



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monthly Summary for **April** **2023**
Month Year

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

WACS ID: **101607**

Wastestream: Industrial

The following reports are included with this Document:

Testsite ID	Well Name/Zone	Zone Depth	Chemical/Physical	Report Type
13989	IW-1	1950'-3300'	Chemical/Physical	MORM/MORQ/MORA
29238A	DZMW-1 Upper Zone	600'-650'	Chemical/Physical	MORM/MORQ/MORA
29238B	DZMW-1 Lower Zone	900'-950'	Chemical/Physical	MORM/MORQ/MORA

- The injection well system experienced no issues this month with equipment, sampling, or operation.
- The injection well system experienced the following issues this month with equipment, sampling, or operation:

Comments:
Revised report will be issued to include missing parameters once received from the laboratory. First SI test conducted in May. Monitoring water levels reported in feet elevation NAVD88

Report any abnormal events within 24 hours of their occurrence. (62-528.415(4) F.A.C.)

Comment Codes		
C1 = Purging Monitoring Wells	C7 = Recalibrated DWI Flow or Level Meters	C13 = Reinstalled Flow or PSI Meter
C2 = DWI or Pump Station Shutdown	C8 = DWI Flow or PSI Meter Failure	C14 = SCADA pressure data are unreliable.
C3 = Power Outage/Restarted Pump	C9 = MW Transducer Meter failure	C15 = SCADA pressure data verified.
C4 = SCADA System Restarted	C10 = Monitoring Well Recording Problems	C16 = Pumps off part of the day
C5 = Maintenance to DWI Pump(s)	C11 = Readjusted Flow Rate/Switched Pumps	C17 = No Data due to SCADA problems
C6 = Read DWI Flow Meter Late/Early	C12 = Installed Temporary Flow/ PSI Meter	C18 = Injectivity Test Performed

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO.
Pete Larkin	813-382-8516

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
	5/30/2023

Note: Fill in all yellow area the status of the injection well.



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Injection Well: IW-1 Physical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Month-Yr MMM-YY	Injection Pressure (PSI)			Injection Flow Rate (GPM)			Total Injected Volume (MG)
	Maximum	Minimum	Average	Maximum	Minimum	Average	
April							
1	14.83	14.70	14.77	0.00	0.00	0.00	0.00
2	14.81	14.64	14.74	0.00	0.00	0.00	0.00
3	14.77	14.61	14.69	0.00	0.00	0.00	0.00
4	53.52	10.19	25.86	715.17	0.00	304.24	0.43
5	42.47	12.33	30.79	704.00	0.00	443.35	0.61
6	42.28	17.54	36.39	671.50	338.17	505.72	0.74
7	47.14	19.33	39.65	725.67	258.50	563.40	0.80
8	48.09	16.24	40.75	737.00	18.00	549.30	0.79
9	48.64	16.52	44.22	717.00	162.67	599.50	0.86
10	49.05	20.50	46.12	672.17	413.83	621.96	0.90
11	49.35	8.84	45.79	677.00	206.50	598.50	0.86
12	48.88	39.09	44.81	644.83	452.67	555.13	0.81
13	50.16	20.79	45.02	648.33	385.67	560.83	0.80
14	56.89	22.92	51.88	743.83	525.67	664.49	0.95
15	56.65	22.05	54.54	727.83	433.83	688.02	0.99
16	56.76	23.26	53.95	730.50	397.67	682.61	0.98
17	56.88	23.16	55.03	721.83	383.33	681.93	0.98
18	57.28	23.87	55.46	720.17	385.17	680.19	0.98
19	57.60	18.73	55.64	707.00	486.50	671.65	0.97
20	58.15	21.43	54.15	694.67	0.00	629.42	0.91
21	58.39	16.50	56.93	714.00	375.17	668.13	0.96
22	58.20	22.79	54.17	690.00	267.17	602.09	0.87
23	58.59	20.70	48.96	717.33	113.50	521.69	0.75
24	58.41	22.13	54.39	679.67	236.33	590.17	0.85
25	59.03	13.72	52.73	656.83	0.00	549.61	0.79
26	59.85	15.77	56.36	634.00	328.00	579.06	0.84
27	59.74	19.64	47.99	654.00	0.00	435.42	0.64
28	58.60	10.77	38.96	654.33	0.00	332.16	0.47
29	59.44	16.13	43.83	691.00	0.00	417.33	0.58
30	60.12	16.15	39.88	635.67	0.00	304.69	0.48
31							
Monthly	Maximum	Minimum	Average	Maximum	Minimum	Average	Total
	60.12	8.84	43.95	743.83	0.00	500.02	21.60
WACS Code	IWPMAX	IWPMIN	IWPAVG	IWRMAX	IWRMIN	IWRAVG	IWFTOT

Note: Record all operational data for the injection well per day. Unless the well was in operation for a full 24-hr period, the minimum flow rate should be entered as 0.



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IW-1 Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 IW-1

WACS ID: 101607
 Testsite ID: **13989**
 Report Type: MORM/MORQ/MORA

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Apr-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	4.52				
Specific Conductance (field)	µmhos/cm	000094	Monthly	20,615				
Temperature Degrees C (field)	°C	000010	Monthly	27.08				
Chloride	mg/L	000940	Monthly	6,000				
Sulfate	mg/L	000945	Monthly	4,400				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	15,000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.061				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	1.36				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	19				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.21				
Ammonium	mg/L	049179	Monthly					
Arsenic	mg/L	900029	Monthly	0.014				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	<20				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	0.89				
OrthoPhosphate	mg/L	000660	Monthly	1.1				
Bicarbonate	mg/L	000440	Monthly					
Calcium	mg/L	000916	Monthly	120				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	150				
Potassium	mg/L	000937	Monthly	170				
Sodium	mg/L	000929	Monthly	4600				
Alpha, Gross	pCi/L	001515	Monthly	<1.1 +/- 0.8				
Uranium Total	µg/L	099243	Monthly					
Radium226 Total	pCi/L	009501	Monthly	0.4 +/- 0.3				
Radium228 Total	pCi/L	011501	Monthly	<0.5 +/- 0.5				
Delta15N	Ratio	082084	Quarterly					

Please submit Primary & Secondary Drinking Water Standards, Source Water - ANNUALLY.



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Injection Well: IW-1 Specific Injectivity Monthly

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

Test Date: _____

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Specific Injectivity Test

1. Static Wellhead pressure(psi): _____
2. Injection Flow Rate (gpm): _____
3. Average Wellhead pressure following the 15-minute injection (psi): _____

SPECIFIC INJECTIVITY (**SPCINJ**) (gpm/psi): _____

Fall-Off Test

Time Elapsed (min)	Wellhead Pressure (psi)	Comments
0		
0.5		
1		
1.5		
2		
2.5		
3		
3.5		
4		
4.5		
5		
5.5		
6		
6.5		
7		
7.5		
8		
8.5		
9		
9.5		
10		



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Monitoring Well: DZMW-1 Upper Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: 29238A

Well: DZMW-1 Upper Zone

Report Type: MORM

Well Depth: 600'-650'

Zone: UPPER

Month-Yr MMM-YY	Pressure (psi)			Comments
	Maximum	Minimum	Average	
April				
1	10.54	10.27	10.39	
2	10.38	10.29	10.34	
3	11.17	0.69	10.09	C1
4	11.11	1.46	9.67	C1
5	11.16	1.44	9.31	C1
6	10.72	10.38	10.55	
7	10.51	10.21	10.35	
8	10.52	10.22	10.39	
9	10.56	10.42	10.49	
10	10.58	10.41	10.50	
11	10.65	10.50	10.57	
12	10.60	10.34	10.47	
13	10.47	10.31	10.40	
14	10.38	10.14	10.28	
15	10.22	10.05	10.16	
16	10.15	10.00	10.07	
17	10.57	10.07	10.37	
18	10.80	10.57	10.72	
19	10.96	10.65	10.83	
20	10.79	10.60	10.70	
21	10.95	10.77	10.85	
22	10.97	10.78	10.86	
23	10.87	10.75	10.80	
24	10.88	10.77	10.83	
25	10.90	10.76	10.83	
26	10.88	10.75	10.82	
27	10.89	10.64	10.77	
28	11.04	10.85	10.95	
29	11.07	10.87	10.97	
30	11.25	10.91	11.12	
31				
Monthly	Maximum	Minimum	Average	
	11.25	0.69	10.52	
Storet Number	900234	900235	900170	



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Monitor Well: DZMW-1 Upper Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Upper Zone**
 Well Depth: 600'-650'

WACS ID: 101607
 Testsite ID: **29238A**
 Report Type: MORM/MORQ/MORA
 Zone: UPPER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Apr-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	8.12				
Specific Conductance (field)	µmhos/cm	000094	Monthly	1,277				
Temperature Degrees C (field)	°C	000010	Monthly	27.12				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.02				
Turbidity (field)	NTU	082078	Monthly	1.53				
Chloride	mg/L	000940	Monthly	100				
Sulfate	mg/L	000945	Monthly	360				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	1,000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.25				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.324				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.1				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.21				
Ammonium	mg/L	049179	Monthly					
Arsenic	mg/L	900029	Monthly	<0.0080				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.4				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly					
Calcium	mg/L	000916	Monthly	110				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	52				
Potassium	mg/L	000937	Monthly	6.9				
Sodium	mg/L	000929	Monthly	49				
Alpha, Gross	pCi/L	001515	Monthly	8.0 +/- 1.2				
Uranium Total	µg/L	099243	Monthly					
Radium226 Total	pCi/L	009501	Monthly	4.6 +/- 0.9				
Radium228 Total	pCi/L	011501	Monthly	<0.6 +/- 0.5				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



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Monitoring Well: DZMW-1 Lower Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238B**

Well: DZMW-1 Lower Zone

Report Type: MORM

Well Depth: 900'-950'

Zone: LOWER

Month-Yr MMM-YY	Pressure (psi)			Comments
	Maximum	Minimum	Average	
April				
1	4.92	4.64	4.74	
2	4.73	4.65	4.70	
3	4.91	2.36	4.59	C1
4	4.63	4.51	4.57	
5	4.88	2.19	4.28	C1
6	4.12	3.80	3.96	
7	3.91	3.63	3.76	
8	3.91	3.64	3.81	
9	3.92	3.78	3.86	
10	3.95	3.79	3.86	
11	4.02	3.89	3.95	
12	3.98	3.72	3.84	
13	3.83	3.68	3.76	
14	3.74	3.55	3.65	
15	3.62	3.47	3.55	
16	3.58	3.42	3.49	
17	3.94	3.51	3.77	
18	4.15	3.94	4.08	
19	4.31	4.00	4.19	
20	4.17	3.99	4.07	
21	4.32	4.14	4.23	
22	4.34	4.13	4.23	
23	4.21	4.09	4.16	
24	4.24	4.12	4.17	
25	4.24	4.10	4.17	
26	4.22	4.11	4.17	
27	4.26	3.99	4.12	
28	4.42	4.21	4.32	
29	4.44	4.22	4.32	
30	4.58	4.28	4.46	
31				
Monthly	Maximum	Minimum	Average	
	4.92	2.19	4.09	
Storet Number	900234	900235	900170	



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Monitor Well: DZMW-1 Lower Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Lower Zone**
 Well Depth: 900'-950'

WACS ID: 101607
 Testsite ID: **29238B**
 Report Type: MORM/MORQ/MORA
 Zone: UPPER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Apr-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.32				
Specific Conductance (field)	µmhos/cm	000094	Monthly	18,515				
Temperature Degrees C (field)	°C	000010	Monthly	28.55				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.04				
Turbidity (field)	NTU	082078	Monthly	0.32				
Chloride	mg/L	000940	Monthly	7300				
Sulfate	mg/L	000945	Monthly	2100				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	16,000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.74				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.932				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.5				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly					
Arsenic	mg/L	900029	Monthly	<0.0080				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	<20				
Manganese Total	mg/L	099244	Monthly	0.005				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly					
Calcium	mg/L	000916	Monthly	930				
Iron (Fe) Total	mg/L	074010	Monthly	0.053				
Magnesium Total	mg/L	000927	Monthly	370				
Potassium	mg/L	000937	Monthly	62				
Sodium	mg/L	000929	Monthly	2600				
Alpha, Gross	pCi/L	001515	Monthly	26.8 +/- 3.1				
Uranium Total	µg/L	099243	Monthly					
Radium226 Total	pCi/L	009501	Monthly	16.3 +/- 1.1				
Radium228 Total	pCi/L	011501	Monthly	0.6 +/- 0.6				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

FINAL

Workorder: Piney Point (T2306807)

April 24, 2023

Pete Larkin
ASRus LLC
13329 North Armenia Avenue
Tampa, FL 33613

RE: Workorder: T2306807 Piney Point

Dear Pete Larkin:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday April 5, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

Certificate of Analysis

This report shall not be reproduced, except in full,
without the written consent of Advanced Environmental Laboratories, Inc.





FINAL

Workorder: Piney Point (T2306807)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2306807003 Date Collected: 04/05/2023 09:50 Matrix: Water								
Sample ID: IW-1 Date Received: 04/05/2023 13:31								
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	04/13/2023 12:00	04/14/2023 13:46	T
Arsenic	0.014	mg/L	0.010	0.0080	1	04/13/2023 12:00	04/14/2023 13:46	T
Calcium	120	mg/L	1.0	0.20	1	04/13/2023 12:00	04/14/2023 13:46	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	04/13/2023 12:00	04/14/2023 13:46	T
Iron	0.073 I	mg/L	0.10	0.0067	1	04/13/2023 12:00	04/14/2023 13:46	T
Magnesium	150	mg/L	0.10	0.080	1	04/13/2023 12:00	04/14/2023 13:46	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	04/13/2023 12:00	04/14/2023 13:46	T
Potassium	170	mg/L	1.0	0.50	1	04/13/2023 12:00	04/14/2023 13:46	T
Sodium	4600	mg/L	25	20	25	04/13/2023 12:00	04/14/2023 15:59	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	1.36	mg/L	0.20	0.050	1	04/06/2023 11:34	04/10/2023 12:16	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.89	mg/L	0.20	0.15	1	04/06/2023 11:34	04/10/2023 12:16	T
WET CHEMISTRY (EPA 300.0)								
Chloride	6000	mg/L	500	100	100	04/07/2023 16:44	04/07/2023 16:44	T
Fluoride	20 U	mg/L	50	20	100	04/07/2023 16:44	04/07/2023 16:44	T
Orthophosphate	40 U	mg/L	50	40	100	04/07/2023 16:44	04/07/2023 16:44	T
Sulfate	4400	mg/L	500	100	100	04/07/2023 16:44	04/07/2023 16:44	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.061	mg/L	0.030	0.010	1	04/10/2023 09:31	04/10/2023 09:31	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	1.1	mg/L	0.040	0.026	2	04/06/2023 13:28	04/06/2023 13:28	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	04/06/2023 18:35	04/06/2023 18:35	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	15000	mg/L	10	10	1	04/10/2023 12:00	04/10/2023 12:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	04/06/2023 18:48	04/06/2023 18:48	T





FINAL

Workorder: Piney Point (T2306807)

Analytical Results

Lab ID: T2306807003 **Date Collected:** 04/05/2023 09:50 **Matrix:** Water
Sample ID: IW-1 **Date Received:** 04/05/2023 13:31

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	19	mg/L	1.0	0.50	1	04/06/2023 20:43	04/06/2023 20:43	T





FINAL

Workorder: Piney Point (T2306807)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2306807004 Date Collected: 04/05/2023 10:40 Matrix: Water								
Sample ID: APMW-1 Date Received: 04/05/2023 13:31								
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	04/13/2023 12:00	04/14/2023 13:48	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	1	04/13/2023 12:00	04/14/2023 13:48	T
Calcium	930	mg/L	10	2.0	10	04/13/2023 12:00	04/14/2023 16:01	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	04/13/2023 12:00	04/14/2023 13:48	T
Iron	0.053 I	mg/L	0.10	0.0067	1	04/13/2023 12:00	04/14/2023 13:48	T
Magnesium	370	mg/L	0.10	0.080	1	04/13/2023 12:00	04/14/2023 13:48	T
Manganese	0.0077 I	mg/L	0.010	0.0050	1	04/13/2023 12:00	04/14/2023 13:48	T
Potassium	62	mg/L	1.0	0.50	1	04/13/2023 12:00	04/14/2023 13:48	T
Sodium	2600	mg/L	10	8.0	10	04/13/2023 12:00	04/14/2023 16:01	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.932	mg/L	0.20	0.050	1	04/06/2023 11:34	04/10/2023 12:16	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	04/06/2023 11:34	04/10/2023 12:16	T
WET CHEMISTRY (EPA 300.0)								
Chloride	7300	mg/L	500	100	100	04/07/2023 17:00	04/07/2023 17:00	T
Fluoride	20 U	mg/L	50	20	100	04/07/2023 17:00	04/07/2023 17:00	T
Orthophosphate	40 U	mg/L	50	40	100	04/07/2023 17:00	04/07/2023 17:00	T
Sulfate	2100	mg/L	500	100	100	04/07/2023 17:00	04/07/2023 17:00	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.74	mg/L	0.030	0.010	1	04/10/2023 09:32	04/10/2023 09:32	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	04/06/2023 12:47	04/06/2023 12:47	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Total	120	mg/L	20	5.0	1	04/06/2023 18:39	04/06/2023 18:39	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	16000	mg/L	10	10	1	04/10/2023 12:00	04/10/2023 12:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	04/06/2023 18:49	04/06/2023 18:49	T





FINAL

Workorder: Piney Point (T2306807)

Analytical Results

Lab ID: T2306807004 **Date Collected:** 04/05/2023 10:40 **Matrix:** Water
Sample ID: APMW-1 **Date Received:** 04/05/2023 13:31

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.5	mg/L	1.0	0.50	1	04/06/2023 21:04	04/06/2023 21:04	T





FINAL

Workorder: Piney Point (T2306807)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2306807005 Date Collected: 04/05/2023 11:55 Matrix: Water								
Sample ID: SLMW-1 Date Received: 04/05/2023 13:31								
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	04/13/2023 12:00	04/14/2023 13:55	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	1	04/13/2023 12:00	04/14/2023 13:55	T
Calcium	110	mg/L	1.0	0.20	1	04/13/2023 12:00	04/14/2023 13:55	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	04/13/2023 12:00	04/14/2023 13:55	T
Iron	0.045 I	mg/L	0.10	0.0067	1	04/13/2023 12:00	04/14/2023 13:55	T
Magnesium	52	mg/L	0.10	0.080	1	04/13/2023 12:00	04/14/2023 13:55	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	04/13/2023 12:00	04/14/2023 13:55	T
Potassium	6.9	mg/L	1.0	0.50	1	04/13/2023 12:00	04/14/2023 13:55	T
Sodium	49	mg/L	1.0	0.80	1	04/13/2023 12:00	04/14/2023 13:55	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.324	mg/L	0.20	0.050	1	04/06/2023 11:34	04/10/2023 12:16	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	04/06/2023 11:34	04/10/2023 12:16	T
WET CHEMISTRY (EPA 300.0)								
Chloride	100	mg/L	10	2.0	2	04/07/2023 17:16	04/07/2023 17:16	T
Fluoride	0.83 I	mg/L	1.0	0.40	2	04/07/2023 17:16	04/07/2023 17:16	T
Orthophosphate	0.80 U	mg/L	1.0	0.80	2	04/07/2023 17:16	04/07/2023 17:16	T
Sulfate	360	mg/L	10	2.0	2	04/07/2023 17:16	04/07/2023 17:16	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.25	mg/L	0.030	0.010	1	04/10/2023 09:33	04/10/2023 09:33	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	04/06/2023 12:47	04/06/2023 12:47	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Total	130	mg/L	20	5.0	1	04/06/2023 18:45	04/06/2023 18:45	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	1000	mg/L	10	10	1	04/10/2023 12:00	04/10/2023 12:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	04/06/2023 18:50	04/06/2023 18:50	T





FINAL

Workorder: Piney Point (T2306807)

Analytical Results

Lab ID: T2306807005 **Date Collected:** 04/05/2023 11:55 **Matrix:** Water
Sample ID: SLMW-1 **Date Received:** 04/05/2023 13:31

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.1	mg/L	1.0	0.50	1	04/06/2023 21:24	04/06/2023 21:24	T





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Workorder: Piney Point (T2306807)

QC Results

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Workorder: Piney Point (T2306807)

QC Batch: ICP1/3633
Preparation Method: SW-846 3010A
Associated Lab IDs: T2306807003, T2306807004, T2306807005

Analysis Method: SW-846 6010

Method Blank(4750605)

Parameter	Results	Units	PQL	MDL	Lab
Aluminum	0.021 U	mg/L	0.10	0.021	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (4750606)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aluminum	mg/L	1	.92	92	80 - 120	T
Arsenic	mg/L	1	.93	93	80 - 120	T
Calcium	mg/L	10	9.9	99	80 - 120	T
Chromium	mg/L	1	1	100	80 - 120	T
Iron	mg/L	1	.97	97	80 - 120	T
Potassium	mg/L	10	10	100	80 - 120	T
Magnesium	mg/L	10	10	101	80 - 120	T
Manganese	mg/L	1	1	101	80 - 120	T
Sodium	mg/L	10	10	102	80 - 120	T

Matrix Spike (4750607); Matrix Spike Duplicate (4750608); Parent Lab Sample (T2307061005)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Aluminum	mg/L	1	1.2	75	75 - 125	1.2	74	1	20	T
Arsenic	mg/L	1	1	101	75 - 125	1	101	0	20	T
Calcium	mg/L	10	23	98	75 - 125	23	102	2	20	T
Chromium	mg/L	1	1.1	107	75 - 125	1.1	108	1	20	T
Iron	mg/L	1	1.1	101	75 - 125	1.1	102	1	20	T
Potassium	mg/L	10	10	105	75 - 125	11	106	1	20	T
Magnesium	mg/L	10	11	105	75 - 125	11	105	0	20	T
Manganese	mg/L	1	1.1	107	75 - 125	1.1	108	1	20	T
Sodium	mg/L	10	12	105	75 - 125	12	106	1	20	T

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Workorder: Piney Point (T2306807)

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Workorder: Piney Point (T2306807)

QC Results

QC Batch: WCA/19765
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2306807001

Analysis Method: SM 4500NO3-F

Method Blank(4741622)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4741623)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	1.95	97	90 - 110	T

Matrix Spike (4741624); Matrix Spike Duplicate (4741625); Parent Lab Sample (F2302093003)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	3.46	88	90 - 110	3.58	94	3	10	T

QC Result Comments

Matrix Spike - 4741624 - Nitrate + Nitrite
 J4|Estimated Result





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Workorder: Piney Point (T2306807)

QC Results

QC Batch: WCA/19766 **Analysis Method:** SM 4500NO3-F
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2306807002, T2306807003, T2306807004, T2306807005

Method Blank(4741646)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4741647)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	1.94	97	90 - 110	T

Matrix Spike (4741648); Matrix Spike Duplicate (4741649); Parent Lab Sample (T2305512069)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	2.1	105	90 - 110	2.11	106	1	10	T





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Workorder: Piney Point (T2306807)

QC Results

QC Batch: WCA1/19805 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2306807001, T2306807002, T2306807003, T2306807004, T2306807005

Method Blank(4743470)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Orthophosphate	0.40 U	mg/L	0.50	0.40	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (4743471)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5	99	90 - 110	T
Chloride	mg/L	50	50	99	90 - 110	T
Orthophosphate	mg/L	5	4.9	98	90 - 110	T
Sulfate	mg/L	50	49	99	90 - 110	T

Matrix Spike (4743472); Matrix Spike Duplicate (4743473); Parent Lab Sample (T2306996002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	1.9	96	90 - 110	1.9	95	1.30	10	T
Chloride	mg/L	20	21	110	90 - 110	21	110	1.40	10	T
Orthophosphate	mg/L	2	1.7	85	90 - 110	1.7	86	1.20	10	T
Sulfate	mg/L	20	21	100	90 - 110	20	100	1.50	10	T

QC Result Comments

Matrix Spike - 4743472 - Orthophosphate

J4|Estimated Result

Matrix Spike Duplicate - 4743473 - Orthophosphate

J4|Estimated Result





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Workorder: Piney Point (T2306807)

QC Results

QC Batch: WCA/19978 **Analysis Method:** EPA 351.2
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2306807001, T2306807002, T2306807003, T2306807004, T2306807005

Method Blank(4739834)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4739836)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.07	107	90 - 110	T

Matrix Spike (4739838); Matrix Spike Duplicate (4739840); Parent Lab Sample (T2306807002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	.768	3	90 - 110	.77	3	0	20	T

Matrix Spike (4739842); Matrix Spike Duplicate (4739844); Parent Lab Sample (T2306812001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.62	108	90 - 110	1.62	107	0	20	T

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Workorder: Piney Point (T2306807)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICP/3633 - SW-846 6010			
T2306807003	IW-1	DGMt/5877	SW-846 3010A
T2306807004	APMW-1	DGMt/5877	SW-846 3010A
T2306807005	SLMW-1	DGMt/5877	SW-846 3010A
WCA/19740 - EPA 365.1			
T2306807003	IW-1		
T2306807004	APMW-1		
T2306807005	SLMW-1		
WCA/19749 - SM 2320B			
T2306807001	SLMW-1		
T2306807002	APMW-1		
T2306807003	IW-1		
T2306807004	APMW-1		
T2306807005	SLMW-1		
WCA/19754 - SM 5310B			
T2306807003	IW-1		
T2306807004	APMW-1		
T2306807005	SLMW-1		
WCA/19765 - SM 4500NO3-F			
T2306807001	SLMW-1		
WCA/19766 - SM 4500NO3-F			
T2306807002	APMW-1		
T2306807003	IW-1		
T2306807004	APMW-1		
T2306807005	SLMW-1		
WCA/19802 - EPA 350.1			
T2306807001	SLMW-1		
T2306807002	APMW-1		
T2306807003	IW-1		
T2306807004	APMW-1		
T2306807005	SLMW-1		

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Workorder: Piney Point (T2306807)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCA/19805 - EPA 300.0			
T2306807001	SLMW-1		
T2306807002	APMW-1		
T2306807003	IW-1		
T2306807004	APMW-1		
T2306807005	SLMW-1		
WCA/19884 - SM 2540 C			
T2306807001	SLMW-1		
T2306807002	APMW-1		
T2306807003	IW-1		
T2306807004	APMW-1		
T2306807005	SLMW-1		
WCA/19978 - EPA 351.2			
T2306807001	SLMW-1	WCA/19742	Copper Sulfate Digestion
T2306807002	APMW-1	WCA/19742	Copper Sulfate Digestion
T2306807003	IW-1	WCA/19742	Copper Sulfate Digestion
T2306807004	APMW-1	WCA/19742	Copper Sulfate Digestion
T2306807005	SLMW-1	WCA/19742	Copper Sulfate Digestion
WCA/19979 - EPA 365.4			
T2306807001	SLMW-1	WCA/19742	Copper Sulfate Digestion
T2306807002	APMW-1	WCA/19742	Copper Sulfate Digestion
T2306807003	IW-1	WCA/19742	Copper Sulfate Digestion
T2306807004	APMW-1	WCA/19742	Copper Sulfate Digestion
T2306807005	SLMW-1	WCA/19742	Copper Sulfate Digestion





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Workorder: Piney Point (T2306807)



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- Fort Myers: 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.6130 • Lab ID: E84492
- Jacksonville: 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
- Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095

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- Miramar: 10200 USA Today Way, FL 33025 • 954.889.2286 • Lab ID: E82535
- Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: ASRUS, LLC		Project Name: Piney Point	
Address:		Project Number:	
Phone: 813 382 8516		PO Number:	
FAX:		FDEP Facility No.:	
Contact: PETE LARKIN		FDEP Facility Addr.:	
Sampled By: 73009		Special Instructions:	
Standard Rush		ADAPT EQUIS Other	

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	ANALYSIS REQUIRED										LABORATORY I.D. NUMBER	
			DATE	TIME			TDS	AIK	SD4, CL, FI	TRN, NOX, NH3, TP	Metals	TDC	O-Phos	Cyanium/GA	Rad-226/238	Rad-228		
	SLMW-1 (UZ)	G	4/4/23	10:32	GW	3	X	X	X									001
	APMW-1 (LZ)	G	4/3/23	15:30	GW	3	X	X	X									002
	IW-1	G	4/5/23	9:50	GW	11	X	X	X	X	X	X	X	X	X	X	X	003
	APMW-1 (LZ)	G	4/5/23	10:40	GW	11	X	X	X	X	X	X	X	X	X	X	X	004
	SLMW-1 (UZ)	G	4/5/23	11:55	GW	11	X	X	X	X	X	X	X	X	X	X	X	005

Matrix Code: WW=wastewater, SW=surface water, GW=ground water, DW=drinking water, MW=marine water, O=oil, A=air, SO=soil, SL=sludge

Received on Ice Yes No Temp taken from sample Temp from blank Where required, pH checked Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C

DCN: AD-D051web Form last revised 07/26/2022 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Relinquished by:	Date	Time	Received by:	Date	Time
<i>[Signature]</i>	7/5/23	13:31	<i>Carol Woodard</i>	4-5-23	1331
1					
2					
3					
4					

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____

Supplier of Water: _____

Site-Address: _____

POWERED BY
HORIZON
 v.13.1.0

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Monday, April 24, 2023 4:30:57 PM
 Dates and times are displayed using (-04:00)
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IW-1

Report Date: April 17, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2306807003
Sample Collection: 04-05-23/0950
Lab ID No: 23.5372
Lab Custody Date: 04-07-23/0923
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	1.1 U ± 0.8	4-13-23/0805	EPA 00-02	1.1
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.5 I ± 0.3	Calc	Calc	0.4
Radium-226	pCi/l	0.5 I ± 0.3	4-13-23/1251	EPA 903.0*	0.4
Radium-228	pCi/l	0.5 U ± 0.5	4-14-23/1700	EPA Ra-05	0.5

Alpha Standard: Th-230

* 96% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed. Contact person: Thomas Weeks (813) 229-2879.



LZ APMW

Report Date: April 17, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2306807004
Sample Collection: 04-05-23/1040
Lab ID No: 23.5373
Lab Custody Date: 04-07-23/0923
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	26.8 ± 3.1	4-13-23/0805	EPA 00-02	1.2
Combined Radium (Radium-226 + Radium 228)	pCi/l	17.9 ± 1.1	Calc	Calc	0.6
Radium-226	pCi/l	16.3 ± 1.1	4-13-23/1251	EPA 903.0*	0.4
Radium-228	pCi/l	1.6 I ± 0.6	4-14-23/1700	EPA Ra-05	0.6

Alpha Standard: Th-230

* 113% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



Report Date: April 17, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2306807005
Sample Collection: 04-05-23/1155
Lab ID No: 23.5374
Lab Custody Date: 04-07-23/0923
Sample Description: Water

UZ SLMW

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	8.0 ± 1.2	4-11-23/1641	EPA 00-02	0.8
Combined Radium (Radium-226 + Radium 228)	pCi/l	4.6 ± 0.9	Calc	Calc	0.6
Radium-226	pCi/l	4.6 ± 0.9	4-14-23/1242	EPA 903.0*	0.6
Radium-228	pCi/l	0.6 U ± 0.5	4-14-23/1700	EPA Ra-05	0.6

Alpha Standard: Th-230

* 93% carrier recovery

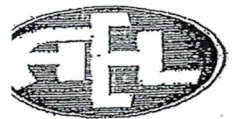
U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.

Contact person: Thomas Weeks (813) 229-2879.



Advanced Environmental Laboratories, Inc.

- Altamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
- Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
- Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
- Tallahassee:** 2639 North Monroe St, Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095

- Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
- Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
- Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Rush
4-19

Client Name: **Advanced Environmental Lab**
 Address: **Tampa FL 33619**
 Phone: **813-630-9616**
 Fax: **813-630-4327**
 Email: **mcammarata@aellab.com**
 Implemented By: _____
 Turn Around Time: STANDARD RUSH
 I.D. Profile #: _____

Project Name: **T2306807**
 Project Number: _____
 PO Number: **20850**
 FDEP Facility No: _____
 FDEP Facility Address: _____

Even though matrix WA please include DW report along with EVN report

ADApT EQUIS Other

BOTTLE SIZE & TYPE	ANALYSIS REQUIRED	LABORATORY I.D. NUMBER												
Rad 226	Rad 228	Gross Alpha												

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT
			DATE	TIME		
IW	T2306807003		4-5-23	950	WA	3
LZ	T2306807004		4-5-23	1040	WA	3
UZ	T2306807005		4-5-23	1155	WA	3

Preservation	Field-Filled?	LABORATORY I.D. NUMBER											

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge
 Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)
 Received on Ice Yes No Temp taken from sample Temp from blank Where required, pH checked
 Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C
 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A
 DCN: AD-D051 Form last revised 08/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Kaitlyn Pasquallini	4-7-23	700	KNL-JS	4-7-23	923
2						
3						
4						

FOR DRINKING WATER USE:
 (When PWS Information not otherwise supplied) PWS ID: _____
 Contact Person: _____ Phone: _____
 Supplier of Water: _____
 Site Address: _____

Advanced Environmental Laboratories

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT DEEP INJECTION WELL	SITE LOCATION: 11951 BUD RHODEN RD PALMETTO, FL
WELL NO: APMW-1 (LZ)	SAMPLE ID: _____ DATE: 4/5/2023

PURGING DATA

WELL DIAMETER (inches): 5.43 to 12	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: 913 feet to 939 feet	STATIC WATER LEVEL (feet NAVD88):	PURGE PUMP TYPE OR BAILER: Permanent ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = 1,251 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70		PURGING INITIATED AT: 9:48	PURGING ENDED AT: 10:35	TOTAL VOLUME PURGED (gallons): 2,300					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	WATER LEVEL (feet NAVD88)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
09:42	0	0	0	4.65							
10:21	1,980	1,980	60	2.29	7.21	28.55	18,443	0.10	0.47	Clean, clear	None
10:27	360	2,340	60	2.26	7.31	28.55	18,467	0.05	0.45	Clean, clear	None
10:35	480	2,820	60	2.19	7.32	28.55	18,515	0.04	0.32	Clean, clear	None
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Rommy Lahera/ASRus, LLC				SAMPLER(S) SIGNATURE(S):			SAMPLING INITIATED AT: 10:40		SAMPLING ENDED AT: 10:50	
PUMP OR TUBING DEPTH IN WELL (feet): 70				TUBING MATERIAL CODE: steel/HDPE			FIELD-FILTERED: N/A Filtration Equipment Type: syringe		FILTER SIZE: 0.45 µm	
FIELD DECONTAMINATION: PUMP N/A				TUBING N/A			DUPLICATE: N/A			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
	9	Various	Various	ICE, various	-----	7.32	various	ESP	5	
REMARKS: DO 9.35 @ 18.90										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Advanced Environmental Laboratories

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT DEEP INJECTION WELL	SITE LOCATION: 11951 BUD RHODEN RD PALMETTO, FL
WELL NO: SLMW-1 (UZ)	SAMPLE ID: _____ DATE: 4/5/2023

PURGING DATA

ANNULUS DIAMETER (inches): 6.27 to 9.27	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: 580 feet to 623 feet	STATIC WATER LEVEL (feet NAVD88): 11.29	PURGE PUMP TYPE OR BAILER: Permanent ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = 4,855 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70	PURGING INITIATED AT: 9:48	PURGING ENDED AT: 11:51	TOTAL VOLUME PURGED (gallons): 7,405							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	WATER LEVEL (feet NAVD88)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
09:42	0	0	0	11.08							
11:09	4,885	4,886	60	1.52	8.15	27.17	1,274	0.03	0.88	Clean, clear	None
11:30	1,260	6,145	60	1.49	8.17	27.15	1,273	0.03	1.02	Clean, clear	None
11:51	1,260	7,405	60	1.44	8.12	27.12	1,277	0.02	1.53	Clean, clear	None
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Rommy Lahera / ASRus				SAMPLER(S) SIGNATURE(S):			SAMPLING INITIATED AT: 11:55		SAMPLING ENDED AT: 12:10	
PUMP OR TUBING DEPTH IN WELL (feet): 70				TUBING MATERIAL CODE: HDPE			FIELD-FILTERED: N/A Filtration Equipment Type: syringe		FILTER SIZE: 0.45 µm	
FIELD DECONTAMINATION: PUMP N/A				TUBING N/A			DUPLICATE: N/A			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	various		ESP	5
	9	Various	Various	ICE, various	----	8.12				
REMARKS: See attached water quality table										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)



State of Florida
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 Underground Injection Control Program
 Class I Monthly Operating Report

Monthly Summary for **May** **2023**
 Month Year

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

WACS ID: 101607

Wastestream: Industrial

The following reports are included with this Document:

Testsite ID	Well Name/Zone	Zone Depth	Chemical/Physical	Report Type
13989	IW-1	1950'-3300'	Chemical/Physical	MORM/MORQ/MORA
29238A	DZMW-1 Upper Zone	600'-650'	Chemical/Physical	MORM/MORQ/MORA
29238B	DZMW-1 Lower Zone	900'-950'	Chemical/Physical	MORM/MORQ/MORA

- The injection well system experienced no issues this month with equipment, sampling, or operation.
 The injection well system experienced the following issues this month with equipment, sampling, or operation:

Comments:
Delta N-15 isotope reported as "invalid result" (IR). Reston Stable Isotope Laboratory reported that all samples were below the minimum N concentrations of 0.06 mg/L required to guarantee QA/QC results. Qualified results are available in the laboratory report.

Report any abnormal events within 24 hours of their occurrence. (62-528.415(4) F.A.C.)

Comment Codes		
C1 = Purging Monitoring Wells	C7 = Recalibrated DWI Flow or Level Meters	C13 = Reinstalled Flow or PSI Meter
C2 = DWI or Pump Station Shutdown	C8 = DWI Flow or PSI Meter Failure	C14 = SCADA pressure data are unreliable.
C3 = Power Outage/Restarted Pump	C9 = MW Transducer Meter failure	C15 = SCADA pressure data verified.
C4 = SCADA System Restarted	C10 = Monitoring Well Recording Problems	C16 = Pumps off part of the day
C5 = Maintenance to DWI Pump(s)	C11 = Readjusted Flow Rate/Switched Pumps	C17 = No Data due to SCADA problems
C6 = Read DWI Flow Meter Late/Early	C12 = Installed Temporary Flow/ PSI Meter	C18 = Injectivity Test Performed

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO.
Pete Larkin	813-382-8516

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
	6/30/2023

Note: Fill in all yellow areas and check the box for the status of the injection well.



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Injection Well: IW-1 Physical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Month-Yr MMM-YY	Injection Pressure (PSI)			Injection Flow Rate (GPM)			Total Injected Volume (MG)
	Maximum	Minimum	Average	Maximum	Minimum	Average	
May-23							
1	57.60	15.91	30.21	679.00	0.00	247.96	0.32
2	57.94	17.79	47.88	690.17	64.83	491.49	0.71
3	58.30	19.44	49.16	664.17	109.67	504.60	0.73
4	58.22	20.23	50.71	654.50	219.33	521.61	0.75
5	58.15	21.32	51.50	655.50	137.50	519.90	0.76
6	58.62	32.87	44.66	646.00	237.83	412.36	0.60
7	57.47	18.69	40.24	648.67	0.00	333.97	0.50
8	58.98	17.10	41.76	653.83	0.00	404.26	0.55
9	59.01	17.05	50.75	626.50	264.17	487.31	0.70
10	61.62	18.03	42.93	682.00	0.00	380.57	0.55
11	61.03	13.52	42.29	706.33	0.00	367.35	0.54
12	62.57	21.04	52.01	669.83	0.00	511.56	0.74
13	60.87	13.03	37.65	705.00	0.00	292.39	0.44
14	59.30	14.64	33.14	704.50	0.00	262.92	0.36
15	59.73	10.51	27.80	725.00	0.00	152.68	0.24
16	59.83	15.92	30.72	725.33	0.00	232.74	0.34
17	53.46	9.85	23.50	590.67	0.00	123.01	0.18
18	50.20	6.07	15.52	88.17	0.00	3.49	0.01
19	14.77	14.00	14.35	0.00	0.00	0.00	0.00
20	14.05	13.51	13.77	0.00	0.00	0.00	0.00
21	13.57	13.18	13.37	0.00	0.00	0.00	0.00
22	55.01	11.01	21.50	674.83	0.00	166.57	0.21
23	52.41	15.98	36.50	656.17	0.00	349.34	0.53
24	15.99	13.77	14.55	0.00	0.00	0.00	0.00
25	43.20	8.83	13.41	20.50	0.00	0.94	0.00
26	51.81	11.15	28.85	700.67	0.00	293.49	0.40
27	53.04	14.37	40.06	690.17	0.00	442.20	0.63
28	53.50	9.09	46.91	660.17	0.00	528.08	0.75
29	53.44	13.19	47.82	635.17	0.00	493.93	0.74
30	54.51	4.71	45.51	637.67	0.00	479.25	0.67
31	54.21	14.63	46.12	606.00	1.00	460.10	0.67
Monthly	Maximum	Minimum	Average	Maximum	Minimum	Average	Total
	62.57	4.71	35.33	725.33	0.00	305.29	13.60
WACS Code	IWPMAX	IWPMIN	IWPAVG	IWRMAX	IWRMIN	IWRAVG	IWFTOT

Note: Record all operational data for the injection well per day. Unless the well was in operation for a full 24-hr period, the minimum flow rate should be entered as 0.



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IW-1 Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 IW-1

WACS ID: 101607
 Testsite ID: **13989**
 Report Type: MORM/MORQ/MORA

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				02-May-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	5.65				
Specific Conductance (field)	µmhos/cm	000094	Monthly	20,045				
Temperature Degrees C (field)	°C	000010	Monthly	26.8				
Chloride	mg/L	000940	Monthly	5,300				
Sulfate	mg/L	000945	Monthly	4,000				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	14,000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.12				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.65				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	1.9				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	20				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.65				
Arsenic	mg/L	900029	Monthly	0.013				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	<40				
Manganese Total	mg/L	099244	Monthly	0.04				
Phosphorus Total	mg/L	000665	Monthly	2.1				
OrthoPhosphate	mg/L	000660	Monthly	1.6				
Bicarbonate	mg/L	000440	Monthly	<5.0				
Calcium	mg/L	000916	Monthly	140				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	160				
Potassium	mg/L	000937	Monthly	200				
Sodium	mg/L	000929	Monthly	4,800				
Alpha, Gross	pCi/L	001515	Monthly	2.0 l +/- 0.6				
Uranium Total	µg/L	099243	Monthly	<0.4 +/- 0.1				
Radium226 Total	pCi/L	009501	Monthly	0.9 l +/- 0.6				
Radium228 Total	pCi/L	011501	Monthly	<0.6 +/- 0.5				
Delta15N	Ratio	082084	Quarterly	IR				

Please submit Primary & Secondary Drinking Water Standards, Source Water - ANNUALLY.



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Injection Well: IW-1 Specific Injectivity Monthly

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **13989**

Well: **IW-1**

Report Type: MORM

Test Date: 5/30/2023

Specific Injectivity Test

1. Static Wellhead pressure(psi): 21.08
2. Injection Flow Rate (gpm): 620
3. Average Wellhead pressure following the 15-minute injection (psi): 52

SPECIFIC INJECTIVITY (**SPCINJ**) (gpm/psi): 20.051746

Fall-Off Test

Time Elapsed (min)	Wellhead Pressure (psi)	Comments
0	52	
0.5	27.7	
1	26.8	
1.5	25.9	
2	25.3	
2.5	24.7	
3	24.4	
3.5	24	
4	23.7	
4.5	23.5	
5	23.3	
5.5	23	
6	22.8	
6.5	22.6	
7	22.5	
7.5	22.4	
8	22.2	
8.5	22.1	
9	22	
9.5	21.9	
10	21.8	



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Monitoring Well: DZMW-1 Upper Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238A**

Well: **DZMW-1 Upper Zone**

Report Type: MORM

Well Depth: 600'-650'

Zone: UPPER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
May-23				
1	11.68	11.45	11.56	
2	11.77	2.79	10.83	C1
3	11.75	11.29	11.55	
4	11.30	11.08	11.17	
5	11.09	10.79	10.93	
6	10.99	10.75	10.83	
7	11.44	10.96	11.18	
8	11.46	11.09	11.27	
9	11.13	10.97	11.06	
10	11.01	10.68	10.80	
11	10.85	10.73	10.80	
12	10.83	10.74	10.80	
13	10.77	10.66	10.72	
14	10.98	10.73	10.85	
15	11.02	10.68	10.87	
16	10.92	10.61	10.75	
17	11.07	10.86	10.94	
18	10.90	10.66	10.77	
19	10.69	10.44	10.54	
20	10.60	10.38	10.46	
21	10.74	10.46	10.56	
22	10.91	10.74	10.82	
23	10.83	10.45	10.57	
24	10.83	10.52	10.60	
25	11.45	10.83	11.15	
26	11.75	11.42	11.60	
27	11.93	11.72	11.79	
28	11.97	11.78	11.88	
29	11.98	11.84	11.91	
30	12.11	11.90	12.04	
31	12.20	12.03	12.10	
Monthly	Maximum	Minimum	Average	
	12.20	2.79	11.09	
Storet Number	900199	900200	900198	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Upper Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Upper Zone**
 Well Depth: 600'-650'

WACS ID: 101607
 Testsite ID: **29238A**
 Report Type: MORM/MORQ/MORA
 Zone: UPPER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				02-May-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	10.3				
Specific Conductance (field)	µmhos/cm	000094	Monthly	1,123				
Temperature Degrees C (field)	°C	000010	Monthly	26.9				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.01				
Turbidity (field)	NTU	082078	Monthly	15.3				
Chloride	mg/L	000940	Monthly	100				
Sulfate	mg/L	000945	Monthly	300				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	700				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.28				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.338				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.6				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	<0				
Arsenic	mg/L	900029	Monthly	<0.0080				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.4				
Manganese Total	mg/L	099244	Monthly	0.5				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	0.013				
Bicarbonate	mg/L	000440	Monthly	5				
Calcium	mg/L	000916	Monthly	120				
Iron (Fe) Total	mg/L	074010	Monthly	0.12				
Magnesium Total	mg/L	000927	Monthly	31				
Potassium	mg/L	000937	Monthly	44				
Sodium	mg/L	000929	Monthly	64				
Alpha, Gross	pCi/L	001515	Monthly	10.0 +/- 1.2				
Uranium Total	µg/L	099243	Monthly	1.6 l +/- 0.6				
Radium226 Total	pCi/L	009501	Monthly	4.4 +/- 0.8				
Radium228 Total	pCi/L	011501	Monthly	<0.6 +/- 0.6				
Delta15N	Ratio	082084	Quarterly	IR				

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitoring Well: DZMW-1 Lower Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238B**

Well: **DZMW-1 Lower Zone**

Report Type: MORM

Well Depth: 900'-950'

Zone: LOWER

Datum: NAVD88

Month-Yr MM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
May-23				
1	4.63	4.43	4.54	
2	5.19	2.61	4.75	C1
3	4.81	4.30	4.57	
4	4.40	4.19	4.32	
5	4.26	4.09	4.17	
6	4.41	4.08	4.21	
7	4.82	4.40	4.63	
8	4.75	4.34	4.50	
9	4.39	4.15	4.29	
10	4.15	3.96	4.04	
11	4.12	3.96	4.05	
12	4.16	4.03	4.10	
13	4.13	3.95	4.02	
14	4.31	4.12	4.19	
15	4.33	3.91	4.12	
16	4.08	3.93	4.02	
17	4.19	3.89	4.04	
18	3.95	3.73	3.87	
19	3.81	3.65	3.75	
20	3.75	3.63	3.69	
21	3.91	3.67	3.77	
22	4.07	3.78	3.96	
23	3.78	3.55	3.64	
24	3.98	3.59	3.70	
25	4.55	3.97	4.25	
26	4.85	4.52	4.67	
27	5.13	4.82	4.94	
28	5.12	4.95	4.99	
29	5.13	4.98	5.03	
30	5.19	5.08	5.13	
31	5.32	5.14	5.20	
Monthly	Maximum	Minimum	Average	
	5.32	2.61	4.29	
Storet Number	900199	900200	900198	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Lower Zone Chemical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: **DZMW-1 Lower Zone**

Well Depth: 900'-950'

WACS ID: 101607

Testsite ID: **29238B**

Report Type: MORM/MORQ/MORA

Zone: LOWER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				02-May-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.61				
Specific Conductance (field)	µmhos/cm	000094	Monthly	15,666				
Temperature Degrees C (field)	°C	000010	Monthly	28.2				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.03				
Turbidity (field)	NTU	082078	Monthly	0.02				
Chloride	mg/L	000940	Monthly	5,400				
Sulfate	mg/L	000945	Monthly	1,500				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	13,000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.66				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.796				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	2.4				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.64				
Arsenic	mg/L	900029	Monthly	<0.0080				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	<20				
Manganese Total	mg/L	099244	Monthly	0.25				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	100				
Calcium	mg/L	000916	Monthly	970				
Iron (Fe) Total	mg/L	074010	Monthly	0.17				
Magnesium Total	mg/L	000927	Monthly	350				
Potassium	mg/L	000937	Monthly	69				
Sodium	mg/L	000929	Monthly	2,500				
Alpha, Gross	pCi/L	001515	Monthly	32.5 +/- 2.4				
Uranium Total	µg/L	099243	Monthly	<0.6 +/- 0.1				
Radium226 Total	pCi/L	009501	Monthly	12.5 +/- 1.2				
Radium228 Total	pCi/L	011501	Monthly	1.2 l +/- 0.6				
Delta15N	Ratio	082084	Quarterly	IR				

Note: Please attach laboratory data sheets



Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
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Fax: (813) 630-4327

Workorder: Piney Point Wells Monthly (T2308717)

June 21, 2023

RE: Workorder: T2308717 Piney Point Wells Monthly

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday May 2, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

A handwritten signature in black ink that reads "Sheila Wilcox".

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

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Workorder: Piney Point Wells Monthly (T2308717)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2308717001	APMW-1 LZ	WA	DEP SOP 10/03/83	05/02/2023 11:20	05/02/2023 14:45	1	NA
T2308717001	APMW-1 LZ	WA	EPA 300.0	05/02/2023 11:20	05/02/2023 14:45	3	NA
T2308717001	APMW-1 LZ	WA	EPA 350.1	05/02/2023 11:20	05/02/2023 14:45	2	NA
T2308717001	APMW-1 LZ	WA	EPA 351.2	05/02/2023 11:20	05/02/2023 14:45	1	NA
T2308717001	APMW-1 LZ	WA	EPA 365.1	05/02/2023 11:20	05/02/2023 14:45	1	NA
T2308717001	APMW-1 LZ	WA	EPA 365.4	05/02/2023 11:20	05/02/2023 14:45	1	NA
T2308717001	APMW-1 LZ	WA	Field Measurements	05/02/2023 11:20	05/02/2023 14:45	3	NA
T2308717001	APMW-1 LZ	WA	SM 2320B	05/02/2023 11:20	05/02/2023 14:45	2	NA
T2308717001	APMW-1 LZ	WA	SM 2540 C	05/02/2023 11:20	05/02/2023 14:45	1	NA
T2308717001	APMW-1 LZ	WA	SM 4500NO3-F	05/02/2023 11:20	05/02/2023 14:45	1	NA
T2308717001	APMW-1 LZ	WA	SM 5310B	05/02/2023 11:20	05/02/2023 14:45	1	NA
T2308717001	APMW-1 LZ	WA	SW-846 6010	05/02/2023 11:20	05/02/2023 14:45	9	NA
T2308717002	SLMW-1 uZ	WA	DEP SOP 10/03/83	05/02/2023 13:09	05/02/2023 14:45	1	NA
T2308717002	SLMW-1 uZ	WA	EPA 300.0	05/02/2023 13:09	05/02/2023 14:45	3	NA
T2308717002	SLMW-1 uZ	WA	EPA 350.1	05/02/2023 13:09	05/02/2023 14:45	2	NA
T2308717002	SLMW-1 uZ	WA	EPA 351.2	05/02/2023 13:09	05/02/2023 14:45	1	NA
T2308717002	SLMW-1 uZ	WA	EPA 365.1	05/02/2023 13:09	05/02/2023 14:45	1	NA
T2308717002	SLMW-1 uZ	WA	EPA 365.4	05/02/2023 13:09	05/02/2023 14:45	1	NA
T2308717002	SLMW-1 uZ	WA	Field Measurements	05/02/2023 13:09	05/02/2023 14:45	3	NA
T2308717002	SLMW-1 uZ	WA	SM 2320B	05/02/2023 13:09	05/02/2023 14:45	2	NA
T2308717002	SLMW-1 uZ	WA	SM 2540 C	05/02/2023 13:09	05/02/2023 14:45	1	NA
T2308717002	SLMW-1 uZ	WA	SM 4500NO3-F	05/02/2023 13:09	05/02/2023 14:45	1	NA
T2308717002	SLMW-1 uZ	WA	SM 5310B	05/02/2023 13:09	05/02/2023 14:45	1	NA
T2308717002	SLMW-1 uZ	WA	SW-846 6010	05/02/2023 13:09	05/02/2023 14:45	9	NA
T2308717003	IW-1	WA	DEP SOP 10/03/83	05/02/2023 13:40	05/02/2023 14:45	1	NA
T2308717003	IW-1	WA	EPA 300.0	05/02/2023 13:40	05/02/2023 14:45	3	NA
T2308717003	IW-1	WA	EPA 350.1	05/02/2023 13:40	05/02/2023 14:45	2	NA
T2308717003	IW-1	WA	EPA 351.2	05/02/2023 13:40	05/02/2023 14:45	1	NA
T2308717003	IW-1	WA	EPA 365.1	05/02/2023 13:40	05/02/2023 14:45	1	NA
T2308717003	IW-1	WA	EPA 365.4	05/02/2023 13:40	05/02/2023 14:45	1	NA
T2308717003	IW-1	WA	Field Measurements	05/02/2023 13:40	05/02/2023 14:45	3	NA
T2308717003	IW-1	WA	SM 2320B	05/02/2023 13:40	05/02/2023 14:45	2	NA
T2308717003	IW-1	WA	SM 2540 C	05/02/2023 13:40	05/02/2023 14:45	1	NA
T2308717003	IW-1	WA	SM 4500NO3-F	05/02/2023 13:40	05/02/2023 14:45	1	NA
T2308717003	IW-1	WA	SM 5310B	05/02/2023 13:40	05/02/2023 14:45	1	NA

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 9610 Princess Palm Ave Tampa, FL 33619
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Workorder: Piney Point Wells Monthly (T2308717)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2308717003	IW-1	WA	SW-846 6010	05/02/2023 13:40	05/02/2023 14:45	9	NA

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Workorder: Piney Point Wells Monthly (T2308717)

Workorder Summary

Batch Comments

WCAg/11418 - TOC,SM5310B,Water

The matrix spike recovery and duplicate of TOC for M2302793001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.

WCAI/20380 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recovery of Nitrate + Nitrite for T2308717003 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

WCAI/20458 - IC,E300.0,Water

The matrix spike recovery of Chloride for T2308693005 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

WCAI/20740 - TKN,E351.2 Analysis,Water

The matrix spike recoveries of TKN for T2308717003 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. The affected sample is qualified to indicate matrix interference.

WCAI/20741 - Total Phosphorus,E365.4,Water

The matrix spike recoveries of TP for T2308717003 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. The affected sample is qualified to indicate matrix interference.

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Workorder: Piney Point Wells Monthly (T2308717)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time

Lab Qualifiers

- G DOH Certification #E82001 (FL NELAC) AEL-Gainesville
- T^ Not Certified
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa

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Workorder: Piney Point Wells Monthly (T2308717)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2308717001 Date Collected: 05/02/2023 11:20 Matrix: Water								
Sample ID: APMW-1 LZ Date Received: 05/02/2023 14:45								
FIELD PARAMETERS (Field Measurements)								
Salinity	9.09	ppt			1	06/21/2023 09:39	06/21/2023 09:39	T^
Temperature	28.2	°C			1	06/21/2023 09:39	06/21/2023 09:39	T^
pH	7.61	SU			1	06/21/2023 09:39	06/21/2023 09:39	T^
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	05/12/2023 12:00	05/15/2023 12:45	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	1	05/12/2023 12:00	05/15/2023 12:45	T
Calcium	970	mg/L	10	2.0	10	05/12/2023 12:00	05/15/2023 16:47	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	05/12/2023 12:00	05/15/2023 12:45	T
Iron	0.17	mg/L	0.10	0.0067	1	05/12/2023 12:00	05/15/2023 12:45	T
Magnesium	350	mg/L	0.10	0.080	1	05/12/2023 12:00	05/15/2023 12:45	T
Manganese	0.25	mg/L	0.010	0.0050	1	05/12/2023 12:00	05/15/2023 12:45	T
Potassium	69	mg/L	1.0	0.50	1	05/12/2023 12:00	05/15/2023 12:45	T
Sodium	2500	mg/L	10	8.0	10	05/12/2023 12:00	05/15/2023 16:47	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.796	mg/L	0.20	0.050	1	05/04/2023 13:58	05/05/2023 11:29	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	05/04/2023 13:58	05/05/2023 11:29	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.021	mg/L	0.00096	0.0003 2	1	06/21/2023 09:41	06/21/2023 09:41	T
WET CHEMISTRY (EPA 300.0)								
Chloride	5400	mg/L	500	100	100	05/04/2023 16:22	05/04/2023 16:22	T
Fluoride	20 U	mg/L	50	20	100	05/04/2023 16:22	05/04/2023 16:22	T
Sulfate	1500	mg/L	500	100	100	05/04/2023 16:22	05/04/2023 16:22	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.66	mg/L	0.030	0.010	1	05/08/2023 11:24	05/08/2023 11:24	T
Ammonium	0.64	mg/L			1	06/21/2023 09:42	06/21/2023 09:42	T
WET CHEMISTRY (EPA 365.1)								





Workorder: Piney Point Wells Monthly (T2308717)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	05/03/2023 08:58	05/03/2023 08:58	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	100	mg/L	20	5.0	1	05/10/2023 16:01	05/10/2023 16:01	T
Alkalinity, Total	100	mg/L	20	5.0	1	05/10/2023 16:01	05/10/2023 16:01	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	13000	mg/L	10	10	1	05/05/2023 12:00	05/05/2023 12:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	05/03/2023 08:29	05/03/2023 08:29	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	2.4	mg/L	1.0	0.50	1	05/10/2023 10:22	05/10/2023 10:22	T

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

pH

Q|Missed Hold Time

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Workorder: Piney Point Wells Monthly (T2308717)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2308717002 Date Collected: 05/02/2023 13:09 Matrix: Water								
Sample ID: SLMW-1 uZ Date Received: 05/02/2023 14:45								
FIELD PARAMETERS (Field Measurements)								
Salinity	0.55	ppt			1	06/21/2023 09:43	06/21/2023 09:43	T^
Temperature	26.9	°C			1	06/21/2023 09:43	06/21/2023 09:43	T^
pH	10.3	SU			1	06/21/2023 09:43	06/21/2023 09:43	T^
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	05/12/2023 12:00	05/15/2023 12:48	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	1	05/12/2023 12:00	05/15/2023 12:48	T
Calcium	120	mg/L	1.0	0.20	1	05/12/2023 12:00	05/15/2023 12:48	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	05/12/2023 12:00	05/15/2023 12:48	T
Iron	0.12	mg/L	0.10	0.0067	1	05/12/2023 12:00	05/15/2023 12:48	T
Magnesium	31	mg/L	0.10	0.080	1	05/12/2023 12:00	05/15/2023 12:48	T
Manganese	0.50	mg/L	0.010	0.0050	1	05/12/2023 12:00	05/15/2023 12:48	T
Potassium	44	mg/L	1.0	0.50	1	05/12/2023 12:00	05/15/2023 12:48	T
Sodium	64	mg/L	1.0	0.80	1	05/12/2023 12:00	05/15/2023 16:15	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.338	mg/L	0.20	0.050	1	05/04/2023 13:58	05/05/2023 11:29	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	05/04/2023 13:58	05/05/2023 11:29	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.31	mg/L	0.034	0.011	1	06/21/2023 09:45	06/21/2023 09:45	T
WET CHEMISTRY (EPA 300.0)								
Chloride	100	mg/L	10	2.0	2	05/04/2023 20:38	05/04/2023 20:38	T
Fluoride	0.60 I	mg/L	1.0	0.40	2	05/04/2023 20:38	05/04/2023 20:38	T
Sulfate	300	mg/L	10	2.0	2	05/04/2023 20:38	05/04/2023 20:38	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.28	mg/L	0.030	0.010	1	05/08/2023 11:25	05/08/2023 11:25	T
Ammonium	0 U	mg/L			1	06/21/2023 10:11	06/21/2023 10:11	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.014 I	mg/L	0.020	0.013	1	05/03/2023 09:01	05/03/2023 09:01	T

Wednesday, June 21, 2023 12:31:05 PM
 Dates and times are displayed using (-04:00)
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Workorder: Piney Point Wells Monthly (T2308717)

Analytical Results

Lab ID: T2308717002 **Date Collected:** 05/02/2023 13:09 **Matrix:** Water
Sample ID: SLMW-1 uZ **Date Received:** 05/02/2023 14:45

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	14 I	mg/L	20	5.0	1	05/10/2023 16:07	05/10/2023 16:07	T
Alkalinity, Total	15 I	mg/L	20	5.0	1	05/10/2023 16:07	05/10/2023 16:07	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	700	mg/L	10	10	1	05/05/2023 12:00	05/05/2023 12:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	05/03/2023 08:30	05/03/2023 08:30	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.6	mg/L	1.0	0.50	1	05/10/2023 10:43	05/10/2023 10:43	T

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

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Workorder: Piney Point Wells Monthly (T2308717)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2308717003 Date Collected: 05/02/2023 13:40 Matrix: Water								
Sample ID: IW-1 Date Received: 05/02/2023 14:45								
FIELD PARAMETERS (Field Measurements)								
Salinity	11.83	ppt			1	06/21/2023 10:09	06/21/2023 10:09	T^
Temperature	26.8	°C			1	06/21/2023 10:09	06/21/2023 10:09	T^
pH	5.65	SU			1	06/21/2023 10:09	06/21/2023 10:09	T^
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	05/12/2023 12:00	05/15/2023 12:50	T
Arsenic	0.013	mg/L	0.010	0.0080	1	05/12/2023 12:00	05/15/2023 12:50	T
Calcium	140	mg/L	1.0	0.20	1	05/12/2023 12:00	05/15/2023 12:50	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	05/12/2023 12:00	05/15/2023 12:50	T
Iron	0.060 I	mg/L	0.10	0.0067	1	05/12/2023 12:00	05/15/2023 12:50	T
Magnesium	160	mg/L	0.10	0.080	1	05/12/2023 12:00	05/15/2023 12:50	T
Manganese	0.040	mg/L	0.010	0.0050	1	05/12/2023 12:00	05/15/2023 12:50	T
Potassium	200	mg/L	1.0	0.50	1	05/12/2023 12:00	05/15/2023 12:50	T
Sodium	4800	mg/L	25	20	25	05/12/2023 12:00	05/15/2023 16:54	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	1.90	mg/L	0.20	0.050	1	05/17/2023 13:30	05/23/2023 10:56	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	2.1	mg/L	0.20	0.15	1	05/08/2023 11:33	05/12/2023 12:55	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.00021	mg/L	0.0000097	0.000032	1	06/21/2023 10:19	06/21/2023 10:19	T
WET CHEMISTRY (EPA 300.0)								
Chloride	5300	mg/L	1000	200	200	05/04/2023 20:54	05/04/2023 20:54	T
Fluoride	40 U	mg/L	100	40	200	05/04/2023 20:54	05/04/2023 20:54	T
Sulfate	4000	mg/L	1000	200	200	05/04/2023 20:54	05/04/2023 20:54	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.65	mg/L	0.030	0.010	1	05/08/2023 11:25	05/08/2023 11:25	T
Ammonium	0.65	mg/L			1	06/21/2023 10:21	06/21/2023 10:21	T
WET CHEMISTRY (EPA 365.1)								





Workorder: Piney Point Wells Monthly (T2308717)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2308717003			Date Collected: 05/02/2023 13:40			Matrix: Water		
Sample ID: IW-1			Date Received: 05/02/2023 14:45					
Orthophosphate	1.6	mg/L	0.10	0.065	5	05/03/2023 09:49	05/03/2023 09:49	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	05/10/2023 16:11	05/10/2023 16:11	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	05/10/2023 16:11	05/10/2023 16:11	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	14000	mg/L	10	10	1	05/05/2023 12:00	05/05/2023 12:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	1	05/03/2023 08:30	05/03/2023 08:30	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	20	mg/L	2.0	1.0	1	05/26/2023 20:53	05/26/2023 20:53	G

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: ICPT/3714 **Analysis Method:** SW-846 6010
Preparation Method: SW-846 3010A
Associated Lab IDs: T2308717001, T2308717002, T2308717003

Method Blank(4792023)

Parameter	Results	Units	PQL	MDL	Lab
Aluminum	0.021 U	mg/L	0.10	0.021	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (4792024)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aluminum	mg/L	1	1	105	80 - 120	T
Arsenic	mg/L	1	1	101	80 - 120	T
Calcium	mg/L	10	11	106	80 - 120	T
Chromium	mg/L	1	1.1	105	80 - 120	T
Iron	mg/L	1	1.1	106	80 - 120	T
Potassium	mg/L	10	11	105	80 - 120	T
Magnesium	mg/L	10	10	102	80 - 120	T
Manganese	mg/L	1	1.1	107	80 - 120	T
Sodium	mg/L	10	11	107	80 - 120	T

Matrix Spike (4792025); Matrix Spike Duplicate (4792026); Original (T2309367006); Parent Lab Sample (T2309367006)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	mg/L	1	1.1	115	75 - 125	1.1	115	0	20	T
Chromium	mg/L	1	1.2	117	75 - 125	1.2	117	0	20	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCAg/11418
Preparation Method: SM 5310B
Associated Lab IDs: T2308717003

Analysis Method: SM 5310B

Method Blank(4810214)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	1.0 U	mg/L	2.0	1.0	G

Lab Control Sample (4810216)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Organic Carbon	mg/L	10	9.4	94	90 - 110	G

Matrix Spike (4810217); Matrix Spike Duplicate (4810218); Original (M2302793001); Parent Lab Sample (M2302793001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	25	22	84	90 - 110	22	85	1	10	G

Method Blank(4810220)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	1.0 U	mg/L	2.0	1.0	G

QC Result Comments

Matrix Spike - 4810217 - Total Organic Carbon

J4|Estimated Result

Matrix Spike Duplicate - 4810218 - Total Organic Carbon

J4|Estimated Result

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20371
Preparation Method: EPA 365.1
Associated Lab IDs: T2308717001, T2308717002, T2308717003

Analysis Method: EPA 365.1

Method Blank(4776634)

Parameter	Results	Units	PQL	MDL	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	T

Lab Control Sample (4776635)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Orthophosphate	mg/L	0.50	.48	97	90 - 110	T

Matrix Spike (4776636); Matrix Spike Duplicate (4776637); Original (T2308717001); Parent Lab Sample (T2308717001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Orthophosphate	mg/L	0.50	.52	103	90 - 110	.5	99	4	10	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20371
Preparation Method: EPA 365.1
Associated Lab IDs: T2308717002, T2308717003

Analysis Method: EPA 365.1

Matrix Spike (4776649); Matrix Spike Duplicate (4776650); Original (A2305021001); Parent Lab Sample (A2305021001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Orthophosphate	mg/L	0.50	.5	99	90 - 110	.49	99	1	10	T





Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20380 **Analysis Method:** SM 4500NO3-F
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2308717001, T2308717002, T2308717003

Method Blank(4777004)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4777005)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	2.04	102	90 - 110	T

Matrix Spike (4777006); Matrix Spike Duplicate (4777007); Original (T2308717003); Parent Lab Sample (T2308717003)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	1.68	84	90 - 110	1.74	87	4	10	T

QC Result Comments

Matrix Spike - 4777006 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4777007 - Nitrate + Nitrite

J4|Estimated Result





Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20458
Preparation Method: EPA 300.0
Associated Lab IDs: T2308717001

Analysis Method: EPA 300.0

Method Blank(4781749)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (4781750)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	4.8	95	90 - 110	T
Chloride	mg/L	50	49	98	90 - 110	T
Sulfate	mg/L	50	49	98	90 - 110	T

Matrix Spike (4781753); Matrix Spike Duplicate (4781754); Original (T2308693005); Parent Lab Sample (T2308693005)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	1.9	95	90 - 110	1.9	95	0	10	T
Chloride	mg/L	20	110	90	90 - 110	110	87	0.44	10	T
Sulfate	mg/L	20	57	96	90 - 110	57	97	0.15	10	T

QC Result Comments

Matrix Spike Duplicate - 4781754 - Chloride

J4|Estimated Result





Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20460
Preparation Method: EPA 300.0
Associated Lab IDs: T2308717002, T2308717003

Analysis Method: EPA 300.0

Method Blank(4781798)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (4781799)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	4.9	98	90 - 110	T
Chloride	mg/L	50	50	100	90 - 110	T
Sulfate	mg/L	50	50	100	90 - 110	T

Matrix Spike (4781800); Matrix Spike Duplicate (4781801); Original (T2308360001); Parent Lab Sample (T2308360001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	1.9	94	90 - 110	1.9	93	0.64	10	T
Chloride	mg/L	20	22	100	90 - 110	22	100	0.37	10	T
Sulfate	mg/L	20	20	100	90 - 110	20	100	0.23	10	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20483 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2308717001, T2308717002, T2308717003

Method Blank(4782581)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (4782582)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	680	102	85 - 115	T

Sample Duplicate (4782583); Original (T2308559003); Parent Lab Sample (T2308717001, T2308717002, T2308717003)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	558	598	mg/L	7	10	T





Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20497 **Analysis Method:** EPA 350.1
Preparation Method: EPA 350.1
Associated Lab IDs: T2308717001, T2308717002, T2308717003

Method Blank(4783279)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4783280)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.52	105	90 - 110	T

Matrix Spike (4783281); Matrix Spike Duplicate (4783282); Original (T2308653002); Parent Lab Sample (T2308653002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	2.6	101	90 - 110	2.6	98	1	10	T

Matrix Spike (4783283); Matrix Spike Duplicate (4783284); Original (T2308721006); Parent Lab Sample (T2308721006)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.1	104	90 - 110	1.1	104	0	10	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20530
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2308717001, T2308717002

Analysis Method: EPA 351.2

Method Blank(4781231)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4781233)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	.936	94	90 - 110	T

Matrix Spike (4781235); Matrix Spike Duplicate (4781237); Original (T2308959001); Parent Lab Sample (T2308959001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	2.27	94	90 - 110	2.24	92	1	20	T





Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20531
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2308717001, T2308717002

Analysis Method: EPA 365.4

Method Blank(4781232)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (4781234)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	108	90 - 110	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20550 **Analysis Method:** SM 5310B
Preparation Method: SM 5310B
Associated Lab IDs: T2308717001, T2308717002, T2308717003

Method Blank(4784968)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	0.50 U	mg/L	1.0	0.50	T

Lab Control Sample (4784969)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Organic Carbon	mg/L	10	11	109	90 - 110	T

Matrix Spike (4784970); Matrix Spike Duplicate (4784971); Original (T2308705001); Parent Lab Sample (T2308705001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	10	12	96	90 - 110	12	102	4	10	T





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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20740
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2308717003

Analysis Method: EPA 351.2

Method Blank(4783441)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/20741
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2308717003

Analysis Method: EPA 365.4

Method Blank(4783442)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (4783444)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	109	90 - 110	T

Matrix Spike (4783446); Matrix Spike Duplicate (4783448); Original (T2308717003); Parent Lab Sample (T2308717003)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	2.8	67	90 - 110	2.8	67	0	10	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/21040 **Analysis Method:** EPA 351.2
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2308717003

Method Blank(4797335)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4797337)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	.985	98	90 - 110	T

Matrix Spike (4797339); Matrix Spike Duplicate (4797341); Original (F2302729004); Parent Lab Sample (F2302729004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.54	94	90 - 110	1.54	94	0	20	T

Matrix Spike (4797343); Matrix Spike Duplicate (4797345); Original (T2309509002); Parent Lab Sample (T2309509002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.47	102	90 - 110	1.5	105	2	20	T





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Workorder: Piney Point Wells Monthly (T2308717)

QC Results

QC Batch: WCA/21041
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2308717003

Analysis Method: EPA 365.4

Method Blank(4797336)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

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Workorder: Piney Point Wells Monthly (T2308717)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICPt/3714 - SW-846 6010			
T2308717001	APMW-1 LZ	DGMt/6011	SW-846 3010A
T2308717002	SLMW-1 uZ	DGMt/6011	SW-846 3010A
T2308717003	IW-1	DGMt/6011	SW-846 3010A
WCAg/11418 - SM 5310B			
T2308717003	IW-1		
WCAI/20371 - EPA 365.1			
T2308717001	APMW-1 LZ		
T2308717002	SLMW-1 uZ		
T2308717003	IW-1		
WCAI/20380 - SM 4500NO3-F			
T2308717001	APMW-1 LZ		
T2308717002	SLMW-1 uZ		
T2308717003	IW-1		
WCAI/20458 - EPA 300.0			
T2308717001	APMW-1 LZ		
WCAI/20460 - EPA 300.0			
T2308717002	SLMW-1 uZ		
T2308717003	IW-1		
WCAI/20483 - SM 2540 C			
T2308717001	APMW-1 LZ		
T2308717002	SLMW-1 uZ		
T2308717003	IW-1		
WCAI/20497 - EPA 350.1			
T2308717001	APMW-1 LZ		
T2308717002	SLMW-1 uZ		
T2308717003	IW-1		
WCAI/20530 - EPA 351.2			
T2308717001	APMW-1 LZ	WCAI/20446	Copper Sulfate Digestion
T2308717002	SLMW-1 uZ	WCAI/20446	Copper Sulfate Digestion





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Workorder: Piney Point Wells Monthly (T2308717)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAI/20531 - EPA 365.4			
T2308717001	APMW-1 LZ	WCAI/20446	Copper Sulfate Digestion
T2308717002	SLMW-1 uZ	WCAI/20446	Copper Sulfate Digestion
WCAI/20550 - SM 5310B			
T2308717001	APMW-1 LZ		
T2308717002	SLMW-1 uZ		
WCAI/20575 - SM 2320B			
T2308717001	APMW-1 LZ		
T2308717002	SLMW-1 uZ		
T2308717003	IW-1		
WCAI/20741 - EPA 365.4			
T2308717003	IW-1	WCAI/20514	Copper Sulfate Digestion
WCAI/21040 - EPA 351.2			
T2308717003	IW-1	WCAI/20779	Copper Sulfate Digestion





Workorder: Piney Point Wells Monthly (T2308717)

DRAFT

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

PAGE 1 OF 1

- Altamonte Springs: 528 S. Northlake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 Lab ID E53076
- Fort Meyers: 13100 Westlinks Terrace Ste. 10 • Fort Meyers, FL 33193 • 239.674.8130 • Fax 239.674.8128 Lab ID E84492
- Gainesville: 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 Lab ID E82001
- Jacksonville: 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 Lab ID E82574
- Miramar: 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281 Lab ID E82535
- Tallahassee: 2839 North Monroe St., Ste.D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275 Lab ID E811095
- Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 Lab ID E84589



Advanced Environmental Laboratories, Inc.

Client Name: ASRus LLC		Project Name: Piney Point Injection Wells Monthly		BOTTLE SIZE & TYPE		ANALYSIS REQUIRED										LABORATORY I.D. NUMBER		
Address:		Project Number:																
Address:		PO Number:																
Phone: 813-382-8516		FDEP Facility #:																
FAX:		FDEP Facility Address:																
Contact: Pete Larkin		Special Instructions: P2P 7 hrs																
Sampled By: S. Helms																		
Turn around time: <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH																		
AEL Profile #		<input type="checkbox"/> ADaPT <input type="checkbox"/> EQuiS <input type="checkbox"/> Other																
SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	PRESERVATION Field-Filtered?											
			DATE	TIME				I	S	I	N	H	I	N	N	N		
	APMW - 1 LZ	G	5/2/2023	1120	GW	11		X	X	X	X	X	X	X	X	X	X	001
	SLMW - 1 UZ	G	5/2/2023	1309	GW	11		X	X	X	X	X	X	X	X	X	X	002
	IW - 1	G	5/2/2023	1340	GW	11		X	X	X	X	X	X	X	X	X	X	003
Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge								Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)										
Received on Ice <input type="checkbox"/> YES <input type="checkbox"/> NO		Temp Taken From Sam <input type="checkbox"/>		Temp/Con <input type="checkbox"/>		Where required ph checked		Temp. when received (Observed) <u>12</u> °C		Temp. when received (corrected) _____ °C								
DCN: AD-051 Form last revised 02/12/2019				Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A														
Relinquished by		Date	Time	Received by		Date	Time	FOR DRINKING WATER USE (When PWS information not otherwise supplied)										
1		5/2/23	1445	[Signature]		5-2-23	1445	PWS ID: _____ Contact Person: _____ Phone: _____ Supplier of Water: _____ Site-Address: _____										
2																		
3																		
4																		



Wednesday, June 21, 2023 12:31:05 PM
Dates and times are displayed using (-04:00)
Page 31 of 34

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NELAP Accredited E84589

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HORIZON
v.13.1.0



Report Date: May 19, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2308717001
Sample Collection: 05-02-23/1120
Lab ID No: 23.7262
Lab Custody Date: 05-09-23/1345
Sample Description: Water

LZ (APMW-1)

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	35.2 ± 2.4	5-15-23/1655	EPA 00-02	0.7
Combined Radium (Radium-226 + Radium 228)	pCi/l	13.7 ± 1.2	Calc	Calc	0.7
Radium-226	pCi/l	12.5 ± 1.2	5-17-23/1305	EPA 903.0*	0.3
Radium-228	pCi/l	1.2 I ± 0.6	5-17-23/1254	EPA Ra-05	0.7
Uranium	pCi/l	0.4 U ± 0.1	5-19-23/1250	EPA 908.0	0.4
Uranium	ppb	0.6 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 116% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



UZ (SLMW-1)

Report Date: May 19, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2308717002
Sample Collection: 05-02-23/1309
Lab ID No: 23.7263
Lab Custody Date: 05-09-23/1345
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	10.0 ± 1.2	5-15-23/1655	EPA 00-02	0.6
Combined Radium (Radium-226 + Radium 228)	pCi/l	4.4 ± 0.8	Calc	Calc	0.5
Radium-226	pCi/l	4.4 ± 0.8	5-17-23/1305	EPA 903.0*	0.5
Radium-228	pCi/l	0.6 U ± 0.5	5-17-23/1254	EPA Ra-05	0.6
Uranium	pCi/l	1.1 I ± 0.4	5-19-23/1250	EPA 908.0	1.1
Uranium	ppb	1.6 I ± 0.6	Calc	Calc	Calc

Alpha Standard: Th-230

* 104% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.

Contact person: Thomas Weeks (813) 229-2879.



IW-1

Report Date: May 19, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2308717003
Sample Collection: 05-02-23/1340
Lab ID No: 23.7264
Lab Custody Date: 05-09-23/1345
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	2.0 I ± 0.6	5-15-23/1655	EPA 00-02	0.7
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.9 I ± 0.6	Calc	Calc	0.9
Radium-226	pCi/l	0.9 I ± 0.6	5-17-23/1305	EPA 903.0*	0.9
Radium-228	pCi/l	0.6 U ± 0.5	5-17-23/1254	EPA Ra-05	0.6
Uranium	pCi/l	0.3 U ± 0.1	5-19-23/1250	EPA 908.0	0.1
Uranium	ppb	0.4 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 82% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed. Contact person: Thomas Weeks (813) 229-2879.



Advanced Environmental Laboratories, Inc.

- Altamonte Springs: 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
- Fort Myers: 13100 Westlincs Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
- Jacksonville: 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
- Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095

Rush
5-19

- Gainesville: 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
- Miramar: 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
- Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: Advanced Environmental Lab	Project Name: T2308717	BOTTLE SIZE & TYPE	
Address: Tampa FL 33619	Project Number:	ANALYSIS REQUIRED	23.72 62-64
Phone: 813-630-9616	PO Number: 21205		Rad 226
FAX: 813-630-4327	FDEP Facility No.:		Rad 228
Contact: mcammarata@aellab.com	FDEP Facility Address:		Gross Alpha
Sampled By:	Even though matrix WA please include DW report along with EVN report		URANIUM *
Turn Around Time: <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH	<input type="checkbox"/> ADaPT <input type="checkbox"/> EQUIS <input type="checkbox"/> Other		
IEL Profile #:			

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	Preservation Field-Filtered?	ANALYSIS REQUIRED				LABORATORY I.D. NUMBER
			DATE	TIME				Rad 226	Rad 228	Gross Alpha	URANIUM	
	T2308717001		5-2-23	1120	WA	3	X	X	X	✓		
	T2308717002		5-2-23	1309	WA	3	X	X	X	✓		
	T2308717003		5-2-23	1340	WA	3	X	X	X	✓		

* ADD URANIUM ANALYSIS PER KATLYN@AEL JS 5-9-23/142

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice Yes No Temp taken from sample Temp from blank Where required, pH checked Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C

DCN: AD-D051 Form last revised 08/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Kaillyn Pasquallini	5-9-23	1030	KNL JS	5-9-23	1345
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site Address: _____



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Reston, Virginia 20192

The Reston Stable Isotope Laboratory has analyzed the following samples received from you for isotopic analysis. For questions please contact Email isotopes@usgs.gov or Haiping Qi at voice 703 648-6338 or fax 703 648-5274. Please refer to Our Lab ID. These isotopic results supersede any results that may have been submitted to you previously.

***Your samples all had concentrations below our 0.06 mg/L as N minimum to guarantee QA/QC results. However, your samples were not preserved and we had good bacteria, so we were able to obtain reproducible results with reasonable uncertainty (please see the uncertainty for attached reported delta values below for each sample for your reference). Since the concentrations are so low, please use caution with this data.**

**G-30893 (Delta N-15 uncertainty: 1.28 per mil; Delta O-18 uncertainty: 2.63 per mil)
G-30894 (Delta N-15 uncertainty: 0.04 per mil; Delta O-18 uncertainty: 0.28 per mil)
G-30895 (Delta N-15 uncertainty: 0.09 per mil; Delta O-18 uncertainty: 0.21 per mil)
G-30896 (Delta N-15 uncertainty: 1.19 per mil; Delta O-18 uncertainty: 0.62 per mil)**

Method

Nitrate samples are analyzed by bacterial conversion of nitrate to nitrous oxide and subsequent measurement on a continuous flow isotope ratio mass spectrometer (Sigman and others, 2001; Casciotti and others, 2002; Coplen and others, 2004; Revesz and Casciotti, 2007).

Reporting of Nitrogen Isotope Ratios

Nitrogen isotope ratios are reported in parts per thousand (per mill) relative to N₂ in air (Mariotti, 1983). The nitrogen isotopic compositions of nitrogen-bearing internationally distributed isotopic reference materials, had they been analyzed in this laboratory with your samples, are in accord with Böhlke and Coplen (1995) and Böhlke and others (2003):

N ₂ in air		0 (exactly)
IAEA-NO-3	KNO ₃	+4.72
USGS32	KNO ₃	+180 (exactly)
USGS34	KNO ₃	-1.8
USGS35	NaNO ₃	+2.7

For samples with nitrate concentrations of at least 0.06 mg/kg as N, the 2-sigma uncertainty of nitrogen isotopic results is 0.5 per mil, unless otherwise indicated. This means that if the same sample were resubmitted for isotopic analysis, the newly measured value would lie within the uncertainty bounds 95 percent of the time. The uncertainty for nitrate samples with concentrations less than 0.06 mg/kg as N is twice that indicated above.

Users should be aware that atmospheric nitrate is enriched in O-17 by mass-independent processes (Michalski and Thiemens, 2000; Galanter and others, 2000) and that this bacterial method for nitrate isotope measurements may overestimate the nitrogen isotope ratio of atmospheric nitrate samples by as much as 1 to 2 per mil (Sigman and others et al., 2001). For samples that users suspect may contain more than about 20 percent atmospheric nitrate, users should contact the Reston Stable Isotope Laboratory about methods to resolve this problem. Methods are currently being developed to quantify the mass-independent O-17/O-16 enrichment, and this independent oxygen isotope ratio may be of use in investigating processes forming nitrate.

Oxygen Isotope Ratios

Oxygen isotope ratios are reported in per mil relative to VSMOW reference water and normalized on a scale such that SLAP reference water is -55.5 per mil (Coplen, 1988; Coplen, 1994).

The oxygen isotopic compositions of oxygen-bearing internationally distributed isotopic reference materials, had they been analyzed in this laboratory with your samples are:

VSMOW	water	0 (exactly)
SLAP	water	-55.5 (exactly)

IAEA-NO-3	KNO ₃	+25.6
USGS32	KNO ₃	+25.7
USGS34	KNO ₃	-27.9
USGS35	NaNO ₃	+57.5

For samples with nitrate concentrations of at least 0.06 mg/kg as N, the 2-sigma uncertainty of oxygen isotopic results of nitrates is 1.0 per mil unless otherwise indicated. The uncertainty for nitrate samples with concentrations less than 0.06 mg/kg as N is twice that indicated above.

References

Böhlke, J.K., and Coplen, T.B., 1995, Interlaboratory comparison of secondary reference materials for nitrogen-isotope-ratio measurements, in Reference and intercomparison materials for stable isotopes of light elements: Vienna, Austria, International Atomic Energy Agency, IAEA-TECDOC-825, p. 51-66.

Böhlke, J.K., Mroczkowski, S.J., and Coplen, T.B., 2003, Oxygen isotopes in nitrate: New reference materials for 18O:17O:16O measurements and observations on nitrate-water equilibration: Rapid Communications in Mass Spectrometry, v. 17, p. 1835-1846.

Casciotti, K.L., Sigman, D.M., Galanter Hastings, M., Böhlke, J.K., and Hilkert, A., 2002, Measurement of the oxygen isotopic composition of nitrate in seawater and freshwater using the denitrifier method: Analytical Chemistry, v. 74, p. 4905-4912.

Coplen, T. B., 1988. Normalization of Oxygen and Hydrogen Isotope Data, Chemical Geology (Isotope Geoscience Section), v. 72, p. 293-297.

Coplen, T. B., 1994. Reporting of Stable Hydrogen, Carbon, and Oxygen Isotopic Abundances, Pure and Applied Chemistry, v. 66, p. 273-276.

<http://media.iupac.org/publications/pac/1994/pdf/6602x0273.pdf>

Coplen, T.B., Böhlke, J.K., and Casciotti, K., 2004, Using dual-bacterial denitrification to improve delta 15N determinations of nitrates containing mass-independent 17O: Rapid Communications in Mass Spectrometry, v. 18, p. 245-250.

Galanter, M., Sigman, D. M., Levy, H., Böhlke, J. K., Lipshultz, F., and Steig, E., 2000, Controls on the oxygen isotopic composition of atmospherically-derived nitrate (abstract): EOS, Transactions of the American Geophysical Union, v. 81, p. F191.


Mariotti, A., 1983, Atmospheric nitrogen is a reliable standard for natural 15N abundance measurements: Nature, v. 303, p. 685-687.


Michalski, G., and Thiemens, M. H., 2000, Mass independent fractionation in nitrate aerosols (abstract): EOS, Transactions of the American Geophysical Union, v. 81, p. F120.


Revesz, Kinga, and Casciotti, Karen, 2007, Determination of the delta (15N/14N) and delta (18O/16O) of nitrates in water: RSIL Lab Code 2900, chap. C17 of Révész, Kinga, and Coplen, Tyler B., eds., Methods of the Reston Stable Isotope Laboratory: Reston, Virginia, U.S. Geological Survey, Techniques and Methods, book 10, sec. C, chap. 17, 24 p.

<http://pubs.water.usgs.gov/tm10C17/>

Sigman, D.M., Casciotti, K.L., Andreani, M., Barford, C., Galanter, M., and Böhlke, J.K., 2001, A bacterial method for the nitrogen isotopic analysis of nitrate in seawater and freshwater: Analytical Chemistry, v. 73, p. 4145-4153.

Our Lab ID: G-30893 APMW - LZ
Field ID: 1 
Delta N-15: -1.87 per mil
Delta O-18: 13.54 per mil

Our Lab ID: G-30894 SLMW - UZ
Field ID: 2 
Delta N-15: -0.68 per mil
Delta O-18: 11.61 per mil

Our Lab ID: G-30895 IW-1
Field ID: 3 
Delta N-15: -0.35 per mil
Delta O-18: 10.96 per mil

Our Lab ID: G-30896

Field ID: 4

Delta N-15: -2.34 per mil

Delta O-18: 22.37 per mil

Source Water
prefilter



Advanced Environmental Laboratories

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT DEEP INJECTION WELL	SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL
WELL NO: APMW-1 LZ	SAMPLE ID: _____ DATE: 5/2/23

PURGING DATA

WELL DIAMETER (inches): 5.43 – 12	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 913 feet to 939 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (_____ feet – _____ feet) X _____ gallons/foot = _____ gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70	PURGING INITIATED AT: 1050	PURGING ENDED AT: 1111	TOTAL VOLUME PURGED (gallons): 2190							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1050	1251	1251	60								
1101	313	1564	60		7.54	28.1	16198	0.09	0.21	Clean, clear	H2S
1106	313	1877	60		7.57	28.1	16040	0.08	0.02	Clean, clear	H2S
1111	313	2190	60		7.61	28.2	15666	0.03	0.02	Clean, clear	H2S
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1112		SAMPLING ENDED AT: 1120		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:				FIELD-FILTERED: Y N		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y N				TUBING Y N (replaced)				DUPLICATE: Y N				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
SEE COC												
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

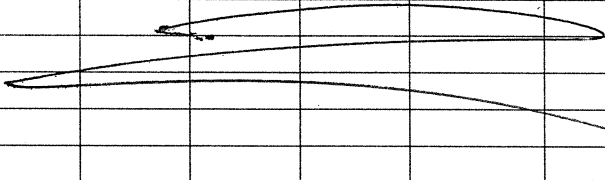
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Advanced Environmental Laboratories

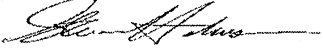
DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT DEEP INJECTION WELL	SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL
WELL NO: SLMW1 UZ	DATE: 5/2/23

PURGING DATA

WELL DIAMETER (inches): 6.27-9.278	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 580 feet to 623 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet - feet) X gallons/foot = 4855 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1055	PURGING ENDED AT: 1256	TOTAL VOLUME PURGED (gallons): 8497							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTU _s)	COLOR (describe)	ODOR (describe)
1055	4855	4855	60								
1216	1214	6069	60		10.39	26.9	1155	0.01	11.8	Clean, clear	None
1236	1214	7283	60		10.33	26.9	1134	0.02	12.3	Clean, clear	None
1256	1214	8497	60		10.30	26.9	1123	0.01	15.3	Clean, clear	None
											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL	SAMPLER(S) SIGNATURE(S): 	SAMPLING INITIATED AT: 1257	SAMPLING ENDED AT: 1309						
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE: _____ μm						
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
					SEE COC				
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

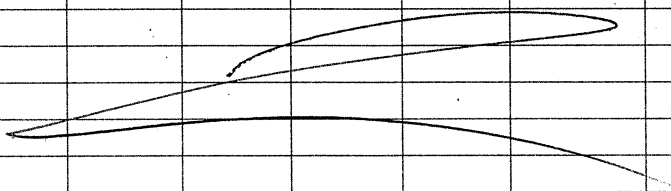
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Advanced Environmental Laboratories


DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT INJECTION WELLS	SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL
WELL NO: IW - 1	DATE: 5/2/23

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet - feet) X gallons/foot = 5098 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1330					5.65	26.8	20045	6.96	7.88		
											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1331		SAMPLING ENDED AT: 1340	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:		FIELD-FILTERED: Y N Filtration Equipment Type:		FILTER SIZE: _____ µm			
FIELD DECONTAMINATION: PUMP Y N				TUBING Y N (replaced)				DUPLICATE: Y N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
					SEE COC						
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2);
 optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monthly Summary for **June 2023**
 Month Year

Piney Point Injection Well
 UIC Permit No.:0322708-002-UC/11

WACS ID: **101607**
 Wastestream: Industrial

The following reports are included with this Document:

Testsite ID	Well Name/Zone	Zone Depth	Chemical/Physical	Report Type
13989	IW-1	1950'-3300'	Chemical/Physical	MORM/MORQ/MORA
29238A	DZMW-1 Upper Zone	600'-650'	Chemical/Physical	MORM/MORQ/MORA
29238B	DZMW-1 Lower Zone	900'-950'	Chemical/Physical	MORM/MORQ/MORA

- The injection well system experienced no issues this month with equipment, sampling, or operation.
 The injection well system experienced the following issues this month with equipment, sampling, or operation:

Comments:

During the June sampling event, the sample bottles used to collect the UZ and LZ monitoring interval samples were switched by the contracted laboratory sampling technician. The original June MOR was submitted with the data as presented on the laboratory report. The July laboratory data confirmed the error and with FDEP concurrence given on August 3, 2023, the June MOR has been revised and the laboratory report has been annotated. Note the field data was entered correctly in the original report.

In accordance with "Helpful Tips for Completing the Underground Injection Control Monthly Operating Report (MOR)" guidance document dated 2/13/2013, please note the following:

- Results greater than or equal to the PQL shall be reported as the measured quantity.
- Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value.
- Results less than the MDL shall be reported by entering a less than sign (" $<$ ") followed by the laboratory's MDL value, e.g. <0.001 .

Report any abnormal events within 24 hours of their occurrence. (62-528.415(4) F.A.C.)

Comment Codes

C1 = Purging Monitoring Wells	C7 = Recalibrated DWI Flow or Level Meters	C13 = Reinstalled Flow or PSI Meter
C2 = DWI or Pump Station Shutdown	C8 = DWI Flow or PSI Meter Failure	C14 = SCADA pressure data are unreliable.
C3 = Power Outage/Restarted Pump	C9 = MW Transducer Meter failure	C15 = SCADA pressure data verified.
C4 = SCADA System Restarted	C10 = Monitoring Well Recording Problems	C16 = Pumps off part of the day
C5 = Maintenance to DWI Pump(s)	C11 = Readjusted Flow Rate/Switched Pumps	C17 = No Data due to SCADA problems
C6 = Read DWI Flow Meter Late/Early	C12 = Installed Temporary Flow/ PSI Meter	C18 = Injectivity Test Performed

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO.
Pete Larkin	813-382-8516

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
	8/11/2023

Note: Fill in all yellow areas and check the box for the status of the injection well.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Physical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: IW-1

WACS ID: 101607
 Testsite ID: 13989
 Report Type: MORM

Month-Yr MMM-YY	Injection Pressure (PSI)			Injection Flow Rate (GPM)			Total Injected Volume (MG)
	Maximum	Minimum	Average	Maximum	Minimum	Average	
Jun-23							
1	54.72	18.74	48.03	598.50	0.00	477.58	0.69
2	54.44	18.00	45.39	610.50	0.00	445.18	0.64
3	54.72	4.14	48.04	617.33	109.50	492.12	0.71
4	54.63	20.02	48.99	604.83	0.00	504.85	0.73
5	54.03	8.47	40.85	613.17	0.00	367.04	0.54
6	53.79	11.95	46.13	630.17	13.33	487.96	0.69
7	54.22	11.97	44.39	617.50	0.00	421.71	0.64
8	52.46	10.34	30.86	597.33	0.00	243.80	0.33
9	44.75	16.11	39.47	499.83	54.00	389.17	0.56
10	45.17	19.23	41.45	492.83	63.83	410.44	0.60
11	44.10	12.90	34.70	503.83	0.00	307.49	0.44
12	44.47	8.86	37.96	520.00	58.83	369.38	0.53
13	44.17	10.04	35.99	503.17	35.83	330.76	0.48
14	44.12	10.20	35.84	509.67	0.00	332.32	0.48
15	44.23	8.51	36.37	516.50	0.00	345.58	0.49
16	43.97	7.17	34.23	494.33	0.00	322.77	0.45
17	44.22	7.16	39.57	506.00	149.17	404.10	0.59
18	44.20	18.62	36.96	519.33	0.00	367.49	0.52
19	45.00	18.22	40.85	501.83	165.00	421.05	0.61
20	46.00	19.06	41.85	513.67	56.67	431.32	0.62
21	45.81	11.30	40.84	503.83	41.00	396.80	0.58
22	46.10	19.84	42.96	492.50	182.50	432.41	0.63
23	46.07	6.13	38.24	505.50	145.83	355.83	0.51
24	45.05	16.72	31.36	504.00	0.00	236.93	0.35
25	44.82	17.26	38.79	506.00	9.67	366.76	0.53
26	44.87	5.93	37.56	504.50	0.00	341.55	0.49
27	48.33	9.00	39.29	502.00	12.00	390.03	0.54
28	46.97	16.77	27.05	532.50	0.00	140.17	0.23
29	43.13	14.06	18.04	316.67	0.00	28.63	0.04
30	50.20	12.03	25.26	614.50	0.00	157.24	0.23
31							
Monthly	Maximum	Minimum	Average	Maximum	Minimum	Average	Total
	54.72	4.14	38.24	630.17	0.00	357.28	15.47
WACS Code	IWPMAX	IWPMIN	IWPAVG	IWRMAX	IWRMIN	IWRAVG	IWFTOT

Note: Record all operational data for the injection well per day. Unless the well was in operation for a full 24-hr period, the minimum flow rate should be entered as 0.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

IW-1 Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 IW-1

WACS ID: 101607
 Testsite ID: **13989**
 Report Type: MORM/MORQ/MORA

Parameter	Unit	Store Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Jun-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	6.82				
Specific Conductance (field)	µmhos/cm	000094	Monthly	20731				
Temperature Degrees C (field)	°C	000010	Monthly	29.6				
Chloride	mg/L	000940	Monthly	6300				
Sulfate	mg/L	000945	Monthly	4700				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	15000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	1.2				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	2.91				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	24				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	1.2				
Arsenic	mg/L	900029	Monthly	2.5				
Chromium	mg/L	900211	Monthly	<0.005				
Fluoride	mg/L	000951	Monthly	0.43				
Manganese Total	mg/L	099244	Monthly	0.058				
Phosphorus Total	mg/L	000665	Monthly	1.5				
OrthoPhosphate	mg/L	000660	Monthly	1.8				
Bicarbonate	mg/L	000440	Monthly	23				
Calcium	mg/L	000916	Monthly	140				
Iron (Fe) Total	mg/L	074010	Monthly	0.096				
Magnesium Total	mg/L	000927	Monthly	170				
Potassium	mg/L	000937	Monthly	170				
Sodium	mg/L	000929	Monthly	4900				
Alpha, Gross	pCi/L	001515	Monthly	1.1				
Uranium Total	µg/L	099243	Monthly	<0.4+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	0.7				
Radium228 Total	pCi/L	011501	Monthly	<0.6+/-0.5				
Delta15N	Ratio	082084	Quarterly					

Please submit Primary & Secondary Drinking Water Standards, Source Water - ANNUALLY.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Specific Injectivity Monthly

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

Test Date: 6/5/2023

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Specific Injectivity Test

1. Static Wellhead pressure(psi): 18.9
2. Injection Flow Rate (gpm): 659
3. Average Wellhead pressure following the 15-minute injection (psi): 50.6

SPECIFIC INJECTIVITY (SPCINJ) (gpm/psi): 20.788644

Fall-Off Test

Time Elapsed (min)	Wellhead Pressure (psi)	Comments
0	31.2	
0.5	26.1	
1	25.8	
1.5	24.9	
2	24.3	
2.5	23.8	
3	23.4	
3.5	23.1	
4	22.8	
4.5	22.6	
5	22.3	
5.5	22.2	
6	22	
6.5	21.8	
7	21.7	
7.5	21.5	
8	21.4	
8.5	21.3	
9	21.2	
9.5	21.1	
10	21	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitoring Well: DZMW-1 Upper Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238A**

Well: **DZMW-1 Upper Zone**

Report Type: MORM

Well Depth: 600'-650'

Zone: UPPER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Jun-23				
1	12.70	12.25	12.51	
2	13.16	12.69	12.95	
3	13.49	13.06	13.29	
4	13.64	13.41	13.51	
5	13.50	4.28	12.45	C1
6	13.30	13.07	13.16	
7	13.21	13.05	13.13	
8	13.29	13.07	13.13	
9	13.36	13.18	13.25	
10	13.38	13.24	13.29	
11	13.40	13.25	13.31	
12	13.44	13.32	13.38	
13	13.50	13.32	13.39	
14	13.38	13.24	13.31	
15	13.31	13.19	13.26	
16	13.44	13.26	13.34	
17	13.44	13.32	13.39	
18	13.66	13.37	13.48	
19	13.74	13.56	13.62	
20	13.82	13.60	13.69	
21	14.11	13.66	13.88	
22	14.35	14.04	14.18	
23	14.57	14.30	14.44	
24	14.55	14.39	14.49	
25	14.56	14.41	14.46	
26	14.56	14.42	14.48	
27	14.57	14.46	14.51	
28	14.59	14.40	14.49	
29	14.52	14.36	14.43	
30	14.52	14.38	14.45	
31				
Monthly	Maximum	Minimum	Average	
	14.59	4.28	13.62	
Storet Number	900199	900200	900198	

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Upper Zone Chemical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: **DZMW-1 Upper Zone**

Well Depth: 600'-650'

WACS ID: 101607

Testsite ID: **29238A**

Report Type: MORM/MORQ/MORA

Zone: UPPER

Parameter	Unit	Store Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Jun-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	10.98				
Specific Conductance (field)	µmhos/cm	000094	Monthly	1259				
Temperature Degrees C (field)	°C	000010	Monthly	26.9				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.05				
Turbidity (field)	NTU	082078	Monthly	18.9				
Chloride	mg/L	000940	Monthly	110				
Sulfate	mg/L	000945	Monthly	290				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	760				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.22				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	<0.50				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.3				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.21				
Arsenic	mg/L	900029	Monthly	0.0013				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.72				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	20				
Calcium	mg/L	000916	Monthly	110				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	24				
Potassium	mg/L	000937	Monthly	34				
Sodium	mg/L	000929	Monthly	63				
Alpha, Gross	pCi/L	001515	Monthly	10.8+/-2.4				
Uranium Total	µg/L	099243	Monthly	2.2+/-0.4				
Radium226 Total	pCi/L	009501	Monthly	5.5+/-0.9				
Radium228 Total	pCi/L	011501	Monthly	<0.6+/-0.5				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitoring Well: DZMW-1 Lower Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238B**

Well: **DZMW-1 Lower Zone**

Report Type: MORM

Well Depth: 900'-950'

Zone: LOWER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Jun-23				
1	5.73	5.32	5.55	
2	6.04	5.72	5.89	
3	6.31	5.98	6.15	
4	6.48	6.23	6.37	
5	6.75	4.26	6.44	C1
6	6.66	6.44	6.53	
7	6.57	6.41	6.49	
8	6.64	6.41	6.49	
9	6.73	6.53	6.60	
10	6.74	6.60	6.65	
11	6.75	6.61	6.67	
12	6.80	6.67	6.73	
13	6.85	6.68	6.75	
14	6.76	6.58	6.67	
15	6.67	6.56	6.62	
16	6.79	6.62	6.70	
17	6.79	6.66	6.74	
18	7.01	6.71	6.83	
19	7.08	6.90	6.97	
20	7.18	6.96	7.04	
21	7.45	7.03	7.24	
22	7.69	7.38	7.53	
23	7.92	7.65	7.78	
24	7.91	7.72	7.82	
25	7.90	7.73	7.79	
26	7.91	7.76	7.82	
27	7.94	7.80	7.85	
28	7.95	7.71	7.82	
29	7.84	7.70	7.76	
30	7.85	7.73	7.78	
31				
Monthly	Maximum	Minimum	Average	
	7.95	4.26	6.94	
Storet Number	900199	900200	900198	

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Lower Zone Chemical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: **DZMW-1 Lower Zone**

Well Depth: 900'-950'

WACS ID: 101607

Testsite ID: **29238B**

Report Type: MORM/MORQ/MORA

Zone: LOWER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Jun-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.65				
Specific Conductance (field)	µmhos/cm	000094	Monthly	16326				
Temperature Degrees C (field)	°C	000010	Monthly	28.3				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.03				
Turbidity (field)	NTU	082078	Monthly	0.02				
Chloride	mg/L	000940	Monthly	6900				
Sulfate	mg/L	000945	Monthly	1900				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	12000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.59				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	<0.050				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.5				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	<0				
Arsenic	mg/L	900029	Monthly	<0.0012				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.74				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	110				
Calcium	mg/L	000916	Monthly	940				
Iron (Fe) Total	mg/L	074010	Monthly	0.14				
Magnesium Total	mg/L	000927	Monthly	340				
Potassium	mg/L	000937	Monthly	56				
Sodium	mg/L	000929	Monthly	2700				
Alpha, Gross	pCi/L	001515	Monthly	24.2+/-2.9				
Uranium Total	µg/L	099243	Monthly	<0.4+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	15.5+/-1.3				
Radium228 Total	pCi/L	011501	Monthly	0.6				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



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Workorder: Piney Point Wells Monthly (T2310929)

July 24, 2023

Pete Larkin
ASRus LLC
13329 North Armenia Avenue
Tampa, FL 33613

RE: Workorder: T2310929 Piney Point Wells Monthly

Dear Pete Larkin:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday June 5, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

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FINAL

Workorder: Piney Point Wells Monthly (T2310929)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2310929001	APMW-1LZ	WA	DEP SOP 10/03/83	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	EPA 200.8	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	EPA 300.0	06/05/2023 10:35	06/05/2023 14:45	2	NA
T2310929001	APMW-1LZ	WA	EPA 350.1	06/05/2023 10:35	06/05/2023 14:45	2	NA
T2310929001	APMW-1LZ	WA	EPA 351.2	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	EPA 365.1	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	EPA 365.4	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	Field Measurements	06/05/2023 10:35	06/05/2023 14:45	3	NA
T2310929001	APMW-1LZ	WA	SM 2320B	06/05/2023 10:35	06/05/2023 14:45	2	NA
T2310929001	APMW-1LZ	WA	SM 2540 C	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	SM 4500F-C	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	SM 4500NO3-F	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	SM 5310B	06/05/2023 10:35	06/05/2023 14:45	1	NA
T2310929001	APMW-1LZ	WA	SW-846 6010	06/05/2023 10:35	06/05/2023 14:45	8	NA
T2310929002	SLMW-1LZ	WA	DEP SOP 10/03/83	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	EPA 200.8	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	EPA 300.0	06/05/2023 12:30	06/05/2023 14:45	2	NA
T2310929002	SLMW-1LZ	WA	EPA 350.1	06/05/2023 12:30	06/05/2023 14:45	2	NA
T2310929002	SLMW-1LZ	WA	EPA 351.2	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	EPA 365.1	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	EPA 365.4	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	Field Measurements	06/05/2023 12:30	06/05/2023 14:45	3	NA
T2310929002	SLMW-1LZ	WA	SM 2320B	06/05/2023 12:30	06/05/2023 14:45	2	NA
T2310929002	SLMW-1LZ	WA	SM 2540 C	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	SM 4500F-C	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	SM 4500NO3-F	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	SM 5310B	06/05/2023 12:30	06/05/2023 14:45	1	NA
T2310929002	SLMW-1LZ	WA	SW-846 6010	06/05/2023 12:30	06/05/2023 14:45	8	NA
T2310929003	IW-1	WA	DEP SOP 10/03/83	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	EPA 200.8	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	EPA 300.0	06/05/2023 13:44	06/05/2023 14:45	2	NA
T2310929003	IW-1	WA	EPA 350.1	06/05/2023 13:44	06/05/2023 14:45	2	NA
T2310929003	IW-1	WA	EPA 351.2	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	EPA 365.1	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	EPA 365.4	06/05/2023 13:44	06/05/2023 14:45	1	NA

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FINAL

Workorder: Piney Point Wells Monthly (T2310929)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2310929003	IW-1	WA	Field Measurements	06/05/2023 13:44	06/05/2023 14:45	3	NA
T2310929003	IW-1	WA	SM 2320B	06/05/2023 13:44	06/05/2023 14:45	2	NA
T2310929003	IW-1	WA	SM 2540 C	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	SM 4500F-C	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	SM 4500NO3-F	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	SM 5310B	06/05/2023 13:44	06/05/2023 14:45	1	NA
T2310929003	IW-1	WA	SW-846 6010	06/05/2023 13:44	06/05/2023 14:45	8	NA

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Workorder: Piney Point Wells Monthly (T2310929)

Workorder Summary

Workorder Comments

Per Pete Larkin at ASRus LLC via email 06.09.2023: so the lab can report ammonium, use these numbers below for salinity

LZ = 9.09 ppt or 9,090 mg/L

UZ = 0.55 ppt or 550 mg/L

IW-1= 11.83 ppt or 11,830 mg/L

Per Pete Larkin at ASRus LLC via email 06.09.2023 Fluoride should be analyzed by method 4500

Batch Comments

ICMj/3252 - ICPMS 200.8 Analysis

The spike recovery of Antimony for the Laboratory Control Sample (LCS) was outside the upper control criterion. The analyte in question was not detected in the associated client samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was required.

The upper control criterion was exceeded for several target analytes in Continuing Calibration Verification (CCV) standards for analytical batch 3252, indicating increased sensitivity. The client samples reported in this batch did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

WCAI/21448 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recoveries of Nitrate+Nitrite for T2311434002 and T23111037001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.

WCAI/21472 - IC,E300.0,Water

The matrix spike recovery of Sulfate for T2311229001 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

Analysis Results Comments

T2310929002 (SLMW-1LZ) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2310929002 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

T2310929003 (IW-1) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2310929003 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

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Workorder: Piney Point Wells Monthly (T2310929)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time

Lab Qualifiers

- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L21-470 (ISO/IEC 17025:2017) AEL-Jacksonville
- T^ Not Certified
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa

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SLMW Upper zone monitor well

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Field parameters correspond to APMW lower zone monitor well - however the laboratory data is SLMW

Workorder: Piney Point Wells Monthly (T2310929)

Analytical Results

Lab ID: T2310929001 Date Collected: 06/05/2023 10:35 Matrix: Water
 Sample ID: APMW-1LZ Date Received: 06/05/2023 14:45

Parameter	Results	Units	PQL	MDI	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	9.09	ppt			1	06/09/2023 15:08	06/09/2023 15:08	T^
Temperature	28.2	°C			1	06/09/2023 15:08	06/09/2023 15:08	T^
pH	7.73	SU			1	06/09/2023 15:08	06/09/2023 15:08	T^
METALS (EPA 200.8)								
Arsenic	1.3	ug/L	1.0	0.25	1	06/13/2023 07:52	06/15/2023 18:37	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	06/12/2023 12:30	06/14/2023 09:38	T
Calcium	110	mg/L	1.0	0.20	1	06/12/2023 12:30	06/13/2023 12:40	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	06/12/2023 12:30	06/13/2023 12:40	T
Iron	0.088 I	mg/L	0.10	0.0067	1	06/12/2023 12:30	06/13/2023 12:40	T
Magnesium	24	mg/L	0.10	0.080	1	06/12/2023 12:30	06/13/2023 12:40	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	06/12/2023 12:30	06/13/2023 12:40	T
Potassium	34	mg/L	1.0	0.50	1	06/12/2023 12:30	06/13/2023 12:40	T
Sodium	63	mg/L	1.0	0.80	1	06/12/2023 12:30	06/13/2023 12:40	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	1	06/26/2023 10:32	06/27/2023 10:40	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	06/08/2023 09:20	06/09/2023 12:05	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.0094	mg/L	0.0013	0.0004 2	1	06/20/2023 11:37	06/20/2023 11:37	T
WET CHEMISTRY (EPA 300.0)								
Chloride	110	mg/L	10	2.0	2	06/15/2023 19:17	06/15/2023 19:17	T
Sulfate	290	mg/L	10	2.0	2	06/15/2023 19:17	06/15/2023 19:17	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.22	mg/L	0.030	0.010	1	06/12/2023 15:56	06/12/2023 15:56	T
Ammonium	0.21	mg/L			1	06/20/2023 11:38	06/20/2023 11:38	T
WET CHEMISTRY (EPA 365.1)								





SLMW Upper zone monitor well

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Workorder: Piney Point Wells Monthly (T2310929)

Analytical Results

Lab ID: T2310929001 Date Collected: 06/05/2023 10:35 Matrix: Water
Sample ID: APMW-ULZ Date Received: 06/05/2023 14:45

Table with 10 columns: Parameter, Results, Units, PQL, MDL, DF, Prepared, Analyzed, Lab. Rows include Orthophosphate, WET CHEMISTRY (SM 2320B) for Alkalinity, WET CHEMISTRY (SM 2540 C) for Total Dissolved Solids, WET CHEMISTRY (SM 4500F-C) for Fluoride, WET CHEMISTRY (SM 4500NO3-F) for Nitrate + Nitrite, and WET CHEMISTRY (SM 5310B) for Total Organic Carbon.

Analysis Results Comments

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time





APMW lower zone monitor well

Field parameters correspond to SLMW upper zone monitor well however the laboratory data is APMW lower zone monitor well.

FINAL

Workorder: Piney Point Wells Monthly (T2310929)

Analytical Results

Lab ID: T2310929002 Date Collected: 06/05/2023 12:30 Matrix: Water
 Sample ID: SLMW 1LZ Date Received: 06/05/2023 14:45

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	0.55	ppt			1	06/09/2023 15:18	06/09/2023 15:18	T^
Temperature	27	°C			1	06/09/2023 15:18	06/09/2023 15:18	T^
pH	11.08	SU			1	06/09/2023 15:18	06/09/2023 15:18	T^
METALS (EPA 200.8)								
Arsenic	1.2 U	ug/L	5.0	1.2	5	06/13/2023 07:52	06/16/2023 12:02	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	06/12/2023 12:30	06/14/2023 09:45	T
Calcium	940	mg/L	5.0	1.0	5	06/12/2023 12:30	06/13/2023 15:55	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	06/12/2023 12:30	06/13/2023 12:42	T
Iron	0.14	mg/L	0.10	0.0067	1	06/12/2023 12:30	06/13/2023 12:42	T
Magnesium	340	mg/L	0.10	0.080	1	06/12/2023 12:30	06/13/2023 12:42	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	06/12/2023 12:30	06/13/2023 12:42	T
Potassium	56	mg/L	1.0	0.50	1	06/12/2023 12:30	06/13/2023 12:42	T
Sodium	2700	mg/L	25	20	25	06/12/2023 12:30	06/13/2023 15:52	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	1	06/26/2023 10:32	06/27/2023 10:40	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	06/08/2023 09:20	06/09/2023 12:05	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.71	mg/L	0.036	0.012	1	06/20/2023 11:39	06/20/2023 11:39	T
WET CHEMISTRY (EPA 300.0)								
Chloride	6900	mg/L	500	100	100	06/19/2023 13:47	06/19/2023 13:47	T
Sulfate	1900	mg/L	500	100	100	06/19/2023 13:47	06/19/2023 13:47	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.59	mg/L	0.030	0.010	1	06/12/2023 15:58	06/12/2023 15:58	T
Ammonium	0 U	mg/L			1	06/20/2023 11:40	06/20/2023 11:40	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	06/06/2023 08:39	06/06/2023 08:39	T





APMW lower zone monitor well

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Workorder: Piney Point Wells Monthly (T2310929)

Analytical Results

Lab ID: T2310929002 Date Collected: 06/05/2023 12:30 Matrix: Water
Sample ID: SLMW-1LZ Date Received: 06/05/2023 14:45

Table with 9 columns: Parameter, Results, Units, PQL, MDL, DF, Prepared, Analyzed, Lab. Rows include WET CHEMISTRY (SM 2320B), WET CHEMISTRY (SM 2540 C), WET CHEMISTRY (SM 4500F-C), WET CHEMISTRY (SM 4500NO3-F), and WET CHEMISTRY (SM 5310B).

Analysis Results Comments

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time





FINAL

Workorder: Piney Point Wells Monthly (T2310929)

Analytical Results

Lab ID: T2310929003 **Date Collected:** 06/05/2023 13:44 **Matrix:** Water
Sample ID: IW-1 **Date Received:** 06/05/2023 14:45

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	11.83	ppt			1	06/09/2023 15:20	06/09/2023 15:20	T^
Temperature	29.6	°C			1	06/09/2023 15:20	06/09/2023 15:20	T^
pH	6.82	SU			1	06/09/2023 15:20	06/09/2023 15:20	T^
METALS (EPA 200.8)								
Arsenic	9.4 I	ug/L	10	2.5	10	06/13/2023 07:52	06/15/2023 19:08	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	06/12/2023 12:30	06/14/2023 09:47	T
Calcium	140	mg/L	1.0	0.20	1	06/12/2023 12:30	06/13/2023 12:44	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	06/12/2023 12:30	06/13/2023 12:44	T
Iron	0.096 I	mg/L	0.10	0.0067	1	06/12/2023 12:30	06/13/2023 12:44	T
Magnesium	170	mg/L	0.10	0.080	1	06/12/2023 12:30	06/13/2023 12:44	T
Manganese	0.058	mg/L	0.010	0.0050	1	06/12/2023 12:30	06/13/2023 12:44	T
Potassium	170	mg/L	1.0	0.50	1	06/12/2023 12:30	06/13/2023 12:44	T
Sodium	4900	mg/L	50	40	50	06/12/2023 12:30	06/13/2023 15:57	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	2.91	mg/L	0.20	0.050	1	06/08/2023 09:20	06/09/2023 12:05	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	1.5	mg/L	0.20	0.15	1	06/08/2023 09:20	06/09/2023 12:05	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.0069	mg/L	0.00017	0.000058	1	06/20/2023 11:53	06/20/2023 11:53	T
WET CHEMISTRY (EPA 300.0)								
Chloride	6300	mg/L	1000	200	200	06/19/2023 14:35	06/19/2023 14:35	T
Sulfate	4700	mg/L	1000	200	200	06/19/2023 14:35	06/19/2023 14:35	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	1.2	mg/L	0.030	0.010	1	06/12/2023 15:59	06/12/2023 15:59	T
Ammonium	1.2	mg/L			1	06/20/2023 11:54	06/20/2023 11:54	T
WET CHEMISTRY (EPA 365.1)								





FINAL

Workorder: Piney Point Wells Monthly (T2310929)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Orthophosphate	1.8	mg/L	0.10	0.065	5	06/06/2023 09:00	06/06/2023 09:00	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	23	mg/L	20	5.0	1	06/14/2023 20:55	06/14/2023 20:55	T
Alkalinity, Total	23	mg/L	20	5.0	1	06/14/2023 20:55	06/14/2023 20:55	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	15000	mg/L	10	10	1	06/07/2023 12:00	06/07/2023 12:00	T
WET CHEMISTRY (SM 4500F-C)								
Fluoride	0.43	mg/L	0.20	0.094	1	06/13/2023 10:00	06/13/2023 10:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	06/15/2023 15:32	06/15/2023 15:32	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	24	mg/L	1.0	0.50	1	06/21/2023 06:38	06/21/2023 06:38	T

Analysis Results Comments

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time

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FINAL

Workorder: Piney Point Wells Monthly (T2310929)

QC Results

QC Batch: WCA/21448 **Analysis Method:** SM 4500NO3-F
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2310929001, T2310929002, T2310929003

Method Blank(4835369)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4835370)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	2.07	103	90 - 110	T

Matrix Spike (4835371); Matrix Spike Duplicate (4835372); Original (T2311434002); Parent Lab Sample (T2311434002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	8	2.44	20	90 - 110	2.44	20	0	10	T

Matrix Spike (4835373); Matrix Spike Duplicate (4835374); Original (T2311048001); Parent Lab Sample (T2311048001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	8	1.86	23	90 - 110	1.91	24	3	10	T

QC Result Comments

Matrix Spike - 4835371 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4835372 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike - 4835373 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4835374 - Nitrate + Nitrite

J4|Estimated Result

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FINAL

Workorder: Piney Point Wells Monthly (T2310929)

QC Results

QC Batch: WCA/21532
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2310929001, T2310929002, T2310929003

Analysis Method: EPA 351.2

Method Blank(4824373)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4824375)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.04	104	90 - 110	T

Matrix Spike (4824377); Matrix Spike Duplicate (4824379); Original (T2310876002); Parent Lab Sample (T2310876002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.06	106	90 - 110	1.03	103	3	20	T

Matrix Spike (4824381); Matrix Spike Duplicate (4824383); Original (T2310939001); Parent Lab Sample (T2310939001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.1	110	90 - 110	1.09	109	1	20	T

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FINAL

Workorder: Piney Point Wells Monthly (T2310929)

QC Results

QC Batch: WCA/21533 **Analysis Method:** EPA 365.4
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2310929001, T2310929002, T2310929003

Method Blank(4824374)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (4824376)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	107	90 - 110	T

Matrix Spike (4824378); Matrix Spike Duplicate (4824380); Original (T2310876002); Parent Lab Sample (T2310876002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	.9	90	90 - 110	.95	95	6	10	T

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FINAL

Workorder: Piney Point Wells Monthly (T2310929)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/3252 - EPA 200.8			
T2310929001	APMW-1LZ	DGMj/5920	EPA 200.8
T2310929002	SLMW-1LZ	DGMj/5920	EPA 200.8
T2310929003	IW-1	DGMj/5920	EPA 200.8
ICPt/3795 - SW-846 6010			
T2310929001	APMW-1LZ	DGMt/6143	SW-846 3010A
T2310929002	SLMW-1LZ	DGMt/6143	SW-846 3010A
T2310929003	IW-1	DGMt/6143	SW-846 3010A
WCAI/21182 - EPA 365.1			
T2310929001	APMW-1LZ		
T2310929002	SLMW-1LZ		
T2310929003	IW-1		
WCAI/21291 - SM 2540 C			
T2310929001	APMW-1LZ		
T2310929002	SLMW-1LZ		
T2310929003	IW-1		
WCAI/21325 - SM 4500F-C			
T2310929001	APMW-1LZ		
T2310929002	SLMW-1LZ		
T2310929003	IW-1		
WCAI/21335 - SM 2320B			
T2310929001	APMW-1LZ		
WCAI/21350 - EPA 350.1			
T2310929001	APMW-1LZ		
T2310929002	SLMW-1LZ		
T2310929003	IW-1		
WCAI/21370 - SM 2320B			
T2310929002	SLMW-1LZ		
T2310929003	IW-1		





FINAL

Workorder: Piney Point Wells Monthly (T2310929)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAI/21448 - SM 4500NO3-F			
T2310929001	APMW-1LZ		
T2310929002	SLMW-1LZ		
T2310929003	IW-1		
WCAI/21472 - EPA 300.0			
T2310929001	APMW-1LZ		
WCAI/21514 - EPA 300.0			
T2310929002	SLMW-1LZ		
T2310929003	IW-1		
WCAI/21520 - SM 5310B			
T2310929001	APMW-1LZ		
T2310929002	SLMW-1LZ		
T2310929003	IW-1		
WCAI/21532 - EPA 351.2			
T2310929003	IW-1	WCAI/21214	Copper Sulfate Digestion
WCAI/21533 - EPA 365.4			
T2310929001	APMW-1LZ	WCAI/21214	Copper Sulfate Digestion
T2310929002	SLMW-1LZ	WCAI/21214	Copper Sulfate Digestion
T2310929003	IW-1	WCAI/21214	Copper Sulfate Digestion
WCAI/22119 - EPA 351.2			
T2310929001	APMW-1LZ	WCAI/21705	Copper Sulfate Digestion
T2310929002	SLMW-1LZ	WCAI/21705	Copper Sulfate Digestion





Workorder: Piney Point Wells Monthly (T2310929)

FINAL

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327



Advanced Environmental Laboratories, Inc.

- Altamonte Springs: 528 S. Northlake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 Lab ID E53076
Fort Meyers: 13100 Westlinks Terrace Ste 10 • Fort Meyers, FL 33193 • 239.674.8130 • Fax 239.674.8128 Lab ID E84492
Gainesville: 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 Lab ID E82001
Jacksonville: 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 Lab ID E82574
Miramar: 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281 Lab ID E82535
Tallahassee: 2639 North Monroe St. Ste.D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275 Lab ID E811095
Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 Lab ID E84589

Client Name: ASRus LLC Project Name: Piney Point Injection Wells Monthly
Address: Project Number:
Address: PO Number:
Phone: 813-382-8516 FDEP Facility #:
FAX: FDEP Facility Address:
Contact: Pete Larkin
Sampled By: S. Helms
Special Instructions: P2P 6 1/2 hrs
Turn around time: STANDARD RUSH
AEL Profile #: ADaPT EquiS Other
Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge
Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)
Received on Ice YES NO Temp Taken From Sample Temp from Where required ph checked Temp. when received (Observed) 16 C Temp. when received (corrected) C
DCN: AD-051 Form last revised 02/12/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A
FOR DRINKING WATER USE (When PWS Information not otherwise supplied)
PWS ID:
Contact Person: Phone:
Supplier of Water:
Site-Address:

Table with columns: SAMPLE ID, SAMPLE DESCRIPTION, Grab Comp, SAMPLING DATE, TIME, MATRIX, NO. COUNT, ANALYSIS REQUIRED (SO4, CL, F, TKN, NH3, NH4, NOX, TP, TDS, ALK/BICARB, METALS, TOC, PHOS, GROSS ALPHA, RADIUM, URANIUM), LABORATORY I.D. NUMBER. Includes handwritten data for samples APMW - 1 LZ, SLMW - 1 UZ, and IW - 1.



Table with columns: Relinquished by, Date, Time, Received by, Date, Time. Includes handwritten signatures and dates.

Monday, July 24, 2023 4:56:28 PM
Dates and times are displayed using (-04:00)
Page 31 of 34

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FINAL

Workorder: Piney Point Wells Monthly (T2310929)

Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT DEEP INJECTION WELL		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: APMW-1 LZ	SAMPLE ID:	DATE: 6/5/23	

PURGING DATA

WELL DIAMETER (inches): 5.43 - 12	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 913 feet to 939 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (feet - feet) X gallons/foot = 1251 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
= gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70	PURGING INITIATED AT: 0955	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0955	1251	1251	60								
1016	313	1564	60		7.73	28.2	16108	0.02	0.56	Clean, clear	H2S
1021	313	1877	60		7.66	28.3	16289	0.02	0.02	Clean, clear	H2S
1026	313	2190	60		7.65	28.3	16326	0.03	0.02	Clean, clear	H2S
							Salinity in ppt 9.52				
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL		SAMPLER(S) SIGNATURE(S): <i>Steven Helms</i>		SAMPLING INITIATED AT: 1027	SAMPLING ENDED AT: 1035				
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)	DUPLICATE: Y N						
SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION (including wet ice)						
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
					SEE COC				
REMARKS: DO 7.72 @ 28.8									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)





FINAL

Workorder: Piney Point Wells Monthly (T2310929)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT DEEP INJECTION WELL		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: SLMW1 UZ	SAMPLE ID:	DATE: 6/5/23	

PURGING DATA

WELL DIAMETER (inches): 6.27-9.278	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 580 feet to 623 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet - feet) X gallons/foot = 4855 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1020	PURGING ENDED AT: 1221	TOTAL VOLUME PURGED (gallons): 8497							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1020	4855	4855	60								
1141	1214	6069	60		11.08	27.0	1286	0.04	15.5	Clean, clear	None
1201	1214	7283	60		11.03	26.9	1269	0.04	19.7	Clean, clear	None
1221	1214	8497	60		10.98	26.9	1259	0.05	18.9	Clean, clear	None
							Salinity in ppt	0.62			
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL		SAMPLER(S) SIGNATURE(S): <i>Steven Helms</i>		SAMPLING INITIATED AT: 1222	SAMPLING ENDED AT: 1230				
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE: _____ µm					
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)	DUPLICATE: Y N						
SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION (including wet ice)						
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
					SEE COC				
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)





FINAL

Workorder: Piney Point Wells Monthly (T2310929)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT INJECTION WELLS		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO. IW-1	SAMPLE ID:	DATE: 6/5/23	

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (feet - feet) X gallons/foot = 5098 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
= gallons + (gallons/foot X feet) + gallons =											
WELL gallons											
INITIAL PUMP OR TUBING DEPTH IN (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1335					6.82	29.6	20731	3.77	7.87	Clean, clear	none
							Salinity in ppt	12.32			
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL		SAMPLER(S) SIGNATURE(S): <i>Steven Helms</i>		SAMPLING INITIATED AT: 1336	SAMPLING ENDED AT: 1344				
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: μm					
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)		DUPLICATE: Y N					
SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION (including wet ice)						
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
					SEE COC				
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)





ID is APMW lower zone, however the bottles were switched, the data is for SLMW upper zone

Report Date: June 20, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2310929001
Sample Collection: 06-05-23/1035
Lab ID No: 23.8908
Lab Custody Date: 06-08-23/1350
Sample Description: Water

CERTIFICATE OF ANALYSIS

Table with 6 columns: Parameter, Units, Results, Analysis Date, Method, Detection Limit. Rows include Gross Alpha, Combined Radium, Radium-226, Radium-228, Uranium, and Uranium.

Alpha Standard: Th-230

* 102% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Handwritten signature of Thomas J. Weeks

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed. Contact person: Thomas Weeks (813) 229-2879.



ID is SLMW(UZ), however the bottles were switched, the data is for APMW lower zone

Report Date: June 20, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2310929002
Sample Collection: 06-05-23/1230
Lab ID No: 23.8909
Lab Custody Date: 06-08-23/1350
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	24.2 ± 2.9	6-14-23/0955	EPA 00-02	1.3
Combined Radium (Radium-226 + Radium 228)	pCi/L	16.4 ± 1.3	Calc	Calc	0.6
Radium-226	pCi/L	15.5 ± 1.3	6-15-23/1321	EPA 903.0*	0.3
Radium-228	pCi/L	0.9 I ± 0.6	6-15-23/1338	EPA Ra-05	0.6
Uranium	pCi/L	0.3 U ± 0.1	6-19-23/1709	EPA 908.0	0.3
Uranium	ppb	0.4 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 112% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed. Contact person: Thomas Weeks (813) 229-2879.



Report Date: June 20, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2310929003
Sample Collection: 06-05-23/1344
Lab ID No: 23.8910
Lab Custody Date: 06-08-23/1350
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	1.6 I ± 0.9	6-14-23/0955	EPA 00-02	1.1
Combined Radium (Radium-226 + Radium 228)	pCi/L	1.2 I ± 0.5	Calc	Calc	0.7
Radium-226	pCi/L	1.2 I ± 0.5	6-15-23/1321	EPA 903.0*	0.7
Radium-228	pCi/L	0.6 U ± 0.5	6-15-23/1338	EPA Ra-05	0.6
Uranium	pCi/L	0.3 U ± 0.1	6-19-23/1709	EPA 908.0	0.3
Uranium	ppb	0.4 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

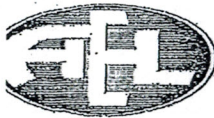
* 93% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



Advanced Environmental Laboratories, Inc.

- Allamonte Springs: 360 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
- Fort Myers: 13100 Westlincs Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
- Jacksonville: 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
- Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095

RUSH
6/20

- Gainesville: 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
- Miramar: 10200 USA Today Way, FL 33025 • 954.889.2268 • Lab ID: E82535
- Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.8616 • Lab ID: E84589

Client Name: **Advanced Environmental Lab**

Address: **Tampa Fl 33619**

Phone: **813-630-9616**

Fax: **813-630-4327**

Contact: **mcammarata@aellab.com**

Sampled By: _____

Turn Around Time: STANDARD RUSH

Lab Profile #: _____

Project Name: **T2310929**

Project Number: _____

PO Number: **21083**

FDEP Facility No: _____

FDEP Facility Address: _____

Even though matrix WA please include DW report along with EVN report

ADAPT EQUIS Other

ANALYSIS REQUIRED	BOTTLE SIZE & TYPE	23-8908-10			
	Rad 226				
	Rad 228				
	Gross Alpha				
	Uranium				
LABORATORY I.D. NUMBER					

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	Preservation	Field-Filled?										
			DATE	TIME														
	T2310929001		6-5-23	1035	WA				X	X	X	X						
	T2310929002		6-5-23	1230	WA				X	X	X	X						
	T2310929003		6-5-23	1344	WA				X	X	X	X						

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thioculfate)

Received on Ice Yes No Temp taken from sample Temp from blank Where required, pH checked

Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C

Form last revised 08/07/2019 Device used for measuring Temp by unique Identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Relinquished by:	Date	Time	Received by:	Date	Time
Kaitlyn Pasqualini	6-8-23	1000	[Signature]	6/8/23	150

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site-Address: _____



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monthly Summary for July 2023
Month Year

Piney Point Injection Well
 UIC Permit No.:0322708-002-UC/11

WACS ID: **101607**
 Wastestream: Industrial

The following reports are included with this Document:

Testsite ID	Well Name/Zone	Zone Depth	Chemical/Physical	Report Type
13989	IW-1	1950'-3300'	Chemical/Physical	MORM/MORQ/MORA
29238A	DZMW-1 Upper Zone	600'-650'	Chemical/Physical	MORM/MORQ/MORA
29238B	DZMW-1 Lower Zone	900'-950'	Chemical/Physical	MORM/MORQ/MORA

- The injection well system experienced no issues this month with equipment, sampling, or operation.
- The injection well system experienced the following issues this month with equipment, sampling, or operation:

Comments:
<p>In accordance with "Helpful Tips for Completing the Underground Injection Control Monthly Operating Report (MOR)" guidance document dated 2/13/2013, please note the following:</p> <ol style="list-style-type: none"> Results greater than or equal to the PQL shall be reported as the measured quantity. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. Results less than the MDL shall be reported by entering a less than sign ("$<$") followed by the laboratory's MDL value, e.g. < 0.001.

Report any abnormal events within 24 hours of their occurrence. (62-528.415(4) F.A.C.)

Comment Codes		
C1 = Purging Monitoring Wells	C7 = Recalibrated DWI Flow or Level Meters	C13 = Reinstalled Flow or PSI Meter
C2 = DWI or Pump Station Shutdown	C8 = DWI Flow or PSI Meter Failure	C14 = SCADA pressure data are unreliable.
C3 = Power Outage/Restarted Pump	C9 = MW Transducer Meter failure	C15 = SCADA pressure data verified.
C4 = SCADA System Restarted	C10 = Monitoring Well Recording Problems	C16 = Pumps off part of the day
C5 = Maintenance to DWI Pump(s)	C11 = Readjusted Flow Rate/Switched Pumps	C17 = No Data due to SCADA problems
C6 = Read DWI Flow Meter Late/Early	C12 = Installed Temporary Flow/ PSI Meter	C18 = Injectivity Test Performed

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO.
Pete Larkin	813-382-8516

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
	8/31/2023

Note: Fill in all yellow areas and check the box for the status of the injection well.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Physical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Month-Yr MMM-YY	Injection Pressure (PSI)			Injection Flow Rate (GPM)			Total Injected Volume (MG)
	Maximum	Minimum	Average	Maximum	Minimum	Average	
Jul-23							
1	49.30	15.62	28.26	612.83	0.00	219.32	0.31
2	51.99	6.27	45.93	627.67	128.17	505.33	0.70
3	51.93	6.16	47.21	595.50	211.33	498.54	0.72
4	51.69	7.93	49.37	574.33	124.17	511.15	0.74
5	51.80	18.56	42.55	565.67	0.00	395.01	0.56
6	51.71	21.44	49.03	555.17	41.00	490.63	0.71
7	51.28	12.84	48.88	548.17	203.67	491.95	0.73
8	51.55	20.24	48.28	557.00	84.50	491.01	0.69
9	51.07	18.89	41.59	541.00	0.00	368.97	0.56
10	51.13	16.08	32.33	584.00	0.00	249.99	0.33
11	51.36	5.25	47.21	562.33	159.17	489.81	0.71
12	51.83	17.26	48.06	540.67	125.50	477.33	0.69
13	52.17	19.81	47.19	536.00	77.83	454.06	0.66
14	51.71	17.16	44.95	539.00	117.67	422.99	0.60
15	51.60	20.39	44.67	562.83	0.00	422.53	0.60
16	51.61	21.34	48.56	543.50	0.00	485.17	0.70
17	51.32	20.77	48.76	551.17	168.00	496.46	0.72
18	50.98	20.84	47.63	556.17	253.83	486.28	0.71
19	51.04	17.76	47.84	558.00	137.67	492.35	0.69
20	51.04	22.24	47.31	543.50	133.33	472.22	0.68
21	50.34	13.56	44.11	539.83	0.00	417.42	0.60
22	50.92	19.76	46.49	548.67	0.00	468.97	0.68
23	50.62	8.82	44.74	557.67	0.00	436.41	0.65
24	51.00	14.47	47.48	572.67	154.33	492.17	0.69
25	49.57	10.00	39.91	567.83	0.00	361.58	0.54
26	51.19	20.37	47.39	561.67	156.00	493.29	0.69
27	51.09	22.19	48.57	549.83	148.00	499.66	0.72
28	50.81	7.43	26.29	532.33	0.00	128.80	0.22
29	16.79	15.77	16.22	0.00	0.00	0.00	0.00
30	15.86	15.03	15.42	0.00	0.00	0.00	0.00
31	15.09	14.48	14.78	0.00	0.00	0.00	0.00
Monthly	Maximum	Minimum	Average	Maximum	Minimum	Average	Total
	52.17	5.25	41.84	627.67	0.00	394.17	17.59
WACS Code	IWPMAX	IWPMIN	IWPAVG	IWRMAX	IWRMIN	IWRAVG	IWFTOT

Note: Record all operational data for the injection well per day. Unless the well was in operation for a full 24-hr period, the minimum flow rate should be entered as 0.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

IW-1 Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 IW-1

WACS ID: 101607
 Testsite ID: **13989**
 Report Type: MORM/MORQ/MORA

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				03-Jul-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	5.83				
Specific Conductance (field)	µmhos/cm	000094	Monthly	9485				
Temperature Degrees C (field)	°C	000010	Monthly	33.4				
Chloride	mg/L	000940	Monthly	5800				
Sulfate	mg/L	000945	Monthly	4100				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	19000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.12				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	4.17				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	32				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.12				
Arsenic	mg/L	900029	Monthly	0.0098				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.32				
Manganese Total	mg/L	099244	Monthly	0.005				
Phosphorus Total	mg/L	000665	Monthly	1.9				
OrthoPhosphate	mg/L	000660	Monthly	1.5				
Bicarbonate	mg/L	000440	Monthly	32				
Calcium	mg/L	000916	Monthly	150				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	210				
Potassium	mg/L	000937	Monthly	180				
Sodium	mg/L	000929	Monthly	5400				
Alpha, Gross	pCi/L	001515	Monthly	<1.1+/-0.7				
Uranium Total	µg/L	099243	Monthly	<0.4+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	0.4				
Radium228 Total	pCi/L	011501	Monthly	<0.6+/-0.6				
Delta15N	Ratio	082084	Quarterly					

Please submit Primary & Secondary Drinking Water Standards, Source Water - ANNUALLY.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Specific Injectivity Monthly

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: 13989

Well: IW-1

Report Type: MORM

Test Date: 7/3/2023

Specific Injectivity Test

1. Static Wellhead pressure(psi): 22.6
2. Injection Flow Rate (gpm): 609
3. Average Wellhead pressure following the 15-minute injection (psi): 49.9

SPECIFIC INJECTIVITY (SPCINJ) (gpm/psi): 22.307692

Fall-Off Test

Time Elapsed (min)	Wellhead Pressure (psi)	Comments
0	49.9	
0.5	28	
1	27.8	
1.5	27	
2	26.5	
2.5	25.9	
3	25.6	
3.5	25.2	
4	24.9	
4.5	24.7	
5	24.4	
5.5	24.2	
6	24.1	
6.5	23.9	
7	23.7	
7.5	23.6	
8	23.4	
8.5	23.3	
9	23.2	
9.5	23.1	
10	23	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
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Monitoring Well: DZMW-1 Upper Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238A**

Well: **DZMW-1 Upper Zone**

Report Type: MORM

Well Depth: 600'-650'

Zone: UPPER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Jul-23				
1	14.41	14.32	14.37	
2	14.44	14.27	14.36	
3	14.73	5.88	13.87	C1
4	14.74	14.61	14.67	
5	14.65	14.47	14.58	
6	14.59	14.45	14.52	
7	14.52	14.35	14.42	
8	14.44	14.30	14.37	
9	14.51	14.35	14.42	
10	14.62	14.43	14.50	
11	14.70	14.57	14.63	
12	14.75	14.52	14.65	
13	14.54	14.32	14.41	
14	14.40	14.28	14.34	
15	14.34	14.22	14.30	
16	14.34	14.19	14.25	
17	14.40	14.26	14.31	
18	14.67	14.30	14.47	
19	14.84	14.60	14.71	
20	14.75	14.49	14.59	
21	14.64	14.46	14.55	
22	14.65	14.44	14.52	
23	14.71	14.51	14.58	
24	14.71	14.60	14.65	
25	14.74	14.60	14.66	
26	14.72	14.54	14.61	
27	14.67	14.55	14.60	
28	14.70	14.59	14.64	
29	14.69	14.58	14.63	
30	14.80	14.62	14.70	
31	14.99	14.73	14.82	
Monthly	Maximum	Minimum	Average	
	14.99	5.88	14.51	
Storet Number	900199	900200	900198	

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Upper Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Upper Zone**
 Well Depth: 600'-650'

WACS ID: 101607
 Testsite ID: **29238A**
 Report Type: MORM/MORQ/MORA
 Zone: UPPER

Parameter	Unit	Store Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				03-Jul-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	10.77				
Specific Conductance (field)	µmhos/cm	000094	Monthly	1315				
Temperature Degrees C (field)	°C	000010	Monthly	27.6				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.07				
Turbidity (field)	NTU	082078	Monthly	19.4				
Chloride	mg/L	000940	Monthly	130				
Sulfate	mg/L	000945	Monthly	300				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	830				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.24				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.20				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.3				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.24				
Arsenic	mg/L	900029	Monthly	0.0013				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.65				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	<0.50				
OrthoPhosphate	mg/L	000660	Monthly	0.013				
Bicarbonate	mg/L	000440	Monthly	5				
Calcium	mg/L	000916	Monthly	130				
Iron (Fe) Total	mg/L	074010	Monthly	0.15				
Magnesium Total	mg/L	000927	Monthly	23				
Potassium	mg/L	000937	Monthly	35				
Sodium	mg/L	000929	Monthly	76				
Alpha, Gross	pCi/L	001515	Monthly	8.0+/-2.0				
Uranium Total	µg/L	099243	Monthly	1.9+/-0.4				
Radium226 Total	pCi/L	009501	Monthly	4.9+/-0.6				
Radium228 Total	pCi/L	011501	Monthly	<0.6+/-0.5				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
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Monitoring Well: DZMW-1 Lower Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238B**

Well: **DZMW-1 Lower Zone**

Report Type: MORM

Well Depth: 900'-950'

Zone: LOWER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Jul-23				
1	7.76	7.66	7.71	
2	7.78	7.63	7.70	
3	8.25	5.79	7.91	C1
4	8.08	7.98	8.02	
5	7.99	7.86	7.94	
6	7.92	7.80	7.87	
7	7.86	7.69	7.76	
8	7.77	7.65	7.70	
9	7.83	7.67	7.75	
10	7.93	7.77	7.83	
11	8.01	7.89	7.95	
12	8.07	7.82	7.97	
13	7.83	7.64	7.72	
14	7.71	7.61	7.66	
15	7.67	7.56	7.63	
16	7.68	7.55	7.60	
17	7.72	7.58	7.64	
18	8.00	7.62	7.80	
19	8.18	7.94	8.05	
20	8.04	7.82	7.91	
21	7.98	7.79	7.88	
22	7.97	7.76	7.85	
23	8.04	7.83	7.91	
24	8.04	7.92	7.98	
25	8.09	7.93	7.99	
26	8.06	7.87	7.94	
27	7.99	7.89	7.93	
28	8.04	7.91	7.96	
29	8.03	7.92	7.97	
30	8.14	7.96	8.04	
31	8.33	8.07	8.16	
Monthly	Maximum	Minimum	Average	
	8.33	5.79	7.86	
Storet Number	900199	900200	900198	

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Lower Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Lower Zone**
 Well Depth: 900'-950'

WACS ID: 101607
 Testsite ID: **29238B**
 Report Type: MORM/MORQ/MORA
 Zone: LOWER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				03-Jul-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.1				
Specific Conductance (field)	µmhos/cm	000094	Monthly	17595				
Temperature Degrees C (field)	°C	000010	Monthly	28.5				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.09				
Turbidity (field)	NTU	082078	Monthly	0.9				
Chloride	mg/L	000940	Monthly	5600				
Sulfate	mg/L	000945	Monthly	1600				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	16000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.92				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.2				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.4				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.92				
Arsenic	mg/L	900029	Monthly	<0.0025				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.81				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	<0.50				
OrthoPhosphate	mg/L	000660	Monthly	0.013				
Bicarbonate	mg/L	000440	Monthly	110				
Calcium	mg/L	000916	Monthly	1000				
Iron (Fe) Total	mg/L	074010	Monthly	0.1				
Magnesium Total	mg/L	000927	Monthly	350				
Potassium	mg/L	000937	Monthly	56				
Sodium	mg/L	000929	Monthly	2900				
Alpha, Gross	pCi/L	001515	Monthly	27.8+/-4.0				
Uranium Total	µg/L	099243	Monthly	<0.4+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	13.5+/-0.9				
Radium228 Total	pCi/L	011501	Monthly	0.6				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

July 28, 2023

Pete Larkin
ASRus LLC
13329 North Armenia Avenue
Tampa, FL 33613

RE: Workorder: T2312766 Piney Point Wells Monthly

Dear Pete Larkin:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday July 3, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

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Workorder: Piney Point Wells Monthly (T2312766)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2312766001	APMW-1 LZ	WA	DEP SOP 10/03/83	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	EPA 200.8	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	EPA 300.0	07/03/2023 10:21	07/03/2023 13:35	2	NA
T2312766001	APMW-1 LZ	WA	EPA 350.1	07/03/2023 10:21	07/03/2023 13:35	2	NA
T2312766001	APMW-1 LZ	WA	EPA 351.2	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	EPA 365.1	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	EPA 365.4	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	Field Measurements	07/03/2023 10:21	07/03/2023 13:35	3	NA
T2312766001	APMW-1 LZ	WA	SM 2320B	07/03/2023 10:21	07/03/2023 13:35	2	NA
T2312766001	APMW-1 LZ	WA	SM 2540 C	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	SM 4500F-C	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	SM 4500NO3-F	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	SM 5310B	07/03/2023 10:21	07/03/2023 13:35	1	NA
T2312766001	APMW-1 LZ	WA	SW-846 6010	07/03/2023 10:21	07/03/2023 13:35	8	NA
T2312766002	SLMW-1 UZ	WA	DEP SOP 10/03/83	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	EPA 200.8	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	EPA 300.0	07/03/2023 11:48	07/03/2023 13:35	2	NA
T2312766002	SLMW-1 UZ	WA	EPA 350.1	07/03/2023 11:48	07/03/2023 13:35	2	NA
T2312766002	SLMW-1 UZ	WA	EPA 351.2	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	EPA 365.1	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	EPA 365.4	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	Field Measurements	07/03/2023 11:48	07/03/2023 13:35	3	NA
T2312766002	SLMW-1 UZ	WA	SM 2320B	07/03/2023 11:48	07/03/2023 13:35	2	NA
T2312766002	SLMW-1 UZ	WA	SM 2540 C	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	SM 4500F-C	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	SM 4500NO3-F	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	SM 5310B	07/03/2023 11:48	07/03/2023 13:35	1	NA
T2312766002	SLMW-1 UZ	WA	SW-846 6010	07/03/2023 11:48	07/03/2023 13:35	8	NA
T2312766003	IW-1	WA	DEP SOP 10/03/83	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	EPA 200.8	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	EPA 300.0	07/03/2023 12:16	07/03/2023 13:35	2	NA
T2312766003	IW-1	WA	EPA 350.1	07/03/2023 12:16	07/03/2023 13:35	2	NA
T2312766003	IW-1	WA	EPA 351.2	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	EPA 365.1	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	EPA 365.4	07/03/2023 12:16	07/03/2023 13:35	1	NA

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2312766003	IW-1	WA	Field Measurements	07/03/2023 12:16	07/03/2023 13:35	3	NA
T2312766003	IW-1	WA	SM 2320B	07/03/2023 12:16	07/03/2023 13:35	2	NA
T2312766003	IW-1	WA	SM 2540 C	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	SM 4500F-C	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	SM 4500NO3-F	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	SM 5310B	07/03/2023 12:16	07/03/2023 13:35	1	NA
T2312766003	IW-1	WA	SW-846 6010	07/03/2023 12:16	07/03/2023 13:35	8	NA

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Workorder: Piney Point Wells Monthly (T2312766)

Workorder Summary

Batch Comments

WCAg/12110 - TKN,E351.2 Analysis,Water

The matrix spike (MS) recoveries of TKN for T2312766002 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. The affected sample is qualified to indicate matrix interference.

WCAg/12148 - TKN,E351.2 Analysis,Water

The matrix spike (MS) recoveries of [TKN for T2312631004 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. The affected sample is qualified to indicate matrix interference.

The matrix spike recoveries of [TKN for T2312775001 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. The affected sample is qualified to indicate matrix interference.

WCAt/21936 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recoveries of NITRATE+NITRITE for T2312760002 and T2312792002 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

WCAt/21956 - IC,E300.0,Water

The matrix spike recovery of Chloride for T2312710003 and T2312854001 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

Analysis Results Comments

T2312766003 (IW-1) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2312766003 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

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Workorder: Piney Point Wells Monthly (T2312766)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time
- J3 Lab QC Failure
- J4 Estimated Result

Lab Qualifiers

- G DOH Certification #E82001 (FL NELAC) AEL-Gainesville
- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L21-470 (ISO/IEC 17025:2017) AEL-Jacksonville
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa
- T^ Not Certified

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Workorder: Piney Point Wells Monthly (T2312766)

Analytical Results

Lab ID: T2312766001 **Date Collected:** 07/03/2023 10:21 **Matrix:** Water
Sample ID: APMW-1 LZ **Date Received:** 07/03/2023 13:35

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	10.33	ppt			1	07/27/2023 10:01	07/27/2023 10:01	T^
Temperature	28.5	°C			1	07/27/2023 10:01	07/27/2023 10:01	T^
pH	7.1	SU			1	07/27/2023 10:01	07/27/2023 10:01	T^
METALS (EPA 200.8)								
Arsenic	0.25 U	ug/L	1.0	0.25	1	07/11/2023 07:10	07/11/2023 21:34	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	07/11/2023 11:30	07/12/2023 14:54	T
Calcium	1000	mg/L	5.0	1.0	5	07/11/2023 11:30	07/12/2023 17:05	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	07/11/2023 11:30	07/12/2023 14:54	T
Iron	0.10	mg/L	0.10	0.0067	1	07/11/2023 11:30	07/12/2023 14:54	T
Magnesium	350	mg/L	0.10	0.080	1	07/11/2023 11:30	07/12/2023 14:54	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	07/11/2023 11:30	07/12/2023 14:54	T
Potassium	56	mg/L	1.0	0.50	1	07/11/2023 11:30	07/12/2023 14:54	T
Sodium	2900	mg/L	25	20	25	07/11/2023 11:30	07/12/2023 17:02	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.399 I	mg/L	0.50	0.20	1	07/18/2023 16:44	07/19/2023 13:34	G
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.50 U	mg/L	1.0	0.50	1	07/18/2023 16:44	07/19/2023 00:00	G
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0 U	mg/L			1	07/27/2023 10:02	07/27/2023 10:02	T
WET CHEMISTRY (EPA 300.0)								
Chloride	5600	mg/L	500	100	100	07/06/2023 14:53	07/06/2023 14:53	T
Sulfate	1600	mg/L	500	100	100	07/06/2023 14:53	07/06/2023 14:53	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.92	mg/L	0.030	0.010	1	07/03/2023 14:43	07/03/2023 14:43	T
Ammonium	0.92	mg/L			1	07/28/2023 10:17	07/28/2023 10:17	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.013 I	mg/L	0.020	0.013	1	07/03/2023 14:40	07/03/2023 14:40	T





FINAL

Workorder: Piney Point Wells Monthly (T2312766)

Analytical Results

Lab ID: T2312766001	Date Collected: 07/03/2023 10:21	Matrix: Water
Sample ID: APMW-1 LZ	Date Received: 07/03/2023 13:35	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	110	mg/L	20	5.0	1	07/05/2023 12:45	07/05/2023 12:45	T
Alkalinity, Total	110	mg/L	20	5.0	1	07/05/2023 12:45	07/05/2023 12:45	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	16000	mg/L	10	10	1	07/03/2023 15:00	07/03/2023 15:00	T
WET CHEMISTRY (SM 4500F-C)								
Fluoride	0.81	mg/L	0.20	0.094	1	07/11/2023 12:35	07/11/2023 12:35	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	07/07/2023 13:49	07/07/2023 13:49	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.4	mg/L	1.0	0.50	1	07/05/2023 21:18	07/05/2023 21:18	T

Analysis Results Comments

Ammonia (N)

J3|Lab QC Failure

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2312766002 Date Collected: 07/03/2023 11:48 Matrix: Water								
Sample ID: SLMW-1 UZ Date Received: 07/03/2023 13:35								
FIELD PARAMETERS (Field Measurements)								
Salinity	0.65	ppt			1	07/27/2023 10:03	07/27/2023 10:03	T^
Temperature	27.6	°C			1	07/27/2023 10:03	07/27/2023 10:03	T^
pH	10.77	SU			1	07/27/2023 10:03	07/27/2023 10:03	T^
METALS (EPA 200.8)								
Arsenic	1.3	ug/L	1.0	0.25	1	07/11/2023 07:10	07/11/2023 21:40	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	07/11/2023 11:30	07/12/2023 14:56	T
Calcium	130	mg/L	1.0	0.20	1	07/11/2023 11:30	07/12/2023 14:56	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	07/11/2023 11:30	07/12/2023 14:56	T
Iron	0.15	mg/L	0.10	0.0067	1	07/11/2023 11:30	07/12/2023 14:56	T
Magnesium	23	mg/L	0.10	0.080	1	07/11/2023 11:30	07/12/2023 14:56	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	07/11/2023 11:30	07/12/2023 14:56	T
Potassium	35	mg/L	1.0	0.50	1	07/11/2023 11:30	07/12/2023 14:56	T
Sodium	76	mg/L	1.0	0.80	1	07/11/2023 11:30	07/12/2023 14:56	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.329 I	mg/L	0.50	0.20	1	07/17/2023 16:28	07/18/2023 13:34	G
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.50 U	mg/L	1.0	0.50	1	07/17/2023 16:28	07/18/2023 13:34	G
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0 U	mg/L			1	07/27/2023 10:04	07/27/2023 10:04	T
WET CHEMISTRY (EPA 300.0)								
Chloride	130	mg/L	10	2.0	2	07/06/2023 15:09	07/06/2023 15:09	T
Sulfate	300	mg/L	10	2.0	2	07/06/2023 15:09	07/06/2023 15:09	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.24	mg/L	0.030	0.010	1	07/03/2023 14:45	07/03/2023 14:45	T
Ammonium	0.24	mg/L			1	07/28/2023 10:39	07/28/2023 10:39	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.014 I	mg/L	0.020	0.013	1	07/03/2023 14:43	07/03/2023 14:43	T





FINAL

Workorder: Piney Point Wells Monthly (T2312766)

Analytical Results

Lab ID: T2312766002	Date Collected: 07/03/2023 11:48	Matrix: Water
Sample ID: SLMW-1 UZ	Date Received: 07/03/2023 13:35	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	111	mg/L	20	5.0	1	07/05/2023 12:50	07/05/2023 12:50	T
Alkalinity, Total	37	mg/L	20	5.0	1	07/05/2023 12:50	07/05/2023 12:50	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	830	mg/L	10	10	1	07/03/2023 15:00	07/03/2023 15:00	T
WET CHEMISTRY (SM 4500F-C)								
Fluoride	0.65	mg/L	0.20	0.094	1	07/11/2023 12:35	07/11/2023 12:35	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	07/07/2023 13:49	07/07/2023 13:49	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.3	mg/L	1.0	0.50	1	07/05/2023 21:37	07/05/2023 21:37	T

Analysis Results Comments

Ammonia (N)

J3|Lab QC Failure

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

Total Kjeldahl Nitrogen

J4|Estimated Result

pH

Q|Missed Hold Time

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

Analytical Results

Lab ID: T2312766003 **Date Collected:** 07/03/2023 12:16 **Matrix:** Water
Sample ID: IW-1 **Date Received:** 07/03/2023 13:35

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	5.14	ppt			1	07/27/2023 10:04	07/27/2023 10:04	T^
Temperature	33.4	°C			1	07/27/2023 10:04	07/27/2023 10:04	T^
pH	5.83	SU			1	07/27/2023 10:04	07/27/2023 10:04	T^
METALS (EPA 200.8)								
Arsenic	9.8	ug/L	5.0	1.2	5	07/11/2023 07:10	07/12/2023 14:06	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	07/11/2023 11:30	07/12/2023 14:58	T
Calcium	150	mg/L	1.0	0.20	1	07/11/2023 11:30	07/12/2023 14:58	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	07/11/2023 11:30	07/12/2023 14:58	T
Iron	0.036 I	mg/L	0.10	0.0067	1	07/11/2023 11:30	07/12/2023 14:58	T
Magnesium	210	mg/L	0.10	0.080	1	07/11/2023 11:30	07/12/2023 14:58	T
Manganese	0.0068 I	mg/L	0.010	0.0050	1	07/11/2023 11:30	07/12/2023 14:58	T
Potassium	180	mg/L	1.0	0.50	1	07/11/2023 11:30	07/12/2023 14:58	T
Sodium	5400	mg/L	25	20	25	07/11/2023 11:30	07/12/2023 17:07	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	4.17	mg/L	0.50	0.20	1	07/18/2023 16:44	07/19/2023 13:34	G
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	1.9	mg/L	1.0	0.50	1	07/18/2023 16:44	07/19/2023 00:00	G
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0 U	mg/L			1	07/27/2023 10:05	07/27/2023 10:05	T
WET CHEMISTRY (EPA 300.0)								
Chloride	5800	mg/L	1000	200	200	07/06/2023 15:25	07/06/2023 15:25	T
Sulfate	4100	mg/L	1000	200	200	07/06/2023 15:25	07/06/2023 15:25	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.12	mg/L	0.030	0.010	1	07/03/2023 14:46	07/03/2023 14:46	T
Ammonium	0.12	mg/L			1	07/28/2023 10:39	07/28/2023 10:39	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	1.5	mg/L	0.10	0.065	5	07/03/2023 15:07	07/03/2023 15:07	T





FINAL

Workorder: Piney Point Wells Monthly (T2312766)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2312766003 Date Collected: 07/03/2023 12:16 Matrix: Water								
Sample ID: IW-1 Date Received: 07/03/2023 13:35								
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	32	mg/L	20	5.0	1	07/05/2023 12:54	07/05/2023 12:54	T
Alkalinity, Total	32	mg/L	20	5.0	1	07/05/2023 12:54	07/05/2023 12:54	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	19000	mg/L	10	10	1	07/06/2023 14:00	07/06/2023 14:00	T
WET CHEMISTRY (SM 4500F-C)								
Fluoride	0.32	mg/L	0.20	0.094	1	07/11/2023 12:35	07/11/2023 12:35	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	07/07/2023 13:50	07/07/2023 13:50	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	32	mg/L	2.0	1.0	2	07/11/2023 12:19	07/11/2023 12:19	T

Analysis Results Comments

Ammonia (N)

J3|Lab QC Failure

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Results

QC Batch: WCAg/12110
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2312766002

Analysis Method: EPA 351.2

Method Blank(4875776)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.20 U	mg/L	0.50	0.20	G

Lab Control Sample (4875778)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	.962	96	90 - 110	G

Matrix Spike (4875780); Matrix Spike Duplicate (4875782); Original (T2312766002); Parent Lab Sample (T2312766002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.37	104	90 - 110	1.19	86	14	20	G

QC Result Comments

Matrix Spike Duplicate - 4875782 - Total Kjeldahl Nitrogen

J4|Estimated Result

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Results

QC Batch: WCAg/12111
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2312766002

Analysis Method: EPA 365.4

Method Blank(4875777)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.50 U	mg/L	1.0	0.50	G

Lab Control Sample (4875779)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1	104	90 - 110	G

Matrix Spike (4875781); Matrix Spike Duplicate (4875783); Original (T2312766002); Parent Lab Sample (T2312766002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	1.1	106	80 - 120	1.1	106	0	20	G

Matrix Spike (4875785); Matrix Spike Duplicate (4875787); Original (T2312720001); Parent Lab Sample (T2312720001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	1	102	80 - 120	1	100	2	20	G

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Results

QC Batch: WCAg/12148
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2312766001, T2312766003

Analysis Method: EPA 351.2

Method Blank(4877909)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.20 U	mg/L	0.50	0.20	G

Lab Control Sample (4877911)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.08	108	90 - 110	G

Matrix Spike (4877913); Matrix Spike Duplicate (4877915); Original (T2312631004); Parent Lab Sample (T2312631004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.61	89	90 - 110	1.38	66	16	20	G

Matrix Spike (4877917); Matrix Spike Duplicate (4877919); Original (T2312775001); Parent Lab Sample (T2312775001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	10.8	160	90 - 110	10.7	150	1	20	G

QC Result Comments

Matrix Spike - 4877913 - Total Kjeldahl Nitrogen

J4|Estimated Result

Matrix Spike Duplicate - 4877915 - Total Kjeldahl Nitrogen

J4|Estimated Result

Matrix Spike - 4877917 - Total Kjeldahl Nitrogen

J4|Estimated Result

Matrix Spike Duplicate - 4877919 - Total Kjeldahl Nitrogen

J4|Estimated Result

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Results

QC Batch: WCAg/12149
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2312766001, T2312766003

Analysis Method: EPA 365.4

Method Blank(4877910)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.50 U	mg/L	1.0	0.50	G

Lab Control Sample (4877912)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	105	90 - 110	G

Matrix Spike (4877914); Matrix Spike Duplicate (4877916); Original (T2312631004); Parent Lab Sample (T2312631004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	4.6	120	80 - 120	4.5	112	2	20	G

Matrix Spike (4877918); Matrix Spike Duplicate (4877920); Original (T2312775001); Parent Lab Sample (T2312775001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	2.3	106	80 - 120	2.4	107	1	20	G

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Results

QC Batch: WCA/21858 **Analysis Method:** EPA 350.1
Preparation Method: EPA 350.1
Associated Lab IDs: T2312766001, T2312766002, T2312766003

Method Blank(4856372)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4856373)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.54	108	90 - 110	T

Matrix Spike (4856374); Matrix Spike Duplicate (4856375); Original (T2312766001); Parent Lab Sample (T2312766001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.9	97	90 - 110	1.9	95	1	10	T

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Results

QC Batch: WCA/21936 **Analysis Method:** SM 4500NO3-F
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2312766001, T2312766002, T2312766003

Method Blank(4862330)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4862331)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	1.88	94	90 - 110	T

Matrix Spike (4862332); Matrix Spike Duplicate (4862333); Original (T2312760002); Parent Lab Sample (T2312760002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	2.04	87	90 - 110	2.07	89	1	10	T

Matrix Spike (4862334); Matrix Spike Duplicate (4862335); Original (T2312792002); Parent Lab Sample (T2312792002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	1.81	77	90 - 110	1.88	80	4	10	T

QC Result Comments

Matrix Spike - 4862332 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4862333 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike - 4862334 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4862335 - Nitrate + Nitrite

J4|Estimated Result

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Results

QC Batch: WCA/22010 **Analysis Method:** SM 4500F-C
Preparation Method: SM 4500F-C
Associated Lab IDs: T2312766001, T2312766002, T2312766003

Method Blank(4866303)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.094 U	mg/L	0.20	0.094	T

Lab Control Sample (4866304)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	1	1	100	90 - 110	T

Matrix Spike (4866305); Matrix Spike Duplicate (4866306); Original (T2312766001); Parent Lab Sample (T2312766001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	1	1.7	91	90 - 110	1.7	91	0	10	T

Method Blank(4866308)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.094 U	mg/L	0.20	0.094	T

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Workorder: Piney Point Wells Monthly (T2312766)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/3313 - EPA 200.8			
T2312766001	APMW-1 LZ	DGMj/6085	EPA 200.8
T2312766002	SLMW-1 UZ	DGMj/6085	EPA 200.8
T2312766003	IW-1	DGMj/6085	EPA 200.8
ICPt/3883 - SW-846 6010			
T2312766001	APMW-1 LZ	DGMt/6305	SW-846 3010A
T2312766002	SLMW-1 UZ	DGMt/6305	SW-846 3010A
T2312766003	IW-1	DGMt/6305	SW-846 3010A
WCAg/12110 - EPA 351.2			
T2312766002	SLMW-1 UZ	WCAg/12078	Copper Sulfate Digestion
WCAg/12111 - EPA 365.4			
T2312766002	SLMW-1 UZ	WCAg/12078	Copper Sulfate Digestion
WCAg/12148 - EPA 351.2			
T2312766001	APMW-1 LZ	WCAg/12093	Copper Sulfate Digestion
T2312766003	IW-1	WCAg/12093	Copper Sulfate Digestion
WCAg/12149 - EPA 365.4			
T2312766001	APMW-1 LZ	WCAg/12093	Copper Sulfate Digestion
T2312766003	IW-1	WCAg/12093	Copper Sulfate Digestion
WCAt/21851 - EPA 365.1			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
T2312766003	IW-1		
WCAt/21858 - EPA 350.1			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
T2312766003	IW-1		
WCAt/21873 - SM 2320B			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
T2312766003	IW-1		





FINAL

Workorder: Piney Point Wells Monthly (T2312766)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAI/21875 - SM 5310B			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
WCAI/21936 - SM 4500NO3-F			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
T2312766003	IW-1		
WCAI/21956 - EPA 300.0			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
T2312766003	IW-1		
WCAI/21964 - SM 5310B			
T2312766003	IW-1		
WCAI/22010 - SM 4500F-C			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
T2312766003	IW-1		
WCAI/22110 - SM 2540 C			
T2312766001	APMW-1 LZ		
T2312766002	SLMW-1 UZ		
WCAI/22111 - SM 2540 C			
T2312766003	IW-1		

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FINAL

Workorder: Piney Point Wells Monthly (T2312766)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT DEEP INJECTION WELL		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: APMW-1 LZ	SAMPLE ID:	DATE: 7/3/23	

PURGING DATA

WELL DIAMETER (inches): 5.43 - 12	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 913 feet to 939 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (feet - feet) X gallons/foot = 1251 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
= gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70	PURGING INITIATED AT: 0940	PURGING ENDED AT: 1011	TOTAL VOLUME PURGED (gallons): 2160							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0940	1251	1251	60								
1001	313	1564	60		7.13	28.5	17425	0.24	0.48	Clean, clear	H2S
1006	313	1877	60		7.10	28.5	17536	0.16	0.74	Clean, clear	H2S
1011	313	2190	60		7.10	28.5	17595	0.09	0.90	Clean, clear	H2S
							Salinity in ppt	10.33			
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 1012		SAMPLING ENDED AT: 1021		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:				FIELD-FILTERED: Y N Filtration Equipment Type:		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y N				TUBING Y N (replaced)				DUPLICATE: Y N				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
							SEE COC					
REMARKS: DO 7.74 @ 28.7												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

62-160.800 F.A.C.

Revision Date: January 2017





FINAL

Workorder: Piney Point Wells Monthly (T2312766)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT DEEP INJECTION WELL		SITE LOCATION: 1651 BUD RHODEN RD PALMETTO FL	
WELL NO: SLMW1 UZ	SAMPLE ID:	DATE: 7/3/23	

PURGING DATA

WELL DIAMETER (inches): 6.27-9.278	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH: 580 feet to 623 feet	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (feet - feet) X gallons/foot = 4855 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
= gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0945	PURGING ENDED AT: 1131	TOTAL VOLUME PURGED (gallons): 8497							
TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTU)	COLOR (describe)	ODOR (describe)
0945	4855	4855	60								
1051	1214	6069	60		10.86	27.6	1386	0.08	5.69	Clean, clear	None
1111	1214	7283	60		10.81	27.5	1364	0.07	18.7	Clean, slight haze	None
1131	1214	8497	60		10.77	27.6	1315	0.07	19.4	Clean, slight haze	None
							Salinity in ppt	0.65			
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.05; 2" = 0.15; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.0044; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL		SAMPLER(S) SIGNATURE(S): <i>Steven Helms</i>		SAMPLING INITIATED AT: 1132	SAMPLING ENDED AT: 1148				
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)		DUPLICATE: Y N					
SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION (including wet ice)						
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SEE COC									
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

62-160.800 F.A.C.

Revision Date: January 2017





FINAL

Workorder: Piney Point Wells Monthly (T2312766)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT INJECTION WELLS		SITE LOCATION: 11991 BUD RHODEN RD PALMETTO FL	
WELL NO: IW - 1	SAMPLE ID:	DATE: 7/3/23	

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
= (feet - feet) X gallons/foot = 5098 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME											
(only fill out if applicable)											
= gallons + (gallons/foot X feet) + gallons =											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):					
TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1205					5.83	33.4	9485	4.61	9.17	Clean, clear	none
						Salinity in ppt	5.14				
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL				SAMPLER(S) SIGNATURE(S): <i>Steven Helms</i>				SAMPLING INITIATED AT: 1206		SAMPLING ENDED AT: 1216		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:				FIELD-FILTERED: Y N Filtration Equipment Type:		FILTER SIZE: μm		
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)				DUPLICATE: Y N								
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
					SEE COC							
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; RFP = Reverse Flow Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

62-160.800 F.A.C.

Revision Date: January 2017





Report Date: July 19, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2312766001
Sample Collection: 07-03-23/1021
Lab ID No: 23.10583
Lab Custody Date: 07-11-23/1550
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	27.8 ± 4.0	7-18-23/0808	EPA 00-02	1.8
Combined Radium (Radium-226 + Radium 228)	pCi/L	14.4 ± 0.9	Calc	Calc	0.6
Radium-226	pCi/L	13.5 ± 0.9	7-17-23/1358	EPA 903.0*	0.4
Radium-228	pCi/L	0.9 I ± 0.6	7-17-23/1358	EPA Ra-05	0.6
Uranium	pCi/L	0.3 U ± 0.1	7-18-23/1638	EPA 908.0	0.3
Uranium	ppb	0.4 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 101% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



Report Date: July 19, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2312766002
Sample Collection: 07-03-23/1148
Lab ID No: 23.10584
Lab Custody Date: 07-11-23/1550
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	8.0 ± 2.0	7-18-23/0808	EPA 00-02	1.4
Combined Radium (Radium-226 + Radium 228)	pCi/L	4.9 ± 0.6	Calc	Calc	0.4
Radium-226	pCi/L	4.9 ± 0.6	7-17-23/1358	EPA 903.0*	0.4
Radium-228	pCi/L	0.6 U ± 0.5	7-17-23/1358	EPA Ra-05	0.6
Uranium	pCi/L	1.3 ± 0.3	7-18-23/1638	EPA 908.0	0.3
Uranium	ppb	1.9 ± 0.4	Calc	Calc	Calc

Alpha Standard: Th-230

* 96% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



Report Date: July 19, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2312766003
Sample Collection: 07-03-23/1216
Lab ID No: 23.10585
Lab Custody Date: 07-11-23/1550
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	1.1 U ± 0.7	7-18-23/0802	EPA 00-02	1.1
Combined Radium (Radium-226 + Radium 228)	pCi/L	0.9 I ± 0.3	Calc	Calc	0.4
Radium-226	pCi/L	0.9 I ± 0.3	7-17-23/1358	EPA 903.0*	0.4
Radium-228	pCi/L	0.6 U ± 0.6	7-17-23/1358	EPA Ra-05	0.6
Uranium	pCi/L	0.3 U ± 0.1	7-18-23/1638	EPA 908.0	0.3
Uranium	ppb	0.4 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 105% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



State of Florida
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 Class I Monthly Operating Report

Monthly Summary for **August 2023**
Month Year

Piney Point Injection Well

UIC Permit No.:0322708-002-UC/11

WACS ID: **101607**

Wastestream: Industrial

The following reports are included with this Document:

Testsite ID	Well Name/Zone	Zone Depth	Chemical/Physical	Report Type
13989	IW-1	1950'-3300'	Chemical/Physical	MORM/MORQ/MORA
29238A	DZMW-1 Upper Zone	600'-650'	Chemical/Physical	MORM/MORQ/MORA
29238B	DZMW-1 Lower Zone	900'-950'	Chemical/Physical	MORM/MORQ/MORA

- The injection well system experienced no issues this month with equipment, sampling, or operation.
 The injection well system experienced the following issues this month with equipment, sampling, or operation:

Comments:
<p>In accordance with "Helpful Tips for Completing the Underground Injection Control Monthly Operating Report (MOR)" guidance document dated 2/13/2013, please note the following:</p> <ol style="list-style-type: none"> Results greater than or equal to the PQL shall be reported as the measured quantity. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. Results less than the MDL shall be reported by entering a less than sign ("$<$") followed by the laboratory's MDL value, e.g. < 0.001 <p>Monitor well Delta N-15 isotope results reported as IR = "invalid result". Reston Stable Isotope Laboratory reported that a minimum N concentration of 0.06 mg/L is required to guarantee QA/QC results. Qualified results are available in the laboratory report.</p>

Report any abnormal events within 24 hours of their occurrence. (62-528.415(4) F.A.C.)

Comment Codes		
C1 = Purging Monitoring Wells	C7 = Recalibrated DWI Flow or Level Meters	C13 = Reinstalled Flow or PSI Meter
C2 = DWI or Pump Station Shutdown	C8 = DWI Flow or PSI Meter Failure	C14 = SCADA pressure data are unreliable.
C3 = Power Outage/Restarted Pump	C9 = MW Transducer Meter failure	C15 = SCADA pressure data verified.
C4 = SCADA System Restarted	C10 = Monitoring Well Recording Problems	C16 = Pumps off part of the day
C5 = Maintenance to DWI Pump(s)	C11 = Readjusted Flow Rate/Switched Pumps	C17 = No Data due to SCADA problems
C6 = Read DWI Flow Meter Late/Early	C12 = Installed Temporary Flow/ PSI Meter	C18 = Injectivity Test Performed

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO.
Pete Larkin P.G.	813-382-8516

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
	9/29/2023



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Physical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Month-Yr MMM-YY	Injection Pressure (PSI)			Injection Flow Rate (GPM)			Total Injected Volume (MG)
	Maximum	Minimum	Average	Maximum	Minimum	Average	
Aug-23							
1	48.14	9.98	30.89	602.67	0.00	292.70	0.39
2	50.58	41.46	48.17	583.67	470.83	538.39	0.78
3	50.87	16.93	40.39	574.50	0.00	388.99	0.56
4	51.20	44.41	49.65	554.50	498.33	530.16	0.76
5	51.53	28.56	48.48	537.83	321.67	487.17	0.70
6	51.84	18.16	39.84	524.50	0.00	335.47	0.51
7	46.72	15.72	17.03	44.50	0.00	2.75	0.00
8	15.78	14.73	15.20	0.00	0.00	0.00	0.00
9	48.60	14.33	25.34	567.67	0.00	184.46	0.23
10	50.10	21.95	48.50	580.33	455.50	536.91	0.77
11	50.96	47.63	49.85	546.17	504.50	524.34	0.76
12	51.52	48.28	50.50	532.83	496.17	513.35	0.74
13	51.90	43.95	50.68	519.67	465.67	502.67	0.72
14	51.65	23.70	49.68	512.17	413.00	491.65	0.71
15	51.62	32.26	49.32	515.67	424.67	480.90	0.69
16	51.73	44.75	49.64	507.83	424.00	474.47	0.68
17	51.87	45.80	50.38	497.50	444.83	478.30	0.69
18	51.74	44.44	49.43	498.33	408.67	470.97	0.68
19	51.76	41.15	49.52	503.17	417.00	467.60	0.67
20	51.87	40.30	49.19	500.33	399.67	462.00	0.67
21	50.86	7.62	41.91	522.83	0.00	378.47	0.54
22	51.13	43.37	49.12	514.67	438.17	477.27	0.69
23	51.64	31.24	49.07	502.83	361.33	464.32	0.67
24	51.19	14.28	38.05	519.83	0.00	312.78	0.45
25	51.20	39.57	48.74	512.00	372.17	469.94	0.68
26	51.53	17.89	47.59	507.83	295.50	445.43	0.64
27	51.87	40.68	49.24	490.83	361.17	454.33	0.66
28	51.48	16.46	34.02	475.67	0.00	228.01	0.35
29	16.50	14.70	15.46	0.00	0.00	0.00	0.00
30	14.75	13.95	14.35	0.00	0.00	0.00	0.00
31	49.50	13.22	16.56	487.83	0.00	38.60	0.06
Monthly	Maximum	Minimum	Average	Maximum	Minimum	Average	Total
	51.90	7.62	40.83	602.67	0.00	368.79	16.46
WACS Code	IWPMAX	IWPMIN	IWPAVG	IWRMAX	IWRMIN	IWRAVG	IWFTOT

Note: Record all operational data for the injection well per day. Unless the well was in operation for a full 24-hr period, the minimum flow rate should be entered as 0.



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IW-1 Chemical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

IW-1

WACS ID: 101607

Testsite ID: **13989**

Report Type: MORM/MORQ/MORA

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				10-Aug-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.29				
Specific Conductance (field)	µmhos/cm	000094	Monthly					
Temperature Degrees C (field)	°C	000010	Monthly	27.8				
Chloride	mg/L	000940	Monthly	8200				
Sulfate	mg/L	000945	Monthly	6000				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	13000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.19				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	1.94				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	34				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.19				
Arsenic	mg/L	900029	Monthly	0.0083				
Chromium	mg/L	900211	Monthly	<0.005				
Fluoride	mg/L	000951	Monthly	0.25				
Manganese Total	mg/L	099244	Monthly	0.011				
Phosphorus Total	mg/L	000665	Monthly	0.81				
OrthoPhosphate	mg/L	000660	Monthly	1.6				
Bicarbonate	mg/L	000440	Monthly	20				
Calcium	mg/L	000916	Monthly	170				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	250				
Potassium	mg/L	000937	Monthly	190				
Sodium	mg/L	000929	Monthly	4900				
Alpha, Gross	pCi/L	001515	Monthly	2.0+/-1.0				
Uranium Total	µg/L	099243	Monthly	0.4+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	0.9+/-0.4				
Radium228 Total	pCi/L	011501	Monthly	1.2+/-0.8				
Delta15N	Ratio	082084	Quarterly	-1.53				

Please submit Primary & Secondary Drinking Water Standards, Source Water - ANNUALLY.



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Injection Well: IW-1 Specific Injectivity Monthly

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **13989**

Well: **IW-1**

Report Type: MORM

Test Date: 8/10/2023

Specific Injectivity Test

1. Static Wellhead pressure(psi): 22.6
2. Injection Flow Rate (gpm): 588
3. Average Wellhead pressure following the 15-minute injection (psi): 48.5

SPECIFIC INJECTIVITY (**SPCINJ**) (gpm/psi): 22.702703

Fall-Off Test

Time Elapsed (min)	Wellhead Pressure (psi)	Comments
0	48.7	
0.5	32.2	
1	27.1	
1.5	26.5	
2	25.7	
2.5	25.2	
3	24.8	
3.5	24.4	
4	24.1	
4.5	23.8	
5	23.6	
5.5	23.4	
6	23.3	
6.5	23.1	
7	22.9	
7.5	22.8	
8	22.7	
8.5	22.6	
9	22.4	
9.5	22.3	
10	22.2	



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Monitoring Well: DZMW-1 Upper Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238A**

Well: **DZMW-1 Upper Zone**

Report Type: MORM

Well Depth: 600'-650'

Zone: UPPER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Aug-23				
1	15.07	14.82	14.94	
2	15.06	14.86	14.95	
3	15.06	14.84	14.94	
4	15.03	14.88	14.96	
5	15.08	14.87	14.94	
6	15.16	14.95	15.02	
7	15.17	6.42	14.24	C1
8	15.16	14.92	15.04	
9	14.94	14.67	14.77	
10	14.69	14.52	14.58	
11	14.53	14.42	14.47	
12	14.45	14.23	14.32	
13	14.26	14.10	14.17	
14	14.24	14.03	14.13	
15	14.24	14.07	14.16	
16	14.13	13.96	14.06	
17	14.33	13.95	14.09	
18	14.67	14.32	14.51	
19	14.61	14.42	14.53	
20	14.66	14.46	14.54	
21	14.78	14.61	14.69	
22	14.76	14.62	14.68	
23	14.65	14.46	14.55	
24	14.52	14.33	14.42	
25	14.46	14.31	14.39	
26	14.36	14.20	14.27	
27	14.35	14.20	14.27	
28	14.71	14.34	14.55	
29	14.92	14.70	14.81	
30	15.54	14.91	15.31	
31	15.76	15.46	15.60	
Monthly	Maximum	Minimum	Average	
	15.76	6.42	14.61	
Storet Number	900199	900200	900198	



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Monitor Well: DZMW-1 Upper Zone Chemical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: **DZMW-1 Upper Zone**

Well Depth: 600'-650'

WACS ID: 101607

Testsite ID: **29238A**

Report Type: MORM/MORQ/MORA

Zone: UPPER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				07-Aug-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	10.63				
Specific Conductance (field)	µmhos/cm	000094	Monthly	1210				
Temperature Degrees C (field)	°C	000010	Monthly	27.9				
Dissolved Oxygen (field)	mg/L	000299	Monthly	1.36				
Turbidity (field)	NTU	082078	Monthly	36.4				
Chloride	mg/L	000940	Monthly	120				
Sulfate	mg/L	000945	Monthly	320				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	670				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.29				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.05				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.2				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.29				
Arsenic	mg/L	900029	Monthly	0.0012				
Chromium	mg/L	900211	Monthly	<0.005				
Fluoride	mg/L	000951	Monthly	0.4				
Manganese Total	mg/L	099244	Monthly	<0.005				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	5				
Calcium	mg/L	000916	Monthly	140				
Iron (Fe) Total	mg/L	074010	Monthly	0.11				
Magnesium Total	mg/L	000927	Monthly	30				
Potassium	mg/L	000937	Monthly	41				
Sodium	mg/L	000929	Monthly	91				
Alpha, Gross	pCi/L	001515	Monthly	11.0+/-0.7				
Uranium Total	µg/L	099243	Monthly	1.6+/-0.3				
Radium226 Total	pCi/L	009501	Monthly	4.3+/-0.9				
Radium228 Total	pCi/L	011501	Monthly	0.9+/-0.7				
Delta15N	Ratio	082084	Quarterly	IR				



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Monitoring Well: DZMW-1 Lower Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238B**

Well: **DZMW-1 Lower Zone**

Report Type: MORM

Well Depth: 900'-950'

Zone: LOWER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Aug-23				
1	8.41	8.19	8.28	
2	8.40	8.21	8.29	
3	8.39	8.18	8.27	
4	8.36	8.21	8.29	
5	8.41	8.18	8.28	
6	8.49	8.28	8.36	
7	8.80	6.12	8.40	C1
8	8.49	8.26	8.37	
9	8.27	8.00	8.10	
10	8.02	7.85	7.92	
11	7.87	7.77	7.81	
12	7.81	7.57	7.66	
13	7.61	7.48	7.53	
14	7.62	7.42	7.51	
15	7.60	7.44	7.52	
16	7.49	7.34	7.43	
17	7.69	7.32	7.46	
18	8.01	7.68	7.87	
19	7.96	7.77	7.87	
20	7.99	7.79	7.87	
21	8.11	7.92	8.01	
22	8.08	7.95	8.00	
23	7.98	7.79	7.87	
24	7.83	7.65	7.74	
25	7.80	7.62	7.70	
26	7.67	7.51	7.59	
27	7.70	7.54	7.60	
28	8.03	7.68	7.89	
29	8.25	8.01	8.14	
30	8.86	8.24	8.64	
31	9.07	8.76	8.92	
Monthly	Maximum	Minimum	Average	
	9.07	6.12	7.97	
Storet Number	900199	900200	900198	



State of Florida
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Monitor Well: DZMW-1 Lower Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Lower Zone**
 Well Depth: 900'-950'

WACS ID: 101607
 Testsite ID: **29238B**
 Report Type: MORM/MORQ/MORA
 Zone: LOWER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				07-Aug-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.43				
Specific Conductance (field)	µmhos/cm	000094	Monthly	17863				
Temperature Degrees C (field)	°C	000010	Monthly	28.9				
Dissolved Oxygen (field)	mg/L	000299	Monthly	2.09				
Turbidity (field)	NTU	082078	Monthly	0.63				
Chloride	mg/L	000940	Monthly	7900				
Sulfate	mg/L	000945	Monthly	2300				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	12000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.66				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.05				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	0.5				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.66				
Arsenic	mg/L	900029	Monthly	<0.0012				
Chromium	mg/L	900211	Monthly	0.005				
Fluoride	mg/L	000951	Monthly	<20				
Manganese Total	mg/L	099244	Monthly	<0.005				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	110				
Calcium	mg/L	000916	Monthly	1100				
Iron (Fe) Total	mg/L	074010	Monthly	0.12				
Magnesium Total	mg/L	000927	Monthly	390				
Potassium	mg/L	000937	Monthly	54				
Sodium	mg/L	000929	Monthly	3000				
Alpha, Gross	pCi/L	001515	Monthly	18.4+/-1.8				
Uranium Total	µg/L	099243	Monthly	0.7+/-0.2				
Radium226 Total	pCi/L	009501	Monthly	14.4+/-1.3				
Radium228 Total	pCi/L	011501	Monthly	1.3+/-0.8				
Delta15N	Ratio	082084	Quarterly	IR				



Advanced Environmental Laboratories, Inc
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FINAL

Workorder: Piney Point Injection Wells (T2315825)

September 15, 2023

Pete Larkin
ASRus LLC
13329 North Armenia Avenue
Tampa, FL 33613

RE: Workorder: T2315825 Piney Point Injection Wells

Dear Pete Larkin:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday August 10, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

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FINAL

Workorder: Piney Point Injection Wells (T2315825)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2315825001	IW-1	WA	DEP SOP 10/03/83	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	EPA 200.8	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	EPA 300.0	08/10/2023 09:40	08/10/2023 11:15	2	NA
T2315825001	IW-1	WA	EPA 350.1	08/10/2023 09:40	08/10/2023 11:15	2	NA
T2315825001	IW-1	WA	EPA 351.2	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	EPA 365.1	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	EPA 365.4	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	Field Measurements	08/10/2023 09:40	08/10/2023 11:15	3	NA
T2315825001	IW-1	WA	SM 2320B	08/10/2023 09:40	08/10/2023 11:15	2	NA
T2315825001	IW-1	WA	SM 2540 C	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	SM 4500F-C	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	SM 4500NO3-F	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	SM 5310B	08/10/2023 09:40	08/10/2023 11:15	1	NA
T2315825001	IW-1	WA	SW-846 6010	08/10/2023 09:40	08/10/2023 11:15	8	NA

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Workorder: Piney Point Injection Wells (T2315825)

Workorder Summary

Batch Comments

WCAI/22974 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recoveries of Nitrate+Nitrite for T2315729001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS), which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

WCAI/23111 - IC,E300.0,Water

The matrix spike recovery of Sulfate for T2315218001 and T2315856001 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

WCAI/23351 - TOC,SM5310B,Water

The matrix spike (MS) and matrix spike duplicate (MSD) recoveries of TOC for F2305141001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The data was flagged accordingly.

WCAI/23442 - Total Phosphorus,E365.4,Water

The matrix spike recoveries of TP for T2315729001 and T2315962001 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. The affected sample is qualified to indicate matrix interference.

WCAI/23443 - TKN,E351.2 Analysis,Water

The matrix spike recoveries of TKN for T2315729001 and T2315962001 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. The affected sample is qualified to indicate matrix interference.

Analysis Results Comments

T2315825001 (IW-1) - Arsenic

The following samples were analyzed at dilution due to high non-target background components: T2315825001. This was necessary to allow for accurate detection of all internal standards, surrogates and analytes.

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Workorder: Piney Point Injection Wells (T2315825)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time

Lab Qualifiers

- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L21-470 (ISO/IEC 17025:2017) AEL-Jacksonville
- T^ Not Certified
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa

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FINAL

Workorder: Piney Point Injection Wells (T2315825)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	2.11	ppt			1	09/15/2023 07:59	09/15/2023 07:59	T^
Temperature	27.8	°C			1	09/15/2023 07:59	09/15/2023 07:59	T^
pH	7.29	SU			1	09/15/2023 07:59	09/15/2023 07:59	T^
METALS (EPA 200.8)								
Arsenic	8.3	ug/L	5.0	1.2	5	08/14/2023 15:45	08/16/2023 15:14	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	08/21/2023 12:15	08/22/2023 11:53	T
Calcium	170	mg/L	1.0	0.20	1	08/21/2023 12:15	08/22/2023 11:53	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	08/21/2023 12:15	08/22/2023 11:53	T
Iron	0.028 I	mg/L	0.10	0.0067	1	08/21/2023 12:15	08/22/2023 11:53	T
Magnesium	250	mg/L	0.10	0.080	1	08/21/2023 12:15	08/23/2023 15:31	T
Manganese	0.011	mg/L	0.010	0.0050	1	08/21/2023 12:15	08/22/2023 11:53	T
Potassium	190	mg/L	1.0	0.50	1	08/21/2023 12:15	08/22/2023 11:53	T
Sodium	4900	mg/L	10	8.0	10	08/21/2023 12:15	08/23/2023 15:28	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	1.94	mg/L	0.20	0.050	1	08/18/2023 12:51	08/21/2023 11:07	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.81	mg/L	0.20	0.15	1	08/18/2023 12:51	08/21/2023 11:07	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0 U	mg/L			1	09/12/2023 16:52	09/12/2023 16:52	T
WET CHEMISTRY (EPA 300.0)								
Chloride	8200	mg/L	500	100	100	08/30/2023 19:02	08/30/2023 19:02	T
Sulfate	6000	mg/L	500	100	100	08/30/2023 19:02	08/30/2023 19:02	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.19	mg/L	0.030	0.010	1	08/14/2023 14:11	08/14/2023 14:11	T
Ammonium	0.19	mg/L			1	09/15/2023 08:04	09/15/2023 08:04	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	1.6	mg/L	0.10	0.065	5	08/11/2023 10:44	08/11/2023 10:44	T





FINAL

Workorder: Piney Point Injection Wells (T2315825)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2315825001 Date Collected: 08/10/2023 09:40 Matrix: Water								
Sample ID: IW-1 Date Received: 08/10/2023 11:15								
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	20	mg/L	20	5.0	1	08/17/2023 19:00	08/17/2023 19:00	T
Alkalinity, Total	20	mg/L	20	5.0	1	08/17/2023 19:00	08/17/2023 19:00	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	13000	mg/L	10	10	1	08/14/2023 16:00	08/14/2023 16:00	T
WET CHEMISTRY (SM 4500F-C)								
Fluoride	0.25	mg/L	0.20	0.094	1	08/11/2023 12:40	08/11/2023 12:40	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	08/17/2023 10:24	08/17/2023 10:24	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	34	mg/L	5.0	2.5	5	09/01/2023 14:09	09/01/2023 14:09	T

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

pH

Q|Missed Hold Time





FINAL

Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: ICMj/3389
Preparation Method: EPA 200.8
Associated Lab IDs: T2315825001

Analysis Method: EPA 200.8

Method Blank(4913299)

Parameter	Results	Units	PQL	MDL	Lab
Arsenic	0.25 U	ug/L	1.0	0.25	J

Lab Control Sample (4913300)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Arsenic	ug/L	20	18	91	85 - 115	J

Matrix Spike (4913301); Matrix Spike Duplicate (4913302); Original (G2307801001); Parent Lab Sample (G2307801001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	17	85	70 - 130	17	87	3	20	J

Matrix Spike (4913303); Matrix Spike Duplicate (4913304); Original (G2307801002); Parent Lab Sample (G2307801002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	18	92	70 - 130	19	96	4	20	J

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Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: ICP1/3998
Preparation Method: SW-846 3010A
Associated Lab IDs: T2315825001

Analysis Method: SW-846 6010

Method Blank(4923142)

Parameter	Results	Units	PQL	MDL	Lab
Aluminum	0.021 U	mg/L	0.10	0.021	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (4923143)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aluminum	mg/L	1	.93	93	80 - 120	T
Calcium	mg/L	10	10	104	80 - 120	T
Chromium	mg/L	1	1	101	80 - 120	T
Iron	mg/L	1	.99	99	80 - 120	T
Potassium	mg/L	10	10	102	80 - 120	T
Magnesium	mg/L	10	10	100	80 - 120	T
Manganese	mg/L	1	1	100	80 - 120	T
Sodium	mg/L	10	10	100	80 - 120	T

Matrix Spike (4923144); Matrix Spike Duplicate (4923145); Original (T2316378002); Parent Lab Sample (T2316378002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Aluminum	mg/L	1	1.6	127	75 - 125	1.6	128	1	20	T
Calcium	mg/L	10	15	86	75 - 125	15	85	0	20	T
Chromium	mg/L	1	1.1	114	75 - 125	1.1	114	0	20	T
Iron	mg/L	1	1.4	110	75 - 125	1.4	110	1	20	T
Potassium	mg/L	10	10	86	75 - 125	10	86	0	20	T
Magnesium	mg/L	10	11	88	75 - 125	11	88	0	20	T
Manganese	mg/L	1	1.1	112	75 - 125	1.1	112	0	20	T
Sodium	mg/L	10	11	86	75 - 125	11	86	0	20	T

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FINAL

Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: WCA/22833
Preparation Method: EPA 365.1
Associated Lab IDs: T2315825001

Analysis Method: EPA 365.1

Method Blank(4910467)

Parameter	Results	Units	PQL	MDL	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	T

Lab Control Sample (4910468)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Orthophosphate	mg/L	0.50	.49	98	90 - 110	T

Matrix Spike (4910469); Matrix Spike Duplicate (4910470); Original (A2308931001); Parent Lab Sample (A2308931001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Orthophosphate	mg/L	0.50	.48	96	90 - 110	.48	96	0	10	T

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Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: WCA/22853
Preparation Method: SM 4500F-C
Associated Lab IDs: T2315825001

Analysis Method: SM 4500F-C

Method Blank(4911710)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.094 U	mg/L	0.20	0.094	T

Lab Control Sample (4911711)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	1	.98	98	90 - 110	T

Matrix Spike (4911712); Matrix Spike Duplicate (4911713); Original (S2301944001); Parent Lab Sample (S2301944001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	1	1.1	99	90 - 110	1.1	100	1	10	T

Method Blank(4911715)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.094 U	mg/L	0.20	0.094	T

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FINAL

Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: WCA/22879
Preparation Method: EPA 350.1
Associated Lab IDs: T2315825001

Analysis Method: EPA 350.1

Method Blank(4913089)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4913090)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.53	106	90 - 110	T

Matrix Spike (4913091); Matrix Spike Duplicate (4913092); Original (T2315773004); Parent Lab Sample (T2315773004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.1	110	90 - 110	1.1	106	3	10	T

Matrix Spike (4913093); Matrix Spike Duplicate (4913094); Original (T2315852001); Parent Lab Sample (T2315852001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	.98	97	90 - 110	.98	96	1	10	T

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FINAL

Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: WCA/22974
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2315825001

Analysis Method: SM 4500NO3-F

Method Blank(4918911)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4918912)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	1.87	93	90 - 110	T

Matrix Spike (4918913); Matrix Spike Duplicate (4918914); Original (T2315729001); Parent Lab Sample (T2315729001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	1.59	79	90 - 110	1.62	81	2	10	T

Matrix Spike (4918915); Matrix Spike Duplicate (4918916); Original (T2315962001); Parent Lab Sample (T2315962001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	2.85	106	90 - 110	2.81	104	1	10	T

QC Result Comments

Matrix Spike - 4918913 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4918914 - Nitrate + Nitrite

J4|Estimated Result

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FINAL

Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: WCA/23442
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2315825001

Analysis Method: EPA 365.4

Method Blank(4921704)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (4921706)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	108	90 - 110	T

Matrix Spike (4921708); Matrix Spike Duplicate (4921710); Original (T2315729001); Parent Lab Sample (T2315729001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	488	16600	90 - 110	510	18800	4	10	T

Matrix Spike (4921712); Matrix Spike Duplicate (4921714); Original (T2315962001); Parent Lab Sample (T2315962001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	9.8	823	90 - 110	9.4	780	5	10	T

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FINAL

Workorder: Piney Point Injection Wells (T2315825)

QC Results

QC Batch: WCA/23443
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2315825001

Analysis Method: EPA 351.2

Method Blank(4921703)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4921705)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.06	106	90 - 110	T

Matrix Spike (4921707); Matrix Spike Duplicate (4921709); Original (T2315729001); Parent Lab Sample (T2315729001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	106	-1180	90 - 110	89.8	-2800	17	20	T

Matrix Spike (4921711); Matrix Spike Duplicate (4921713); Original (T2315962001); Parent Lab Sample (T2315962001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	7.1	230	90 - 110	7.84	304	10	20	T

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Workorder: Piney Point Injection Wells (T2315825)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/3389 - EPA 200.8			
T2315825001	IW-1	DGMj/6309	EPA 200.8
ICPt/3998 - SW-846 6010			
T2315825001	IW-1	DGMt/6509	SW-846 3010A
WCAI/22833 - EPA 365.1			
T2315825001	IW-1		
WCAI/22853 - SM 4500F-C			
T2315825001	IW-1		
WCAI/22879 - EPA 350.1			
T2315825001	IW-1		
WCAI/22974 - SM 4500NO3-F			
T2315825001	IW-1		
WCAI/22980 - SM 2320B			
T2315825001	IW-1		
WCAI/23027 - SM 2540 C			
T2315825001	IW-1		
WCAI/23351 - SM 5310B			
T2315825001	IW-1		
WCAI/23442 - EPA 365.4			
T2315825001	IW-1	WCAI/23031	Copper Sulfate Digestion
WCAI/23443 - EPA 351.2			
T2315825001	IW-1	WCAI/23031	Copper Sulfate Digestion
WCAI/23554 - EPA 300.0			
T2315825001	IW-1		

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 9610 Princess Palm Ave Tampa, FL 33619
 Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
 Phone: (813) 630-9616
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FINAL

Workorder: Piney Point Injection Wells (T2315825)



Advanced Environmental Laboratories, Inc.

- Altamonte Springs:** 528 S. Northlake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 Lab ID E53076
- Fort Meyers:** 13100 Westlinks Terrace Ste. 10 • Fort Meyers, FL 33193 • 239.674.8130 • Fax 239.674.8128 Lab ID E84492
- Gainesville:** 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 Lab ID E82001
- Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 Lab ID E82574
- Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281 Lab ID E82535
- Tallahassee:** 2639 North Monroe St., Ste.D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275 Lab ID E811095
- Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 Lab ID E84589

PAGE 1 OF 1

Client Name: ASRus LLC		Project Name: Piney Point Injection Wells Monthly		BOTTLE SIZE & TYPE																																		
Address:		Project Number:		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">ANALYSIS REQUIRED</td> <td>SO4, CL, F</td> <td>TKN, NH3, NH4NOX, TP</td> <td>TDS, ALK/BICARB</td> <td>METALS (TOTAL FE, AS, CR, MN, AL, MG, K, NA, CA)</td> <td>TOC</td> <td>O-PHOS</td> <td>GROSS ALPHA</td> <td>RADIUM 226/228</td> <td>URANIUM</td> <td>Temp, Turbidity, Spec, Cond, pH</td> </tr> <tr> <td colspan="2">PRESER- VATION Field- Filtered?</td> <td>I</td> <td>S</td> <td>I</td> <td>N</td> <td>H</td> <td>I</td> <td>N</td> <td>N</td> <td>N</td> <td></td> </tr> </table>											ANALYSIS REQUIRED		SO4, CL, F	TKN, NH3, NH4NOX, TP	TDS, ALK/BICARB	METALS (TOTAL FE, AS, CR, MN, AL, MG, K, NA, CA)	TOC	O-PHOS	GROSS ALPHA	RADIUM 226/228	URANIUM	Temp, Turbidity, Spec, Cond, pH	PRESER- VATION Field- Filtered?		I	S	I	N	H	I	N	N	N	
ANALYSIS REQUIRED		SO4, CL, F	TKN, NH3, NH4NOX, TP												TDS, ALK/BICARB	METALS (TOTAL FE, AS, CR, MN, AL, MG, K, NA, CA)	TOC	O-PHOS	GROSS ALPHA	RADIUM 226/228	URANIUM	Temp, Turbidity, Spec, Cond, pH																
PRESER- VATION Field- Filtered?		I	S												I	N	H	I	N	N	N																	
Address:		PO Number:																																				
Phone: 813-382-8516		FDEP Facility #:																																				
FAX:		FDEP Facility Address:																																				
Contact: Pete Larkin		Special Instructions:		AEL Profile #		<input type="checkbox"/> ADaPT <input type="checkbox"/> EQuIS <input type="checkbox"/> Other							LABORATORY I.D. NUMBER																									
Turn around time: <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH																																						
SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	ANALYSIS REQUIRED																															
			DATE	TIME			SO4, CL, F	TKN, NH3, NH4NOX, TP	TDS, ALK/BICARB	METALS (TOTAL FE, AS, CR, MN, AL, MG, K, NA, CA)	TOC	O-PHOS	GROSS ALPHA	RADIUM 226/228	URANIUM	Temp, Turbidity, Spec, Cond, pH																						
	IW - 1	G	8/10/2023	9:40	GW	11	X	X	X	X	X	X	X	X	X	X	X																					

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice YES NO Temp Taken From Sample Temp from Blad Where required ph checked Temp. when received (Observed) 16 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 02/12/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 (T: 10A) A: 3A M: 3A S: 1V F: 1A

	Relinquished by	Date	Time	Received by:	Date	Time
1	<i>[Signature]</i>	8/10/23	11:11	<i>[Signature]</i>	8-10-23	1115
2						

FOR DRINKING WATER USE (When PWS Information not otherwise supplied)

PWS ID: _____

Contact Person: _____ Phone: _____



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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2315405)

September 28, 2023

Pete Larkin
ASRus LLC
13329 North Armenia Avenue
Tampa, FL 33613

RE: Workorder: T2315405 Piney Point Injection Monthly

Dear Pete Larkin:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday August 7, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

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Workorder: Piney Point Injection Monthly (T2315405)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2315405001	APMW-1LZ	WA	DEP SOP 10/03/83	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	EPA 200.8	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	EPA 300.0	08/07/2023 09:55	08/07/2023 12:35	3	NA
T2315405001	APMW-1LZ	WA	EPA 350.1	08/07/2023 09:55	08/07/2023 12:35	2	NA
T2315405001	APMW-1LZ	WA	EPA 351.2	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	EPA 365.1	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	EPA 365.4	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	Field Measurements	08/07/2023 09:55	08/07/2023 12:35	3	NA
T2315405001	APMW-1LZ	WA	SM 2320B	08/07/2023 09:55	08/07/2023 12:35	2	NA
T2315405001	APMW-1LZ	WA	SM 2540 C	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	SM 4500NO3-F	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	SM 5310B	08/07/2023 09:55	08/07/2023 12:35	1	NA
T2315405001	APMW-1LZ	WA	SW-846 6010	08/07/2023 09:55	08/07/2023 12:35	8	NA
T2315405002	SLMW-1 UZ	WA	DEP SOP 10/03/83	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	EPA 200.8	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	EPA 300.0	08/07/2023 11:34	08/07/2023 12:35	3	NA
T2315405002	SLMW-1 UZ	WA	EPA 350.1	08/07/2023 11:34	08/07/2023 12:35	2	NA
T2315405002	SLMW-1 UZ	WA	EPA 351.2	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	EPA 365.1	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	EPA 365.4	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	Field Measurements	08/07/2023 11:34	08/07/2023 12:35	3	NA
T2315405002	SLMW-1 UZ	WA	SM 2320B	08/07/2023 11:34	08/07/2023 12:35	2	NA
T2315405002	SLMW-1 UZ	WA	SM 2540 C	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	SM 4500NO3-F	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	SM 5310B	08/07/2023 11:34	08/07/2023 12:35	1	NA
T2315405002	SLMW-1 UZ	WA	SW-846 6010	08/07/2023 11:34	08/07/2023 12:35	8	NA

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Workorder: Piney Point Injection Monthly (T2315405)

Workorder Summary

Batch Comments

ICPt/3983 - ICP 6010B Analysis

The matrix spike (MS) and Matrix Spike Duplicate (MSD) recoveries of lead for T235939007 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. The offending analytes were not detected in the client sample. No further corrective action is required.

WCAI/22809 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recoveries of Nitrate+Nitrite for T2315492002 & T2315546003 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS), which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

WCAI/23214 - Total Phosphorus,E365.4,Water

The matrix spike recovery of TP for T2315315004 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. The affected sample is qualified to indicate matrix interference.

Analysis Results Comments

T2315405001 (APMW-1LZ) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2315405001 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

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Workorder: Piney Point Injection Monthly (T2315405)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time

Lab Qualifiers

- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville
- T^ Not Certified
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa

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Workorder: Piney Point Injection Monthly (T2315405)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2315405001 Date Collected: 08/07/2023 09:55 Matrix: Water								
Sample ID: APMW-1LZ Date Received: 08/07/2023 12:35								
FIELD PARAMETERS (Field Measurements)								
Salinity	10.5	ppt			1	09/15/2023 08:22	09/15/2023 08:22	T^
Temperature	28.9	°C			1	09/15/2023 08:22	09/15/2023 08:22	T^
pH	7.43	SU			1	09/15/2023 08:22	09/15/2023 08:22	T^
METALS (EPA 200.8)								
Arsenic	1.2 U	ug/L	5.0	1.2	5	08/10/2023 07:14	08/14/2023 23:09	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	08/16/2023 13:30	08/17/2023 14:04	T
Calcium	1100	mg/L	10	2.0	10	08/16/2023 13:30	08/18/2023 16:30	T
Chromium	0.0098 I	mg/L	0.010	0.0050	1	08/16/2023 13:30	08/17/2023 14:04	T
Iron	0.12	mg/L	0.10	0.0067	1	08/16/2023 13:30	08/17/2023 14:04	T
Magnesium	390	mg/L	0.10	0.080	1	08/16/2023 13:30	08/17/2023 14:04	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	08/16/2023 13:30	08/17/2023 14:04	T
Potassium	54	mg/L	1.0	0.50	1	08/16/2023 13:30	08/17/2023 14:04	T
Sodium	3000	mg/L	10	8.0	10	08/16/2023 13:30	08/18/2023 16:30	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.182 I	mg/L	0.20	0.050	1	08/17/2023 09:47	08/18/2023 11:43	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	08/17/2023 09:47	08/18/2023 11:43	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0 U	mg/L			1	09/12/2023 16:41	09/12/2023 16:41	T
WET CHEMISTRY (EPA 300.0)								
Chloride	7900	mg/L	500	100	100	08/17/2023 00:11	08/17/2023 00:11	T
Fluoride	20 U	mg/L	50	20	100	08/17/2023 00:11	08/17/2023 00:11	T
Sulfate	2300	mg/L	500	100	100	08/17/2023 00:11	08/17/2023 00:11	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.66	mg/L	0.030	0.010	1	08/09/2023 09:44	08/09/2023 09:44	T
Ammonium	0.66	mg/L			1	09/15/2023 08:25	09/15/2023 08:25	T
WET CHEMISTRY (EPA 365.1)								





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Workorder: Piney Point Injection Monthly (T2315405)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	08/08/2023 09:57	08/08/2023 09:57	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	110	mg/L	20	5.0	1	08/10/2023 18:40	08/10/2023 18:40	T
Alkalinity, Total	110	mg/L	20	5.0	1	08/10/2023 18:40	08/10/2023 18:40	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	12000	mg/L	10	10	1	08/14/2023 09:00	08/14/2023 09:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	08/10/2023 14:21	08/10/2023 14:21	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	0.91 I	mg/L	1.0	0.50	1	08/28/2023 15:51	08/28/2023 15:51	T

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

pH

Q|Missed Hold Time

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Workorder: Piney Point Injection Monthly (T2315405)

Analytical Results

Lab ID: T2315405002 **Date Collected:** 08/07/2023 11:34 **Matrix:** Water
Sample ID: SLMW-1 UZ **Date Received:** 08/07/2023 12:35

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	0.59	ppt			1	09/15/2023 08:24	09/15/2023 08:24	T^
Temperature	27.9	°C			1	09/15/2023 08:24	09/15/2023 08:24	T^
pH	10.63	SU			1	09/15/2023 08:24	09/15/2023 08:24	T^
METALS (EPA 200.8)								
Arsenic	1.2	ug/L	1.0	0.25	1	08/10/2023 07:14	08/12/2023 10:11	J
METALS (SW-846 3010A/SW-846 6010)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	08/16/2023 13:30	08/17/2023 14:31	T
Calcium	140	mg/L	1.0	0.20	1	08/16/2023 13:30	08/17/2023 14:31	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	08/16/2023 13:30	08/17/2023 14:31	T
Iron	0.11	mg/L	0.10	0.0067	1	08/16/2023 13:30	08/17/2023 14:31	T
Magnesium	30	mg/L	0.10	0.080	1	08/16/2023 13:30	08/17/2023 14:31	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	08/16/2023 13:30	08/17/2023 14:31	T
Potassium	41	mg/L	1.0	0.50	1	08/16/2023 13:30	08/17/2023 14:31	T
Sodium	91	mg/L	1.0	0.80	1	08/16/2023 13:30	08/17/2023 14:31	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.106 I	mg/L	0.20	0.050	1	08/17/2023 09:47	08/18/2023 11:43	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	08/17/2023 09:47	08/18/2023 11:43	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0 U	mg/L			1	09/12/2023 16:42	09/12/2023 16:42	T
WET CHEMISTRY (EPA 300.0)								
Chloride	120	mg/L	10	2.0	2	08/17/2023 00:27	08/17/2023 00:27	T
Fluoride	0.64 I	mg/L	1.0	0.40	2	08/17/2023 00:27	08/17/2023 00:27	T
Sulfate	320	mg/L	10	2.0	2	08/17/2023 00:27	08/17/2023 00:27	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.29	mg/L	0.030	0.010	1	08/09/2023 09:45	08/09/2023 09:45	T
Ammonium	0.29	mg/L			1	09/15/2023 08:26	09/15/2023 08:26	T
WET CHEMISTRY (EPA 365.1)								





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Workorder: Piney Point Injection Monthly (T2315405)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	08/08/2023 10:00	08/08/2023 10:00	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	131	mg/L	20	5.0	1	08/10/2023 18:46	08/10/2023 18:46	T
Alkalinity, Total	151	mg/L	20	5.0	1	08/10/2023 18:46	08/10/2023 18:46	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	670	mg/L	10	10	1	08/14/2023 09:00	08/14/2023 09:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	08/10/2023 14:22	08/10/2023 14:22	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.2	mg/L	1.0	0.50	1	08/28/2023 19:37	08/28/2023 19:37	T

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

pH

Q|Missed Hold Time

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: ICMj/3380
Preparation Method: EPA 200.8
Associated Lab IDs: T2315405001, T2315405002

Analysis Method: EPA 200.8

Method Blank(4907930)

Parameter	Results	Units	PQL	MDL	Lab
Arsenic	0.25 U	ug/L	1.0	0.25	J

Lab Control Sample (4907931)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Arsenic	ug/L	20	20	102	85 - 115	J

Matrix Spike (4907932); Matrix Spike Duplicate (4907933); Original (J2311481001); Parent Lab Sample (J2311481001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	29	98	70 - 130	28	95	2	20	J

Matrix Spike (4907934); Matrix Spike Duplicate (4907935); Original (M2304395001); Parent Lab Sample (M2304395001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	19	94	70 - 130	19	94	0	20	J

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: ICP1/3983
Preparation Method: SW-846 3010A
Associated Lab IDs: T2315405001, T2315405002

Analysis Method: SW-846 6010

Method Blank(4917518)

Parameter	Results	Units	PQL	MDL	Lab
Aluminum	0.021 U	mg/L	0.10	0.021	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (4917519)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aluminum	mg/L	1	.88	88	80 - 120	T
Calcium	mg/L	10	10	103	80 - 120	T
Chromium	mg/L	1	1	104	80 - 120	T
Iron	mg/L	1	1	100	80 - 120	T
Potassium	mg/L	10	10	101	80 - 120	T
Magnesium	mg/L	10	9.7	97	80 - 120	T
Manganese	mg/L	1	1	101	80 - 120	T
Sodium	mg/L	10	10	104	80 - 120	T

Matrix Spike (4917520); Matrix Spike Duplicate (4917521); Original (T2315939007); Parent Lab Sample (T2315939007)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Aluminum	mg/L	1	4.6	108	75 - 125	4.6	108	0	20	T
Calcium	mg/L	10	25	121	75 - 125	25	121	0	20	T
Chromium	mg/L	1	1.3	130	75 - 125	1.3	130	0	20	T
Iron	mg/L	1	1.5	141	75 - 125	1.4	126	11	20	T
Potassium	mg/L	10	14	128	75 - 125	14	129	0	20	T
Magnesium	mg/L	10	13	125	75 - 125	13	124	1	20	T
Manganese	mg/L	1	1.2	125	75 - 125	1.2	125	0	20	T
Sodium	mg/L	10	14	127	75 - 125	14	127	0	20	T

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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/22717
Preparation Method: EPA 365.1
Associated Lab IDs: T2315405001, T2315405002

Analysis Method: EPA 365.1

Method Blank(4903435)

Parameter	Results	Units	PQL	MDL	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	T

Lab Control Sample (4903436)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Orthophosphate	mg/L	0.50	.49	98	90 - 110	T

Matrix Spike (4903437); Matrix Spike Duplicate (4903438); Original (T2315405001); Parent Lab Sample (T2315405001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Orthophosphate	mg/L	0.50	.5	99	90 - 110	.5	100	1	10	T

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/22757
Preparation Method: EPA 350.1
Associated Lab IDs: T2315405001, T2315405002

Analysis Method: EPA 350.1

Method Blank(4905595)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4905596)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.53	106	90 - 110	T

Matrix Spike (4905597); Matrix Spike Duplicate (4905598); Original (T2315405002); Parent Lab Sample (T2315405002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.3	104	90 - 110	1.3	104	0	10	T

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/22809
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2315405001, T2315405002

Analysis Method: SM 4500NO3-F

Method Blank(4909116)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4909117)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	2.17	109	90 - 110	T

Matrix Spike (4909118); Matrix Spike Duplicate (4909119); Original (T2315492002); Parent Lab Sample (T2315492002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	2.27	82	90 - 110	2.24	80	2	10	T

QC Result Comments

Matrix Spike - 4909118 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4909119 - Nitrate + Nitrite

J4|Estimated Result

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/22900 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2315405001, T2315405002

Method Blank(4913653)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (4913654)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	670	102	85 - 115	T

Sample Duplicate (4913655); Original (T2315405001); Parent Lab Sample (T2315405001, T2315405002)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	12400	12234	mg/L	1	10	T

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/23056 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2315405001, T2315405002

Method Blank(4922885)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (4922886)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	4.9	98	90 - 110	T
Chloride	mg/L	50	50	99	90 - 110	T
Sulfate	mg/L	50	50	100	90 - 110	T

Matrix Spike (4922887); Matrix Spike Duplicate (4922888); Original (T2315416001); Parent Lab Sample (T2315416001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2	100	90 - 110	2.4	120	17	10	T
Chloride	mg/L	20	30	110	90 - 110	31	110	1.60	10	T
Sulfate	mg/L	20	120	95	90 - 110	130	100	1	10	T

QC Result Comments

Matrix Spike Duplicate - 4922888 - Fluoride

J4|Estimated Result





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/23214
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2315405001, T2315405002

Analysis Method: EPA 365.4

Method Blank(4919056)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (4919058)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	108	90 - 110	T

Matrix Spike (4919060); Matrix Spike Duplicate (4919062); Original (T2315525036); Parent Lab Sample (T2315525036)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	3.1	91	90 - 110	3.1	83	3	10	T

Matrix Spike (4919064); Matrix Spike Duplicate (4919066); Original (T2315398002); Parent Lab Sample (T2315398002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	1.1	90	90 - 110	1.1	90	0	10	T

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/23215
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2315405001, T2315405002

Analysis Method: EPA 351.2

Method Blank(4919055)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4919057)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.09	109	90 - 110	T

Matrix Spike (4919059); Matrix Spike Duplicate (4919061); Original (T2315525036); Parent Lab Sample (T2315525036)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	2.04	104	90 - 110	1.93	93	6	20	T

Matrix Spike (4919063); Matrix Spike Duplicate (4919065); Original (T2315398002); Parent Lab Sample (T2315398002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.34	91	90 - 110	1.36	92	1	20	T

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/23245
Preparation Method: SM 5310B
Associated Lab IDs: T2315405001

Analysis Method: SM 5310B

Matrix Spike (4932076); Matrix Spike Duplicate (4932077); Original (M2304415002); Parent Lab Sample (M2304415002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	10	15	100	90 - 110	15	100	0	10	T

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Workorder: Piney Point Injection Monthly (T2315405)

QC Results

QC Batch: WCA/23245 **Analysis Method:** SM 5310B
Preparation Method: SM 5310B
Associated Lab IDs: T2315405002

Matrix Spike (4932078); Matrix Spike Duplicate (4932079); Original (M2304415001); Parent Lab Sample (M2304415001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	10	14	96	90 - 110	15	99	2	10	T

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Workorder: Piney Point Injection Monthly (T2315405)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/3380 - EPA 200.8			
T2315405001	APMW-1LZ	DGMj/6280	EPA 200.8
T2315405002	SLMW-1 UZ	DGMj/6280	EPA 200.8
ICPt/3983 - SW-846 6010			
T2315405001	APMW-1LZ	DGMt/6483	SW-846 3010A
T2315405002	SLMW-1 UZ	DGMt/6483	SW-846 3010A
WCAI/22717 - EPA 365.1			
T2315405001	APMW-1LZ		
T2315405002	SLMW-1 UZ		
WCAI/22757 - EPA 350.1			
T2315405001	APMW-1LZ		
T2315405002	SLMW-1 UZ		
WCAI/22803 - SM 2320B			
T2315405001	APMW-1LZ		
T2315405002	SLMW-1 UZ		
WCAI/22809 - SM 4500NO3-F			
T2315405001	APMW-1LZ		
T2315405002	SLMW-1 UZ		
WCAI/22900 - SM 2540 C			
T2315405001	APMW-1LZ		
T2315405002	SLMW-1 UZ		
WCAI/23056 - EPA 300.0			
T2315405001	APMW-1LZ		
T2315405002	SLMW-1 UZ		
WCAI/23214 - EPA 365.4			
T2315405001	APMW-1LZ	WCAI/22982	Copper Sulfate Digestion
T2315405002	SLMW-1 UZ	WCAI/22982	Copper Sulfate Digestion
WCAI/23215 - EPA 351.2			
T2315405001	APMW-1LZ	WCAI/22982	Copper Sulfate Digestion
T2315405002	SLMW-1 UZ	WCAI/22982	Copper Sulfate Digestion





Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2315405)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCA1/23245 - SM 5310B			
T2315405001	APMW-1LZ		
T2315405002	SLMW-1 UZ		

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Report Date: September 5, 2023

IW-1

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2315825001
Sample Collection: 08-10-23/0940
Lab ID No: 23.13087
Lab Custody Date: 08-22-23/1455
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	2.0 I ± 1.0	8-29-23/0800	EPA 00-02	1.3
Combined Radium (Radium-226 + Radium 228)	pCi/L	0.9 I ± 0.4	Calc	Calc	0.6
Radium-226	pCi/L	0.9 I ± 0.4	8-28-23/1313	EPA 903.0*	0.6
Radium-228	pCi/L	1.2 U ± 0.8	9-1-23/1203	EPA Ra-05	1.2
Uranium	pCi/L	0.4 U ± 0.1	8-26-23/1607	EPA 908.0	0.4
Uranium	ppb	0.6 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 105% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.

Contact person: Thomas Weeks (813) 229-2879.



FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2315405)



FL DOH Certification #E84025

Report Date: September 19, 2023

LZ APMW

Advanced Environmental Labs
 9610 Princess Palm Ave
 Tampa, FL 33619

Field Custody: Client
 Client/Field ID: T2315405001
 Sample Collection: 08-07-23/0955
 Lab ID No: 23.13483R1
 Lab Custody Date: 08-28-23/1415
 Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	18.4 ± 1.8	9-7-23/1624	EPA 00-02	0.8
Combined Radium (Radium-226 + Radium 228)	pCi/L	15.7 ± 1.3	Calc	Calc	0.9
Radium-226	pCi/L	14.4 ± 1.3	9-5-23/1229	EPA 903.0*	0.5
Radium-228	pCi/L	1.3 I ± 0.8	9-8-23/1215	EPA Ra-05	0.9
Uranium	pCi/L	0.5 I ± 0.2	9-18-23/1702	EPA 908.0	0.3
Uranium	ppb	0.7 I ± 0.3	Calc	Calc	Calc

Alpha Standard: Th-230
 * 116% carrier recovery

U = indicates that the compound was analyzed for but not detected.
 I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J Weeks
 Thomas J. Weeks
 Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
 Contact person: Thomas Weeks (813) 229-2879.





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2315405)



FL DOH Certification #E84025

Report Date: September 19, 2023

UZ SLMW

Advanced Environmental Labs
 9610 Princess Palm Ave
 Tampa, FL 33619

Field Custody: Client
 Client/Field ID: T2315405002
 Sample Collection: 08-07-23/1134
 Lab ID No: 23.13484R1
 Lab Custody Date: 08-28-23/1415
 Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	11.0 ± 0.7	9-2-23/0001	EPA 900.0	1.9
Combined Radium (Radium-226 + Radium 228)	pCi/L	4.3 ± 0.9	Calc	Calc	0.9
Radium-226	pCi/L	4.3 ± 0.9	9-5-23/1229	EPA 903.0*	0.7
Radium-228	pCi/L	0.9 U ± 0.7	9-8-23/1215	EPA Ra-05	0.9
Uranium	pCi/L	1.1 I ± 0.3	9-18-23/1702	EPA 908.0	0.3
Uranium	ppb	1.6 I ± 0.4	Calc	Calc	Calc

Alpha Standard: Th-230
 * 97% carrier recovery

U = indicates that the compound was analyzed for but not detected.
 I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J Weeks
 Thomas J. Weeks
 Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
 Contact person: Thomas Weeks (813) 229-2879.



From: [Lorenz, Jennifer M](#)
To: [Sheila Wilcox](#)
Cc: [GS-W-Vares BRR Isotopes](#)
Subject: Stable-isotope results (2023/08/17 Wilcox, G-31233 ...)
Date: Friday, September 15, 2023 9:59:51 AM
Attachments: [G-31233.xlsx](#)
[G-31233 TO G-31235 Sheila Wilcox N conc report.xls](#)

The Reston Stable Isotope Laboratory has analyzed the following samples received from you for isotopic analysis. For questions please contact Email isotopes@usgs.gov or Haiping Qi at voice 703 648-6338 or fax 703 648-5274. Please refer to Our Lab ID. These isotopic results supersede any results that may have been submitted to you previously.

***Samples G-31233 and G-31234 have a concentration below our concentration minimum requirement of 0.06mg/L as N. The delta values are being reported to you for your reference but please do not use them for interpretation. Our analytical capability cannot handle analyzing samples with concentrations this low to meet our QA/QC criteria.**

Method

Nitrate samples are analyzed by bacterial conversion of nitrate to nitrous oxide and subsequent measurement on a continuous flow isotope ratio mass spectrometer (Sigman and others, 2001; Casciotti and others, 2002; Coplen and others, 2004; Revesz and Casciotti, 2007).

Reporting of Nitrogen Isotope Ratios

Nitrogen isotope ratios are reported in parts per thousand (per mill) relative to N₂ in air (Mariotti, 1983). The nitrogen isotopic compositions of nitrogen-bearing internationally distributed isotopic reference materials, had they been analyzed in this laboratory with your samples, are in accord with Böhlke and Coplen (1995) and Böhlke and others (2003):

N ₂ in air		0 (exactly)
IAEA-NO-3	KNO ₃	+4.72
USGS32	KNO ₃	+180 (exactly)
USGS34	KNO ₃	-1.8
USGS35	NaNO ₃	+2.7

For samples with nitrate concentrations of at least 0.06 mg/kg as N, the 2-sigma uncertainty of nitrogen isotopic results is 0.5 per mill, unless otherwise indicated. This means that if the same sample were resubmitted for isotopic analysis, the newly measured value would lie within the uncertainty bounds 95 percent of the

time. The uncertainty for nitrate samples with concentrations less than 0.06 mg/kg as N is twice that indicated above.

Users should be aware that atmospheric nitrate is enriched in O-17 by mass-independent processes (Michalski and Thiemens, 2000; Galanter and others, 2000) and that this bacterial method for nitrate isotope measurements may overestimate the nitrogen isotope ratio of atmospheric nitrate samples by as much as 1 to 2 per mil (Sigman and others et al., 2001). For samples that users suspect may contain more than about 20 percent atmospheric nitrate, users should contact the Reston Stable Isotope Laboratory about methods to resolve this problem. Methods are currently being developed to quantify the mass-independent O-17/O-16 enrichment, and this independent oxygen isotope ratio may be of use in investigating processes forming nitrate.

Oxygen Isotope Ratios

Oxygen isotope ratios are reported in per mil relative to VSMOW reference water and normalized on a scale such that SLAP reference water is -55.5 per mil (Coplen, 1988; Coplen, 1994). The oxygen isotopic compositions of oxygen-bearing internationally distributed isotopic reference materials, had they been analyzed in this laboratory with your samples are:

VSMOW	water	0 (exactly)
SLAP	water	-55.5 (exactly)

IAEA-NO-3	KNO ₃	+25.6
USGS32	KNO ₃	+25.7
USGS34	KNO ₃	-27.9
USGS35	NaNO ₃	+57.5

For samples with nitrate concentrations of at least 0.06 mg/kg as N, the 2-sigma uncertainty of oxygen isotopic results of nitrates is 1.0 per mil unless otherwise indicated. The uncertainty for nitrate samples with concentrations less than 0.06 mg/kg as N is twice that indicated above.

References

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Michalski, G., and Thiemens, M. H., 2000, Mass independent fractionation in nitrate aerosols (abstract): EOS, Transactions of the American Geophysical Union, v. 81, p. F120.

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<http://pubs.water.usgs.gov/tm10C17/>

Sigman, D.M., Casciotti, K.L., Andreani, M., Barford, C., Galanter, M., and Böhlke, J.K., 2001, A bacterial method for the nitrogen isotopic analysis of nitrate in seawater and freshwater: Analytical Chemistry, v. 73, p. 4145-4153.

Our Lab ID: G-31233
Field ID: T2315407001-A
Delta N-15: 0.61 per mil
Delta O-18: 24.19 per mil

APMW-1 LZ

Our Lab ID: G-31234
Field ID: T2315407002-A
Delta N-15: -2.60 per mil
Delta O-18: 24.18 per mil

SLMW-1 UZ

Our Lab ID: G-31235
Field ID: T2315861001-A
Delta N-15: -1.53 per mil
Delta O-18: 19.33 per mil

IW-1

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Jennifer M. Lorenz
Biologist
U.S. Geological Survey
Reston Stable Isotope Laboratory
12201 Sunrise Valley Dr., MS 431
Reston, VA 20192
Phone: (703) 648-5894
Fax: (703) 648-5889

<https://www.usgs.gov/labs/reston-stable-isotope-laboratory>

OurLabID	Field ID	average mg/L as N (from RSIL)	mg/liter as N (from customer)	Comment	Station Name
G-31233	T2315407001-A	0.02	N/A; LC2901	concentration below 0.06 mg/L as N	APMW-1LZ
G-31234	T2315407002-A	0.01	N/A; LC2901	concentration below 0.06 mg/L as N	SLMW-1UZ
G-31235	T2315861001-A	0.07	N/A; LC2901		IW-1

Advanced Environmental Laboratories

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT DEEP INJECTION WELL	SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL
WELL NO: SLMW1 UZ	DATE: 8/7/23

PURGING DATA

WELL DIAMETER (inches): 6.27-9 278	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 580 feet to 623 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (\quad \text{feet} - \quad \text{feet}) \times \quad \text{gallons/foot} = 4855 \quad \text{gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \quad \text{gallons} + (\quad \text{gallons/foot} \times \quad \text{feet}) + \quad \text{gallons} = \quad \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0910	4855	4855	60	81/20							
1031	1214	6069	60		10.83	28.1	1310	2.68	8.60	Clean, clear	None
1051	1214	7283	60		10.72	28.0	1237	1.41	37.8	Clean, slight haze	None
1101	1214	8497	60		10.67	28.0	1221	1.38	36.9	Clean, slight haze	None
1122	1214	9711	60		10.63	27.9	1210	1.36	36.4	Clean, slight haze	None
						Salinity in ppt	0.59				
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL	SAMPLER(S) SIGNATURE(S): 	SAMPLING INITIATED AT: 1123	SAMPLING ENDED AT: 1134
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: _____ μm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION (including wet ice)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME
		PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)
			FINAL pH
			SEE COC
REMARKS:			
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)			
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; RFP = Reverse Flow Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)			

- NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Advanced Environmental Laboratories

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT DEEP INJECTION WELL	SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL
WELL NO: APMW-1 LZ	DATE: 8/7/23

PURGING DATA

WELL DIAMETER (inches): 5.43 - 12	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 913 feet to 939 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (feet - feet) X gallons/foot = 1251 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
= gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0905	1251	1251	60	21/5							
0926	313	1564	60		7.51	28.8	17515	2.15	1.56	Clean, clear	H2S
0931	313	1877	60		7.45	28.8	17775	2.11	0.72	Clean, clear	H2S
0936	313	2190	60		7.43	28.9	17863	2.09	0.63	Clean, clear	H2S
							Salinity in ppt	10.50			
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 0937		SAMPLING ENDED AT: 0955			
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:		FIELD-FILTERED: Y N Filtration Equipment Type:		FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)				DUPLICATE: Y N									
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
					SEE COC								
REMARKS: DO 7.45 @ 31.9													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

- NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)



State of Florida
Department of Environmental Protection

Underground Injection Control Program
 Class I Monthly Operating Report

Monthly Summary for September 2023

Month Year

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Wastestream: Industrial

The following reports are included with this Document:

Testsite ID	Well Name/Zone	Zone Depth	Chemical/Physical	Report Type
13989	IW-1	1950'-3300'	Chemical/Physical	MORM/MORQ/MORA
29238A	DZMW-1 Upper Zone	600'-650'	Chemical/Physical	MORM/MORQ/MORA
29238B	DZMW-1 Lower Zone	900'-950'	Chemical/Physical	MORM/MORQ/MORA

- The injection well system experienced no issues this month with equipment, sampling, or operation.
 The injection well system experienced the following issues this month with equipment, sampling, or operation:

Comments:
<p>SI data was revised on 11/2/2023</p> <p>In accordance with "Helpful Tips for Completing the Underground Injection Control Monthly Operating Report (MOR)" guidance document dated 2/13/2013, please note the following:</p> <ol style="list-style-type: none"> 1. Results greater than or equal to the PQL shall be reported as the measured quantity. 2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. 3. Results less than the MDL shall be reported by entering a less than sign ("$<$") followed by the laboratory's MDL value, e.g. < 0.001

Report any abnormal events within 24 hours of their occurrence. (62-528.415(4) F.A.C.)

Comment Codes		
C1 = Purging Monitoring Wells	C7 = Recalibrated DWI Flow or Level Meters	C13 = Reinstalled Flow or PSI Meter
C2 = DWI or Pump Station Shutdown	C8 = DWI Flow or PSI Meter Failure	C14 = SCADA pressure data are unreliable.
C3 = Power Outage/Restarted Pump	C9 = MW Transducer Meter failure	C15 = SCADA pressure data verified.
C4 = SCADA System Restarted	C10 = Monitoring Well Recording Problems	C16 = Pumps off part of the day
C5 = Maintenance to DWI Pump(s)	C11 = Readjusted Flow Rate/Switched Pumps	C17 = No Data due to SCADA problems
C6 = Read DWI Flow Meter Late/Early	C12 = Installed Temporary Flow/ PSI Meter	C18 = Injectivity Test Performed

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO.
Pete Larkin, P.G.	813-382-8516

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
	11/2/2023

Note: Fill in all yellow areas and check the box for the status of the injection well.



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Physical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Month-Yr MMM-YY	Injection Pressure (PSI)			Injection Flow Rate (GPM)			Total Injected Volume (MG)
	Maximum	Minimum	Average	Maximum	Minimum	Average	
Sep-23							
1	49.95	13.92	25.38	552.17	0.00	169.45	0.24
2	17.54	14.53	15.30	0.00	0.00	0.00	0.00
3	14.58	13.99	14.26	0.00	0.00	0.00	0.00
4	14.05	13.60	13.81	0.00	0.00	0.00	0.00
5	13.65	13.27	13.45	0.00	0.00	0.00	0.00
6	48.61	13.14	22.01	598.33	0.00	138.69	0.20
7	13.19	12.75	12.95	0.00	0.00	0.00	0.00
8	12.84	12.55	12.69	0.00	0.00	0.00	0.00
9	12.62	12.34	12.48	0.00	0.00	0.00	0.00
10	12.42	12.16	12.28	0.00	0.00	0.00	0.00
11	48.03	5.50	16.48	612.17	0.00	73.89	0.07
12	49.61	13.20	26.52	578.33	0.00	201.07	0.32
13	13.24	12.59	12.88	0.00	0.00	0.00	0.00
14	12.66	12.31	12.49	0.00	0.00	0.00	0.00
15	12.38	12.11	12.26	0.00	0.00	0.00	0.00
16	12.17	11.95	12.07	0.00	0.00	0.00	0.00
17	12.00	11.79	11.91	0.00	0.00	0.00	0.00
18	47.78	3.30	15.76	581.50	0.00	68.69	0.07
19	48.32	12.08	20.56	585.33	0.00	124.94	0.21
20	12.14	11.67	11.86	0.00	0.00	0.00	0.00
21	11.74	11.45	11.59	0.00	0.00	0.00	0.00
22	11.52	11.29	11.40	0.00	0.00	0.00	0.00
23	11.37	11.14	11.25	0.00	0.00	0.00	0.00
24	11.23	11.04	11.13	0.00	0.00	0.00	0.00
25	47.78	10.74	15.74	626.83	0.00	82.65	0.08
26	48.09	3.56	23.39	628.67	0.00	188.81	0.27
27	49.22	24.19	46.15	607.50	501.67	544.41	0.79
28	50.29	32.12	47.87	551.17	493.83	527.41	0.76
29	50.83	26.52	49.65	537.67	502.33	522.54	0.75
30	51.41	25.76	50.52	513.17	475.00	499.60	0.72
31							
Monthly	Maximum	Minimum	Average	Maximum	Minimum	Average	Total
	51.41	3.30	19.54	628.67	0.00	104.74	4.49
WACS Code	IWPMAX	IWPMIN	IWPAVG	IWRMAX	IWRMIN	IWRAVG	IWFTOT

Note: Record all operational data for the injection well per day. Unless the well was in operation for a full 24-hr period, the minimum flow rate should be entered as 0.



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 Underground Injection Control Program
 Class I Monthly Operating Report

IW-1 Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 IW-1

WACS ID: 101607
 Testsite ID: **13989**
 Report Type: MORM/MORQ/MORA

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				12-Sep-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.19				
Specific Conductance (field)	µmhos/cm	000094	Monthly	17200				
Temperature Degrees C (field)	°C	000010	Monthly	29.9				
Chloride	mg/L	000940	Monthly	7700				
Sulfate	mg/L	000945	Monthly	5400				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	15000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.12				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.26				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	2.55				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	31				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.022				
Ammonium	mg/L	049179	Monthly	0.26				
Arsenic	mg/L	900029	Monthly	0.015				
Chromium	mg/L	900211	Monthly	<0.0051				
Fluoride	mg/L	000951	Monthly	<20				
Manganese Total	mg/L	099244	Monthly	0.013				
Phosphorus Total	mg/L	000665	Monthly	0.3				
OrthoPhosphate	mg/L	000660	Monthly	0.65				
Bicarbonate	mg/L	000440	Monthly	5				
Calcium	mg/L	000916	Monthly	190				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	300				
Potassium	mg/L	000937	Monthly	230				
Sodium	mg/L	000929	Monthly	2200				
Alpha, Gross	pCi/L	001515	Monthly	2.0 l +/-0.7				
Uranium Total	µg/L	099243	Monthly	<0.4+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	1.2 l +/-0.5				
Radium228 Total	pCi/L	011501	Monthly	<1.2+/-1.0				
Delta15N	Ratio	082084	Quarterly					

Please submit Primary & Secondary Drinking Water Standards, Source Water - ANNUALLY.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Specific Injectivity Monthly

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

Test Date: 9/12/2023

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Specific Injectivity Test

1. Static Wellhead pressure(psi): 19.78
2. Injection Flow Rate (gpm): 599
3. Average Wellhead pressure following the 15-minute injection (psi): 49.2

SPECIFIC INJECTIVITY (SPCINJ) (gpm/psi): 20.3603

Fall-Off Test

Time Elapsed (min)	Wellhead Pressure (psi)	Comments
0	49.2	
0.5	24.8	
1	24.2	
1.5	24.4	
2	22.8	
2.5	22.3	
3	22	
3.5	21.6	
4	21.3	
4.5	21.1	
5	20.9	
5.5	20.7	
6	20.5	
6.5	20.4	
7	20.2	
7.5	20.1	
8	19.9	
8.5	19.8	
9	19.7	
9.5	19.6	
10	19.5	



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Department of Environmental Protection
 Underground Injection Control Program
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Monitoring Well: DZMW-1 Upper Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238A**

Well: DZMW-1 Upper Zone

Report Type: MORM

Well Depth: 600'-650'

Zone: UPPER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Sep-23				
1	16.02	15.70	15.87	
2	16.03	15.82	15.94	
3	15.97	15.76	15.87	
4	15.85	15.62	15.73	
5	15.75	6.60	14.84	
6	15.72	15.53	15.60	
7	15.57	15.49	15.54	
8	15.73	15.49	15.58	
9	15.92	15.72	15.83	
10	15.94	15.80	15.86	
11	15.85	15.49	15.74	
12	15.49	15.08	15.26	
13	15.09	14.87	14.95	
14	14.94	14.80	14.87	
15	14.99	14.82	14.91	
16	14.94	14.69	14.79	
17	14.73	14.57	14.67	
18	14.71	14.53	14.60	
19	14.71	14.57	14.65	
20	14.70	14.53	14.63	
21	14.79	14.65	14.70	
22	14.82	14.72	14.76	
23	14.81	14.68	14.74	
24	14.87	14.73	14.79	
25	14.95	14.82	14.88	
26	15.08	14.91	14.98	
27	15.09	14.97	15.03	
28	15.08	14.91	15.00	
29	14.95	14.75	14.86	
30	14.82	14.60	14.73	
31				
Monthly	Maximum	Minimum	Average	
	16.03	6.60	15.14	
Storet Number	900199	900200	900198	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Upper Zone Chemical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: **DZMW-1 Upper Zone**

Well Depth: 600'-650'

WACS ID: 101607

Testsite ID: **29238A**

Report Type: MORM/MORQ/MORA

Zone: UPPER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Sep-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	9.98				
Specific Conductance (field)	µmhos/cm	000094	Monthly	1154				
Temperature Degrees C (field)	°C	000010	Monthly	27.3				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.4				
Turbidity (field)	NTU	082078	Monthly	13.5				
Chloride	mg/L	000940	Monthly	130				
Sulfate	mg/L	000945	Monthly	320				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	730				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.33				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.328				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	<0.50				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	0.021				
Ammonium	mg/L	049179	Monthly	0				
Arsenic	mg/L	900029	Monthly	0.0011				
Chromium	mg/L	900211	Monthly	<0.005				
Fluoride	mg/L	000951	Monthly	0.4				
Manganese Total	mg/L	099244	Monthly	<0.0051				
Phosphorus Total	mg/L	000665	Monthly	<0.16				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	23				
Calcium	mg/L	000916	Monthly	120				
Iron (Fe) Total	mg/L	074010	Monthly	0.12				
Magnesium Total	mg/L	000927	Monthly	29				
Potassium	mg/L	000937	Monthly	27				
Sodium	mg/L	000929	Monthly	65				
Alpha, Gross	pCi/L	001515	Monthly	6.0+/-1.0				
Uranium Total	µg/L	099243	Monthly	1.2 I +/-0.3				
Radium226 Total	pCi/L	009501	Monthly	4.9+/-0.9				
Radium228 Total	pCi/L	011501	Monthly	<0.9+/-0.8				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitoring Well: DZMW-1 Lower Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238B**

Well: **DZMW-1 Lower Zone**

Report Type: MORM

Well Depth: 900'-950'

Zone: LOWER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Sep-23				
1	9.32	9.01	9.18	
2	9.32	9.13	9.25	
3	9.27	9.07	9.18	
4	9.16	8.94	9.05	
5	9.43	6.82	9.02	
6	9.09	8.86	8.95	
7	8.91	8.82	8.88	
8	9.06	8.81	8.91	
9	9.25	9.06	9.17	
10	9.27	9.13	9.18	
11	9.16	8.81	9.05	
12	8.82	8.45	8.63	
13	8.46	8.26	8.34	
14	8.32	8.20	8.26	
15	8.38	8.23	8.32	
16	8.32	8.07	8.18	
17	8.12	7.98	8.07	
18	8.09	7.93	8.00	
19	8.07	7.91	8.01	
20	8.06	7.87	7.98	
21	8.13	7.98	8.04	
22	8.15	8.04	8.09	
23	8.14	8.01	8.07	
24	8.19	8.06	8.12	
25	8.28	8.16	8.21	
26	8.41	8.24	8.31	
27	8.42	8.30	8.36	
28	8.40	8.22	8.32	
29	8.26	8.10	8.19	
30	8.18	7.97	8.10	
31				
Monthly	Maximum	Minimum	Average	
	9.43	6.82	8.51	
Storet Number	900199	900200	900198	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Lower Zone Chemical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: **DZMW-1 Lower Zone**

Well Depth: 900'-950'

WACS ID: 101607

Testsite ID: **29238B**

Report Type: MORM/MORQ/MORA

Zone: LOWER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				05-Sep-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.44				
Specific Conductance (field)	µmhos/cm	000094	Monthly	16602				
Temperature Degrees C (field)	°C	000010	Monthly	28.6				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.12				
Turbidity (field)	NTU	082078	Monthly	0.02				
Chloride	mg/L	000940	Monthly	7600				
Sulfate	mg/L	000945	Monthly	2300				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	14000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.25				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.72				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.828				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	<.50				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.7				
Arsenic	mg/L	900029	Monthly	<0.0012				
Chromium	mg/L	900211	Monthly	<0.005				
Fluoride	mg/L	000951	Monthly	0.65				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	0.6				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	110				
Calcium	mg/L	000916	Monthly	1300				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	390				
Potassium	mg/L	000937	Monthly	56				
Sodium	mg/L	000929	Monthly	3500				
Alpha, Gross	pCi/L	001515	Monthly	20.2+/-1.8				
Uranium Total	µg/L	099243	Monthly	<0.6+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	16.7+/-1.5				
Radium228 Total	pCi/L	011501	Monthly	1.1 +/-0.9				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

October 24, 2023

Pete Larkin
ASRus LLC
13329 North Armenia Avenue
Tampa, FL 33613

RE: Workorder: T2317856 Piney Point Injection Monthly

Dear Pete Larkin:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday September 12, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2317856001	IW-1	WA	DEP SOP 10/03/83	09/12/2023 08:53	09/12/2023 12:59	1	NA
T2317856001	IW-1	WA	EPA 200.7	09/12/2023 08:53	09/12/2023 12:59	28	NA
T2317856001	IW-1	WA	EPA 200.8	09/12/2023 08:53	09/12/2023 12:59	1	NA
T2317856001	IW-1	WA	EPA 300.0	09/12/2023 08:53	09/12/2023 12:59	3	NA
T2317856001	IW-1	WA	EPA 350.1	09/12/2023 08:53	09/12/2023 12:59	2	NA
T2317856001	IW-1	WA	EPA 351.2	09/12/2023 08:53	09/12/2023 12:59	1	NA
T2317856001	IW-1	WA	EPA 365.1	09/12/2023 08:53	09/12/2023 12:59	1	NA
T2317856001	IW-1	WA	EPA 365.4	09/12/2023 08:53	09/12/2023 12:59	1	NA
T2317856001	IW-1	WA	Field Measurements	09/12/2023 08:53	09/12/2023 12:59	3	NA
T2317856001	IW-1	WA	SM 2320B	09/12/2023 08:53	09/12/2023 12:59	2	NA
T2317856001	IW-1	WA	SM 2540 C	09/12/2023 08:53	09/12/2023 12:59	1	NA
T2317856001	IW-1	WA	SM 4500NO3-F	09/12/2023 08:53	09/12/2023 12:59	1	NA
T2317856001	IW-1	WA	SM 5310B	09/12/2023 08:53	09/12/2023 12:59	1	NA

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Workorder: Piney Point Injection Monthly (T2317856)

Workorder Summary

Batch Comments

WCAI/23960 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recoveries of Nitrate+Nitrite for T2317953008 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS), which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

The analysis of S2302132001 was initially performed past the recommended holding time. An internal laboratory failure occurred which resulted in the missed holding time. Efforts were made to analyze the sample as soon as the error was identified. The data is qualified to indicate the holding time violation.

WCAI/24242 - Total Phosphorus,E365.4,Water

The matrix spike recovery of TP for T2317724001 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. The affected sample is qualified to indicate matrix interference.

WCAI/24338 - IC,E300.0,Water

The matrix spike recovery of Chloride and Sulfate for T2318879006 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

The matrix spike recovery of Chloride and Sulfate for T2319167001 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

Analysis Results Comments

T2317856001 (IW-1) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2317856001 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time

Lab Qualifiers

- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville
- T^ Not Certified
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa

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Workorder: Piney Point Injection Monthly (T2317856)

Analytical Results

Lab ID: T2317856001 **Date Collected:** 09/12/2023 08:53 **Matrix:** Water
Sample ID: IW-1 **Date Received:** 09/12/2023 12:59

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	9.9	ppt			1	09/29/2023 16:54	09/29/2023 16:54	T^
Temperature	29.9	°C			1	09/29/2023 16:54	09/29/2023 16:54	T^
pH	7.19	SU			1	09/29/2023 16:54	09/29/2023 16:54	T^
METALS (EPA 200.7)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	09/25/2023 12:30	09/26/2023 11:17	T
Antimony	0.0070 U	mg/L	0.050	0.0070	1	09/25/2023 12:30	09/26/2023 11:17	T
Arsenic	0.015	mg/L	0.010	0.0080	1	09/25/2023 12:30	09/26/2023 11:17	T
Barium	0.0076 I	mg/L	0.010	0.0030	1	09/25/2023 12:30	09/26/2023 11:17	T
Beryllium	0.0020 U	mg/L	0.010	0.0020	1	09/25/2023 12:30	09/26/2023 11:17	T
Boron	1.2	mg/L	0.050	0.025	1	09/25/2023 12:30	09/26/2023 11:17	T
Cadmium	0.0010 U	mg/L	0.0020	0.0010	1	09/25/2023 12:30	09/26/2023 11:17	T
Calcium	190	mg/L	1.0	0.20	1	09/25/2023 12:30	09/26/2023 11:17	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	09/25/2023 12:30	09/26/2023 11:17	T
Cobalt	0.0033 U	mg/L	0.010	0.0033	1	09/25/2023 12:30	09/26/2023 11:17	T
Copper	0.054	mg/L	0.010	0.0050	1	09/25/2023 12:30	09/26/2023 11:17	T
Iron	0.032 I	mg/L	0.10	0.0067	1	09/25/2023 12:30	09/26/2023 11:17	T
Lead	0.0030 U	mg/L	0.010	0.0030	1	09/25/2023 12:30	09/26/2023 11:17	T
Magnesium	300	mg/L	0.10	0.080	1	09/25/2023 12:30	09/26/2023 11:17	T
Manganese	0.013	mg/L	0.010	0.0050	1	09/25/2023 12:30	09/26/2023 11:17	T
Molybdenum	0.0040 U	mg/L	0.050	0.0040	1	09/25/2023 12:30	09/26/2023 11:17	T
Nickel	0.010	mg/L	0.010	0.0080	1	09/25/2023 12:30	09/26/2023 11:17	T
Potassium	230	mg/L	1.0	0.50	1	09/25/2023 12:30	09/26/2023 11:17	T
Selenium	0.040 U	mg/L	0.10	0.040	1	09/25/2023 12:30	09/26/2023 11:17	T
Silicon	0.44	mg/L	0.050	0.025	1	09/25/2023 12:30	09/26/2023 11:17	T^
Silver	0.0080 U	mg/L	0.010	0.0080	1	09/25/2023 12:30	09/26/2023 11:17	T
Sodium	2200	mg/L	1.0	0.80	1	09/25/2023 12:30	09/26/2023 11:17	T





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2317856001 Date Collected: 09/12/2023 08:53 Matrix: Water								
Sample ID: IW-1 Date Received: 09/12/2023 12:59								
Strontium	2.3	mg/L	0.010	0.0080	1	09/25/2023 12:30	09/26/2023 11:17	T
Thallium	0.0080 U	mg/L	0.010	0.0080	1	09/25/2023 12:30	09/26/2023 11:17	T
Tin	0.040 U	mg/L	0.050	0.040	1	09/25/2023 12:30	09/26/2023 11:17	T
Titanium	0.0020 U	mg/L	0.010	0.0020	1	09/25/2023 12:30	09/26/2023 11:17	T
Vanadium	0.0020 U	mg/L	0.010	0.0020	1	09/25/2023 12:30	09/26/2023 11:17	T
Zinc	0.050 U	mg/L	0.10	0.050	1	09/25/2023 12:30	09/26/2023 11:17	T
METALS (EPA 200.8)								
Arsenic	11	ug/L	10	2.5	10	09/25/2023 12:09	09/27/2023 15:40	J
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	2.55	mg/L	0.20	0.050	1	09/19/2023 10:10	09/21/2023 11:21	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.30	mg/L	0.20	0.15	1	09/19/2023 10:10	09/21/2023 11:21	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0 U	mg/L			1	09/29/2023 16:46	09/29/2023 16:46	T
WET CHEMISTRY (EPA 300.0)								
Chloride	7700	mg/L	500	100	100	10/04/2023 19:19	10/04/2023 19:19	T
Fluoride	20 U	mg/L	50	20	100	10/04/2023 19:19	10/04/2023 19:19	T
Sulfate	5400	mg/L	500	100	100	10/04/2023 19:19	10/04/2023 19:19	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.26	mg/L	0.030	0.010	1	09/25/2023 12:18	09/25/2023 12:18	T
Ammonium	0.26	mg/L			1	09/29/2023 17:00	09/29/2023 17:00	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.65	mg/L	0.020	0.013	1	09/12/2023 14:19	09/12/2023 14:19	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	15 I	mg/L	20	5.0	1	09/14/2023 17:10	09/14/2023 17:10	T
Alkalinity, Total	15 I	mg/L	20	5.0	1	09/14/2023 17:10	09/14/2023 17:10	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	15000	mg/L	10	10	1	09/13/2023 13:20	09/13/2023 13:20	T
WET CHEMISTRY (SM 4500NO3-F)								





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

Analytical Results

Lab ID: T2317856001	Date Collected: 09/12/2023 08:53	Matrix: Water
Sample ID: IW-1	Date Received: 09/12/2023 12:59	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	1	09/26/2023 11:42	09/26/2023 11:42	T

WET CHEMISTRY (SM 5310B)

Total Organic Carbon	31	mg/L	5.0	2.5	5	09/25/2023 12:28	09/25/2023 12:28	T
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Analysis Results Comments

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time

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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: ICMj/3511
Preparation Method: EPA 200.8
Associated Lab IDs: T2317856001

Analysis Method: EPA 200.8

Method Blank(4966022)

Parameter	Results	Units	PQL	MDL	Lab
Arsenic	0.25 U	ug/L	1.0	0.25	J

Lab Control Sample (4966023)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Arsenic	ug/L	20	21	107	85 - 115	J

Matrix Spike (4966024); Matrix Spike Duplicate (4966025); Original (G2309052002); Parent Lab Sample (G2309052002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	23	107	70 - 130	23	103	4	20	J

Matrix Spike (4966026); Matrix Spike Duplicate (4966027); Original (G2309054001); Parent Lab Sample (G2309054001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	21	101	70 - 130	21	102	1	20	J

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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: ICP/4096
Preparation Method: EPA 200.7
Associated Lab IDs: T2317856001

Analysis Method: EPA 200.7

Method Blank(4962554)

Parameter	Results	Units	PQL	MDL	Lab
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (4962555)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Sodium	mg/L	10	10	100	85 - 115	T

Matrix Spike (4962556); Matrix Spike Duplicate (4962557); Original (T2317383001); Parent Lab Sample (T2317383001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Sodium	mg/L	10	110	92	70 - 130	110	92	0	20	T

Matrix Spike (4962558); Matrix Spike Duplicate (4962559); Original (T2318045001); Parent Lab Sample (T2318045001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Sodium	mg/L	10	110	94	70 - 130	110	95	0	20	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: ICP/4114
Preparation Method: EPA 200.7
Associated Lab IDs: T2317856001

Analysis Method: EPA 200.7

Method Blank(4970458)

Parameter	Results	Units	PQL	MDL	Lab
Silver	0.0080 U	mg/L	0.010	0.0080	T
Aluminum	0.021 U	mg/L	0.10	0.021	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	T
Boron	0.025 U	mg/L	0.050	0.025	T
Barium	0.0030 U	mg/L	0.010	0.0030	T
Beryllium	0.0020 U	mg/L	0.010	0.0020	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Cadmium	0.0010 U	mg/L	0.0020	0.0010	T
Cobalt	0.0033 U	mg/L	0.010	0.0033	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Copper	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Molybdenum	0.0040 U	mg/L	0.050	0.0040	T
Sodium	0.80 U	mg/L	1.0	0.80	T
Nickel	0.0080 U	mg/L	0.010	0.0080	T
Lead	0.0030 U	mg/L	0.010	0.0030	T
Antimony	0.0070 U	mg/L	0.050	0.0070	T
Selenium	0.040 U	mg/L	0.10	0.040	T
Silicon	0.025 U	mg/L	0.050	0.025	T^
Tin	0.040 U	mg/L	0.050	0.040	T
Strontium	0.0080 U	mg/L	0.010	0.0080	T
Titanium	0.0020 U	mg/L	0.010	0.0020	T
Thallium	0.0080 U	mg/L	0.010	0.0080	T
Vanadium	0.0020 U	mg/L	0.010	0.0020	T
Zinc	0.050 U	mg/L	0.10	0.050	T

Lab Control Sample (4970459)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Silver	mg/L	0.10	.1	101	85 - 115	T





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

QC Batch: ICP/4114
Preparation Method: EPA 200.7
Associated Lab IDs: T2317856001

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aluminum	mg/L	1	.97	97	85 - 115	T
Arsenic	mg/L	1	.96	96	85 - 115	T
Boron	mg/L	0.10	.11	114	85 - 115	T
Barium	mg/L	1	1	102	85 - 115	T
Beryllium	mg/L	1	.97	97	85 - 115	T
Calcium	mg/L	10	10	102	85 - 115	T
Cadmium	mg/L	0.10	.1	102	85 - 115	T
Cobalt	mg/L	1	1	103	85 - 115	T
Chromium	mg/L	1	1	104	85 - 115	T
Copper	mg/L	1	1	101	85 - 115	T
Iron	mg/L	1	1	101	85 - 115	T
Potassium	mg/L	10	10	100	85 - 115	T
Magnesium	mg/L	10	10	103	85 - 115	T
Manganese	mg/L	1	1	104	85 - 115	T
Molybdenum	mg/L	0.10	.11	107	85 - 115	T
Sodium	mg/L	10	10	105	85 - 115	T
Nickel	mg/L	1	1	104	85 - 115	T
Lead	mg/L	1	.98	98	85 - 115	T
Antimony	mg/L	0.10	.11	107	85 - 115	T
Selenium	mg/L	1	.97	97	85 - 115	T
Silicon	mg/L	0.10	.095	95	85 - 115	T^
Tin	mg/L	0.10	.1	102	85 - 115	T
Strontium	mg/L	1	1	102	85 - 115	T
Titanium	mg/L	0.10	.1	104	85 - 115	T
Thallium	mg/L	0.10	.098	98	85 - 115	T
Vanadium	mg/L	1	.98	98	85 - 115	T
Zinc	mg/L	1	1.1	105	85 - 115	T

Lab Control Sample (4970459)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Silver	mg/L	0.10	.1	101	85 - 115	T
Aluminum	mg/L	1	.97	97	85 - 115	T
Arsenic	mg/L	1	.96	96	85 - 115	T
Boron	mg/L	0.10	.11	114	85 - 115	T





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

QC Batch: ICP/4114
Preparation Method: EPA 200.7
Associated Lab IDs: T2317856001

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Barium	mg/L	1	1	102	85 - 115	T
Beryllium	mg/L	1	.97	97	85 - 115	T
Calcium	mg/L	10	10	102	85 - 115	T
Cadmium	mg/L	0.10	.1	102	85 - 115	T
Cobalt	mg/L	1	1	103	85 - 115	T
Chromium	mg/L	1	1	104	85 - 115	T
Copper	mg/L	1	1	101	85 - 115	T
Iron	mg/L	1	1	101	85 - 115	T
Potassium	mg/L	10	10	100	85 - 115	T
Magnesium	mg/L	10	10	103	85 - 115	T
Manganese	mg/L	1	1	104	85 - 115	T
Molybdenum	mg/L	0.10	.11	107	85 - 115	T
Sodium	mg/L	10	10	105	85 - 115	T
Nickel	mg/L	1	1	104	85 - 115	T
Lead	mg/L	1	.98	98	85 - 115	T
Antimony	mg/L	0.10	.11	107	85 - 115	T
Selenium	mg/L	1	.97	97	85 - 115	T
Silicon	mg/L	0.10	.095	95	85 - 115	T^
Tin	mg/L	0.10	.1	102	85 - 115	T
Strontium	mg/L	1	1	102	85 - 115	T
Titanium	mg/L	0.10	.1	104	85 - 115	T
Thallium	mg/L	0.10	.098	98	85 - 115	T
Vanadium	mg/L	1	.98	98	85 - 115	T
Zinc	mg/L	1	1.1	105	85 - 115	T

Matrix Spike (4970460); Matrix Spike Duplicate (4970461); Original (T2318735001); Parent Lab Sample (T2318735001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Silver	mg/L	0.10	1.1	1100	70 - 130	1.1	1110	1	20	T
Aluminum	mg/L	1	1.4	114	70 - 130	1.4	114	0	20	T
Arsenic	mg/L	1	1.2	124	70 - 130	1.2	124	0	20	T
Boron	mg/L	0.10	1.7	1020	70 - 130	1.7	1030	0	20	T
Barium	mg/L	1	1.2	116	70 - 130	1.2	117	0	20	T
Beryllium	mg/L	1	1.2	121	70 - 130	1.2	121	0	20	T
Calcium	mg/L	10	41	68	70 - 130	41	70	1	20	T





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

QC Batch: ICP/4114
Preparation Method: EPA 200.7
Associated Lab IDs: T2317856001

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Cadmium	mg/L	0.10	.11	106	70 - 130	.11	106	0	20	T
Cobalt	mg/L	1	1.2	118	70 - 130	1.2	118	0	20	T
Chromium	mg/L	1	1.2	121	70 - 130	1.2	121	0	20	T
Copper	mg/L	1	1.2	119	70 - 130	1.2	119	1	20	T
Iron	mg/L	1	1.5	112	70 - 130	1.5	112	0	20	T
Potassium	mg/L	10	100	-14	70 - 130	100	-11	0	20	T
Magnesium	mg/L	10	12	112	70 - 130	12	112	1	20	T
Manganese	mg/L	1	1.2	119	70 - 130	1.2	119	0	20	T
Molybdenum	mg/L	0.10	1.1	1090	70 - 130	1.1	1090	0	20	T
Sodium	mg/L	10	1100	-1700	70 - 130	1100	-1700	0	20	T
Nickel	mg/L	1	1.2	118	70 - 130	1.2	118	0	20	T
Lead	mg/L	1	1.2	107	70 - 130	1.2	107	0	20	T
Antimony	mg/L	0.10	1.2	1120	70 - 130	1.2	1120	0	20	T
Selenium	mg/L	1	1.3	127	70 - 130	1.3	127	0	20	T
Silicon	mg/L	0.10	0	0	70 - 130	0	0	0	20	T^
Tin	mg/L	0.10	1.1	1120	70 - 130	1.1	1120	0	20	T
Strontium	mg/L	1	1.3	116	70 - 130	1.3	116	0	20	T
Titanium	mg/L	0.10	1.1	1100	70 - 130	1.1	1100	0	20	T
Thallium	mg/L	0.10	.091	91	70 - 130	.093	93	3	20	T
Vanadium	mg/L	1	1.2	115	70 - 130	1.1	115	0	20	T
Zinc	mg/L	1	1.2	120	70 - 130	1.2	120	0	20	T

Matrix Spike (4970462); Matrix Spike Duplicate (4970463); Original (G2308976001); Parent Lab Sample (G2308976001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Silver	mg/L	0.10	.21	213	70 - 130	.25	247	15	20	T
Aluminum	mg/L	1	1.3	118	70 - 130	1.3	120	1	20	T
Arsenic	mg/L	1	1.2	121	70 - 130	1.2	121	0	20	T
Boron	mg/L	0.10	1.1	1080	70 - 130	1.1	1080	1	20	T
Barium	mg/L	1	1.2	121	70 - 130	1.2	122	0	20	T
Beryllium	mg/L	1	1.3	125	70 - 130	1.2	125	0	20	T
Calcium	mg/L	10	340	-270	70 - 130	340	-245	1	20	T
Cadmium	mg/L	0.10	.12	122	70 - 130	.12	122	1	20	T
Cobalt	mg/L	1	1.2	120	70 - 130	1.2	120	1	20	T





FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

QC Batch: ICPT/4114
Preparation Method: EPA 200.7
Associated Lab IDs: T2317856001

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Chromium	mg/L	1	1.2	122	70 - 130	1.2	122	0	20	T
Copper	mg/L	1	1.3	125	70 - 130	1.2	125	0	20	T
Iron	mg/L	1	4	85	70 - 130	4	88	1	20	T
Potassium	mg/L	10	14	116	70 - 130	14	116	0	20	T
Magnesium	mg/L	10	93	42	70 - 130	93	45	0	20	T
Manganese	mg/L	1	1.3	120	70 - 130	1.3	121	0	20	T
Molybdenum	mg/L	0.10	1.1	1070	70 - 130	1.1	1070	1	20	T
Sodium	mg/L	10	53	85	70 - 130	54	92	1	20	T
Nickel	mg/L	1	1.2	121	70 - 130	1.2	121	0	20	T
Lead	mg/L	1	1.1	112	70 - 130	1.1	112	0	20	T
Antimony	mg/L	0.10	1.1	1130	70 - 130	1.1	1130	0	20	T
Selenium	mg/L	1	1.2	123	70 - 130	1.2	123	0	20	T
Silicon	mg/L	0.10	0	0	70 - 130	0	0	0	20	T^
Tin	mg/L	0.10	1.1	1070	70 - 130	1.1	1070	0	20	T
Strontium	mg/L	1	1.6	119	70 - 130	1.6	119	0	20	T
Titanium	mg/L	0.10	1.1	1100	70 - 130	1.1	1100	0	20	T
Thallium	mg/L	0.10	.11	111	70 - 130	.11	113	1	20	T
Vanadium	mg/L	1	1.2	117	70 - 130	1.2	118	0	20	T
Zinc	mg/L	1	1.2	123	70 - 130	1.2	124	0	20	T

QC Result Comments

Lab Control Sample - 4970459 - Silicon

J3|Lab QC Failure

Matrix Spike - 4970460 - Antimony

J4|Estimated Result

Matrix Spike - 4970460 - Boron

J4|Estimated Result

Matrix Spike - 4970460 - Calcium

J4|Estimated Result

Matrix Spike - 4970460 - Molybdenum

J4|Estimated Result

Matrix Spike - 4970460 - Potassium

J4|Estimated Result

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Workorder: Piney Point Injection Monthly (T2317856)

QC Result Comments

Matrix Spike - 4970460 - Silicon

J4|Estimated Result

Matrix Spike - 4970460 - Silver

J4|Estimated Result

Matrix Spike - 4970460 - Sodium

J4|Estimated Result

Matrix Spike - 4970460 - Tin

J4|Estimated Result

Matrix Spike - 4970460 - Titanium

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Antimony

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Boron

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Molybdenum

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Potassium

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Silicon

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Silver

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Sodium

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Tin

J4|Estimated Result

Matrix Spike Duplicate - 4970461 - Titanium

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Antimony

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Boron

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Calcium

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Magnesium

J4|Estimated Result

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Workorder: Piney Point Injection Monthly (T2317856)

QC Result Comments

Matrix Spike Duplicate - 4970463 - Molybdenum

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Silicon

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Silver

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Tin

J4|Estimated Result

Matrix Spike Duplicate - 4970463 - Titanium

J4|Estimated Result

Matrix Spike - 4970462 - Antimony

J4|Estimated Result

Matrix Spike - 4970462 - Boron

J4|Estimated Result

Matrix Spike - 4970462 - Calcium

J4|Estimated Result

Matrix Spike - 4970462 - Magnesium

J4|Estimated Result

Matrix Spike - 4970462 - Molybdenum

J4|Estimated Result

Matrix Spike - 4970462 - Silicon

J4|Estimated Result

Matrix Spike - 4970462 - Silver

J4|Estimated Result

Matrix Spike - 4970462 - Tin

J4|Estimated Result

Matrix Spike - 4970462 - Titanium

J4|Estimated Result

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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/23576
Preparation Method: EPA 365.1
Associated Lab IDs: T2317856001

Analysis Method: EPA 365.1

Method Blank(4950487)

Parameter	Results	Units	PQL	MDL	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	T

Lab Control Sample (4950488)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Orthophosphate	mg/L	0.50	.49	98	90 - 110	T

Matrix Spike (4950489); Matrix Spike Duplicate (4950490); Original (A2310156001); Parent Lab Sample (A2310156001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Orthophosphate	mg/L	0.50	.52	97	90 - 110	.52	96	2	10	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/23645
Preparation Method: SM 2320B
Associated Lab IDs: T2317856001

Analysis Method: SM 2320B

Method Blank(4955321)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (4955322)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	110	109	85 - 115	T

Sample Duplicate (4955323); Original (T2317742003); Parent Lab Sample (T2317856001)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	36.0511	35.28535	mg/L	2	10	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/23901
Preparation Method: SM 5310B
Associated Lab IDs: T2317856001

Analysis Method: SM 5310B

Method Blank(4969719)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	0.50 U	mg/L	1.0	0.50	T

Lab Control Sample (4969720)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Organic Carbon	mg/L	10	11	106	90 - 110	T

Matrix Spike (4969721); Matrix Spike Duplicate (4969722); Original (T2317891002); Parent Lab Sample (T2317891002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	10	9.6	96	90 - 110	9.6	96	0	10	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/23903
Preparation Method: EPA 350.1
Associated Lab IDs: T2317856001

Analysis Method: EPA 350.1

Method Blank(4969968)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4969969)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.52	104	90 - 110	T

Matrix Spike (4969970); Matrix Spike Duplicate (4969971); Original (T2317298001); Parent Lab Sample (T2317298001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.8	104	90 - 110	1.8	107	1	10	T

Matrix Spike (4969972); Matrix Spike Duplicate (4969973); Original (T2317856001); Parent Lab Sample (T2317856001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.3	106	90 - 110	1.3	109	2	10	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/23960
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2317856001

Analysis Method: SM 4500NO3-F

Method Blank(4971674)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4971675)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	1.98	99	90 - 110	T

Matrix Spike (4971676); Matrix Spike Duplicate (4971677); Original (T2317856001); Parent Lab Sample (T2317856001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	1.8	90	90 - 110	1.88	94	4	10	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/24242
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2317856001

Analysis Method: EPA 365.4

Method Blank(4960682)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (4960684)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	110	90 - 110	T

Matrix Spike (4960686); Matrix Spike Duplicate (4960688); Original (T2317724001); Parent Lab Sample (T2317724001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	.96	96	90 - 110	.93	93	4	10	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/24243
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2317856001

Analysis Method: EPA 351.2

Method Blank(4960681)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4960683)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.04	104	90 - 110	T

Matrix Spike (4960685); Matrix Spike Duplicate (4960687); Original (T2317724001); Parent Lab Sample (T2317724001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	.963	96	90 - 110	.931	93	3	20	T

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Workorder: Piney Point Injection Monthly (T2317856)

QC Results

QC Batch: WCA/24338
Preparation Method: EPA 300.0
Associated Lab IDs: T2317856001

Analysis Method: EPA 300.0

Method Blank(4994364)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (4994365)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5	100	90 - 110	T
Chloride	mg/L	50	51	100	90 - 110	T
Sulfate	mg/L	50	50	100	90 - 110	T

Matrix Spike (4994366); Matrix Spike Duplicate (4994367); Original (T2318879006); Parent Lab Sample (T2318879006)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.3	110	90 - 110	2.4	120	4.90	10	T
Chloride	mg/L	20	93	110	90 - 110	96	130	3.20	10	T
Sulfate	mg/L	20	100	110	90 - 110	100	130	3.30	10	T

QC Result Comments

Matrix Spike - 4994366 - Fluoride

J4|Estimated Result

Matrix Spike - 4994366 - Sulfate

J4|Estimated Result

Matrix Spike Duplicate - 4994367 - Chloride

J4|Estimated Result

Matrix Spike Duplicate - 4994367 - Fluoride

J4|Estimated Result

Matrix Spike Duplicate - 4994367 - Sulfate

J4|Estimated Result

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Workorder: Piney Point Injection Monthly (T2317856)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/3511 - EPA 200.8			
T2317856001	IW-1	DGMj/6573	EPA 200.8
ICPt/4114 - EPA 200.7			
T2317856001	IW-1	DGMt/6731	EPA 200.7
WCAI/23576 - EPA 365.1			
T2317856001	IW-1		
WCAI/23610 - SM 2540 C			
T2317856001	IW-1		
WCAI/23645 - SM 2320B			
T2317856001	IW-1		
WCAI/23901 - SM 5310B			
T2317856001	IW-1		
WCAI/23903 - EPA 350.1			
T2317856001	IW-1		
WCAI/23960 - SM 4500NO3-F			
T2317856001	IW-1		
WCAI/24242 - EPA 365.4			
T2317856001	IW-1	WCAI/23729	Copper Sulfate Digestion
WCAI/24243 - EPA 351.2			
T2317856001	IW-1	WCAI/23729	Copper Sulfate Digestion
WCAI/24338 - EPA 300.0			
T2317856001	IW-1		

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Workorder: Piney Point Injection Monthly (T2317856)



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- Gainesville: 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 Lab ID E82001
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- Tallahassee: 2639 North Monroe St., Ste. D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275 Lab ID E811095
- Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 Lab ID E84589

PAGE 1 OF 1

Client Name: ASRus LLC		Project Name: Piney Point Injection Wells Monthly				BOTTLE SIZE & TYPE												
Address:		Project Number:				ANALYSIS REQUIRED		SO ₄ , CL, F TKN, NH ₃ , NH ₄ NO _x , TP TDS, ALK/BICARB METALS (TOTAL FE, AS, CR, MN, AL, MG, K, NA, CA) TOC O-PHOS GROSS ALPHA RADIUM 226/228 URANIUM										LABORATORY I.D. NUMBER
Address:		PO Number:																
Phone: 813-382-8516		FDEP Facility #:																
FAX:		FDEP Facility Address:																
Contact: Pete Larkin		Special Instructions:				PRESER-VATION Field-Filtered?		I S I N H I N N N										
Sampled By:																		
Turn around time: <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH																		
AEL Profile #		<input type="checkbox"/> ADaPT <input type="checkbox"/> EQUIS <input type="checkbox"/> Other																
SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT												
			DATE	TIME														
	IW - 1	G	9/12/2023	8:53	GW	11	X	X	X	X	X	X	X	X	X	X		



Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on ice YES NO Temp Taken From Sample Temp from Blot Where required ph checked Temp. when received (Observed) 10 °C Temp. when received (corrected) _____ °C
 DCN: AD-051 Form last revised 02/12/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by	Date	Time	Received by:	Date	Time
1	<i>[Signature]</i>	9/12/23	12:59	<i>[Signature]</i>	9/12/23	12:59
2						

FOR DRINKING WATER USE (When PWS Information not otherwise supplied)

PWS ID: _____

Contact Person: _____ Phone: _____

POWERED BY
HORIZON
 v.13.1.0

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FINAL - REVISION

Workorder: Piney Point Injection Monthly (T2317856)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT INJECTION WELLS		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: IW-1	SAMPLE ID:	DATE: 9/12/23	

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet - feet) X gallons/foot = 5098 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
					7.19	29.9	17,200		34.54	Clean, clear	none
						Salinity in ppt	9.9				
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:				SAMPLER(S) SIGNATURE(S):				SAMPLING INITIATED AT: 8:53		SAMPLING ENDED AT: 9:11		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:				FIELD-FILTERED: Y N		FILTER SIZE: _____ µm		
FIELD DECONTAMINATION: PUMP Y N				TUBING Y N (replaced)				DUPLICATE: Y N		Filtration Equipment Type:		
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
SEE COC												
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

62-160.800 F.A.C. Revision Date: January 2017





Report Date: September 29, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2317856001
Sample Collection: 09-12-23/0853
Lab ID No: 23.14673
Lab Custody Date: 09-19-23/1520
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	2.0 I ± 0.7	9-22-23/1625	EPA 00-02	0.9
Combined Radium (Radium-226 + Radium 228)	pCi/L	1.2 I ± 0.5	Calc	Calc	0.5
Radium-226	pCi/L	1.2 I ± 0.5	9-22-23/1246	EPA 903.0*	0.5
Radium-228	pCi/L	1.2 U ± 1.0	9-28-23/1228	EPA Ra-05	1.2
Uranium	pCi/L	0.3 U ± 0.1	9-23-23/1609	EPA 908.0	0.3
Uranium	ppb	0.4 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 109% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



Advanced Environmental Laboratories, Inc.

- Allamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1694 • Lab ID: E65076
- Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
- Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.8350 • Lab ID: E82674
- Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095

Page 1 of 1

Gainesville: 4985 SW 41st Blvd., FL 32608 • 352.372.2349 • Lab ID: E82001

Miramar: 10200 USA Today Way, FL 33025 • 954.888.2288 • Lab ID: E82635

Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Name: Advanced Environmental Lab

Address: Tampa FL 33619

Phone: 813-630-9616
813-630-4327

Email: mcammarrata@aellab.com

Order By:

Lead Time: STANDARD RUSH

Profile #:

Project Name: 12317856

Project Number:

PO Number: 22900

FDEP Facility No:

FDEP Facility Address:

Even though matrix WA please include DW report along with EVN report

ADAPT EQUIS Other

BOTTLE SIZE & TYPE	ANALYSIS REQUIRED	LABORATORY I.D. NUMBER
Rad 226	Rad 228	
	Gross Alpha	
	<i>Uranium</i>	

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT
			DATE	TIME		
14623	12317856-001		9-19-23	853	WA	3

Preservation	Field-Filled?	Rad 226	Rad 228	Gross Alpha	Uranium
		X	X	X	X

Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge
Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Temp taken from sample Temp from blank Where required, pH checked

Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C

Device used for measuring Temp by unique Identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Relinquished by:	Date	Time	Received by:	Date	Time
Kaitlyn Pasquallini	9-19-23	1000	B 9-19-23	1520	

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site Address: _____



Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

October 30, 2023

RE: Workorder: T2317298 Piney Point Injection Wells

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday September 5, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

A handwritten signature in black ink that reads "Sheila Wilcox".

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

Certificate of Analysis

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2317298001	APMW-1LZ	WA	DEP SOP 10/03/83	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	EPA 200.7	09/05/2023 09:58	09/05/2023 12:35	8	NA
T2317298001	APMW-1LZ	WA	EPA 200.8	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	EPA 300.0	09/05/2023 09:58	09/05/2023 12:35	2	NA
T2317298001	APMW-1LZ	WA	EPA 350.1	09/05/2023 09:58	09/05/2023 12:35	2	NA
T2317298001	APMW-1LZ	WA	EPA 351.2	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	EPA 365.1	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	EPA 365.4	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	Field Measurements	09/05/2023 09:58	09/05/2023 12:35	3	NA
T2317298001	APMW-1LZ	WA	SM 2320B	09/05/2023 09:58	09/05/2023 12:35	2	NA
T2317298001	APMW-1LZ	WA	SM 2540 C	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	SM 4500F-C	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	SM 4500NO3-F	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298001	APMW-1LZ	WA	SM 5310B	09/05/2023 09:58	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	DEP SOP 10/03/83	09/05/2023 11:35	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	EPA 200.7	09/05/2023 11:35	09/05/2023 12:35	8	NA
T2317298002	SLMW-1UZ	WA	EPA 200.8	09/05/2023 11:35	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	EPA 300.0	09/05/2023 11:35	09/05/2023 12:35	3	NA
T2317298002	SLMW-1UZ	WA	EPA 350.1	09/05/2023 11:35	09/05/2023 12:35	2	NA
T2317298002	SLMW-1UZ	WA	EPA 351.2	09/05/2023 11:35	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	EPA 365.1	09/05/2023 11:35	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	EPA 365.4	09/05/2023 11:35	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	Field Measurements	09/05/2023 11:35	09/05/2023 12:35	3	NA
T2317298002	SLMW-1UZ	WA	SM 2320B	09/05/2023 11:35	09/05/2023 12:35	2	NA
T2317298002	SLMW-1UZ	WA	SM 2540 C	09/05/2023 11:35	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	SM 4500NO3-F	09/05/2023 11:35	09/05/2023 12:35	1	NA
T2317298002	SLMW-1UZ	WA	SM 5310B	09/05/2023 11:35	09/05/2023 12:35	1	NA

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Workorder: Piney Point Injection Wells (T2317298)

Workorder Summary

Batch Comments

ICPt/4086 - ICP 200.7 Analysis

T2317293003 had to be rerun at a dilution due to a failure of the internal standard.

The matrix spike (MS) and Matrix Spike Duplicate (MSD) recoveries of Potassium, calcium, iron, magnesium, and sodium for F2305666002 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. No further corrective action is required.

WCAI/23472 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recoveries of NOx for T2317263002 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

WCAI/23712 - TOC,SM5310B,Water

The matrix spike (MS) and Matrix Spike Duplicate (MSD) recoveries for T2317386001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action is required.

WCAI/23722 - IC,E300.0,Water

The matrix spike recovery of Sulfate and Chloride for T2317654002 was outside control criteria. No further corrective action was required.

WCAI/24091 - Total Phosphorus,E365.4,Water

The matrix spike recoveries of TP for T2317293002 and T2317320004 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS), which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

Analysis Results Comments

T2317298001 (APMW-1LZ) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2317298001 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

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Workorder: Piney Point Injection Wells (T2317298)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time

Lab Qualifiers

- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville
- T^ Not Certified
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

Analytical Results

Lab ID: T2317298001 **Date Collected:** 09/05/2023 09:58 **Matrix:** Water
Sample ID: APMW-1LZ **Date Received:** 09/05/2023 12:35

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	9.7	ppt			1	10/12/2023 13:58	10/12/2023 13:58	T^
Temperature	28.6	°C			1	10/12/2023 13:58	10/12/2023 13:58	T^
pH	7.44	SU			1	10/12/2023 13:58	10/12/2023 13:58	T^
METALS (EPA 200.7)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	09/14/2023 11:30	09/15/2023 10:27	T
Calcium	1300	mg/L	10	2.0	10	09/14/2023 11:30	09/18/2023 14:22	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	09/14/2023 11:30	09/15/2023 10:27	T
Iron	0.066 I	mg/L	0.10	0.0067	1	09/14/2023 11:30	09/15/2023 10:27	T
Magnesium	390	mg/L	0.10	0.080	1	09/14/2023 11:30	09/15/2023 10:27	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	09/14/2023 11:30	09/15/2023 10:27	T
Potassium	56	mg/L	1.0	0.50	1	09/14/2023 11:30	09/15/2023 10:27	T
Sodium	3500	mg/L	10	8.0	10	09/14/2023 11:30	09/18/2023 14:22	T
METALS (EPA 200.8)								
Arsenic	1.2 U	ug/L	5.0	1.2	5	09/14/2023 06:45	09/15/2023 11:54	J
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.828	mg/L	0.20	0.050	1	09/20/2023 13:00	09/21/2023 16:07	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.60	mg/L	0.20	0.15	1	09/20/2023 13:00	09/21/2023 16:07	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.016	mg/L	0.00067	0.0002 2	1	10/12/2023 14:00	10/12/2023 14:00	T
WET CHEMISTRY (EPA 300.0)								
Chloride	7600	mg/L	500	100	100	09/12/2023 16:47	09/12/2023 16:47	T
Sulfate	2300	mg/L	500	100	100	09/12/2023 16:47	09/12/2023 16:47	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.72	mg/L	0.030	0.010	1	09/25/2023 12:02	09/25/2023 12:02	T
Ammonium	0.70	mg/L			1	10/12/2023 14:01	10/12/2023 14:01	T
WET CHEMISTRY (EPA 365.1)								





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	09/06/2023 11:31	09/06/2023 11:31	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	110	mg/L	20	5.0	1	09/07/2023 19:02	09/07/2023 19:02	T
Alkalinity, Total	110	mg/L	20	5.0	1	09/07/2023 19:02	09/07/2023 19:02	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	14000	mg/L	10	10	1	09/06/2023 14:00	09/06/2023 14:00	T
WET CHEMISTRY (SM 4500F-C)								
Fluoride	0.65	mg/L	0.20	0.094	1	09/11/2023 14:20	09/11/2023 14:20	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	09/07/2023 11:58	09/07/2023 11:58	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	0.50 U	mg/L	1.0	0.50	1	09/18/2023 21:32	09/18/2023 21:32	T

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

pH

Q|Missed Hold Time

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

Analytical Results

Lab ID: T2317298002 **Date Collected:** 09/05/2023 11:35 **Matrix:** Water
Sample ID: SLMW-1UZ **Date Received:** 09/05/2023 12:35

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	0.57	ppt			1	10/12/2023 14:01	10/12/2023 14:01	T^
Temperature	27.3	°C			1	10/12/2023 14:01	10/12/2023 14:01	T^
pH	9.98	SU			1	10/12/2023 14:01	10/12/2023 14:01	T^
METALS (EPA 200.7)								
Aluminum	0.026 I	mg/L	0.10	0.021	1	09/14/2023 11:30	09/15/2023 10:29	T
Calcium	120	mg/L	1.0	0.20	1	09/14/2023 11:30	09/15/2023 10:29	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	09/14/2023 11:30	09/15/2023 10:29	T
Iron	0.12	mg/L	0.10	0.0067	1	09/14/2023 11:30	09/15/2023 10:29	T
Magnesium	29	mg/L	0.10	0.080	1	09/14/2023 11:30	09/15/2023 10:29	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	09/14/2023 11:30	09/15/2023 10:29	T
Potassium	27	mg/L	1.0	0.50	1	09/14/2023 11:30	09/15/2023 10:29	T
Sodium	65	mg/L	1.0	0.80	1	09/14/2023 11:30	09/15/2023 10:29	T
METALS (EPA 200.8)								
Arsenic	1.1	ug/L	1.0	0.25	1	09/14/2023 06:45	09/14/2023 18:03	J
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.328	mg/L	0.20	0.050	1	09/20/2023 13:00	09/21/2023 16:07	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	09/20/2023 13:00	09/21/2023 16:07	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.34	mg/L	0.031	0.010	1	10/12/2023 14:02	10/12/2023 14:02	T
WET CHEMISTRY (EPA 300.0)								
Chloride	130	mg/L	10	2.0	2	09/14/2023 00:26	09/14/2023 00:26	T
Fluoride	0.60 I	mg/L	1.0	0.40	2	09/14/2023 00:26	09/14/2023 00:26	T
Sulfate	320	mg/L	10	2.0	2	09/14/2023 00:26	09/14/2023 00:26	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.33	mg/L	0.030	0.010	1	09/18/2023 12:36	09/18/2023 12:36	T
Ammonium	0 U	mg/L			1	10/12/2023 14:03	10/12/2023 14:03	T
WET CHEMISTRY (EPA 365.1)								





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2317298002			Date Collected: 09/05/2023 11:35			Matrix: Water		
Sample ID: SLMW-1UZ			Date Received: 09/05/2023 12:35					
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	09/06/2023 11:32	09/06/2023 11:32	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	23	mg/L	20	5.0	1	09/07/2023 19:12	09/07/2023 19:12	T
Alkalinity, Total	24	mg/L	20	5.0	1	09/07/2023 19:12	09/07/2023 19:12	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	730	mg/L	10	10	1	09/06/2023 14:00	09/06/2023 14:00	T
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	09/07/2023 11:59	09/07/2023 11:59	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	0.50 U	mg/L	1.0	0.50	1	09/19/2023 00:42	09/19/2023 00:42	T

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

Unionized Ammonia

Q|Missed Hold Time

pH

Q|Missed Hold Time

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: ICMj/3480
Preparation Method: EPA 200.8
Associated Lab IDs: T2317298001, T2317298002

Analysis Method: EPA 200.8

Method Blank(4952876)

Parameter	Results	Units	PQL	MDL	Lab
Arsenic	0.25 U	ug/L	1.0	0.25	J

Lab Control Sample (4952877)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Arsenic	ug/L	20	19	96	85 - 115	J

Matrix Spike (4952878); Matrix Spike Duplicate (4952879); Original (M2304895007); Parent Lab Sample (M2304895007)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	19	96	70 - 130	20	100	4	20	J

Matrix Spike (4952880); Matrix Spike Duplicate (4952881); Original (J2312715008); Parent Lab Sample (J2312715008)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Arsenic	ug/L	20	19	97	70 - 130	19	97	0	20	J

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: ICP1/4086
Preparation Method: EPA 200.7
Associated Lab IDs: T2317298001, T2317298002

Analysis Method: EPA 200.7

Method Blank(4957278)

Parameter	Results	Units	PQL	MDL	Lab
Aluminum	0.021 U	mg/L	0.10	0.021	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Method Blank(4957278)

Parameter	Results	Units	PQL	MDL	Lab
Aluminum	0.021 U	mg/L	0.10	0.021	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (4957279)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aluminum	mg/L	1	.97	97	85 - 115	T
Calcium	mg/L	10	11	105	85 - 115	T
Chromium	mg/L	1	1	103	85 - 115	T
Iron	mg/L	1	.96	96	85 - 115	T
Potassium	mg/L	10	9.9	99	85 - 115	T
Magnesium	mg/L	10	9.7	97	85 - 115	T
Manganese	mg/L	1	1	102	85 - 115	T
Sodium	mg/L	10	10	104	85 - 115	T

Matrix Spike (4957280); Matrix Spike Duplicate (4957281); Original (F2305338006); Parent Lab Sample (F2305338006)





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

QC Batch: ICP/4086
Preparation Method: EPA 200.7
Associated Lab IDs: T2317298001, T2317298002

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Aluminum	mg/L	1	1.2	118	70 - 130	1.2	118	0	20	T
Calcium	mg/L	10	110	108	70 - 130	110	107	0	20	T
Chromium	mg/L	1	1.3	128	70 - 130	1.3	127	0	20	T
Iron	mg/L	1	2.3	118	70 - 130	2.3	118	0	20	T
Potassium	mg/L	10	20	109	70 - 130	20	109	0	20	T
Magnesium	mg/L	10	28	109	70 - 130	28	109	0	20	T
Manganese	mg/L	1	1.3	125	70 - 130	1.3	125	0	20	T
Sodium	mg/L	10	95	111	70 - 130	95	110	0	20	T

Matrix Spike (4957282); Matrix Spike Duplicate (4957283); Original (F2305666002); Parent Lab Sample (F2305666002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Aluminum	mg/L	1	1.2	119	70 - 130	1.2	118	1	20	T
Calcium	mg/L	10	780	-335	70 - 130	720	-898	8	20	T
Chromium	mg/L	1	1.2	121	70 - 130	1.2	123	1	20	T
Iron	mg/L	1	1.2	115	70 - 130	1.2	114	1	20	T
Potassium	mg/L	10	310	397	70 - 130	310	461	2	20	T
Magnesium	mg/L	10	1100	-275	70 - 130	990	-1050	8	20	T
Manganese	mg/L	1	1.2	121	70 - 130	1.2	121	0	20	T
Sodium	mg/L	10	8200	-9290	70 - 130	7600	-15100	7	20	T

Matrix Spike (4957282); Matrix Spike Duplicate (4957283); Original (F2305666002); Parent Lab Sample (F2305666002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Aluminum	mg/L	1	1.2	119	70 - 130	1.2	118	1	20	T
Calcium	mg/L	10	780	-335	70 - 130	720	-898	8	20	T
Chromium	mg/L	1	1.2	121	70 - 130	1.2	123	1	20	T
Iron	mg/L	1	1.2	115	70 - 130	1.2	114	1	20	T
Potassium	mg/L	10	310	397	70 - 130	310	461	2	20	T
Magnesium	mg/L	10	1100	-275	70 - 130	990	-1050	8	20	T
Manganese	mg/L	1	1.2	121	70 - 130	1.2	121	0	20	T
Sodium	mg/L	10	8200	-9290	70 - 130	7600	-15100	7	20	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Result Comments

Method Blank - 4957278 - Aluminum

V|Method Blank Contamination

Matrix Spike - 4957282 - Calcium

J4|Estimated Result

J4|Estimated Result

Matrix Spike - 4957282 - Magnesium

J4|Estimated Result

J4|Estimated Result

Matrix Spike - 4957282 - Potassium

J4|Estimated Result

Matrix Spike - 4957282 - Sodium

J4|Estimated Result

J4|Estimated Result

Matrix Spike Duplicate - 4957283 - Potassium

J4|Estimated Result

Matrix Spike Duplicate - 4957283 - Calcium

J4|Estimated Result

Matrix Spike Duplicate - 4957283 - Magnesium

J4|Estimated Result

Matrix Spike Duplicate - 4957283 - Sodium

J4|Estimated Result

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23405
Preparation Method: EPA 365.1
Associated Lab IDs: T2317298001, T2317298002

Analysis Method: EPA 365.1

Method Blank(4940273)

Parameter	Results	Units	PQL	MDL	Lab
Orthophosphate	0.013 U	mg/L	0.020	0.013	T

Lab Control Sample (4940274)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Orthophosphate	mg/L	0.50	.5	100	90 - 110	T

Matrix Spike (4940275); Matrix Spike Duplicate (4940276); Original (S2302331001); Parent Lab Sample (S2302331001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Orthophosphate	mg/L	0.50	.51	95	90 - 110	.51	97	1	10	T

Matrix Spike (4941144); Matrix Spike Duplicate (4941145); Original (A2309841003); Parent Lab Sample (A2309841003)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Orthophosphate	mg/L	0.50	.47	95	90 - 110	.48	96	1	10	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23416 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2317298001, T2317298002

Method Blank(4940806)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (4940807)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	710	107	85 - 115	T

Sample Duplicate (4940808); Original (T2317188003); Parent Lab Sample (T2317298001, T2317298002)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	374	358	mg/L	4	10	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23470 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2317298001, T2317298002

Method Blank(4944040)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (4944041)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	101	85 - 115	T

Sample Duplicate (4944042); Original (T2317298001); Parent Lab Sample (T2317298001, T2317298002)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	112.3044	114.2484	mg/L	2	10	T





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23472
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2317298001, T2317298002

Analysis Method: SM 4500NO3-F

Method Blank(4944077)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

Lab Control Sample (4944078)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nitrate + Nitrite	mg/L	2	1.92	96	90 - 110	T

Matrix Spike (4944079); Matrix Spike Duplicate (4944080); Original (T2317263002); Parent Lab Sample (T2317263002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	2.06	85	90 - 110	2.13	88	3	10	T

Matrix Spike (4944081); Matrix Spike Duplicate (4944082); Original (T2317438002); Parent Lab Sample (T2317438002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nitrate + Nitrite	mg/L	2	8.18	107	90 - 110	8.14	105	0	10	T

QC Result Comments

Matrix Spike - 4944079 - Nitrate + Nitrite

J4|Estimated Result

Matrix Spike Duplicate - 4944080 - Nitrate + Nitrite

J4|Estimated Result

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23564
Preparation Method: SM 4500F-C
Associated Lab IDs: T2317298001

Analysis Method: SM 4500F-C

Method Blank(4949749)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.094 U	mg/L	0.20	0.094	T

Lab Control Sample (4949750)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	1	.92	92	90 - 110	T

Matrix Spike (4949751); Matrix Spike Duplicate (4949752); Original (T2317298001); Parent Lab Sample (T2317298001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	1	1.6	98	90 - 110	1.6	98	0	10	T

Method Blank(4949754)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.094 U	mg/L	0.20	0.094	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23711
Preparation Method: SM 5310B
Associated Lab IDs: T2317298001

Analysis Method: SM 5310B

Method Blank(4960021)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	0.50 U	mg/L	1.0	0.50	T

Lab Control Sample (4960022)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Organic Carbon	mg/L	10	9.8	98	90 - 110	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23712
Preparation Method: SM 5310B
Associated Lab IDs: T2317298002

Analysis Method: SM 5310B

Method Blank(4960030)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	0.50 U	mg/L	1.0	0.50	T

Lab Control Sample (4960031)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Organic Carbon	mg/L	10	9.7	97	90 - 110	T

Matrix Spike (4960032); Matrix Spike Duplicate (4960033); Original (T2317386001); Parent Lab Sample (T2317386001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	10	21	129	90 - 110	21	130	0	10	T

Matrix Spike (4960034); Matrix Spike Duplicate (4960035); Original (M2304988001); Parent Lab Sample (M2304988001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	10	11	107	90 - 110	11	106	1	10	T

QC Result Comments

Matrix Spike - 4960032 - Total Organic Carbon

J4|Estimated Result

Matrix Spike Duplicate - 4960033 - Total Organic Carbon

J4|Estimated Result

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23717
Preparation Method: EPA 300.0
Associated Lab IDs: T2317298001

Analysis Method: EPA 300.0

Method Blank(4960140)

Parameter	Results	Units	PQL	MDL	Lab
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (4960141)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Chloride	mg/L	50	48	95	90 - 110	T
Sulfate	mg/L	50	47	95	90 - 110	T

Matrix Spike (4960142); Matrix Spike Duplicate (4960143); Original (T2317473001); Parent Lab Sample (T2317473001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Chloride	mg/L	20	24	110	90 - 110	23	100	4.60	10	T
Sulfate	mg/L	20	25	110	90 - 110	23	99	5.40	10	T

Matrix Spike (4960144); Matrix Spike Duplicate (4960145); Original (T2317617002); Parent Lab Sample (T2317617002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Chloride	mg/L	20	24	100	90 - 110	24	100	0.0410	10	T
Sulfate	mg/L	20	21	110	90 - 110	21	110	0.0095	10	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23719
Preparation Method: EPA 350.1
Associated Lab IDs: T2317298002

Analysis Method: EPA 350.1

Method Blank(4960152)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4960153)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.54	108	90 - 110	T

Matrix Spike (4960154); Matrix Spike Duplicate (4960155); Original (T2317317002); Parent Lab Sample (T2317317002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1	104	90 - 110	1.1	108	4	10	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23722
Preparation Method: EPA 300.0
Associated Lab IDs: T2317298002

Analysis Method: EPA 300.0

Method Blank(4960198)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (4960199)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	4.9	99	90 - 110	T
Chloride	mg/L	50	49	98	90 - 110	T
Sulfate	mg/L	50	49	98	90 - 110	T

Matrix Spike (4960200); Matrix Spike Duplicate (4960201); Original (T2317617004); Parent Lab Sample (T2317617004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.1	110	90 - 110	2	99	7.10	10	T
Chloride	mg/L	20	30	110	90 - 110	29	100	2.90	10	T
Sulfate	mg/L	20	28	110	90 - 110	27	100	3.30	10	T

Matrix Spike (4960202); Matrix Spike Duplicate (4960203); Original (T2314596023); Parent Lab Sample (T2314596023)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.2	110	90 - 110	2	100	9.40	10	T
Chloride	mg/L	20	38	120	90 - 110	34	100	9.50	10	T
Sulfate	mg/L	20	27	120	90 - 110	23	100	17	10	T

QC Result Comments

Matrix Spike - 4960202 - Chloride

J4|Estimated Result

Matrix Spike - 4960202 - Fluoride

J4|Estimated Result

Matrix Spike - 4960202 - Sulfate

J4|Estimated Result

Matrix Spike Duplicate - 4960203 - Sulfate

J4|Estimated Result

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/23903
Preparation Method: EPA 350.1
Associated Lab IDs: T2317298001

Analysis Method: EPA 350.1

Method Blank(4969968)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4969969)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.52	104	90 - 110	T

Matrix Spike (4969970); Matrix Spike Duplicate (4969971); Original (T2317298001); Parent Lab Sample (T2317298001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.8	104	90 - 110	1.8	107	1	10	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/24091
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2317298001, T2317298002

Analysis Method: EPA 365.4

Method Blank(4965091)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (4965093)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1.1	108	90 - 110	T

Matrix Spike (4965095); Matrix Spike Duplicate (4965097); Original (T2317293002); Parent Lab Sample (T2317293002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	3.4	5	90 - 110	3.4	5	0	10	T

Matrix Spike (4965099); Matrix Spike Duplicate (4965101); Original (T2317320004); Parent Lab Sample (T2317320004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	2.5	58	90 - 110	2.5	54	2	10	T

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

QC Results

QC Batch: WCA/24092
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2317298001, T2317298002

Analysis Method: EPA 351.2

Method Blank(4965090)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Lab Control Sample (4965092)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.06	106	90 - 110	T

Matrix Spike (4965098); Matrix Spike Duplicate (4965100); Original (T2317320004); Parent Lab Sample (T2317320004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Kjeldahl Nitrogen	mg/L	1	1.58	90	90 - 110	1.59	91	1	20	T

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Workorder: Piney Point Injection Wells (T2317298)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/3480 - EPA 200.8			
T2317298001	APMW-1LZ	DGMj/6496	EPA 200.8
T2317298002	SLMW-1UZ	DGMj/6496	EPA 200.8
ICPt/4086 - EPA 200.7			
T2317298001	APMW-1LZ	DGMt/6663	EPA 200.7
T2317298002	SLMW-1UZ	DGMt/6663	EPA 200.7
WCAi/23405 - EPA 365.1			
T2317298001	APMW-1LZ		
T2317298002	SLMW-1UZ		
WCAi/23416 - SM 2540 C			
T2317298001	APMW-1LZ		
T2317298002	SLMW-1UZ		
WCAi/23470 - SM 2320B			
T2317298001	APMW-1LZ		
T2317298002	SLMW-1UZ		
WCAi/23472 - SM 4500NO3-F			
T2317298001	APMW-1LZ		
T2317298002	SLMW-1UZ		
WCAi/23564 - SM 4500F-C			
T2317298001	APMW-1LZ		
WCAi/23711 - SM 5310B			
T2317298001	APMW-1LZ		
WCAi/23712 - SM 5310B			
T2317298002	SLMW-1UZ		
WCAi/23717 - EPA 300.0			
T2317298001	APMW-1LZ		
WCAi/23719 - EPA 350.1			
T2317298002	SLMW-1UZ		
WCAi/23722 - EPA 300.0			
T2317298002	SLMW-1UZ		





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAI/23903 - EPA 350.1			
T2317298001	APMW-1LZ		
WCAI/24091 - EPA 365.4			
T2317298001	APMW-1LZ	WCAI/23807	Copper Sulfate Digestion
T2317298002	SLMW-1UZ	WCAI/23807	Copper Sulfate Digestion
WCAI/24092 - EPA 351.2			
T2317298001	APMW-1LZ	WCAI/23807	Copper Sulfate Digestion
T2317298002	SLMW-1UZ	WCAI/23807	Copper Sulfate Digestion





Workorder: Piney Point Injection Wells (T2317298)

FINAL - REVISION

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
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Fax: (813) 630-4327



Advanced Environmental Laboratories, Inc.

- Altamonte Springs: 528 S. Northlake Blvd. Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 Lab ID E55076
Fort Meyers: 13100 Westlincs Terrace Ste. 10 • Fort Meyers, FL 33193 • 239.674.8130 • Fax 239.674.8128 Lab ID E84482
Gainesville: 4965 SW 41st Blvd • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 Lab ID E82001
Jacksonville: 6681 Southpoint Pkwy • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 Lab ID E82574
Miramar: 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281 Lab ID E82535
Tallahassee: 2639 North Monroe St. Ste D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275 Lab ID E811095
Tampa: 9610 Princess Palm Ave • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 Lab ID E84589

PAGE 1 OF 1

Client Name: ASRus LLC, Project Name: Piney Point Injection Wells Monthly, Address, Phone: 813-382-8516, Contact: Pete Larkin, S. Helms, Turn around time: STANDARD RUSH, AEL Profile #, ADaPT, EQulS, Other, SAMPLE ID, SAMPLE DESCRIPTION, Grab Comp, SAMPLING DATE, TIME, MATRIX, NO. COUNT, PRESERVATION Field-Filtered?, ANALYSIS REQUIRED (SO4, CL, F, TKN, NH3, NH4NOX, TP, TDS, ALK/BICARB, METALS (TOTAL FE, AS, CR, MN, AL, MG, K, NA, CA, TOC, O-PHOS, GROSS ALPHA, RADIUM 226/228, URANIUM), LABORATORY I.D. NUMBER (001, 002)



Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = ice H=(HC) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)
Received on Ice YES Temp Taken From Sample Temp from Where required pin checked Temp. when received (Observed) C Temp. when received (corrected) C
DCN: AD-051 Form last revised 02/12/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Table with columns: Relinquished by, Date, Time, Received by, Date, Time. Row 1: [Signature], 9/5/23, 1225, [Signature], 9-5-23, 1235

FOR DRINKING WATER USE (When PWS Information not otherwise supplied)
PWS ID:
Contact Person: Phone:
Supplier of Water:
Site Address:

Monday, October 30, 2023 2:17:16 PM
Dates and times are displayed using (-04:00)
Page 28 of 33

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FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT DEEP INJECTION WELL		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: SLMW1 UZ	SAMPLE ID:	DATE: 9/5/23	

PURGING DATA

WELL DIAMETER (inches): 6.27-9.278	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 580 feet to 623 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0915	PURGING ENDED AT: 1115	TOTAL VOLUME PURGED (gallons): 8497							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0915	4855	4855	60								
1035	1214	6069	60		10.11	27.2	1179	0.28	11.4	Clean, clear	None
1055	1214	7283	60		10.04	27.3	1168	0.34	12.2	Clean, clear	None
1115	1214	8497	60		9.98	27.3	1154	0.40	13.5	Clean, clear	None
							Salinity in ppt	0.57			
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailor, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL		SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>		SAMPLING INITIATED AT: 1116	SAMPLING ENDED AT: 1135				
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: _____ µm					
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)		DUPLICATE: Y N					
SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION (including wet ice)						
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
					SEE COC				
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT DEEP INJECTION WELL				SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL							
WELL NO: APMW-1 LZ		SAMPLE ID:		DATE: 9/5/23							
PURGING DATA											
WELL DIAMETER (inches): 5.43 - 12	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 913 feet to 939 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY <small>(only fill out if applicable)</small>											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME <small>(only fill out if applicable)</small>											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70		PURGING INITIATED AT: 0915	PURGING ENDED AT: 0946	TOTAL VOLUME PURGED (gallons): 2190						
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0915	1251	1251	60								
0936	313	1564	60		7.46	28.5	16415	0.03	0.02	Clean, clear	H2S
0941	313	1877	60		7.45	28.5	16464	0.07	0.02	Clean, clear	H2S
0946	313	2190	60		7.44	28.6	16602	0.12	0.02	Clean, clear	H2S
							Salinity in ppt	9.70			
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)											

SAMPLING DATA											
SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL				SAMPLER(S) SIGNATURE(S): <i>Steven Helms</i>				SAMPLING INITIATED AT: 0947		SAMPLING ENDED AT: 0958	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:		FIELD-FILTERED: Y N		FILTER SIZE: _____ μm			
FIELD DECONTAMINATION: PUMP Y N				TUBING Y N (replaced)		DUPLICATE: Y N					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
							SEE COC				
REMARKS: DO 7.53 @ 30.2											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)



FL DOH Certification #E84025

Report Date: September 18, 2023

Advanced Environmental Labs
 9610 Princess Palm Ave
 Tampa, FL 33619

Field Custody: Client
 Client/Field ID: T2317298-001
 Sample Collection: 09-05-23/0958
 Lab ID No: 23.13869
 Lab Custody Date: 09-06-23/1450
 Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	20.2 ± 1.8	9-11-23/1643	EPA 00-02	0.8
Combined Radium (Radium-226 + Radium 228)	pCi/L	17.8 ± 1.5	Calc	Calc	1.0
Radium-226	pCi/L	16.7 ± 1.5	9-13-23/1248	EPA 903.0*	0.6
Radium-228	pCi/L	1.1 I ± 0.9	9-14-23/1257	EPA Ra-05	1.0
Uranium	pCi/L	0.4 U ± 0.1	9-15-23/1713	EPA 908.0	0.4
Uranium	ppb	0.6 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 108% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
 Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
 Contact person: Thomas Weeks (813) 229-2879.

Page 1 of 1

KNL ENVIRONMENTAL TESTING, INC. | 3202 NORTH FLORIDA AVENUE | TAMPA, FLORIDA 33603
 813.229.2879 | KNLENVIRONMENTAL.COM





FINAL - REVISION

Workorder: Piney Point Injection Wells (T2317298)



FL DOH Certification #E84025

Report Date: September 18, 2023

Advanced Environmental Labs
 9610 Princess Palm Ave
 Tampa, FL 33619

Field Custody: Client
 Client/Field ID: T2317298-002
 Sample Collection: 09-05-23/1135
 Lab ID No: 23.13902
 Lab Custody Date: 09-06-23/1450
 Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	6.0 ± 1.0	9-11-23/1643	EPA 00-02	0.7
Combined Radium (Radium-226 + Radium 228)	pCi/L	4.9 ± 0.9	Calc	Calc	0.9
Radium-226	pCi/L	4.9 ± 0.9	9-12-23/1251	EPA 903.0*	0.6
Radium-228	pCi/L	0.9 U ± 0.8	9-14-23/1257	EPA Ra-05	0.9
Uranium	pCi/L	0.8 I ± 0.2	9-15-23/1713	EPA 908.0	0.4
Uranium	ppb	1.2 I ± 0.3	Calc	Calc	Calc

Alpha Standard: Th-230

* 107% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
 Laboratory Manager


Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
 Contact person: Thomas Weeks (813) 229-2879.





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 9610 Princess Palm Ave Tampa, FL 33619
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 Phone: (813) 630-9616
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FINAL - REVISION
Workorder: Piney Point Injection Wells (T2317298)



Advanced Environmental Laboratories, Inc.

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 Fort Myers: 13180 Westlake Terrace, Ste. 10, FL 33913 • 238.674.8100 • Lab ID: E84492
 Jacksonville: 6681 Studypoint Pkwy., FL 32216 • 904.363.8950 • Lab ID: E82674
 Tallahassee: 2639 North Monroe St, Suite D, FL 32303 • 850.210.6274 • Lab ID: E811085

Page _____ of _____

R-9-18

Gainesville: 4985 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
 Miramar: 10200 USA Today Way, FL 33026 • 954.888.2288 • Lab ID: E82535
 Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Name: **Advanced Environmental Lab** Project Name: **T2317298**

Lab: **Tampa FI 33619** Project Number: **T2317298**

Phone: **813-630-9616** PO Number: **22793**

Phone: **813-630-4327** FDEP Facility No: _____

Lab: **mcammarata@aellab.com** FDEP Facility Address: _____

Lab By: _____ Even though matrix WA please include DW report along with EVN report

Sound Time: STANDARD RUSH

Method: _____ ADaPT EQUIS Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	Preservation Field Filtered?	ANALYSIS REQUIRED				BOTTLE SIZE & TYPE	LABORATORY I.D. NUMBER
			DATE	TIME				Rad 226	Rad 228	Gross Alpha	Uranium		
23.13869	T2317298-002		9/5/23	09:58	WA	4		X	X	X	X		
<i>WA</i>	T2317298-002		9/5/23	11:35	WA	4		X	X	X	X		
23.13902	T2317298-002 <i>per email 9-07-23</i>												

Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Condition: Yes No Temp taken from sample Temp from blank Where required, pH checked Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C

ID-D051 Form last revised 06/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Relinquished by:	Date	Time	Received by:	Date	Time
Kaitlyn Pasquallini	9/5/23	12:00	<i>HWL</i>	9/23/23	14:50

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site Address: _____





State of Florida
Department of Environmental Protection

Underground Injection Control Program
 Class I Monthly Operating Report

Monthly Summary for October 2023

Month Year

Piney Point Injection Well

UIC Permit No.:0322708-002-UC/11

WACS ID: **101607**

Wastestream: Industrial

The following reports are included with this Document:

Testsite ID	Well Name/Zone	Zone Depth	Chemical/Physical	Report Type
13989	IW-1	1950'-3300'	Chemical/Physical	MORM/MORQ/MORA
29238A	DZMW-1 Upper Zone	600'-650'	Chemical/Physical	MORM/MORQ/MORA
29238B	DZMW-1 Lower Zone	900'-950'	Chemical/Physical	MORM/MORQ/MORA

- The injection well system experienced no issues this month with equipment, sampling, or operation.
 The injection well system experienced the following issues this month with equipment, sampling, or operation:

Comments:
<p>In accordance with "Helpful Tips for Completing the Underground Injection Control Monthly Operating Report (MOR)" guidance document dated 2/13/2013, please note the following:</p> <ol style="list-style-type: none"> 1. Results greater than or equal to the PQL shall be reported as the measured quantity. 2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. 3. Results less than the MDL shall be reported by entering a less than sign ("$<$") followed by the laboratory's MDL value, e.g. < 0.001

Report any abnormal events within 24 hours of their occurrence. (62-528.415(4) F.A.C.)

Comment Codes		
C1 = Purging Monitoring Wells	C7 = Recalibrated DWI Flow or Level Meters	C13 = Reinstalled Flow or PSI Meter
C2 = DWI or Pump Station Shutdown	C8 = DWI Flow or PSI Meter Failure	C14 = SCADA pressure data are unreliable.
C3 = Power Outage/Restarted Pump	C9 = MW Transducer Meter failure	C15 = SCADA pressure data verified.
C4 = SCADA System Restarted	C10 = Monitoring Well Recording Problems	C16 = Pumps off part of the day
C5 = Maintenance to DWI Pump(s)	C11 = Readjusted Flow Rate/Switched Pumps	C17 = No Data due to SCADA problems
C6 = Read DWI Flow Meter Late/Early	C12 = Installed Temporary Flow/ PSI Meter	C18 = Injectivity Test Performed

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO.
Pete Larkin, P.G.	813-382-8516

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
	11/29/2023



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Physical Data

Piney Point Injection Well

UIC Permit No.: 0322708-002-UC/11

Well: IW-1

WACS ID: 101607

Testsite ID: 13989

Report Type: MORM

Month-Yr MMM-YY	Injection Pressure (PSI)			Injection Flow Rate (GPM)			Total Injected Volume (MG)
	Maximum	Minimum	Average	Maximum	Minimum	Average	
Oct-23							
1	51.65	36.33	50.71	494.17	467.67	484.12	0.70
2	51.11	18.98	48.99	500.83	298.83	461.53	0.66
3	50.83	47.34	49.43	480.50	450.83	467.78	0.67
4	50.55	17.62	48.80	481.00	383.83	462.03	0.67
5	51.40	38.66	48.54	478.83	437.67	455.77	0.66
6	51.15	46.45	48.51	460.67	423.17	436.90	0.63
7	51.31	29.82	49.79	466.50	430.00	449.05	0.64
8	50.46	43.92	48.40	459.83	421.83	440.18	0.64
9	50.12	21.10	47.57	469.17	383.67	440.82	0.63
10	50.99	46.12	49.28	484.17	431.17	457.98	0.66
11	50.95	45.64	49.13	475.17	418.00	450.06	0.65
12	51.03	28.81	49.73	471.00	430.50	452.07	0.65
13	51.03	45.89	49.21	461.00	408.33	440.00	0.64
14	51.18	45.31	49.30	467.00	417.17	444.35	0.64
15	50.83	42.95	49.13	460.50	419.33	443.79	0.64
16	50.33	45.48	48.28	462.33	411.67	438.03	0.63
17	50.80	43.26	48.10	475.00	394.50	438.73	0.63
18	50.71	44.42	48.25	469.67	397.00	432.49	0.62
19	50.67	17.94	46.84	453.33	311.50	408.02	0.59
20	50.35	11.76	38.31	488.67	0.00	318.60	0.45
21	50.90	46.06	49.06	471.50	409.50	445.49	0.64
22	50.71	30.14	48.66	448.67	379.00	420.61	0.61
23	51.29	44.94	50.31	442.67	408.50	429.28	0.61
24	51.45	23.07	50.18	435.83	377.17	424.95	0.61
25	51.60	36.33	50.73	434.17	414.50	424.87	0.61
26	51.64	46.93	50.79	425.67	402.50	416.37	0.60
27	51.67	47.35	50.85	427.50	395.83	410.81	0.59
28	51.68	47.66	50.88	412.67	395.17	404.48	0.58
29	51.63	14.68	44.49	418.83	0.00	332.90	0.48
30	50.75	12.64	25.35	440.33	0.00	135.38	0.22
31	50.10	12.08	24.91	462.00	0.00	147.20	0.20
Monthly	Maximum	Minimum	Average	Maximum	Minimum	Average	Total
	51.68	11.76	47.18	500.83	0.00	413.38	18.47
WACS Code	IWPMAX	IWPMIN	IWPAVG	IWRMAX	IWRMIN	IWRAVG	IWFTOT

Note: Record all operational data for the injection well per day. Unless the well was in operation for a full 24-hr period, the minimum flow rate should be entered as 0.



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

IW-1 Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 IW-1

WACS ID: 101607
 Testsite ID: **13989**
 Report Type: MORM/MORQ/MORA

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				02-Oct-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	6.06				
Specific Conductance (field)	µmhos/cm	000094	Monthly	23385				
Temperature Degrees C (field)	°C	000010	Monthly	28.7				
Chloride	mg/L	000940	Monthly	8300				
Sulfate	mg/L	000945	Monthly	5800				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	19000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.45				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	4.12				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	34				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.45				
Arsenic	mg/L	900029	Monthly	0.0012				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	<40				
Manganese Total	mg/L	099244	Monthly	0.014				
Phosphorus Total	mg/L	000665	Monthly	0.82				
OrthoPhosphate	mg/L	000660	Monthly	0.60				
Bicarbonate	mg/L	000440	Monthly	5.0				
Calcium	mg/L	000916	Monthly	180				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	290				
Potassium	mg/L	000937	Monthly	230				
Sodium	mg/L	000929	Monthly	9300				
Alpha, Gross	pCi/L	001515	Monthly	3.0 I+/-1.2				
Uranium Total	µg/L	099243	Monthly	0.6 U+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	0.8 I+/-0.4				
Radium228 Total	pCi/L	011501	Monthly	1.2 U+/-0.9				
Delta15N	Ratio	082084	Quarterly					

Please submit Primary & Secondary Drinking Water Standards, Source Water - ANNUALLY.

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Injection Well: IW-1 Specific Injectivity Monthly

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **13989**

Well: **IW-1**

Report Type: MORM

Test Date: 10/2/2023

Specific Injectivity Test

1. Static Wellhead pressure(psi): 19.8
2. Injection Flow Rate (gpm): 510
3. Average Wellhead pressure following the 15-minute injection (psi): 50.4

SPECIFIC INJECTIVITY (**SPCINJ**) (gpm/psi): 16.7

Fall-Off Test

Time Elapsed (min)	Wellhead Pressure (psi)	Comments
0	50.4	
0.5	27.8	
1	24.5	
1.5	23.7	
2	23.2	
2.5	22.8	
3	22.2	
3.5	21.9	
4	21.5	
4.5	21.3	
5	21.1	
5.5	20.9	
6	20.7	
6.5	20.6	
7	20.5	
7.5	20.3	
8	20.2	
8.5	20.1	
9	20.0	
9.5	19.9	
10	19.8	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitoring Well: DZMW-1 Upper Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238A**

Well: DZMW-1 Upper Zone

Report Type: MORM

Well Depth: 600'-650'

Zone: UPPER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Oct-23				
1	15.22	14.98	15.08	
2	15.34	6.25	14.47	
3	15.27	14.91	15.06	
4	14.93	14.51	14.74	
5	14.52	14.18	14.33	
6	14.23	13.99	14.09	
7	14.18	14.00	14.12	
8	14.37	14.13	14.22	
9	14.42	14.28	14.35	
10	14.71	14.36	14.53	
11	14.76	14.56	14.67	
12	15.11	14.71	14.88	
13	15.21	15.01	15.12	
14	15.25	15.01	15.13	
15	15.05	14.80	14.92	
16	14.91	14.75	14.83	
17	14.87	14.63	14.75	
18	14.69	14.52	14.63	
19	14.71	14.57	14.64	
20	14.71	14.57	14.63	
21	14.61	14.39	14.50	
22	14.58	14.44	14.52	
23	14.56	14.09	14.44	
24	14.09	13.38	13.65	
25	13.39	12.99	13.15	
26	13.03	12.67	12.86	
27	12.94	12.75	12.86	
28	13.15	12.82	12.96	
29	13.20	13.01	13.11	
30	13.31	13.08	13.18	
31	13.13	12.63	12.96	
Monthly	Maximum	Minimum	Average	
	15.34	6.25	14.24	
Storet Number	900199	900200	900198	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Upper Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Upper Zone**
 Well Depth: 600'-650'

WACS ID: 101607
 Testsite ID: **29238A**
 Report Type: MORM/MORQ/MORA
 Zone: UPPER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				02-Oct-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	9.73				
Specific Conductance (field)	µmhos/cm	000094	Monthly	1189				
Temperature Degrees C (field)	°C	000010	Monthly	27.0				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.05				
Turbidity (field)	NTU	082078	Monthly	16.1				
Chloride	mg/L	000940	Monthly	140				
Sulfate	mg/L	000945	Monthly	320				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	790				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.32				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.207				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.0				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.01				
Arsenic	mg/L	900029	Monthly	<0.0080				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	0.4				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	27				
Calcium	mg/L	000916	Monthly	150				
Iron (Fe) Total	mg/L	074010	Monthly	0.13				
Magnesium Total	mg/L	000927	Monthly	35				
Potassium	mg/L	000937	Monthly	29				
Sodium	mg/L	000929	Monthly	90				
Alpha, Gross	pCi/L	001515	Monthly	7.9+/-1.7				
Uranium Total	µg/L	099243	Monthly	0.7 +/-0.3				
Radium226 Total	pCi/L	009501	Monthly	5.7+/-1.0				
Radium228 Total	pCi/L	011501	Monthly	1.3 U+/-0.9				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitoring Well: DZMW-1 Lower Zone Physical Data

Piney Point Injection Well

WACS ID: 101607

UIC Permit No.: 0322708-002-UC/11

Testsite ID: **29238B**

Well: DZMW-1 Lower Zone

Report Type: MORM

Well Depth: 900'-950'

Zone: LOWER

Datum: NAVD88

Month-Yr MMM-YY	Water Level (ft)			Comments
	Maximum	Minimum	Average	
Oct-23				
1	8.37	8.16	8.27	
2	8.81	6.60	8.37	
3	8.31	7.97	8.13	
4	7.98	7.55	7.77	
5	7.56	7.22	7.38	
6	7.26	7.05	7.15	
7	7.25	7.16	7.21	
8	7.49	7.21	7.32	
9	7.55	7.45	7.49	
10	7.75	7.53	7.66	
11	7.74	7.53	7.62	
12	7.97	7.58	7.77	
13	8.14	7.96	8.05	
14	8.18	7.86	8.04	
15	7.88	7.69	7.79	
16	7.91	7.69	7.80	
17	7.95	7.80	7.87	
18	7.91	7.75	7.83	
19	7.93	7.75	7.83	
20	7.76	7.54	7.63	
21	7.58	7.45	7.49	
22	7.69	7.56	7.64	
23	7.67	7.09	7.50	
24	7.10	6.63	6.83	
25	6.64	6.30	6.45	
26	6.30	6.08	6.19	
27	6.22	6.08	6.15	
28	6.37	6.16	6.27	
29	6.40	6.20	6.30	
30	6.39	6.06	6.22	
31	6.12	5.57	5.87	
Monthly	Maximum	Minimum	Average	
	8.81	5.57	7.35	
Storet Number	900199	900200	900198	



State of Florida
Department of Environmental Protection
 Underground Injection Control Program
 Class I Monthly Operating Report

Monitor Well: DZMW-1 Lower Zone Chemical Data

Piney Point Injection Well
 UIC Permit No.: 0322708-002-UC/11
 Well: **DZMW-1 Lower Zone**
 Well Depth: 900'-950'

WACS ID: 101607
 Testsite ID: **29238B**
 Report Type: MORM/MORQ/MORA
 Zone: LOWER

Parameter	Unit	Storet Code	Frequency	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
				02-Oct-23				
				Results	Results	Results	Results	Results
pH (field)	Std Units	000406	Monthly	7.43				
Specific Conductance (field)	umhos/cm	000094	Monthly	17152				
Temperature Degrees C (field)	°C	000010	Monthly	28.4				
Dissolved Oxygen (field)	mg/L	000299	Monthly	0.09				
Turbidity (field)	NTU	082078	Monthly	0.78				
Chloride	mg/L	000940	Monthly	7400				
Sulfate	mg/L	000945	Monthly	2100				
Total Dissolved Solids (TDS)	mg/L	070304	Monthly	15000				
Nitrate + Nitrite	mg/L	000630	Monthly	<0.24				
Ammonia (NH3) Total (as N)	mg/L	000610	Monthly	0.56				
Nitrogen, Kjeldahl, Total (TKN)	mg/L	000625	Monthly	0.584				
Total Organic Carbon (TOC)	mg/L	000680	Monthly	1.0				
Halogen, Total Organic (TOX)	mg/L	099045	Annually					
Aluminum (AL)	mg/L	986000	Monthly	<0.021				
Ammonium	mg/L	049179	Monthly	0.55				
Arsenic	mg/L	900029	Monthly	<0.0025				
Chromium	mg/L	900211	Monthly	<0.0050				
Fluoride	mg/L	000951	Monthly	<20				
Manganese Total	mg/L	099244	Monthly	<0.0050				
Phosphorus Total	mg/L	000665	Monthly	<0.15				
OrthoPhosphate	mg/L	000660	Monthly	<0.013				
Bicarbonate	mg/L	000440	Monthly	120				
Calcium	mg/L	000916	Monthly	1200				
Iron (Fe) Total	mg/L	074010	Monthly	0.0067				
Magnesium Total	mg/L	000927	Monthly	420				
Potassium	mg/L	000937	Monthly	64				
Sodium	mg/L	000929	Monthly	3100				
Alpha, Gross	pCi/L	001515	Monthly	22.9+/-3.0				
Uranium Total	µg/L	099243	Monthly	0.7 U+/-0.1				
Radium226 Total	pCi/L	009501	Monthly	16.0+/-1.5				
Radium228 Total	pCi/L	011501	Monthly	1.3 I+/-1.0				
Delta15N	Ratio	082084	Quarterly					

Note: Please attach laboratory data sheets



Advanced Environmental Laboratories, Inc
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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

October 30, 2023

RE: Workorder: T2319353 Piney Point Injection Monthly

Enclosed are the analytical results for sample(s) received by the laboratory on Monday October 2, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com

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Workorder: Piney Point Injection Monthly (T2319353)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2319353001	APMW-1LZ	WA	DEP SOP 10/03/83	10/02/2023 09:37	10/02/2023 12:55	1	NA
T2319353001	APMW-1LZ	WA	EPA 200.7	10/02/2023 09:37	10/02/2023 12:55	27	NA
T2319353001	APMW-1LZ	WA	EPA 200.8	10/02/2023 09:37	10/02/2023 12:55	2	NA
T2319353001	APMW-1LZ	WA	EPA 300.0	10/02/2023 09:37	10/02/2023 12:55	3	NA
T2319353001	APMW-1LZ	WA	EPA 350.1	10/02/2023 09:37	10/02/2023 12:55	2	NA
T2319353001	APMW-1LZ	WA	EPA 351.2	10/02/2023 09:37	10/02/2023 12:55	1	NA
T2319353001	APMW-1LZ	WA	EPA 365.1	10/02/2023 09:37	10/02/2023 12:55	1	NA
T2319353001	APMW-1LZ	WA	EPA 365.4	10/02/2023 09:37	10/02/2023 12:55	1	NA
T2319353001	APMW-1LZ	WA	Field Measurements	10/02/2023 09:37	10/02/2023 12:55	3	NA
T2319353001	APMW-1LZ	WA	SM 2320B	10/02/2023 09:37	10/02/2023 12:55	2	NA
T2319353001	APMW-1LZ	WA	SM 2540 C	10/02/2023 09:37	10/02/2023 12:55	1	NA
T2319353001	APMW-1LZ	WA	SM 4500NO3-F	10/02/2023 09:37	10/02/2023 12:55	1	NA
T2319353001	APMW-1LZ	WA	SM 5310B	10/02/2023 09:37	10/02/2023 12:55	1	NA
T2319353002	SLMW-1 UZ	WA	DEP SOP 10/03/83	10/02/2023 11:12	10/02/2023 12:55	1	NA
T2319353002	SLMW-1 UZ	WA	EPA 200.7	10/02/2023 11:12	10/02/2023 12:55	28	NA
T2319353002	SLMW-1 UZ	WA	EPA 200.8	10/02/2023 11:12	10/02/2023 12:55	2	NA
T2319353002	SLMW-1 UZ	WA	EPA 300.0	10/02/2023 11:12	10/02/2023 12:55	3	NA
T2319353002	SLMW-1 UZ	WA	EPA 350.1	10/02/2023 11:12	10/02/2023 12:55	2	NA
T2319353002	SLMW-1 UZ	WA	EPA 351.2	10/02/2023 11:12	10/02/2023 12:55	1	NA
T2319353002	SLMW-1 UZ	WA	EPA 365.1	10/02/2023 11:12	10/02/2023 12:55	1	NA
T2319353002	SLMW-1 UZ	WA	EPA 365.4	10/02/2023 11:12	10/02/2023 12:55	1	NA
T2319353002	SLMW-1 UZ	WA	Field Measurements	10/02/2023 11:12	10/02/2023 12:55	3	NA
T2319353002	SLMW-1 UZ	WA	SM 2320B	10/02/2023 11:12	10/02/2023 12:55	2	NA
T2319353002	SLMW-1 UZ	WA	SM 2540 C	10/02/2023 11:12	10/02/2023 12:55	1	NA
T2319353002	SLMW-1 UZ	WA	SM 4500NO3-F	10/02/2023 11:12	10/02/2023 12:55	1	NA
T2319353002	SLMW-1 UZ	WA	SM 5310B	10/02/2023 11:12	10/02/2023 12:55	1	NA
T2319353003	IW-1	WA	DEP SOP 10/03/83	10/02/2023 11:52	10/02/2023 12:55	1	NA
T2319353003	IW-1	WA	EPA 200.7	10/02/2023 11:52	10/02/2023 12:55	27	NA
T2319353003	IW-1	WA	EPA 200.8	10/02/2023 11:52	10/02/2023 12:55	2	NA
T2319353003	IW-1	WA	EPA 300.0	10/02/2023 11:52	10/02/2023 12:55	3	NA
T2319353003	IW-1	WA	EPA 350.1	10/02/2023 11:52	10/02/2023 12:55	2	NA
T2319353003	IW-1	WA	EPA 351.2	10/02/2023 11:52	10/02/2023 12:55	1	NA
T2319353003	IW-1	WA	EPA 365.1	10/02/2023 11:52	10/02/2023 12:55	1	NA
T2319353003	IW-1	WA	EPA 365.4	10/02/2023 11:52	10/02/2023 12:55	1	NA
T2319353003	IW-1	WA	Field Measurements	10/02/2023 11:52	10/02/2023 12:55	3	NA

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2319353003	IW-1	WA	SM 2320B	10/02/2023 11:52	10/02/2023 12:55	2	NA
T2319353003	IW-1	WA	SM 2540 C	10/02/2023 11:52	10/02/2023 12:55	1	NA
T2319353003	IW-1	WA	SM 4500NO3-F	10/02/2023 11:52	10/02/2023 12:55	1	NA
T2319353003	IW-1	WA	SM 5310B	10/02/2023 11:52	10/02/2023 12:55	1	NA

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Workorder: Piney Point Injection Monthly (T2319353)

Workorder Summary

Batch Comments

ICPt/4181 - ICP 200.7 Analysis

The matrix spike (MS) and Matrix Spike Duplicate (MSD) recoveries of Calcium, magnesium, and sodium for F2306446001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS)) were acceptable, which indicates the analytical batch was in control. No further corrective action is required.

WCAI/24103 - Orthophosphate,E365.1,Water

The analysis of s2302615001 was initially performed past the recommended holding time. An internal laboratory failure occurred which resulted in the missed holding time. Efforts were made to analyze the sample as soon as the error was identified. The data is qualified to indicate the holding time violation.

WCAI/24224 - Nitrate+Nitrite,SM4500NO3F,Wat

The matrix spike recoveries of Nitrate+Nitrite for T2319243001 and T2319397001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

WCAI/24336 - Ammonia,E350.1,Water

The matrix spike recoveries of Ammonia T2319210001 and T2319421001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was required.

WCAI/24546 - IC,E300.0,Water

The matrix spike recovery of Chloride, Fluoride and Sulfate for T2319353002 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), was acceptable, which indicates the analytical batch was in control. No further corrective action was required.

The matrix spike recovery of Chloride for T23197190022 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

WCAI/24751 - Total Phosphorus,E365.4,Water

The matrix spike recovery of TP for T2319353002 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. The affected sample is qualified to indicate matrix interference.

Analysis Results Comments

T2319353001 (APMW-1LZ) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2319353001 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

T2319353002 (SLMW-1 UZ) - Arsenic

Due to non-target background analytes, the proper quantitation of the internal standard in T2319353002 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

T2319353002 (SLMW-1 UZ) - Total Phosphorus (as P)

J4|Estimated Result

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Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time
- J3 Lab QC Failure
- J4 Estimated Result

Lab Qualifiers

- G DOH Certification #E82001 (FL NELAC) AEL-Gainesville
- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville
- T DOH Certification #E84589 (FL NELAC) AEL-Tampa
- T^ Not Certified

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Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Lab ID: T2319353001 **Date Collected:** 10/02/2023 09:37 **Matrix:** Water
Sample ID: APMW-1LZ **Date Received:** 10/02/2023 12:55

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	10.05	ppt			1	10/03/2023 11:25	10/03/2023 11:25	T^
Temperature	28.4	°C			1	10/03/2023 11:25	10/03/2023 11:25	T^
pH	7.43	SU			1	10/03/2023 11:25	10/03/2023 11:25	T^
METALS (EPA 200.7)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	10/12/2023 12:30	10/16/2023 09:06	T
Antimony	0.0070 U	mg/L	0.050	0.0070	1	10/12/2023 12:30	10/16/2023 09:06	T
Barium	0.13	mg/L	0.010	0.0030	1	10/12/2023 12:30	10/16/2023 09:06	T
Beryllium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:06	T
Boron	0.071	mg/L	0.050	0.025	1	10/12/2023 12:30	10/16/2023 09:06	T
Cadmium	0.0010 U	mg/L	0.0020	0.0010	1	10/12/2023 12:30	10/16/2023 09:06	T
Calcium	1200	mg/L	5.0	1.0	5	10/12/2023 12:30	10/17/2023 08:21	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:06	T
Cobalt	0.0036 I	mg/L	0.010	0.0033	1	10/12/2023 12:30	10/16/2023 09:06	T
Copper	0.0050 U	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:06	T
Iron	0.073 I	mg/L	0.10	0.0067	1	10/12/2023 12:30	10/16/2023 09:06	T
Lead	0.0030 U	mg/L	0.010	0.0030	1	10/12/2023 12:30	10/16/2023 09:06	T
Magnesium	420	mg/L	0.10	0.080	1	10/12/2023 12:30	10/16/2023 09:06	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:06	T
Molybdenum	0.0040 U	mg/L	0.050	0.0040	1	10/12/2023 12:30	10/16/2023 09:06	T
Nickel	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:06	T
Potassium	64	mg/L	1.0	0.50	1	10/12/2023 12:30	10/16/2023 09:06	T
Selenium	0.040 U	mg/L	0.10	0.040	1	10/12/2023 12:30	10/16/2023 09:06	T
Silicon	8.0	mg/L	0.25	0.12	5	10/12/2023 12:30	10/17/2023 08:21	T^
Silver	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:06	T
Sodium	3100	mg/L	25	20	25	10/12/2023 12:30	10/17/2023 13:21	T
Strontium	56	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:06	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2319353001 Date Collected: 10/02/2023 09:37 Matrix: Water								
Sample ID: APMW-1LZ Date Received: 10/02/2023 12:55								
Thallium	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:06	T
Tin	0.040 U	mg/L	0.050	0.040	1	10/12/2023 12:30	10/16/2023 09:06	T
Titanium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:06	T
Vanadium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:06	T
Zinc	0.050 U	mg/L	0.10	0.050	1	10/12/2023 12:30	10/16/2023 09:06	T
METALS (EPA 200.8)								
Arsenic	2.5 U	ug/L	10	2.5	10	10/12/2023 07:35	10/13/2023 21:53	J
Chromium	5.0 U	ug/L	20	5.0	10	10/12/2023 07:35	10/13/2023 21:53	J
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.584	mg/L	0.20	0.050	1	10/16/2023 13:03	10/20/2023 11:10	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	10/16/2023 13:03	10/20/2023 11:10	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.012	mg/L	0.00065	0.0002 2	1	10/30/2023 14:31	10/30/2023 14:31	T
WET CHEMISTRY (EPA 300.0)								
Chloride	7400	mg/L	500	100	100	10/16/2023 17:41	10/16/2023 17:41	T
Fluoride	20 U	mg/L	50	20	100	10/16/2023 17:41	10/16/2023 17:41	T
Sulfate	2100	mg/L	500	100	100	10/16/2023 17:41	10/16/2023 17:41	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.56	mg/L	0.030	0.010	1	10/11/2023 12:07	10/11/2023 12:07	T
Ammonium	0.55	mg/L			1	10/30/2023 14:31	10/30/2023 14:31	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	10/03/2023 09:44	10/03/2023 09:44	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	120	mg/L	20	5.0	1	10/03/2023 16:15	10/03/2023 16:15	T
Alkalinity, Total	120	mg/L	20	5.0	1	10/03/2023 16:15	10/03/2023 16:15	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	15000	mg/L	10	10	1	10/03/2023 12:30	10/03/2023 12:30	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Lab ID: T2319353001	Date Collected: 10/02/2023 09:37	Matrix: Water
Sample ID: APMW-1LZ	Date Received: 10/02/2023 12:55	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	10/06/2023 11:12	10/06/2023 11:12	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.6 I	mg/L	2.0	1.0	1	10/20/2023 18:14	10/20/2023 18:14	G

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Silicon

J3|Lab QC Failure

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time

Certificate of Analysis

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Lab ID: T2319353002 **Date Collected:** 10/02/2023 11:12 **Matrix:** Water
Sample ID: SLMW-1 UZ **Date Received:** 10/02/2023 12:55

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	0.59	ppt			1	10/03/2023 11:27	10/03/2023 11:27	T^
Temperature	27	°C			1	10/03/2023 11:27	10/03/2023 11:27	T^
pH	9.73	SU			1	10/03/2023 11:27	10/03/2023 11:27	T^
METALS (EPA 200.7)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	10/12/2023 12:30	10/16/2023 09:13	T
Antimony	0.0070 U	mg/L	0.050	0.0070	1	10/12/2023 12:30	10/16/2023 09:13	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:13	T
Barium	0.057	mg/L	0.010	0.0030	1	10/12/2023 12:30	10/16/2023 09:13	T
Beryllium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:13	T
Boron	0.034 I	mg/L	0.050	0.025	1	10/12/2023 12:30	10/16/2023 09:13	T
Cadmium	0.0010 U	mg/L	0.0020	0.0010	1	10/12/2023 12:30	10/16/2023 09:13	T
Calcium	150	mg/L	1.0	0.20	1	10/12/2023 12:30	10/16/2023 09:13	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:13	T
Cobalt	0.0033 U	mg/L	0.010	0.0033	1	10/12/2023 12:30	10/16/2023 09:13	T
Copper	0.0050 U	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:13	T
Iron	0.13	mg/L	0.10	0.0067	1	10/12/2023 12:30	10/16/2023 09:13	T
Lead	0.0030 U	mg/L	0.010	0.0030	1	10/12/2023 12:30	10/16/2023 09:13	T
Magnesium	35	mg/L	0.10	0.080	1	10/12/2023 12:30	10/16/2023 09:13	T
Manganese	0.0050 U	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:13	T
Molybdenum	0.029 I	mg/L	0.050	0.0040	1	10/12/2023 12:30	10/16/2023 09:13	T
Nickel	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:13	T
Potassium	29	mg/L	1.0	0.50	1	10/12/2023 12:30	10/16/2023 09:13	T
Selenium	0.040 U	mg/L	0.10	0.040	1	10/12/2023 12:30	10/16/2023 09:13	T
Silicon	4.4	mg/L	0.25	0.12	5	10/12/2023 12:30	10/17/2023 08:23	T^
Silver	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:13	T
Sodium	90	mg/L	1.0	0.80	1	10/12/2023 12:30	10/16/2023 09:13	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Lab ID: T2319353002 **Date Collected:** 10/02/2023 11:12 **Matrix:** Water
Sample ID: SLMW-1 UZ **Date Received:** 10/02/2023 12:55

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Strontium	13	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:13	T
Thallium	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:13	T
Tin	0.040 U	mg/L	0.050	0.040	1	10/12/2023 12:30	10/16/2023 09:13	T
Titanium	0.0024 I	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:13	T
Vanadium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:13	T
Zinc	0.050 U	mg/L	0.10	0.050	1	10/12/2023 12:30	10/16/2023 09:13	T
METALS (EPA 200.8)								
Arsenic	6.0 I	ug/L	10	2.5	10	10/12/2023 07:35	10/13/2023 21:58	J
Chromium	5.0 U	ug/L	20	5.0	10	10/12/2023 07:35	10/13/2023 21:58	J
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	0.207	mg/L	0.20	0.050	1	10/16/2023 13:03	10/20/2023 11:10	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	10/16/2023 13:03	10/20/2023 11:10	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.31	mg/L	0.028	0.0094	1	10/30/2023 14:32	10/30/2023 14:32	T
WET CHEMISTRY (EPA 300.0)								
Chloride	140	mg/L	10	2.0	2	10/16/2023 18:45	10/16/2023 18:45	T
Fluoride	0.55 I	mg/L	1.0	0.40	2	10/16/2023 18:45	10/16/2023 18:45	T
Sulfate	320	mg/L	10	2.0	2	10/16/2023 18:45	10/16/2023 18:45	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.32	mg/L	0.030	0.010	1	10/11/2023 12:07	10/11/2023 12:07	T
Ammonium	0.010	mg/L			1	10/30/2023 14:32	10/30/2023 14:32	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.013 U	mg/L	0.020	0.013	1	10/03/2023 09:45	10/03/2023 09:45	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	27	mg/L	20	5.0	1	10/03/2023 16:21	10/03/2023 16:21	T
Alkalinity, Total	29	mg/L	20	5.0	1	10/03/2023 16:21	10/03/2023 16:21	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	790	mg/L	10	10	1	10/03/2023 12:30	10/03/2023 12:30	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Lab ID: T2319353002 **Date Collected:** 10/02/2023 11:12 **Matrix:** Water
Sample ID: SLMW-1 UZ **Date Received:** 10/02/2023 12:55

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	10/06/2023 11:12	10/06/2023 11:12	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	1.3 I	mg/L	2.0	1.0	1	10/20/2023 18:49	10/20/2023 18:49	G

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Chloride

J4|Estimated Result

Fluoride

J4|Estimated Result

Salinity

Q|Missed Hold Time

Sulfate

J4|Estimated Result

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Lab ID: T2319353003 **Date Collected:** 10/02/2023 11:52 **Matrix:** Water
Sample ID: IW-1 **Date Received:** 10/02/2023 12:55

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
FIELD PARAMETERS (Field Measurements)								
Salinity	14.09	ppt			1	10/03/2023 11:29	10/03/2023 11:29	T^
Temperature	28.7	°C			1	10/03/2023 11:29	10/03/2023 11:29	T^
pH	6.06	SU			1	10/03/2023 11:29	10/03/2023 11:29	T^
METALS (EPA 200.7)								
Aluminum	0.021 U	mg/L	0.10	0.021	1	10/12/2023 12:30	10/16/2023 09:16	T
Antimony	0.0070 U	mg/L	0.050	0.0070	1	10/12/2023 12:30	10/16/2023 09:16	T
Barium	0.0075 I	mg/L	0.010	0.0030	1	10/12/2023 12:30	10/16/2023 09:16	T
Beryllium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:16	T
Boron	1.1	mg/L	0.050	0.025	1	10/12/2023 12:30	10/16/2023 09:16	T
Cadmium	0.0010 U	mg/L	0.0020	0.0010	1	10/12/2023 12:30	10/16/2023 09:16	T
Calcium	180	mg/L	1.0	0.20	1	10/12/2023 12:30	10/16/2023 09:16	T
Chromium	0.0050 U	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:16	T
Cobalt	0.0033 U	mg/L	0.010	0.0033	1	10/12/2023 12:30	10/16/2023 09:16	T
Copper	0.026	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:16	T
Iron	0.051 I	mg/L	0.10	0.0067	1	10/12/2023 12:30	10/16/2023 09:16	T
Lead	0.0030 U	mg/L	0.010	0.0030	1	10/12/2023 12:30	10/16/2023 09:16	T
Magnesium	290	mg/L	0.10	0.080	1	10/12/2023 12:30	10/16/2023 09:16	T
Manganese	0.014	mg/L	0.010	0.0050	1	10/12/2023 12:30	10/16/2023 09:16	T
Molybdenum	0.0040 U	mg/L	0.050	0.0040	1	10/12/2023 12:30	10/16/2023 09:16	T
Nickel	0.010	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:16	T
Potassium	230	mg/L	1.0	0.50	1	10/12/2023 12:30	10/16/2023 09:16	T
Selenium	0.040 U	mg/L	0.10	0.040	1	10/12/2023 12:30	10/16/2023 09:16	T
Silicon	0.57	mg/L	0.050	0.025	1	10/12/2023 12:30	10/16/2023 09:16	T^
Silver	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:16	T
Sodium	9300	mg/L	25	20	25	10/12/2023 12:30	10/17/2023 13:42	T
Strontium	2.2	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:16	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Lab ID: T2319353003			Date Collected: 10/02/2023 11:52			Matrix: Water		
Sample ID: IW-1			Date Received: 10/02/2023 12:55					
Thallium	0.0080 U	mg/L	0.010	0.0080	1	10/12/2023 12:30	10/16/2023 09:16	T
Tin	0.040 U	mg/L	0.050	0.040	1	10/12/2023 12:30	10/16/2023 09:16	T
Titanium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:16	T
Vanadium	0.0020 U	mg/L	0.010	0.0020	1	10/12/2023 12:30	10/16/2023 09:16	T
Zinc	0.050 U	mg/L	0.10	0.050	1	10/12/2023 12:30	10/16/2023 09:16	T
METALS (EPA 200.8)								
Arsenic	1.2	ug/L	1.0	0.25	1	10/12/2023 07:35	10/12/2023 18:56	J
Chromium	0.50 U	ug/L	2.0	0.50	1	10/12/2023 07:35	10/12/2023 18:56	J
WET CHEMISTRY (Copper Sulfate Digestion/EPA 351.2)								
Total Kjeldahl Nitrogen	4.12	mg/L	0.20	0.050	1	10/16/2023 13:03	10/20/2023 11:10	T
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.82	mg/L	0.20	0.15	1	10/16/2023 13:03	10/20/2023 11:10	T
WET CHEMISTRY (DEP SOP 10/03/83)								
Unionized Ammonia	0.00042	mg/L	0.000028	0.000093	1	10/30/2023 14:33	10/30/2023 14:33	T
WET CHEMISTRY (EPA 300.0)								
Chloride	8300	mg/L	1000	200	200	10/16/2023 18:13	10/16/2023 18:13	T
Fluoride	40 U	mg/L	100	40	200	10/16/2023 18:13	10/16/2023 18:13	T
Sulfate	5800	mg/L	1000	200	200	10/16/2023 18:13	10/16/2023 18:13	T
WET CHEMISTRY (EPA 350.1)								
Ammonia (N)	0.45	mg/L	0.030	0.010	1	10/11/2023 12:08	10/11/2023 12:08	T
Ammonium	0.45	mg/L			1	10/30/2023 14:34	10/30/2023 14:34	T
WET CHEMISTRY (EPA 365.1)								
Orthophosphate	0.60	mg/L	0.020	0.013	1	10/03/2023 09:46	10/03/2023 09:46	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	9.4 I	mg/L	20	5.0	1	10/03/2023 16:25	10/03/2023 16:25	T
Alkalinity, Total	9.4 I	mg/L	20	5.0	1	10/03/2023 16:25	10/03/2023 16:25	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	19000	mg/L	10	10	1	10/03/2023 12:30	10/03/2023 12:30	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

Analytical Results

Lab ID: T2319353003	Date Collected: 10/02/2023 11:52	Matrix: Water
Sample ID: IW-1	Date Received: 10/02/2023 12:55	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (SM 4500NO3-F)								
Nitrate + Nitrite	0.24 U	mg/L	0.40	0.24	2	10/06/2023 11:13	10/06/2023 11:13	T
WET CHEMISTRY (SM 5310B)								
Total Organic Carbon	34	mg/L	2.0	1.0	1	10/20/2023 19:02	10/20/2023 19:02	G

Analysis Results Comments

Ammonium

Q|Missed Hold Time

Salinity

Q|Missed Hold Time

Temperature

Q|Missed Hold Time

pH

Q|Missed Hold Time





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: ICMj/3582
Preparation Method: EPA 200.8
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 200.8

Method Blank(4996738)

Parameter	Results	Units	PQL	MDL	Lab
Chromium	0.50 U	ug/L	2.0	0.50	J
Arsenic	0.25 U	ug/L	1.0	0.25	J

Lab Control Sample (4996739)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Chromium	ug/L	20	19	97	85 - 115	J
Arsenic	ug/L	20	20	101	85 - 115	J

Matrix Spike (4996740); Matrix Spike Duplicate (4996741); Original (F2306503001); Parent Lab Sample (F2306503001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Chromium	ug/L	20	18	88	70 - 130	17	85	4	20	J
Arsenic	ug/L	20	21	97	70 - 130	20	93	3	20	J

Matrix Spike (4996742); Matrix Spike Duplicate (4996743); Original (F2306503002); Parent Lab Sample (F2306503002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Chromium	ug/L	20	18	89	70 - 130	18	92	4	20	J
Arsenic	ug/L	20	21	96	70 - 130	21	101	5	20	J

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: ICP/4181
Preparation Method: EPA 200.7
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 200.7

Method Blank(4998454)

Parameter	Results	Units	PQL	MDL	Lab
Silver	0.0080 U	mg/L	0.010	0.0080	T
Aluminum	0.021 U	mg/L	0.10	0.021	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	T
Boron	0.025 U	mg/L	0.050	0.025	T
Barium	0.0030 U	mg/L	0.010	0.0030	T
Beryllium	0.0020 U	mg/L	0.010	0.0020	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Cadmium	0.0010 U	mg/L	0.0020	0.0010	T
Cobalt	0.0033 U	mg/L	0.010	0.0033	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Copper	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Molybdenum	0.0040 U	mg/L	0.050	0.0040	T
Sodium	0.80 U	mg/L	1.0	0.80	T
Nickel	0.0080 U	mg/L	0.010	0.0080	T
Lead	0.0030 U	mg/L	0.010	0.0030	T
Antimony	0.0070 U	mg/L	0.050	0.0070	T
Selenium	0.040 U	mg/L	0.10	0.040	T
Silicon	0.025 U	mg/L	0.050	0.025	T^
Tin	0.040 U	mg/L	0.050	0.040	T
Strontium	0.0080 U	mg/L	0.010	0.0080	T
Titanium	0.0020 U	mg/L	0.010	0.0020	T
Thallium	0.0080 U	mg/L	0.010	0.0080	T
Vanadium	0.0020 U	mg/L	0.010	0.0020	T
Zinc	0.050 U	mg/L	0.10	0.050	T

Lab Control Sample (4998455)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Silver	mg/L	0.10	.11	109	85 - 115	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Batch: ICP/4181
Preparation Method: EPA 200.7
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aluminum	mg/L	1	1	104	85 - 115	T
Arsenic	mg/L	1	.97	97	85 - 115	T
Boron	mg/L	0.10	.11	114	85 - 115	T
Barium	mg/L	1	1	104	85 - 115	T
Beryllium	mg/L	1	1	104	85 - 115	T
Calcium	mg/L	10	10	104	85 - 115	T
Cadmium	mg/L	0.10	.098	98	85 - 115	T
Cobalt	mg/L	1	1.1	106	85 - 115	T
Chromium	mg/L	1	1.1	108	85 - 115	T
Copper	mg/L	1	1.1	106	85 - 115	T
Iron	mg/L	1	1	102	85 - 115	T
Potassium	mg/L	10	10	102	85 - 115	T
Magnesium	mg/L	10	9.9	99	85 - 115	T
Manganese	mg/L	1	1.1	108	85 - 115	T
Molybdenum	mg/L	0.10	.11	108	85 - 115	T
Sodium	mg/L	10	10	100	85 - 115	T
Nickel	mg/L	1	1.1	107	85 - 115	T
Lead	mg/L	1	1	105	85 - 115	T
Antimony	mg/L	0.10	.11	108	85 - 115	T
Selenium	mg/L	1	.99	99	85 - 115	T
Silicon	mg/L	0.10	.12	115	85 - 115	T^
Tin	mg/L	0.10	.11	105	85 - 115	T
Strontium	mg/L	1	1	104	85 - 115	T
Titanium	mg/L	0.10	.11	107	85 - 115	T
Thallium	mg/L	0.10	.1	104	85 - 115	T
Vanadium	mg/L	1	1	100	85 - 115	T
Zinc	mg/L	1	1.1	106	85 - 115	T

Method Blank(4998454)

Parameter	Results	Units	PQL	MDL	Lab
Silver	0.0080 U	mg/L	0.010	0.0080	T
Aluminum	0.021 U	mg/L	0.10	0.021	T
Arsenic	0.0080 U	mg/L	0.010	0.0080	T
Boron	0.025 U	mg/L	0.050	0.025	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Batch: ICPT/4181
Preparation Method: EPA 200.7
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 200.7

Parameter	Results	Units	PQL	MDL	Lab
Barium	0.0030 U	mg/L	0.010	0.0030	T
Beryllium	0.0020 U	mg/L	0.010	0.0020	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Cadmium	0.0010 U	mg/L	0.0020	0.0010	T
Cobalt	0.0033 U	mg/L	0.010	0.0033	T
Chromium	0.0050 U	mg/L	0.010	0.0050	T
Copper	0.0050 U	mg/L	0.010	0.0050	T
Iron	0.0067 U	mg/L	0.10	0.0067	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Manganese	0.0050 U	mg/L	0.010	0.0050	T
Molybdenum	0.0040 U	mg/L	0.050	0.0040	T
Sodium	0.80 U	mg/L	1.0	0.80	T
Nickel	0.0080 U	mg/L	0.010	0.0080	T
Lead	0.0030 U	mg/L	0.010	0.0030	T
Antimony	0.0070 U	mg/L	0.050	0.0070	T
Selenium	0.040 U	mg/L	0.10	0.040	T
Silicon	0.025 U	mg/L	0.050	0.025	T^
Tin	0.040 U	mg/L	0.050	0.040	T
Strontium	0.0080 U	mg/L	0.010	0.0080	T
Titanium	0.0020 U	mg/L	0.010	0.0020	T
Thallium	0.0080 U	mg/L	0.010	0.0080	T
Vanadium	0.0020 U	mg/L	0.010	0.0020	T
Zinc	0.050 U	mg/L	0.10	0.050	T

Lab Control Sample (4998455)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Silver	mg/L	0.10	.11	109	85 - 115	T
Aluminum	mg/L	1	1	104	85 - 115	T
Arsenic	mg/L	1	.97	97	85 - 115	T
Boron	mg/L	0.10	.11	114	85 - 115	T
Barium	mg/L	1	1	104	85 - 115	T
Beryllium	mg/L	1	1	104	85 - 115	T
Calcium	mg/L	10	10	104	85 - 115	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Batch: ICPT/4181
Preparation Method: EPA 200.7
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Cadmium	mg/L	0.10	.098	98	85 - 115	T
Cobalt	mg/L	1	1.1	106	85 - 115	T
Chromium	mg/L	1	1.1	108	85 - 115	T
Copper	mg/L	1	1.1	106	85 - 115	T
Iron	mg/L	1	1	102	85 - 115	T
Potassium	mg/L	10	10	102	85 - 115	T
Magnesium	mg/L	10	9.9	99	85 - 115	T
Manganese	mg/L	1	1.1	108	85 - 115	T
Molybdenum	mg/L	0.10	.11	108	85 - 115	T
Sodium	mg/L	10	10	100	85 - 115	T
Nickel	mg/L	1	1.1	107	85 - 115	T
Lead	mg/L	1	1	105	85 - 115	T
Antimony	mg/L	0.10	.11	108	85 - 115	T
Selenium	mg/L	1	.99	99	85 - 115	T
Silicon	mg/L	0.10	.12	115	85 - 115	T^
Tin	mg/L	0.10	.11	105	85 - 115	T
Strontium	mg/L	1	1	104	85 - 115	T
Titanium	mg/L	0.10	.11	107	85 - 115	T
Thallium	mg/L	0.10	.1	104	85 - 115	T
Vanadium	mg/L	1	1	100	85 - 115	T
Zinc	mg/L	1	1.1	106	85 - 115	T

Matrix Spike (4998456); Matrix Spike Duplicate (4998457); Original (F2306542001); Parent Lab Sample (F2306542001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Silver	mg/L	0.10	.00028	0	70 - 130	.00083	1	99	20	T
Aluminum	mg/L	1	1.1	108	70 - 130	1.1	106	2	20	T
Arsenic	mg/L	1	1.1	108	70 - 130	1.1	108	0	20	T
Boron	mg/L	0.10	.29	-26	70 - 130	.29	-31	2	20	T
Barium	mg/L	1	1.1	111	70 - 130	1.1	109	1	20	T
Beryllium	mg/L	1	1.1	115	70 - 130	1.1	115	0	20	T
Calcium	mg/L	10	86	22	70 - 130	86	16	1	20	T
Cadmium	mg/L	0.10	.1	103	70 - 130	.1	102	1	20	T
Cobalt	mg/L	1	1.1	113	70 - 130	1.1	112	0	20	T
Chromium	mg/L	1	1.2	116	70 - 130	1.1	115	1	20	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Batch: ICP/4181
Preparation Method: EPA 200.7
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Copper	mg/L	1	1.1	112	70 - 130	1.1	112	0	20	T
Iron	mg/L	1	1.1	108	70 - 130	1.1	107	1	20	T
Potassium	mg/L	10	24	90	70 - 130	24	87	1	20	T
Magnesium	mg/L	10	31	80	70 - 130	30	77	1	20	T
Manganese	mg/L	1	1.2	114	70 - 130	1.2	113	1	20	T
Molybdenum	mg/L	0.10	-0.00095	-1	70 - 130	.0011	1	2970	20	T
Sodium	mg/L	10	190	-99	70 - 130	190	-124	1	20	T
Nickel	mg/L	1	1.1	114	70 - 130	1.1	113	1	20	T
Lead	mg/L	1	1.1	109	70 - 130	1.1	108	1	20	T
Antimony	mg/L	0.10	-0.00053	-1	70 - 130	.0016	2	405	20	T
Selenium	mg/L	1	1.1	108	70 - 130	1.1	108	0	20	T
Silicon	mg/L	0.10	2.7	-551	70 - 130	2.6	-598	2	20	T^
Tin	mg/L	0.10	-0.00054	-1	70 - 130	.000069	0	-259	20	T
Strontium	mg/L	1	4.6	74	70 - 130	4.6	69	1	20	T
Titanium	mg/L	0.10	.00042	0	70 - 130	.0026	3	145	20	T
Thallium	mg/L	0.10	.1	101	70 - 130	.11	105	4	20	T
Vanadium	mg/L	1	1.1	109	70 - 130	1.1	109	1	20	T
Zinc	mg/L	1	1.2	109	70 - 130	1.1	109	1	20	T

Matrix Spike (4998479); Matrix Spike Duplicate (4998480); Original (F2306446001); Parent Lab Sample (F2306446001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Silver	mg/L	0.10	.18	177	70 - 130	.18	179	1	20	T
Aluminum	mg/L	1	1.2	119	70 - 130	1.2	121	2	20	T
Arsenic	mg/L	1	1.2	124	70 - 130	1.2	125	1	20	T
Boron	mg/L	0.10	.39	223	70 - 130	.4	229	2	20	T
Barium	mg/L	1	1.3	125	70 - 130	1.3	125	0	20	T
Beryllium	mg/L	1	1.3	132	70 - 130	1.3	132	1	20	T
Calcium	mg/L	10	140	131	70 - 130	150	137	0	20	T
Cadmium	mg/L	0.10	.12	116	70 - 130	.12	117	1	20	T
Cobalt	mg/L	1	1.3	125	70 - 130	1.3	127	1	20	T
Chromium	mg/L	1	1.3	130	70 - 130	1.3	131	1	20	T
Copper	mg/L	1	1.3	126	70 - 130	1.3	127	0	20	T
Iron	mg/L	1	1.4	121	70 - 130	1.4	121	0	20	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Batch: ICP/4181
Preparation Method: EPA 200.7
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 200.7

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Potassium	mg/L	10	25	124	70 - 130	26	125	0	20	T
Magnesium	mg/L	10	71	131	70 - 130	71	131	0	20	T
Manganese	mg/L	1	1.3	127	70 - 130	1.3	129	1	20	T
Molybdenum	mg/L	0.10	.23	234	70 - 130	.23	234	0	20	T
Sodium	mg/L	10	290	147	70 - 130	290	170	1	20	T
Nickel	mg/L	1	1.3	126	70 - 130	1.3	129	2	20	T
Lead	mg/L	1	1.2	121	70 - 130	1.2	123	1	20	T
Antimony	mg/L	0.10	.23	234	70 - 130	.23	232	1	20	T
Selenium	mg/L	1	1.2	124	70 - 130	1.3	125	1	20	T
Silicon	mg/L	0.10	0	0	70 - 130	0	0	0	20	T^
Tin	mg/L	0.10	.22	221	70 - 130	.23	225	2	20	T
Strontium	mg/L	1	6.8	135	70 - 130	6.9	137	0	20	T
Titanium	mg/L	0.10	.23	232	70 - 130	.23	234	1	20	T
Thallium	mg/L	0.10	.12	116	70 - 130	.11	114	2	20	T
Vanadium	mg/L	1	1.2	121	70 - 130	1.2	123	1	20	T
Zinc	mg/L	1	1.2	124	70 - 130	1.3	125	1	20	T

QC Result Comments

Method Blank - 4998454 - Barium

V|Method Blank Contamination

Method Blank - 4998454 - Iron

V|Method Blank Contamination

Lab Control Sample - 4998455 - Silicon

J3|Lab QC Failure

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCAg/13404 **Analysis Method:** SM 5310B
Preparation Method: SM 5310B
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Method Blank(5014444)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	1.0 U	mg/L	2.0	1.0	G

Lab Control Sample (5014446)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Organic Carbon	mg/L	10	9.9	99	90 - 110	G

Matrix Spike (5014447); Matrix Spike Duplicate (5014448); Original (T2319353001); Parent Lab Sample (T2319353001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	25	26	97	90 - 110	25	95	2	10	G

Method Blank(5014450)

Parameter	Results	Units	PQL	MDL	Lab
Total Organic Carbon	1.0 U	mg/L	2.0	1.0	G





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCAg/13404 **Analysis Method:** SM 5310B
Preparation Method: SM 5310B
Associated Lab IDs: T2319353002, T2319353003

Matrix Spike (5014451); Matrix Spike Duplicate (5014452); Original (A2311010002); Parent Lab Sample (A2311010002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Organic Carbon	mg/L	25	24	92	90 - 110	24	92	0	10	G





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCA/24106 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Method Blank(4981365)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (4981366)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	99	99	85 - 115	T

Sample Duplicate (4981367); Original (S2302596003); Parent Lab Sample (T2319353001, T2319353002, T2319353003)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	180.0875	181.2135	mg/L	1	10	T

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCAt/24168 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Method Blank(4985492)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (4985493)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	670	101	85 - 115	T

Sample Duplicate (4985494); Original (T2319105001); Parent Lab Sample (T2319353001, T2319353002, T2319353003)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	98	98	mg/L	0	10	T





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCAI/24224 **Analysis Method:** SM 4500NO3-F
Preparation Method: SM 4500NO3-F
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Method Blank(4988946)

Parameter	Results	Units	PQL	MDL	Lab
Nitrate + Nitrite	0.12 U	mg/L	0.20	0.12	T

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCA/24336
Preparation Method: EPA 350.1
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 350.1

Method Blank(4994302)

Parameter	Results	Units	PQL	MDL	Lab
Ammonia (N)	0.010 U	mg/L	0.030	0.010	T

Lab Control Sample (4994303)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Ammonia (N)	mg/L	0.50	.48	96	90 - 110	T

Matrix Spike (4994324); Matrix Spike Duplicate (4994325); Original (T2319210001); Parent Lab Sample (T2319210001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.2	82	90 - 110	1.2	81	1	10	T

Matrix Spike (4994326); Matrix Spike Duplicate (4994327); Original (T2319421001); Parent Lab Sample (T2319421001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Ammonia (N)	mg/L	1	1.3	111	90 - 110	1.4	114	2	10	T

QC Result Comments

Matrix Spike - 4994324 - Ammonia (N)

J4|Estimated Result

Matrix Spike Duplicate - 4994325 - Ammonia (N)

J4|Estimated Result

Matrix Spike - 4994326 - Ammonia (N)

J4|Estimated Result

Matrix Spike Duplicate - 4994327 - Ammonia (N)

J4|Estimated Result

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCA/24546 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Method Blank(5006721)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5006722)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5.1	100	90 - 110	T
Chloride	mg/L	50	52	100	90 - 110	T
Sulfate	mg/L	50	51	100	90 - 110	T

Matrix Spike (5006723); Matrix Spike Duplicate (5006724); Original (T2319353002); Parent Lab Sample (T2319353002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	.39	-8	90 - 110	0	-28	200	10	T
Chloride	mg/L	20	110	-150	90 - 110	.12	-700	200	10	T
Sulfate	mg/L	20	240	-380	90 - 110	.65	-1600	200	10	T

QC Result Comments

Matrix Spike - 5006723 - Chloride

J4|Estimated Result

Matrix Spike - 5006723 - Fluoride

J4|Estimated Result

Matrix Spike - 5006723 - Sulfate

J4|Estimated Result

Matrix Spike Duplicate - 5006724 - Chloride

J4|Estimated Result

Matrix Spike Duplicate - 5006724 - Fluoride

J4|Estimated Result

Matrix Spike Duplicate - 5006724 - Sulfate

J4|Estimated Result





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCA/24751
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 365.4

Method Blank(5002146)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

Lab Control Sample (5002148)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Phosphorus (as P)	mg/L	1	1	105	90 - 110	T

Matrix Spike (5002150); Matrix Spike Duplicate (5002152); Original (T2319278002); Parent Lab Sample (T2319278002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	1.5	98	90 - 110	1.4	92	5	10	T

Matrix Spike (5002154); Matrix Spike Duplicate (5002156); Original (T2319353002); Parent Lab Sample (T2319353002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Total Phosphorus (as P)	mg/L	1	.91	91	90 - 110	.84	84	7	10	T

Certificate of Analysis

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Results

QC Batch: WCA/24752
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: T2319353001, T2319353002, T2319353003

Analysis Method: EPA 351.2

Method Blank(5002145)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

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FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/3582 - EPA 200.8			
T2319353001	APMW-1LZ	DGMj/6720	EPA 200.8
T2319353002	SLMW-1 UZ	DGMj/6720	EPA 200.8
T2319353003	IW-1	DGMj/6720	EPA 200.8
ICPt/4181 - EPA 200.7			
T2319353001	APMW-1LZ	DGMt/6854	EPA 200.7
T2319353002	SLMW-1 UZ	DGMt/6854	EPA 200.7
T2319353003	IW-1	DGMt/6854	EPA 200.7
WCAg/13404 - SM 5310B			
T2319353001	APMW-1LZ		
T2319353002	SLMW-1 UZ		
T2319353003	IW-1		
WCAI/24103 - EPA 365.1			
T2319353001	APMW-1LZ		
T2319353002	SLMW-1 UZ		
T2319353003	IW-1		
WCAI/24106 - SM 2320B			
T2319353001	APMW-1LZ		
T2319353002	SLMW-1 UZ		
T2319353003	IW-1		
WCAI/24168 - SM 2540 C			
T2319353001	APMW-1LZ		
T2319353002	SLMW-1 UZ		
T2319353003	IW-1		
WCAI/24224 - SM 4500NO3-F			
T2319353001	APMW-1LZ		
T2319353002	SLMW-1 UZ		
T2319353003	IW-1		
WCAI/24336 - EPA 350.1			
T2319353001	APMW-1LZ		
T2319353002	SLMW-1 UZ		
T2319353003	IW-1		





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCA/24546 - EPA 300.0			
T2319353001	APMW-1LZ		
T2319353002	SLMW-1 UZ		
T2319353003	IW-1		
WCA/24751 - EPA 365.4			
T2319353001	APMW-1LZ	WCA/24480	Copper Sulfate Digestion
T2319353002	SLMW-1 UZ	WCA/24480	Copper Sulfate Digestion
T2319353003	IW-1	WCA/24480	Copper Sulfate Digestion
WCA/24752 - EPA 351.2			
T2319353001	APMW-1LZ	WCA/24480	Copper Sulfate Digestion
T2319353002	SLMW-1 UZ	WCA/24480	Copper Sulfate Digestion
T2319353003	IW-1	WCA/24480	Copper Sulfate Digestion





Advanced Environmental Laboratories, Inc
 9610 Princess Palm Ave Tampa, FL 33619
 Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
 Phone: (813) 630-9616
 Fax: (813) 630-4327

FINAL

Workorder: Piney Point Injection Monthly (T2319353)



Advanced Environmental Laboratories, Inc.

- Altamonte Springs:** 528 S. Northlake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • Lab ID E53076
- Fort Meyers:** 13100 Westlinks Terrace Ste. 10 • Fort Meyers, FL 33193 • 239.674.8130 • Fax 239.674.8128 Lab ID E84492
- Gainesville:** 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 Lab ID E82001
- Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 Lab ID E82574
- Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281 Lab ID E82535
- Tallahassee:** 2639 North Monroe St., Ste.D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275 Lab ID E811095
- Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 Lab ID E84589

PAGE 1 OF 1

Client Name: ASRus LLC		Project Name: Piney Point Injection Wells Monthly		BOTTLE SIZE & TYPE	300.0	SM 2540C /SM 2320B	200.7 / 200.8	SM 5310B	EPA3 65.1	EPA00 -02	903.1 / EPA RA-05	EPA 908.0	LABORATORY I.D. NUMBER	
Address:		Project Number:		ANALYSIS REQUIRED	SO4, CL, F	TKN, NH3, NH4NOX, TP	TDS, ALK/BICARB	METALS (TOTAL FE, AS, CR, MN, AL, MG, K, NA, CA	TOC	O-PHOS	GROSS ALPHA	RADIUM 226/228		URANIUM
Address:		PO Number:												
Phone: 813-382-8516		FDEP Facility #:												
FAX:		FDEP Facility Address:												
Contact: Pete Larkin		Special Instructions: P2P 5 hrs												
Sampled By: S. Helms		AEL Profile #												
Turn around time: <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH		<input type="checkbox"/> ADaPT <input type="checkbox"/> EQUiS <input type="checkbox"/> Other												

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	PRESERVATION Field-Filtered?	I	S	I	N	H	I	N	N	N	
			DATE	TIME													
	APMW - 1 LZ	G	10/2/2023	0937	GW	11		X	X	X	X	X	X	X	X	X	001
	SLMW - 1 UZ	G	10/2/2023	1112	GW	11		X	X	X	X	X	X	X	X	X	002
	IW - 1	G	10/2/2023	1152	GW	11		X	X	X	X	X	X	X	X	X	003



Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge Preservation Code: **I** = ice **H**=(HCl) **S** = (H2SO4) **N** = (HNO3) **T** = (Sodium Thiosulfate)

Received on Ice YES NO Temp Taken From Sample Temp from Where required ph checked Temp. when received (Observed) **6** °C Temp. when received (corrected) **6** °C

DCN: AD-051 Form last revised 02/12/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) **J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A**

	Relinquished by	Date	Time	Received by:	Date	Time
1		10/4/23	1250		10/2/23	1729
2						
3						
4						

FOR DRINKING WATER USE (When PWS information not otherwise supplied)

PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site Address: _____





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT DEEP INJECTION WELL		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: APMW-1 LZ	SAMPLE ID:	DATE: 10/2/23	

PURGING DATA

WELL DIAMETER (inches): 5.43 - 12	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 913 feet to 939 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet - feet) X gallons/foot = 1251 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons): 2190							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0855	1251	1251	60								
0916	313	1564	60		7.47	28.3	16828	0.04	0.97	Clean, clear	H2S
0921	313	1877	60		7.45	28.3	16893	0.04	0.77	Clean, clear	H2S
0926	313	2190	60		7.43	28.4	17152	0.09	0.78	Clean, clear	H2S
						Salinity in ppt	10.05				
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL		SAMPLER(S) SIGNATURE(S): 		SAMPLING INITIATED AT: 0927	SAMPLING ENDED AT: 0937	
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)	DUPLICATE: Y N			
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION (including wet ice)		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH
					SEE COC	
REMARKS: DO 8.15 @ 25.9						
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)						
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)						

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

62-160.800 F.A.C.

Revision Date: January 2017





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

**Advanced Environmental Laboratories
 DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: PINEY POINT DEEP INJECTION WELL		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: SLMW1 UZ	SAMPLE ID:	DATE: 10/2/23	

PURGING DATA

WELL DIAMETER (inches): 6.27-9.278	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 580 feet to 623 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PERM ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet - feet) X gallons/foot = 4855 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0855	PURGING ENDED AT: 1101	TOTAL VOLUME PURGED (gallons): 8497							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0855	4855	4855	60								
1021	1214	6069	60		9.81	27.0	1234	0.04	3.83	Clean, clear	None
1041	1214	7283	60		9.83	27.1	1210	0.05	16.3	Clean, clear	None
1101	1214	8497	60		9.73	27.0	1189	0.05	16.1	Clean, clear	None
						Salinity in ppt	0.59				
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Steven Helms / AEL				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1102		SAMPLING ENDED AT: 1112	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE:				FIELD-FILTERED: Y N Filtration Equipment Type:		FILTER SIZE: ____ μm	
FIELD DECONTAMINATION: PUMP Y N				TUBING Y N (replaced)				DUPLICATE: Y N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
					SEE COC						
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

62-160.800 F.A.C.

Revision Date: January 2017





FINAL

Workorder: Piney Point Injection Monthly (T2319353)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PINEY POINT INJECTION WELLS		SITE LOCATION: 11951 BUD RHODEN RD PALMETTO FL	
WELL NO: IW-1	SAMPLE ID:	DATE: 10/2/23	

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
INITIAL PUMP OR TUBING DEPTH IN (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1139					6.06	28.7	23385	3.67	13.5	Clean, clear	none
						Salinity in ppt	14.09				
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:		SAMPLER(S) SIGNATURE(S):		SAMPLING INITIATED AT: 1140	SAMPLING ENDED AT: 1152	
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE: _____ µm		
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)		DUPLICATE: Y N		
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION (including wet ice)		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH
					SEE COC	
REMARKS:						
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)						
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)						

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

62-160.800 F.A.C.

Revision Date: January 2017





Report Date: October 17, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2319353-001
Sample Collection: 10-02-23/0937
Lab ID No: 23.15820
Lab Custody Date: 10-05-23/1555
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	22.9 ± 3.0	10-17-23/0802	EPA 00-02	1.6
Combined Radium (Radium-226 + Radium 228)	pCi/L	17.3 ± 1.5	Calc	Calc	1.2
Radium-226	pCi/L	16.0 ± 1.5	10-13-23/1246	EPA 903.0*	0.5
Radium-228	pCi/L	1.3 I ± 1.0	10-13-23/1202	EPA Ra-05	1.2
Uranium	pCi/L	0.5 U ± 0.1	10-16-23/1748	EPA 908.0	0.5
Uranium	ppb	0.7 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 109% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



Report Date: October 17, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2319353-002
Sample Collection: 10-02-23/1112
Lab ID No: 23.15821
Lab Custody Date: 10-05-23/1555
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	7.9 ± 1.7	10-17-23/0802	EPA 00-02	1.2
Combined Radium (Radium-226 + Radium 228)	pCi/L	5.7 ± 1.0	Calc	Calc	0.6
Radium-226	pCi/L	5.7 ± 1.0	10-13-23/1246	EPA 903.0*	0.6
Radium-228	pCi/L	1.3 U ± 0.9	10-13-23/1202	EPA Ra-05	1.3
Uranium	pCi/L	0.5 I ± 0.2	10-16-23/1748	EPA 908.0	0.3
Uranium	ppb	0.7 I ± 0.3	Calc	Calc	Calc

Alpha Standard: Th-230

* 99% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed. Contact person: Thomas Weeks (813) 229-2879.



Report Date: October 17, 2023

Advanced Environmental Labs
9610 Princess Palm Ave
Tampa, FL 33619

Field Custody: Client
Client/Field ID: T2319353-003
Sample Collection: 10-02-23/1152
Lab ID No: 23.15822
Lab Custody Date: 10-05-23/1555
Sample Description: Water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/L	3.0 I ± 1.2	10-17-23/0802	EPA 00-02	1.3
Combined Radium (Radium-226 + Radium 228)	pCi/L	0.8 I ± 0.4	Calc	Calc	0.5
Radium-226	pCi/L	0.8 I ± 0.4	10-13-23/1246	EPA 903.0*	0.5
Radium-228	pCi/L	1.2 U ± 0.9	10-13-23/1202	EPA Ra-05	1.2
Uranium	pCi/L	0.4 U ± 0.1	10-16-23/1748	EPA 908.0	0.4
Uranium	ppb	0.6 U ± 0.1	Calc	Calc	Calc

Alpha Standard: Th-230

* 107% carrier recovery

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory Practical quantitation limit

Thomas J. Weeks
Laboratory Manager

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.



- Altamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
- Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
- Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
- Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811059

49 23-15816

- Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
- Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
- Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: **Advanced Environmental Lab** Project Name: T2319353

Address: **Tampa FL 33619** Project Number: _____

Phone: **813-630-9616** FDEP Facility No: _____

FAX: **813-630-4327** FDEP Facility Address: _____

Contact: **mcammarata@aellab.com**

Sampled By: _____ Even though matrix WA please include DW report along with EVN report

Turn Around Time: STANDARD RUSH

AEL Profile #: _____

ADaPT EQUIS Other

ANALYSIS REQUIRED	Rad 226	Rad 228	Gross Alpha	Uranium													LABORATORY I.D. NUMBER

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT
			DATE	TIME		
23-15820	T2319353-001		10.02.23	9:37	WA	4
23-15821	T2319353-002		10.02.23	11:12	WA	4
23-15822	T2319353-003		10.02.23	11:52	WA	4

Preservation																
Field-Filtered?																
	X	X	X	X												
	X	X	X	X												
	X	X	X	X												

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge **Preservation Code:** I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice Yes No Temp taken from sample Temp from blank Where required, pH checked Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C

OCN: AD-D051 Form last revised 08/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Relinquished by:	Date	Time	Received by:	Date	Time
1 Kaitlyn Pasqualini	10.05.23	10:00	[Signature]	10-5-23	15:55
2					
3					
4					

FOR DRINKING WATER USE:
 (When PWS Information not otherwise supplied) PWS ID: _____
 Contact Person: _____ Phone: _____
 Supplier of Water: _____
 Site-Address: _____