synapse

October 26, 2015

Mr. Steve Parisio
New York State Department of Environmental Conservation
Division of Solid and Hazardous Waste, Region 3
21 South Putt Corners Road
New Paltz, New York 12561-1696

RE: Third Quarter 2015 Report
Historic Ash Cell
Danskammer Generating Station
Newburgh, New York

Dear Mr. Parisio:

Synapse Risk Management, LLC (Synapse) is has prepared this Third Quarter 2015 Danskammer Historic Ash Cell (HAC) Report on behalf of Danskammer Energy, LLC. The quarterly monitoring of the HAC was approved by the New York State Department of Environmental Conservation (NYSDEC) in the Corrective Measures Assessment (CMA) Report. The sampling and analytical methods are guided by the HAC Monitoring Plan which focuses on long term monitoring of ash-related constituents down gradient of the HAC, and continued monitoring of the bedrock water-bearing unit underlying the HAC. This quarterly submittal includes the following supporting documentation:

- Third Quarter 2015 analytical summary table and site figure;
- Third Quarter 2015 analytical data package; and
- Third Quarter 2015 field data sheets.

If you require further information, please contact me directly at 315.475.3700 X-123.

Regards,

Synapse Risk Management, LLC

Roger Creighton
Project Manager

Attachments

cc: Susan May, Danskammer Energy, LLC

ATTACHMENT A
TABLES

HAC 2015 THIRD QUARTER REPORT

DANSKAMMER ENERGY, LLC
NEWBURGH, NEW YORK

OCTOBER 2015

TABLE 1
OVERBURDEN/BEDROCK GROUNDWATER QUALITY DATA
SEPTEMBER 2015
DANSKAMMER ENERGY, LLC
HISTORIC ASH CELL

Monitoring Well ID		**HAC-1**	**HAC-2**	**NW-1**	**W-3R**
Routine Parameters	**NYSDEC Standard**	**9/21/2015**	**9/21/2015**	**9/21/2015**	**9/21/2015**
Arsenic	0.025	<0.005	<0.005	<0.005	0.005
Boron	1	**4.24**	0.833	0.116	0.745
Calcium	-	227	350	79.7	112
Iron	0.3	0.289	0.312	0.455	<0.050
Potassium	-	1.45	3.96	0.838	0.907
Alkalinity	-	327	393	336	313
Chloride	250	46.1	22.9	2.89	22.4
Hardness	-	822	985	372	471
Sodium	20	**25.5**	16.3	2.82	12.4
Sulfur	-	222	2.9	11.5	62.1
Sulfate	-	666	625	34.6	186
Total Dissolved Solids	500	**960**	**1300**	350	**525**
Carbonate	-	<4	<4	<4	13
Bicarbonate	-	327	393	336	300
Conductivity	-	1610	1576	318	927
Turbidity	5	**7**	**5**	**48**	**<1**

Notes:

1. NYSDEC Standard = Groundwater Quality Standards per NYCRR Part 703.
2. Concentrations reported in milligrams per liter (mg/L), approximately equivalent to parts per million.
3. NA = Not Analyzed

ATTACHMENT B
FIGURES

HAC 2015 THIRD QUARTER REPORT

DANSKAMMER ENERGY, LLC
NEWBURGH, NEW YORK

OCTOBER 2015



LEGEND:

- 70 TOPOGRAPHIC CONTOUR
- ACCESS ROADWAY
- DRAINAGE CHANNEL
- GUIDERAIL
- FENCE
- PROPERTY BOUNDARY
- CULVERT
- STRUCTURES/TANKS
- POWER POLE
- NW-1 OVERBURDEN MONITORING WELL
- W-3R BEDROCK MONITORING WELL

NOTES:

1. BASE MAP MODIFIED FROM ELECTRONIC FILE BY SHAW EMCON/OWT, INC. DRAWING ENTITLED "GROUNDWATER MONITORING SYSTEM", 2003.

0 300' 600'

GRAPHIC SCALE

X: DYNX05.DWG
7/28/15
SYNAPSE/WIP/DANSK 01-13/DANSK-0113-B18.DWG

synapse
connect. advise. insure.

SYNAPSE RISK MANAGEMENT, LLC
360 ERIE BLVD. EAST
SYRACUSE, NEW YORK 13202

HAC MONITORING PROGRAM

DANSKAMMER GENERATING STATION
DANSKAMMER ENERGY, LLC
NEWBURGH, NEW YORK

HAC GROUNDWATER MONITORING PLAN

PROJECT NO.: DANSK 01.15.01
DATE: JULY 2015
FIGURE NO.: 1-1

ATTACHMENT C
LABORATORY DATA PACKAGE

HAC 2015 THIRD QUARTER REPORT

DANSKAMMER ENERGY, LLC
NEWBURGH, NEW YORK

OCTOBER 2015

Adirondack Environmental Services, Inc.

Experience is the solution

314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

October 08, 2015

Roger Creighton
Synapse Rick Management, LLC
360 Erie Blvd East
Syracuse, NY 13202

TEL: (315) 475-3700
FAX: (315) 475-3780

Work Order No: 150922002

RE: Quarterly GW
Historic Ash Cell

Dear Roger Creighton:

Adirondack Environmental Services, Inc received 4 samples on 9/22/2015 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Tara Daniels
Laboratory Manager

Adirondack Environmental Services, Inc — CASE NARRATIVE

CLIENT:	Synapse Rick Management, LLC	**Date:**	*08-Oct-15*
Project:	Quarterly GW		
Lab Order:	150922002		

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Qualifiers:

	C - Details are above in Case Narrative
ND - Not Detected at reporting limit	S - LCS Spike recovery outside acceptable limits(+ is over - is under)
J - Analyte detected below quantitation limit	R - Duplication outside acceptable limits
B - Analyte detected in Blank	T - Tentatively Identified Compound-Estimated
X - Exceeds maximum contamination limit	E -Above quantitation range-Estimated
H - Hold time exceeded	M - Matrix Spike outside acceptable limits(+ is over - is under)

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: *08-Oct-15*

CLIENT:	Synapse Rick Management, LLC	**Client Sample ID:**	NW-1
Work Order:	150922002	**Collection Date:**	9/21/2015 2:55:00 PM
Reference:	Quarterly GW / Historic Ash Cell	**Lab Sample ID:**	150922002-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***318***	1.0		umhos/cm		9/21/2015 2:55:00 PM
Dissolved Oxygen	***11.86***	0.10		mg/L		9/21/2015 2:55:00 PM
eH	***100.5***			mV		9/21/2015 2:55:00 PM
pH	***7.1***			S.U.		9/21/2015 2:55:00 PM
Temperature	***12***			deg C		9/21/2015 2:55:00 PM
Turbidity	***48***	1.0		NTU		9/21/2015 2:55:00 PM
HARDNESS - SM 2340B						Analyst: **KH**
(Prep: SW3010A - 9/23/2015)						
Total Hardness (As CaCO3)	***372***	5		mg/L CaCO3	1	10/6/2015
ICP METALS - EPA 200.7						Analyst: **KH**
(Prep: SW3010A - 9/23/2015)						
Arsenic	***< 0.005***	0.005		mg/L	1	10/6/2015 11:12:00 AM
Boron	***0.116***	0.050		mg/L	1	10/6/2015 11:12:00 AM
Calcium	***79.7***	0.050		mg/L	1	10/6/2015 11:12:00 AM
Iron	***0.455***	0.050		mg/L	1	10/6/2015 11:12:00 AM
Magnesium	***42.1***	0.050		mg/L	1	10/6/2015 11:12:00 AM
Manganese	***0.027***	0.020		mg/L	1	10/6/2015 11:12:00 AM
Potassium	***0.838***	0.050		mg/L	1	10/6/2015 11:12:00 AM
Sodium	***2.82***	0.050		mg/L	1	10/6/2015 11:12:00 AM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***2.89***	2.00		mg/L	2	10/2/2015 2:16:27 PM
Sulfate	***34.6***	4.00		mg/L	2	10/2/2015 2:16:27 PM
ALKALINITY - SM 2320B						Analyst: **AS**
Alkalinity, Bicarbonate (As CaCO3)	***336***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Carbonate (As CaCO3)	***< 4.0***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Total (As CaCO3)	***336***	4.0		mg/L CaCO3	1	9/30/2015
SULFUR IN WATER CALCULATION						Analyst: **CMH**
Sulfur	***11.5***	0.6		mg/L	1	10/7/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***350***	5		mg/L	1	9/23/2015

Adirondack Environmental Services, Inc

Date: *08-Oct-15*

CLIENT:	Synapse Rick Management, LLC	**Client Sample ID:**	HAC-1
Work Order:	150922002	**Collection Date:**	9/21/2015 1:55:00 PM
Reference:	Quarterly GW / Historic Ash Cell	**Lab Sample ID:**	150922002-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***1610***	1.0		umhos/cm		9/21/2015 1:55:00 PM
Dissolved Oxygen	***1.99***	0.10		mg/L		9/21/2015 1:55:00 PM
eH	***16.4***			mV		9/21/2015 1:55:00 PM
pH	***6.7***			S.U.		9/21/2015 1:55:00 PM
Temperature	***12***			deg C		9/21/2015 1:55:00 PM
Turbidity	***7***	1.0		NTU		9/21/2015 1:55:00 PM
HARDNESS - SM 2340B						Analyst: **KH**
(Prep: SW3010A - 9/23/2015)						
Total Hardness (As CaCO3)	***822***	5		mg/L CaCO3	1	10/6/2015
ICP METALS - EPA 200.7						Analyst: **KH**
(Prep: SW3010A - 9/23/2015)						
Arsenic	***< 0.005***	0.005		mg/L	1	10/6/2015 11:17:00 AM
Boron	***4.24***	0.050		mg/L	1	10/6/2015 11:17:00 AM
Calcium	***227***	0.500		mg/L	10	10/6/2015 11:20:00 AM
Iron	***0.289***	0.050		mg/L	1	10/6/2015 11:17:00 AM
Magnesium	***62.0***	0.050		mg/L	1	10/6/2015 11:17:00 AM
Manganese	***0.258***	0.020		mg/L	1	10/6/2015 11:17:00 AM
Potassium	***1.45***	0.050		mg/L	1	10/6/2015 11:17:00 AM
Sodium	***25.5***	0.050		mg/L	1	10/6/2015 11:17:00 AM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***46.1***	10.0		mg/L	10	10/2/2015 3:00:20 PM
Sulfate	***666***	20.0		mg/L	10	10/2/2015 3:00:20 PM
ALKALINITY - SM 2320B						Analyst: **AS**
Alkalinity, Bicarbonate (As CaCO3)	***327***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Carbonate (As CaCO3)	***< 4.0***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Total (As CaCO3)	***327***	4.0		mg/L CaCO3	1	9/30/2015
SULFUR IN WATER CALCULATION						Analyst: **CMH**
Sulfur	***222***	0.6		mg/L	1	10/7/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***1230***	5		mg/L	1	9/23/2015

Adirondack Environmental Services, Inc

Date: *08-Oct-15*

CLIENT:	Synapse Rick Management, LLC	**Client Sample ID:**	HAC-2
Work Order:	150922002	**Collection Date:**	9/21/2015 12:45:00 PM
Reference:	Quarterly GW / Historic Ash Cell	**Lab Sample ID:**	150922002-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***1576***	1.0		umhos/cm		9/21/2015 12:45:00 PM
Dissolved Oxygen	***4.18***	0.10		mg/L		9/21/2015 12:45:00 PM
eH	***169.1***			mV		9/21/2015 12:45:00 PM
pH	***6.5***			S.U.		9/21/2015 12:45:00 PM
Temperature	***13***			deg C		9/21/2015 12:45:00 PM
Turbidity	***5***	1.0		NTU		9/21/2015 12:45:00 PM
HARDNESS - SM 2340B						Analyst: **KH**
(Prep: SW3010A - 9/23/2015)						
Total Hardness (As CaCO3)	***985***	5		mg/L CaCO3	1	10/6/2015
ICP METALS - EPA 200.7						Analyst: **KH**
(Prep: SW3010A - 9/23/2015)						
Arsenic	***< 0.005***	0.005		mg/L	1	10/6/2015 11:25:00 AM
Boron	***0.833***	0.050		mg/L	1	10/6/2015 11:25:00 AM
Calcium	***350***	0.500		mg/L	10	10/6/2015 3:48:00 PM
Iron	***0.312***	0.050		mg/L	1	10/6/2015 11:25:00 AM
Magnesium	***26.9***	0.050		mg/L	1	10/6/2015 11:25:00 AM
Manganese	***0.301***	0.020		mg/L	1	10/6/2015 11:25:00 AM
Potassium	***3.96***	0.050		mg/L	1	10/6/2015 11:25:00 AM
Sodium	***16.3***	0.050		mg/L	1	10/6/2015 11:25:00 AM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***22.9***	10.0		mg/L	10	10/2/2015 3:14:56 PM
Sulfate	***625***	20.0		mg/L	10	10/2/2015 3:14:56 PM
ALKALINITY - SM 2320B						Analyst: **AS**
Alkalinity, Bicarbonate (As CaCO3)	***393***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Carbonate (As CaCO3)	***< 4.0***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Total (As CaCO3)	***393***	4.0		mg/L CaCO3	1	9/30/2015
SULFUR IN WATER CALCULATION						Analyst: **CMH**
Sulfur	***2.9***	0.6		mg/L	1	10/7/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***1300***	5		mg/L	1	9/23/2015

Adirondack Environmental Services, Inc

Date: *08-Oct-15*

CLIENT:	Synapse Rick Management, LLC	**Client Sample ID:**	W-3R
Work Order:	150922002	**Collection Date:**	9/21/2015 11:40:00 AM
Reference:	Quarterly GW / Historic Ash Cell	**Lab Sample ID:**	150922002-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***927***	1.0		umhos/cm		9/21/2015 11:40:00 AM
Dissolved Oxygen	***2.91***	0.10		mg/L		9/21/2015 11:40:00 AM
eH	***41.7***			mV		9/21/2015 11:40:00 AM
pH	***6.8***			S.U.		9/21/2015 11:40:00 AM
Temperature	***14***			deg C		9/21/2015 11:40:00 AM
Turbidity	***< 1***	1.0		NTU		9/21/2015 11:40:00 AM
HARDNESS - SM 2340B **(Prep: SW3010A - 9/23/2015)**						Analyst: **KH**
Total Hardness (As CaCO3)	***471***	5		mg/L CaCO3	1	10/6/2015
ICP METALS - EPA 200.7 **(Prep: SW3010A - 9/23/2015)**						Analyst: **KH**
Arsenic	***0.005***	0.005		mg/L	1	10/6/2015 11:31:00 AM
Boron	***0.745***	0.050		mg/L	1	10/6/2015 11:31:00 AM
Calcium	***112***	0.050		mg/L	1	10/6/2015 11:31:00 AM
Iron	***< 0.050***	0.050		mg/L	1	10/6/2015 11:31:00 AM
Magnesium	***46.3***	0.050		mg/L	1	10/6/2015 11:31:00 AM
Manganese	***0.056***	0.020		mg/L	1	10/6/2015 11:31:00 AM
Potassium	***0.907***	0.050		mg/L	1	10/6/2015 11:31:00 AM
Sodium	***12.4***	0.050		mg/L	1	10/6/2015 11:31:00 AM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***22.4***	5.00		mg/L	5	10/2/2015 3:29:31 PM
Sulfate	***186***	10.0		mg/L	5	10/2/2015 3:29:31 PM
ALKALINITY - SM 2320B						Analyst: **AS**
Alkalinity, Bicarbonate (As CaCO3)	***300***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Carbonate (As CaCO3)	***13***	4.0		mg/L CaCO3	1	9/30/2015
Alkalinity, Total (As CaCO3)	***313***	4.0		mg/L CaCO3	1	9/30/2015
SULFUR IN WATER CALCULATION						Analyst: **CMH**
Sulfur	***62.1***	0.6		mg/L	1	10/7/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***525***	5		mg/L	1	9/23/2015

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546 ♦ Fax: 518-434-0891

CHAIN OF CUSTODY RECORD

AES Work Order#: 1509220 02

EXPERIENCE IS THE SOLUTION

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: Synapse		Address:								
Send Report to:		Project Name (Location): Historic Ash Cell							Samplers Name: Paul Bust	
Client Phone No:		PO #:							Samplers Signature:	
Client Fax No:										
AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis	
001	NW-1	9/21/15	2:55	A (P)	GW		G	3	As,B,Ca,Fe,Mg,Mn,K,Na	
				A P					Carbonate, Bicarbonate,	
				A P					Chlorides,Sulfate,Sulfur,TDS	
				A P					Hardness	
				A P					Field: pH,Temp,sCond, DO,	
				A P					EH, Turbidity	
002	HAC-1	9/21/15	1:55	A (P)	GW		G	3	"	
003	HAC-2	9/21/15	12:45	A (P)	GW		G	3	"	
004	W-3R	9/21/15	11:40	(A) P	GW		G	3	"	
				A P						
				A P						
				A P						

Shipment Arrived Via:
FedEx UPS Client (AES) Other:_____

Special Instructions/Remarks:

Turnaround Time Requested:
☐ 1 Day ☐ 3 Day ☐ Normal
☐ 2 -Day ☐ 5 Day

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Paul Bust	9/22/15	7:35			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	**Received for Laboratory by:**	Date	Time
			[signature]	9/22/15	7:55 AM

Sample Temperature	**Properly Preserved**	**Received Within Holding Times**
Ambient (Chilled)	(Y) N	(Y) N
Chilling Process begun		
Notes: 4°C	Notes:	Notes:

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Experience is the solution
314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

(a) Neither **Adirondack Environmental Services, Inc.,** nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.'s** performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.

(b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.

(c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.

(d) In no event shall **Adirondack Environmental Services, Inc.,** its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.

(e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**

(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

(g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

ATTACHMENT D
FIELD DATA SHEETS

HAC 2015 THIRD QUARTER REPORT

DANSKAMMER ENERGY, LLC
NEWBURGH, NEW YORK

OCTOBER 2015

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site:	Historic Ash Cell	Well ID:	NW-1
Project No.	DYNE 01.07.04	Sample ID:	NW-1
Date:	9/21/2015	Sampler:	Mike Wisley
Weather:	Overcast, 60 F	Signature:	

Well Condition Observations	
Protective Casing:	Good
Lock:	Good
Label:	Yes
Surface Seal:	Good
PVC Well Casing:	Good

Well Volume Calculations	
Well Diameter (in):	2
Depth to Water (ft):	17.5
Total Depth (ft):	
Well Volume (gal):	

TIME	PUMP SETTING (feet of H_2O)	DISCHARGE TIME (seconds)	REFILL TIME (seconds)	FLOW RATE (ml/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (mS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)	PURGE VOLUME (liters)
11:10	30	5	10	200	17.6	6.5	14	921	3.1	42.1	10	
11:13	30	5	10	200	17.8	6.5	14	920	3.1	42.3	6	
11:17	30	5	10	200	17.9	6.8	14	920	3.2	42	5	
11:22	30	5	10	200	20	6.8	14	927	3	42	5	
11:24	30	5	10	200	20	6.8	14	927	2.91	41.7	5	
Stabilization Criteria				100-400 ml/min	Drawdown <0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10% (>1 NTU)	Total Purge
Stabilization Achieved (Y/N)				y	y	y	y	y	y	y	n	

Sampling/Purge Equipment	
Water Level Meter:	Solinst Model 101
pH/S.C./Dissolved Oxygen/ORP/Turbidity:	Horbia Model
Pump:	QED Bladder Pump Model
Intake Depth (feet below PVC):	
Tubing:	QED Bonded Poly Sample Tubing

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
8-OZ P	HNO3	1	Metals/Hardness
4-OZ P/G	None	1	Alk/Bicard/Card
32-OZ P	None	1	Br, Cl, SO4, TDS, SU, Turbidity

Sample Collection Time	Start	End
	11:40	

Comments:

Synapse Risk Management, LLC

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site:	Historic Ash Cell	Well ID:	HAC-2
Project No.	DYNE 01.07.04	Sample ID:	HAC-2
Date:	9/21/2015	Sampler:	Mike Wisley
Weather:	Overcast, 60 F	Signature:	

Well Condition Observations	
Protective Casing:	Good
Lock:	Yes
Label:	Yes
Surface Seal:	Good
PVC Well Casing:	Good

Well Volume Calculations	
Well Diameter (in):	2
Depth to Water (ft):	12.3
Total Depth (ft):	
Well Volume (gal):	

TIME	PUMP SETTING (feet of H_2O)	DISCHARGE TIME (seconds)	REFILL TIME (seconds)	FLOW RATE (ml/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (mS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)	PURGE VOLUME (liters)
12:05	15	5	10	300	12.4	6.5	12	1556	6.3	320	8	
12:07	15	5	10	300	12.41	6.5	13	1556	6.2	320	5	
12:09	15	5	10	300	12.5	6.5	13	1556	6	320	5	
12:12	15	5	10	300	13	6.5	13	1555	5.2	320	5	
12:25	15	5	10	300	13	6.6	13	1576	5.2	323.2	5	
Stabilization Criteria				100-400 ml/min	Drawdown <0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10% (>1 NTU)	Total Purge
Stabilization Achieved (Y/N)				y	y	y	y	y	y	y	n	

Sampling/Purge Equipment	
Water Level Meter:	Solinst Model 101
pH/S.C./Dissolved Oxygen/ORP/Turbidity:	Horbia Model
Pump:	QED Bladder Pump Model
Intake Depth (feet below PVC):	
Tubing:	QED Bonded Poly Sample Tubing

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
8-OZ P	HNO3	1	Metals/Hardness
4-OZ P/G	None	1	Alk/Bicard/Card
32-OZ P	None	1	Br, Cl, SO4, TDS, SU, Turbidity

Sample Collection Time	Start	End
	12:35	

Comments:

Synapse Risk Management, LLC

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site:	Historic Ash Cell	Well ID:	HAC-1
Project No.	DYNE 01.07.04	Sample ID:	HAC-1
Date:	9/21/2015	Sampler:	Mike Wilsey
Weather:	Overcast 60 F	Signature:	

Well Condition Observations	
Protective Casing:	Good
Lock:	Yes
Label:	Yes
Surface Seal:	Good
PVC Well Casing:	Good

Well Volume Calculations	
Well Diameter (in):	2
Depth to Water (ft):	22.3
Total Depth (ft):	
Well Volume (gal):	

TIME	PUMP SETTING (feet of H_2O)	DISCHARGE TIME (seconds)	REFILL TIME (seconds)	FLOW RATE (ml/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (mS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)	PURGE VOLUME (liters)
1:01	25	3	12	150	22.65	6.5	11	1602	6.1	16.2	5	
1:08	25	3	12	150	22.65	6.5	11	1605	5	16.3	7	
1:14	25	3	12	150	22.69	6.1	12	1605	2	16.2	7	
1:23	25	3	12	150	22.7	6.7	12	1600	2	16	7	
1:48	25	3	12	150	22.7	6.7	12	1610	1.99	16.4	7	
Stabilization Criteria				100-400 ml/min	Drawdown <0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10% (>1 NTU)	Total Purge
Stabilization Achieved (Y/N)				y	y	y	y	y	y	y	n	

Sampling/Purge Equipment	
Water Level Meter:	Solinst Model 101
pH/S.C./Dissolved Oxygen/ORP/Turbidity:	Horbia Model
Pump:	QED Bladder Pump Model
Intake Depth (feet below PVC):	
Tubing:	QED Bonded Poly Sample Tubing

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
8-OZ P	HNO3	1	Metals/Hardness
4-OZ P/G	None	1	Alk/Bicard/Card
32-OZ P	None	1	Br, Cl, SO4, TDS, SU, Turbidity

Sample Collection Time	Start	End
	12:00	

Comments:

Synapse Risk Management, LLC

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site:	Historic Ash Cell	Well ID:	W-3R
Project No.	DYNE 01.07.04	Sample ID:	W-3R
Date:	9/21/2015	Sampler:	Mike Wisley
Weather:	Overcast, 60 F	Signature:	

Well Condition Observations	
Protective Casing:	Good
Lock:	Good
Label:	Yes
Surface Seal:	Good
PVC Well Casing:	Good

Well Volume Calculations	
Well Diameter (in):	2
Depth to Water (ft):	17.5
Total Depth (ft):	
Well Volume (gal):	

TIME	PUMP SETTING (feet of H_2O)	DISCHARGE TIME (seconds)	REFILL TIME (seconds)	FLOW RATE (ml/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (mS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)	PURGE VOLUME (liters)
11:10	30	5	10	200	17.6	6.5	14	921	3.1	42.1	10	
11:13	30	5	10	200	17.8	6.5	14	920	3.1	42.3	6	
11:17	30	5	10	200	17.9	6.8	14	920	3.2	42	5	
11:22	30	5	10	200	20	6.8	14	927	3	42	5	
11:24	30	5	10	200	20	6.8	14	927	2.91	41.7	5	
Stabilization Criteria				100-400 ml/min	Drawdown <0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10% (>1 NTU)	Total Purge
Stabilization Achieved (Y/N)				y	y	y	y	y	y	y	n	

Sampling/Purge Equipment	
Water Level Meter:	Solinst Model 101
pH/S.C./Dissolved Oxygen/ORP/Turbidity:	Horbia Model
Pump:	QED Bladder Pump Model
Intake Depth (feet below PVC):	
Tubing:	QED Bonded Poly Sample Tubing

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
8-OZ P	HNO3	1	Metals/Hardness
4-OZ P/G	None	1	Alk/Bicard/Card
32-OZ P	None	1	Br, Cl, SO4, TDS, SU, Turbidity

Sample Collection Time	Start	End
	11:40	

Comments:

Synapse Risk Management, LLC