

ADEQ

ARKANSAS
Department of Environmental Quality

CERTIFIED MAIL 91 7199 9991 7030 4944 6456

December 20, 2016

Terry Wehling, P.E.
Environmental Services Division
American Electric Power
502 North Allen Avenue
Shreveport, LA 71101

RE: Flint Creek Power Plant Class 3N Landfill
ADEQ Transmittal of Preliminary Site Investigation Report
AFIN: 04-00107 Permit No: 0273-S3N-R2
Document ID: 70741 Cross Reference: 70740

Dear Mr. Wehling:

The Arkansas Department of Environmental Quality – Office of Land Resources (ADEQ) Regulated Waste Programs conducted a preliminary site investigation at the proposed lateral expansion area for the Flint Creek Power Plant Class 3N Landfill on November 30, 2016. Attached is a copy of the ADEQ's report.

Based on results of this investigation, ADEQ has determined the proposed lateral expansion area is suitable for further permit consideration as a Class 3N landfill. As the next step in the permitting process, the facility needs to submit a site characterization workplan to address requirements of APC&EC Regulation No. 22 Chapter 11. The workplan is required to be approved prior to beginning work per APC&EC Regulation 22.1102(c). Please submit the characterization workplan within ninety (90) calendar days of receipt of this letter.

Please contact me with any questions or comments at (501) 682-0606 or email at sadler@adeq.state.ar.us.

Sincerely,



Bill Sadler, P.G.
Geology Supervisor
Regulated Waste Programs
Office of Land Resources

cc: David Miller, P.E., AEP
Scott Carney, AEP

Enclosure

TO: Tammie Hynum, Acting Senior Operations Manager, Office of Land Resources *JR So. TH*

THROUGH: Jay Rich, Technical Branch Manager, Office of Land Resources, Regulated Waste Programs *JR*

FROM: Bill Sadler, P.G., Geology Supervisor, Office of Land Resources, Regulated Waste Programs *BS*

DATE: December 20, 2016

SUBJECT: Preliminary Site Investigation for the Proposed Lateral Expansion at the Flint Creek Power Plant Class 3N Landfill

Permit Number: 0273-S3N-R2 AFIN: 04-00107
Document ID: 70740 Cross Reference: 70529

A preliminary site investigation was performed on November 30, 2016 by Arkansas Department of Environmental Quality – Office of Land Resources (ADEQ) Regulated Waste Programs personnel for a proposed lateral expansion of the Flint Creek Power Plant Class 3N Landfill. The preliminary site investigation is part of the pre-application procedure and is required per Regulation 22.302(e). The pre-application was declared administratively complete on October 27, 2016 (Document ID 70529). The pre-application is contained within two facility submittals: “Pre-Application” submitted June 22, 2016 (Document ID 69808) with supplemental information provided in “Response to ADEQ’s Request for Additional Information ...” dated August 26, 2016 (Document ID 70177). This preliminary site investigation consisted of a site reconnaissance of the proposed landfill area and excavation of four test pits within the boundaries of the proposed landfill area.

Location, Topography, and Drainage

Figure 1 is a map showing the proposed lateral expansion area relative to the existing landfill and other landmarks as submitted by Terracon for the facility in the pre-application (Document ID 69808). The proposed expansion area borders the northwestern portion of the current landfill and is east of the power plant lake that is within the valley of Little Flint Creek (Swepco Lake – also called Flint Creek Lake). The area is located approximately one mile west-southwest of Gentry, Arkansas in Sections 5 and 8 of Township 18 North, Range 33 West in Benton County, Arkansas.

The eastern portion of the proposed expansion area currently includes a borrow area and associated spoils pile that was created in 2015. The purpose of the borrow area was to provide clayey material to build landfill improvements; however, due to the large amount of gravel in the borrowed soil, much of it was placed in the spoils pile. The remainder of the expansion area currently consists of approximately half cattle pasture and half wooded areas.

The facility is located in the Springfield Plateau portion of the Ozark Plateaus physiographic province. Based on the topographic survey provided by the facility, natural site relief of the proposed area is approximately 40 feet; ranging from an approximate elevation of 1190 feet above mean sea level (ft amsl) in the eastern portion of the site to approximately 1150 ft amsl in the western portion of the site. Based on the U.S. Geological Survey 7.5 minute series topographic map for Cherokee City, Arkansas-Oklahoma, the elevation drops off quickly to 1120 ft amsl just to the west of the proposed expansion area into the valley of Little Flint Creek, which contains Swepeco Lake. The lake level is normally 1125 to 1140 ft amsl.

The surface water from most of the proposed expansion area currently drains toward the west into the Swepeco Lake, while the remainder of the area drains to the south into the facility ash pond and then into the Swepeco Lake. The downstream extent of Swepeco Lake is approximately two miles southwest of the expansion site. The lake discharges into Little Flint Creek which joins Flint Creek approximately three and one half miles southwest of the expansion area and flows into the Illinois River approximately 13 miles to the southwest of the expansion area.

Test Pit Excavation

Four test pits were excavated during this investigation (ADEQ TP-1, ADEQ TP-2, ADEQ TP-3, and ADEQ TP-4). The locations are shown in Figure 2. Test pit photographs are attached.

The test pits were dug with a Caterpillar 336F trackhoe by Wes Simpson of Charah, Inc, a contractor with the facility. Test pits ADEQ TP-1 through ADEQ TP-3 were geologically logged by SWMD geologists Bill Sadler and Jenny Pearson, while ADEQ TP-4 was logged by Jenny Pearson. Test pit excavation was observed by Terry Wehling, Scott Carney, Regina Walker and Satyananda Chakrabarti of American Electric Power (AEP) and Quin Baber and David McCormick of Terracon. Terracon collected geotechnical samples from the test pits and had the test pit locations and elevations surveyed on behalf of the facility. The facility sent the survey information to ADEQ (Document ID 70730). This survey information is incorporated into the test pit logs below and the survey document is attached to this memo. All test pits were excavated to refusal on rock and ranged from 11 to 18 feet in depth. Groundwater was not observed in any of the test pits. The test pit geologic logs are as follows :

ADEQ TP-1Location: 36⁰ 15' 38.5116" 94⁰ 31' 16.1991"

Ground Elevation: 1176.23 feet

<u>Feet Depth</u>	<u>Lithology</u>
0 to 2.5	Silty Clay - soil with some gravel, reddish brown, slightly moist
2.5 to 9	Clayey Gravel – chert gravel up to several inches in diameter, white, competent, subrounded to subangular; clay brownish red, firm, moist
9 to 11	Silty Clay – small amount of gravel, brownish red, firm, moist
11	Chert – competent layer, gray

Total Depth 11 feet;

Trackhoe refusal on competent chert layer, recovered pieces of the chert

No groundwater was encountered during test pit excavation.

ADEQ TP-2Location: 36⁰ 15' 38.7674" 94⁰ 31' 11.3566"

Ground Elevation: 1180.42 feet

<u>Feet Depth</u>	<u>Lithology</u>
0 to 3	Silty Clay - soil with some gravel, reddish brown, slightly moist
3 to 6	Clayey Gravel with sand – chert gravel up to several inches in diameter, white, competent, subrounded to subangular; clay brownish red, firm, moist
6 to 9	Same as above except clay is light gray
9 to 17	Silty Clay – contains some sand, mottled gray and tan, firm, moist
17	Silty Sandstone – tan, blocky with some laminations, fossiliferous, no reaction with HCl.

Total Depth 17 feet;

Trackhoe refusal on sandstone, recovered pieces of sandstone approximately 1.5 inches thick;

No groundwater was encountered during test pit excavation; test pit was still dry two hours later.

ADEQ TP-3Location: 36⁰ 15' 41.4353" 94⁰ 31' 04.1508"

Ground Elevation: 1182.75 feet

<u>Feet Depth</u>	<u>Lithology</u>
0 to 2.5	Silty Clay - soil with some gravel, reddish brown, slightly moist
2.5 to 6	Clayey Gravel with sand – chert gravel up to several inches in diameter, white, competent, subrounded to subangular; clay brownish red, firm, moist
6 to 11	Same as above except clay is light gray
11 to 15	Silty Clay – contains some sand, mottled gray and tan, firm, moist
15	Limestone – competent, gray, coarsely crystalline

Total Depth 15 feet;

Trackhoe refusal on limestone, recovered pieces of limestone;

No groundwater was encountered during test pit excavation.

ADEQ TP-4Location: 36⁰ 15' 43.5911" 94⁰ 30' 58.4982"

Ground Elevation: 1187.96 feet

<u>Feet Depth</u>	<u>Lithology</u>
0 to 3	Silty Clay - soil with some gravel, reddish brown, dry
3 to 14.4	Clayey Gravel –gravel up to several inches in diameter, competent, subrounded to subangular; clay brownish red, firm, dry
14.4 to 16	Same as above except clay is light gray, moist
16 to 18	Silty Clay – contains some sand, mottled gray and tan, firm, moist

Total Depth 18 feet;

Trackhoe refusal on competent rock, no pieces recovered;

No groundwater was encountered during test pit excavation.

Geology

The surface geology of the proposed expansion area is indicated to be the Boone Formation of Mississippian age “Mb” on the 1993 *Geologic Map of Arkansas*, Haley, et al. and on the Arkansas Geological Survey’s geologic worksheet for the Cherokee City, Arkansas – Oklahoma 7.5 minute quadrangle map. However, lithologies encountered in these test pits may represent a highly weathered erosional remnant of the Hindsville Member of the Batesville Sandstone as described in the Arkansas and Oklahoma chapters of Craig and Connor (1979). Of particular interest is:

- a. the competent subrounded to subangular chert gravel which has been rounded by moving water and was found in all four of the test pits; and
- b. the silty sandstone found in test pit ADEQ TP-2.

Remnants of younger formations (still Mississippian in age) labeled “Mpfb” which includes the Hindsville Member of the Batesville Sandstone are indicated on the 1993 *Geologic Map of Arkansas* within a few miles to both the north and south of the facility location. Therefore, given the site topography, portions of the proposed site may be directly underlain by the Boone Formation while the higher portions may have this thin highly weathered unit between the current land surface and the Boone Formation.

Site Limitations and Recommendations

Based on results of this preliminary site investigation, ADEQ has determined the proposed lateral expansion area is suitable for further permit consideration as a Class 3N landfill.

A site characterization workplan needs to be submitted to the SWMD to address requirements of APC&EC Regulation No. 22 Chapter 11. The workplan is required to be approved prior to beginning work per APC&EC Regulation 22.1102(c).

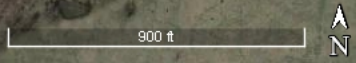
APC&EC Regulation.22.1102(c): Site Characterization - The site specific geology shall be defined through field investigations. A site characterization work plan outlining the initial investigations to be performed shall be submitted for Department approval prior to beginning the work. Additional studies and investigations may be required based on the findings of the initial investigation.

References

- Craig, L.C. and C.W. Connor, 1979, *Paleotectonic Investigations of the Mississippian System in the United States*, U.S. Geological Survey Professional Paper 1010, pp 135 - 156.
- Haley, B.R., E.E. Glick, W.V. Bush, B.F. Clardy, C.G. Stone, M.B. Woodward, and D.L. Zachry, 1993, *Geologic Map of Arkansas*, Little Rock, Arkansas Geological Commission and U.S. Geological Survey, scale 1:500,000.

Figure 2. ADEQ Test Pit Locations for the Flint Creek Power Plant Landfill Preliminary Site Investigation

SWPECO
Lake



Pond

ADEQ TP-4

Spoils
Pile

Borrow
Area

ADEQ TP-3

ADEQ TP-1

ADEQ TP-2

Existing
Landfill

489

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 1
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: West	
SUBJECT: Excavating Test Pit ADEQ TP-1	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 2
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>JP</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: South - Southwest	
SUBJECT: Excavating Test Pit ADEQ TP-1; Power Plant in Background	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 3
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: East	
SUBJECT: Excavated Materials at ADEQ TP-1; Note Gravel on top of pile	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 4
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: East	
SUBJECT: Test Pit ADEQ TP-1 at Final Depth; Note Gray Chert at bottom of Test Pit	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 5
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: East	
SUBJECT: Test Pit ADEQ TP-1 at Final Depth; Note Gravel Zone on Side of Test Pit	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 6
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: South	
SUBJECT: Excavating at Test Pit ADEQ TP-2; Note Power Plant in Background	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 7
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northwest	
SUBJECT: Excavating at Test Pit ADEQ TP-2	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 8
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northwest	
SUBJECT: Excavated Materials at ADEQ TP-2	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 9
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: West	
SUBJECT: Test Pit ADEQ TP-2	



**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 10
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: East	
SUBJECT: Excavated Materials from ADEQ TP-2; Note Silty Sandstone Blocks on Top	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 11
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS: Bill Sadler 
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: East	
SUBJECT: Excavated Materials from ADEQ TP-2;	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 12
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: West	
SUBJECT: Northern Boundary of Proposed Expansion Area Looking West from Top of Spoils Pile	



**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 13
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Southwest	
SUBJECT: : Proposed Expansion Area Looking Southwest from Top of Spoils Pile. Test Pit ADEQ TP-4 is located adjacent to the large, lone dead tree in foreground. Test Pit TP-3 is located in the far pasture past the dead tree in the center of the photo. (Neither test pit had been excavated at the time of this photo).	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 14
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS: Bill Sadler 
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Southwest	
SUBJECT: About to Begin Excavating Test Pit ADEQ TP-3	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 15
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>JPP</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: East	
SUBJECT: Excavated Materials from Test Pit ADEQ TP-3; Note Existing Landfill in Background	



**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 16
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northeast	
SUBJECT: Excavating Test Pit ADEQ TP-3	

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Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 17
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS: Bill Sadler 
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northwest	
SUBJECT: Pond on Northern Boundary of Proposed Expansion Area; Pond levee is on far (western) side of pond.	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 18
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northwest	
SUBJECT: Pond Levee for Pond on Northern Boundary of Proposed Expansion Area; Facility personnel said that pond levee was breached during a high rainfall event.	

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Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 19
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: West	
SUBJECT: Drainage West of Pond along Northern Border of Expansion	



**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 20
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Southeast	
SUBJECT: Pond on Northern Border of Proposed Expansion Area with Trackhoe at Test Pit ADEQ TP-3 in Background	



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Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 21
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS: Bill Sadler 
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northeast	
SUBJECT: Excavated Materials at Test Pit ADEQ TP-3; Note Clayey Gravel	

Arkansas Department of Environmental Quality
Official Photograph Log



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 22
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS: Bill Sadler 
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: West	
SUBJECT: Excavated Materials at Test Pit ADEQ TP-3	



Arkansas Department of Environmental Quality
Official Photograph Log



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 23
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northwest	
SUBJECT: Excavated Materials at Test Pit ADEQ TP-3; Note Gray Limestone in Foreground	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 24
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS: Bill Sadler 
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: East	
SUBJECT: Excavated Materials at Test Pit ADEQ TP-3; Close-up of Gray Limestone	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 25
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northeast	
SUBJECT: Trackhoe at Test Pit ADEQ TP-3; Spoils Pile in Background	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 26
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: North	
SUBJECT: Test Pit ADEQ TP-3 is to the Right; Pond on Northern Border of Expansion Area is in Woods in Central Portion of Photo	


**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 27
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson <i>J.P.</i>	WITNESS: Bill Sadler <i>BS</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northeast	
SUBJECT: Spoil Pile to Far Right; Test Pit ADEQ TP-4 to be near Lone, Dead Tree Right of Center	


**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 28
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS:
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northeast	
SUBJECT: Excavated Materials at Test Pit ADEQ TP-4	


**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 29
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS:
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northwest	
SUBJECT: Excavated Materials at Test Pit ADEQ TP-4	


Arkansas Department of Environmental Quality
Official Photograph Log



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 30
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS:
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: North	
SUBJECT: Excavated Materials at Test Pit ADEQ TP-4	


**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 31
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS:
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: North	
SUBJECT: Test Pit ADEQ TP-4	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 32
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Jenny Pearson 	WITNESS:
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northeast	
SUBJECT: Test Pit ADEQ TP-4	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 33
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: Northeast	
SUBJECT: Northeastern end of Borrow Area at Eastern End of Proposed Expansion Area	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 34
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS: Jenny Pearson <i>JP</i>
DATE: November 30, 2016	CAMERA: Canon PowerShot A560
DIRECTION: South	
SUBJECT: Southwestern end of Borrow Area at Eastern End of Proposed Expansion Area (Filled with Water); Existing Landfill in Background	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 35
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS:
DATE: November 30, 2016	CAMERA: Smart Phone
DIRECTION: West - Northwest	
SUBJECT: Northwest Corner of Proposed Expansion Area Near Arm of SWEPCO Lake	

**Arkansas Department of Environmental Quality
Official Photograph Log**



SITE NAME: Flint Creek Power Plant Landfill	PHOTO #: 36
SITE LOCATION: Gentry, Arkansas	
AFIN#: 04-00107	PERMIT # 0273-S3N-R2
PHOTOGRAPHER: Bill Sadler <i>BS</i>	WITNESS:
DATE: November 30, 2016	CAMERA: Smart Phone
DIRECTION: West	
SUBJECT: Wooded Area in Western Portion of Proposed Expansion Area	

Spakes, Rita

From: Terence E Wehling <tewehling@aep.com>
Sent: Friday, December 16, 2016 3:26 PM
To: Sadler, Bill
Cc: Satyananda Chakrabarti; David A Miller
Subject: FW: well survey
Attachments: AEP FCPP TP Survey 12-15-2016.pdf

Rec'd Digitally

AFIN: 04-00107

PMT#: 0273-S3N-R2

RECEIVED
By spakes at 9:52 am, Dec 19, 2016

DOC ID#: 70730

TO: BS>FILE <RDS

S
W
M
D

Bill,
Attached is the survey data for the 4 test pits associated with the Flint Creek site investigation.

Terry Wehling, PE
(o)318-673-2721
(c)318-934-2844
(audinet)740-2721

From: Baber, Quin M. [<mailto:Quin.Baber@terracon.com>]
Sent: Friday, December 16, 2016 12:46 PM
To: Terence E Wehling
Subject: [EXTERNAL] well survey

This is an EXTERNAL email. STOP. THINK before you CLICK links or OPEN attachments.

Terry attached is the survey for AP-60

Quin Baber, P.G.
Principal/ Department Manager Environmental Services
Terracon
25809 Interstate 30 South I Bryant, Arkansas 72022
P (501) 847-9292 ext. 316 | F (501) 847-9210 | M (501) 350-7151
gmbaber@terracon.com www.terracon.com

Terracon provides environmental, facilities, geotechnical, and materials consulting engineering services delivered with responsiveness, resourcefulness, and reliability.

Private and confidential as detailed here (www.terracon.com/disclaimer). If you cannot access hyperlink, please e-mail sender.

Survey of Test Pits Performed by TERRACON
 AEP - Flint Creek Power Plant
 Permit No. 0273-S3N-R1; AFIN 04-00107
 AEP/SWEPCO
 MSC Project No.: 16010



Field Survey Date: 12/15/2016

Table 1. Surveyed Locations of Test Pits (TP)

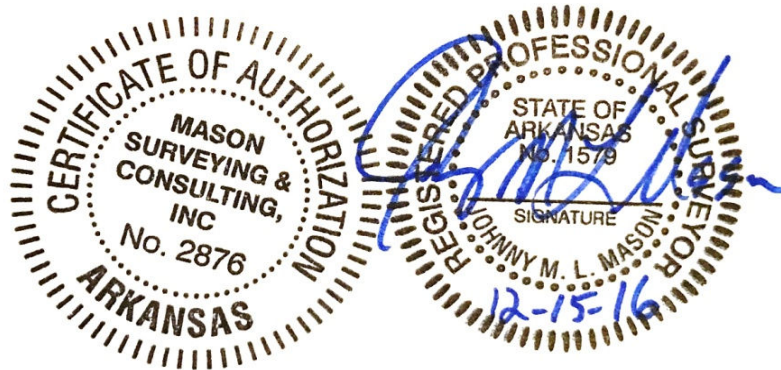
TP ID Number	Northing ⁽¹⁾	Easting ⁽¹⁾	Latitude ⁽³⁾	Longitude ⁽³⁾	Top of Ground Elevation (feet) ⁽¹⁾
TP1	711015.50	1256793.59	36°15'38.5116"	94°31'16.1991"	1176.23
TP2	711031.22	1257190.72	36°15'38.7674"	94°31'11.3566"	1180.42
TP3	711285.84	1257787.57	36°15'41.4353"	94°31'04.1508"	1182.75
TP4	711491.96	1258255.92	36°15'43.5911"	94°30'58.4982"	1187.96

Notes:

1. Northing and Easting locations and Ground elevations are on top of backfilled test pits as staked by Terracon
2. Field measurements were surveyed by MSCJ on 12-15-2016 and are based on site specific control data as provided by AEP to MSCJ. Site specific control datum is based on State Plane Projection NAD27, Arkansas North and NAVD88 as provided to MSCJ. No independent survey has been performed by MSCJ to verify the correctness of the site control datum to NAD27 and NAVD88. Table 2 below shows site benchmarks used to control the survey.
3. Geodetic coordinates were converted from the Northing and Easting in Table 1 using Carlson Survey Software and are based on the site specific control datum.

Table 2. Flint Creek Power Plant Landfill Control Information ⁽²⁾

Point ID	Northing	Easting	Elevation
20501	709645.39	1258186.76	1168.12
20502	709740.33	1258880.70	1183.79
20503	709770.76	1259389.75	1172.47



ADEQ

A R K A N S A S
Department of Environmental Quality

REGULATED WASTE PROGRAMS, OFFICE OF LAND RESOURCES ROUTING SLIP

DATE: December 15, 2016

Subject: **Flint Creek Power Plant Class 3N Landfill**
ADEQ Preliminary Site Investigation for the Proposed Lateral Expansion

From: Bill Sadler

<u>Route in turn to:</u>	<u>Action Needed</u>	<u>Date Received</u>	<u>Date Reviewed</u>	<u>Initials</u>
JRich	<input checked="" type="checkbox"/> Concurrence <input checked="" type="checkbox"/> Review	<u>12-15-16</u>	<u>12-16-16</u>	<u>JK</u>
THynum	<input type="checkbox"/> Concurrence <input type="checkbox"/> Review	_____	_____	<u>JR</u>
	<input type="checkbox"/> Concurrence <input type="checkbox"/> Review	_____	_____	_____
	<input type="checkbox"/> Concurrence <input type="checkbox"/> Review	_____	_____	_____

**Note: Marking the Concurrence box indicates the individual agrees with the applicable text as it relates to their individual discipline and Work Section (e.g., Engineer; Risk Assessor; Geology; Compliance; Policy/Management), as applicable. Marking the Review box indicates the individual has read the document.*

Return to Bill Sadler for distribution

COMMENTS: