EA Engineering, Science, and Technology

15 Loveton Circle
Sparks, Maryland 21152
Telephone: 410-771-4950
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June 21, 2007

Carla M. Logan
Director - CGG Environmental
Constellation Generation Group
1005 Brandon Shores Road
Baltimore, MD 21226

Subject: Purchase Order 500236, Task 4 Groundwater Sampling and Analysis

Dear Ms. Logan:

EA is pleased to submit this report of results of the groundwater sampling program conducted at Calvert Cliffs Nuclear Power Plant on May 31, 2007. The program consisted of sampling the wells 752-A, 319A, and 319B. The wells were sampled by EA personnel in accordance with our standard protocol as described in Groundwater Sampling Procedure Low Stress (Low Flow) Purging and Sampling (USEPA Region II, March 16, 1998). In addition a sample was collected from the tap designated Raw Effluent #2 which draws from the Aquia aquifer. This sample was collected by an EA representative with a Constellation representative in attendance. The tap was run for fifteen minutes prior to sample collection as is standard procedure for sampling tap water. A field duplicate and rinse blank were collected and analyzed as quality control measures.

Samples were analyzed for parameters identified in NUREG-1555 Section 2.3.3 Water Quality. Microbac Laboratories conducted the analyses for general chemistry and metals. Environmental Testing Lab, Inc. provided bacteriological analyses and Accutest provided total alkalinity as CaCO3, Bicarbonate alkalinity, and carbon dioxide. All results are summarized in Tables 1 and 2 which follow. Also enclosed are Attachment A Well Purging and Sampling Records and Attachment B Reports of Analysis from each of the laboratories.

Please call me (410-329-5130) if you have any questions or require further information. Thank you for the opportunity to provide these services.

Sincerely,

Christine Papageorgis, Ph.D.
Project Manager

TABLE 1 WATER QUALITY IN GROUNDWATER WELLS
CALVERT CLIFFS NUCLEAR POWER PLANT
31-May-07

Parameter	Source*	Units	OW-752A	OW 319-A	OW 319-B	OW DUP (OW 319-B)	OW RAW EFFLUENT #2	OW RINSE BLANK
Odor, Threshold	M	TON	<1	16.0	8	16	<1	<1
pH	F	units	3.93	5.76	7.25	7.25	7.01	7.4
Temperature	F	Centigrade	18.43	20.72	17.32	17.32	20.02	20.6
Turbidity	M	NTU	7	60	49	37	4.1	<0.10
Alkalinity, Bicarbonate	A	mg/L	<5	24.6	190	187	101	<5
Alkalinity, Total as $CaCO_3$	A	mg/L	<2.2	24.6	190	187	101	<2.2
Carbon Dioxide	A	mg/L	**	85.4	21.3	21	20	<5
BOD	M	mg/L	<2	<3	<3	<3	<2	<2
Chemical Oxygen Demand	M	mg/L	21	24	26	28	26	<10
Chloride (Titrimetric, Mercuric Nitrate)	M	mg/L	4	10	10	12	2	<1
Color, True	M	color units	5	10	5	5	<5	<5
Enterococci	ETL	MPN/100ml	<1	410.6	2	<1	387.3	<1
Total Coliform	ETL	MPN/100ml	<1	17.1	<1	<1	1,299.70	<1
Fecal Coliform	ETL	MPN/100ml	<1	<1	<1	<1	<1	<1
Hardness, Total	M	mg/L	29	190	300	300	120	9
Nitrogen, Ammonia	M	mg/L	<1	<1	<1	<1	<1	<1
Nitrogen, Organic	M	mg/L	<1	<1	<1	<1	<1	<1
Nitrogen, Total Kjeldahl	M	mg/L	<1	<1	<1	<1	<1	<1
Nitrogen, Nitrite	M	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrogen, Nitrate	M	mg/L	<0.050	2.9	<0.050	<0.050	<0.050	<0.050
Phosphorus, Ortho	M	mg/L	<0.010	<0.010	<0.010	<0.010	0.010	<0.010
Phosphorus, Total	M	mg/L	0.031	0.064	0.081	0.034	0.041	<0.010
Solids, Total Dissolved	M	mg/L	92	110	230	310	210	<10
Solids, Total Suspended	M	mg/L	21	210	50	43	12	<2
Sulfate	M	mg/L	22	20	20	22	7.5	<1

* Key to data sources

M- Microbac Laboratories

ETL- Environmental Testing Laboratories

A- Accutest

F- Field Measurement

** Carbon dioxide could not be determined due to nondetected alkalinity and low pH

TABLE 2 METALS IN GROUNDWATER WELLS
CALVERT CLIFFS NUCLEAR POWER PLANT
31-May-07

Parameter*	Units	OW-752A	OW 319-A	OW 319-B	OW DUP (OW 319-B)	OW RAW EFFLUENT #2	OW RINSE BLANK
Arsenic	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Barium	mg/L	0.027	0.055	0.044	0.044	0.025	<0.010
Cadmium	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Calcium	mg/L	1.5	9.2	85	85	7.0	0.62
Chromium	mg/L	0.0049	0.025	0.0031	0.0030	<0.0025	<0.0025
Iron	mg/L	1.8	23	8.0	8.0	3.2	<0.10
Lead	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Magnesium	mg/L	1.4	3.2	3.1	3.1	2.3	<0.10
Mercury	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	mg/L	1.5	3.7	2.4	2.4	10.0	<0.10
Selenium	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Silicon	mg/L	6.3	13	16	16	5.3	2.3
Silver	mg/L	0.0012	0.0012	<0.0010	<0.0010	0.0012	0.001
Sodium	mg/L	4.9	8.3	9.9	9.8	29	1.5

* Analyses performed by Microbac Laboratories

ATTACHMENT A

WELL PURGING AND SAMPLING RECORDS

EA Engineering, Science, and Technology, Inc.

WELL PURGING AND SAMPLING RECORD

WELL ID OW-752A SAMPLE NO. _____

WELL/SITE DESCRIPTION good/locked

DATE 5/31/07 TIME 8:50 AIR TEMP. _____

WELL DEPTH 38.75 (sounded) ft CASING HEIGHT ≈2 ft

WATER DEPTH 22.99 ft WELL DIAMETER 2 in

WATER COL. HEIGHT 15.76 ft SANDPACK DIAM. _____ in

EQUIVALENT VOLUME OF STANDING WATER _____ (gal) (L)

PUMP RATE variable - 1.0 & 0.5 ~~(gpm)~~ (LPM)

PUMP TIME > 48 min

WELL WENT DRY? ( ) Yes (X) No PUMP TIME _____ min

VOL. REMOVED _____ (gal) (L) RECOVERY TIME _____ min

PURGE AGAIN? ( )Yes (X) No TOTAL VOL. REMOVED ≈27 ~~(gal)~~ (L)

Date	Time	Volume Removed Unit: L	pH pH	Cond. mS/cm	Temp. °C	ORP mV	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate L/min
5/31/07	9:04	1.0	3.81	0.102	14.75	238.9	704	2.40	24.08	1.0
	9:08	5.0	3.83	0.099	15.51	270.5	657	1.30	24.51	↓
	9:12	7.0	3.91	0.096	17.32	267.2	993	1.03	24.69	0.5
	9:16	9.0	3.92	0.096	17.90	269.8	742	0.94	24.78	
	9:20	11.0	3.91	0.096	18.15	280.4	216	1.09	24.81	
	9:24	13.0	3.91	0.096	18.26	289.7	134	1.15	24.83	
	9:28	15.0	3.90	0.096	18.31	299.1	69.3	1.40	24.85	↓
	9:32	17.0	3.90	0.095	18.35	303.7	59.7	1.49	24.86	
	9:36	19.0	3.91	0.095	18.37	307.2	42.2	1.58	24.87	
	9:40	21.0	3.92	0.095	18.38	309.9	35.2	1.65	24.87	
	9:44	23.0	3.92	0.095	18.40	314.3	28.8	1.72	24.88	
	9:48	25.0	3.93	0.095	18.41	318.7	24.5	1.76	24.89	
	9:52	27.0	3.93	0.095	18.43	321.4	22.1	1.79	24.89	↓

COMMENTS good/stable - turbidity readings slightly elevated but stable - determined to sample

Sampled @ 10:00

SIGNATURE Sadie Meadows

EA Engineering, Science, and Technology, Inc.

WELL PURGING AND SAMPLING RECORD

WELL ID OW-319A SAMPLE NO. _____

WELL/SITE DESCRIPTION good / locked

DATE 5 / 31 / 07 TIME 12:30 AIR TEMP. _____

WELL DEPTH 34.37 (sounded) ft CASING HEIGHT ≈ 2 ft

WATER DEPTH 26.53 ft WELL DIAMETER 2 in

WATER COL. HEIGHT 7.84 ft SANDPACK DIAM. _____ in

EQUIVALENT VOLUME OF STANDING WATER _____ (gal) (L)

PUMP RATE Variable - 1.0 & 0.5 ~~(gpm)~~ (LPM)

PUMP TIME >32 min

WELL WENT DRY? ( ) Yes (X) No PUMP TIME _____ min

VOL. REMOVED _____ (gal) (L) RECOVERY TIME _____ min

PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED ≈ 19 ~~(gal)~~ (L)

Date	Time	Volume Removed Unit: L	pH pH	Cond. mS/cm	Temp. °C	ORP mV	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate L/min
5/31/07	12:36	1.0	6.62	0.134	16.11	8.3	990	1.65	27.20	1.0
	12:40	5.0	6.06	0.132	16.30	46.3	672	1.83	27.75	↓
	12:44	7.0	5.76	0.136	18.83	76.2	252	2.19	28.14	0.5
	12:48	9.0	5.68	0.135	20.09	33.1	109	2.22	28.34	
	12:52	11.0	5.69	0.134	20.52	27.0	70.1	1.95	28.48	
	12:56	13.0	5.72	0.132	20.62	23.2	52.9	1.90	28.58	
	13:00	15.0	5.74	0.131	20.67	20.3	42.5	1.86	28.65	
	13:04	17.0	5.75	0.131	20.70	18.2	38.0	1.84	28.69	
	13:08	19.0	5.76	0.130	20.72	16.6	34.9	1.83	28.72	

COMMENTS good / stable - well is a very poor re-charger.

Sampled @ 13:15

SIGNATURE Eddie Meadows

EA Engineering, Science, and Technology, Inc.

WELL PURGING AND SAMPLING RECORD

WELL ID OW-319B SAMPLE NO. * OW-DUP was collected here. *

WELL/SITE DESCRIPTION good/locked

DATE 5/31/07 TIME 11:10 AIR TEMP.

WELL DEPTH 77.47 (sounded) ft CASING HEIGHT 2 ft

WATER DEPTH 66.39 ft WELL DIAMETER 2 in

WATER COL. HEIGHT 11.08 ft SANDPACK DIAM. in

EQUIVALENT VOLUME OF STANDING WATER (gal) (L)

PUMP RATE 1.0 ~~(gpm)~~ (LPM)

PUMP TIME 36 min

WELL WENT DRY? ( ) Yes (X) No PUMP TIME min

VOL. REMOVED (gal) (L) RECOVERY TIME min

PURGE AGAIN? ( )Yes (X) No TOTAL VOL. REMOVED ≈ 37 ~~(gal)~~ (L)

Date	Time	Volume Removed Unit: L	pH pH	Cond. mS/cm	Temp. °C	ORP mV	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate L/min
5/31/07	11:20	1.0	8.03	0.295	17.42	36.2	>1000	4.57	66.79	1.0
	11:24	5.0	7.22	0.403	17.56	-185.7	>1000	0.98	66.83	
	11:28	9.0	7.26	0.409	17.47	-219.2	>1000	0.86	66.83	
	11:32	13.0	7.28	0.407	17.37	-237.1	534	0.77	66.83	
	11:36	17.0	7.29	0.403	17.32	-225.3	290	0.90	66.83	
	11:40	21.0	7.28	0.399	17.26	-206.2	106	1.01	66.83	
	11:44	25.0	7.27	0.398	17.27	-211.6	44.5	0.99	66.83	
	11:48	29.0	7.26	0.396	17.29	-208.8	36.7	0.96	66.83	
	11:52	33.0	7.25	0.395	17.30	-209.3	30.3	0.95	66.83	
	11:56	37.0	7.25	0.397	17.32	-206.9	27.2	0.93	66.83	

COMMENTS good/stable - well had ≈ 0.5' of dark gray silt on bottom causing initial turbidity readings to be high.

Sampled @ 12:00

SIGNATURE [signature]

* OW-DUP was collected here. *

EA Engineering, Science, and Technology, Inc.

WELL PURGING AND SAMPLING RECORD

WELL ID OW- Raw effluent #2 SAMPLE NO. _____

WELL/SITE DESCRIPTION N/A

DATE 5 / 31 / 07 TIME 12:15 AIR TEMP. _____

WELL DEPTH _____ ft CASING HEIGHT _____ ft

WATER DEPTH _____ ft WELL DIAMETER _____ in

WATER COL. HEIGHT _____ ft SANDPACK DIAM. _____ in

EQUIVALENT VOLUME OF STANDING WATER _____ (gal) (L)

PUMP RATE _____ (gpm) (LPM)

PUMP TIME _____ min

WELL WENT DRY? ( ) Yes ( ) No PUMP TIME _____ min

VOL. REMOVED _____ (gal) (L) RECOVERY TIME _____ min

PURGE AGAIN? ( )Yes ( ) No TOTAL VOL. REMOVED _____ (gal) (L)

Date	Time	Volume Removed Unit:	pH pH	Cond. mS/cm²	Temp. °C	ORP mV	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate N/A
5/31/07	12:20		7.01	0.189	20.02	-98.1	14.2	5.03		↓

COMMENTS Sample collected from spigot directly w/ no stabilization required, however allowed water to run for several minutes prior to sample collection.

Sample collected @ 12:30.

Allison Bruce left at start for sample collection after samples were collected @ OW-319B while I set-up on & began purging OW-319A.

SIGNATURE Selli Meadows

ATTACHMENT B

ANALYTICAL REPORTS OF ANALYSES

Microbac Laboratories, Inc.

Baltimore Division

2101 Van Deman Street · Baltimore, MD 21224

Phone: 410-633-1800
Fax: 410-633-6553
www.microbac.com

CERTIFICATE OF ANALYSIS

EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Lab ID: 0706002-001 **Collection Date:** 5/31/2007 10:00:00 AM
Client Sample ID: OW-752A grab **Matrix:** GROUNDWATER

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
BICARBONATES (AS CACO3) (METHOD : SM 18 2320 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Bicarbonates	< 1.0	mg/L	1.0	6/5/2007 7:00	VAS
BOD (BIOCHEMICAL OXYGEN DEMAND) (METHOD : SM (20) 5210 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
BOD	< 2.0	mg/L	2.0	6/1/2007 10:36	LCR
CHLORIDE (TITRIMETRIC, MERCURIC NITRATE) (METHOD : SM (20) 4500CL C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Chloride	4.0	mg/L	1.0	6/8/2007 8:20	LCR
COD (CHEMICAL OXYGEN DEMAND) (METHOD : EPA 410.4)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
COD	21	mg/L	10	6/5/2007 8:27	LCR
COLOR, TRUE (METHOD : SM (20) 2120 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
True, Color	5.0	Color Units	5.0	6/1/2007 10:30	VAS
HARDNESS, TOTAL (CACO3) (METHOD : SM (20) 2340 C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Hardness	29	mg/L	1.0	6/5/2007 8:00	VAS
MERCURY, TOTAL (METHOD : EPA 7470A)					
Prep. Method: SW846 7470	Prep. Date: 6/5/2007 12:45:00 PM			Prep Analyst EDP	
Mercury	< 0.00020	mg/L	0.00020	6/7/2007 12:49	APS

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EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
METALS, TOTAL (METHOD : EPA 6010B)					
Prep. Method: EPA 3010A	Prep. Date: 6/6/2007 10:05:07 AM			Prep Analyst EDP	
note: Method Blank contained 0.0012 mg/L Silver.					
Arsenic	**< 0.020**	mg/L	0.020	6/7/2007 16:10	APS
Barium	**0.027**	mg/L	0.010	6/7/2007 16:10	APS
Cadmium	**< 0.00050**	mg/L	0.00050	6/7/2007 16:10	APS
Calcium	**1.5**	mg/L	0.50	6/7/2007 16:10	APS
Chromium	**0.0049**	mg/L	0.0025	6/7/2007 16:10	APS
Iron	**1.8**	mg/L	0.10	6/7/2007 16:10	APS
Lead	**< 0.010**	mg/L	0.010	6/7/2007 16:10	APS
Magnesium	**1.4**	mg/L	0.10	6/7/2007 16:10	APS
Potassium	**1.5**	mg/L	0.10	6/7/2007 16:10	APS
Selenium	**< 0.010**	mg/L	0.010	6/7/2007 16:10	APS
Silicon	**6.3**	mg/L	0.50	6/7/2007 16:10	APS
Silver	**0.0012**	mg/L	0.0010	6/7/2007 16:10	APS
Sodium	**4.9**	mg/L	1.0	6/7/2007 16:10	APS
NITROGEN, ORGANIC (N) (METHOD : CALCULATION)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Organic Nitrogen	**< 1.0**	mg/L	1.0	6/8/2007 14:30	PBK
AMMONIA (N) (METHOD : SM (20) 4500-NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Ammonia (N)	**< 1.0**	mg/L	1.0	6/8/2007 11:45	RED
NITRITE (N) (METHOD : SM (20) 4500-NO2 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrite	**< 0.0050**	mg/L	0.0050	6/1/2007 16:16	JCH
NITRATE (N) (METHOD : EPA 353.2)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrate	**< 0.050**	mg/L	0.050	6/7/2007 16:12	RED
ODOR, THRESHOLD (METHOD : EPA 140.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Odor	**< 1.0**	TON	1.0	6/1/2007 11:00	VAS
PHOSPHORUS (P), TOTAL (METHOD : SM 18 4500 P B+E)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Phosphorus	**0.031**	mg/L	0.010	6/6/2007 13:30	LCR
PHOSPHORUS (P), ORTHO (METHOD : SM 18 4500 PE)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Orthophosphate	**< 0.010**	mg/L	0.010	6/1/2007 12:25	LCR
PH (METHOD : EPA 9040B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
note: pH sample received past holding time; analysis best performed at time of collection.					
pH	**3.7**	pH Units	1.0	6/7/2007 9:00	LCR
Temperature	**20.1**	°C	0.10	6/7/2007 9:00	LCR
SULFATE (SO4) (METHOD : EPA 9038)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Sulfate	**22**	mg/L	2.0	6/8/2007 12:26	LCR
TOTAL DISSOLVED SOLIDS (FILTERABLE SOLIDS @ 180°C) (METHOD : SM (20) 2540 C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Dissolved Solids	**92**	mg/L	10	6/4/2007 13:45	VAS
NITROGEN, TOTAL KJELDAHL (N) (METHOD : SM(20)4500NORG B, 4500NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen , Kjeldahl (N)	**< 1.0**	mg/L	1.0	6/6/2007 10:20	RED
TOTAL SUSPENDED SOLIDS (NON-FILTERABLE SOLIDS) (METHOD : SM (20) 2540 D)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Suspended Solids	**21**	mg/L	5.0	6/1/2007 10:55	VAS
TURBIDITY (NTU) (METHOD : EPA 180.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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EA Engineering
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Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Turbidity	**7.0**	NTU	0.10	6/1/2007 7:45	VAS

Lab ID: **0706002-002** **Collection Date:** 5/31/2007 10:45:00 AM
Client Sample ID: OW-Rinse Blank **Matrix:** WATER

BICARBONATES (AS CACO3) (METHOD : SM 18 2320 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Bicarbonates	**12**	mg/L	1.0	6/5/2007 7:00	VAS

BOD (BIOCHEMICAL OXYGEN DEMAND) (METHOD : SM (20) 5210 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

BOD	**< 2.0**	mg/L	2.0	6/1/2007 9:00	LCR

CHLORIDE (TITRIMETRIC, MERCURIC NITRATE) (METHOD : SM (20) 4500CL C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Chloride	**< 1.0**	mg/L	1.0	6/8/2007 8:20	LCR

COD (CHEMICAL OXYGEN DEMAND) (METHOD : EPA 410.4)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

COD	**< 10**	mg/L	10	6/5/2007 8:27	LCR

COLOR, TRUE (METHOD : SM (20) 2120 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

True, Color	**< 5.0**	Color Units	5.0	6/1/2007 10:30	VAS

HARDNESS, TOTAL (CACO3) (METHOD : SM (20) 2340 C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Hardness	**9.0**	mg/L	1.0	6/5/2007 8:00	VAS

MERCURY, TOTAL (METHOD : EPA 7470A)
Prep. Method: SW846 7470 Prep. Date: 6/5/2007 12:45:00 PM Prep Analyst EDP

Mercury	**< 0.00020**	mg/L	0.00020	6/7/2007 12:51	APS

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Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
METALS, TOTAL (METHOD : EPA 6010B)					
Prep. Method: EPA 3010A	Prep. Date: 6/6/2007 10:05:07 AM			Prep Analyst EDP	
note: Method Blank contained 0.0012 mg/L Silver.					
Arsenic	**< 0.020**	mg/L	0.020	6/7/2007 16:14	APS
Barium	**< 0.010**	mg/L	0.010	6/7/2007 16:14	APS
Cadmium	**< 0.00050**	mg/L	0.00050	6/7/2007 16:14	APS
Calcium	**0.62**	mg/L	0.50	6/7/2007 16:14	APS
Chromium	**< 0.0025**	mg/L	0.0025	6/7/2007 16:14	APS
Iron	**< 0.10**	mg/L	0.10	6/7/2007 16:14	APS
Lead	**< 0.010**	mg/L	0.010	6/7/2007 16:14	APS
Magnesium	**< 0.10**	mg/L	0.10	6/7/2007 16:14	APS
Potassium	**< 0.10**	mg/L	0.10	6/7/2007 16:14	APS
Selenium	**< 0.010**	mg/L	0.010	6/7/2007 16:14	APS
Silicon	**2.3**	mg/L	0.50	6/7/2007 16:14	APS
Silver	**0.0010**	mg/L	0.0010	6/7/2007 16:14	APS
Sodium	**1.5**	mg/L	1.0	6/7/2007 16:14	APS
NITROGEN, ORGANIC (N) (METHOD : CALCULATION)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Organic Nitrogen	**< 1.0**	mg/L	1.0	6/8/2007 14:30	PBK
AMMONIA (N) (METHOD : SM (20) 4500-NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Ammonia (N)	**< 1.0**	mg/L	1.0	6/8/2007 11:45	RED
NITRITE (N) (METHOD : SM (20) 4500-NO2 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrite	**< 0.0050**	mg/L	0.0050	6/1/2007 16:16	JCH
NITRATE (N) (METHOD : EPA 353.2)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrate	**< 0.050**	mg/L	0.050	6/7/2007 16:12	RED
ODOR, THRESHOLD (METHOD : EPA 140.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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CERTIFICATE OF ANALYSIS

EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Odor	**< 1.0**	TON	1.0	6/1/2007 11:00	VAS
PHOSPHORUS (P), TOTAL (METHOD : SM 18 4500 P B+E)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Phosphorus	**< 0.010**	mg/L	0.010	6/6/2007 13:30	LCR
PHOSPHORUS (P), ORTHO (METHOD : SM 18 4500 PE)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Orthophosphate	**< 0.010**	mg/L	0.010	6/1/2007 12:25	LCR
PH (METHOD : EPA 9040B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
note: pH sample received past holding time; analysis best performed at time of collection.					
pH	**7.4**	pH Units	1.0	6/7/2007 9:00	LCR
Temperature	**20.6**	°C	0.10	6/7/2007 9:00	LCR
SULFATE (SO4) (METHOD : EPA 9038)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Sulfate	**< 1.0**	mg/L	1.0	6/8/2007 12:26	LCR
TOTAL DISSOLVED SOLIDS (FILTERABLE SOLIDS @ 180°C) (METHOD : SM (20) 2540 C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Dissolved Solids	**< 10**	mg/L	10	6/4/2007 13:45	VAS
NITROGEN, TOTAL KJELDAHL (N) (METHOD : SM(20)4500NORG B, 4500NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen , Kjeldahl (N)	**< 1.0**	mg/L	1.0	6/6/2007 10:20	RED
TOTAL SUSPENDED SOLIDS (NON-FILTERABLE SOLIDS) (METHOD : SM (20) 2540 D)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Suspended Solids	**< 2.0**	mg/L	2.0	6/1/2007 10:55	VAS
TURBIDITY (NTU) (METHOD : EPA 180.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Turbidity	**< 0.10**	NTU	0.10	6/1/2007 7:45	VAS

Lab ID: **0706002-003** **Collection Date:** 5/31/2007 12:00:00 PM
Client Sample ID: OW-319B **Matrix:** GROUNDWATER

BICARBONATES (AS CACO3) (METHOD : SM 18 2320 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Bicarbonates	**190**	mg/L	2.0	6/5/2007 7:00	VAS

BOD (BIOCHEMICAL OXYGEN DEMAND) (METHOD : SM (20) 5210 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

BOD	**< 3.0**	mg/L	3.0	6/1/2007 10:49	LCR

CHLORIDE (TITRIMETRIC, MERCURIC NITRATE) (METHOD : SM (20) 4500CL C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Chloride	**10**	mg/L	1.0	6/8/2007 8:20	LCR

COD (CHEMICAL OXYGEN DEMAND) (METHOD : EPA 410.4)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

COD	**26**	mg/L	10	6/5/2007 8:27	LCR

COLOR, TRUE (METHOD : SM (20) 2120 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

True, Color	**5.0**	Color Units	5.0	6/1/2007 10:30	VAS

HARDNESS, TOTAL (CACO3) (METHOD : SM (20) 2340 C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Hardness	**300**	mg/L	5.0	6/5/2007 8:00	VAS

MERCURY, TOTAL (METHOD : EPA 7470A)
Prep. Method: SW846 7470 Prep. Date: 6/5/2007 12:45:00 PM Prep Analyst EDP

Mercury	**< 0.00020**	mg/L	0.00020	6/7/2007 12:53	APS

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Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
METALS, TOTAL (METHOD : EPA 6010B)					
Prep. Method: EPA 3010A	Prep. Date: 6/6/2007 10:05:07 AM			Prep Analyst EDP	
Arsenic	**< 0.020**	mg/L	0.020	6/7/2007 16:18	APS
Barium	**0.044**	mg/L	0.010	6/7/2007 16:18	APS
Cadmium	**< 0.00050**	mg/L	0.00050	6/7/2007 16:18	APS
Calcium	**85**	mg/L	0.50	6/7/2007 16:18	APS
Chromium	**0.0031**	mg/L	0.0025	6/7/2007 16:18	APS
Iron	**8.0**	mg/L	0.10	6/7/2007 16:18	APS
Lead	**< 0.010**	mg/L	0.010	6/7/2007 16:18	APS
Magnesium	**3.1**	mg/L	0.10	6/7/2007 16:18	APS
Potassium	**2.4**	mg/L	0.10	6/7/2007 16:18	APS
Selenium	**< 0.010**	mg/L	0.010	6/7/2007 16:18	APS
Silicon	**16**	mg/L	0.50	6/7/2007 16:18	APS
Silver	**< 0.0010**	mg/L	0.0010	6/7/2007 16:18	APS
Sodium	**9.9**	mg/L	1.0	6/7/2007 16:18	APS
NITROGEN, ORGANIC (N) (METHOD : CALCULATION)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Organic Nitrogen	**< 1.0**	mg/L	1.0	6/8/2007 14:30	PBK
AMMONIA (N) (METHOD : SM (20) 4500-NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Ammonia (N)	**< 1.0**	mg/L	1.0	6/8/2007 11:45	RED
NITRITE (N) (METHOD : SM (20) 4500-NO2 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrite	**< 0.0050**	mg/L	0.0050	6/1/2007 16:16	JCH
NITRATE (N) (METHOD : EPA 353.2)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrate	**< 0.050**	mg/L	0.050	6/7/2007 16:12	RED
ODOR, THRESHOLD (METHOD : EPA 140.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Odor	**8.0**	TON	1.0	6/1/2007 11:00	VAS
PHOSPHORUS (P), TOTAL (METHOD : SM 18 4500 P B+E)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Phosphorus	**0.081**	mg/L	0.010	6/6/2007 13:30	LCR
PHOSPHORUS (P), ORTHO (METHOD : SM 18 4500 PE)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Orthophosphate	**< 0.010**	mg/L	0.010	6/1/2007 12:25	LCR
PH (METHOD : EPA 9040B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
note: pH sample received past holding time; analysis best performed at time of collection.					
pH	**6.9**	pH Units	1.0	6/7/2007 9:00	LCR
Temperature	**19.4**	°C	0.10	6/7/2007 9:00	LCR
SULFATE (SO4) (METHOD : EPA 9038)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Sulfate	**20**	mg/L	1.0	6/8/2007 12:26	LCR
TOTAL DISSOLVED SOLIDS (FILTERABLE SOLIDS @ 180°C) (METHOD : SM (20) 2540 C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Dissolved Solids	**230**	mg/L	10	6/4/2007 13:45	VAS
NITROGEN, TOTAL KJELDAHL (N) (METHOD : SM(20)4500NORG B, 4500NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen , Kjeldahl (N)	**< 1.0**	mg/L	1.0	6/6/2007 10:20	RED
TOTAL SUSPENDED SOLIDS (NON-FILTERABLE SOLIDS) (METHOD : SM (20) 2540 D)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Suspended Solids	**50**	mg/L	10	6/1/2007 10:55	VAS
TURBIDITY (NTU) (METHOD : EPA 180.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Turbidity	**49**	NTU	5.0	6/1/2007 7:45	VAS

Lab ID: **0706002-004** **Collection Date:** 5/31/2007 1:15:00 PM
Client Sample ID: OW-319A **Matrix:** GROUNDWATER

BICARBONATES (AS CACO3) (METHOD : SM 18 2320 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Bicarbonates	**28**	mg/L	1.0	6/5/2007 7:00	VAS

BOD (BIOCHEMICAL OXYGEN DEMAND) (METHOD : SM (20) 5210 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

BOD	**< 3.0**	mg/L	3.0	6/1/2007 10:45	LCR

CHLORIDE (TITRIMETRIC, MERCURIC NITRATE) (METHOD : SM (20) 4500CL C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Chloride	**10**	mg/L	1.0	6/8/2007 8:20	LCR

COD (CHEMICAL OXYGEN DEMAND) (METHOD : EPA 410.4)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

COD	**24**	mg/L	10	6/5/2007 8:27	LCR

COLOR, TRUE (METHOD : SM (20) 2120 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

True, Color	**10**	Color Units	5.0	6/1/2007 10:30	VAS

HARDNESS, TOTAL (CACO3) (METHOD : SM (20) 2340 C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Hardness	**190**	mg/L	5.0	6/5/2007 8:00	VAS

MERCURY, TOTAL (METHOD : EPA 7470A)
Prep. Method: SW846 7470 Prep. Date: 6/5/2007 12:45:00 PM Prep Analyst EDP

Mercury	**< 0.00020**	mg/L	0.00020	6/7/2007 12:56	APS

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Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
METALS, TOTAL (METHOD : EPA 6010B)					
Prep. Method: EPA 3010A	Prep. Date: 6/6/2007 10:05:07 AM			Prep Analyst EDP	
note: Method Blank contained 0.0012 mg/L Silver.					
Arsenic	**< 0.020**	mg/L	0.020	6/7/2007 16:22	APS
Barium	**0.055**	mg/L	0.010	6/7/2007 16:22	APS
Cadmium	**< 0.00050**	mg/L	0.00050	6/7/2007 16:22	APS
Calcium	**9.2**	mg/L	0.50	6/7/2007 16:22	APS
Chromium	**0.025**	mg/L	0.0025	6/7/2007 16:22	APS
Iron	**23**	mg/L	0.10	6/7/2007 16:22	APS
Lead	**< 0.010**	mg/L	0.010	6/7/2007 16:22	APS
Magnesium	**3.2**	mg/L	0.10	6/7/2007 16:22	APS
Potassium	**3.7**	mg/L	0.10	6/7/2007 16:22	APS
Selenium	**< 0.010**	mg/L	0.010	6/7/2007 16:22	APS
Silicon	**13**	mg/L	0.50	6/7/2007 16:22	APS
Silver	**0.0012**	mg/L	0.0010	6/7/2007 16:22	APS
Sodium	**8.3**	mg/L	1.0	6/7/2007 16:22	APS
NITROGEN, ORGANIC (N) (METHOD : CALCULATION)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Organic Nitrogen	**< 1.0**	mg/L	1.0	6/8/2007 14:30	PBK
AMMONIA (N) (METHOD : SM (20) 4500-NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Ammonia (N)	**< 1.0**	mg/L	1.0	6/8/2007 11:45	RED
NITRITE (N) (METHOD : SM (20) 4500-NO2 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrite	**< 0.0050**	mg/L	0.0050	6/1/2007 16:16	JCH
NITRATE (N) (METHOD : EPA 353.2)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrate	**2.9**	mg/L	0.050	6/7/2007 16:12	RED
ODOR, THRESHOLD (METHOD : EPA 140.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Odor	**16**	TON	1.0	6/1/2007 11:00	VAS
PHOSPHORUS (P), TOTAL (METHOD : SM 18 4500 P B+E)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Phosphorus	**0.064**	mg/L	0.010	6/6/2007 13:30	LCR
PHOSPHORUS (P), ORTHO (METHOD : SM 18 4500 PE)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Orthophosphate	**< 0.010**	mg/L	0.010	6/1/2007 12:25	LCR
PH (METHOD : EPA 9040B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
note: pH sample received past holding time; analysis best performed at time of collection.					
pH	**5.9**	pH Units	1.0	6/7/2007 9:00	LCR
Temperature	**20.2**	°C	0.10	6/7/2007 9:00	LCR
SULFATE (SO4) (METHOD : EPA 9038)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Sulfate	**20**	mg/L	1.0	6/8/2007 12:26	LCR
TOTAL DISSOLVED SOLIDS (FILTERABLE SOLIDS @ 180°C) (METHOD : SM (20) 2540 C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Dissolved Solids	**110**	mg/L	10	6/4/2007 13:45	VAS
NITROGEN, TOTAL KJELDAHL (N) (METHOD : SM(20)4500NORG B, 4500NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen , Kjeldahl (N)	**< 1.0**	mg/L	1.0	6/6/2007 10:20	RED
TOTAL SUSPENDED SOLIDS (NON-FILTERABLE SOLIDS) (METHOD : SM (20) 2540 D)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Suspended Solids	**210**	mg/L	10	6/1/2007 10:55	VAS
TURBIDITY (NTU) (METHOD : EPA 180.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Turbidity	**60**	NTU	5.0	6/1/2007 7:45	VAS

Lab ID: **0706002-005** **Collection Date:** 5/31/2007
Client Sample ID: OW-Dup **Matrix:** GROUNDWATER

BICARBONATES (AS CACO3) (METHOD : SM 18 2320 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Bicarbonates	**180**	mg/L	2.0	6/5/2007 7:00	VAS

BOD (BIOCHEMICAL OXYGEN DEMAND) (METHOD : SM (20) 5210 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

BOD	**< 3.0**	mg/L	3.0	6/1/2007 10:50	LCR

CHLORIDE (TITRIMETRIC, MERCURIC NITRATE) (METHOD : SM (20) 4500CL C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Chloride	**12**	mg/L	1.0	6/8/2007 8:20	LCR

COD (CHEMICAL OXYGEN DEMAND) (METHOD : EPA 410.4)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

COD	**28**	mg/L	10	6/5/2007 8:27	LCR

COLOR, TRUE (METHOD : SM (20) 2120 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

True, Color	**5.0**	Color Units	5.0	6/1/2007 10:30	VAS

HARDNESS, TOTAL (CACO3) (METHOD : SM (20) 2340 C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Hardness	**300**	mg/L	5.0	6/5/2007 8:00	VAS

MERCURY, TOTAL (METHOD : EPA 7470A)
Prep. Method: SW846 7470 Prep. Date: 6/5/2007 12:45:00 PM Prep Analyst EDP

Mercury	**< 0.00020**	mg/L	0.00020	6/7/2007 12:58	APS

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Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
METALS, TOTAL (METHOD : EPA 6010B)					
Prep. Method: EPA 3010A	Prep. Date: 6/6/2007 10:05:07 AM			Prep Analyst EDP	
Arsenic	**< 0.020**	mg/L	0.020	6/7/2007 16:26	APS
Barium	**0.044**	mg/L	0.010	6/7/2007 16:26	APS
Cadmium	**< 0.00050**	mg/L	0.00050	6/7/2007 16:26	APS
Calcium	**85**	mg/L	0.50	6/7/2007 16:26	APS
Chromium	**0.0030**	mg/L	0.0025	6/7/2007 16:26	APS
Iron	**8.0**	mg/L	0.10	6/7/2007 16:26	APS
Lead	**< 0.010**	mg/L	0.010	6/7/2007 16:26	APS
Magnesium	**3.1**	mg/L	0.10	6/7/2007 16:26	APS
Potassium	**2.4**	mg/L	0.10	6/7/2007 16:26	APS
Selenium	**< 0.010**	mg/L	0.010	6/7/2007 16:26	APS
Silicon	**16**	mg/L	0.50	6/7/2007 16:26	APS
Silver	**< 0.0010**	mg/L	0.0010	6/7/2007 16:26	APS
Sodium	**9.8**	mg/L	1.0	6/7/2007 16:26	APS
NITROGEN, ORGANIC (N) (METHOD : CALCULATION)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Organic Nitrogen	**< 1.0**	mg/L	1.0	6/8/2007 14:30	PBK
AMMONIA (N) (METHOD : SM (20) 4500-NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Ammonia (N)	**< 1.0**	mg/L	1.0	6/8/2007 11:45	RED
NITRITE (N) (METHOD : SM (20) 4500-NO2 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrite	**< 0.0050**	mg/L	0.0050	6/1/2007 16:16	JCH
NITRATE (N) (METHOD : EPA 353.2)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrate	**< 0.050**	mg/L	0.050	6/7/2007 16:12	RED
ODOR, THRESHOLD (METHOD : EPA 140.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

Microbac Laboratories, Inc.

Baltimore Division

2101 Van Deman Street · Baltimore, MD 21224

Phone: 410-633-1800
Fax: 410-633-6553
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CERTIFICATE OF ANALYSIS

EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Odor	**16**	TON	1.0	6/1/2007 11:00	VAS
PHOSPHORUS (P), TOTAL (METHOD : SM 18 4500 P B+E)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Phosphorus	**0.034**	mg/L	0.010	6/6/2007 13:30	LCR
PHOSPHORUS (P), ORTHO (METHOD : SM 18 4500 PE)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Orthophosphate	**< 0.010**	mg/L	0.010	6/1/2007 12:25	LCR
PH (METHOD : EPA 9040B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
note: pH sample received past holding time; analysis best performed at time of collection.					
pH	**6.9**	pH Units	1.0	6/7/2007 9:00	LCR
Temperature	**19.6**	°C	0.10	6/7/2007 9:00	LCR
SULFATE (SO4) (METHOD : EPA 9038)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Sulfate	**22**	mg/L	1.0	6/8/2007 12:26	LCR
TOTAL DISSOLVED SOLIDS (FILTERABLE SOLIDS @ 180°C) (METHOD : SM (20) 2540 C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Dissolved Solids	**310**	mg/L	10	6/4/2007 13:45	VAS
NITROGEN, TOTAL KJELDAHL (N) (METHOD : SM(20)4500NORG B, 4500NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen , Kjeldahl (N)	**< 1.0**	mg/L	1.0	6/6/2007 10:20	RED
TOTAL SUSPENDED SOLIDS (NON-FILTERABLE SOLIDS) (METHOD : SM (20) 2540 D)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Suspended Solids	**43**	mg/L	10	6/1/2007 10:55	VAS
TURBIDITY (NTU) (METHOD : EPA 180.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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CERTIFICATE OF ANALYSIS

EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Turbidity	**37**	NTU	1.0	6/1/2007 7:45	VAS

Lab ID: **0706002-006** **Collection Date:** 5/31/2007 12:30:00 PM
Client Sample ID: OW-Raw Effluent #2 **Matrix:** GROUNDWATER

BICARBONATES (AS CACO3) (METHOD : SM 18 2320 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Bicarbonates	**96**	mg/L	2.0	6/5/2007 7:00	VAS

BOD (BIOCHEMICAL OXYGEN DEMAND) (METHOD : SM (20) 5210 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

BOD	**< 2.0**	mg/L	2.0	6/1/2007 10:39	LCR

CHLORIDE (TITRIMETRIC, MERCURIC NITRATE) (METHOD : SM (20) 4500CL C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Chloride	**2.0**	mg/L	1.0	6/8/2007 8:20	LCR

COD (CHEMICAL OXYGEN DEMAND) (METHOD : EPA 410.4)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

COD	**26**	mg/L	10	6/5/2007 8:27	LCR

COLOR, TRUE (METHOD : SM (20) 2120 B)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

True, Color	**< 5.0**	Color Units	5.0	6/1/2007 10:30	VAS

HARDNESS, TOTAL (CACO3) (METHOD : SM (20) 2340 C)
Prep. Method: NA Prep. Date: NA Prep Analyst NA

Hardness	**120**	mg/L	5.0	6/5/2007 8:00	VAS

MERCURY, TOTAL (METHOD : EPA 7470A)
Prep. Method: SW846 7470 Prep. Date: 6/5/2007 12:45:00 PM Prep Analyst EDP

Mercury	**< 0.00020**	mg/L	0.00020	6/7/2007 13:00	APS

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CERTIFICATE OF ANALYSIS

EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
METALS, TOTAL (METHOD : EPA 6010B)					
Prep. Method: EPA 3010A	Prep. Date: 6/6/2007 10:05:07 AM			Prep Analyst EDP	
note: Method Blank contained 0.0012 mg/L Silver.					
Arsenic	**< 0.020**	mg/L	0.020	6/7/2007 16:30	APS
Barium	**0.025**	mg/L	0.010	6/7/2007 16:30	APS
Cadmium	**< 0.00050**	mg/L	0.00050	6/7/2007 16:30	APS
Calcium	**7.0**	mg/L	0.50	6/7/2007 16:30	APS
Chromium	**< 0.0025**	mg/L	0.0025	6/7/2007 16:30	APS
Iron	**3.2**	mg/L	0.10	6/7/2007 16:30	APS
Lead	**< 0.010**	mg/L	0.010	6/7/2007 16:30	APS
Magnesium	**2.3**	mg/L	0.10	6/7/2007 16:30	APS
Potassium	**10**	mg/L	0.10	6/7/2007 16:30	APS
Selenium	**< 0.010**	mg/L	0.010	6/7/2007 16:30	APS
Silicon	**5.3**	mg/L	0.50	6/7/2007 16:30	APS
Silver	**0.0012**	mg/L	0.0010	6/7/2007 16:30	APS
Sodium	**29**	mg/L	1.0	6/7/2007 16:30	APS
NITROGEN, ORGANIC (N) (METHOD : CALCULATION)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Organic Nitrogen	**< 1.0**	mg/L	1.0	6/8/2007 14:30	PBK
AMMONIA (N) (METHOD : SM (20) 4500-NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Ammonia (N)	**< 1.0**	mg/L	1.0	6/8/2007 11:45	RED
NITRITE (N) (METHOD : SM (20) 4500-NO2 B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrite	**< 0.0050**	mg/L	0.0050	6/1/2007 16:16	JCH
NITRATE (N) (METHOD : EPA 353.2)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen, Nitrate	**< 0.050**	mg/L	0.050	6/7/2007 16:12	RED
ODOR, THRESHOLD (METHOD : EPA 140.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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Baltimore Division

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CERTIFICATE OF ANALYSIS

EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002
Date Received: 6/1/2007
Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Odor	**< 1.0**	TON	1.0	6/1/2007 11:00	VAS
PHOSPHORUS (P), TOTAL (METHOD : SM 18 4500 P B+E)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Phosphorus	**0.041**	mg/L	0.010	6/6/2007 13:30	LCR
PHOSPHORUS (P), ORTHO (METHOD : SM 18 4500 PE)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Orthophosphate	**0.010**	mg/L	0.010	6/1/2007 12:25	LCR
PH (METHOD : EPA 9040B)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
note: pH sample received past holding time; analysis best performed at time of collection.					
pH	**7.2**	pH Units	1.0	6/7/2007 9:00	LCR
Temperature	**19.8**	°C	0.10	6/7/2007 9:00	LCR
SULFATE (SO4) (METHOD : EPA 9038)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Sulfate	**7.5**	mg/L	1.0	6/8/2007 12:26	LCR
TOTAL DISSOLVED SOLIDS (FILTERABLE SOLIDS @ 180°C) (METHOD : SM (20) 2540 C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Dissolved Solids	**210**	mg/L	10	6/4/2007 13:45	VAS
NITROGEN, TOTAL KJELDAHL (N) (METHOD : SM(20)4500NORG B, 4500NH3 B+C)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Nitrogen , Kjeldahl (N)	**< 1.0**	mg/L	1.0	6/6/2007 10:20	RED
TOTAL SUSPENDED SOLIDS (NON-FILTERABLE SOLIDS) (METHOD : SM (20) 2540 D)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	
Total Suspended Solids	**12**	mg/L	5.0	6/1/2007 10:55	VAS
TURBIDITY (NTU) (METHOD : EPA 180.1)					
Prep. Method: NA	Prep. Date: NA			Prep Analyst NA	

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CERTIFICATE OF ANALYSIS

EA Engineering
15 Loveton Circle

Sparks, MD 21152

Attn: Gordy Porter

Report No: 0706002

Date Received: 6/1/2007

Date Reported: 6/20/2007

Project: Unistar-Calvert Cliffs

Test	Result	Units	Reporting Limit	Date/Time of Analysis	Analyst
Turbidity	**4.1**	NTU	0.10	6/1/2007 7:45	VAS

Final report reviewed by:

Michael D. Arbaugh, Sr./Division Manager

All samples received in proper condition and results conform to ISO 17025 standards unless otherwise noted.

If we have not met or exceeded your expectations, please contact the Director or Trevor Boyce, President at tboyce@microbac.com or Robert Morgan, Chief Operation Officer, at rmorgan@microbac.com

Microbac Laboratories, Inc. Gascoyne Division- laboratory accreditations: MD 109, VA 00152, NJ MD637, PA 68-339, NY 11158, ISO 17025, NELAC, AIHA 100491. The data and information on this, and other accompanying documents, represents only the sample(s) analyzed and is not to be reproduced wholly or in part for advertising or other purposes without written approval from the laboratory. Organics Qualifiers: (U) analyzed for but not detected; (J) estimated value, below the reporting limit but above one-half the reporting limit; (B) detected in the associated method blank; (D) reanalyzed at a higher dilution factor. Inorganics Qualifiers: (U) analyzed for but not detected; (B) estimated value, below the reporting limit but above one-half the reporting limit. A copy of COC is attached.

Microbac

Baltimore Division
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Sample Submittal
Chain of Custody Record

Work Order Number: 0706002

Page 1 of 1

Client Name EA Engineering	**Project** Unistar	**Turnaround Time (Required)**	**QC and EDD Type (Required)**
Address 15 Loveton Circle	**Location** Calvert Cliffs	[ ] Routine (10 working days)	[ ] Level I / [ ] EDD
City, State, Zip Sparks, MD 21152	**PO #**	[X] RUSH* (notify lab)	[ ] Level II / Format:
Contact Gordy Parker	Compliance Monitoring? [ ] Yes [ ] No	5 day TAT (needed by)	[ ] Level III / Comments:
Telephone # 410-771-4950	(1)Agency/Program		[ ] Level IV CLP-like

Sampled by (PRINT) E. Meadows & A. Burce **Sampler Signature** Eddie Meadows **Sampler Phone #**

Send Report via [ ] e-mail (address) [ ] Mail [ ] Telephone [ ] Fax (fax #)

* **Matrix Types:** Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

Requested Analysis

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	BOD/TDS/TSS	NH3/A/NO3/COD/TKN/O&G/N	Metals (Arsenic/Hg)	Chloride/Sulfate/pH/True Color	Bicarbonates	Odor	NO2/Hardness/Turbidity/Oil & Grease			Comments
✓OW-752A	GW	X			5/31/07	10:00	7	X	X	X	X	X	X	X			
✓OW-Rinse Blank						10:45	6	X	X	X	X	X	X	X			
OW-319B						12:00		X	X	X	X	X	X	X			
OW-319A						13:15		X	X	X	X	X	X	X			
✓OW-DUP						—		X	X	X	X	X	X	X			
✓OW-Raw effluent #2						12:30		X	X	X	X	X	X	X			

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive **Sample Disposition** [ ] Dispose as appropriate [ ] Return [ ] Archive

Number of Containers: 42	**Relinquished By (signature)** Eddie Meadows	**Printed Name/Affiliation** Eddie Meadows EA Eng	**Date/Time** 5/31/07	**Received By (signature)** Tommy Hartung	**Printed Name/Affiliation** MLI 6/1/07 8:30
Cooler Number: 7010/581	**Relinquished By (signature)** Tommy Hartung	**Printed Name/Affiliation**	**Date/Time** 6/1/07 9:20	**Received By (signature)** [illegible]	**Printed Name/Affiliation** MLI
Temp upon receipt(°C): 8.1/6.1/5.1	**Relinquished By (signature)**	**Printed Name/Affiliation**	**Date/Time**	**Received for Lab By (signature)**	**Printed Name/Affiliation**
Sample Received on Ice or Refrigerated from Client: (Yes) / No					

Microbac Laboratories, Inc.
Baltimore Division

2101 Van Deman Street
Baltimore, Maryland 21224
(410)633-1800

Terms and Conditions

Reporting Limit - is defined by Microbac Laboratories, Inc., Baltimore Division as the Estimated Quantitation Limit (EQL) and is the lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. It is dependent upon many factors such as sample matrix (other substances present), sensitivity of test method and sensitivity of instrumentation. The reporting limit therefore varies from sample to sample. The use of the term "Reporting Limit" by Microbac Laboratories, Inc., Baltimore Division meets the US EPA's definition of Estimated Quantitation Limit (EQL) found in SW846, Third Edition, Chapter One. The term "Reporting Limit" may not be applicable to all tests.

Units

% - Percent
% Rec - percent recovery
wt% - weight percent
dwb - dry weight basis
% retained - percent retained
L/min - liters per minute
mg LAS/L - mg/L as Linear AlkylSulfonate
M^3 - cubic meters
NA - not applicable
ppb - part per billion (ug/liter or ug/kg)
ppm - part per million (mg/liter or mg/kg)
ug - micrograms
ug/M^3 - micrograms per cubic meter
ug/area - micrograms per area wiped
ug/ft^2 - micrograms per square foot
umhos/cm - micromhos per centimeter
mmhos/cm - millimhos per centimeter
°C - degrees Centigrade (Celsius)
°F - degrees Fahrenheit
< - less than

mv - millivolts
LEL - Lower Explore Limit
wl - water leachate
NTU - Nephelometric Turbidity Units
MPN - Most Probable Number
MPN/g dwb - Most Probable Number per gram on a dry weight basis
mgHCN/kg - mg/kg as Hydrogen Cyanide
TON - Threshold Odor Number
abs/cm - absorbance units per centimeter
cfu/ml- colony forming units per milliliter
cst - centistokes
g/cc - grams per cubic centimeter
gals/day - gallons per day
gals/min - gallons per minute
lb/gal - pounds per gallon
mg -milligrams
mg/M^3 - milligrams per cubic meter
mg/L TC - milligrams per liter (ppm) of TCLP extract
BTU/lb (gal) - British Thermal Units per pound (gallon)
> - greater than

To convert ppm to ppb, multiply by 1,000 To convert % to ppm, multiply by 10,000

Report No. Suffix

Revised - revision to original report

Duplicate - duplicate report

Interpretation of Report

The results included in this report indicate the findings of this laboratory for the test conducted. **Absence of a test result should not be interpreted or implied as indicating the absence of the substance.** If the report does not contain a result for a test that you requested, please contact us immediately.

Sample Retention

Samples are retained for three weeks after testing. If longer retention is required, please request. We reserve the right to return samples to our clients. Samples placed "on Hold" for analysis will be retained for six weeks prior to disposal.

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X:/word/terms/2007

Environmental Testing Lab Inc.

108 Old Solomons Island Rd
Annapolis, MD 21401

State Certified Water Quality Laboratory # 106

3430 Rockefeller Ct
Waldorf, MD 20602

State Certified Water Quality Laboratory # 139

REPORT OF ANALYSIS

June 07, 2007

Gordy Porter
EA Engineering
15 Loveton Circle
Sparks, MD 21152

Lab Number: 71227
Date Received: 5/31/07 15:30
Project: Unistar Calvert Cliffs

Sample No: 71227-01 Sampled: 5/31/2007 10:00:00 A Sample Type: Grab
Client ID: OW-752A Sampler: Eddie Meadows & A. Burce Preservation: Cool, 4 °C

Parameter	Method	Result	Units	MDL	Test Date	Analyst
Enterococci	ASTM D6503-	< 1	MPN/100ml	< 1	5/31/2007	PM
Total Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM
Fecal Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM

Sample No: 71227-02 Sampled: 5/31/2007 10:45:00 A Sample Type: Grab
Client ID: OW Rinse Blank Sampler: Eddie Meadows & A. Burce Preservation: Cool, 4 °C

Parameter	Method	Result	Units	MDL	Test Date	Analyst
Enterococci	ASTM D6503-	<< 1	MPN/100ml	< 1	5/31/2007	PM
Total Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM
Fecal Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM

Sample No: 71227-03 Sampled: 5/31/2007 12:00:00 PM Sample Type: Grab
Client ID: OW 319-B Sampler: Eddie Meadows & A. Burce Preservation: Cool, 4 °C

Parameter	Method	Result	Units	MDL	Test Date	Analyst
Enterococci	ASTM D6503-	2.0	MPN/100ml	< 1	5/31/2007	PM
Total Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM
Fecal Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM

Sample No: 71227-04 Sampled: 5/31/2007 12:00:00 PM Sample Type: Grab
Client ID: OW 319-A Sampler: Eddie Meadows & A. Burce Preservation: Cool, 4 °C

Parameter	Method	Result	Units	MDL	Test Date	Analyst
Enterococci	ASTM D6503-	410.6	MPN/100ml	< 1	5/31/2007	PM
Total Coliform Bacteria	SM 9223 B	17.1	Per/100ml	1	5/31/2007	PM
Fecal Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM

Annapolis
Ph 410-224-4304 Fax 410-224-4307

Waldorf
Ph 301-932-4775 Fax 301-932-7347

Environmental Testing Lab Inc.

108 Old Solomons Island Rd
Annapolis, MD 21401

State Certified Water Quality Laboratory # 106

3430 Rockefeller Ct
Waldorf, MD 20602

State Certified Water Quality Laboratory # 139

REPORT OF ANALYSIS

Lab Number: 71227
Date Received: 5/31/07 15:30

Sample No: 71227-05 Sampled: 5/31/2007 Sample Type: Grab
Client ID: OW Dup Sampler: Eddie Meadows & A. Burce Preservation: Cool, 4 °C

Parameter	Method	Result	Units	MDL	Test Date	Analyst
Enterococci	ASTM D6503-	<< 1	MPN/100ml	< 1	5/31/2007	PM
Total Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM
Fecal Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM

Sample No: 71227-06 Sampled: 5/31/2007 12:30:00 PM Sample Type: Grab
Client ID: OW Raw Effluent #2 Sampler: Eddie Meadows & A. Burce Preservation: Cool, 4 °C

Parameter	Method	Result	Units	MDL	Test Date	Analyst
Enterococci	ASTM D6503-	387.3	MPN/100ml	< 1	5/31/2007	PM
Total Coliform Bacteria	SM 9223 B	1299.7	Per/100ml	1	5/31/2007	PM
Fecal Coliform Bacteria	SM 9223 B	< 1	Per/100ml	1	5/31/2007	PM

Reviewed and Approved by:

Daniel J. Brumsted
Laboratory Director

Annapolis
Ph 410-224-4304 Fax 410-224-4307

Waldorf
Ph 301-932-4775 Fax 301-932-7347

Microbac

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Sample Submittal
Chain of Custody Record

410.771.4204 fax

Work Order Number: 71227

Page 1 of 1

Client Name EA Engineering	**Project** Unistar	**Turnaround Time (Required)**	**QC and EDD Type (Required)**
Address 15 Loveton Circle	**Location** Calvert Cliffs	[ ] Routine (10 working days)	[ ] Level I / [ ] EDD
City, State, Zip Sparks, MD 21152	**PO #**	[X] RUSH* (notify lab)	[ ] Level II / Format:
Contact Gordy Porter	Compliance Monitoring? [ ] Yes [ ] No	5 day TAT (needed by)	[ ] Level III / Comments:
Telephone # 410-771-4950	(1)Agency/Program		[ ] Level IV CLP-like

Sampled by (PRINT) E. Meadows & A. Burce **Sampler Signature** Eddie Meadows **Sampler Phone #**

Send Report via [ ] e-mail (address) [ ] Mail [ ] Telephone [ ] Fax (fax #)

* **Matrix Types:** Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Total Coliform	Fecal Coliform	Fecal Enterococcus							Comments
OW-752A	GW	X			5/31/07	10:00	3	X	X	X							1
OW-Rinse Blank						10:45		X	X	X							2
OW-319B						12:00		X	X	X							3
OW-319A						13:15		X	X	X							4
OW-DUP						—		X	X	X							5
OW-Raw effluent #2						12:30		X	X	X							6

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive **Sample Disposition** [ ] Dispose as appropriate [ ] Return [ ] Archive

Number of Containers:	**Relinquished By (signature)** Eddie Meadows	**Printed Name/Affiliation** Eddie Meadows EA Eng	**Date/Time** 5/31/07	**Received By (signature)**	**Printed Name/Affiliation**
Cooler Number: **Temp upon receipt(°C):**	**Relinquished By (signature)**	**Printed Name/Affiliation**	**Date/Time**	**Received By (signature)**	**Printed Name/Affiliation**
Sample Received on Ice or Refrigerated from Client: Yes / No	**Relinquished By (signature)**	**Printed Name/Affiliation**	**Date/Time**	**Received for Lab By (signature)**	**Printed Name/Affiliation**

5/31 1530

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-752A		
Lab Sample ID:	J62606-1	**Date Sampled:**	05/31/07
Matrix:	AQ - Ground Water	**Date Received:**	06/01/07
		Percent Solids:	n/a
Project:	Unistar/Calvert Cliffs, MD		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	5.0 U	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D
Alkalinity, Total as CaCO3	2.2 U	5.0	2.2	mg/l	1	06/02/07	LE	EPA 310.1

(a) Results calculated using field pH taken at time of sampling and alkalinity titrations done on 6/2/07. Sample composition may affect the accuracy of the calculated value.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-RINSE BLANK		
Lab Sample ID:	J62606-2	**Date Sampled:**	05/31/07
Matrix:	AQ - Equipment Blank	**Date Received:**	06/01/07
		Percent Solids:	n/a
Project:	Unistar/Calvert Cliffs, MD		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	5.0 U	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D
Alkalinity, Total as CaCO3	2.2 U	5.0	2.2	mg/l	1	06/02/07	LE	EPA 310.1
Carbon Dioxide [a]	5.0 U	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D

(a) Results calculated using field pH taken at time of sampling and alkalinity titrations done on 6/2/07. Sample composition may affect the accuracy of the calculated value.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-319B		
Lab Sample ID:	J62606-3	**Date Sampled:**	05/31/07
Matrix:	AQ - Ground Water	**Date Received:**	06/01/07
		Percent Solids:	n/a
Project:	Unistar/Calvert Cliffs, MD		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	190	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D
Alkalinity, Total as CaCO3	190	5.0	2.2	mg/l	1	06/02/07	LE	EPA 310.1
Carbon Dioxide [a]	21.3	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D

(a) Results calculated using field pH taken at time of sampling and alkalinity titrations done on 6/2/07. Sample composition may affect the accuracy of the calculated value.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-319A		
Lab Sample ID:	J62606-4	**Date Sampled:**	05/31/07
Matrix:	AQ - Ground Water	**Date Received:**	06/01/07
		Percent Solids:	n/a
Project:	Unistar/Calvert Cliffs, MD		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	24.6	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D
Alkalinity, Total as CaCO3	24.6	5.0	2.2	mg/l	1	06/02/07	LE	EPA 310.1
Carbon Dioxide [a]	85.4	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D

(a) Results calculated using field pH taken at time of sampling and alkalinity titrations done on 6/2/07. Sample composition may affect the accuracy of the calculated value.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-DUP		
Lab Sample ID:	J62606-5	**Date Sampled:**	05/31/07
Matrix:	AQ - Ground Water	**Date Received:**	06/01/07
		Percent Solids:	n/a
Project:	Unistar/Calvert Cliffs, MD		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	187	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D
Alkalinity, Total as CaCO3	187	5.0	2.2	mg/l	1	06/02/07	LE	EPA 310.1
Carbon Dioxide [a]	21.0	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D

(a) Results calculated using field pH taken at time of sampling and alkalinity titrations done on 6/2/07. Sample composition may affect the accuracy of the calculated value.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-RAW EFFLUENT #2		
Lab Sample ID:	J62606-6	**Date Sampled:**	05/31/07
Matrix:	AQ - Effluent	**Date Received:**	06/01/07
		Percent Solids:	n/a
Project:	Unistar/Calvert Cliffs, MD		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	101	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D
Alkalinity, Total as CaCO3	101	5.0	2.2	mg/l	1	06/05/07	LE	EPA 310.1
Carbon Dioxide [a]	20	5.0	5.0	mg/l	1	06/02/07	LE	SM18 4500CO2D

(a) Results calculated using field pH taken at time of sampling and alkalinity titrations done on 6/2/07. Sample composition may affect the accuracy of the calculated value.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL