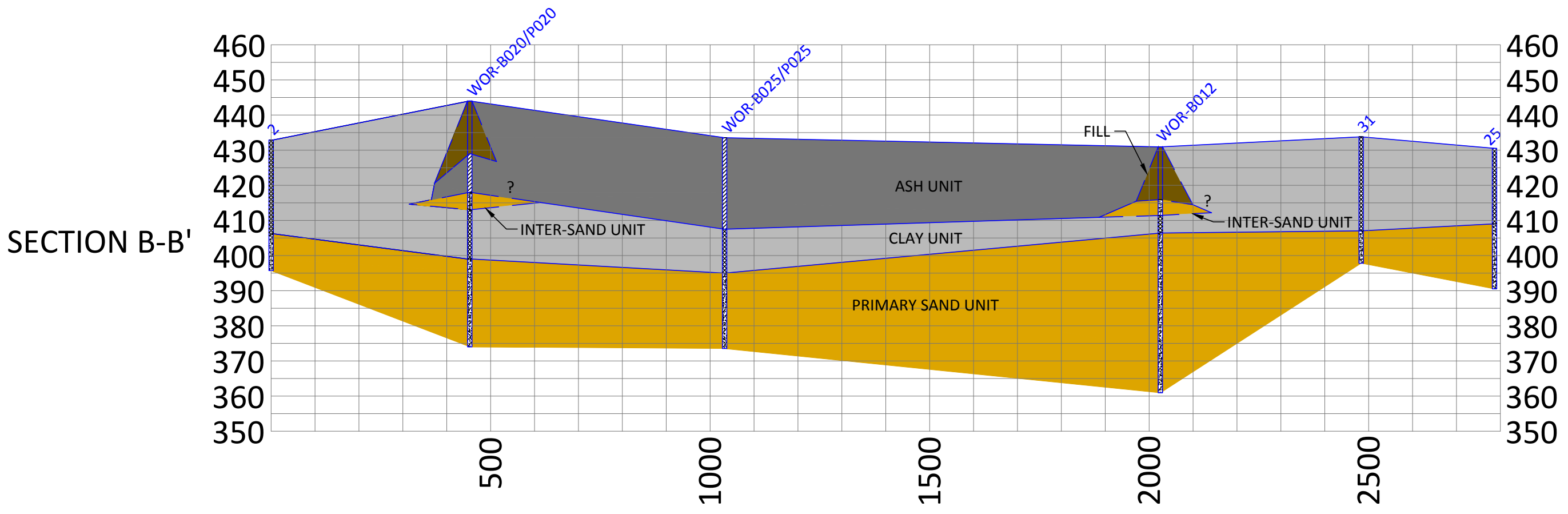
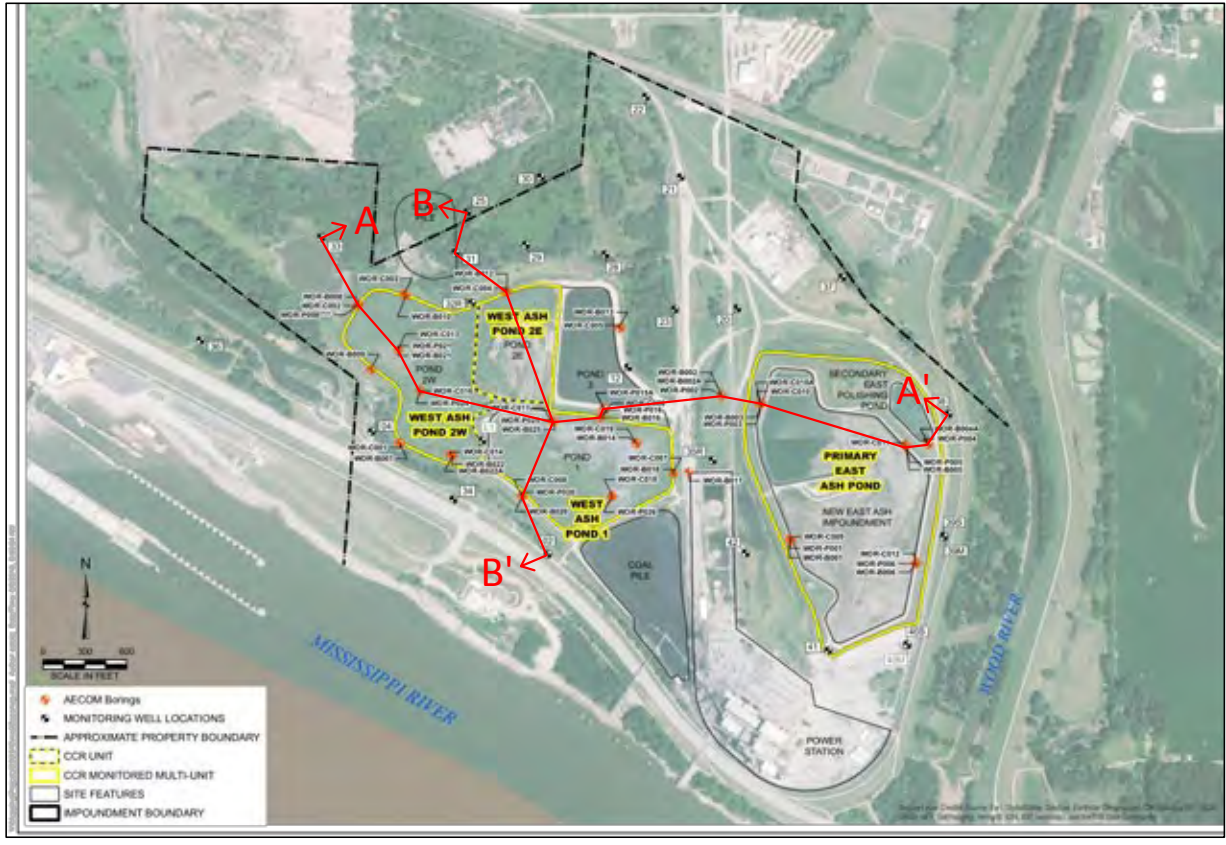
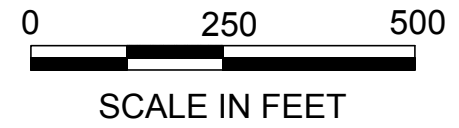


NOTES:

- COORDINATE SYSTEM IS NAD 83 ILLINOIS STATE PLANE WEST, US SURVEY FOOT.
- VERTICAL DATUM IS NAVD 88.
- AERIAL PHOTOGRAPHY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEX, GETMAPPING, AEROGRIID, IGN, IGP, SWISSTOPO, AND THE GIS USER COMMUNITY

VERTICAL SCALE IN FEET: 30
 HORIZONTAL SCALE IN FEET: 240
 VERTICAL EXAGGERATION = 8



DRAWN BY: HJG	DATE: 7/27/16
CHECKED BY: NRK	DATE: 7/28/16
APPROVED BY: SJC	DATE: 7/28/16
DRAWING NO: Fig 4A_Geol Xsects AA & BB	
REFERENCE: .	

GEOLOGIC CROSS-SECTION B-B'

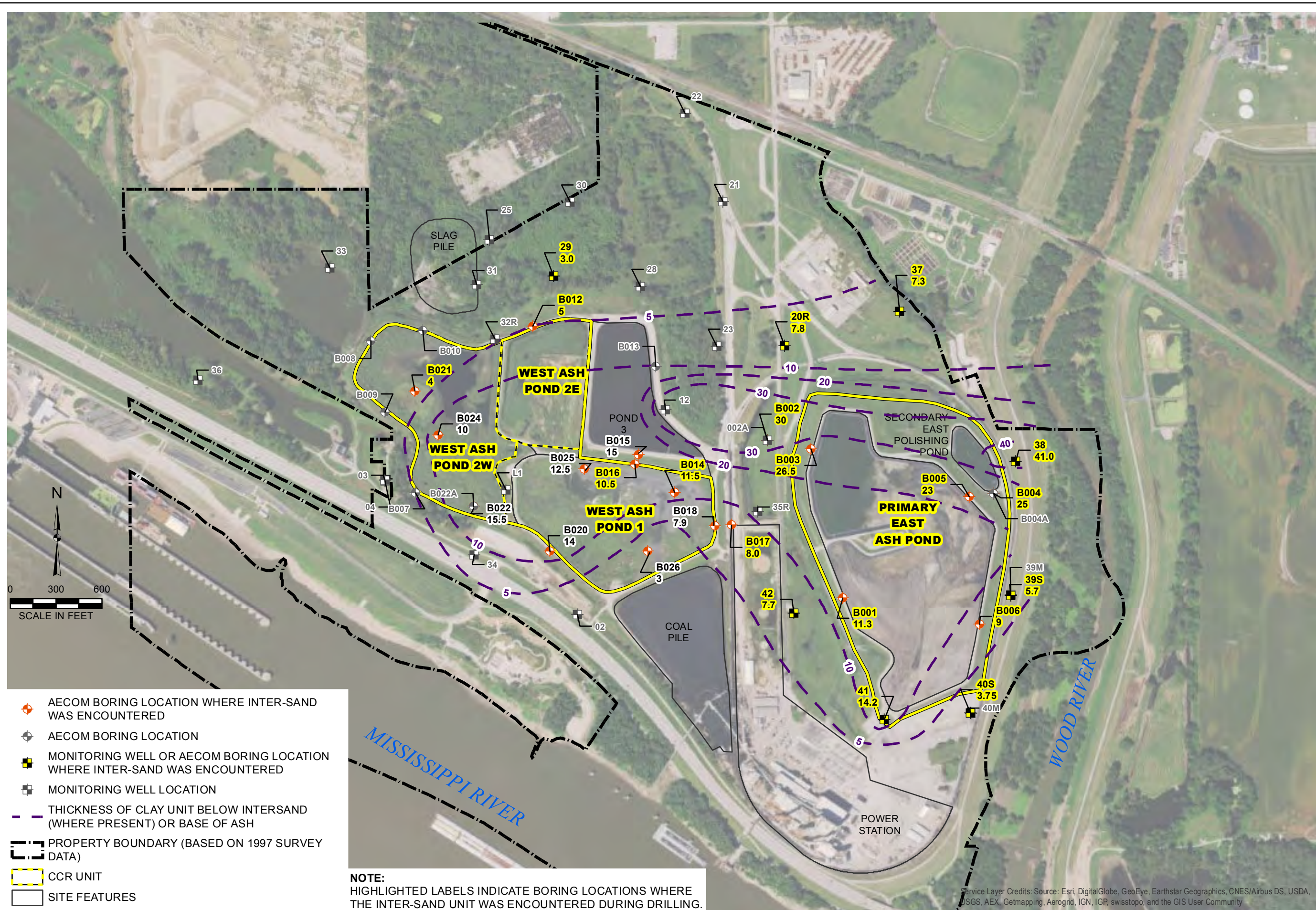
HYDROGEOLOGIC CHARACTERIZATION REPORT
 WEST ASH POND COMPLEX
 WOOD RIVER POWER STATION
 ALTON, ILLINOIS



PROJECT NO. 2376/1.0
FIGURE NO. 5

Jul 27, 2016 8:34am PLOTTED BY: Harlon SAVED BY: Harlon
 S: 2016\NRT\Wood River\2376 - Wood River\Cross_sections_grd.dwg B-B'
 IMAGES: \geodir\PNG

Y:\Mapping\Projects\232376\MapX\Hydrogeologic_CRF\Figure 6_Thickness of clay.mxd Author: satolz Date/Time: 7/28/2016, 5:26:24 PM



NOTE:
HIGHLIGHTED LABELS INDICATE BORING LOCATIONS WHERE THE INTER-SAND UNIT WAS ENCOUNTERED DURING DRILLING.

DRAWN BY/DATE:
SDS 7/15/16
REVIEWED BY/DATE:
NRK 7/15/16
APPROVED BY/DATE:
SJC 7/28/16

CLAY THICKNESS BELOW ASH COMPLEX OR INTER-SAND UNIT

HYDROGEOLOGIC CHARACTERIZATION REPORT
WEST ASH POND COMPLEX
WOOD RIVER POWER STATION
ALTON, ILLINOIS

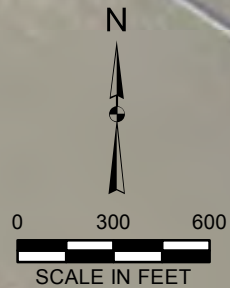
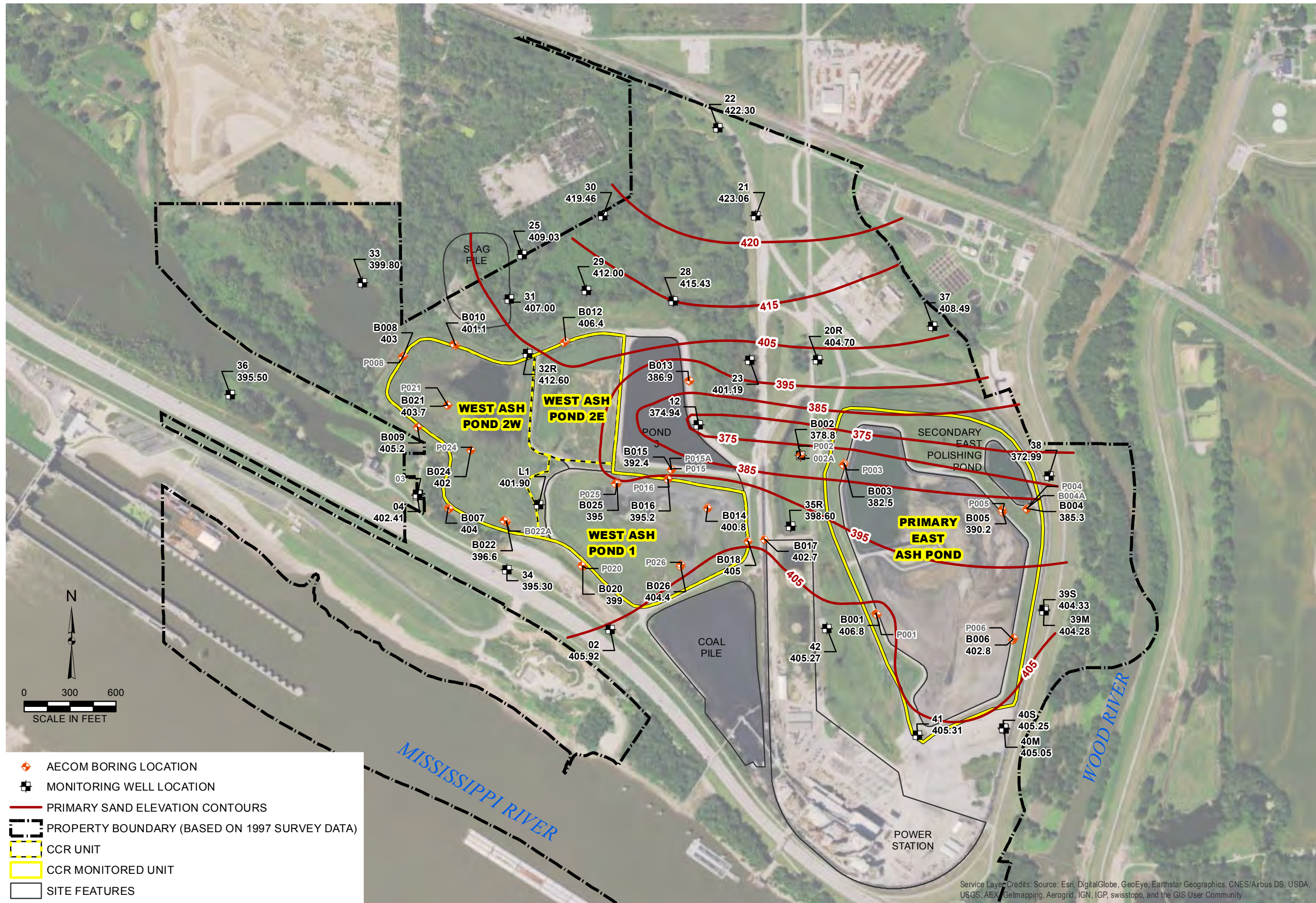
PROJECT NO: 2376

FIGURE NO: 6



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, JSGS, AEX, Getmapping, Aergrid, IGN, IGP, swisstopo, and the GIS User Community

Y:\Mapping\Projects\232376\MXD\Hydrogeologic_CRF\Figure 7_Top of Primary Sand.mxd Author: sstolz Date/Time: 7/28/2016 4:48:16 PM



- + AECOM BORING LOCATION
- + MONITORING WELL LOCATION
- PRIMARY SAND ELEVATION CONTOURS
- PROPERTY BOUNDARY (BASED ON 1997 SURVEY DATA)
- CCR UNIT
- CCR MONITORED UNIT
- SITE FEATURES

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aergrid, IGN, IGP, swisstopo, and the GIS User Community

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APPROVED BY/DATE:
SJC 7/28/16

TOP OF PRIMARY SAND ELEVATION CONTOURS

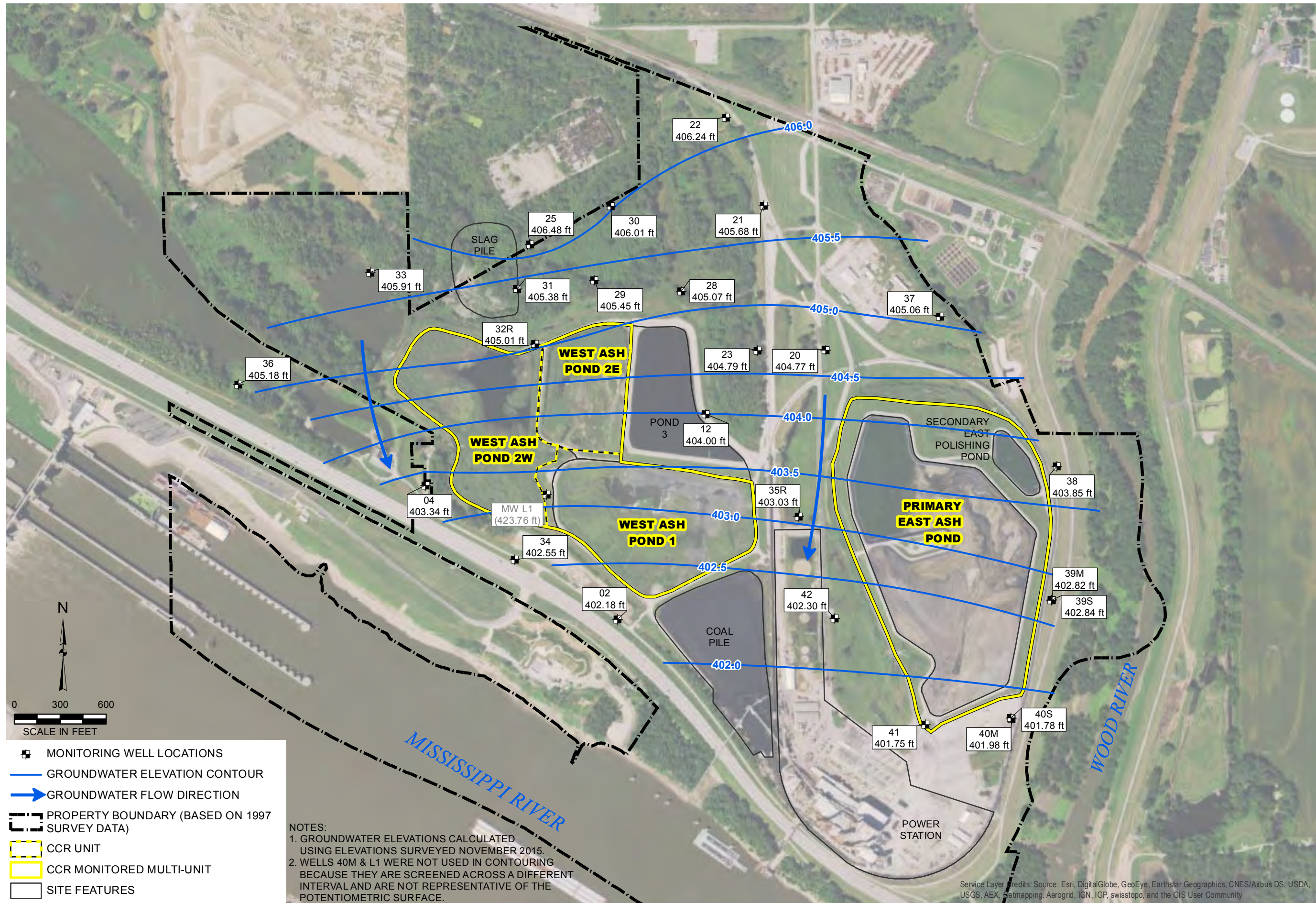
HYDROGEOLOGIC CHARACTERIZATION REPORT
WEST ASH POND COMPLEX
WOOD RIVER POWER STATION
ALTON, ILLINOIS

PROJECT NO: 2376

FIGURE NO: 7



Y:\Mapping\Projects\232376\MapX\Hydrogeologic_CRF\Figure 8_Potentiometric_Surfaces_November_2015.mxd Author: sstolz Date/Time: 7/28/2016 5:01:17 PM



- MONITORING WELL LOCATIONS
- GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- PROPERTY BOUNDARY (BASED ON 1997 SURVEY DATA)
- CCR UNIT
- CCR MONITORED MULTI-UNIT
- SITE FEATURES

NOTES:
 1. GROUNDWATER ELEVATIONS CALCULATED USING ELEVATIONS SURVEYED NOVEMBER 2015.
 2. WELLS 40M & L1 WERE NOT USED IN CONTOURING BECAUSE THEY ARE SCREENED ACROSS A DIFFERENT INTERVAL AND ARE NOT REPRESENTATIVE OF THE POTENTIOMETRIC SURFACE.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Setmapping, Aergrid, IGN, IGP, swisstopo, and the GIS User Community

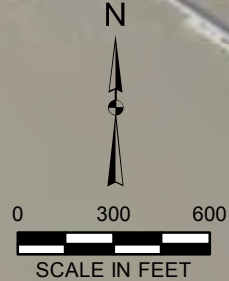
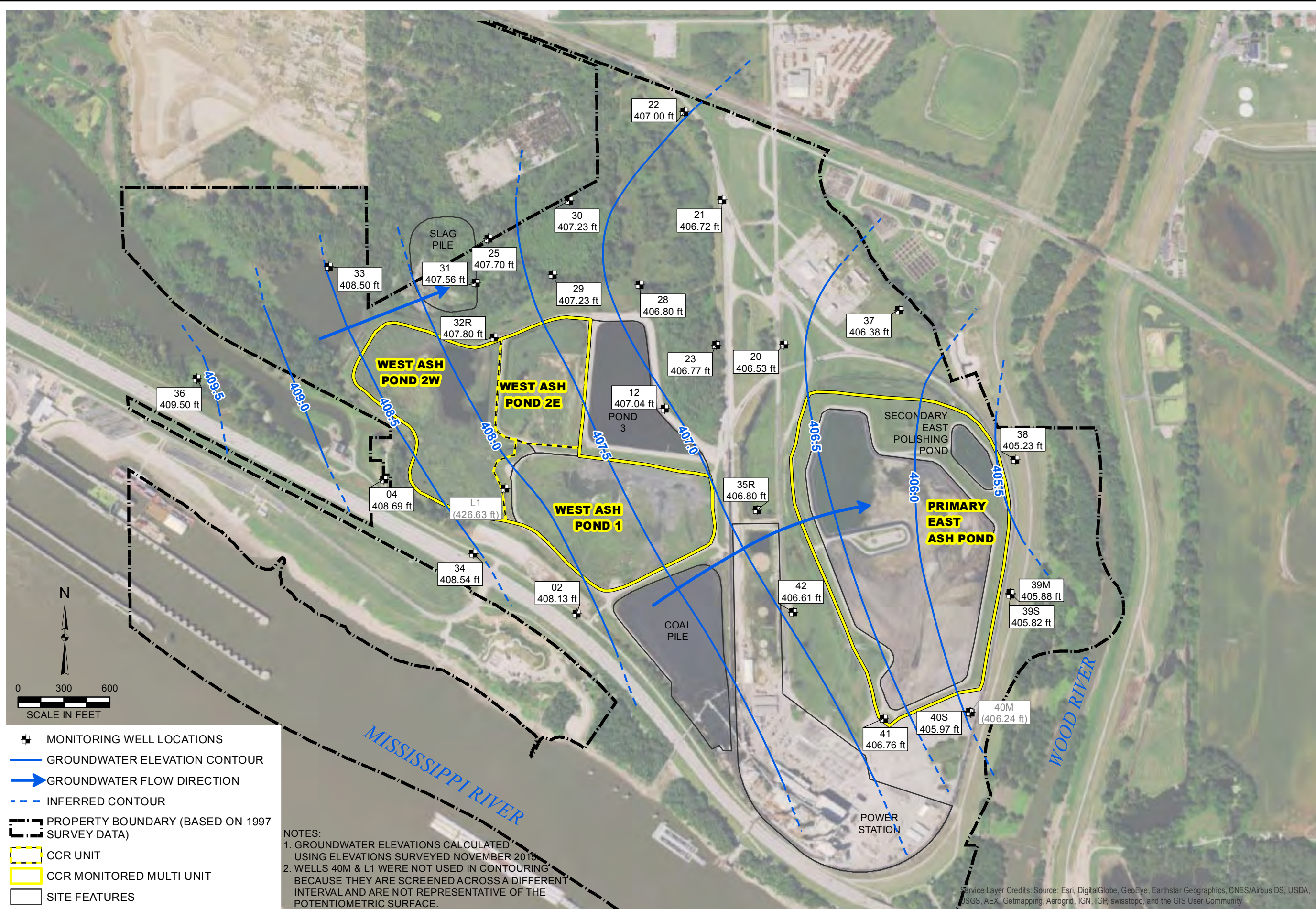
DRAWN BY/DATE:
 SDS 7/15/16
 REVIEWED BY/DATE:
 NRK 7/15/16
 APPROVED BY/DATE:
 SJC 7/28/16

POTENTIOMETRIC SURFACE
 NOVEMBER 3-5, 2015
 HYDROGEOLOGIC CHARACTERIZATION REPORT
 WEST ASH POND COMPLEX
 WOOD RIVER POWER STATION
 ALTON, ILLINOIS

PROJECT NO: 2376
 FIGURE NO: 8



Y:\Mapping\Projects\232376\MXD\Hydrogeologic_CRF\Figure 9_Potentiometric_Surface_May_2015.mxd Author: sstolz Date: 7/28/2016 5:32:20 PM



- MONITORING WELL LOCATIONS
- GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- INFERRED CONTOUR
- PROPERTY BOUNDARY (BASED ON 1997 SURVEY DATA)
- CCR UNIT
- CCR MONITORED MULTI-UNIT
- SITE FEATURES

NOTES:
 1. GROUNDWATER ELEVATIONS CALCULATED USING ELEVATIONS SURVEYED NOVEMBER 2013.
 2. WELLS 40M & L1 WERE NOT USED IN CONTOURING BECAUSE THEY ARE SCREENED ACROSS A DIFFERENT INTERVAL AND ARE NOT REPRESENTATIVE OF THE POTENTIOMETRIC SURFACE.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, JGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

DRAWN BY/DATE:
 SDS 7/15/16
 REVIEWED BY/DATE:
 NRK 7/15/16
 APPROVED BY/DATE:
 SJC 7/28/16

POTENTIOMETRIC SURFACE
MAY 21, 2015
 HYDROGEOLOGIC CHARACTERIZATION REPORT
 WEST ASH POND COMPLEX
 WOOD RIVER POWER STATION
 ALTON, ILLINOIS

PROJECT NO: 2376
 FIGURE NO: 9



Project: Dynegy	Log of Boring WOR-B001
Project Location: Wood River Power Station, Alton, IL	Sheet 1 of 3
Project Number: 60440115	

Date(s) Drilled: 09/09/2015 12:00 AM to 09/09/2015 12:00 AM	Logged By: C.Dicke	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 80.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 451.08 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 801420.9 E 2306193.3 (ft NAD83)	Groundwater Level(s): First encountered at 22.5 ft bgs (perched) and 47.5 ft on 9/9/2015 22.5 ft on 9/10/2015	

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core ROD (%)	Recovery (%)											
451.1	0.0														
450.4	0.7					Crushed LIMESTONE GRAVEL (8")									
449.8	1.3	SS-1	38 50/5"	100		Soft, moist, brown, lean CLAY (CL) trace gravel [FILL]					0.25				
						Very dense, moist, dark brown to black, poorly-graded fine SAND (SP) [BOTTOM ASH] becomes dense									
	5	SS-2	12 20 21	45											
445.1	6.0	SS-3	4 6 12	78		Medium dense, moist, dark brown to black, sandy SILT (ML), trace coal fragments [FLY ASH]									%G=8 %S=25 %M=52 %C=15
	10	SS-4	12 15 12	50											
	15	SS-5	10 11 13	22											
	20	SS-6	4 4 2	78		becomes loose									%G=0 %S=25 %F=75
	25	SS-7	1 7 8	78		Loose, wet, dark gray SILT (ML) with sand [FILL]									Driller noted a change near 22.5 ft bgs
						Medium dense, moist, dark gray with brown grains, poorly-graded medium to coarse SAND (SP), trace silt [BOTTOM ASH]									
	30	SS-8	13 14 12	50		becomes fine sand with silt (SP-SM)									

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B001

Sheet 2 of 3

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
	Depth (feet)	Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)										
30														
420														Driller noted a change near 32-33 ft bgs
35		SS-9	8 11 13	89		Hard, moist to dry, dark gray with brown staining, lean CLAY (CL) trace sand and root fragments [POSSIBLE FILL]					4.0 4.5+ 4.5+			
415														%G=0 %S=0 %M=58 %C=42 UU=19.8 psi, k=2.9E-07
40		SS-10	3 2 4	100		Stiff to very stiff, moist, gray, fat CLAY (CH) trace organics and fine sand seams [ALLUVIUM]					1.75 2.0 2.0			
410		ST-1		88		becomes stiff	30 29.3 34.1	119.8 113.0	82	60	1.25			
45		SS-11	4 6 8	100		Medium dense, moist to wet, brown, poorly-graded SAND (SP), trace silt [ALLUVIUM]					1.25 1.25			
405														Water on rods at 47.5 ft bgs %G=0 %S=97 %F=4%
50		SS-12	4 4 5	100		becomes loose, wet								
400														Switched to wash rotary at 50 ft bgs
55		SS-13	7 17 17	78		becomes dense								
395														
60		SS-14	7 8 10	72		becomes medium dense								
390														
65		SS-15	10 29 20	100		becomes dense, gray 4" coarse sand layer at 64.5' bgs								

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B001

Sheet 3 of 3

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS	
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)												
385																
	70	SS-16	12 17 18	78	[Stippled Pattern]	becomes medium dense										
380																
	75	SS-17	8 7 7	80												
375																
	80	SS-18	8 9 10	44			371.1	80.0							%G=1 %S=98 %F=1	
370							End of Boring at 80 ft									
365	85															
360	90															
355	95															
350																
345																
340																
335																
330																
325																
320																
315																
310																
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250																
245																
240																
235																
230																
225																
220																
215																
210																
205																
200																

Date(s) Drilled: 09/15/2015 12:00 AM to 09/15/2015 12:00 AM	Logged By: N.Sanna	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 60.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 422.3 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802453.5 E 2305700 (ft NAD83)	Groundwater Level(s): First encountered at 9.5 ft on 9/15/2015 Measured 3 ft bgs on 10/29/2015 and 0.5 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
422.3	0.0					422.1 TOPSOIL (2")									
420		SS-1	2 1 2	89		Very loose, moist, gray SILTY SAND (SM) [FILL]									
418.8	3.5	SS-2	1 1 2	100		Very loose, moist, brown SILT (ML) with sand, trace roots [Possible Ash Fill]									
415		ST-1		100		becomes stiff	25.0	31	8	2.0 1.6 1.7	0.28 0.28 0.3			GUS sampler used %G=0 %S=1 %M=88 %C=11	
413.8	8.5	SS-3	1 1 1	100		Very loose, wet, gray and brown SILTY SAND (SM) [Possible Ash Fill]									
410															
408.8	13.5	SS-4 WOH/12"	2	100		Very soft to soft, wet, gray with brown mottling, SILTY CLAY (CL-ML)									
405															
403.8	18.5	SS-5 WOH/6"	1 2	100		Soft, wet, gray fat CLAY (CH) [ALLUVIUM]		80	44						
400															
395		SS-6 WOH/18"		100		becomes very soft					0.5 0.25 0.25				
390															
385		SS-7 WOH/18"		100											
380															
375															
370															
365															
360															
355															
350															
345															
340															
335															
330															
325															
320															
315															
310															
305															
300															

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B002

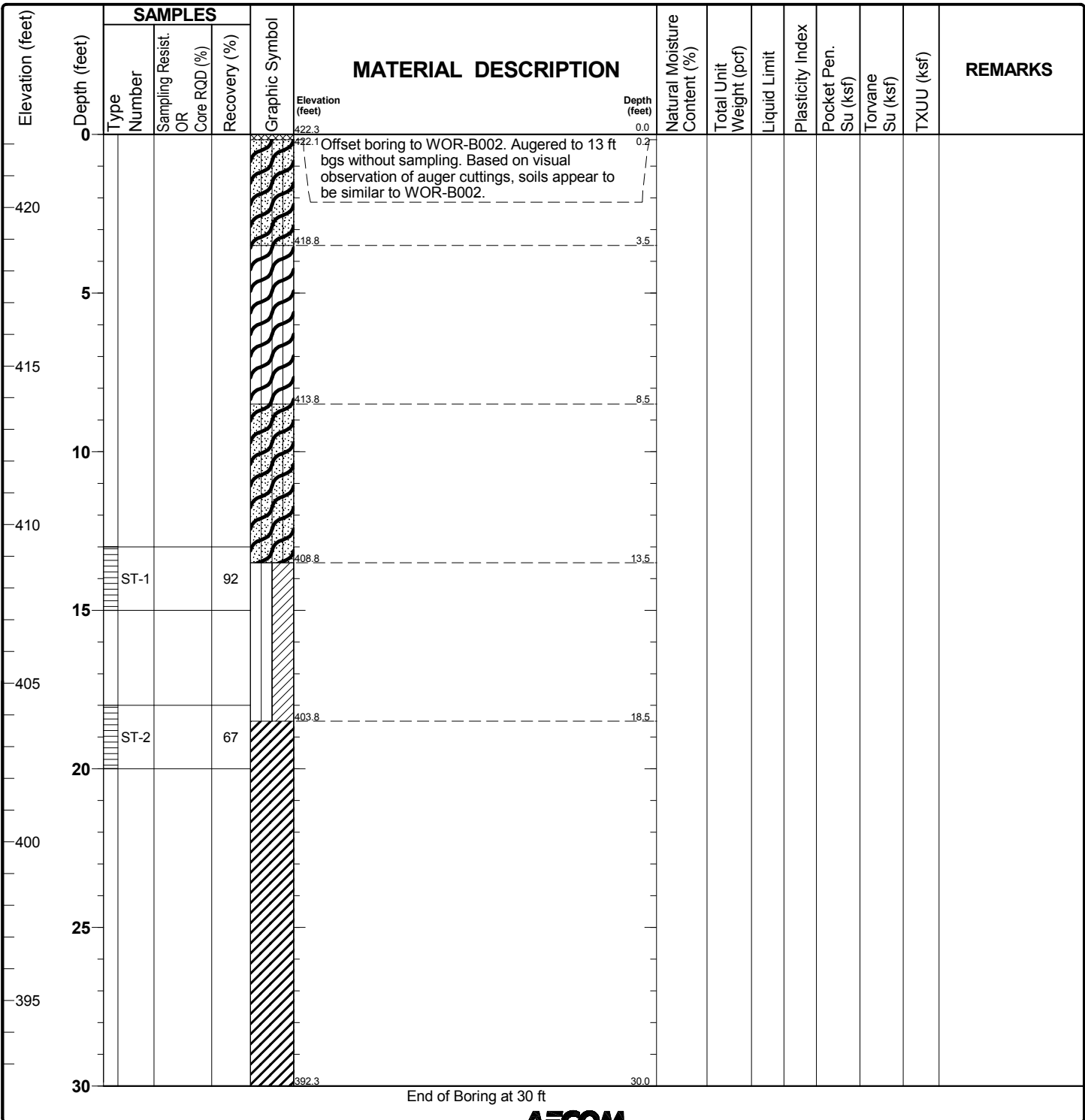
Sheet 2 of 2

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30															
	35	SS-8	WOH/18"	100											
		ST-2		96			60.8	101.1							
							62.7	100.3	86	52	0.5	0.18			%G=0 %S=0 %M=29 %C=71 UU=12.3 psi
	40	SS-9	WOH/12" 1	100											
	45	SS-10	7 6 5	100											
	50	SS-11	5 5 10	72											
	55	SS-12	8 12 14	67											
	60	SS-13	11 12 14	33											
	65														

Project: Dynegy	Log of Boring WOR-B002A
Project Location: Wood River Power Station, Alton, IL	Sheet 1 of 1
Project Number: 60440115	

Date(s) Drilled: 09/21/2015 12:00 AM to 09/22/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 30.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 422.3 ft NAVD88
Borehole Backfill: Well WOR-P002 Installed	Sampling Method(s): Shelby Tube (ST)	Hammer Data: Automatic Hammer
Boring Location: N 802453.4 E 2305700.5 (ft NAD83)	Groundwater Level(s): First encountered at 9.5 ft on 9/15/2015 Measured 3 ft bgs on 10/29/2015 and 0.5 ft on 11/19/2015	



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Project: Dynegy

Log of Boring WOR-B003

Project Location: Wood River Power Station, Alton, IL

Sheet 1 of 3

Project Number: 60440115

Date(s) Drilled	09/09/2015 12:00 AM to 09/10/2015 12:00 AM	Logged By	C.Dicke	Checked By	V. Gautam
Drilling Method	Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type	3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth	80.0 ft
Drill Rig Type	CME-550 ATV	Drilling Contractor	Terracon	Surface Elevation	451.0 ft NAVD88
Borehole Backfill	Cement Grout	Sampling Method(s)	2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data	Automatic Hammer
Boring Location	N 802400.4 E 2305984.4 (ft NAD83)	Groundwater Level(s)	First Encountered at 38 ft on 9/10/2015 Measured 29.5 on 10/29/2015 and 29.4 ft on 11/19/2015		

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core ROD (%)	Recovery (%)											
451.0	0						Crushed LIMESTONE GRAVEL (8")	0.7							
450.3							Dry to moist, brown lean CLAY (CL) [FILL]	1.3							
449.7		SS-1	40 50/4"	100			Very dense, moist, black, poorly-graded SAND (SP) trace silt, trace gravel [BOTTOM ASH]								
447.5		SS-2	7 10 12	94			Medium dense, gray SILT (ML) with sand [FLY ASH] 2" wet sand layer								
445		SS-3	5 9 11	83			3" coarse sand layer								
444.0							Medium dense, moist, brown, poorly-graded fine to medium SAND (SP), trace silt [FILL]								
441.8		SS-4	8 15 19	89			Dense, moist to dry, black to dark gray, poorly-graded SAND (SP) with silt, trace coal fragments [BOTTOM ASH]								
437.5		SS-5	10 10 13	78			Medium dense, moist to dry, gray silty SAND (SM) [FLY ASH]								%G=12 %S=35 %F=54
435							becomes dense								
430		ST-1		0											GUS sampler used
425		SS-7	2 2 3	56			becomes loose								%G=3 %S=24 %F=74 Water inside augers at 24.5' bgs on 9/10 @ 0900
424.0		ST-2		96											GUS sampler used
30		SS-8	3 3 6	89			Very stiff, moist, dark gray, lean CLAY (CL) with trace organics, with to trace fine sand seams interbedded								2.25 2.75 2.75

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Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B003

Sheet 2 of 3

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
420	30														
		SS-9	WOH 2 3	100		becomes medium stiff with interbedded fine sand seams, trace organics [ALLUVIUM]					0.5 0.7 0.5	0.4 0.45 0.4			
415	35	ST-3		100			27.3 27.8	122.5 122.0 121.3	28	8	1.0			%G=0 %S=7 %M=65 %C=28 SG=2.60, Organic Content = 2.6%	
														Water on rods near 38 ft bgs	
410	40	SS-10	1 2 2	100		Soft to medium stiff, wet, gray with brown oxidation staining, SILTY CLAY (CL-ML) to SILT (ML), trace sand [ALLUVIUM]					0.5 0.5 0.5	0.4 0.4 0.35			
405	45	SS-11	WOH/12" 1	100		Soft, moist, gray fat CLAY (CH) with interbedded fine sand seams [ALLUVIUM]					0.0 0.0 0.0	0.15 0.2 0.15			
		ST-4		88			56.7		94	64	0.5	0.4		%G=0 %S=0 %M=44 %C=56 UU = 7.1 psi	
400	50	SS-12	WOH 2 2	100		becomes without sand seams					0.25 0.25 0.25	0.2 0.3 0.15			
395	55	SS-13	WOH 1 2	100							0.25 0.25 0.25	0.3 0.35 0.3			
390	60	SS-14	WOH/12" 2	100		becomes dark gray with trace organics 1" silt layer 1" silt layer					0.25 0.25 0.0	0.2 0.2 0.15		Switched to washed rotary at 60 ft bgs	
65	65	SS-15	WOH 1 2	89		becomes interbedded with dark gray clay seams interbedded	58.7		85	57	0.25 0.25 0.0	0.3 0.35 0.3		%G=0 %S=1 %M=32 %C=67	

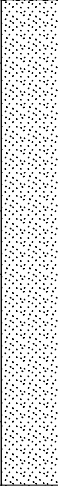
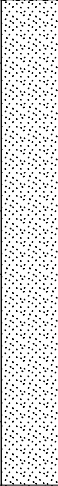
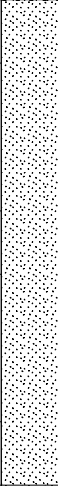
Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B003

Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
385															
	70	SS-16	12 12 14	78		Medium dense, wet, gray, poorly-graded fine to medium SAND (SP), trace silt [ALLUVIUM]									
380															
	75	SS-17	14 15 17	56		becomes dense									%G=0 %S=94 %F=6
375															
	80	SS-18	13 19 29												
370															
	85														
365															
	90														
360															
	95														
355															
	100														

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Date(s) Drilled: 09/15/2015 12:00 AM to 09/15/2015 12:00 AM	Logged By: N.Sanna	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 60.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 433.8 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802104.7 E 2307178.8 (ft NAD83)	Groundwater Level(s): First Encountered at 8 ft on 9/15/2015 Measured at 12.2 ft bgs on 10/29/2015 and 12 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
433.8	0					433.45" TOPSOIL									
		SS-1	489	56		Medium dense, moist, gray SILTY SAND (SM) [ASH]									
430		SS-2	433	89		becomes loose 3" brown silt layer									
	5	ST-1		100			57.0		NP	NP	<0.5 <0.5			%G=0 %S=33 %M=63 %C=4 GUS sampler used	
425		SS-3	WOH/18"	100		becomes very loose, wet 4" coal layer									
	10														
420		SS-4	WOH/12" 1	100		Very loose, wet, gray SILT (ML) with sand [FILL - POSSIBLE ASH FILL]	28.8							%G=0 %S=18 %M=53 %C=17 Organic Content=1.4%	
	15														
415		SS-5	WOH/12" 1	100		becomes gray and brown									
	20														
410		SS-6	WOH/18"	100		Very soft, wet, gray and brown SILTY CLAY (CL-ML) with sand [POSSIBLE FILL]									
	25														
405		SS-7	WOH/6" 1 2	100		Medium stiff to stiff, wet, gray lean CLAY (CL) [ALLUVIUM]									
	30														

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B004

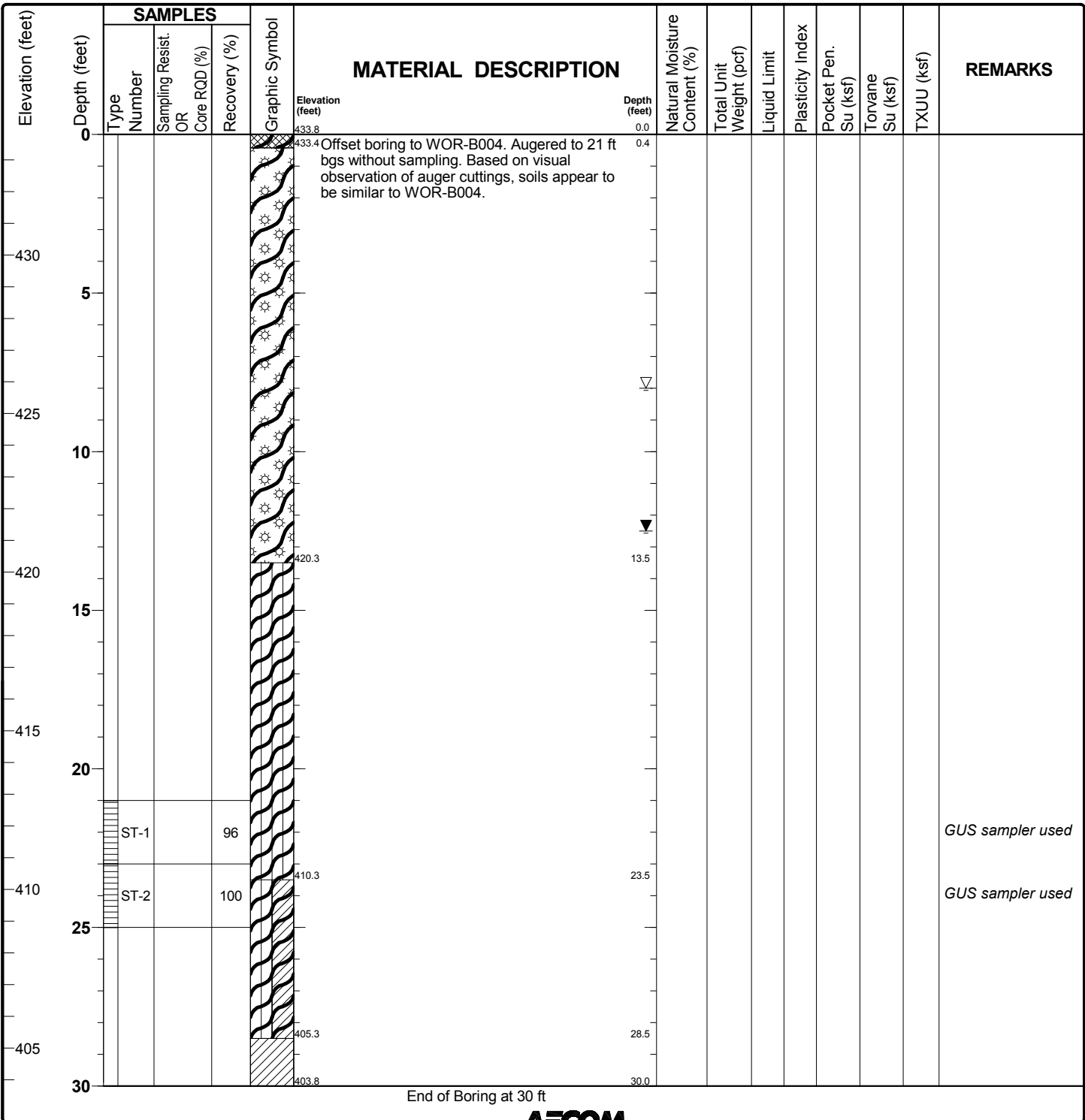
Sheet 2 of 2

Report: 12/29/15 GEO_SOIL K:\PROJECTS\ID\DYNEGY\60428794_WOODRIVER\DOCS\LOGS\ID\DYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30		ST-2		83		becomes stiff	51.1 46.3	106.4 106.3	45	29	1.5 1.75 1.6			%G=0 %S=1 %M=69 %C=30 k=4.6E-07, Organic Content = 3.8%	
35		SS-8	WOH/12" 1	100		becomes very soft									
395		SS-9	WOH/18"	100			43.8		44	22					
40															
390		SS-10	WOH/12" 1	100		become with light gray mottling and trace organics									
45															
385		SS-11	3 2 3	100		Loose, wet, gray, SILTY SAND (SM) [ALLUVIUM]	385.3							%G=0 %S=55 %F=45	
50															
380		SS-12	3 3 8	100		becomes medium dense								%G=0 %S=77 %F=23	
55															
375		SS-13	4 7 7	6		becomes with trace coal fragments and organics									
60						End of Boring at 60 ft	373.8								
65															

Project: Dynegy	Log of Boring WOR-B004A Sheet 1 of 1
Project Location: Wood River Power Station, Alton, IL	
Project Number: 60440115	

Date(s) Drilled: 09/21/2015 12:00 AM to 09/21/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 30.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 433.8 ft NAVD88
Borehole Backfill: Well WOR-P004 Installed	Sampling Method(s): Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802104.7 E 2307178.8 (ft NAD83)	Groundwater Level(s): 8 ft on 9/15/2015 12.5 ft on 11/19/2015	



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Date(s) Drilled: 09/10/2015 12:00 AM to 09/11/2015 12:00 AM	Logged By: C.Dicke	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 80.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 451.2 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802087.1 E 2307018.7 (ft NAD83)	Groundwater Level(s): First Encountered at 30 ft on 9/11/2015 Measured 29 ft bgs on 10/29/2015 and 29.2 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGSIDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core ROD (%)	Recovery (%)											
451.2	0					Crushed LIMESTONE GRAVEL (10")									
450.4	0.8					Dry to moist, brown, lean CLAY (CL) trace sand [FILL]									
450.0	1.3	SS-1	4 50/2"	63		Very dense, dry, black, poorly-graded SAND (SP) with silt, trace coal fragments as gravel [BOTTOM ASH] becomes dense									
445	5	SS-2	20 37 24	78											
445.2	6.0	SS-3	6 7 8	83		Medium dense, dark gray SILTY SAND (SM) trace coal fragments as coarse sand and fine gravel [BOTTOM ASH]	22.9							%G=7 %S=36 %M=45 %C=12	
		SS-4	6 17 20	89		becomes dense, dry to moist									
440	10														
		SS-5	10 15 14	78		becomes medium dense, moist									
435	15														
		SS-6	7 8 9	94											
431.2	20.0					Very loose, moist to wet dark gray SILT (ML) with sand [FLY ASH] becomes very loose, moist to wet									
430		SS-7	WOH 1 1	44											
		ST-1		92			64.2		NP	NP				GUS sampler used %G=0 %S=4 %M=93 %C=3	
425	25	ST-2		0											
		SS-8	3 5 4	94											GUS sampler used Stopped @ 25 ft bgs on 9/10/15 @ 1600, Started 9/11/15 at 0815 Driller noted harder drilling at 27'-28' bgs, possible cobble
421.2	30.0														

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B005

Sheet 2 of 3

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
420	30	ST-3		100		Very soft, wet, gray lean CLAY (CL) with sand [ALLUVIUM]	25.4 26.8 26.9	115.1 117.9 118.9	30	10	0.0			Water on rods at 30' GUS sampler used %G=0 %S=17 %M=74 %C=9	
		SS-9	WOH 2 3	100		becomes gray with brown mottling					0.0 0.0 0.0				
415	35					Very soft, wet, brown with gray mottling and oxidation staining, SILTY CLAY (CL-ML) with sand [ALLUVIUM]								Switched to washed rotary at 35'	
		SS-10	2 1 1	100		becomes brown with oxidation staining			23	7	0.0 0.0 0.0	0.15 0.1 0.1		%G=0 %S=26 %F=74	
410	40														
405	45	SS-11	WOH/12" 3	100		Very soft, wet, gray, lean CLAY (CL) with interbedded silt seams [ALLUVIUM] becomes stiff, moist to wet					0.0 0.0 1.0	0.15 0.1 0.15			
		SS-12	WOH/12" 2	100		becomes soft to medium stiff, without silt seams					0.25 0.5 0.5	0.5 0.45 0.3			
400	50	ST-4		0										Shelby tube was discarded due to low recovery	
		SS-13	2 1 2	100		becomes moist, dark gray, with trace organics					0.5 0.5 0.5	0.55 0.6 0.45			
395	55	ST-5		92			47.2 45	109.6 112.8 109.0	47	27	- - 0.5	- - 0.55		%G=0 %S=2 %M=61 %C=37	
		SS-14	2 2 4	100							0.25 0.5 0.5				
390	60					Medium dense, wet, gray, SILTY SAND (SM) [ALLUVIUM]									
		SS-15	6 10 16	78										%G=0 %S=63 %F=37	
65	65														

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B005
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
385															
	70	SS-16	8 12 16	56											
380															
	75	SS-17	15 32 35	89		becomes dense									
375															
	80	SS-18	12 13 12	67		becomes medium dense, poorly-graded SAND (SP), trace silt									%G=0 %S=93 %F=7
370							End of Boring at 80 ft								
365															
360															
355															
350															
345															
340															
335															
330															
325															
320															
315															
310															
305															
300															
295															
290															
285															
280															
275															
270															
265															
260															
255															
250															
245															
240															
235															
230															
225															
220															
215															
210															
205															
200															

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Project: Dynegy	Log of Boring WOR-B006
Project Location: Wood River Power Station, Alton, IL	Sheet 1 of 3
Project Number: 60440115	

Date(s) Drilled: 09/14/2015 12:00 AM to 09/14/2015 12:00 AM	Logged By: N.Sanna	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 80.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 451.3 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 801250.9 E 2307088.8 (ft NAD83)	Groundwater Level(s): First Encountered at 47.5 ft on 9/14/2015 Measured 49.4 ft bgs on 10/29/2015 and 48.1 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core ROD (%)	Recovery (%)											
451.3	0					Crushed LIMESTONE GRAVEL									
449.5	1.8	SS-1	18 50/4"	80		Very dense, moist, gray, sandy SILT (ML), trace gravel [FLY ASH]									
	5	SS-2	8 13 16	67		becomes medium dense									
445		SS-3	4 4 11	61											%G=8 %S=20 %F=72
	10	SS-4	11 14 15	89											
440															
	15	SS-5	6 9 9	61											
435															
	20	SS-6	1 1 1			Very loose, moist, gray with black streaks SILT (ML) with sand [FLY ASH]									
430		ST-1		96		Dense, moist, dark brown SILTY SAND (SM), trace gravel [POSSIBLE FILL]					2.8 3.5 2.8	0.22 0.25			GUS sampler used
	25	SS-7	18 13 21	78		becomes gray, with gravel									
425															
	30	SS-8	5 7 10	100		Hard, moist, dark gray lean CLAY (CL), trace sand [ALLUVIUM]									>4.5 4.5

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B006

Sheet 2 of 3

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30															
420		ST-2		67		becomes very stiff	22.5 22.1	124.5	43	22	2.75 2.75 3.0	0.72 0.72 0.8		%G=0 %S=1 %M=65 %C=32	
35		SS-9	3 3 5	100											
415															
40		SS-10	4 6 6	67		Medium dense, moist, gray, poorly-graded fine SAND (SP) [ALLUVIUM]									
410															
45		SS-11	2 2 3	94		becomes loose, with brown mottling								%G=0 %S=9 %F=91	
405															
50		SS-12	4 7 11	94		becomes medium dense, wet, fine to coarse sand								Switched to wash rotary at 50' bgs	
400															
55		SS-13	9 8 10	61		becomes gray								%G=0 %S=95 %F=5	
395															
60		SS-14	10 12 14	61		becomes fine to medium sand									
390															
65		SS-15	8 11 15	61											

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B006

Sheet 3 of 3

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS	
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)												
385																
	70	SS-16	6 10 17	56	[Dotted Pattern]											
380																
	75	SS-17	11 17 20	56		becomes dense										
375																
	80	SS-18	8 10 14	56	becomes medium dense											
370						371.3	End of Boring at 80 ft	80.0								
365																
360	85															
355	90															
	95															
350																
345																
340																
335																
330																
325																
320																
315																
310																
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295																
290																
285																
280																
275																
270																
265																
260																
255																
250																
245																
240																
235																
230																
225																
220																
215																
210																
205																
200																

Date(s) Drilled: 09/15/2015 12:00 AM to 09/15/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 426.5 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802111.4 E 2303395 (ft NAD83)	Groundwater Level(s): 23 ft on 9/15/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
426.5	0					Very stiff to hard, moist, gray lean CLAY (CL) [FILL]									
425		SS-1	6 7 9	83							4.5 4.0 4.0				
420	5	ST-1		71		becomes stiff with silt lenses					2.0 2.0 2.0				
		SS-2	4 7 8	78											
		ST-2		50											
415	10	SS-3	6 5 9	78		becomes very stiff					4.0 4.5 4.0				
		SS-4	5 5 9	94							4.0 4.5 4.5				
410	15	SS-5	4 5 9	72		Very stiff, moist, gray with brown mottling, lean CLAY (CL) [ALLUVIUM]					4.0 4.0 2.5				
		SS-6	4 4 8	78							4.0 4.0 4.0				
405	20	ST-3		71											
		SS-7	4 5 9	100		Loose, wet, gray, poorly-graded medium SAND (SP), trace clay lenses interbedded [ALLUVIUM]									
400	25	SS-8	4 2 6	72											
		SS-9	6 6 6	89		becomes medium dense with fine sand									
30	30														

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B007

Sheet 2 of 3

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30															
395															
	35	SS-10	4 4 8	89		becomes with wood fragments									
390															
	40	SS-11	5 6 8	78											
385															
	45	SS-12	4 5 7	72		becomes with trace wood fragments									
380															
	50	SS-13	2 2 2	61		Soft to medium stiff, moist, dark gray CLAY (CL-CH) [ALLUVIUM]	378.0				0.5 1.0 0.75				
375															
	55	SS-14	2 3 2	50		Loose, wet, gray, poorly-graded medium SAND (SP) [ALLUVIUM]	373.0								
370															
	60	SS-15	5 6 7	50		becomes medium dense									
365															
	65	SS-16	9 11 12	67		becomes with trace coarse sand									


Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B007

Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
360															
70		SS-17	5 5 8	39		becomes medium to coarse sand									
						End of Boring at 70 ft									
355															
75															
350															
80															
345															
85															
340															
90															
335															
95															
330															
100															

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGSIDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Date(s) Drilled: 09/11/2015 12:00 AM to 09/14/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 426.5 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 803106.7 E 2303105.1 (ft NAD83)	Groundwater Level(s): First Encountered at 23 ft on 9/11/2015 Measured 21.8 ft bgs on 10/29/2015 and 19 ft on 11/19/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
426.5	0					Very stiff, moist, dark brown, lean CLAY (CL), trace gravel [FILL]									
425		SS-1	3 4 5	83							3.5 4.0 3.5				
	5	SS-2	7 8 10	0											
420		ST-1		46											
	10	SS-3	3 4 5	83		becomes stiff					1.5 2.5 1.5				
415		SS-4	3 5 9	100		becomes very stiff, gray					3.0 2.0 2.5				
	15	ST-2		75											
410		SS-5	4 5 5	89		Very stiff, moist, gray, lean CLAY (CL) [ALLUVIUM]					3.25 3.0 3.0				
	20	ST-3		75											
405															
	25	SS-6	2 3 2			Loose, wet, gray, poorly-graded medium SAND (SP) [ALLUVIUM]									
400		SS-7	3 4 8			becomes medium dense, brown									
	30	SS-8	3 6 11												

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B008
 Sheet 2 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30															
35		SS-9	6 8 8	61											
40		SS-10	5 5 7	50											
45		SS-11	9 9 12	89											
50		SS-12	8 9 10	44											
55		SS-13	6 7 7	61		becomes with trace coarse sand									
60		SS-14	5 6 5	39		becomes with trace fine gravel and coarse sand									
65		SS-15	8 8 12	50		becomes with gravel									

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Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B008
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
360															
70		SS-16	14 16 19			becomes dense									
						End of Boring at 70 ft									
355															
75															
350															
80															
345															
85															
340															
90															
335															
95															
330															
100															

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Date(s) Drilled: 09/14/2015 12:00 AM to 09/15/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 426.2 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802638.5 E 2303193.6 (ft NAD83)	Groundwater Level(s): 21 ft on 9/14/2015	

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
0	0					Very stiff, moist, gray, lean CLAY (CL) [FILL]									
425	6	SS-1	6 7 8	67							3.5 3.5 3.0				
	5	ST-1		96											
420	8	SS-2	5 7 8	100		becomes with root fibers					2.5 2.5 2.0				
	10	ST-2		94			16.2	130.6	32	17				%G=0 %S=6 %M=73 %C=21	
415	10	SS-3	7 9 10	89		becomes hard without root fibers					4.5 4.5 4.5				
	15	SS-4	7 8 11	78		becomes very stiff					3.5 3.5 3.5				
410	15	SS-5	6 6 9	83							3.5 3.0 3.5				
	20	SS-6	3 3 4	72		Stiff, moist, gray lean CLAY (CL) [ALLUVIUM]	18.5				1.5 1.5 1.75				
405	20	SS-7	4 4 4	50		Loose, wet, brown, poorly-graded medium SAND (SP) [ALLUVIUM]	21.7								
	25	SS-8	4 4 5	89		becomes with fine-grained sand									
400	25	SS-9	4 6 6	100		becomes medium dense, trace fine-grained sand									
	30	SS-10	3 4 4	100		becomes loose									

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Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B009
 Sheet 2 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS	
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)												
30																
395		SS-11	6 10 12	61		becomes medium dense										
		SS-12	3 5 7	56												
35																
390																
		SS-13	6 8 9	50												
40																
385																
		SS-14	11 13 15	56			becomes gray									
45																
380																
		SS-15	9 9 10	67												
50																
375																
		SS-16	4 6 8	67												
55																
370																
		SS-17	6 8 9	61			becomes with trace coarse sand									
60																
365																
		SS-18	10 10 6	50												
65																

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Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B009
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Elevation (feet)										
360															
70		SS-19	10 12 12	50		356.2	End of Boring at 70 ft	70.0							
355															
75															
350															
80															
345															
85															
340															
90															
335															
95															
330															
100															

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Date(s) Drilled: 09/11/2015 12:00 AM to 09/11/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 426.1 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 803174.2 E 2303445.3 (ft NAD83)	Groundwater Level(s): 28 ft on 9/11/2015	

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Elevation (feet)	Depth (feet)	SAMPLES			Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)										
426.1	0				Stiff, moist, brown fat CLAY (CH), trace sand [FILL]									
425		SS-1	6 6 9	56										
		SS-2	5 8 10	89	becomes very stiff									
420	5	ST-1		83	becomes gray			58	39	3.5 3.75 4.25				ST-1 Upper Portion %G=0 %S=2 %M=59 %C=39
		ST-2		88	becomes hard			29	15					ST-1 Lower Portion %G=0 %S=24 %M=50 %C=26
415	10	SS-3	6 5 6	78	becomes stiff			15.9	29	4.5 4.5 4.5				ST-2 Upper Portion %G=0 %S=19 %M=63 %C=18
		ST-3		83	becomes stiff			43	27					ST-2 Lower Portion %G=0 %S=14 %M=65 %C=21
413.1	15	ST-3		83	Very stiff, moist, brown lean CLAY (CL), trace to with silty fine sand lenses interbedded [ALLUVIUM]					3.0 3.0 3.0				
410		SS-4	8 8 7	72										
		ST-4		71	becomes stiff					2.0 2.0 2.5				
406.1	20	SS-5	3 3 4	100	Stiff, moist, dark gray fat CLAY (CH) [ALLUVIUM]									
405		ST-5		58				41.6	73		39			
401.1	25	ST-5		58	Very loose, moist, gray, poorly-graded medium SAND (SP)									
400														
		SS-6	1 1 2	17	becomes wet									
30	30													

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS								
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)																			
395	30	SS-7	12 9 9	50		becomes medium dense	16.9																
		SS-8	6 6 6	61												NP	NP					%G=0 %S=91 %F=9	
390																							
		SS-9	6 6 9	50																			
385																							
		SS-10	13 16 17	56											becomes dense								
380																							
		SS-11	7 8 9	44											becomes medium dense			NP	NP				%G=2 %S=95 %F=2
375																							
		SS-12	5 7 8	50																			
370																							
		SS-13	5 6 8	11											becomes with gravel								
365																							
		SS-14	8 5 6	50											becomes with coarse sand			NP	NP				%G=6 %S=91 %F=4
65																							

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B010
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
360															
70		SS-15	7 8 9	61											
355						End of Boring at 70 ft									
75															
350															
80															
345															
85															
340															
90															
335															
95															
330															
100															

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Date(s) Drilled: 09/10/2015 12:00 AM to 09/10/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 430.9 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 803201.5 E 2304163.2 (ft NAD83)	Groundwater Level(s): 18.5 ft on 9/10/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
430	0					Very stiff, moist, brown lean CLAY (CL) [FILL]									
		SS-1	3 8 10	44			18.8		32	16					%G=0 %S=5 %M=68 %C=27
	5	SS-2	5 3 7	33											
425		SS-3	4 4 5	17		becomes stiff, gray					1.75				
	10	SS-4	4 5 8	72		becomes very stiff with wood fragments					2.25 2.5 2.0				
420		SS-5	3 4 6	100			22.6		42	20	2.5 2.5 2.5				%G=0 %S=25 %M=45 %C=30
	15	SS-6	5 5 7	61		becomes stiff with sand					1.5 1.5 1.75				
415		SS-7	4 4 5	67		Loose, moist, brown, poorly-graded fine grained SAND (SP) [POSSIBLE FILL]									
	20	SS-8	3 3 3	56		Medium stiff, moist, gray lean CLAY (CL) with sand seams [ALLUVIUM]									
410		ST-1		96			28.2 34.7 40.5	115.4 113.0	NP	NP					%G=0 %S=3 %M=88 %C=10
	25	SS-9	0 5 9	89		Medium dense, wet, brown, poorly-graded medium SAND (SP) [ALLUVIUM]					1.0 0.5 0.5				
405															
	30	SS-10	3 3 3	100		becomes loose									

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B012
 Sheet 2 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
400	30	SS-11	10 10 12	61		becomes medium dense									
395	35	SS-12	10 10 10	50											
390	40	SS-13	7 9 10	44											
385	45	SS-14	8 9 9	50			becomes gray								
380	50	SS-15	11 11 10	50											
375	55	SS-16	7 8 9	44											
370	60	SS-17	12 15 18	50			becomes dense								
65	65	SS-18	1 2 1	61			Organic clay layer from 64 to 65 ft bgs								

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Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
365		SS-19	4 4 8	44	[Dotted Pattern]	becomes medium dense									
70		SS-20	7 7 8	72											
	70	End of Boring at 70 ft													
360															
75															
355															
80															
350															
85															
345															
90															
340															
95															
335															
100															

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Date(s) Drilled: 09/09/2015 12:00 AM to 09/09/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 427.9 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802940.4 E 2304969.1 (ft NAD83)	Groundwater Level(s): 16 ft on 9/9/2015	

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
427.9	0					Stiff, moist, brown sandy lean CLAY (CL) [FILL]									
425		SS-1	3 6 10	67							2.0 2.5 2.25				
5		SS-2	3 8 7	89		becomes very stiff to hard, gray, trace sand	20.4		38	19	2.5 3.0 3.0				%G=2 %S=7 %M=58 %C=34
420		SS-3	6 6 7	94							4.0 4.0 4.25				
10		SS-4	3 5 10	78							2.5 2.5 2.5				
415		SS-5	2 2 3	67		becomes stiff					1.5 1.5 2.0				
411		SS-6	1 1 2	83		Soft, wet, brown and gray lean CLAY (CL) [POSSIBLE FILL]									
20		ST-1		88			28.9	117.5	44	26					%G=0 %S=1 %M=81 %C=18
405		SS-7	1 1 2	100		Soft, moist, gray, fat CLAY (CH) [ALLUVIUM]					0.75 0.75 1.0				
25		SS-8	1 2 1	100							<0.5	0.3			
400		SS-9	0 1 1	100											
30		SS-10	1 1 1	61			44.5		58	30					%G=0 %S=2 %M=58 %C=40

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Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30															
		SS-11	2 1 2	100		396.9	Very loose, wet, gray, sandy SILT (ML)								%G=0 %S=14 %F=86
395															
		SS-12	1 1 2	78											
35															
		SS-13	1 1 1	100											
390															
		SS-14	0 1 1	100		389.4	Soft, moist to wet, gray, lean CLAY (CL)					0.3			
40															
		SS-15	1 1 1	44		386.9	Very loose, wet, gray poorly-graded medium SAND (SP) [ALLUVIUM]								%G=0 %S=93 %F=7
385															
45															
		SS-16	6 7 7	56			becomes medium dense								
380															
50															
		SS-17	3 3 3	50			becomes loose								
375															
55															
		SS-18	6 7 9	67			becomes medium dense with coarse sand								%G=0 %S=96 %F=4
370															
60															
		SS-19	9 10 11	72			becomes trace gravel								
365															
65															


Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B013

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Elevation (feet)										
360															
70		SS-20	9 12 16	50		becomes trace to with gravel									
						End of Boring at 70 ft									
355															
75															
350															
80															
345															
85															
340															
90															
335															
95															
330															
100															

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Date(s) Drilled: 08/26/2015 12:00 AM to 08/26/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 431.8 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST)	Hammer Data: Automatic Hammer
Boring Location: N 802115.2 E 2305092.8 (ft NAD83)	Groundwater Level(s): 6 ft on 8/26/2015	

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
431.8	0					Very loose, moist, black, SILT (ML) with sand [FLY ASH]									
430															
425	5	SS-1	WOH/18"	11		becomes loose to very loose, wet									
		SS-2	2 3 1	56											
		SS-3	1 1 1	44											
420	10	SS-4	WOH/18"	89											
		SS-5	1 1 1	72											
415	15	SS-6	1 1 0	83											
		SS-7	0 1 0	61											
410	20	SS-8	WOH/18"	56		Very loose to loose, moist, gray SILT (ML) [ALLUVIUM]	412.3	19.5	51.4	NP	NP				
		SS-9	2 1 2	78											
405	25	ST-1		12								<0.50	0.325		
		ST-2		100		becomes elastic SILT (MH)			72.1 68.1 68.7	98.4 98.7	74	35	<0.50	0.325	%G=1 %S=19 %M=45 %C=35
30	30														

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Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B014

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30															
						400.8	Loose, wet, gray SILTY SAND (SM) [ALLUVIUM]								
400															
		SS-10	2 3 3	67											%G=0 %S=74 %F=26
35															
							becomes dense, poorly-graded medium SAND								
395															
		SS-11	15 16 24	67											
40															
							becomes medium dense								
390		SS-12	9 9 10	78											
45		SS-13	6 9 14	89											
385		SS-14	8 11 14	89		385.8	Medium dense, wet, gray, poorly-graded fine SAND (Sm) with silt								%G=0 %S=93 %F=7
50		SS-15	10 16 12	56			becomes medium dense								
380		SS-16	12 20 26	67			becomes dense								
55		SS-17	9 24 26	89											
375		SS-18	13 21 23	100											
60		SS-19	8 10 7	78											%G=1 %S=93 %F=6
370		SS-20	6 6 8	33											
65		SS-21	9 9 10	67											

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B014
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Elevation (feet)										
365		SS-22	8 11 10	50	[Stippled Pattern]	becomes with fine gravel									
70		SS-23	6 7 9	56											
	70	End of Boring at 70 ft													
360															
75															
355															
80															
350															
85															
345															
90															
340															
95															
335															
100															

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Date(s) Drilled: 09/03/2015 12:00 AM to 09/04/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 50.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 428.4 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802361.9 E 2304856 (ft NAD83)	Groundwater Level(s): 18.5 ft on 9/3/2015 Measured 25.3 ft bgs on 10/29/2015 and 23.3 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGSIDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
428.4	0														
		SS-1	3 4 6	44		Very stiff, gray and brown, lean CLAY (CL) with sand [FILL]					2.5 2.5 2.5				
425		SS-2	3 3 4	100							2.0 2.0 2.0				
	5	SS-3	6 7 7	56							3.5 3.5 3.0				
420		SS-4	6 9 8	39		becomes hard, brown, without sand					4.5 4.0 4.5				
	10	SS-5	6 7 9	56		becomes gray					4.0 4.5 4.5				
415		SS-6	8 8 10	100		becomes dark gray, with root fibers									
	15	SS-7	3 3 5	100		becomes stiff, gray and brown					1.5 1.5 1.5				
410		SS-8	3 2 2	33		Very loose, wet, gray, poorly-graded medium SAND (SP) [POSSIBLE FILL]	409.9	18.7							
	20	SS-9	1 1 1	89		Very loose, wet, gray SILT (ML) with root fibers	407.4	21.0							
405		SS-10	WOH/6" 1 1	100		Soft to very soft, moist, gray fat CLAY (CH) [ALLUVIUM]	404.9	23.5			<0.5	0.05			
	25	SS-11	1 1 2	100								0.1			
400		ST-1		100				73.9 82.6 72.6	92.3 93.2 93.9	103	71				%G=0 %S=1 %M=63 %C=36 GUS sampler used
	30														

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

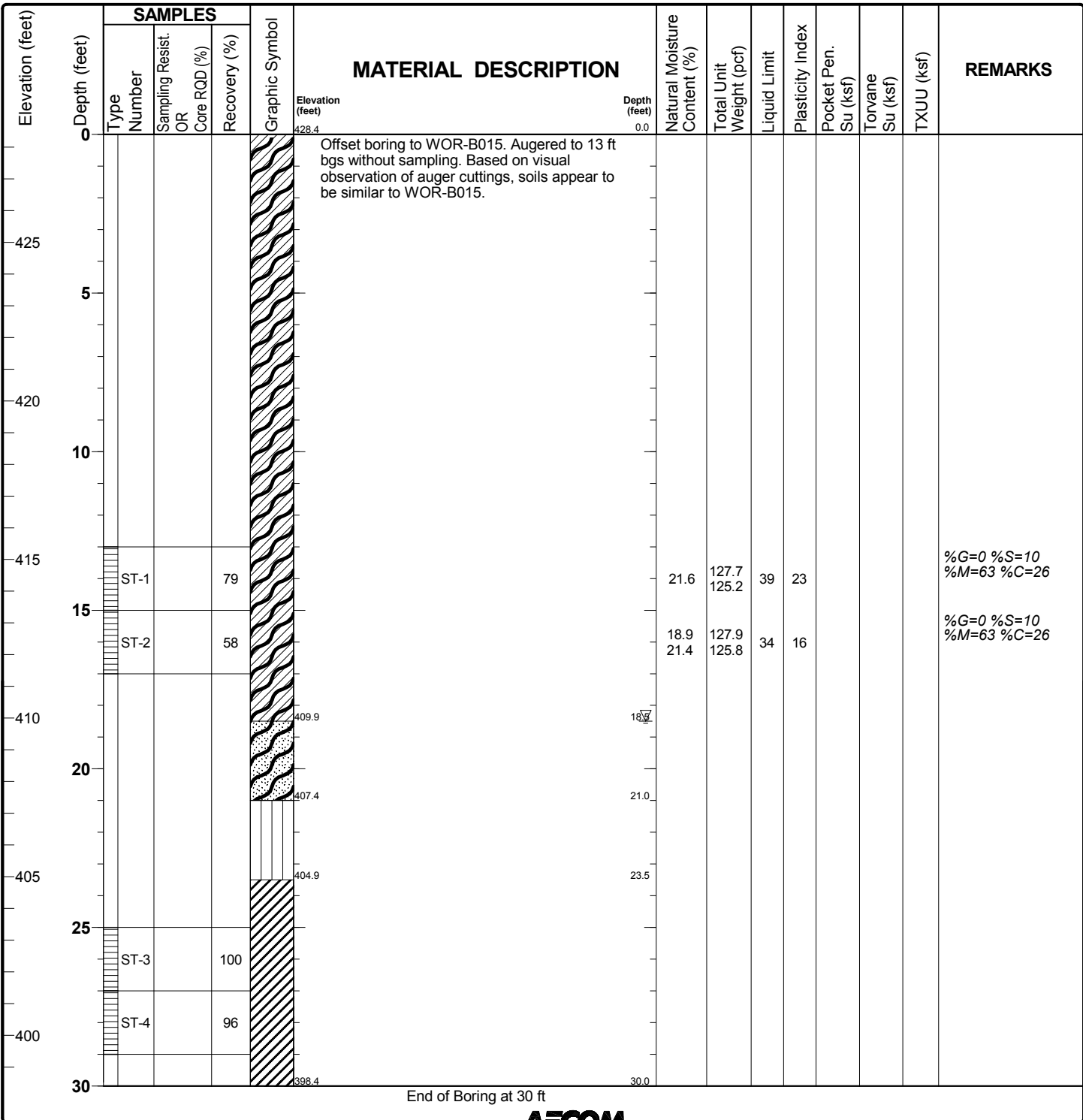
Log of Boring WOR-B015

Sheet 2 of 2

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30		ST-1		100						71					
		SS-12	1 1 2	100								0.15			
395		SS-13	WOH/18"	100		becomes with trace shell fragments						0.2			
35															
		SS-14	8 9 9	44		Medium dense, wet, gray, poorly-graded medium SAND (SP) [ALLUVIUM]	392.4							36.0	
390		SS-15	12 14 16	39		becomes dense with fine sand									
40		SS-16	8 8 8	33		becomes medium dense									
385		SS-17	6 5 6	72											
45		SS-18	7 9 13	100											
380		SS-19	10 10 11	67											
50						End of Boring at 50 ft	378.4							50.0	
375															
55															
370															
60															
365															
65															

Date(s) Drilled: 09/23/2015 12:00 AM to 09/23/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 30.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 428.4 ft NAVD88
Borehole Backfill: Well WOR-P015 Installed	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST)	Hammer Data: Automatic Hammer
Boring Location: N 802361.9 E 2304856 (ft NAD83)	Groundwater Level(s): 18.5 ft on 9/3/2015 Measured 25.3 ft bgs on 10/29/2015 and 23.3 ft on 11/19/2015	



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Date(s) Drilled: 09/02/2015 12:00 AM to 09/03/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 442.2 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802298.6 E 2304833.3 (ft NAD83)	Groundwater Level(s): 21 ft on 9/2/2015 Measured 17.7ft bgs on 10/29/2015 and 16.2 ft on 11/19/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core ROD (%)	Recovery (%)	Graphic Symbol										
442.2	0						Stiff to very stiff, moist to dry, brown lean CLAY (CL) [FILL]								
440		SS-1	6 9 8	50											
	5	SS-2	9 7 14	78					31	11					%G=0 %S=14 %F=86
435		SS-3	10 11 19	72											
	10	SS-4	13 15 18	89			becomes hard and gray								
430		SS-5	8 8 12	61			becomes very stiff								
	15	SS-6	7 8 7	44											
425		SS-7	3 3 2	78			becomes medium stiff				1.5 1.5 1.5				
	20	SS-8	1 1 1	67			becomes soft								
420		SS-9 WOH/18"		89			Very loose, moist to wet, gray SILT (ML) [FLY ASH]								
	25	ST-1		4											GUS sampler used
		ST-2		100											GUS sampler used
415															
	30	SS-10 WOH/18"		33											

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B016

Sheet 2 of 3

Elevation (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
	Depth (feet)	Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)										
30														
410		SS-11	WOH/18"	78	[Symbol: wavy lines with stars]	becomes with trace sand	39.0		NP	NP				%G=0 %S=0 %F=95 Organic Content = 2.8%
		SS-12	WOH/18"	100										
35														
405		SS-13		89	[Symbol: diagonal hatching]	Medium stiff, moist, gray fat CLAY (CL) [ALLUVIUM]					1.0 1.0 0.75			
		ST-3		96										
40														
400		SS-14		100	[Symbol: diagonal hatching]									
		SS-15		100										
45														
395		SS-16		100	[Symbol: diagonal hatching]	Medium dense, wet, gray, poorly-graded SAND (SP) [ALLUVIUM]	68.8		86	59	0.75 0.75 -			
		SS-17		61										
50														
390		SS-18		50	[Symbol: diagonal hatching]									
		SS-19		11										
55														
385		SS-20		72	[Symbol: diagonal hatching]	becomes very dense								
		SS-21		67										
60														
380		SS-22		72	[Symbol: diagonal hatching]	becomes dense								
		SS-23		89										
65														

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Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B016
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Elevation (feet)										
375		SS-24	12 17 22	89	[Dotted Pattern]	End of Boring at 70 ft									
70		SS-25	12 15 15	89											
370															
75															
365															
80															
360															
85															
355															
90															
350															
95															
345															
100															

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Date(s) Drilled: 09/16/2015 12:00 AM to 09/16/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 431.7 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 801904.6 E 2305465.1 (ft NAD83)	Groundwater Level(s): 16 ft on 9/16/2015	

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
431.7	0						Very stiff, moist, gray lean CLAY (CL) [FILL]								
430		SS-1	2 2 3	39							2.0 2.5 2.0				
	5	SS-2	2 3 4	44			becomes stiff				0.75 1.25 1.75				
							becomes moist to dry								
425		SS-3	3 2 4	39							3.0 3.5 3.0				
	10	SS-4	3 4 5	33							2.5 2.0 2.0				
420		ST-1		46											
	15	SS-5	3 4 4	94			becomes stiff, moist				1.0 1.5 1.0				
415		ST-2		92											
	20	SS-6	2 1 1	100			Very loose, wet, brown, poorly-graded medium SAND (SP) [POSSIBLE FILL]								
410		SS-7	1 1 1	100			Soft moist, gray lean CLAY (CL) [ALLUVIUM]								
	25	ST-3		100							0.5 0.5 0.5				
405		SS-8	1 2 2	100			becomes medium stiff				1.0 0.75 1.0				
402.7	30	SS-9	6 7 9	89			Medium dense, wet, gray, poorly-graded fine SAND (SP) with silt [ALLUVIUM]								

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Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B017

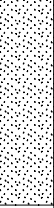
Sheet 2 of 3

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Elevation (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS	
	Depth (feet)	Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30															
35	SS-10	9 9 12	44												
40	SS-11	12 12 18	56	becomes fine to medium sand											
45	SS-12	7 13 13	72												
50	SS-13	16 16 17	78	becomes dense											
55	SS-14	12 13 16	67	becomes medium dense											
60	SS-15	15 16 13	78	becomes medium sand, trace fine sand											
65	SS-16	10 13 16													

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B017
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
365															
70		SS-17	23 25 18	61		becomes dense with coarse sand and gravel									
						End of Boring at 70 ft									
360															
75															
355															
80															
350															
85															
345															
90															
340															
95															
335															
100															

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Date(s) Drilled: 09/04/2015 12:00 AM to 09/04/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 443.9 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 801895.2 E 2305355.3 (ft NAD83)	Groundwater Level(s): 17 ft on 9/4/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core ROD (%)	Recovery (%)	Graphic Symbol										
443.9	0						Loose, moist, brown, poorly-graded fine SAND (SP), trace to with clay [FILL]								
	1	SS-1	6 5 5	61						30	9				%G=0 %S=4 %F=96
440	5	SS-2	9 6 9	28			becomes medium dense								
	6	SS-3	9 14 23	61			becomes dense								
435	10	SS-4	13 14 20	50											
	11	SS-5	9 12 15	39			becomes medium dense			NP	NP				%G=0 %S=57 %F=43
430	15	SS-6	13 15 15	61											
	16	SS-7	11 12 12	33											
426.9	17						Medium dense, wet, gray, poorly-graded medium SAND (SP) with gravel and coal, with layers of bottom ash interbedded [ASH]								
425	20	SS-8	4 5 4	28											
	21	SS-9	1 1 2	67											%G=16 %S=46 %M=28 %C=9
420	25	SS-10	WOH/18"	11											
	26	SS-11	6 6 9	22			wood railroad tie								
415	30	SS-12	3 4 4	6											

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B018

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Elevation (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS	
	Depth (feet)	Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30						Elevation (feet) 412.9 Depth (feet) 31.0 Very loose, wet, brown and gray, poorly graded fine to medium SAND (SP) [ALLUVIUM]	27.4							%G=0 %S=19 %F=81	
410	SS-13	1 1 1	100			becomes loose									
35	SS-14	2 2 3	22			becomes medium dense									
405	SS-15	5 5 6	22			becomes loose									%G=0 %S=83 %F=17
40	SS-16	4 3 3	28			becomes medium dense									
400	SS-17	6 9 8	72												
45	SS-18	6 7 8	61			becomes light gray with clay									
395	SS-19	6 7 11	50												
50	SS-20	9 11 15	56												
390	SS-21	9 6 11	61												
55	SS-22	9 11 16	33												
385	SS-23	9 11 16	89												%G=0 %S=94 %F=6
60	SS-24	8 12 10	72												
380	SS-25	10 15 16	89			becomes dense									
65	SS-26	11 12 14	56			becomes medium dense									

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B018
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Elevation (feet)										
		SS-27	14 22 25	72	[Stippled Pattern]	becomes dense									
375	70	SS-28	16 15 16	67											
						End of Boring at 70 ft									
370	75														
365	80														
360	85														
355	90														
350	95														
345															
100															

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Date(s) Drilled: 09/08/2015 12:00 AM to 09/09/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 444.0 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 801731.3 E 2304276.8 (ft NAD83)	Groundwater Level(s): 15 ft on 9/8/2015 Measured 40.5 ft bgs on 10/29/2015 and 38 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGSIDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
444.0	0						Medium dense, moist, brown, poorly-graded fine to medium SAND (SP), trace silt [FILL]								
	1	SS-1	11 12 14	78											
440	5	SS-2	4 7 9	72				19.6							%G=0 %S=11 %M=55 %C=34
	6	SS-3	8 14 22	83			becomes dense								
435	10	SS-4	8 10 10	72			becomes with silt								%G=0 %S=13 %M=51 %C=36
430	15	SS-5	10 11 12	61			becomes gray								
	16						Very loose, wet, gray SILT(ML) with slag [FLY ASH]	15.7							
425	20	SS-6	1 WOH/12"	100				42.6							%G=0 %S=19 %M=66 %C=14
	21						Very loose, wet, gray poorly-graded medium-grained SAND (SP) [BOTTOM ASH]	20.0							
	22	SS-7	1 WOH/12"	89											
420	25	SS-8	2 1 2	100				42.9							%G=8 %S=62 %M=23 %C=7
	26						Very loose, wet, gray, SILTY SAND (SM) [POSSIBLE FILL]	26.0							
	27	SS-9	WOH/18"	89											
415	30	SS-10	1 1 1	100											

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B020


Sheet 2 of 3

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
30		SS-11	1 1 1	100											%G=1 %S=19 %F=81
410		SS-12	WOH/12"	100											
35		SS-13	2 2 4	100											
405		ST-1		100											GUS sampler used
400		ST-2		44				54.8 33.3	103.6	60	39				%G=0 %S=2 %M=49 %C=49
395		SS-14	13 13 15	100											%G=0 %S=93 %F=7
390		SS-15	8 11 15	67											becomes with coarse sand
385		SS-16	13 14 19	50											becomes dense
380		SS-17	16 20 22	50											
65															

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B020
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
375	70	SS-18	8 8 11	61		becomes medium dense									
						End of Boring at 70 ft									
370	75														
365	80														
360	85														
355	90														
350	95														
345	100														

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Date(s) Drilled: 08/28/2015 12:00 AM to 08/28/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 422.7 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802779.5 E 2303390.7 (ft NAD83)	Groundwater Level(s): Frist Encountered at 6 ft bgs and 19 ft on 8/28/2015 Measured 19 ft bgs on 10/29/2015 and 18.4 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGSIDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
422.7	0					Very loose, moist to wet, gray sandy SILT (ML) [FLY ASH]									
420															
415	5	SS-1	2 1 1	67											%G=0 %S=29 %M=63 %C=5
						becomes wet									
		SS-2 WOH/18"		78											
		ST-1		0											
	10	ST-2		100											GUS sampler used
		SS-3 WOH/18"		0											
	15					Stiff, moist, gray lean CLAY (CL) [ALLUVIUM]									
		SS-4	3 5 6	89				26.9	47	23					%G=0 %S=0 %F=100
		ST-3		0											
	20					Loose, wet, gray SILTY SAND (SM) [ALLUVIUM]									
		SS-5	3 4 4	89											
						6" clay layer									
	25	SS-6	4 5 5	100											%G=0 %S=56 %F=44
		SS-7	7 7 8	56		becomes medium dense									
	30	SS-8	6 7 8												

Project: Dynegy

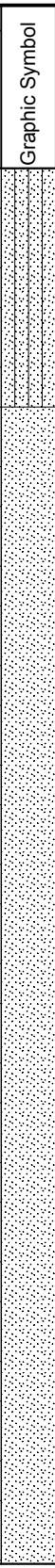
Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B021

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS		
		Type Number	Sampling Resist. OR	Core RQD (%)	Recovery (%)												
30																	
		SS-9	7 8 9		61		Loose, wet, gray, poorly-graded SAND (SP) [ALLUVIUM]										
390																	
		SS-10	7 8 8		50												
35																	
		SS-11	3 4 5		67												%G=1 %S=96 %F=3
385																	
		SS-12	5 4 4		72												
40																	
		SS-13	5 13 13		67												
380																	
		SS-14	6 5 8		89												%G=0 %S=97 %F=3
45																	
		SS-15	3 3 5		61												
375																	
		SS-16	3 6 7		56				becomes trace to with coal fragments as gravel								
50																	
		SS-17	5 6 6		67				becomes medium to coarse sand								
370																	
		SS-18	6 6 10		44												
55																	
		SS-19	5 5 7		33												
365																	
		SS-20	4 9 10		28												
60																	
		SS-21	15 12 11		50		becomes with fine gravel										
360																	
		SS-22	10 15 16														
65																	

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B021
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Elevation (feet)										
355		SS-23	7 7 7	56	[Dotted Pattern]	End of Boring at 70 ft									
70		SS-24	7 7 9				352.7	70.0							
350															
75															
345															
80															
340															
85															
335															
90															
330															
95															
325															
100															

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Date(s) Drilled: 09/01/2015 12:00 AM to 09/01/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 50.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 430.6 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802021.8 E 2303775.5 (ft NAD83)	Groundwater Level(s): 6 ft on 9/1/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
430	0					Loose, moist, gray, SILT (ML) with sand [FLY ASH]									
425	5	SS-1	4 5 5												
		SS-2	4 3 3	61		becomes wet with bottom ash									
		SS-3	1 3 1	83		becomes very loose									
420	10	SS-4	WOH/6" 1 1	72		becomes trace sand									
		ST-1		42				122.7 113.5 65.0	85.7	NP	NP				GUS sampler used %G=0 %S=6 %M=83 %C=11
415	15	ST-2		100				58.3 73.6 73.7 24.3	93.2 86.6 -	NP	NP				GUS sampler used Upper: %G=0 %S=11 %F=89 Lower: %G=0 %S=4 %M=67 %C=30 SG=2.50, k=1.2E-06
						Stiff, moist, gray, lean CLAY (CL) [ALLUVIUM]		23 120.6 25	122.3	39	23				
410	20	SS-5	4 5 5	89								2.0 2.0 1.75			
		SS-6	3 4 4	94		becomes with sand						2.0 2.0 2.0			
405	25	SS-7	2 3 3	89								1.25 1.50 1.50			
		SS-8	2 3 2	100		becomes medium stiff to stiff						1.0 1.25 1.0			
30	30														

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B022
 Sheet 2 of 2

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
400	30	SS-9		100		becomes medium stiff	38.5	46	21	0.5 0.75 0.5					
396.6	35	SS-10	2 3 4	72		Loose, wet, dark gray, SILTY SAND (SM) [ALLUVIUM]	34.0								
395		SS-11	5 7 10	89		becomes medium dense								%G=0 %S=81 %F=19	
390	40	SS-12	4 8 9	56		becomes interbedded with clay lenses									
385	45	SS-14	5 9 10	72											
		SS-15	4 4 6	61											
380	50	SS-16	5 5 7	72		End of Boring at 50 ft	50.0								
375	55														
370	60														
65															

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Project: Dynegy	Log of Boring WOR-B022A Sheet 1 of 1
Project Location: Wood River Power Station, Alton, IL	
Project Number: 60440115	

Date(s) Drilled	09/01/2015 12:00 AM to 09/01/2015 12:00 AM	Logged By	B. Clayton	Checked By	V. Gautam
Drilling Method	Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type	3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth	30.0 ft
Drill Rig Type	CME-550 ATV	Drilling Contractor	Terracon	Surface Elevation	430.6 ft NAVD88
Borehole Backfill	Cement Grout	Sampling Method(s)	2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data	Automatic Hammer
Boring Location	N 802021.8 E 2303775.5 (ft NAD83)		Groundwater Level(s)	6 ft on 9/1/2015	

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
430	0						Offset boring to WOR-B022. Augered to 8 ft bgs without sampling. Based on visual observation of auger cuttings, soils appear to be similar to WOR-B022.								
425	5														
420	10	ST-1	96												GUS sampler used
		ST-2	96												GUS sampler used
415	15	ST-3	42												GUS sampler used
		ST-4	100												GUS sampler used
410	20														
405	25														
400.6	30						End of Boring at 30 ft								

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Date(s) Drilled: 08/31/2015 12:00 AM to 08/31/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 70.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 423.0 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802489.4 E 2303542.5 (ft NAD83)	Groundwater Level(s): 21 ft on 8/31/2015 Measured 20.3 ft bgs on 10/29/2015 and 18.9 ft on 11/19/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core ROD (%)	Recovery (%)	Graphic Symbol										
423.0	0					Very loose, moist, gray, SILT (ML) with sand [ASH]									
420															
415	5	SS-1	WOH/18"	0											
						becomes with trace sand									%G=1 %S=9 %F=91
		SS-2	WOH/18"	100											
		ST-1		100											
	10	ST-2		100											
						Stiff to medium stiff, moist, gray fat CLAY (CH) with rock fragments [FILL]									
410															
	15	SS-5	2 3 3	78				36.1	58	29	1.25 1.25 1.0				
		SS-6	1 1 0	67		Stiff to medium stiff, moist, gray fat CLAY (CH) [ALLUVIUM]					1.0 1.0 1.25				
405															
	20	SS-7	1 1 1	89							0.5 0.5 0.75				
		SS-8	3 2 3	78		Loose, wet, gray SILTY SAND (SM), trace organics [ALLUVIUM]									
400															
	25	SS-9	2 2 2	89				33.8							%G=0 %S=64 %F=36 Organic Content = 2.8%
		SS-10	3 2 2	56											
395															
	30	SS-11	1 2 3	89		Loose, wet, gray poorly-graded medium grained SAND (SP) [ALLUVIUM]									

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B024

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
390	30	SS-12	4 4 5	44											
385	35	SS-13	3 2 4	56											
387.0		SS-14	2 2 2	100		Soft to medium stiff, gray fat CLAY (CH) [ALLUVIUM]					0.5 0.5 0.5				
384.5		SS-15	1 1 1	56		Very loose, wet, gray poorly-graded fine SAND (SP) [ALLUVIUM]									
380	40	SS-16	10 19 16	89		becomes dense, poorly-graded medium SAND									
		SS-17	8 8 9	94		becomes medium dense									
375	45	SS-18	1 1 1	89		Soft, moist to wet, lean CLAY (CL)									
370	50	SS-19	10 12 10	89		Medium dense, wet, gray, poorly-graded fine SAND (SP) [ALLUVIUM]									
		SS-20	8 5 2	61		becomes loose, poorly-graded medium SAND									
365	55	SS-21	8 7 9	44		becomes medium dense									
		SS-22	7 8 8	56											
360	60														
365	65	SS-23	8 9 10	50		becomes interbedded with clay lenses									

%G=0 %S=96
%F=4

Project: Dynegy
 Project Location: Wood River Power Station, Alton, IL
 Project Number: 60440115

Log of Boring WOR-B024
 Sheet 3 of 3

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Elevation (feet)										
355		SS-24	6 9 10	39	[Dotted Pattern]	End of Boring at 70 ft									
70		SS-25	6 7 8	50											
350															
75															
345															
80															
340															
85															
335															
90															
330															
95															
325															
100															

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Project: Dynegy	Log of Boring WOR-B025
Project Location: Wood River Power Station, Alton, IL	Sheet 1 of 2
Project Number: 60440115	

Date(s) Drilled: 09/02/2015 12:00 AM to 09/02/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 60.0 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 433.5 ft NAVD88
Borehole Backfill: Cement Grout	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 802267.5 E 2304498.5 (ft NAD83)	Groundwater Level(s): 6 ft on 9/2/2015 Measured 8 ft bgs on 10/29/2015 and 8.2 ft on 11/19/2015	

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Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)	Graphic Symbol										
433.5	0						Loose, moist, gray, SILT (SM) with sand [FLY ASH]								
430	5	SS-1	3 4 2	100											
425	10	SS-2	WOH/18"	100		becomes very loose, wet									
		ST-1		100											GUS sampler used
420	15	SS-3	WOH/18"	100											
		SS-4	WOH/18"	56											
415	20	SS-5	WOH/6" 1 WOH/6"	72											
		SS-6	WOH/18"	17											
410	25	SS-7	WOH/18"	0											
		SS-8	WOH/18"	100											
407.5	26.0	SS-9	WOH/12" 1	61		Very soft, moist, gray fat CLAY (CH) [ALLUVIUM]									
405	30	ST-2		0											

Project: Dynegy

Project Location: Wood River Power Station, Alton, IL

Project Number: 60440115

Log of Boring WOR-B025

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Elevation (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS	
	Depth (feet)	Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
30		ST-3		83			64 66.6 63.3	- 99 99.8	94	56	0.35			%G=0 %S=0 %M=15 %C=85	
400		SS-10	WOH/6" 0 WOH/6"	100											
35		SS-11	1 2 2	100		becomes soft to medium stiff, lean to fat CLAY (CL-CH)					0.5 0.5 0.75				%G=0 %S=0 %F=100
395		SS-12	5 9 12	67		Medium dense, wet, gray poorly-graded SAND (SP) [ALLUVIUM]									
40		SS-13	12 15 21	44		becomes dense									
390		SS-14	9 15 16	72											%G=1 %S=90 %F=9
45		SS-15	19 21 24	67											
385		SS-16	8 8 8	61		becomes medium dense									%G=0 %S=93 %F=7
50		SS-17	6 10 7	78											
380		SS-18	2 2 4	50		becomes loose									
55															
375															
60															End of Boring at 60 ft
65															

Project: Dynegy	Log of Boring WOR-B026
Project Location: Wood River Power Station, Alton, IL	Sheet 1 of 1
Project Number: 60440115	

Date(s) Drilled: 09/16/2015 12:00 AM to 09/16/2015 12:00 AM	Logged By: B. Clayton	Checked By: V. Gautam
Drilling Method: Hollow Stem Auger / Mud Rotary	Drill Bit Size/Type: 3 1/4" ID HSA, 3 3/8" Tricone	Borehole Depth: 28.5 ft
Drill Rig Type: CME-550 ATV	Drilling Contractor: Terracon	Surface Elevation: 431.4 ft NAVD88
Borehole Backfill: Well WOR-P026 Installed	Sampling Method(s): 2" ID Split Spoon (SS), Shelby Tube (ST), Gregory Undisturbed Sampler (GUS)	Hammer Data: Automatic Hammer
Boring Location: N 801728.8 E 2304914.5 (ft NAD83)	Groundwater Level(s): 5 ft on 9/16/2015 Measured 7.6 ft bgs on 10/29/2015 and 6.9 ft on 11/19/2015	

Report: 12/29/15 GEO_SOIL K:\PROJECTS\IDYNEGY\60428794_WOODRIVER\DOCS\LOGS\IDYNEGY_WOOD RIVER REV.0.GPJ DYNEGY LIBRARY.GLB

Elevation (feet)	Depth (feet)	SAMPLES				Graphic Symbol	MATERIAL DESCRIPTION	Natural Moisture Content (%)	Total Unit Weight (pcf)	Liquid Limit	Plasticity Index	Pocket Pen. Su (ksf)	Torvane Su (ksf)	TXUU (ksf)	REMARKS
		Type Number	Sampling Resist. OR Core RQD (%)	Recovery (%)											
431.4	0						Loose, moist, dark gray SILT (ML) [FLY ASH]								
430		SS-1	2 6 3	72			becomes very loose								
	5	SS-2	WOH/18"	100			becomes wet								
425		ST-1		75			Very loose, wet, light gray, poorly-graded medium SAND (SP) [BOTTOM ASH]								
	10	SS-3	1 1 1	89											
420		SS-4	1 1 1	94											
	15	SS-5	1 1 1	100			Very loose, wet, dark gray SILT (ML) [FLY ASH]								
415		SS-6	WOH/6" 1 WOH/6"	100											
	20	SS-7	1 1 1	100											
410		ST-2		92											
	25	SS-8	1 2 3	100			Medium stiff, moist, gray lean to fat CLAY (CL-CH) [ALLUVIUM]				1.0 1.0 1.0				
405		SS-9	3 5 8	89			Medium dense, wet, brown, poorly-graded medium SAND (SP)								
	30						End of Boring at 28.5 ft								

B-1: Illinois State Water Survey: 1982 Boring and
Piezometer Logs (Hampton and O'Hearn, 1984)

RECORD OF SUBSURFACE EXPLORATION

PROJECT Illinois Power - Wood River
Power Plant Monitoring Wells
 JOB NO. 82-1344

BORING M-7
 SHEET 1 OF 2

DEPTH (ft)	SAMPLE			SEE REMARK #	DESCRIPTION OF MATERIALS (Color Modifier MATERIAL. Classification) Soil Classification System <u>Unified</u> Surface Elevation <u> </u>	BLOWS (per 6 in)	DRY UNIT WEIGHT (pcf)	Shear Strength, tsf										
	NUMBER	INTERVAL AND TYPE	ADVANCED / RECOVERED (in)					SV Δ	QP \square	QU \circ	PL	NMC	LL					
-5-	1	SS	24/15	1	Gray Fine Sand and Fly Ash, FILL	2-3-4												
-10-	2	SS	24/19			1/12-2												
-15-	3	SS	24/20		Fly Ash with Clay Seams and Fine to Medium Sand, FILL	3-8-7												
-20-	4	SS	24/24			13-8-9												
-25-	5	SS	24/18		Grayish Brown Fine SAND, Trace Silty Clay, and Fly Ash, Fill	6-2-1												
-30-	6	SS	24/16		Gray CLAY	3-4-6												
-35-	7	SS	24/21			3-5-6												

DRILLING METHOD Hollow Augers
 DATE DRILLED 12-20-82
 DRILLED BY Bignall
 LOGGED BY Hileman
 PIEZOMETER See Sketch

GROUNDWATER LEVELS
 Encountered at 40.0 Feet
 _____ Hours after completion _____ Feet
 _____ after completion _____ et
 _____ after completion _____ et

NOTE: Refer to the attached GENERAL NOTES and NOTATION USED ON RECORDS OF SUBSURFACE EXPLORATION for abbreviations, explanations, and qualifications relative to this log.



RECORD OF SUBSURFACE EXPLORATION

PROJECT Illinois Power - Wood River
Power Plant Monitoring Wells
 JOB NO. 82-1344

BORING M-7
 SHEET 2 OF 2

DEPTH (ft)	SAMPLE			SEE REMARK #	DESCRIPTION OF MATERIALS (Color Modifier MATERIAL. Classification) Soil Classification System <u>Unified</u> Surface Elevation <u> </u>	BLOWS (per 6 in)	DRY UNIT WEIGHT (pcf)	Shear Strength, tsf											
	NUMBER	INTERVAL AND TYPE	ADVANCED / RECOVERED (in)					SV Δ	QP/2 \square	QU/2 \circ	PL +	NMC •	LL x						
40	8	SS	24/24		Gray CLAY	2-2-5													
45	9	SS	24/16		Brown to Gray Fine to Medium SAND Trace Silt and Clay	12-11-16													
50	10	SS	24/14		Brown Fine to Medium SAND, Trace Coarse Sand	10-11-15													
55																			
60	11	SS	42/20			10-12-14													
65					TOB														
70					REMARKS: 1. Two-foot Long Split-spoon Used Entire Boring, Blow Counts Shown For First 18 Inches.														

DRILLING METHOD Hollow Augers
 DATE DRILLED 12-20-82
 DRILLED BY Bignall
 LOGGED BY Hileman
 PIEZOMETER See Sketch

GROUNDWATER LEVELS
 Encountered at _____ Feet
 _____ Hours after completion _____ Feet
 _____ after completion _____ Feet
 _____ after completion _____ Feet

NOTE: Refer to the attached GENERAL NOTES and NOTATION USED ON RECORDS OF SUBSURFACE EXPLORATION for abbreviations, explanations, and qualifications relative to this log.



John Mathes & Associates, Inc.

RECORD OF SUBSURFACE EXPLORATION

PROJECT Illinois Power - Wood River
Power Plant Monitoring Wells
 JOB NO. 82-1344

BORING M-8
 SHEET 1 OF 1

DEPTH (ft)	SAMPLE			SEE REMARK #	DESCRIPTION OF MATERIALS (Color Modifier MATERIAL. Classification) Soil Classification System <u>Unified</u> Surface Elevation <u> </u>	BLOWS (per 6 in)	DRY UNIT WEIGHT (pcf)	Shear Strength, tsf												
	NUMBER	INTERVAL AND TYPE	ADVANCED / RECOVERED (in)					SV Δ	QP/2 \square	QU/2 \circ	PL	NMC	LL	Rock Quality Designation						
40	1	SS	24/24	2	1	1-2-3														
45	2	SS	24/24	3	2	4-13-16														
50																				
55																				
60																				
65																				
70																				

REMARKS:
 1. Drilled Down to 41' Took First Sample.
 2. Two-foot Long Split-spoon Used Entire Boring, Blow Counts for First 18 Inches.
 3. Ten Inches Blow-in, Drove Split-spoon, Washed Out, Drilled Down to 47'.

DRILLING METHOD Hollow Augers
 DATE DRILLED 12-21-82
 DRILLED BY Bignall
 LOGGED BY Hileman
 PIEZOMETER See Sketch

GROUNDWATER LEVELS
 Encountered at 34.1 Feet
 _____ Hours after completion _____ Feet
 _____ after completion _____ Feet
 _____ after completion _____ Feet

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RECORD OF SUBSURFACE EXPLORATION

PROJECT Illinois Power - Wood River
Power Plant Monitoring Wells
 JOB NO. 82-1344

BORING M-9
 SHEET 1 OF 1

DEPTH (ft)	SAMPLE		SEE REMARK #	DESCRIPTION OF MATERIALS (Color Modifier MATERIAL. Classification) Soil Classification System <u>Unified</u> Surface Elevation _____	BLOWS (per 6 in)	DRY UNIT WEIGHT (pcf)	Shear Strength, tsf													
	NUMBER	INTERVAL AND TYPE					ADVANCED / RECOVERED (in)	SV Δ	QP 1/2 □	QU 1/2 ○	PL +	NMC •	LL x							
-5-	1	SS	18/16		2-2-2															
-10-	2	SS	18/16		2-3-3															
-15-	3	SS	18/17		2-4-6															
-20-	4	SS	18/14		1-1-2															
-25-	5	SS	18/18		2-2-3															
-30-	6	SS	18/14		WH-1-1															
-35-	7	SS	18/9		TOB	12-17-17														

DRILLING METHOD Hollow Augers
 DATE DRILLED 12-20-82
 DRILLED BY Roberts
 LOGGED BY Schaefer
 PIEZOMETER See Sketch

GROUNDWATER LEVELS
 Encountered at 19.3 Feet
 _____ Hours after completion _____ Feet
 _____ after completion _____ Feet
 _____ after completion _____ Feet

NOTE: Refer to the attached GENERAL NOTES and NOTATION USED ON RECORDS OF SUBSURFACE EXPLORATION for abbreviations, explanations, and qualifications relative to this log.



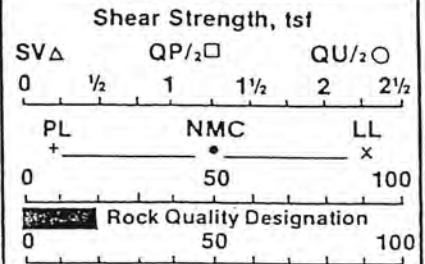
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RECORD OF SUBSURFACE EXPLORATION

PROJECT Illinois Power - Wood River
Power Plant Monitoring Wells
 JOB NO. 82-1344

BORING M-10
 SHEET 1 OF 2

DEPTH (ft)	SAMPLE			SEE REMARK #	DESCRIPTION OF MATERIALS (Color Modifier MATERIAL. Classification) Soil Classification System <u>Unified</u> Surface Elevation <u>-</u>	BLOWS (per 6 in)	DRY UNIT WEIGHT (pcf)	Shear Strength, tsf									
	NUMBER	INTERVAL AND TYPE	ADVANCED / RECOVERED (in)					SV Δ	QP/2 \square	QU/2 \circ	PL	NMC	LL				
5	1	SS	18/16	1	Gray to Brown Silty CLAY	3-5-8											
10	2	SS	18/18		Gray Clayey SILT, Trace Fine Sand	4-7-10											
15	3	SS	18/18		Gray Silty CLAY	2-3-3											
20	4	SS	18/18	2	Trace Fine Sand	1/12-2											
25	5	SS	18/6		Brown Fine SAND, Trace Clay	1-1-2											
30	6	SS	18/18		Gray Silty CLAY, Trace Fine Sand	1-2-2											
35	7	SS	18/18		Gray CLAY, Trace Silt	WH-1-2											



DRILLING METHOD Hollow Augers
 DATE DRILLED 12-21-82
 DRILLED BY Roberts
 LOGGED BY Schaefer
 PIEZOMETER See Sketch

GROUNDWATER LEVELS
 Encountered at 19.3 Feet
 _____ Hours after completion _____ Feet
 _____ after completion _____ Feet
 _____ after completion _____ Feet

NOTE: Refer to the attached GENERAL NOTES and NOTATION USED ON RECORDS OF SUBSURFACE EXPLORATION for abbreviations, explanations, and qualifications relative to this log.



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RECORD OF SUBSURFACE EXPLORATION

PROJECT Illinois Power - Wood River
Power Plant Monitoring Wells
 JOB NO. 82-1344

BORING M-10
 SHEET 2 OF 2

DEPTH (ft)	SAMPLE			SEE REMARK #	DESCRIPTION OF MATERIALS (Color Modifier MATERIAL. Classification)	BLOWS (per 6 in)	DRY UNIT WEIGHT (pcf)	Shear Strength, tsf												
	NUMBER	INTERVAL AND TYPE	ADVANCED / RECOVERED (in)					SV Δ	QP/2 \square	QU/2 \circ	PL	NMC	LL							
					Soil Classification System <u>Unified</u>				0	1/2	1	1 1/2	2	2 1/2						
					Surface Elevation <u>-</u>				0		50		100							
									Rock Quality Designation											
									0		50		100							
-40	8	SS	18/18		Gray CLAY, Trace Silt	WH-1-2														
-45	9	SS	18/18			WH-WH-2														
-50	10	SS	18/18			WH-1-2														
-55	11	SS	18/18			WH-WH-3														
					TOB															
-60					REMARKS:															
					1. Approx. 6" Fly Ash at Surface															
-65					2. Pulled SS, 18" Blow-in, Added Water, Continued Drilling.															
-70																				

DRILLING METHOD Hollow Augers
 DATE DRILLED 12-21-82
 DRILLED BY Roberts
 LOGGED BY Schaefer
 PIEZOMETER See Sketch

GROUNDWATER LEVELS
 Encountered at _____ Feet
 _____ Hours after completion _____ Feet
 _____ after completion _____ Feet
 _____ after completion _____ ft

NOTE: Refer to the attached GENERAL NOTES and NOTATION USED ON RECORDS OF SUBSURFACE EXPLORATION for abbreviations, explanations, and qualifications relative to this log.



RECORD OF SUBSURFACE EXPLORATION

PROJECT Illinois Power - Wood River
Power Plant Monitoring Wells
 JOB NO. 82-1344

BORING M-11
 SHEET 1 OF 1

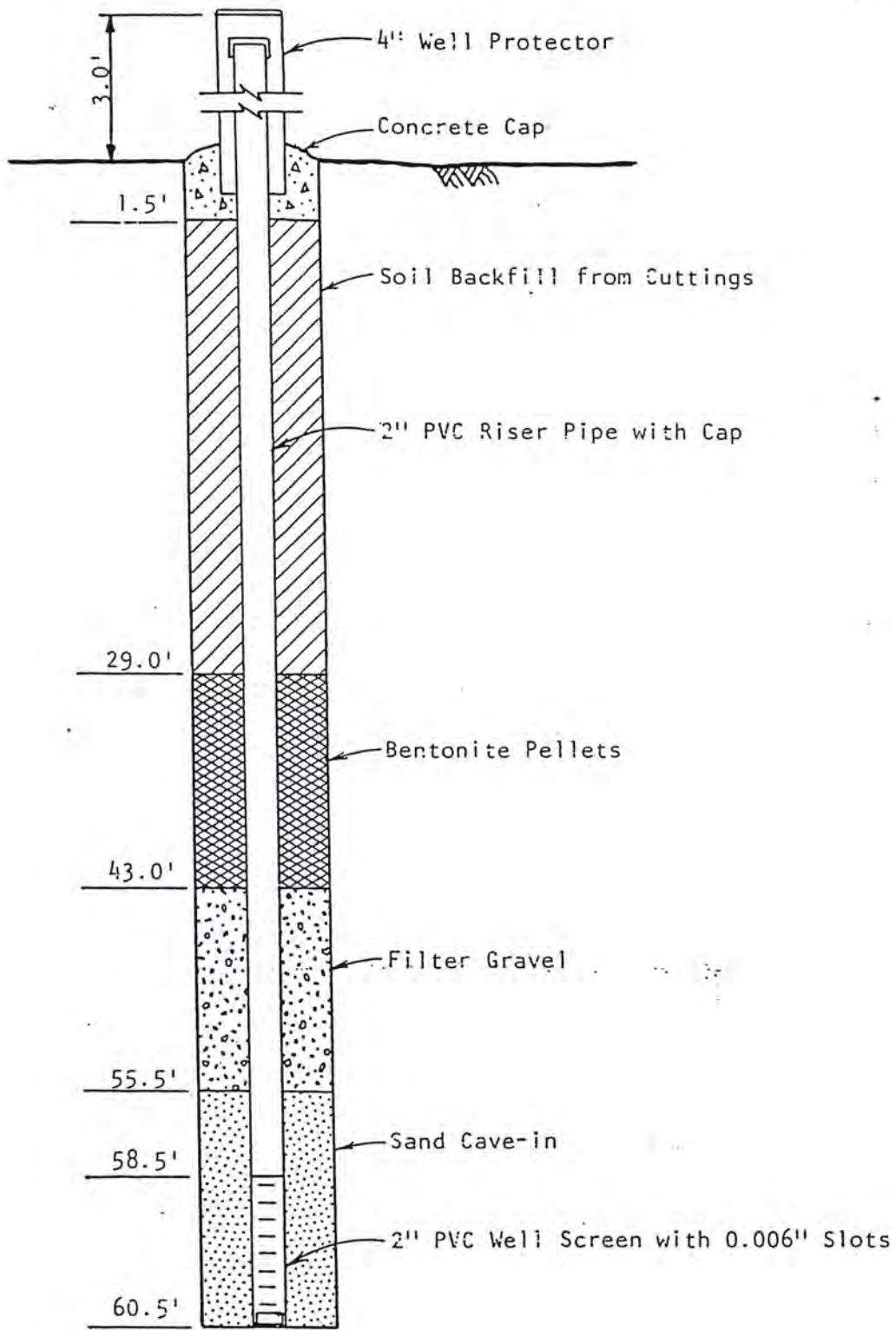
DEPTH (ft)	SAMPLE			SEE REMARK #	DESCRIPTION OF MATERIALS (Color Modifier MATERIAL. Classification) Soil Classification System <u>Unified</u> Surface Elevation <u> </u>	BLOWS (per 6 in)	DRY UNIT WEIGHT (pcf)	Shear Strength, tsf												
	NUMBER	INTERVAL AND TYPE	ADVANCED / RECOVERED (in)					SV Δ	QP/2 \square	QU/2 \circ	PL	NMC	LL							
-5																				
-10																				
-15																				
-20	1	SS	18/14	1	Gray Silty CLAY	1-1-4														
-25	2	SS	18/16		Gray Fine SAND	1-1-0														
-30	3	SS	18/18		- with Gray Clay TOB	1-1-2														
-35					REMARKS: 1. Drilled Down to 19', Took First Sample.															

DRILLING METHOD Hollow Auger
 DATE DRILLED 12-22-82
 DRILLED BY Roberts
 LOGGED BY Schaefer
 PIEZOMETER See Sketch

GROUNDWATER LEVELS
 Encountered at Feet
 Hours after completion Feet
 after completion Feet
 after completion et

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PIEZOMETER M-7

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