

EXHIBIT I



August 11, 2015

Mr. Mark Domagala
New York State Department of Environmental Conservation - Region 8
Division of Solid and Hazardous Materials
6274 East Avon-Lima Road
Avon, New York 14414

RE: Hakes C&D, Painted Post N.Y.
Hakes C&D Landfill Permit No. 8-4630-00010/00001-0
2015 2nd Leachate Radionuclide Monitoring Results

Dear Mr. Domagala:

Enclosed please find a copy of the second quarter 2015 leachate radionuclide sampling and analysis report. This report is being submitted as required by the facility Environmental Monitoring Plan. Should you have any questions or require clarification of the enclosed data, please do not hesitate to contact me at 814-335-5183.

Sincerely,

CASELLA WASTE SERVICES

A handwritten signature in blue ink, appearing to read "Lance Stevens", is written over a faint, illegible stamp.

Lance Stevens
Environmental Manager

cc: Robert Kras, Casella
Jerry Leone, Casella
Jonathan Brandes, On-Site Technical Services
Yasmin Guevara, NYSDEC
Richard Clarkson, NYSDEC
Timothy Rice, NYSDEC

Enclosures



ON-SITE TECHNICAL SERVICES, INC

72 Railroad Avenue
Wellsville, New York 14895

Phone: (585) 593-1824
Fax: (585) 593-7471

August 11, 2015

Mr. Lance Stevens
Casella Waste Systems, Inc.
4376 Manning Ridge Road
Painted Post, New York 14870

Re: Hakes C & D Landfill Painted Post, New York – 2nd Quarter 2015 Leachate Radionuclide Test Results

Dear Lance:

On behalf of Hakes C & D Landfill, the purpose of this letter is to present results of the second quarter 2015 leachate radiological testing. Leachate sampling and analysis for radiological testing is required as detailed in section 2.6.3 of the March 2012 Environmental Monitoring Plan (EMP). The initial radiological sampling and analysis of each landfill cell and combined leachate was completed in May 2012. Therefore, the sampling required in the second quarter 2015 includes only landfill cells which contain gas well waste. Currently, the cells containing gas well waste includes Cells 5, 6, 7 and 8. Leachate from cell 7 drains through cell 4 and the constructed part of cell 8 flows through cell 3. Therefore, leachate samples were collected from Cells 3, 4, 5 and 6 on May 7, 2015 and sent to ALS Environmental in Rochester, New York. A laboratory results summary table that includes minimum detectible concentrations (MDC), field sampling forms and the laboratory analytical report are attached.

If you have any questions regarding the information in this report, please call me at 585-593-1824.

Sincerely,

A handwritten signature in blue ink that reads "Jonathan E. Brandes". The signature is written in a cursive, flowing style.

Jonathan E. Brandes, P.G.
Senior Geologist

Enclosures

Table 1

Second Quarter 2015 Leachate Radiological Analytical Results
Hakes C and D Landfill
Painted Post, New York
Act + Unc (MDC) pCi/L

Radionuclide	Cell 3 Leachate 5/7/2015	Cell 4 Leachate 5/7/2015	Cell 5 Leachate 5/7/2015	Cell 6 Leachate 5/7/2015
Actinium-228 (EPA 901.1)	0 ± 7.767 (24.95)	5.215 ± 30.714 (39.31)	1.083 ± 12.233 (13.83)	0 ± 17.356 (39.31)
Actinium-228, Dissolved (EPA 901.1)	3.133 ± 16.452 (17.65)	0 ± 4.640 (39.33)	0 ± 11.397 (27.86)	2.209 ± 26.309 (35.64)
Bismuth-212 (EPA 901.1)	59.801 ± 61.695 (65.04)	9.62 ± 100.500 (121)	31.826 ± 39.954 (44.13)	20.202 ± 88.761 (106.9)
Bismuth-212, Dissolved (EPA 901.1)	30.575 ± 41.997 (71.63)	30.809 ± 75.290 (90.19)	14.857 ± 82.718 (90.45)	21.182 ± 101.920 (121.1)
Bismuth-214 (EPA 901.1)	391.34 ± 48.673 (15.31)	0 ± 7.147 (26.3)	7.984 ± 12.612 (14.53)	17.718 ± 16.357 (20.19)
Bismuth-214, Dissolved (EPA 901.1)	0 ± 6.254 (13.48)	3.129 ± 18.181 (23.4)	512.4 ± 60.088 (16.65)	0 ± 9.455 (24.41)
Cesium-134 (EPA 901.1)	4.086 ± 5.209 (8.05)	0 ± 1.671 (11.7)	1.316 ± 4.284 (4.693)	3.922 ± 5.602 (6.314)
Cesium-134, Dissolved (EPA 901.1)	0 ± 1.159 (5.007)	-0.853 ± 8.882 (10.27)	0 ± 2.735 (8.447)	0 ± 2.159 (9.734)
Cesium-137 (EPA 901.1)	0 ± 1.553 (7.209)	0 ± 1.997 (11.62)	0.228 ± 4.257 (4.759)	0 ± 4.314 (10.22)
Cesium-137, Dissolved (EPA 901.1)	1.498 ± 3.863 (4.246)	0 ± 2.578 (12.87)	1.25 ± 6.216 (6.728)	12.23 ± 4.646 (3.005)
Lead-212 (EPA 901.1)	75.819 ± 27.500 (14.72)	0 ± 7.818 (17.3)	0 ± 3.950 (9.473)	0 ± 8.957 (19.51)
Lead-212, Dissolved (EPA 901.1)	0 ± 4.276 (8.743)	4.472 ± 13.018 (16.63)	97.904 ± 29.589 (16.92)	0 ± 7.231 (19.23)
Lead-214 (EPA 901.1)	± 49.31 (16.39)	2.145 ± 14.761 (19.96)	3.255 ± 9.484 (11.43)	0.371 ± 18.012 (23.54)
Lead-214, Dissolved (EPA 901.1)	0 ± 5.108 (12.51)	0 ± 11.097 (22.99)	581.9 ± 69.012 (18.43)	3.229 ± 15.459 (20.61)
Potassium-40 (EPA 901.1)	48.42 ± 67.315 (69.57)	93.499 ± 118.740 (143.1)	76.459 ± 54.759 (57.36)	87.842 ± 118.150 (143.1)
Potassium-40, Dissolved (EPA 901.1)	65.824 ± 33.329 (41.24)	140.64 ± 84.435 (110.9)	39.745 ± 91.876 (91.06)	133.1 ± 122.860 (143.1)
Radium-226 (EPA 901.1)	0 ± 89.757 (195.1)	0 ± 89.553 (193.9)	41.083 ± 70.324 (100.6)	192.61 ± 117.300 (148.7)
Radium-226 (EPA 903.1)	3.42 ± 2.15 (0.926)	5.19 ± 2.54 (0.827)	3.14 ± 2.08 (0.945)	3.5 ± 2.21 (0.948)
Radium-226, Dissolved (EPA 901.1)	0 ± 60.574 (139.9)	0 ± 102.250 (205.6)	0 ± 110.680 (218.8)	31.131 ± 147.760 (193.9)
Radium-226, Dissolved (EPA 903.1)	0.678 ± 0.778 (0.46)	1.57 ± 1.04 (0.472)	2.67 ± 1.20 (0.954)	2.22 ± 1.12 (0.978)
Radium-228 (EPA 901.1)	0 ± 7.767 (24.95)	5.215 ± 30.714 (39.31)	1.083 ± 12.233 (13.83)	0 ± 17.356 (39.31)
Radium-228 (EPA 904.0)	2.1 ± 1.01 (1.78)	3.77 ± 1.17 (1.6)	1.43 ± 0.925 (1.75)	1.49 ± 0.817 (1.49)
Radium-228, Dissolved (EPA 901.1)	3.133 ± 16.452 (17.65)	0 ± 4.640 (39.33)	0 ± 11.397 (27.86)	2.209 ± 26.309 (35.64)
Radium-228, Dissolved (EPA 904.0)	0.669 ± 0.466 (0.895)	1.64 ± 0.630 (0.97)	0.681 ± 0.479 (0.933)	1.49 ± 0.524 (0.738)
Thallium-208 (EPA 901.1)	4.588 ± 4.703 (7.916)	2.827 ± 7.710 (9.576)	0 ± 2.277 (4.518)	0 ± 4.487 (11.52)
Thallium-208, Dissolved (EPA 901.1)	1.148 ± 3.810 (4.521)	2.444 ± 7.676 (9.584)	0.499 ± 6.336 (7.213)	0 ± 4.991 (12.65)
Thorium-232 (EPA 901.1)	3092.4 ± 9641.800 (11800)	1865.2 ± 3676.700 (4514)	2723.6 ± 6705.300 (8284)	1297.5 ± 4019.600 (4969)
Thorium-232, Dissolved (EPA 901.1)	0 ± 4602.400 (9295)	4249.3 ± 3656.800 (4303)	0 ± 6564.500 (14200)	535.22 ± 4031.900 (5031)
Thorium-234 (EPA 901.1)	0 ± 174.990 (667.4)	0 ± 120.180 (301.3)	167.6 ± 357.650 (452.2)	72.665 ± 219.270 (277.7)
Thorium-234, Dissolved (EPA 901.1)	97.813 ± 371.640 (474.1)	0 ± 134.510 (329.1)	94.097 ± 602.680 (757.1)	0 ± 125.090 (298.1)
Total Uranium (EPA 908.0)	0.492 ± 0.354 (0.559)	0.272 ± 0.337 (0.573)	0.865 ± 0.360 (0.472)	0.918 ± 0.383 (0.512)
Total Uranium, Dissolved (EPA 908.0)	0.453 ± 0.390 (0.638)	0.551 ± 0.360 (0.559)	0.636 ± 0.348 (0.512)	1.59 ± 0.515 (0.595)
Uranium-235 (EPA 901.1)	0 ± 26.904 (65.25)	0 ± 20.011 (60.11)	12.604 ± 27.105 (33.66)	0 ± 14.819 (58.33)
Uranium-235, Dissolved (EPA 901.1)	0 ± 18.781 (40.22)	8.353 ± 44.770 (55.55)	24.699 ± 55.125 (66.92)	16.188 ± 41.178 (50.54)
Uranium-238 (EPA 901.1)	0 ± 90.328 (192.5)	81.058 ± 113.800 (146.5)	0 ± 57.889 (128.1)	84.974 ± 126.500 (161)
Uranium-238, Dissolved (EPA 901.1)	0 ± 52.151 (131.1)	0 ± 75.222 (172.7)	0 ± 99.555 (218)	0 ± 84.714 (164.4)

Notes:

Act + Unc (MDC) = Activity ± Uncertainty (Minimum Detectable Concentration)

Dissolved - Indicates sample filtered with 0.45 micron filter prior to analysis.

Each of EPA 901.1, EPA 903.1, EPA 904.0 & EPA 908.0 are laboratory analysis methods.

Groundwater Suppression and Leachate Sampling Field Form

On-Site Technical Services, Inc.

Project: Hakes C&D Landfill, Painted Post, New York

Date: 5-7-15

Sampling Location: Cell 3 **Sample ID:** Cell 3-0545 **Arrival Time:** 0938

Weather Conditions:

Temp. 65 ° F Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression Leachate () Secondary Leachate () Surface Water/Sediment () Res. Water
() Other _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: 15-20 GPM as per Mike

Comments: _____

Field Parameters (as appropriate)

Meter: YSI 556 (sn: 142100804), Hach 2100P (sn: 12410)

Field Parameters tested in: () Submerged Probe Cup

Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>0945</u>	<u>6.90</u>	<u>2858</u>	<u>27.5</u>	<u>NA</u>	<u>21.2</u>	<u>118.7</u>

Sample Information

Sample Type: Grab () Composite Sample Location: Riser Discharge Pipe () Pond () Ditch

Location Description/Condition: Cell 3 Riser directly across west of MW-1

Sample Collection Equipment/Method: Dired Grab From Oed 5gal Pail Sample Time: 0945

Sample Description (clarity/color): Clear slight Amber Color Sample Odor (Y) or (N) Explain: Slight leachate odor

Other Observations/Comments: 5 gal Pail Filled by Mike

Analysis Requested: RAD Number of Containers: 10

Sampling Completion: Time 0952 Date 5-7-15 Samplers K Dye - T. Reed

Groundwater Suppression and Leachate Sampling Field Form

On-Site Technical Services, Inc.

Project: Hakes C&D Landfill, Painted Post, New York

Date: 5-7-15

Sampling Location: Cell 4 **Sample ID:** Cell 4-0515 **Arrival Time:** 0955

Weather Conditions:

Temp. 66° F Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression Leachate () Secondary Leachate () Surface Water/Sediment () Res. Water
() Other _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: 15-20 GPM as per Mike

Comments: _____

Field Parameters (as appropriate)

Meter: YSI 556 (sn: 142100804), Hach 2100P (sn: 12410)

Field Parameters tested in: () Submerged Probe Cup

Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1005</u>	<u>6.92</u>	<u>5402</u>	<u>15.4</u>	<u>NA</u>	<u>22.5</u>	<u>142.5</u>

Sample Information

Sample Type: Grab () Composite Sample Location: () ^{Riser} Discharge Pipe () Pond () Ditch

Location Description/Condition: Directly west Across From MW-GR

Sample Collection Equipment/Method: Direct Grab From 5 Gal Pail ^{dedicated} Sample Time: 1005

Sample Description (clarity/color): Transparent Amber Sample Odor (Y) or (N) Explain: leachate odor

Other Observations/Comments: 5 Gal Pail filled by Mike

Analysis Requested: RAD Number of Containers: 10

Sampling Completion: Time 1012 Date 5-7-15 Samplers K. Nye - T. Reed

Groundwater Suppression and Leachate Sampling Field Form

On-Site Technical Services, Inc.

Project: Hakes C&D Landfill, Painted Post, New York

Date: 5-7-15

Sampling Location: Cell-5 Sample ID: Cell5-0515 Arrival Time: 1014

Weather Conditions:

Temp. 66 ° F Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression Leachate () Secondary Leachate () Surface Water/Sediment () Res. Water
() Other _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: 15-20 GPM as per mike

Comments: _____

Field Parameters (as appropriate)

Meter: YSI 556 (sn: 144100804), Hach 2100P (sn: 12410)

Field Parameters tested in: () Submerged Probe Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1020</u>	<u>6.90</u>	<u>6045</u>	<u>171.0</u>	<u>NA</u>	<u>23.2</u>	<u>69.4</u>

Sample Information

Sample Type: Grab () Composite Sample Location: Discharge Pipe ^{Riser} () Pond () Ditch

Location Description/Condition: Riser Pipe Across to the West of MW-N

Sample Collection Equipment/Method: Direct Grab From Dedicated Sealed Pail Sample Time: 1020

Sample Description (clarity/color): Cloudy with light Amber tint Sample Odor (Y) or (N) Explain: Leachate odor

Other Observations/Comments: Seal Pail Filled by Mike

Analysis Requested: RAD Number of Containers: 10

Sampling Completion: Time 1025 Date 5-7-15 Samplers K Dye - T. Reed

Groundwater Suppression and Leachate Sampling Field Form

On-Site Technical Services, Inc.

Project: Hakes C&D Landfill, Painted Post, New York

Date: 5-7-15

Sampling Location: Cell 6 Sample ID: Cell 6-0515 Arrival Time: 1026

Weather Conditions:

Temp. 67 ° F Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression Leachate () Secondary Leachate () Surface Water/Sediment () Res. Water
() Other _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: 15-20 Gpm as per meter

Comments: _____

Field Parameters (as appropriate)

Meter: YSI 556 (sn: 142100804), Hach 2100P (sn: 12410)

Field Parameters tested in: () Submerged Probe Cup

Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1030</u>	<u>6.82</u>	<u>11856</u>	<u>85.2</u>	<u>NA</u>	<u>26.5</u>	<u>-154.8</u>

Sample Information

Sample Type: Grab () Composite Sample Location: Riser Discharge Pipe () Pond () Ditch

Location Description/Condition: West Across Road from SW-6 Rip Rap ditch

Sample Collection Equipment/Method: Direct Grab Dedicated 5gal Pail Sample Time: 1030

Sample Description (clarity/color): Black Tint Sample Odor (Y) or (N) Explain: leachate odor

Other Observations/Comments: 5 Gal Pail filled by Mike

Analysis Requested: RAD Number of Containers: 10

Sampling Completion: Time 1034 Date 5-7-15 Samplers K Dye, T Reed



1565 Jefferson Rd., Suite 360
Rochester, NY 14623
T: +1 585 288 5380
F: +1 585 288 8475
www.alsglobal.com

June 3, 2015

Mr. Jerry Leone
Casella Waste Systems
Ontario County Landfill
1979 Rte. 5 & 20
Stanley, NY 14561

Re: Hakes C&D Landfill – Leachate
Service Request # R1503481

Dear Mr. Gustin:

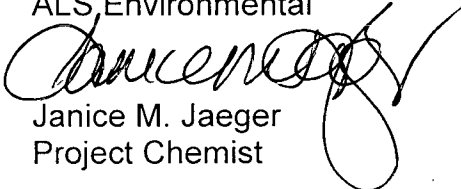
Enclosed is the analytical data report for the above referenced facility. A total of four samples were subcontracted to Pace Analytical for Radiological Testing.

This report consists of one (1) package: the sample data summary package. The summary package has been e-mailed to your attention and to On-Site. All data presented in this package has been reviewed prior to report submission. If you should have any questions or concerns, please contact me at (585) 288-5380.

Thank you for your continued use of our services.

Sincerely,

ALS Environmental



Janice M. Jaeger
Project Chemist

enc.

cc: Mr. Jon Brandes
On-Site
72 Railroad Avenue
Wellsville, NY 14895



ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: **Casella/On-Site**
4376 Manning Ridge Road
Painted Post, NY 14870
Project Manager: **Jerry Leone/Jon Brandes**

CHAIN of CUSTODY

Project: **Hakes C&D Landfill - Leachate RAD.**
Telephone No. 585-593-1824
Email: jonb@on-sitehs.com

Page 1 of 1
Method of Shipment: **FED EX**

Sample I.D.	Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	Total: Gamma Spec (901.1), Ra-226 (903.1), Ra-228 (904.0)	Total: Uranium (908.0)	Dissolved: Gamma Spec (901.1), Ra-226 (903.1), Ra-228 (904.0)	Dissolved: Uranium (908.0)						
			Soil	Water	Air	Other	Yes	No												
Cell 3-0515		10	X			X		5-7-15	0945	X	X	X	X	X						
Cell 4 -0515		10	X			X		5-7-15	1005	X	X	X	X	X						
Cell 5-0515		10	X			X		5-7-15	1020	X	X	X	X	X						
Cell 6-0515		10	X			X		5-7-15	1030	X	X	X	X	X						

Special Detection Limit/Reporting

PDF to Jerry and On-Site, and EDD to On-Site.

√ no Temp

REMARKS

Sample Received Intact: Yes No
Temperature received: Ice No ice

Relinquished by (Sign & Print Name) <i>Kevin Dye / Kevin Dye</i>	Date Time 5-7-15 1200	Received by (Sign & Print Name) <i>Gregory O. Esmerian</i> ALS 5-8-15 '09 205	Lab Work No.
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by laboratory Date Time	



Cooler Receipt and Preservation Check Form

R1503481

Casella Waste Systems
Hakes C&D Landfill

5



Project/Client On-site Folder Number R15-3481

Cooler received on 5-8-15 by: ME

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>Y</u>	N
2	Custody papers properly completed (ink, signed)?	<u>Y</u>	N
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u>	N
4	Circle <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u>	N

5a	Perchlorate samples have required headspace?	Y	N	<u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y	N	<u>NA</u>
6	Where did the bottles originate?	<u>ALS/ROC</u>	CLIENT	
7	Soil VOA received as:	Bulk	Encore	5035set <u>NA</u>

8. Temperature Readings Date: 5-8-15 Time: 09:16 ID: IR#3 IR#5 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>6.7</u>	<u>9.1</u>	<u>5.5</u>	<u>7.8</u>				
Correction Factor (°C)	<u>-0.4</u>	<u>-0.4</u>	<u>-0.4</u>	<u>-0.4</u>				
Corrected Temp (°C)	<u>6.3</u>	<u>8.7</u>	<u>5.1</u>	<u>7.4</u>				
Within 0-6°C?	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>

If out of Temperature, note packing/ice condition: X Ice melted Poorly Packed Same Day Rule

& Client Approval to Run Samples: Standing Approval Client aware at drop-off Client notified by:

All samples held in storage location: R-002 by ME on 5-8-15 at 09:30
5035 samples placed in storage location: by on at

PC Secondary Review: WMS/11/15

Cooler Breakdown: Date: 5/8/15 Time: 1445 by: ME

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO ₃								
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add Na ₂ S ₂ O ₃ (CN), ascorbic (phenol).					
	Na ₂ S ₂ O ₃	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust:

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 032316-2ABT

Other Comments:

PC Secondary Review: WMS/11/15

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

June 03, 2015

Ms. Janice Jaeger
ALS Environmental Columbia
1565 Jefferson Road
Building 300
Rochester, NY 14623

RE: Project: R1503481
Pace Project No.: 30147887

Dear Ms. Jaeger:

Enclosed are the analytical results for sample(s) received by the laboratory on May 12, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris
carin.ferris@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: R1503481

Pace Project No.: 30147887

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ACLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: PA014572014-4

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: R1503481

Pace Project No.: 30147887

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30147887001	Cell3-0515	Water	05/07/15 09:45	05/12/15 09:15
30147887002	Cell3-0515 Dissolved	Water	05/07/15 09:45	05/12/15 09:15
30147887003	Cell4-0515	Water	05/07/15 10:05	05/12/15 09:15
30147887004	Cell4-0515 Dissolved	Water	05/07/15 10:05	05/12/15 09:15
30147887005	Cell5-0515	Water	05/07/15 10:20	05/12/15 09:15
30147887006	Cell5-0515 Dissolved	Water	05/07/15 10:20	05/12/15 09:15
30147887007	Cell6-0515	Water	05/07/15 10:30	05/12/15 09:15
30147887008	Cell6-0515 Dissolved	Water	05/07/15 10:30	05/12/15 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: R1503481
Pace Project No.: 30147887

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30147887001	Cell3-0515	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JAL	1
		EPA 908.0	LAL	1
30147887002	Cell3-0515 Dissolved	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JLW	1
		EPA 908.0	LAL	1
30147887003	Cell4-0515	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JAL	1
		EPA 908.0	LAL	1
30147887004	Cell4-0515 Dissolved	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JLW	1
		EPA 908.0	LAL	1
30147887005	Cell5-0515	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JAL	1
		EPA 908.0	LAL	1
30147887006	Cell5-0515 Dissolved	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JLW	1
		EPA 908.0	LAL	1
30147887007	Cell6-0515	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JAL	1
		EPA 908.0	LAL	1
30147887008	Cell6-0515 Dissolved	EPA 901.1	MAH	15
		EPA 903.1	JC2	1
		EPA 904.0	JLW	1
		EPA 908.0	LAL	1

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: R1503481
Pace Project No.: 30147887

Method: EPA 901.1
Description: 901.1 Gamma Spec
Client: ALS Environmental Columbia
Date: June 03, 2015

General Information:

8 samples were analyzed for EPA 901.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: R1503481
Pace Project No.: 30147887

Method: EPA 903.1
Description: 903.1 Radium 226
Client: ALS Environmental Columbia
Date: June 03, 2015

General Information:

4 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: R1503481
Pace Project No.: 30147887

Method: EPA 903.1
Description: 903.1 Radium 226, Dissolved
Client: ALS Environmental Columbia
Date: June 03, 2015

General Information:

4 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: R1503481

Pace Project No.: 30147887

Method: EPA 904.0

Description: 904.0 Radium 228

Client: ALS Environmental Columbia

Date: June 03, 2015

General Information:

4 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: R1503481

Pace Project No.: 30147887

Method: EPA 904.0

Description: 904.0 Radium 228, Dissolved

Client: ALS Environmental Columbia

Date: June 03, 2015

General Information:

4 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: R1503481
Pace Project No.: 30147887

Method: EPA 908.0
Description: 908.0 Total Uranium
Client: ALS Environmental Columbia
Date: June 03, 2015

General Information:

8 samples were analyzed for EPA 908.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: R1503481
Pace Project No.: 30147887

Sample: Cell3-0515 **Lab ID: 30147887001** Collected: 05/07/15 09:45 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	0.000 ± 7.767 (24.950) C:NA T:NA	pCi/L	06/02/15 14:16	14331-83-0	
Bismuth-212	EPA 901.1	59.801 ± 61.695 (65.040) C:NA T:NA	pCi/L	06/02/15 14:16	14913-49-6	
Bismuth-214	EPA 901.1	391.340 ± 48.673 (15.310) C:NA T:NA	pCi/L	06/02/15 14:16	14733-03-0	
Cesium-134	EPA 901.1	4.086 ± 5.209 (8.050) C:NA T:NA	pCi/L	06/02/15 14:16	13967-70-9	
Cesium-137	EPA 901.1	0.000 ± 1.553 (7.209) C:NA T:NA	pCi/L	06/02/15 14:16	10045-97-3	
Lead-212	EPA 901.1	75.819 ± 27.500 (14.720) C:NA T:NA	pCi/L	06/02/15 14:16	15092-94-1	
Lead-214	EPA 901.1	395.620 ± 49.317 (16.390) C:NA T:NA	pCi/L	06/02/15 14:16	15067-28-4	
Potassium-40	EPA 901.1	48.420 ± 67.315 (69.570) C:NA T:NA	pCi/L	06/02/15 14:16	13966-00-2	
Radium-226	EPA 901.1	0.000 ± 89.757 (195.100) C:NA T:NA	pCi/L	06/02/15 14:16	13982-63-3	
Radium-228	EPA 901.1	0.000 ± 7.767 (24.950) C:NA T:NA	pCi/L	06/02/15 14:16	15262-20-1	
Thallium-208	EPA 901.1	4.588 ± 4.703 (7.916) C:NA T:NA	pCi/L	06/02/15 14:16	14913-50-9	
Thorium-232	EPA 901.1	3092.400 ± 9641.800 (11800.000) C:NA T:NA	pCi/L	06/02/15 14:16	7440-29-1	
Thorium-234	EPA 901.1	0.000 ± 174.990 (667.400) C:NA T:NA	pCi/L	06/02/15 14:16	15065-10-8	
Uranium-235	EPA 901.1	0.000 ± 26.904 (65.250) C:NA T:NA	pCi/L	06/02/15 14:16	15117-96-1	
Uranium-238	EPA 901.1	0.000 ± 90.328 (192.500) C:NA T:NA	pCi/L	06/02/15 14:16		
Radium-226	EPA 903.1	3.42 ± 2.15 (0.926) C:NA T:81%	pCi/L	05/21/15 11:30	13982-63-3	
Radium-228	EPA 904.0	2.10 ± 1.01 (1.78) C:87% T:69%	pCi/L	05/22/15 15:24	15262-20-1	
Total Uranium	EPA 908.0	0.492 ± 0.354 (0.559) C:NA T:93%	pCi/L	05/18/15 20:26	7440-61-1	

Sample: Cell3-0515 Dissolved **Lab ID: 30147887002** Collected: 05/07/15 09:45 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	3.133 ± 16.452 (17.650) C:NA T:NA	pCi/L	06/03/15 10:24	14331-83-0	
Bismuth-212	EPA 901.1	30.575 ± 41.997 (71.630) C:NA T:NA	pCi/L	06/03/15 10:24	14913-49-6	
Bismuth-214	EPA 901.1	0.000 ± 6.254 (13.480) C:NA T:NA	pCi/L	06/03/15 10:24	14733-03-0	
Cesium-134	EPA 901.1	0.000 ± 1.159 (5.007) C:NA T:NA	pCi/L	06/03/15 10:24	13967-70-9	
Cesium-137	EPA 901.1	1.498 ± 3.863 (4.246) C:NA T:NA	pCi/L	06/03/15 10:24	10045-97-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: R1503481

Pace Project No.: 30147887

Sample: Cell3-0515 Dissolved **Lab ID: 30147887002** Collected: 05/07/15 09:45 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Lead-212	EPA 901.1	0.000 ± 4.276 (8.743) C:NA T:NA	pCi/L	06/03/15 10:24	15092-94-1	
Lead-214	EPA 901.1	0.000 ± 5.108 (12.510) C:NA T:NA	pCi/L	06/03/15 10:24	15067-28-4	
Potassium-40	EPA 901.1	65.824 ± 33.329 (41.240) C:NA T:NA	pCi/L	06/03/15 10:24	13966-00-2	
Radium-226	EPA 901.1	0.000 ± 60.574 (139.900) C:NA T:NA	pCi/L	06/03/15 10:24	13982-63-3	
Radium-228	EPA 901.1	3.133 ± 16.452 (17.650) C:NA T:NA	pCi/L	06/03/15 10:24	15262-20-1	
Thallium-208	EPA 901.1	1.148 ± 3.810 (4.521) C:NA T:NA	pCi/L	06/03/15 10:24	14913-50-9	
Thorium-232	EPA 901.1	0.000 ± 4602.400 (9295.000) C:NA T:NA	pCi/L	06/03/15 10:24	7440-29-1	
Thorium-234	EPA 901.1	97.813 ± 371.640 (474.100) C:NA T:NA	pCi/L	06/03/15 10:24	15065-10-8	
Uranium-235	EPA 901.1	0.000 ± 18.781 (40.220) C:NA T:NA	pCi/L	06/03/15 10:24	15117-96-1	
Uranium-238	EPA 901.1	0.000 ± 52.151 (131.100) C:NA T:NA	pCi/L	06/03/15 10:24		
Radium-226, Dissolved	EPA 903.1	0.678 ± 0.778 (0.460) C:NA T:85%	pCi/L	05/21/15 12:27	13982-63-3	
Radium-228, Dissolved	EPA 904.0	0.669 ± 0.466 (0.895) C:83% T:81%	pCi/L	05/27/15 12:19	15262-20-1	
Total Uranium	EPA 908.0	0.453 ± 0.390 (0.638) C:NA T:93%	pCi/L	05/18/15 20:26	7440-61-1	

Sample: Cell4-0515 **Lab ID: 30147887003** Collected: 05/07/15 10:05 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.
• Upon receipt at the laboratory, 3 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	5.215 ± 30.714 (39.310) C:NA T:NA	pCi/L	06/02/15 14:23	14331-83-0	
Bismuth-212	EPA 901.1	9.620 ± 100.500 (121.000) C:NA T:NA	pCi/L	06/02/15 14:23	14913-49-6	
Bismuth-214	EPA 901.1	0.000 ± 7.147 (26.300) C:NA T:NA	pCi/L	06/02/15 14:23	14733-03-0	
Cesium-134	EPA 901.1	0.000 ± 1.671 (11.700) C:NA T:NA	pCi/L	06/02/15 14:23	13967-70-9	
Cesium-137	EPA 901.1	0.000 ± 1.997 (11.620) C:NA T:NA	pCi/L	06/02/15 14:23	10045-97-3	
Lead-212	EPA 901.1	0.000 ± 7.818 (17.300) C:NA T:NA	pCi/L	06/02/15 14:23	15092-94-1	
Lead-214	EPA 901.1	2.145 ± 14.761 (19.960) C:NA T:NA	pCi/L	06/02/15 14:23	15067-28-4	
Potassium-40	EPA 901.1	93.499 ± 118.740 (143.100) C:NA T:NA	pCi/L	06/02/15 14:23	13966-00-2	
Radium-226	EPA 901.1	0.000 ± 89.553 (193.900) C:NA T:NA	pCi/L	06/02/15 14:23	13982-63-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: R1503481
Pace Project No.: 30147887

Sample: Cell4-0515 **Lab ID: 30147887003** Collected: 05/07/15 10:05 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.
• Upon receipt at the laboratory, 3 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 901.1	5.215 ± 30.714 (39.310) C:NA T:NA	pCi/L	06/02/15 14:23	15262-20-1	
Thallium-208	EPA 901.1	2.827 ± 7.710 (9.576) C:NA T:NA	pCi/L	06/02/15 14:23	14913-50-9	
Thorium-232	EPA 901.1	1865.200 ± 3676.700 (4514.000) C:NA T:NA	pCi/L	06/02/15 14:23	7440-29-1	
Thorium-234	EPA 901.1	0.000 ± 120.180 (301.300) C:NA T:NA	pCi/L	06/02/15 14:23	15065-10-8	
Uranium-235	EPA 901.1	0.000 ± 20.011 (60.110) C:NA T:NA	pCi/L	06/02/15 14:23	15117-96-1	
Uranium-238	EPA 901.1	81.058 ± 113.800 (146.500) C:NA T:NA	pCi/L	06/02/15 14:23		
Radium-226	EPA 903.1	5.19 ± 2.54 (0.827) C:NA T:96%	pCi/L	05/21/15 11:24	13982-63-3	
Radium-228	EPA 904.0	3.77 ± 1.17 (1.60) C:86% T:70%	pCi/L	05/22/15 15:24	15262-20-1	
Total Uranium	EPA 908.0	0.272 ± 0.337 (0.573) C:NA T:93%	pCi/L	05/18/15 20:26	7440-61-1	

Sample: Cell4-0515 Dissolved **Lab ID: 30147887004** Collected: 05/07/15 10:05 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	0.000 ± 4.640 (39.330) C:NA T:NA	pCi/L	06/03/15 10:25	14331-83-0	
Bismuth-212	EPA 901.1	30.809 ± 75.290 (90.190) C:NA T:NA	pCi/L	06/03/15 10:25	14913-49-6	
Bismuth-214	EPA 901.1	3.129 ± 18.181 (23.400) C:NA T:NA	pCi/L	06/03/15 10:25	14733-03-0	
Cesium-134	EPA 901.1	-0.853 ± 8.882 (10.270) C:NA T:NA	pCi/L	06/03/15 10:25	13967-70-9	
Cesium-137	EPA 901.1	0.000 ± 2.578 (12.870) C:NA T:NA	pCi/L	06/03/15 10:25	10045-97-3	
Lead-212	EPA 901.1	4.472 ± 13.018 (16.630) C:NA T:NA	pCi/L	06/03/15 10:25	15092-94-1	
Lead-214	EPA 901.1	0.000 ± 11.097 (22.990) C:NA T:NA	pCi/L	06/03/15 10:25	15067-28-4	
Potassium-40	EPA 901.1	140.640 ± 84.435 (110.900) C:NA T:NA	pCi/L	06/03/15 10:25	13966-00-2	
Radium-226	EPA 901.1	0.000 ± 102.250 (205.600) C:NA T:NA	pCi/L	06/03/15 10:25	13982-63-3	
Radium-228	EPA 901.1	0.000 ± 4.640 (39.330) C:NA T:NA	pCi/L	06/03/15 10:25	15262-20-1	
Thallium-208	EPA 901.1	2.444 ± 7.676 (9.584) C:NA T:NA	pCi/L	06/03/15 10:25	14913-50-9	
Thorium-232	EPA 901.1	4249.300 ± 3656.800 (4303.000) C:NA T:NA	pCi/L	06/03/15 10:25	7440-29-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: R1503481
Pace Project No.: 30147887

Sample: Cell4-0515 Dissolved **Lab ID: 30147887004** Collected: 05/07/15 10:05 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Thorium-234	EPA 901.1	0.000 ± 134.510 (329.100) C:NA T:NA	pCi/L	06/03/15 10:25	15065-10-8	
Uranium-235	EPA 901.1	8.353 ± 44.770 (55.550) C:NA T:NA	pCi/L	06/03/15 10:25	15117-96-1	
Uranium-238	EPA 901.1	0.000 ± 75.222 (172.700) C:NA T:NA	pCi/L	06/03/15 10:25		
Radium-226, Dissolved	EPA 903.1	1.57 ± 1.04 (0.472) C:NA T:80%	pCi/L	05/21/15 12:37	13982-63-3	
Radium-228, Dissolved	EPA 904.0	1.64 ± 0.630 (0.970) C:85% T:81%	pCi/L	05/27/15 12:19	15262-20-1	
Total Uranium	EPA 908.0	0.551 ± 0.360 (0.559) C:NA T:93%	pCi/L	05/18/15 20:26	7440-61-1	

Sample: Cell5-0515 **Lab ID: 30147887005** Collected: 05/07/15 10:20 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.
• Upon receipt at the laboratory, 3 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	1.083 ± 12.233 (13.830) C:NA T:NA	pCi/L	06/02/15 15:17	14331-83-0	
Bismuth-212	EPA 901.1	31.826 ± 39.954 (44.130) C:NA T:NA	pCi/L	06/02/15 15:17	14913-49-6	
Bismuth-214	EPA 901.1	7.984 ± 12.612 (14.530) C:NA T:NA	pCi/L	06/02/15 15:17	14733-03-0	
Cesium-134	EPA 901.1	1.316 ± 4.284 (4.693) C:NA T:NA	pCi/L	06/02/15 15:17	13967-70-9	
Cesium-137	EPA 901.1	0.228 ± 4.257 (4.759) C:NA T:NA	pCi/L	06/02/15 15:17	10045-97-3	
Lead-212	EPA 901.1	0.000 ± 3.950 (9.473) C:NA T:NA	pCi/L	06/02/15 15:17	15092-94-1	
Lead-214	EPA 901.1	3.255 ± 9.484 (11.430) C:NA T:NA	pCi/L	06/02/15 15:17	15067-28-4	
Potassium-40	EPA 901.1	76.459 ± 54.759 (57.360) C:NA T:NA	pCi/L	06/02/15 15:17	13966-00-2	
Radium-226	EPA 901.1	41.083 ± 70.324 (100.600) C:NA T:NA	pCi/L	06/02/15 15:17	13982-63-3	
Radium-228	EPA 901.1	1.083 ± 12.233 (13.830) C:NA T:NA	pCi/L	06/02/15 15:17	15262-20-1	
Thallium-208	EPA 901.1	0.000 ± 2.277 (4.518) C:NA T:NA	pCi/L	06/02/15 15:17	14913-50-9	
Thorium-232	EPA 901.1	2723.600 ± 6705.300 (8284.000) C:NA T:NA	pCi/L	06/02/15 15:17	7440-29-1	
Thorium-234	EPA 901.1	167.600 ± 357.650 (452.200) C:NA T:NA	pCi/L	06/02/15 15:17	15065-10-8	
Uranium-235	EPA 901.1	12.604 ± 27.105 (33.660) C:NA T:NA	pCi/L	06/02/15 15:17	15117-96-1	
Uranium-238	EPA 901.1	0.000 ± 57.889 (128.100) C:NA T:NA	pCi/L	06/02/15 15:17		
Radium-226	EPA 903.1	3.14 ± 2.08 (0.945) C:NA T:92%	pCi/L	05/21/15 11:27	13982-63-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: R1503481
Pace Project No.: 30147887

Sample: Cell5-0515 **Lab ID: 30147887005** Collected: 05/07/15 10:20 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.
• Upon receipt at the laboratory, 3 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	1.43 ± 0.925 (1.75) C:85% T:73%	pCi/L	05/22/15 15:24	15262-20-1	
Total Uranium	EPA 908.0	0.865 ± 0.360 (0.472) C:NA T:93%	pCi/L	05/18/15 20:27	7440-61-1	

Sample: Cell5-0515 Dissolved **Lab ID: 30147887006** Collected: 05/07/15 10:20 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	0.000 ± 11.397 (27.860) C:NA T:NA	pCi/L	06/03/15 11:27	14331-83-0	
Bismuth-212	EPA 901.1	14.857 ± 82.718 (90.450) C:NA T:NA	pCi/L	06/03/15 11:27	14913-49-6	
Bismuth-214	EPA 901.1	512.400 ± 60.088 (16.650) C:NA T:NA	pCi/L	06/03/15 11:27	14733-03-0	
Cesium-134	EPA 901.1	0.000 ± 2.735 (8.447) C:NA T:NA	pCi/L	06/03/15 11:27	13967-70-9	
Cesium-137	EPA 901.1	1.250 ± 6.216 (6.728) C:NA T:NA	pCi/L	06/03/15 11:27	10045-97-3	
Lead-212	EPA 901.1	97.904 ± 29.589 (16.920) C:NA T:NA	pCi/L	06/03/15 11:27	15092-94-1	
Lead-214	EPA 901.1	581.900 ± 69.012 (18.430) C:NA T:NA	pCi/L	06/03/15 11:27	15067-28-4	
Potassium-40	EPA 901.1	39.745 ± 91.876 (91.060) C:NA T:NA	pCi/L	06/03/15 11:27	13966-00-2	
Radium-226	EPA 901.1	0.000 ± 110.680 (218.800) C:NA T:NA	pCi/L	06/03/15 11:27	13982-63-3	
Radium-228	EPA 901.1	0.000 ± 11.397 (27.860) C:NA T:NA	pCi/L	06/03/15 11:27	15262-20-1	
Thallium-208	EPA 901.1	0.499 ± 6.336 (7.213) C:NA T:NA	pCi/L	06/03/15 11:27	14913-50-9	
Thorium-232	EPA 901.1	0.000 ± 6564.500 (14200.000) C:NA T:NA	pCi/L	06/03/15 11:27	7440-29-1	
Thorium-234	EPA 901.1	94.097 ± 602.680 (757.100) C:NA T:NA	pCi/L	06/03/15 11:27	15065-10-8	
Uranium-235	EPA 901.1	24.699 ± 55.125 (66.920) C:NA T:NA	pCi/L	06/03/15 11:27	15117-96-1	
Uranium-238	EPA 901.1	0.000 ± 99.555 (218.000) C:NA T:NA	pCi/L	06/03/15 11:27		
Radium-226, Dissolved	EPA 903.1	2.67 ± 1.20 (0.954) C:NA T:85%	pCi/L	05/21/15 12:39	13982-63-3	
Radium-228, Dissolved	EPA 904.0	0.681 ± 0.479 (0.933) C:90% T:81%	pCi/L	05/27/15 15:50	15262-20-1	
Total Uranium	EPA 908.0	0.636 ± 0.348 (0.512) C:NA T:93%	pCi/L	05/18/15 20:27	7440-61-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: R1503481
Pace Project No.: 30147887

Sample: Cell6-0515 **Lab ID: 30147887007** Collected: 05/07/15 10:30 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.
• Upon receipt at the laboratory, 3 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	0.000 ± 17.356 (39.310) C:NA T:NA	pCi/L	06/02/15 15:25	14331-83-0	
Bismuth-212	EPA 901.1	20.202 ± 88.761 (106.900) C:NA T:NA	pCi/L	06/02/15 15:25	14913-49-6	
Bismuth-214	EPA 901.1	17.718 ± 16.357 (20.190) C:NA T:NA	pCi/L	06/02/15 15:25	14733-03-0	
Cesium-134	EPA 901.1	3.922 ± 5.602 (6.314) C:NA T:NA	pCi/L	06/02/15 15:25	13967-70-9	
Cesium-137	EPA 901.1	0.000 ± 4.314 (10.220) C:NA T:NA	pCi/L	06/02/15 15:25	10045-97-3	
Lead-212	EPA 901.1	0.000 ± 8.957 (19.510) C:NA T:NA	pCi/L	06/02/15 15:25	15092-94-1	
Lead-214	EPA 901.1	0.371 ± 18.012 (23.540) C:NA T:NA	pCi/L	06/02/15 15:25	15067-28-4	
Potassium-40	EPA 901.1	87.842 ± 118.150 (143.100) C:NA T:NA	pCi/L	06/02/15 15:25	13966-00-2	
Radium-226	EPA 901.1	192.610 ± 117.300 (148.700) C:NA T:NA	pCi/L	06/02/15 15:25	13982-63-3	
Radium-228	EPA 901.1	0.000 ± 17.356 (39.310) C:NA T:NA	pCi/L	06/02/15 15:25	15262-20-1	
Thallium-208	EPA 901.1	0.000 ± 4.487 (11.520) C:NA T:NA	pCi/L	06/02/15 15:25	14913-50-9	
Thorium-232	EPA 901.1	1297.500 ± 4019.600 (4969.000) C:NA T:NA	pCi/L	06/02/15 15:25	7440-29-1	
Thorium-234	EPA 901.1	72.665 ± 219.270 (277.700) C:NA T:NA	pCi/L	06/02/15 15:25	15065-10-8	
Uranium-235	EPA 901.1	0.000 ± 14.819 (58.330) C:NA T:NA	pCi/L	06/02/15 15:25	15117-96-1	
Uranium-238	EPA 901.1	84.974 ± 126.500 (161.000) C:NA T:NA	pCi/L	06/02/15 15:25		
Radium-226	EPA 903.1	3.50 ± 2.21 (0.948) C:NA T:85%	pCi/L	05/21/15 11:31	13982-63-3	
Radium-228	EPA 904.0	1.49 ± 0.817 (1.49) C:86% T:82%	pCi/L	05/22/15 15:24	15262-20-1	
Total Uranium	EPA 908.0	0.918 ± 0.383 (0.512) C:NA T:93%	pCi/L	05/18/15 20:27	7440-61-1	

Sample: Cell6-0515 Dissolved **Lab ID: 30147887008** Collected: 05/07/15 10:30 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	2.209 ± 26.309 (35.640) C:NA T:NA	pCi/L	06/03/15 11:28	14331-83-0	
Bismuth-212	EPA 901.1	21.182 ± 101.920 (121.100) C:NA T:NA	pCi/L	06/03/15 11:28	14913-49-6	
Bismuth-214	EPA 901.1	0.000 ± 9.455 (24.410) C:NA T:NA	pCi/L	06/03/15 11:28	14733-03-0	
Cesium-134	EPA 901.1	0.000 ± 2.159 (9.734) C:NA T:NA	pCi/L	06/03/15 11:28	13967-70-9	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: R1503481
Pace Project No.: 30147887

Sample: Cell6-0515 Dissolved **Lab ID: 30147887008** Collected: 05/07/15 10:30 Received: 05/12/15 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Cesium-137	EPA 901.1	12.230 ± 4.646 (3.005) C:NA T:NA	pCi/L	06/03/15 11:28	10045-97-3	
Lead-212	EPA 901.1	0.000 ± 7.231 (19.230) C:NA T:NA	pCi/L	06/03/15 11:28	15092-94-1	
Lead-214	EPA 901.1	3.229 ± 15.459 (20.610) C:NA T:NA	pCi/L	06/03/15 11:28	15067-28-4	
Potassium-40	EPA 901.1	133.100 ± 122.860 (143.100) C:NA T:NA	pCi/L	06/03/15 11:28	13966-00-2	
Radium-226	EPA 901.1	31.131 ± 147.760 (193.900) C:NA T:NA	pCi/L	06/03/15 11:28	13982-63-3	
Radium-228	EPA 901.1	2.209 ± 26.309 (35.640) C:NA T:NA	pCi/L	06/03/15 11:28	15262-20-1	
Thallium-208	EPA 901.1	0.000 ± 4.991 (12.650) C:NA T:NA	pCi/L	06/03/15 11:28	14913-50-9	
Thorium-232	EPA 901.1	535.220 ± 4031.900 (5031.000) C:NA T:NA	pCi/L	06/03/15 11:28	7440-29-1	
Thorium-234	EPA 901.1	0.000 ± 125.090 (298.100) C:NA T:NA	pCi/L	06/03/15 11:28	15065-10-8	
Uranium-235	EPA 901.1	16.188 ± 41.178 (50.540) C:NA T:NA	pCi/L	06/03/15 11:28	15117-96-1	
Uranium-238	EPA 901.1	0.000 ± 84.714 (164.400) C:NA T:NA	pCi/L	06/03/15 11:28		
Radium-226, Dissolved	EPA 903.1	2.22 ± 1.12 (0.978) C:NA T:84%	pCi/L	05/21/15 12:44	13982-63-3	
Radium-228, Dissolved	EPA 904.0	1.49 ± 0.524 (0.738) C:90% T:68%	pCi/L	05/27/15 15:50	15262-20-1	
Total Uranium	EPA 908.0	1.59 ± 0.515 (0.595) C:NA T:93%	pCi/L	05/18/15 20:27	7440-61-1	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: R1503481

Pace Project No.: 30147887

QC Batch:	RADC/24436	Analysis Method:	EPA 908.0
QC Batch Method:	EPA 908.0	Analysis Description:	908.0 Total Uranium
Associated Lab Samples:	30147887001, 30147887002, 30147887003, 30147887004, 30147887005, 30147887006, 30147887007, 30147887008		

METHOD BLANK:	893191	Matrix:	Water
Associated Lab Samples:	30147887001, 30147887002, 30147887003, 30147887004, 30147887005, 30147887006, 30147887007, 30147887008		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Total Uranium	0.256 ± 0.158 (0.233) C:NA T:84%	pCi/L	05/18/15 14:49	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: R1503481

Pace Project No.: 30147887

QC Batch: RADC/24442

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226, Dissolved

Associated Lab Samples: 30147887002, 30147887004, 30147887006, 30147887008

METHOD BLANK: 893197

Matrix: Water

Associated Lab Samples: 30147887002, 30147887004, 30147887006, 30147887008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226, Dissolved	0.129 ± 0.311 (0.600) C:NA T:98%	pCi/L	05/21/15 12:27	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: R1503481

Pace Project No.: 30147887

QC Batch: RADC/24443

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228, Dissolved

Associated Lab Samples: 30147887002, 30147887004, 30147887006, 30147887008

METHOD BLANK: 893198

Matrix: Water

Associated Lab Samples: 30147887002, 30147887004, 30147887006, 30147887008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228, Dissolved	0.226 ± 0.309 (0.660) C:84% T:86%	pCi/L	05/27/15 12:19	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: R1503481

Pace Project No.: 30147887

QC Batch: RADC/24448

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 30147887001, 30147887003, 30147887005, 30147887007

METHOD BLANK: 893203

Matrix: Water

Associated Lab Samples: 30147887001, 30147887003, 30147887005, 30147887007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.216 ± 0.304 (0.652) C:91% T:81%	pCi/L	05/22/15 15:32	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: R1503481

Pace Project No.: 30147887

QC Batch: RADC/24465

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Associated Lab Samples: 30147887001, 30147887003, 30147887005, 30147887007

METHOD BLANK: 893344

Matrix: Water

Associated Lab Samples: 30147887001, 30147887003, 30147887005, 30147887007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.295 ± 0.543 (0.968) C:NA T:87%	pCi/L	05/21/15 11:10	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: R1503481

Pace Project No.: 30147887

QC Batch: RADC/24638

Analysis Method: EPA 901.1

QC Batch Method: EPA 901.1

Analysis Description: 901.1 Gamma Spec

Associated Lab Samples: 30147887001, 30147887002, 30147887003, 30147887004, 30147887005, 30147887006, 30147887007, 30147887008

METHOD BLANK: 900707

Matrix: Water

Associated Lab Samples: 30147887001, 30147887002, 30147887003, 30147887004, 30147887005, 30147887006, 30147887007, 30147887008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Actinium-228	12.337 ± 10.567 (12.160) C:NA T:NA	pCi/L	06/02/15 12:57	
Bismuth-212	0.000 ± 29.856 (56.220) C:NA T:NA	pCi/L	06/02/15 12:57	
Bismuth-214	0.000 ± 5.745 (12.930) C:NA T:NA	pCi/L	06/02/15 12:57	
Cesium-134	4.802 ± 5.190 (4.081) C:NA T:NA	pCi/L	06/02/15 12:57	
Cesium-137	-1.800 ± 4.800 (5.210) C:NA T:NA	pCi/L	06/02/15 12:57	
Lead-212	0.000 ± 3.775 (9.091) C:NA T:NA	pCi/L	06/02/15 12:57	
Lead-214	4.940 ± 7.499 (9.301) C:NA T:NA	pCi/L	06/02/15 12:57	
Potassium-40	0.000 ± 24.460 (57.360) C:NA T:NA	pCi/L	06/02/15 12:57	
Radium-226	0.000 ± 57.533 (114.500) C:NA T:NA	pCi/L	06/02/15 12:57	
Radium-228	12.337 ± 10.567 (12.160) C:NA T:NA	pCi/L	06/02/15 12:57	
Thallium-208	0.000 ± 1.856 (4.995) C:NA T:NA	pCi/L	06/02/15 12:57	
Thorium-232	4962.500 ± 5885.500 (7122.000) C:NA T:NA	pCi/L	06/02/15 12:57	
Thorium-234	0.000 ± 257.460 (463.300) C:NA T:NA	pCi/L	06/02/15 12:57	
Uranium-235	5.037 ± 26.651 (33.660) C:NA T:NA	pCi/L	06/02/15 12:57	
Uranium-238	0.000 ± 68.282 (125.000) C:NA T:NA	pCi/L	06/02/15 12:57	

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QUALIFIERS

Project: R1503481

Pace Project No.: 30147887

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

30147887

Project Number: R1503481
Project Manager: Janice Jaeger

Lab Code	Sample ID	# of Cont.	Matrix	Sample			Radium 226 903.1	Radium 228 904.0	Nanovolt Spc 901.1	Nat U 901.0
				Date	Time	Lab ID				
R1503481-001	CELL3-0515	6	Water	5/7/15	0945	Pace PA	X	X	X	
R1503481-002	CELL3-0515 Dissolved		Water	5/7/15	0945	Pace PA	X	X	X	
R1503481-003	CELL4-0515		Water	5/7/15	1005	Pace PA	X	X	X	
R1503481-004	CELL4-0515 Dissolved		Water	5/7/15	1005	Pace PA	X	X	X	
R1503481-005	CELL5-0515		Water	5/7/15	1020	Pace PA	X	X	X	
R1503481-006	CELL5-0515 Dissolved		Water	5/7/15	1020	Pace PA	X	X	X	
R1503481-007	CELL6-0515		Water	5/7/15	1030	Pace PA	X	X	X	
R1503481-008	CELL6-0515 Dissolved		Water	5/7/15	1030	Pace PA	X	X	X	

Special Instructions/Comments

"Dissolved" need D-lab filter

H - Test is On Hold P - Test is Authorized for Prep Only

Relinquished By: *Janice Jaeger*

5/11/15 157A

Received By: *Scott Curran*

585-288-8475

Airbill Number:

Invoice Information

PO# 58R1503481

Bill to

Report Requirements

- I. Results Only
- II. Results + QC Summaries
- III. Results + QC and Calibration Summaries
- IV. Data Validation Report with Raw Data

PQL/MDL/ J N
EDD Y

Turnaround Requirements

RUSH (Surcharges Apply)

PLEASE CIRCLE WORK DAYS

1 2 3 4 5

STANDARD

Requested FAX Date: _____

Requested Report Date: 05/22/15



Sample Condition Upon Receipt

Client Name: ALS Environmental

Project # 30147887

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 62967898 2634

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no Biological Tissue Is Frozen: Yes No

Packing Material: Bubble Wrap Bubble Bags _____ None _____ Other _____

Thermometer Used NA Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Date and initials of person examining contents: SAA 5-12-15

Temp should be above freezing to 8°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>wt</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. Added 3 ml HNO3 to all bottles from samples 3, 5 & 7 @ 1030 5-12-15 SRA
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>SRA</u> Lot # of added preservative <u>DL15-0385</u>
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Carina Servino

Date: 5/18/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

30147887

page 2

Project Number:

Client Name: ALS Environmental



Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil Kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 (1L))	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubtainer (500 ml / 4L)	Ziploc	Other	Other	
100	M																								
200																									
300																									
400																									
500																									
600																									
700																									
800																									