OPERATING RECORD
REVISION 0

TITLE 40 CFR PART 257 SECTION 257.91

MONITORING WELL BORING LOGS, CONSTRUCTION FORMS, CONSTRUCTION REPORTS, AND WELL DEVELOPMENT DOCUMENTATION

LOCATION: HAVANA POWER STATION
LEGAL ENTITY: DYNEGY MIDWEST GENERATION, LLC
UNIT IDENTIFICATION NUMBER: 701
UNIT NAME: HAVANA EAST ASH POND (CELLS 1, 2, 3, AND 4)

MONITORING WELL BORING LOGS

Renamed HAMW-30

HAMW

BORING NO. 130
DATE 10-29-92
W. & A. FILE NO. 5558
SHEET 1 OF 17

WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

PROJECT ILLINOIS POWER ASH POND
LOCATION Havana, Illinois
BORING LOCATION N14,661; E5884
DRILLED BY Fehl
BORING TYPE Hollow-Stem Augers Continuous Tube
WEATHER CONDITIONS Partly Cloudy & Cool
SOIL CLASSIFICATION SYSTEM U.S.B.S.C.
SEEPAGE WATER ENCOUNTERED AT ELEVATION 450.5
GROUND SURFACE ELEVATION 469.6
GROUND WATER ELEVATION AT 24+ HRS. 454.7
BORING DISCONTINUED AT ELEVATION 439.6
GROUND WATER ELEVATION AT COMPLETION -

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
Dark Brown SANDY CLAY LOAM Organic Topsoil	6"						
Brown SANDY CLAY		CT					
Orange-Brown And Brown, Fine- To Medium-Grained SAND	05						
		CT					
	10						
		CT					
	15						
		CT					
	20						
		CT					
	25						
Brown, Medium-Grained SAND		CT					
	30						
EXPLORATORY BORING DISCONTINUED							

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

Renamed HAMW-31

HAMW

BORING NO. 131

DATE 10-28-92

W. & A. FILE NO. 5558

SHEET 2 OF 17

WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

PROJECT ILLINOIS POWER ASH POND — LOCATION Havana, Illinois

BORING LOCATION N16,299; E4340 — DRILLED BY Fehl

BORING TYP Hollow Stem Auger Continuous Tube — WEATHER CONDITIONS Partly Cloudy & Cool

SOIL CLASSIFICATION SYSTEM U.S.B.S.C. — SEEPAGE WATER ENCOUNTERED AT ELEVATION 455.6

GROUND SURFACE ELEVATION 480.1 — GROUND WATER ELEVATION AT 24+ HRS. 453.9

BORING DISCONTINUED AT ELEVATION 445.1 — GROUND WATER ELEVATION AT COMPLETION -

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
Dark Brown SANDY CLAY LOAM Organic Topsoil	6"	CT					
Dark Brown And Brown, Fine- To Medium-Grained SAND	04	CT					
Brown, Fine- To Medium-Grained SAND	08	CT					
Light Brown, Fine-Grained SAND	12	CT					
	16	CT					
	20						
	24						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qo - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

Renamed HAMW-31

BORING NO. HAMW-131

BORING LOG
(CONTINUATION)

DATE 10-28-92

PROJECT Illinois Power Ash Pond

LOCATION Havana, Illinois

SHEET 3 OF 17

W. & A. FILE NO. 5558

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
See Sheet 2 of 17							
Light Brown, Fine- To Medium-Grained SAND		CT					
	30						
		CT					
	34						
		CT					
	38						
	42	CT					
EXPLORATORY BORING DISCONTINUED	46						
	50						
	54						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Havana Power Station		HAMW-39

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Adam Jochimsen Cascade	6/9/2015	6/9/2015	hollow stem auger

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
HAMW-39	Feet (NAVD88)	466.20 Feet (NAVD88)	8.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒

State Plane 1,314,738.84 N, 2,321,677.08 E E/W

1/4 of 1/4 of Section , T N, R

Lat 40° 16' 36.746"

Long -90° 4' 36.223"

Local Grid Location: Feet ☐N ☐S Feet ☐E ☐W

Facility ID	County	State	Civil Town/City/ or Village
	Mason	Illinois	Havana

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 SS	24 24	3 6 6 8	0.5	0 - 1.1' **TOPSOIL:** (ML)s, dark brown (10YR 3/3), grass and roots in top 4", dry to moist.	(ML)s								
			1.0										
			1.5	1.1 - 2' **SILT:** ML, very dark brown (10YR 2/2), 5-15% sand, trace wood debris, cohesive, low plasticity, dry.	ML								
2 SS	24 24	2 5 4 5	2.0	2 - 5.1' **SILT:** to **LEAN CLAY:** ML, very dark brown (10YR 2/2), cohesive, medium plasticity, dry to moist.									SS#2 300lb hammer.
			2.5										
			3.0										
			3.5		ML								
3 SS	24 19	5 3 2 3	4.0										WOH = Weight of Hammer
			4.5										
			5.0	5.1 - 35' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), fine sand, dry.									
4 SS	24 14	1 3 4 6	5.5	6' moist.									
			6.0										
			6.5										
			7.0										
			7.5		SP								
5 SS	24 19	1 2 3 4	8.0	8' - 9.6' light yellowish brown (10YR 6/4) and dark yellowish brown (10YR 3/4) seams, wet.									
			8.5										
			9.0										
			9.5										
			10.0										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Patrick M Hoffa

Firm Natural Resource Technology
234 W. Florida St., Fifth Floor, Milwaukee, WI 53204
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NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-39

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
6 SS	24 18	2 4 4 3	10.5	5.1 - 35' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), fine sand, dry. *(continued)*									
			11.0										
			11.5	11.3' fine to medium sand.									
7 SS	24 20	2 2 1 2	12.0										
			12.5										
			13.0										
			13.5										
8 SS	24 15.5	0 1 1 1	14.0	14' -14.4' very fine sand, dark yellowish brown (10YR 3/4).									
			14.5	14.4' -15.3' fine sand, yellowish brown (10YR 5/4).									
			15.0										
			15.5										
9 SS	24 19	0 1 2 2	16.0	16' - 19.8' trace medium sand.									
			16.5										
			17.0										
			17.5										
10 SS	24 21.5	2 1 1 1	18.0		SP								
			18.5										
			19.0										
			19.5										
11 SS	24 21.5	WOH WOH WOH 1	20.0										
			20.5										
			21.0										
			21.5										
12 SS	24 24	WOR WOR 1 2	22.0	22' - 24' trace fine gravel.									
			22.5										
			23.0										
			23.5										
13 SS	24 20	2 2 2 4	24.0	24' - 25.7' dark yellowish brown (10YR 3/4), mostly fine sand, trace medium sand to fine gravel.									
			24.5										
			25.0										
			25.5										
14 SS	24 24	3 3 4 7	26.0	26' - 30' trace medium and coarse sand.									
			26.5										

NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-39

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			27.0	5.1 - 35' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), fine sand, dry. *(continued)*									
			27.5										
15 SS	24 24	4 4 3 9	28.0										
			28.5										
			29.0	29' medium to coarse sand seam (3" thick).									
			29.5										
16 SS	24 24	5 3 5 6	30.0										
			30.5										
			31.0		SP								
			31.5										
17 SS	24 17	8 10 11 14	32.0	31.8' strong brown (7.5YR 4/6) mottling, medium-grained sand.									
			32.5	32' - 33.4' trace medium and coarse sand, dark yellowish brown (10YR 4/4).									
			33.0										
			33.5										
18 SS	12 8	9 16	34.0										
			34.5										
			35.0	35' End of Boring.									

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Havana Power Station		HAMW-40

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Adam Jochimsen Cascade	6/11/2015	6/11/2015	hollow stem auger

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
HAMW-40	Feet (NAVD88)	467.43 Feet (NAVD88)	8.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒

State Plane 1,315,507.25 N, 2,321,892.58 E E/W

1/4 of 1/4 of Section , T N, R

Lat 40° 16' 44.338"

Long -90° 4' 33.433"

Local Grid Location: Feet ☐N ☐S, Feet ☐E ☐W

Facility ID	County	State	Civil Town/City/ or Village
	Mason	Illinois	Havana

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 SS	24	1 WOH 2 7	0	0 - 1' **SILTY SAND:** SM, very dark brown (10YR 2/2), trace roots, cohesive, nonplastic, dry to moist.	SM								300lb hammer used.
			1	1 - 2.5' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 3/6), fine sand, trace silt, increased silt content with depth, dry to moist.	SP								
2 SS	24 16	1 5 8 13	2	2' dry.									WOH = Weight of Hammer
			3	2.5 - 8.6' **SILT WITH SAND:** (ML)s, very dark brown (10YR 2/2), trace red mottling, cohesive, nonplastic, dry.									
3 SS	24 16	3 11 6 7	4										
			5		(ML)s								
4 SS	24 16	1 2 3 4	6	6' very dark brown (7.5YR 2.5/3), low plasticity.									
			7										
5 SS	24 21	1 1 2 3	8										
			9	8.6 - 34.5' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), fine sand, trace dark brown (10YR 3/3) silty sand seams, dry.									
6 SS	24 19	1 1 3 2	10		SP								
			11										
			12										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Patrick M Hoffa

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NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-40

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
7 SS	24 22	2 3 4 4	13	8.6 - 34.5' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), fine sand, trace dark brown (10YR 3/3) silty sand seams, dry. *(continued)*									
				13.5' wet.									
8 SS	24 18	1 2 3 3	14	14' moist.									
			15										
9 SS	24 24	2 1 2 1	16	16' dark brown (10YR 3/3), trace silt, few sand seams[dark yellowish brown (10YR 4/4)], moist to wet.									
			17										
10 SS	24 24.5		18	18' fine to medium sand, trace gravel.									
			19										
11 SS	24 19	1 WOH 1 WOH	20	20' trace coarse sand and fine gravel, wet.									
			21										
12 SS	24 22	1 WOH 1 WOH	22	22' trace clay nodules.	SP								
			23										
13 SS	24 15	3 1 1 1	24	24' no clay.									
			25										
14 SS	24 15	1 7 1 2	26	26' silt (30-50%).									
			27	27.1' black silt.									
15 SS	24 17	3 4 1 4	28	28' trace gravel, no black material.									
			29										
16 SS	24 15	5 4 6 18	30	30' very fine sand, trace coarse sand and clay nodules, no gravel, wet.									
			31										
			32										

NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-40

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
17 SS	24 24			8.6 - 34.5' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), fine sand, trace dark brown (10YR 3/3) silty sand seams, dry. *(continued)*									
			33	32' fine sand, trace coarse sand to fine gravel.	SP								
18 SS	12 9		34										
				34.5' End of Boring.									

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Havana Power Station		HAMW-41

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Adam Jochimsen Cascade	6/10/2015	6/11/2015	hollow stem auger

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
HAMW-41	Feet (NAVD88)	465.10 Feet (NAVD88)	8.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒

State Plane 1,316,660.50 N, 2,323,498.70 E E/W

1/4 of 1/4 of Section , T N, R

Lat 40° 16' 55.718"

Long -90° 4' 12.693"

Local Grid Location

Feet ☐N ☐S Feet ☐E ☐W

Facility ID	County	State	Civil Town/City/ or Village
	Mason	Illinois	Havana

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 SS	24 21	1 1 1 2	0.5	0 - 0.7' **TOPSOIL:** SP, very dark brown (10YR 2/2), roots, grass, trace silt, dry.	SP								300lb hammer used.
			1.0	0.7 - 35' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/6), fine sand, dry.									
			1.5										
2 SS	24 20	1 1 1 1	2.0	2' dry to moist.									
			2.5										
			3.0										
			3.5										
3 SS	24 24	2 2 2 2	4.0										
			4.5										
			5.0	4.8' very dark brown (10YR 2/2) clay nodule (1-2" diameter), trace clay nodules, trace very dark brown (10YR 2/2) seams.									
			5.5										
4 SS	24 24	4 3 2 1	6.0	6' dry.	SP								
			6.5										
			7.0	7.1' wet.									
			7.5										
5 SS	24 24	1 2 2 1	8.0	8' moist to wet.									
			8.5										
			9.0	8.9' interbedded layers of medium sand yellowish brown (10YR 5/4) and fine sand[dark yellowish brown (10YR 4/6)].									
			9.5										
6 SS	24 17	2 1 1 1	10.0	10' moist.									
			10.5										
			11.0										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Patrick M Hafle

Firm Natural Resource Technology
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NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-41

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			11.5	0.7 - 35' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/6), fine sand, dry. *(continued)*									
7 SS	24 17	1 WOR 1 1	12.0 12.5	12' trace medium sand and fine gravel, moist to wet.									WOR = Weight of Rods
			13.0 13.5										
8 SS	24 15	1 WOR 1 2	14.0 14.5										
			15.0 15.5	14.8' medium sand seam (1" thick).									
9 SS	24 19	2 2 2 4	16.0 16.5	16.4' medium sand, yellowish brown (10YR 5/6).									
			17.0 17.5										
10 SS	24 18.5	1 1 2 3	18.0 18.5	18' wet.									
			19.0 19.5										
11 SS	24 24	1 2 2 6	20.0 20.5	20' fine sand, trace fine gravel.	SP								
			21.0 21.5										
12 SS	24 24	1 1 3 4	22.0 22.5										
			23.0 23.5										
13 SS	24 24	3 4 6 11	24.0 24.5										
			25.0 25.5										
14 SS	24 19	4 7 7 9	26.0 26.5										
			27.0 27.5										
15 SS	24 21	4 7 12 15	28.0 28.5										
			29.0										

NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-41

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			29.5	0.7 - 35' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/6), fine sand, dry. *(continued)*									
16 SS	24 22	4 8 14 18	30.0										
			30.5										
			31.0										
			31.5										
17 SS	24 24	8 14 20 25	32.0	31.8' trace gravel. 32' fine to medium sand, trace fine gravel.	SP								
			32.5										
			33.0										
			33.5										
18 SS	12 12	9 20	34.0	34' trace coarse sand, no gravel.									
			34.5										
			35.0	35' End of Boring.									

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Havana Power Station		HAMW-42

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Adam Jochimsen Cascade	6/12/2015	6/16/2015	hollow stem auger

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
HAMW-42	Feet (NAVD88)	479.20 Feet (NAVD88)	8.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒

State Plane 1,317,844.15 N, 2,324,010.38 E E/W

1/4 of 1/4 of Section , T N, R

Lat 40° 17' 7.41"

Long -90° 4' 6.073"

Local Grid Location

Feet ☐N ☐S Feet ☐E ☐W

Facility ID	County	State	Civil Town/City/ or Village
	Mason	Illinois	Havana

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 SS	24 20.5	1 1 1 1	1	0 - 0.5' **POORLY-GRADED SAND WITH SILT:** SP-SM, dark yellowish brown (10YR 3/4), mostly fine sand, few roots, moist. 0.5 - 32.5' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/6), mostly fine sand, moist.	SP-SM								300lb hammer used.
2 SS	24 19	3 1 2 3	2 3	2' trace silty sand seams [dark yellowish brown (10YR 3/4)].									
3 SS	24 20	1 2 2 2	4 5	4' no silty sand seams.									
4 SS	24 18	1 2 2 2	6 7	6' few silty sand seams.	SP								
5 SS	24 20	1 1 1 2	8 9										
6 SS	24 21	1 1 1 1	10 11	10' trace silt.									
7 SS	24 22.5	1 1 2 2	12 13 14										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Patrick M Hoffa

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NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-42

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
8 SS	24 17	1 1 5 5	15	0.5 - 32.5' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/6), mostly fine sand, moist. *(continued)* 14.3' dark yellowish brown (10YR 4/6).									
9 SS	24 21	2 4 7 8	16 17	16' - 17.8' trace discoloration (oxidation, strong brown).									
10 SS	24 17	4 6 6 10	18 19										
11 SS	24 14	2 5 6 9	20 21										
12 SS	24 14	2 5 6 7	22 23	22' trace gravel.	SP								
13 SS	24 24	3 4 5 5	24 25										
14 SS	24 13	6 2 4 8	26 27										
15 SS	24 12	2 5 7 8	28 29										
16 SS	24 20	4 7 10 9	30 31	30' trace coarse sand to fine gravel. 31' wet.									
17 SS	24 23	4 5 5 5	32 33	32.5 - 32.9' **POORLY-GRADED GRAVEL:** (SP)g, 30-50% fine to coarse subrounded to rounded gravel.	(SP)g								
18 SS	24 15	2 1 1 4	34 35	32.9 - 44' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), mostly fine sand, trace coarse sand, wet. 34' trace coarse sand to fine gravel, trace black coarse grained material, moist.	SP								
19 SS	24 14	5 7 3 3	36 37	36' coarse sand to fine gravel (5-15%).									

NATURAL RESOURCE TECHNOLOGY

Boring Number HAMW-42

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties: Compressive Strength (tsf)	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
20 SS	24 15.5	3 8 14 5	38	32.9 - 44' **POORLY-GRADED SAND:** SP, dark yellowish brown (10YR 4/4), mostly fine sand, trace coarse sand, wet. *(continued)*	SP								
			39										
21 SS	24 23	3 3 4 11	40	40' coarse sand to gravel (0-15%).									
			41										
22 SS	24 24	3 4 7 11	42	42' trace coarse sand to gravel.									
			43										
			44	44' End of Boring.									

MONITORING WELL CONSTRUCTION FORMS

Appendix A

Proposed Performance Monitoring Well Boring Logs

TELEPHONE
309 673-2131

TESTS
DESIGN
REPORTS
ANALYSIS
INSPECTION
CONSULTATION
INVESTIGATIONS

WHITNEY & ASSOCIA
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

AGGREGATES - ASPHALT - POZ-O-PAC
SOILS AND GRAVEL SURVEYS
MATERIALS QUALITY CONTROL
SOIL MECHANICS AND
FOUNDATION ENGINEERING
DRILLING - CORING - TESTING

Fehl
INSTALLED BY

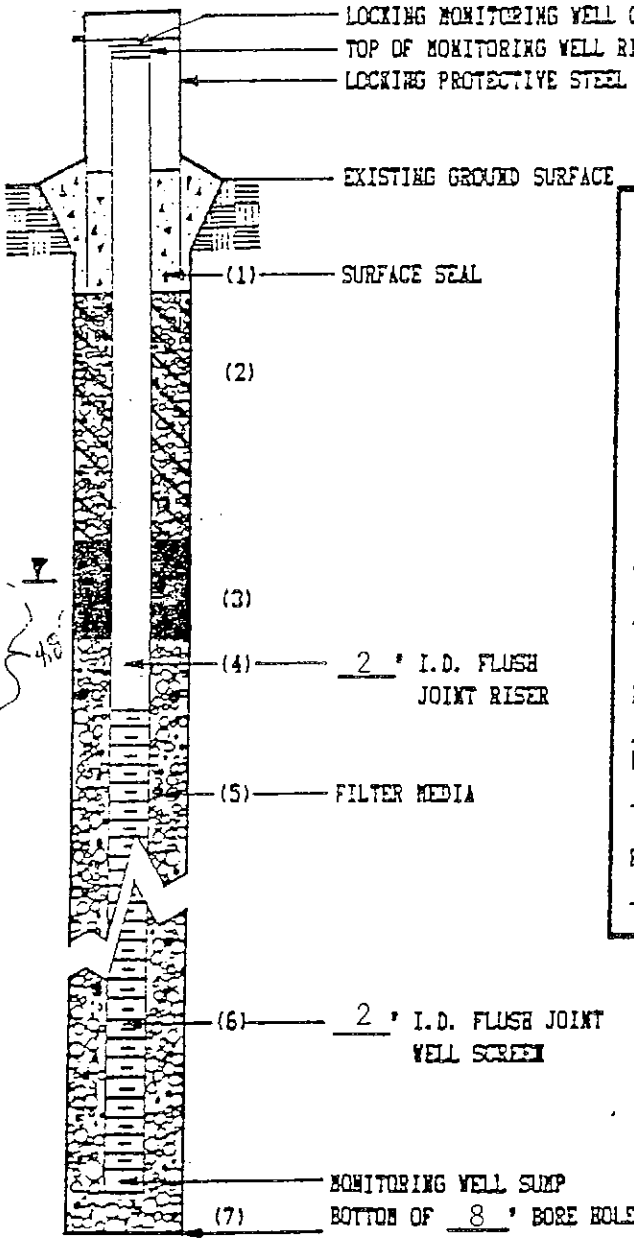
10-29-92
DATE

TYPICAL MONITORING WELL DIAGRAM

Renamed HAMW-30

PROJECT Illinois Power Ash Pond
LOCATION Havana, Illinois
MONITORING WELL LOCATION N14,661; E5884

MONITORING WELL NO. HAMW-130
INSTALLATION DATE 10-29-92



1. SURFACE SEAL Concrete Encasement
2. ANNULAR BACKFILL Cement/ Bentonite Grout
3. LOWER SEAL Bentonite Pellets
4. RISER TYPE 2" I.D. PVC
5. FILTER MEDIA Silica Sand
6. SCREEN TYPE 2" I.D. PVC
   SLOT SIZE 0.010" LENGTH 9.0'
7. BACKFILL TYPE Silica Sand

BENCHMARK USGS-Illinois Power

DRILLING METHOD 4.25" I.D Hollow Stem Augers

WATER LEVEL @ 24+ HOURS 454.7

REMARKS

TELEPHONE
309 673-2131

TESTS
DESIGN
REPORTS
ANALYSIS
INSPECTION
CONSULTATION
INVESTIGATIONS

WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

SPECIALISTS IN
SOILS - PORTLAND CEMENT CONCRETE
STEEL - BITUMINOUS CONCRETE
CONSTRUCTION MATERIALS
AGGREGATES - ASPHALT - POZ-O-PAC

SOILS AND GRAVEL SURVEYS
MATERIALS QUALITY CONTROL
SOIL MECHANICS AND
FOUNDATION ENGINEERING
DRILLING - CORING - TESTING

Fehl
INSTALLED BY

10-28-92
DATE

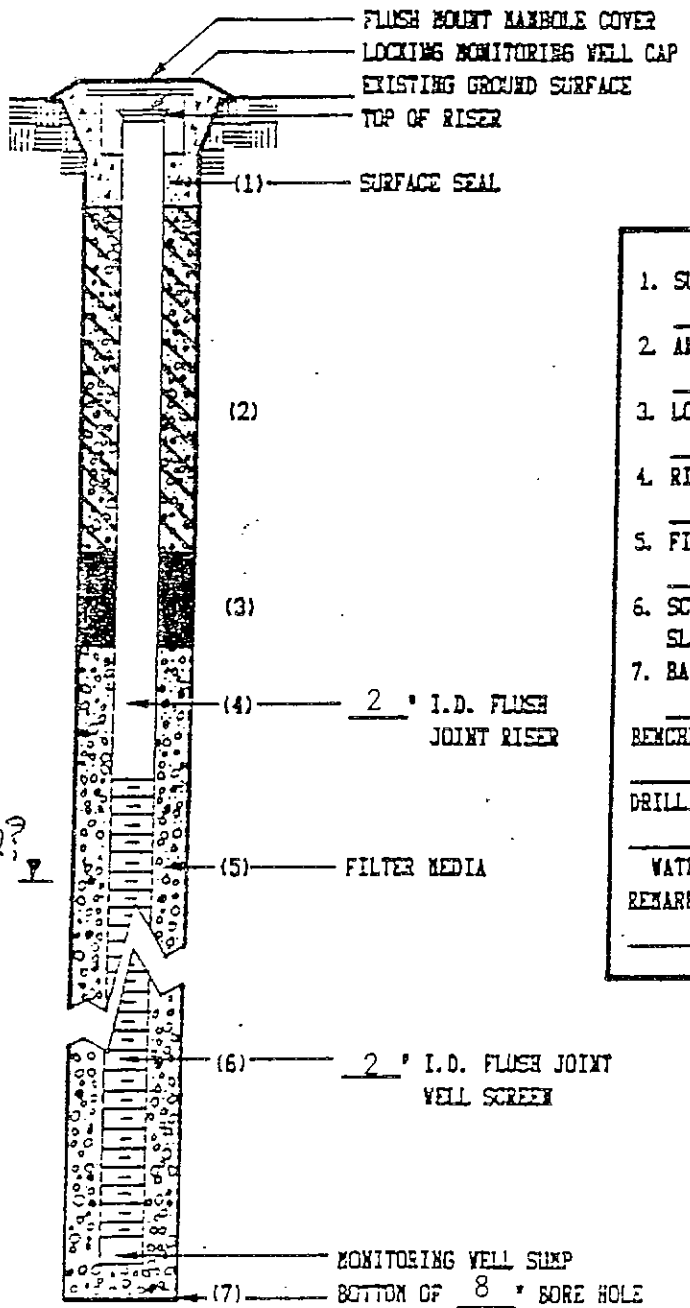
TYPICAL MONITORING WELL DIAGRAM

Renamed HAMW-31

PROJECT Illinois Power Ash Pond
LOCATION Havana, Illinois
MONITORING WELL LOCATION N16,299: E4940

MONITORING WELL NO. HAMW-131
INSTALLATION DATE 10-28-92

ELEVATION	DEPTH
490.1	0.0'
489.9	⊖ 0.2'
487.2	⊖ 2.9'
460.9	⊖29.2'
458.0	⊖32.1'
455.6	⊖34.5'
453.9	⊖36.2' ??
445.6	⊖44.5'
445.3	⊖44.8'
445.1	⊖45.0'



1. SURFACE SEAL Concrete Encasement
2. ANNULAR BACKFILL Cement/ Bentonite Grout
3. LOWER SEAL Bentonite Pellets
4. RISER TYPE 2" I.D. PVC
5. FILTER MEDIA Silica Sand
6. SCREEN TYPE 2" I.D. PVC
   SLOT SIZE 0.010" LENGTH 10.0'
7. BACKFILL TYPE Silica Sand

REMCHMARK USGS-Illinois Power

DRILLING METHOD 4.25" I.D. Hollow Stem Augers

WATER LEVEL @ 24+ HOURS 453.9

REMARKS

TELEPHONE
309 673-2131

TESTS
DESIGN
REPORTS
ANALYSIS
INSPECTION
CONSULTATION
INVESTIGATIONS

WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

SPECIALISTS IN
SOILS - PORTLAND CEMENT CONCRETE
STEEL - BITUMINOUS CONCRETE
CONSTRUCTION MATERIALS
AGGREGATES - ASPHALT - POZ-O-PAC

SOILS AND GRAVEL SURVEYS
MATERIALS QUALITY CONTROL
SOIL MECHANICS AND
FOUNDATION ENGINEERING
DRILLING - CORING - TESTING

Fehl
INSTALLED BY

10-27-92
DATE

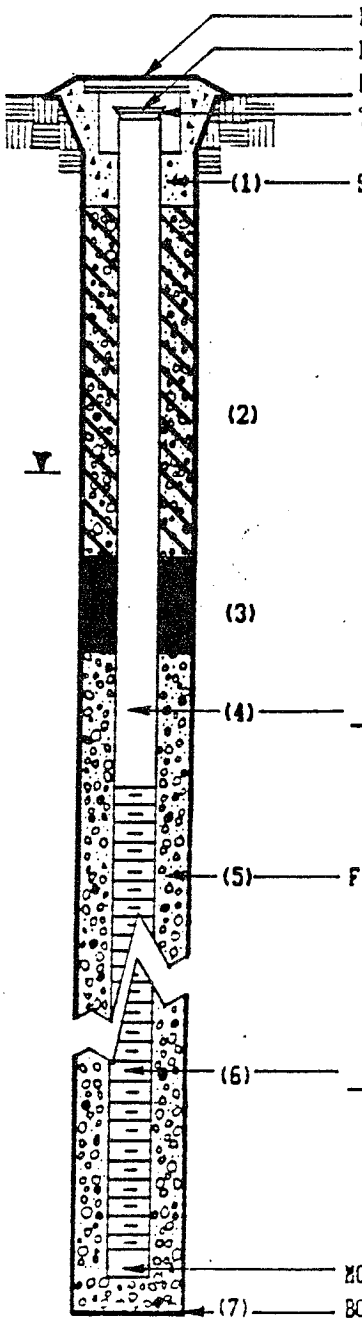
TYPICAL MONITORING WELL DIAGRAM

Renamed HAMW-32

PROJECT Illinois Power Ash Pond
LOCATION Havana, Illinois
MONITORING WELL LOCATION N15,663; E2528

MONITORING WELL NO. HAMW-132
INSTALLATION DATE 10-27-92

ELEVATION	DEPTH
451.9	0.0'
451.7	(-) 0.2'
448.8	(-) 3.1'
442.3	(-) 9.6'
440.7	(-)11.2'
438.1	(-)13.8'
435.7	(-)16.2'
425.7	(-)26.2'
425.4	(-)26.5'
421.9	(-)30.0'



1. SURFACE SEAL Concrete Encasement
2. ANNULAR BACKFILL Cement/ Bentonite Grout
3. LOWER SEAL Bentonite Pellets
4. RISER TYPE 2" I.D. PVC
5. FILTER MEDIA Silica Sand
6. SCREEN TYPE 2" I.D. PVC
   SLOT SIZE 0.010" LENGTH 10.0'
7. BACKFILL TYPE Silica Sand

BENCHMARK USGS-Illinois Power

DRILLING METHOD 4.25" I.D. Hollow Stem Augers

WATER LEVEL @ 24+ HOURS 442.3

REMARKS

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL CONSTRUCTION

Facility/Project Name: Havana Power Station	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: HAMW-39
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☒ Lat. 40° 16' 36.746" Long. -90° 4' 36.223" or St. Plane 1,314,738.84 ft. N, 2,321,677.08 ft. E. E/Ⓦ	
Facility ID		Date Well Installed: 06/09/2015
Type of Well: mw	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Adam Jochimsen; Cascade
Distance from Waste/Source: ____ ft. / State: Illinois	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☒ Downgradient n ☐ Not Known	Gov. Lot Number: ____

A. Protective pipe, top elevation ____ ft. (NAVD88)

B. Well casing, top elevation 468.59 ft. (NAVD88)

C. Land surface elevation 466.20 ft. (NAVD88)

D. Surface seal, bottom 465.2 ft. (NAVD88) or 1.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ Hollow Stem Auger ☒ Other ☐ ____

15. Drilling fluid used: Water ☒ 0 2 Air ☐ Drilling Mud ☐ 0 3 None ☐

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):
Onsite Potable Well

E. Bentonite seal, top 448.2 ft. (NAVD88) or 18.0 ft.

F. Fine sand, top ____ ft. (NAVD88) or ____ ft.

G. Filter pack, top 443.2 ft. (NAVD88) or 23.0 ft.

H. Screen joint, top 441.2 ft. (NAVD88) or 25.0 ft.

I. Well bottom 431.2 ft. (NAVD88) or 35.0 ft.

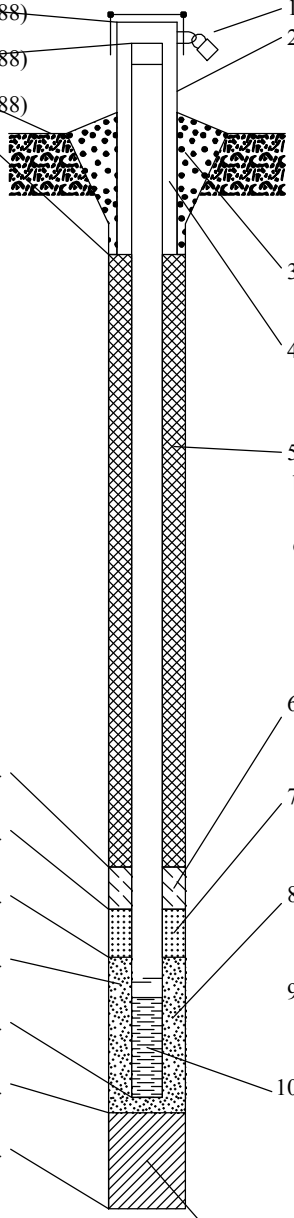
J. Filter pack, bottom 431.2 ft. (NAVD88) or 35.0 ft.

K. Borehole, bottom 431.2 ft. (NAVD88) or 35.0 ft.

L. Borehole, diameter 8.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ☒ Other ☐ ____
d. Additional protection? ☒ Yes ☐ No
If yes, describe: Three steel bollards
3. Surface seal: Bentonite ☐ Concrete ☒ Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☒ Sand Other ☒
5. Annular space seal: a. Granular/Chipped Bentonite ☐
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐
d. 30 % Bentonite . . . Bentonite-cement grout ☒
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ Tremie pumped ☒ Gravity ☐
6. Bentonite seal: a. Bentonite granules ☐
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint Sand and Gravel, Water Pack
b. Volume added ____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ Flush threaded PVC schedule 80 ☐ Other ☐ ____
10. Screen material: Schedule 40 PVC
a. Screen Type: Factory cut ☒ Continuous slot ☐ Other ☐ ____
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☐ Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge. Date Modified: 12/1/2015

Signature: Patrick M Hoffa

Firm: Natural Resource Technology
234 W. Florida Street, Floor 5, Milwaukee, WI 53204
Tel: (414) 837-3607
Fax: (414) 837-3608

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL CONSTRUCTION

Facility/Project Name: Havana Power Station	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: HAMW-40
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☒ Lat. 40° 16' 44.338" Long. -90° 4' 33.433" or	
Facility ID	St. Plane 1,315,507.25 ft. N, 2,321,892.58 ft. E. E/Ⓦ	Date Well Installed: 06/11/2015
Type of Well: mw	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Adam Jochimsen / Cascade
Distance from Waste/Source: ____ ft. / State: Illinois	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☒ Downgradient n ☐ Not Known	Gov. Lot Number: ____

A. Protective pipe, top elevation ____ ft. (NAVD88)

B. Well casing, top elevation 470.23 ft. (NAVD88)

C. Land surface elevation 467.43 ft. (NAVD88)

D. Surface seal, bottom 466.4 ft. (NAVD88) or 1.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ Hollow Stem Auger ☒ Other ☐ ____

15. Drilling fluid used: Water ☒ 0 2 Air ☐ Drilling Mud ☐ 0 3 None ☐

16. Drilling additives used? ☐ Yes ☒ No
Describe ____

17. Source of water (attach analysis, if required):
Onsite Potable Well

E. Bentonite seal, top 450.4 ft. (NAVD88) or 17.0 ft.

F. Fine sand, top ____ ft. (NAVD88) or ____ ft.

G. Filter pack, top 445.4 ft. (NAVD88) or 22.0 ft.

H. Screen joint, top 442.9 ft. (NAVD88) or 24.5 ft.

I. Well bottom 432.9 ft. (NAVD88) or 34.5 ft.

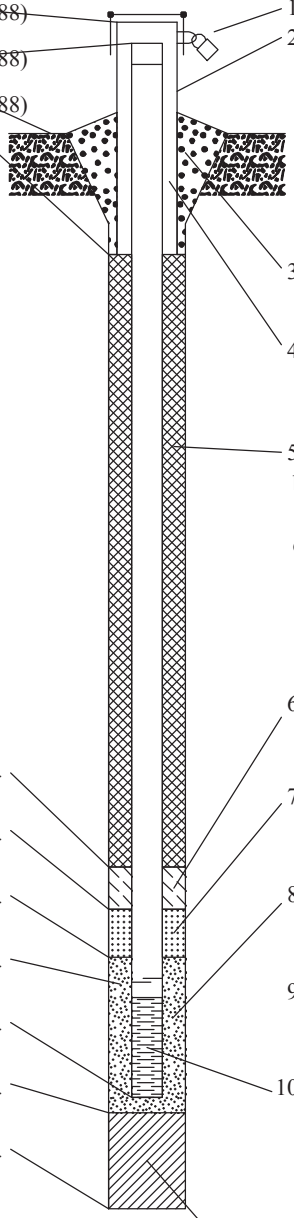
J. Filter pack, bottom 432.9 ft. (NAVD88) or 34.5 ft.

K. Borehole, bottom 432.9 ft. (NAVD88) or 34.5 ft.

L. Borehole, diameter 8.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ☒ Other ☐ ____
d. Additional protection? ☒ Yes ☐ No
If yes, describe: Three steel bollards
3. Surface seal: Bentonite ☐ Concrete ☒ Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☒ Sand Other ☒
5. Annular space seal: a. Granular/Chipped Bentonite ☐
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐
d. 30 % Bentonite . . . Bentonite-cement grout ☒
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ Tremie pumped ☒ Gravity ☐
6. Bentonite seal: a. Bentonite granules ☐
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint Sand and Gravel, Water Pack
b. Volume added ____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ Flush threaded PVC schedule 80 ☐ Other ☐ ____
10. Screen material: Schedule 40 PVC
a. Screen Type: Factory cut ☒ Continuous slot ☐ Other ☐ ____
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☐ Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge. Date Modified: 12/1/2015

Signature: Patrick M Hoffa

Firm: Natural Resource Technology
234 W. Florida Street, Floor 5, Milwaukee, WI 53204
Tel: (414) 837-3607
Fax: (414) 837-3608

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL CONSTRUCTION

Facility/Project Name: Havana Power Station	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: HAMW-41
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☒ Lat. 40° 16' 55.718" Long. -90° 4' 12.693" or	
Facility ID	St. Plane 1,316,660.50 ft. N, 2,323,498.70 ft. E. E/Ⓦ	Date Well Installed: 06/11/2015
Type of Well: mw	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Adam Jochimsen
Distance from Waste/Source: ____ ft. / State: Illinois	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☒ Downgradient n ☐ Not Known	Gov. Lot Number: ____ / Cascade

A. Protective pipe, top elevation ____ ft. (NAVD88)

B. Well casing, top elevation 467.95 ft. (NAVD88)

C. Land surface elevation 465.10 ft. (NAVD88)

D. Surface seal, bottom 464.1 ft. (NAVD88) or 1.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ Hollow Stem Auger ☒ Other ☐ ____

15. Drilling fluid used: Water ☒ 0 2 Air ☐ Drilling Mud ☐ 0 3 None ☐

16. Drilling additives used? ☐ Yes ☒ No
Describe ____

17. Source of water (attach analysis, if required):
Onsite Potable Well

E. Bentonite seal, top 447.1 ft. (NAVD88) or 18.0 ft.

F. Fine sand, top ____ ft. (NAVD88) or ____ ft.

G. Filter pack, top 442.0 ft. (NAVD88) or 23.2 ft.

H. Screen joint, top 440.1 ft. (NAVD88) or 25.0 ft.

I. Well bottom 430.1 ft. (NAVD88) or 35.0 ft.

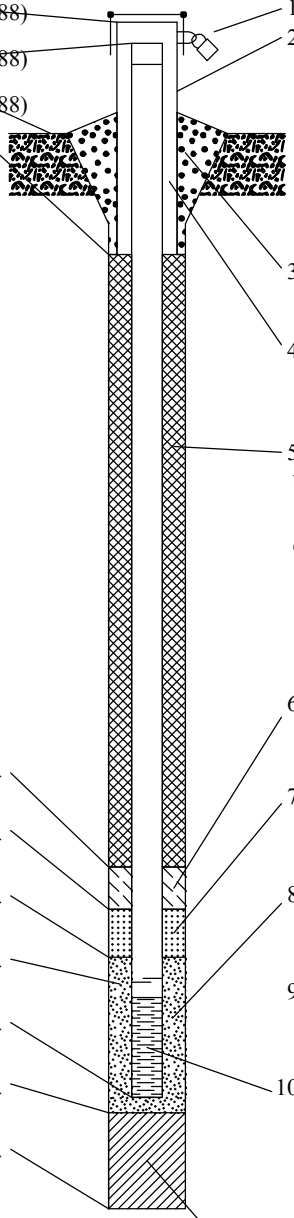
J. Filter pack, bottom 430.1 ft. (NAVD88) or 35.0 ft.

K. Borehole, bottom 430.1 ft. (NAVD88) or 35.0 ft.

L. Borehole, diameter 8.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ☒ Other ☐ ____
d. Additional protection? ☒ Yes ☐ No
If yes, describe: Three steel bollards
3. Surface seal: Bentonite ☐ Concrete ☒ Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☒ Sand Other ☒
5. Annular space seal: a. Granular/Chipped Bentonite ☐
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐
d. 30 % Bentonite . . . Bentonite-cement grout ☒
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ Tremie pumped ☒ Gravity ☐
6. Bentonite seal: a. Bentonite granules ☐
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint Sand and Gravel, Water Pack
b. Volume added ____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ Flush threaded PVC schedule 80 ☐ Other ☐ ____
10. Screen material: Schedule 40 PVC
a. Screen Type: Factory cut ☒ Continuous slot ☐ Other ☐ ____
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☐ Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge. Date Modified: 12/1/2015

Signature: Patrick M Haffa

Firm: Natural Resource Technology
234 W. Florida Street, Floor 5, Milwaukee, WI 53204
Tel: (414) 837-3607
Fax: (414) 837-3608

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL CONSTRUCTION

Facility/Project Name: Havana Power Station	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: HAMW-42
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☒ Lat. 40° 17' 7.410" Long. -90° 4' 6.073" or	
Facility ID	St. Plane 1,317,844.15 ft. N, 2,324,010.38 ft. E. E/Ⓦ	Date Well Installed: 06/16/2015
Type of Well: mw	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Adam Jochimsen
Distance from Waste/Source: ____ ft. / State: Illinois	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☒ Downgradient n ☐ Not Known	Gov. Lot Number: ____ / Cascade

A. Protective pipe, top elevation ____ ft. (NAVD88)

B. Well casing, top elevation 481.95 ft. (NAVD88)

C. Land surface elevation 479.20 ft. (NAVD88)

D. Surface seal, bottom 478.2 ft. (NAVD88) or 1.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ Hollow Stem Auger ☒ ____ Other ☐

15. Drilling fluid used: Water ☒ 0 2 Air ☐ Drilling Mud ☐ 0 3 None ☐

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):
Onsite Potable Well

E. Bentonite seal, top 452.2 ft. (NAVD88) or 27.0 ft.

F. Fine sand, top ____ ft. (NAVD88) or ____ ft.

G. Filter pack, top 447.2 ft. (NAVD88) or 32.0 ft.

H. Screen joint, top 445.2 ft. (NAVD88) or 34.0 ft.

I. Well bottom 435.2 ft. (NAVD88) or 44.0 ft.

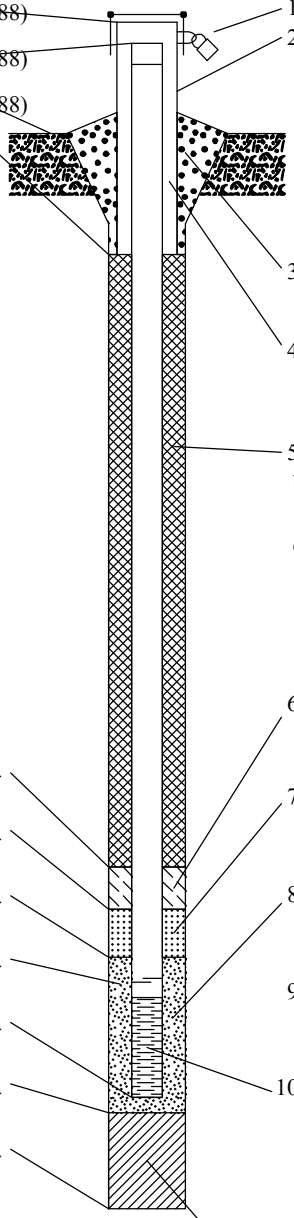
J. Filter pack, bottom 435.2 ft. (NAVD88) or 44.0 ft.

K. Borehole, bottom 435.2 ft. (NAVD88) or 44.0 ft.

L. Borehole, diameter 8.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
   a. Inside diameter: 4.0 in.
   b. Length: 5.0 ft.
   c. Material: Steel ☒ Other ☐
   d. Additional protection? ☒ Yes ☐ No
   If yes, describe: Three steel bollards
3. Surface seal: Bentonite ☐ Concrete ☒ Other ☐
4. Material between well casing and protective pipe: Bentonite ☒ Sand Other ☒
5. Annular space seal: a. Granular/Chipped Bentonite ☐
   b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐
   c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐
   d. 30 % Bentonite . . . Bentonite-cement grout ☒
   e. ____ Ft^3 volume added for any of the above
   f. How installed: Tremie ☐ Tremie pumped ☒ Gravity ☐
6. Bentonite seal: a. Bentonite granules ☐
   b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒
   c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
   a. ____
   b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
   a. Red Flint Sand and Gravel, Water Pack
   b. Volume added ____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ Flush threaded PVC schedule 80 ☐ ____ Other ☐
10. Screen material: Schedule 40 PVC
    a. Screen Type: Factory cut ☒ Continuous slot ☐ ____ Other ☐
    b. Manufacturer ____
    c. Slot size: 0.010 in.
    d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☐ ____ Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge. Date Modified: 12/1/2015

Signature: Patrick M Hafle

Firm: Natural Resource Technology
234 W. Florida Street, Floor 5, Milwaukee, WI 53204
Tel: (414) 837-3607
Fax: (414) 837-3608

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WATER WELL CONSTRUCTION REPORTS

State of Illinois
Department of Public Health

WATER WELL CONSTRUCTION REPORT

Complete within 30 days of well completion and send to the appropriate Health Department

Print Form

1 Type of Well

a Driven Well Casing Diameter (in.) _____ Depth (ft.) _____

b Bored Well Casing Diameter (in.) 8 Bored Slab? _____

c Drilled Well PVC Casing Formation Packer Set at Depth of (ft.) _____

d Drilled Well Steel Casing Mechanically Driven _____

e Hole Diameter (in.) 8 to (ft.) 35 , (in.) ___ to (ft.) ___ , (in.) ___ to (ft.) ___

f

Type of Grout	# of bags	Grout Weight	From (ft.)	To (ft.)	Tremie Depth (ft.)
Aqua Gvoid	3	10	1	18	18
Holeplug	3		18	23	

g Well Enclosed within _____

h

Kind of Gravel/Sand Pack	Grain Size/Supplier #	From (ft.)	To (ft.)
Red Flint	#40		

7. Well Use Monitoring Well Disinfected? No

8. Date Well Completed 6-9-15 Driller's Estimated Well Yield (gpm): _____

9. Date Permanent Pump Installed: NA Set at Depth (ft.): _____

10. Pump Capacity (gpm): _____

11. Pitless Adapter Model and Manufacturer _____ Attachment to Casing _____

12. Well Cap Type & Manufacturer _____

13. Pressure Tank Working Cycle (gals.) _____ Captive Air? _____ Pump System Disinfected _____

14. Name of Pump Company _____

15. Pump Installer _____ License # _____

16. _____ Date _____

Licensed Pump Installation Contractor Signature

Illinois Department of Public Health
Division of Environmental Health
525 West Jefferson Street
Springfield, IL 62761

IL 482-0126
Revised 1/09

IMPORTANCE NOTICE: This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act-0863. Disclosure of this information is Mandatory. This form has been approved by the Forms Management Center.

Well # HAMW-39

13. Property Owner Duncgy

14. Driller Adam Tochimsen License # _____

15. Name of Drilling Company Cascade Drilling 16. Permit Number _____

Date Issued: _____ 17. Date Drilling Started _____

18. Well Site Address 15260 IL-78 Havana, IL

19. Township Name. Havana Land I.D. # _____

20. Subdivision Name. _____ Lot # _____

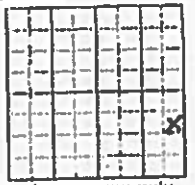
21. Location a. County Mason b. Site Elevation _____ ft. (above msl)

c. Township: 21N Range: 9W Section: 11

d. SE Quarter of the NE Quarter of the SE Quarter

e GPS Lat Degrees 40 Minutes 16 Seconds 37 N

Long Degrees 90 Minutes 04 Seconds 36 W



Survey use only

22. Casing and Liner Information

Diameter (in.)	Material, Joint Type	From (ft.)	To (ft.)
2	Sch. 40 PVC	+3	25

23. Is the well screened? Yes If yes

Diameter (in.)	Length (ft.)	Slot Size (in.)	From (ft.)	To (ft.)
2	10	.010	25	35

24. Water from _____ at a depth of (ft.) _____ To (ft.) _____

a Static water level (ft.) below top of casing _____ which is (in.) above ground _____

b pumping level is (ft.) _____ pumping (gpm) _____ for (hours) _____

25.

Earth Materials Passed Through	From (ft.)	To (ft.)
Top Soil	0	1
Silt/Clay	1	5
Sand	5	35

(Attach 2nd page, if necessary) (IF DRY HOLE, fill out 24 & indicate how hole was sealed)

Adam R Johnsen _____ License # _____

Licensed Water Well Contractor Signature

State of Illinois
Department of Public Health

WATER WELL CONSTRUCTION REPORT

Complete within 30 days of well completion and send to the appropriate Health Department

Print Form

1 Type of Well

a Driven Well Casing Diameter (in.) _____ Depth (ft.) _____

b Bored Well Casing Diameter (in.) 8 Buried Slab? _____

c Drilled Well PVC Casing Formation Packer Set at Depth of (ft.) _____

d Drilled Well Steel Casing Mechanically Driven _____

e Hole Diameter (in.) 8 to (ft.) 34 . (in.) ___ to (ft.) _____ . (in.) ___ to (ft.) _____

f

Type of Grout	# of bags	Grout Weight	From (ft.)	To (ft.)	Tremie Depth (ft.)
AquaGuard	3	10	1	17	17
Holeplug	3		17	22	

g Well Finished with _____

h

Kind of Gravel/Sand Pack	Grain Size/Supplier #	From (ft.)	To (ft.)
Red Flint	#40	22	34

2. Well Use Monitoring Well Disinfected? No

3. Date Well Completed. 6-11-15 Driller's Estimated Well Yield (gpm): _____

4 Date Permanent Pump Installed: NA Set at Depth (ft.): _____

5 Pump Capacity (gpm) _____

6 Pitless Adaptor Model and Manufacturer _____ Attachment to Casing _____

7. Well Cap Type & Manufacturer _____

8. Pressure Tank Working Cycle (gals.) _____ Captive Air? _____ 9 Pump System Disinfected. _____

10 Name of Pump Company _____

11. Pump Installer _____ License # _____

12. _____ Date _____

Licensed Pump Installation Contractor Signature

Illinois Department of Public Health
Division of Environmental Health
525 West Jefferson Street
Springfield, IL 62761

IL 482-0126
Revised 6/09

IMPORTANCE NOTICE. This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act-0863. Disclosure of this information is Mandatory. This form has been approved by the Forms Management Center.

Well # HAMW-40

13 Property Owner Dynegy

14. Driller Adam Jochimsen License #

15. Name of Drilling Company Cascade Drilling 16. Permit Number

Date Issued: _____ 17 Date Drilling Started 6-10-15

18 Well Site Address 15260 IL-78 Havana, IL.

19. Township Name Havana Land I.D. # _____

20. Subdivision Name: _____ Lot # _____

21 Location a County Mason b Site Elevation _____ ft. (above msl)

c Township 21N Range 9W Section 11

d. NE Quarter of the NE Quarter of the SE Quarter

e GPS Lat: Degrees 40 Minutes 16 Seconds 46 N

Lon: Degrees 90 Minutes 04 Seconds 33 W

Survey use only

22 Casing and Liner Information

Diameter (in.)	Material, Joint Type	From (ft.)	To (ft.)
2	Sch. 40 PVC	+3	24

Diameter (in.)	Length (ft.)	Slot Size (in.)	From (ft.)	To (ft.)
2	10	.010	24	34

23. Is the well screened? Yes If yes

24. Water from _____ at a depth of (ft.) _____ To (ft.) _____

a Static water level (ft.) below top of casing _____ which is (in.) above ground _____

b. pumping level is (ft.) _____ pumping (gpm) _____ for (hours) _____

25.

Earth Materials Passed Through	From (ft.)	To (ft.)
Top Soil	0	1
Silt w/Sand	1	7.5
Sand	7.5	34

(Attach 2nd page, if necessary) (If DRY HOLE, fill out log & indicate how hole was sealed)

Adam A Jochimsen _____ License # _____

Licensed Water Well Contractor Signature

State of Illinois
Department of Public Health

WATER WELL CONSTRUCTION REPORT

Complete within 30 days of well completion and send to the appropriate Health Department

Print Form

1 Type of Well

a Driven Well Casing Diameter (in.) _____ Depth (ft.) _____

b Bored Well Casing Diameter (in.) 8 Buried Slab? _____

c Drilled Well PVC Casing Formation Packer Set at Depth of (ft.) _____

d Drilled Well Steel Casing Mechanically Driven _____

e Hole Diameter (in.) 8 to (ft.) 35 ; (in.) ___ to (ft.) ___ , (in.) ___ to (ft.) ___

f Type of Grout	# of bags	Grout Weight	From (ft.)	To (ft.)	Trimie Depth (ft.)
Aqua Guard	3	10	1	18	18
Holeplug	3	18	23		

g Well Finished within _____

h Kind of Gravel/Sand Pack	Grain Size/Supplier #	From (ft.)	To (ft.)
Red Flint	#40	18	35

2. Well Use Monitoring Well Disinfected? No

3. Date Well Completed 6-11-15 Driller's Estimated Well Yield (gpm) _____

4. Date Permanent Pump Installed: NA Set at Depth (ft.) _____

5. Pump Capacity (gpm): _____

6. Pitless Adaptor Model and Manufacturer _____ Attachment to Casing _____

7. Well Cap Type & Manufacturer _____

8. Pressure Tank Working Cycle (gals.) _____ Captive Air? _____ 9 Pump System Disinfected: _____

10 Name of Pump Company _____

11. Pump Installer _____ License # _____

12. _____ Date _____
Licensed Pump Installation Contractor Signature

Illinois Department of Public Health
Division of Environmental Health
525 West Jefferson Street
Springfield, IL 62761

IL 482-0126
Revised 6/09

IMPORTANCE NOTICE: This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act-0863. Disclosure of this information is Mandatory. This form has been approved by the Forms Management Center

13 Property Owner Dynegy Well # HAMW-41

14. Driller Adam Jochimsen License # _____

15 Name of Drilling Company Cascade Drilling 16 Permit Number _____
Date Issued _____

17 Date Drilling Started 6-11-15

18. Well Site Address 15260 IL-78 Havana, IL.

19 Township Name Havana Land I.D. # _____

20. Subdivision Name _____ Lot # _____

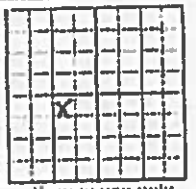
21. Location a. County Mason b Site Elevation _____ ft. (above msl)

c Township 21N Range 9W Section 12

d. NW Quarter of the NE Quarter of the SW Quarter

e GPS. Lat. Degrees 40 Minutes 16 Seconds 55 N

Lon: Degrees 90 Minutes 04 Seconds 11 W



Survey use only

22. Casing and Liner Information

Diameter (in.)	Material, Joint Type	From (ft.)	To (ft.)
2	Sch. 40 PVC	+3	25

Diameter (in.)	Length (ft.)	Slot Size (in.)	From (ft.)	To (ft.)
2	10	.010	25	35

23. Is the well screened? Yes If yes

24. Water from _____ at a depth of (ft.) _____ To (ft.) _____

a Static water level (ft.) below top of casing _____ which is (in.) above ground ___

b. pumping level is (ft.) _____ pumping (gpm) _____ for (hours) _____

25.

Earth Materials Passed Through	From (ft.)	To (ft.)
Top Soil	0	.5
Sand	.5	35

(Attach 2nd page, if necessary) (If DRY HOLE, fill out log & indicate how hole was sealed)

Adam Jochimsen _____ License # _____
Licensed Water Well Contractor Signature

State of Illinois
Department of Public Health

WATER WELL CONSTRUCTION REPORT

Complete within 30 days of well completion and send to the appropriate Health Department

Print Form

Well # HAMW-42

1 Type of Well

a Driven Well Casing Diameter (in.) _____ Depth (ft.) _____

b Bored Well Casing Diameter (in.) 8 Bulkd Slab? _____

c Drilled Well PVC Casing Formation Packer Set at Depth of (ft.) _____

d Drilled Well Steel Casing Mechanically Driven _____

e Hole Diameter (in.) 8 to (ft.) 44 , (in.) ___ to (ft.) _____ , (in.) ___ to (ft.) _____

f Type of Grout	# of bags	Grout Weight	From (ft.)	To (ft.)	Tremie Depth (ft.)
Aqua Guard	4	10	1	27	27
Holeplug	3		27	32	

g Well Flushed with _____

h Kind of Gravel/Sand Pack	Grain Size/Supplier #	From (ft.)	To (ft.)
Red Flint	#40	32	44

2. Well Use Monitoring Well Disinfected? No

3. Date Well Completed 6-16-15 Driller's Estimated Well Yield (gpm): _____

4. Date Permanent Pump Installed: NA Set at Depth (ft.): _____

5. Pump Capacity (gpm): _____

6. Pitless Adapter Model and Manufacturer _____ Attachment to Casing _____

7. Well Cap Type & Manufacturer _____

8. Pressure Tank Working Cycle (gals.) _____ Captive Air? _____ 9 Pump System Disinfected _____

10 Name of Pump Company _____

11 Pump Installer _____ License # _____

12. _____ Date _____
Licensed Pump Installation Contractor Signature

Illinois Department of Public Health
Division of Environmental Health
525 West Jefferson Street
Springfield, IL 62761

IL 482-0126
Revised 6/09

IMPORTANCE NOTICE: This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 90-63. Disclosure of this information is Mandatory. This form has been approved by the Forms Management Center

13 Property Owner Dynegy

14. Driller Adam Tachinsen License # _____

15. Name of Drilling Company Cascade Drilling 16. Permit Number _____

Date Issued _____ 17 Date Drilling Started 6-12-15

18. Well Site Address 15260 IL-78 Havana, IL.

19 Township Name Havana Land I.D. # _____

20 Subdivision Name _____ Lot # _____

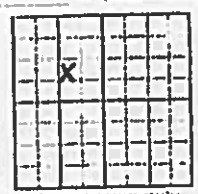
21 Location a County Mason b Site Elevation _____ ft. (above msl)

c Township 21N Range 9W Section 12

d NW Quarter of the SE Quarter of the NW Quarter

e GPS Lat. Degrees 40 Minutes 17 Seconds 04 N

Long. Degrees 90 Minutes 04 Seconds 07 W



Survey use only

22. Casing and Liner Information

Diameter (in.)	Material, Joint Type	From (ft.)	To (ft.)
2	Sch. 40 PVC	+3	34

23. Is the well screened?	If yes	Diameter (in.)	Length (ft.)	Slot Size (in.)	From (ft.)	To (ft.)
Yes		2	10	.010	34	44

24. Water from _____ at a depth of (ft.) _____ To (ft.) _____

a. Static water level (ft.) below top of casing _____ which is (in.) above ground _____

b. pumping level is (ft.) _____ pumping (gpm) _____ for (hours) _____

25. Earth Materials Passed Through	From (ft.)	To (ft.)
Sand	0	44

(Attach 2nd page, if necessary) (If DRY HOLE, mark a log & indicate how hole was sealed)

Adam A Johnsen License # _____
Licensed Water Well Contractor Signature

MONITORING WELL DEVELOPMENT DOCUMENTATION

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL DEVELOPMENT

Facility/Project Name	State	Well Name
Havana Power Station	Illinois	HAMW-39

Facility License, Permit or Monitoring Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:
   - surged with bailer and bailed ☐
   - surged with bailer and pumped ☐
   - surged with block and bailed ☐
   - surged with block and pumped ☐
   - surged with block, bailed, and pumped ☐
   - compressed air ☐
   - bailed only ☐
   - pumped only ☐
   - pumped slowly ☐
   - other pumped/surged with pump ☒

3. Time spent developing well 60 min.

4. Depth of well (from top of well casing) 37.4 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 12.01 gal.

7. Volume of water removed from well 46.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	22.45 ft.	22.45 ft.
Date	b.	6/11/2015	6/11/2015
Time	c.	☐ a.m. 12:45 ☒ p.m.	☐ a.m. 01:45 ☒ p.m.
12. Sediment in well bottom		0.0 inches	0.0 inches
13. Water clarity		Clear ☐ Turbid ☒ (Describe) very dark brown	Clear ☒ Turbid ☐ (Describe) clear to cloudy (very pale brown)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids		mg/l	mg/l
15. COD		mg/l	mg/l

16. Well developed by: Person's Name and Firm
Patrick Hoefle
Natural Resource Technology, Inc.

17. Additional comments on development:
During development pH, temperature, and specific conductance were monitored with a water quality probe. Development completed when monitored water quality parameters stabilized.

Facility Address or Owner/Responsible Party Address

Name: Havana Power Station

Firm:

Street: 15260 IL-78

City/State/Zip: Havana IL 62644

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Patrick M Hoefle

Print Name: Patrick Hoefle

Firm: Natural Resource Technology

Template: WELL DEVELOPMENT - Project: 2285 HAVANA GINT.GPJ

Date Modified: 12/1/2015

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL DEVELOPMENT

Facility/Project Name	State	Well Name
Havana Power Station	Illinois	HAMW-40

Facility License, Permit or Monitoring Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:
   - surged with bailer and bailed ☐
   - surged with bailer and pumped ☐
   - surged with block and bailed ☐
   - surged with block and pumped ☐
   - surged with block, bailed, and pumped ☐
   - compressed air ☐
   - bailed only ☐
   - pumped only ☐
   - pumped slowly ☐
   - other pumped/surged with pump ☒

3. Time spent developing well 85 min.

4. Depth of well (from top of well casing) 36.8 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 11.06 gal.

7. Volume of water removed from well 55.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	25.23 ft.	25.24 ft.
Date	b.	6/15/2015	6/15/2015
Time	c.	11:50 ☒ a.m. ☐ p.m.	01:15 ☐ a.m. ☒ p.m.
12. Sediment in well bottom		0.0 inches	0.0 inches
13. Water clarity		Clear ☐ Turbid ☒ (Describe) very dark brown	Clear ☒ Turbid ☐ (Describe) clear to cloudy (very pale brown)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids		mg/l	mg/l
15. COD		mg/l	mg/l

16. Well developed by: Person's Name and Firm
Patrick Hoefle
Natural Resource Technology, Inc.

17. Additional comments on development:
During development pH, temperature, and specific conductance were monitored with a water quality probe. Development completed when monitored water quality parameters stabilized.

Facility Address or Owner/Responsible Party Address

Name: Havana Power Station

Firm:

Street: 15260 IL-78

City/State/Zip: Havana IL 62644

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Patrick M Hoefle

Print Name: Patrick Hoefle

Firm: Natural Resource Technology

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL DEVELOPMENT

Facility/Project Name	State	Well Name
Havana Power Station	Illinois	HAMW-41

Facility License, Permit or Monitoring Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:
   - surged with bailer and bailed ☐
   - surged with bailer and pumped ☐
   - surged with block and bailed ☐
   - surged with block and pumped ☐
   - surged with block, bailed, and pumped ☐
   - compressed air ☐
   - bailed only ☐
   - pumped only ☐
   - pumped slowly ☐
   - other pumped/surged with pump ☒

3. Time spent developing well 75 min.

4. Depth of well (from top of well casing) 37.6 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 12.35 gal.

7. Volume of water removed from well 50.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	19.81 ft.	19.80 ft.
Date	b.	6/16/2015	6/16/2015
Time	c.	☐ a.m. 03:10 ☒ p.m.	☐ a.m. 04:25 ☒ p.m.
12. Sediment in well bottom		0.0 inches	0.0 inches
13. Water clarity		Clear ☐ Turbid ☒ (Describe) dark brown	Clear ☒ Turbid ☐ (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Patrick Hoefle
Natural Resource Technology, Inc.

17. Additional comments on development:
During development pH, temperature, and specific conductance were monitored with a water quality probe. Development completed when monitored water quality parameters stabilized.

Facility Address or Owner/Responsible Party Address

Name: Havana Power Station

Firm:

Street: 15260 IL-78

City/State/Zip: Havana IL 62644

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Patrick M Hoefle

Print Name: Patrick Hoefle

Firm: Natural Resource Technology

Template: WELL DEVELOPMENT - Project: 2285 HAVANA GINT.GPJ

Date Modified: 12/1/2015

NATURAL RESOURCE TECHNOLOGY

MONITORING WELL DEVELOPMENT

Facility/Project Name	State	Well Name
Havana Power Station	Illinois	HAMW-42

Facility License, Permit or Monitoring Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:
   - surged with bailer and bailed ☐
   - surged with bailer and pumped ☐
   - surged with block and bailed ☐
   - surged with block and pumped ☐
   - surged with block, bailed, and pumped ☐
   - compressed air ☐
   - bailed only ☐
   - pumped only ☐
   - pumped slowly ☐
   - other pumped/surged with pump ☒

3. Time spent developing well 42 min.

4. Depth of well (from top of well casing) 46.8 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 12.33 gal.

7. Volume of water removed from well 70.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	30.05 ft.	30.05 ft.
Date	b.	8/25/2015	8/25/2015
Time	c.	11:30 ☒ a.m. ☐ p.m.	12:20 ☐ a.m. ☒ p.m.
12. Sediment in well bottom		0.0 inches	0.0 inches
13. Water clarity		Clear ☐ Turbid ☒ (Describe) brown	Clear ☒ Turbid ☐ (Describe) clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Andrea Salus
Natural Resource Technology, Inc.

17. Additional comments on development:
During development pH, temperature, and specific conductance were monitored with a water quality probe. Development completed when monitored water quality parameters stabilized.

Facility Address or Owner/Responsible Party Address

Name: Havana Power Station

Firm:

Street: 15260 IL-78

City/State/Zip: Havana IL 62644

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Andrea Salus

Print Name: Andrea Salus

Firm: Natural Resource Technology