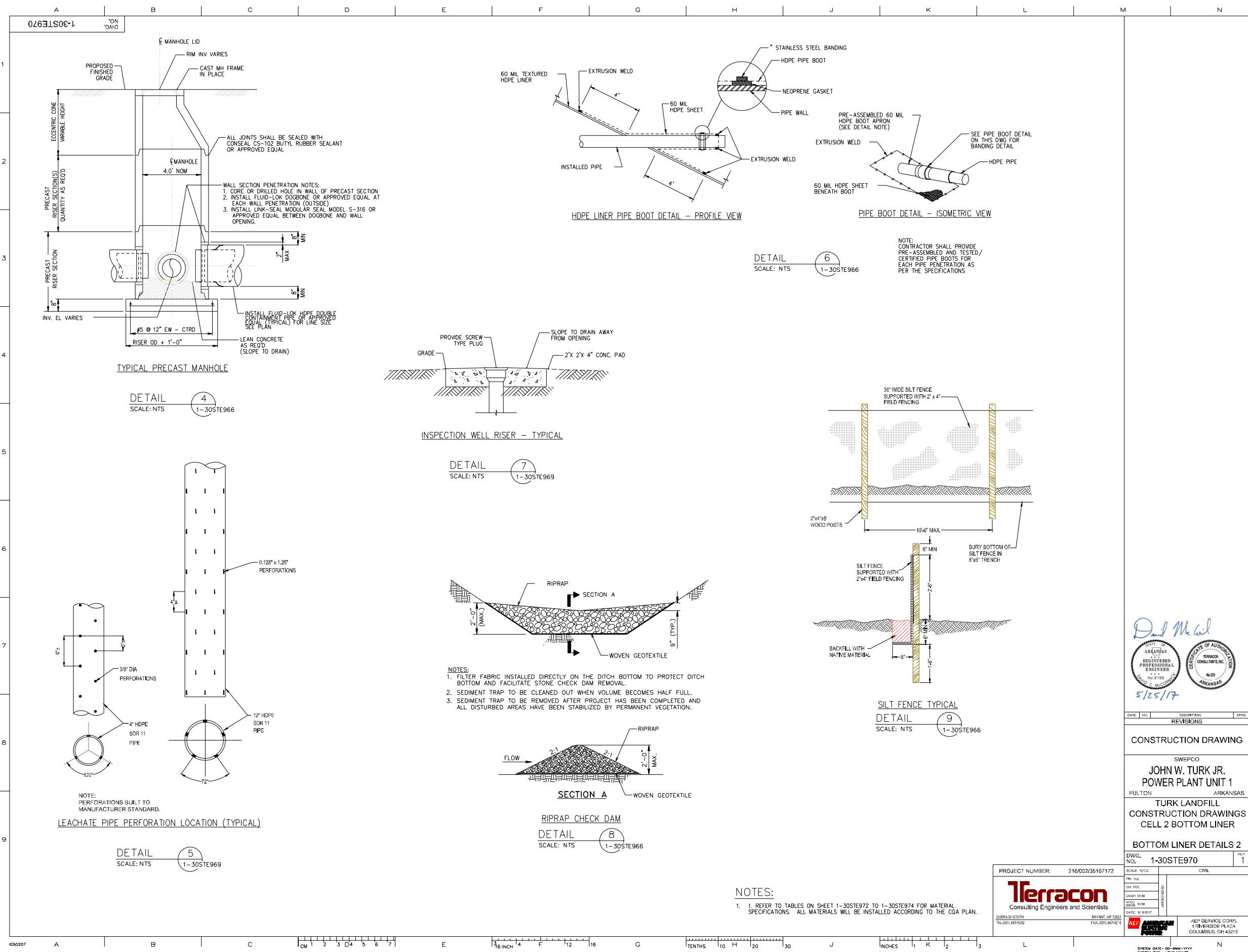
**Terracon**  
Consulting Engineers and Scientists

18091-20 SOUTH  
741.6911/847-5292

SCALE: N.T.S.  
 PREP: TJC  
 CH. FIC  
 ENGR: DCM  
 PROJ. ENGR: DCM  
 DATE: 5/17/17

BY: [Signature]  
 DATE: 5/17/17

AEF SERVICE CORP.  
118 WENDELL PLAZA  
COLUMBUS, OH 43215



*David McNeil*  
 REGISTERED PROFESSIONAL ENGINEER  
 ARKANSAS  
 No. 199  
 5/25/17

DATE	NO.	DESCRIPTION	APPROVED
REVISIONS			
CONSTRUCTION DRAWING			
SWEPCO JOHN W. TURK JR. POWER PLANT UNIT 1 FULTON ARKANSAS			
TURK LANDFILL CONSTRUCTION DRAWINGS CELL 2 BOTTOM LINER			
BOTTOM LINER DETAILS 2			
DWG. NO.	1-30STE970		
REV.	1		

PROJECT NUMBER: 216/002/35167172

**Terracon**  
 Consulting Engineers and Scientists

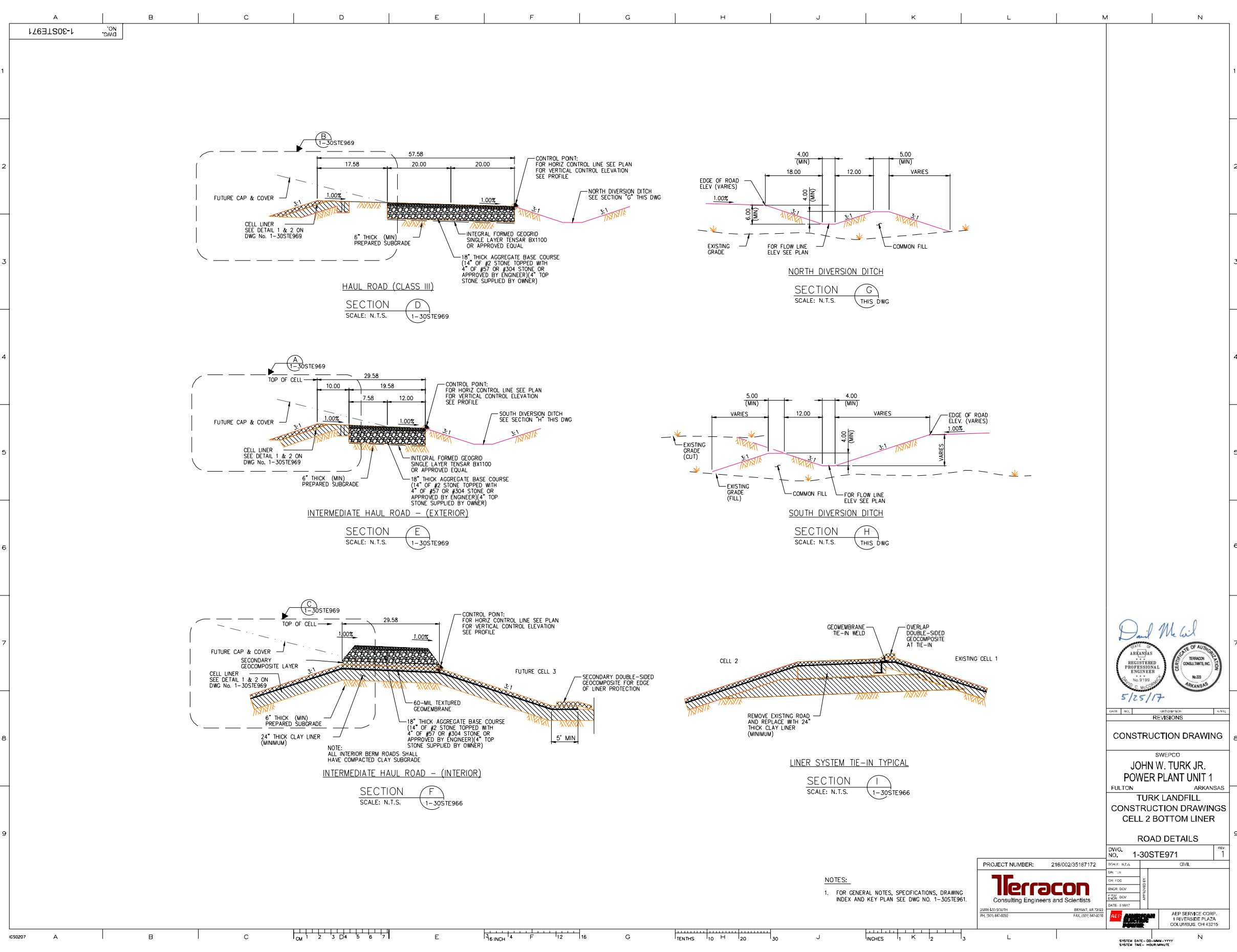
2809 W. SOUTH  
 764.691.8475-8292

BRVINT, AIR 2202  
 FAX: 681.9475278

DATE: 5/18/2017

APPROVED BY: [Signature]

AEP SERVICE CORP.  
 118 W. KENNEDY PLAZA  
 COLUMBUS, OH 43215



*Don McNeil*  
 REGISTERED PROFESSIONAL ENGINEER  
 ARKANSAS  
 No. 9799  
 5/25/17

DATE	NO.	DESCRIPTION
REVISIONS		

CONSTRUCTION DRAWING  
 SWEP/CO  
**JOHN W. TURK JR.**  
 POWER PLANT UNIT 1  
 FULTON ARKANSAS  
**TURK LANDFILL**  
 CONSTRUCTION DRAWINGS  
 CELL 2 BOTTOM LINER  
 ROAD DETAILS

DWG. NO. 1-30STE971 REV. 1

PROJECT NUMBER: 216/002/35187172  
**Terracon**  
 Consulting Engineers and Scientists  
 2500 E. 10th SOUTH BRYANT, AR 72202  
 PH: (501) 647-8292 FAX: (501) 647-8293

- NOTES:  
 1. FOR GENERAL NOTES, SPECIFICATIONS, DRAWING INDEX AND KEY PLAN SEE DWG. NO. 1-30STE961.

DATE: 5/16/17  
 AEP SERVICE CORP.  
 1 RIVERSIDE PLAZA  
 COLUMBUS, OH 43215



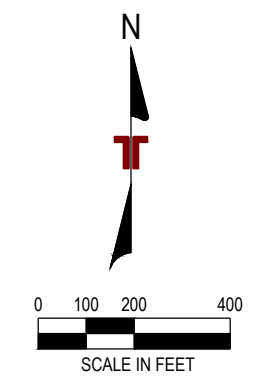
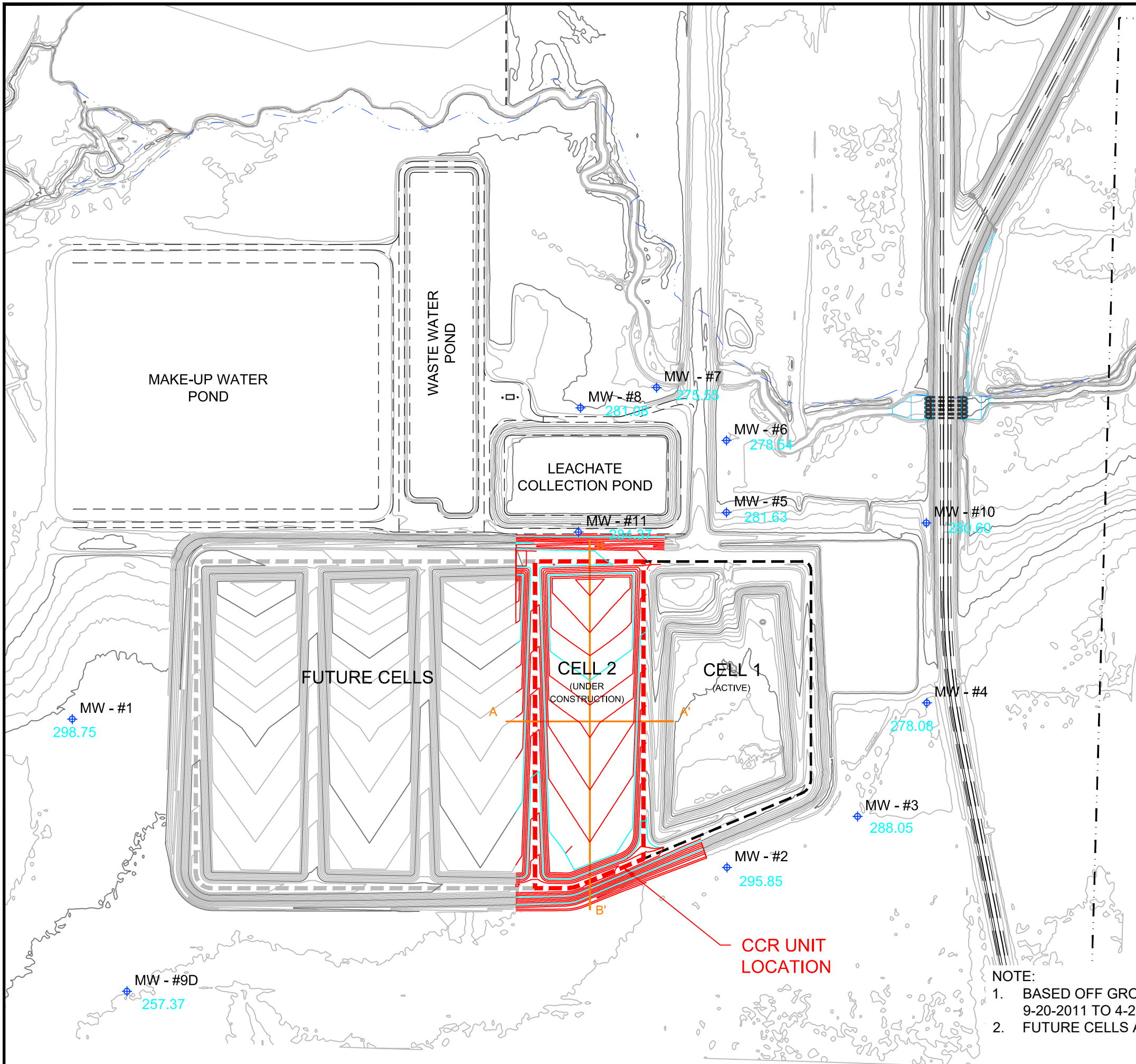
# APPENDIX W GROUNDWATER SEPARATION

TABLE 1  
 SWEPCO - JOHN W. TURK, JR. POWER PLANT  
 CLASS 3N LANDFILL  
 MONITORING WELL DATA  
 POTENTIOMETRIC GROUNDWATER ELEVATIONS (FMSL)

Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9D	MW-10	MW-11	TEST PIT 1	TEST PIT 2
Date													
9/20/2011	284.28	264.25	266.16	273.23	273.26	261.26	270.28	<261.23	251.67	<262.99	-	-	-
12/30/2011	294.89	267.24	265.19	273.16	278.16	270.17	272.10	280.34	254.14	272.41	-	-	-
2/28/2012	295.83	267.40	269.42	272.69	278.33	271.15	272.41	279.96	254.54	274.22	-	-	-
5/17/2012	295.27	267.59	269.65	272.62	277.92	271.96	272.94	278.48	254.47	276.64	-	-	-
8/8/2012	293.35	267.64	269.64	272.51	275.16	271.78	271.46	275.80	252.43	276.89	-	-	-
11/7/2012	292.20	267.72	269.59	272.44	272.90	270.85	271.53	279.69	253.02	275.49	-	-	-
2/28/2013	294.29	267.94	270.03	272.32	278.71	272.53	272.77	280.87	253.93	278.06	-	-	-
5/20/2013	294.37	268.11	270.28	273.27	278.36	272.76	273.37	280.44	255.10	276.59	-	-	-
8/6/2013	293.69	267.99	270.68	273.31	278.35	273.03	272.89	279.61	253.71	277.66	-	-	-
11/4/2013	298.59	271.85	270.50	273.63	279.94	273.59	273.07	280.23	253.54	278.40	-	-	-
2/10/2014	296.87	268.35	270.65	275.18	279.81	274.90	273.79	281.08	254.15	278.94	-	-	-
5/5/2014	296.76	268.56	271.07	276.06	278.96	274.63	273.70	279.02	255.96	279.88	-	-	-
8/5/2014	297.03	272.81	276.01	276.03	279.77	277.85	274.02	280.09	254.21	278.59	-	-	-
11/5/2014	295.99	268.82	271.78	275.88	278.99	275.91	273.30	279.07	254.44	279.86	-	-	-
2/3/2015	298.75	272.90	286.87	276.30	279.89	278.41	274.00	280.64	253.31	280.42	-	-	-
5/5/2015	296.47	275.43	275.97	276.93	280.17	277.74	274.32	279.80	252.04	277.62	-	-	-
8/19/2015	295.02	270.66	274.04	277.45	277.96	273.69	272.99	277.97	252.65	280.05	-	-	-
11/18/2015	297.20	295.53	288.05	276.84	280.71	277.66	273.82	280.73	254.36	279.13	-	-	-
3/23/2016	297.35	281.27	282.69	277.92	280.25	277.87	274.09	279.08	256.98	280.60	-	-	-
4/26/2016	296.72	281.44	282.40	278.08	280.25	277.61	273.74	-	257.37	271.37	283.83	-	-
6/1/2016	297.05	295.85	277.73	277.82	280.65	278.54	275.55	280.53	256.66	275.00	273.38	-	-
7/25/2016	295.36	271.35	274.86	277.94	278.80	272.60	272.98	278.10	253.79	278.28	283.98	-	-
9/1/2016	296.65	274.41	275.22	277.94	279.84	276.52	273.50	278.94	253.87	278.23	284.00	-	-
11/2/2016	295.25	270.46	274.89	277.36	278.05	272.64	270.92	275.45	251.66	278.56	282.89	-	-
12/15/2016	295.66	274.02	275.51	276.93	279.89	277.85	272.83	277.86	251.29	277.41	283.09	-	-
2/1/2017	297.70	280.52	279.38	277.58	280.80	278.05	273.37	278.98	250.80	276.61	283.52	-	-
2/21/2017	297.37	290.69	278.94	277.45	279.83	278.37	275.10	280.43	251.21	272.19	284.37	-	-
5/2/2017	298.22	295.59	277.61	277.73	281.21	278.30	274.25	279.56	252.52	277.81	284.26	-	-
6/29/2017	296.55	271.91	275.67	277.88	279.53	274.22	273.43	277.22	253.18	278.98	283.71	-	-
7/19/2017	296.75	272.91	275.62	277.78	280.18	274.56	273.54	278.22	252.34	274.43	283.89	-	-
8/10/2017	296.68	294.59	276.42	277.83	281.63	275.16	273.93	279.36	252.54	273.95	284.19	-	-
12/6/2017	296.80	271.87	275.93	277.24	277.47	272.94	272.99	274.90	249.81	279.32	282.11	-	-
4/26/2018	297.49	279.79	277.67	278.26	279.91	278.37	273.82	278.75	252.94	280.39	281.89	-	-
6/13/2018	-	-	-	-	-	-	-	-	-	-	-	276.00	271.36
Seasonal High	298.75	295.85	288.05	278.26	281.63	278.54	275.55	281.08	257.37	280.60	284.37	276.00	271.36

Note:

1. MW-9D is in the lower aquifer.
2. Test Pit 1 Location: N-35,715.86 E-29,795.62 el.276.00
3. Test Pit 2 Location: N-34,269.16 E-29,066.44 el.271.36



**LEGEND:**

- PROPERTY BOUNDARY
- CCR UNIT BOUNDARY
- EXISTING CELL BOUNDARY
- FUTURE CELL BOUNDARY
- HIGHEST OBSERVED GROUNDWATER ELEVATION
- MONITORING WELL

**NOTE:**

1. BASED OFF GROUNDWATER DATA FROM THE SEASONAL HIGH FROM 9-20-2011 TO 4-26-2018 SAMPLING EVENTS.
2. FUTURE CELLS ARE NOT PART OF THE CURRENT CCR UNIT.

**FIGURE 1**

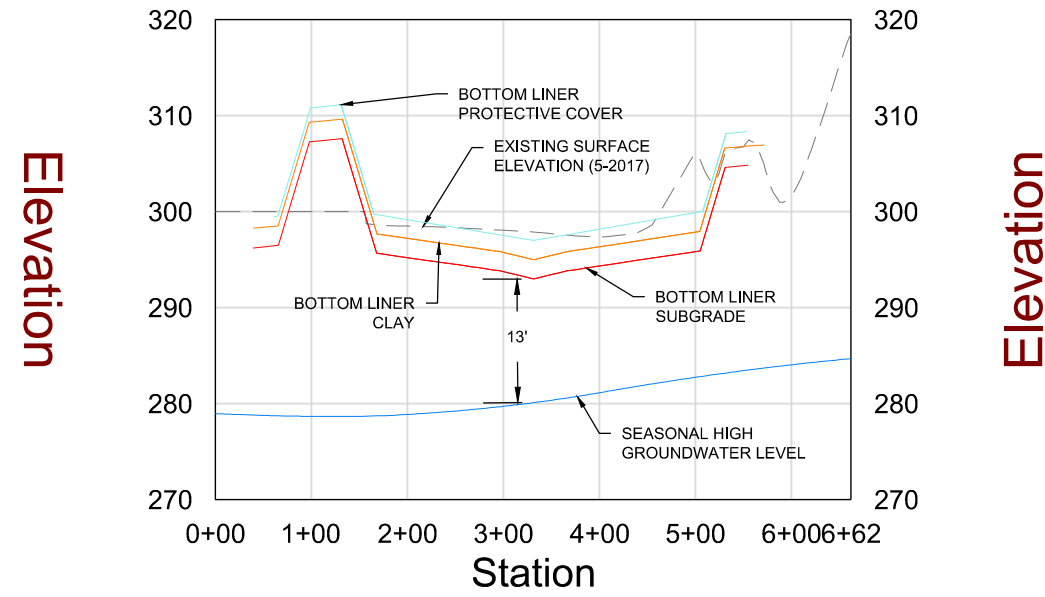
DESIGNED BY:	TLB
DRAWN BY:	TLB
APPVD. BY:	DCM
SCALE:	SEE BARSCALE
DATE:	11/07/2018
JOB NO.:	216-002-35177127
ACAD NO.:	601
SHEET NO.:	1 OF 2

CROSS SECTION LOCATION MAP  
 CELL 2 CCR CQA REPORT  
**AMERICAN ELECTRIC POWER**  
 JOHN W. TURK, JR. POWER PLANT  
 FULTON ARKANSAS

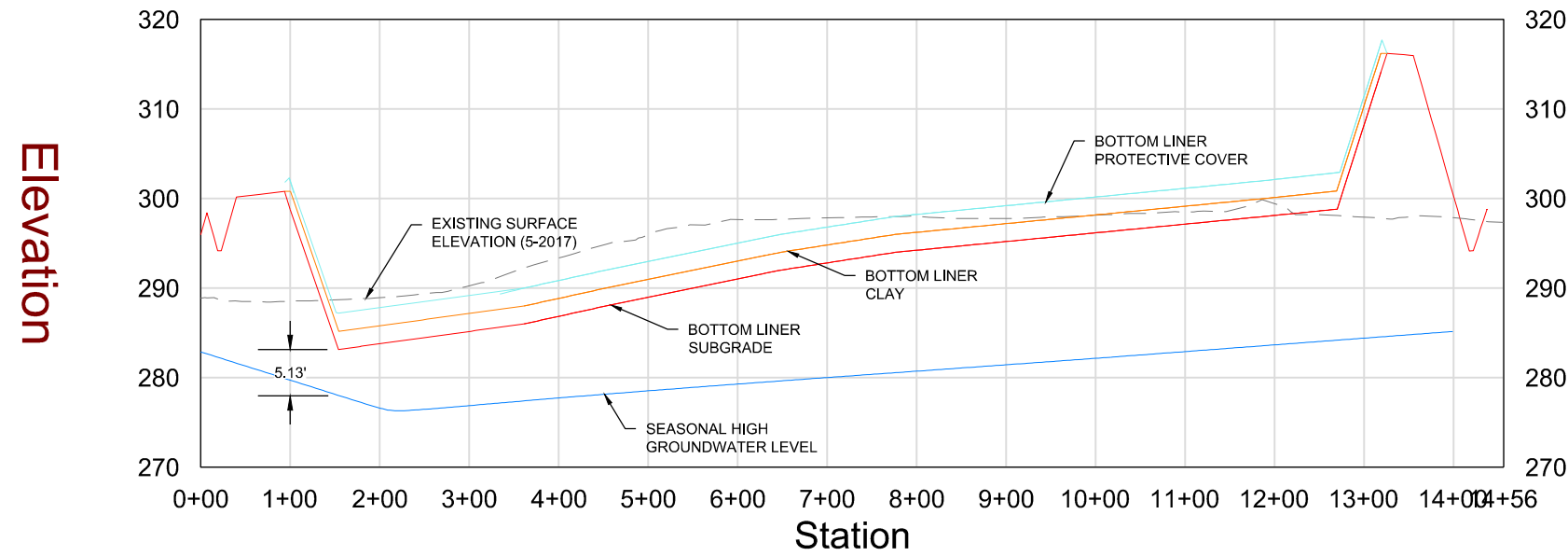
**Terracon**  
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 PH. (501) 847-9292  
 FAX. (501) 847-9210

REV.	DATE	BY	DESCRIPTION

# PROFILE - A-A'



# PROFILE - B-B'



**SCALES:**

1" = 200' (HORIZONTAL)  
 1" = 20' (VERTICAL)  
 VERTICAL EXAGGERATION = x 10

**NOTE:**

POTENTIOMETRIC SURFACE DEPICTED ON THIS DRAWING WAS DERIVED FROM THE HIGHEST ELEVATION RECORDED DURING SAMPLING EVENTS CONDUCTED BETWEEN 9-20-2011 AND 4-26-2017. (SEE TABLE 1)

<b>FIGURE 2</b>	
DESIGNED BY: TLB	DRAWN BY: TLB
APPROVED BY: DCM	SCALE: SEE BARSCALE
DATE: 11/07/2018	JOB NO. 216-002-35177127
ACAD NO. 602	SHEET NO.: 2 OF 2

**CROSS SECTIONS**  
 CELL 2 CCR CQA REPORT  
**AMERICAN ELECTRIC POWER**  
 JOHN W. TURK, JR. POWER PLANT  
 FULTON ARKANSAS

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REV.	DATE	BY	DESCRIPTION