BW - ____35___

MONITORING WELL(s)

Chavez, Carl J, EMNRD

From:	Christopher Cortez < chris@atkinseng.com>
Sent:	Tuesday, May 8, 2018 4:17 PM
То:	Chavez, Carl J, EMNRD; darrangell@gmail.com
Cc:	Andrew Martin
Subject:	Siringo ACS State Brine Well No. 1 2018-05-08_HEAL_LabReport-Final
Attachments:	2018-05-08_HEAL_LabReport-Final.pdf
Importance:	High

Carl,

Attached please find the updated and final HEAL lab report which include the radionuclide results.

If you have any questions, please contact me.

Thanks,

Chris Cortez | 575.624.2420 x 203 | 575.914.0174 mobile Atkins Engineering Associates, Inc. | 2904 W 2nd St, Roswell, NM 88201

Your message is ready to be sent with the following file or link attachments:

2018-05-08_HEAL_LabReport-Final

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

May 08, 2018

Christopher Cortez Atkins Engineering Associates 2904 West Second Street Roswell, NM 88201 TEL: (575) 624-2420 FAX (575) 624-2421

RE: Siringo

OrderNo.: 1804B71

Dear Christopher Cortez:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/24/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates **Project:** Siringo

1804B71-001

Lab ID:

Client Sample ID: 20180423-Siringo Collection Date: 4/23/2018 11:37:00 AM Received Date: 4/24/2018 9:00:00 AM

Analyses	Result	Result PQL Qual		Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS						Analyst:	DBK
Arsenic	0.0036	0.0010		mg/L	1	4/25/2018 4:40:47 PM	B50833
Lead	ND	0.00050		mg/L	1	4/25/2018 4:40:47 PM	B50833
Selenium	0.0035	0.0010		mg/L	1	4/25/2018 4:40:47 PM	B50833
Uranium	0.0042	0.00050		mg/L	1	4/25/2018 4:40:47 PM	B50833
EPA METHOD 300.0: ANIONS						Analyst:	MRA
Fluoride	0.78	0.10		mg/L	1	4/24/2018 1:54:15 PM	R50822
Chloride	250	10		mg/L	20	4/24/2018 2:07:07 PM	R50822
Nitrogen, Nitrate (As N)	3.2	0.10		mg/L	1	4/24/2018 1:54:15 PM	R50822
Sulfate	72	10		mg/L	20	4/24/2018 2:07:07 PM	R50822
SM2540C MOD: TOTAL DISSOLVED	SOLIDS					Analyst:	sat
Total Dissolved Solids	794	40.0	*D	mg/L	1	4/26/2018 1:21:00 PM	37787
SM4500-H+B / 9040C: PH						Analyst:	JRR
рН	7.61		Н	pH units	1	4/26/2018 2:21:34 PM	R50879
EPA METHOD 200.7: DISSOLVED ME	ETALS					Analyst:	pmf
Aluminum	ND	0.020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Barium	0.12	0.0020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Boron	0.16	0.040		mg/L	1	4/26/2018 3:07:19 PM	A50835
Cadmium	ND	0.0020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Chromium	ND	0.0060		mg/L	1	4/26/2018 3:07:19 PM	A50835
Cobalt	ND	0.0060		mg/L	1	4/26/2018 3:07:19 PM	A50835
Copper	ND	0.0060		mg/L	1	4/26/2018 3:07:19 PM	A50835
Iron	ND	0.020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Manganese	0.019	0.0020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Molybdenum	0.016	0.0080		mg/L	1	4/26/2018 3:07:19 PM	A50835
Nickel	ND	0.010		mg/L	1	4/26/2018 3:07:19 PM	A50835
Silver	ND	0.0050		mg/L	1	4/26/2018 3:07:19 PM	A50835
Zinc	ND	0.010		mg/L	1	4/26/2018 3:07:19 PM	A50835
EPA METHOD 245.1: MERCURY						Analyst:	rde
Mercury	ND	0.00020		mg/L	1	4/27/2018 9:49:41 AM	37814
EPA METHOD 8011/504.1: EDB						Analyst:	JME
1,2-Dibromoethane	ND	0.0095		µg/L	1	4/25/2018 10:27:16 PM	37781
EPA METHOD 8082A: PCB'S						Analyst:	том
Aroclor 1016	ND	1.0		µg/L	1	4/30/2018 12:27:00 PM	37763
Aroclor 1221	ND	1.0		µg/L	1	4/30/2018 12:27:00 PM	37763
Aroclor 1232	ND	1.0		µg/L	1	4/30/2018 12:27:00 PM	37763
Aroclor 1242	ND	1.0		µg/L	1	4/30/2018 12:27:00 PM	37763

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Oualifiers:

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates

Project: SiringoLab ID: 1804B71-001

Client Sample ID: 20180423-Siringo Collection Date: 4/23/2018 11:37:00 AM Received Date: 4/24/2018 9:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8082A: PCB'S					Analys	t: TOM
Aroclor 1248	ND	1.0	µg/L	1	4/30/2018 12:27:00 PM	1 37763
Aroclor 1254	ND	1.0	μg/L	1	4/30/2018 12:27:00 PM	1 37763
Aroclor 1260	ND	1.0	μg/L	1	4/30/2018 12:27:00 PM	1 37763
Surr: Decachlorobiphenyl	76.0	34.1-101	%Rec	1	4/30/2018 12:27:00 PM	1 37763
Surr: Tetrachloro-m-xylene	57.2	22.9-104	%Rec	1	4/30/2018 12:27:00 PM	1 37763
EPA METHOD 8310: PAHS					Analys	t: TOM
Naphthalene	ND	2.0	µg/L	1	4/26/2018 1:34:00 PM	37765
1-Methylnaphthalene	ND	2.0	µg/L	1	4/26/2018 1:34:00 PM	37765
2-Methylnaphthalene	ND	2.0	µg/L	1	4/26/2018 1:34:00 PM	37765
Acenaphthylene	ND	2.5	µg/L	1	4/26/2018 1:34:00 PM	37765
Acenaphthene	ND	2.0	µg/L	1	4/26/2018 1:34:00 PM	37765
Fluorene	ND	0.80	µg/L	1	4/26/2018 1:34:00 PM	37765
Phenanthrene	ND	0.60	μg/L	1	4/26/2018 1:34:00 PM	37765
Anthracene	ND	0.60	μg/L	1	4/26/2018 1:34:00 PM	37765
Fluoranthene	ND	0.30	μg/L	1	4/26/2018 1:34:00 PM	37765
Pyrene	ND	0.30	μg/L	1	4/26/2018 1:34:00 PM	37765
Benz(a)anthracene	ND	0.070	μg/L	1	4/26/2018 1:34:00 PM	37765
Chrysene	ND	0.20	μg/L	1	4/26/2018 1:34:00 PM	37765
Benzo(b)fluoranthene	ND	0.10	μg/L	1	4/26/2018 1:34:00 PM	37765
Benzo(k)fluoranthene	ND	0.070	μg/L	1	4/26/2018 1:34:00 PM	37765
Benzo(a)pyrene	ND	0.070	μg/L	1	4/26/2018 1:34:00 PM	37765
Dibenz(a,h)anthracene	ND	0.12	μg/L	1	4/26/2018 1:34:00 PM	37765
Benzo(g,h,i)perylene	ND	0.12	µg/L	1	4/26/2018 1:34:00 PM	37765
Indeno(1,2,3-cd)pyrene	ND	0.25	µg/L	1	4/26/2018 1:34:00 PM	37765
Surr: Benzo(e)pyrene	71.2	52-133	%Rec	1	4/26/2018 1:34:00 PM	37765
EPA METHOD 8260B: VOLATILES					Analys	t: DJF
Benzene	ND	1.0	µq/L	1	4/24/2018 2:37:57 PM	A50817
Toluene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Ethylbenzene	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
Naphthalene	ND	2.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1-Methylnaphthalene	ND	4.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
2-Methylnaphthalene	ND	4.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Acetone	ND	10	µg/L	1	4/24/2018 2:37:57 PM	A50817

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: * Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates **Project:** Siringo

1804B71-001

Lab ID:

Client Sample ID: 20180423-Siringo Collection Date: 4/23/2018 11:37:00 AM Received Date: 4/24/2018 9:00:00 AM

Analyses	Result	PQL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	: DJF
Bromobenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Bromodichloromethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Bromoform	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Bromomethane	ND	3.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
2-Butanone	ND	10	µg/L	1	4/24/2018 2:37:57 PM	A50817
Carbon disulfide	ND	10	µg/L	1	4/24/2018 2:37:57 PM	A50817
Carbon Tetrachloride	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Chlorobenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Chloroethane	ND	2.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Chloroform	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Chloromethane	ND	3.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
2-Chlorotoluene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
4-Chlorotoluene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
cis-1,2-DCE	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Dibromochloromethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Dibromomethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2-Dichlorobenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,3-Dichlorobenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,4-Dichlorobenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Dichlorodifluoromethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1-Dichloroethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1-Dichloroethene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2-Dichloropropane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,3-Dichloropropane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
2,2-Dichloropropane	ND	2.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1-Dichloropropene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Hexachlorobutadiene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
2-Hexanone	ND	10	µg/L	1	4/24/2018 2:37:57 PM	A50817
Isopropylbenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
4-Isopropyltoluene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
4-Methyl-2-pentanone	ND	10	µg/L	1	4/24/2018 2:37:57 PM	A50817
Methylene Chloride	ND	3.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
n-Butylbenzene	ND	3.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
n-Propylbenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
sec-Butylbenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Styrene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
tert-Butylbenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: * Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates **Project:** Siringo

1804B71-001

Lab ID:

Client Sample ID: 20180423-Siringo Collection Date: 4/23/2018 11:37:00 AM Received Date: 4/24/2018 9:00:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analys	: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
trans-1,2-DCE	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
Trichlorofluoromethane	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
Vinyl chloride	ND	1.0		µg/L	1	4/24/2018 2:37:57 PM	A50817
Xylenes, Total	ND	1.5		µg/L	1	4/24/2018 2:37:57 PM	A50817
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%Rec	1	4/24/2018 2:37:57 PM	A50817
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	4/24/2018 2:37:57 PM	A50817
Surr: Dibromofluoromethane	96.1	70-130		%Rec	1	4/24/2018 2:37:57 PM	A50817
Surr: Toluene-d8	92.3	70-130		%Rec	1	4/24/2018 2:37:57 PM	A50817
TOTAL PHENOLICS BY SW-846 9067						Analys	: MAB
Phenolics	7.3	2.5	Е	µg/L	1	4/30/2018	37840

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: * Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates

1804B71-002

Siringo

Project:

Lab ID:

Collection Date:

Matrix: TRIP BLANK Received Date: 4/24/2018 9:00:00 AM

Client Sample ID: Trip Blank

Analyses Result 1 QL Quar Units DF Date Analyzeu	Batch
EPA METHOD 8011/504.1: EDB A	nalyst: JME
1,2-Dibromoethane ND 0.0095 µg/L 1 4/25/2018 10:42:	21 PM 37781
EPA METHOD 8260B: VOLATILES A	nalyst: DJF
Benzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Toluene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Ethylbenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Methyl tert-butyl ether (MTBE) ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1,2,4-Trimethylbenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1,3,5-Trimethylbenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1,2-Dichloroethane (EDC) ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1,2-Dibromoethane (EDB) ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Naphthalene ND 2.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1-Methylnaphthalene ND 4.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
2-Methylnaphthalene ND 4.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Acetone ND 10 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Bromobenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Bromodichloromethane ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Bromoform ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Bromomethane ND 3.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
2-Butanone ND 10 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Carbon disulfide ND 10 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Carbon Tetrachloride ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Chlorobenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Chloroethane ND 2.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Chloroform ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Chloromethane ND 3.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
2-Chlorotoluene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
4-Chlorotoluene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
cis-1.2-DCE ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
cis-1.3-Dichloropropene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1.2-Dibromo-3-chloropropane ND 2.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Dibromochloromethane ND 1.0 µo/L 1 4/24/2018 3:07:1	5 PM A50817
Dibromomethane ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1.2-Dichlorobenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1.3-Dichlorobenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1.4-Dichlorobenzene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
Dichlorodifluoromethane ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1,1-Dichloroethane ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1,1-Dichloroethene ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817
1,2-Dichloropropane ND 1.0 µg/L 1 4/24/2018 3:07:1	5 PM A50817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Oualifiers:

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1804B71

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates **Project:** Siringo

Client Sample ID: Trip Blank **Collection Date:**

1804B71-002 Lab ID:

Matrix: TRIP BLANK Received Date: 4/24/2018 9:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	DJF
1,3-Dichloropropane	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
2,2-Dichloropropane	ND	2.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1-Dichloropropene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Hexachlorobutadiene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
2-Hexanone	ND	10	µg/L	1	4/24/2018 3:07:15 PM	A50817
Isopropylbenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
4-Isopropyltoluene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
4-Methyl-2-pentanone	ND	10	µg/L	1	4/24/2018 3:07:15 PM	A50817
Methylene Chloride	ND	3.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
n-Butylbenzene	ND	3.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
n-Propylbenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
sec-Butylbenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Styrene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
tert-Butylbenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
trans-1,2-DCE	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,1-Trichloroethane	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,2-Trichloroethane	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Trichloroethene (TCE)	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Trichlorofluoromethane	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,2,3-Trichloropropane	ND	2.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Vinyl chloride	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Xylenes, Total	ND	1.5	µg/L	1	4/24/2018 3:07:15 PM	A50817
Surr: 1,2-Dichloroethane-d4	96.4	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817
Surr: 4-Bromofluorobenzene	108	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817
Surr: Dibromofluoromethane	100	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817
Surr: Toluene-d8	90.6	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	Н	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quanitative Limit
	S	% Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 20 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Date Reported: 5/8/2018

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	Batch #:	180426027
Address:	4901 HAWKINS NE SUITE D	Project Name:	1804B71
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number Client Sample ID	180426027-001 1804B71-001I / 20180423-S	Sampling Date	4/23/2018	Date	Time Received	4/26/2018	10:52 AM
Matrix Comments	Water	Sampling Time	11:37 AM				
Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	4/27/2018	RPU	EPA 335.4	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level

ND Not Detected

PQL Practical Quantitation Limit

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Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	Batch #:	180426027
Address:	4901 HAWKINS NE SUITE D	Project Name:	1804B71
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Quality Control Data

Lab Control Sample									2	
Parameter Cyanide	LCS Result 0.529	Unit: mg/l	s LCS . 0	Spike .5	%Rec 105.8	AR 90	%Rec)-110	Prep 4/27/	Date /2018	Analysis Date 4/27/2018
Matrix Spike		177204-0007-0	22532			15450				0
Sample Number Parameter		Sample	MS Result	Uni	ts.	MS Spike	%Rec	AR %Rec	Pren Date	Analysis Date
180423005-003 Cyanide		ND	0.506	mg/	Ľ	0.5	101.2	80-120	4/27/2018	4/27/2018
Matrix Spike Duplicate										
Parameter	MSD	11	MSD		1988 - N		AR	N 11213		
Cyanide	0.509	mg/L	0.5	%H 10	tec 1.8	%RPD 0.6	%RPD 0-20	9 Pre 4/2	p Date 7/2018	Analysis Date 4/27/2018
Method Blank										
Parameter		Re	sult	U	nits		PQL	Pr	ep Date	Analysis Date
Cyanide		N	C	m	g/L		0.01	4/2	7/2018	4/27/2018

AR Acceptable Range

ND Not Detected

PQL Practical Quantitation Limit

RPD Relative Percentage Difference

Comments:

Certifications held by Analek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP) E87883; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595 Certifications held by Analek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	Batch #:	180426027	
Address:	4901 HAWKINS NE SUITE D	Project Name:	1804B71	
	ALBUQUERQUE, NM 87109			
Attn:	ANDY FREEMAN			

Analytical Results Report

Sample Number Client Sample ID	mber 180426027-002 ple ID 1804B71-001J / 20180423-SIR		ampling Date	4/23/2018	Dat	e/Time Received	4/26/2018 4/26/2018	10:52 AM
Matrix Comments	Water	S	ampling Time	11:37 AM				
Parameter	R	esult	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Methanol		ND	mg/L	50	4/26/2018	GGH	GC/FID	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level

ND Not Detected

PQL Practical Quantitation Limit

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Certifications held by Anatek Labs ID: EPAID00013; AZ:3701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	Batch #:	180426027	
Address:	4901 HAWKINS NE SUITE D	Project Name:	1804B71	
	ALBUQUERQUE, NM 87109			
Attn:	ANDY FREEMAN			

Analytical Results Report

Quality Control Data

Lab Control Sample	201	12								
Parameter	LCS Result	Units	LCS	Spike	%Rec	AR	%Rec	Prep	Date	Analysis Date
Methanol	262	mg/L	25	50	104.8	60	-140	4/26/	2018	4/27/2018
Matrix Spike		2000 - 200 - 200 - 200	5							
Sample Number Parameter		Sample	MS	Unit	10	MS	P/ Dec	AR	Bros Date	Analysis Date
180426027-002 Methanol		ND	277	mg/	L	250	110.8	%Rec 60-140	4/26/2018	4/27/2018
Matrix Spike Duplicate										
Parameter	MSD	Unite	MSD	0/ E	200		AR	Dre	n Data	Analusia Data
Methanol	267	mg/L	250	10	6.8	3.7	0-25	4/2	6/2018	4/27/2018
Method Blank										
Parameter		Re	sult	U	nits		PQL	Pr	ep Date	Analysis Date
Methanol		NE)	m	g/L		25	4/2	6/2018	4/27/2018

AR Acceptable Range

ND Not Detected

PQL Practical Quantitation Limit

RPD Relative Percentage Difference

Comments:

Certifications held by Analek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP); E87693; ID:ID00013; MT:CERT0028; NN: ID00013; NV ID00013; OR:ID200001-002; WA:C595 Certifications held by Analek Labs WA: EPA:WA00169; ID:WA00169; WA:C535; MT Cert0095; FLINELAP); E871099



ANALYTICAL RESULTS - RADIOCHEMISTRY

 Project:
 1804B71

 Pace Project No.:
 30250818

Sample:	1804B71-001H/20180423 Siringo	- Lab ID: 30250	818001 Collected: 04/23/18 11:37	Received:	04/26/18 09:35	Matrix: Water	
PWS:		Site ID:	Sample Type:				
	Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-2	226	EPA 903.1	1.03 ± 0.651 (0.736) C:NA T:92%	pCi/L	05/07/18 12:0	7 13982-63-3	
Radium-2	228	EPA 904.0	1.35 ± 0.552 (0.885) C:75% T:74%	pCi/L	05/07/18 12:2	15262-20-1	

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL - RADIOCHEMISTRY

Project: 1804B71					
Pace Project No.: 30250818					
QC Batch: 296654	Analysis Method:	EPA 903.1			
QC Batch Method: EPA 903.	1 Analysis Description:	903.1 Radii	ım-226		
Associated Lab Samples: 302	250818001				
METHOD BLANK: 1452086	Matrix: Water				
Associated Lab Samples: 302	250818001				
Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers	
Radium-226	0.185 ± 0.512 (0.993) C:NA T:86%	pCi/L	05/07/18 11:54		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL - RADIOCHEMISTRY

Project:	1804B71						
Pace Project No.:	30250818						
QC Batch:	296658		Analysis Method:	EPA 904.0			
QC Batch Method:	EPA 904.0		Analysis Description:	904.0 Radiu	im 228		
Associated Lab Sa	mples 3025081	8001					
METHOD BLANK:	1452092		Matrix: Water	A 14 2	1.2.4		
Associated Lab Sa	mples: 3025081	8001					
Para	meter	Act ±	Jnc (MDC) Carr Trac	Units	Analyzed	Qualifiers	
Radium-228		0.325 ± 0.288	(0.577) C:83% T:84%	pCi/L	05/07/18 12:22		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS



QUALIFIERS

Project: 1804B71 Pace Project No.: 30250818

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

WO#:	1804B71
	08-May-18

Client: Project:	Atkins E	ngineering	g Associ	ates								
	Shingo											
Sample ID	MB-A	Samp	Type: ME	BLK	Tes	TestCode: EPA Method 200.7: Dissolved Metals						
Client ID:	PBW	Bato	h ID: A5	0835	F	RunNo: 50835						
Prep Date:		Analysis Date: 4/26/2018			S	SeqNo: 1	651077	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Aluminum		ND	0.020									
Barium		ND	0.0020									
Boron		ND	0.040									
Cadmium		ND	0.0020									
Chromium		ND	0.0060									
Cobalt		ND	0.0060									
Copper		ND	0.0060									
Iron		ND	0.020									
Manganese		ND	0.0020									
Molybdenum		ND	0.0080									
Nickel		ND	0.010									
Silver		ND	0.0050									
Zinc		ND	0.010									
Sample ID	LLLCS-A	Samp	Type: LC	SLL	Tes	tCode: El	PA Method	200.7: Dissol	ved Meta	s		
Client ID:	BatchQC	Bato	h ID: A5	0835	RunNo: 50835							
Prep Date:		Analysis I	Date: 4/	26/2018	SeqNo: 1651080			Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Aluminum		ND	0.020	0.01000	0	116	50	150				
Barium		ND	0.0020	0.002000	0	93.5	50	150				
Boron		ND	0.040	0.04000	0	93.0	50	150				
Cadmium		0.0021	0.0020	0.002000	0	103	50	150				
Chromium		ND	0.0060	0.006000	0	98.8	50	150				
Cobalt		ND	0.0060	0.006000	0	98.5	50	150				
Copper		ND	0.0060	0.006000	0	80.3	50	150				
Iron		0.021	0.020	0.02000	0	103	50	150				
Manganese		0.0022	0.0020	0.002000	0	108	50	150				
Molybdenum		0.0081	0.0080	0.008000	0	101	50	150				
Nickel		ND	0.010	0.005000	0	88.6	50	150				
Silver		ND	0.0050	0.005000	0	91.6	50	150				
Zinc		ND	0.010	0.005000	0	126	50	150				
Sample ID	LCS-A	Samp	Type: LC	s	Tes	tCode: El	PA Method	200.7: Dissol	ved Meta	s		
Client ID:	LCSW	Bato	h ID: A5	0835	F	RunNo: 5	0835					
Prep Date:		Analysis I	Date: 4/	26/2018	5	SeqNo: 1	651082	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Aluminum		0.57	0.020	0.5000	0	115	85	115				
Barium		0.51	0.0020	0.5000	0	102	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 7 of 20

Client:	Atkins Engineering Associates
Project:	Siringo

Sample ID LCS-A	SampType: LCS TestCode: EPA Method 200.7: Dissolved Metals									
Client ID: LCSW	Batc	h ID: A5	0835	RunNo: 50835						
Prep Date:	Analysis Date: 4/26/2018			S	SeqNo: 1	651082	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.52	0.040	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Cobalt	0.50	0.0060	0.5000	0	99.4	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Molybdenum	0.52	0.0080	0.5000	0	103	85	115			
Nickel	0.50	0.010	0.5000	0	100	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			
Sample ID LCS-A	Samp	Type: LC	S	Tes	tCode: El	PA Method	200.7: Dissol	ved Metal	s	
Client ID: LCSW	Batc	h ID: A5	0835	F	RunNo: 5	0835				
Prep Date:	Analysis I	Date: 4/	26/2018	5	SeqNo: 1	651109	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.13	0.0050	0.1000	0	129	85	115			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 8 of 20

Client:		Atkins En	gineerin	g Asso	ociates								
Project:		Siringo											
Sample ID	MB		Samp	туре:	MBLK		Tes	tCode: I	EPA 200.8:	Dissolved Me	tals		
Client ID:	PBW		Bat	ch ID:	B50833		F	RunNo:	50833				
Prep Date:			Analysis	Date:	4/25/2018	6	S	SeqNo:	1649657	Units: mg/L			
Analyte			Result	PG	L SPK va	alue	SPK Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLimit	Qual
Arsenic			ND	0.00	10								
Lead			ND	0.000	50								
Selenium			ND	0.00	10								
Uranium			ND	0.000	50								
Sample ID	LLLCS		Samp	туре:	LCSLL		Tes	tCode:	EPA 200.8:	Dissolved Me	tals		
Client ID:	BatchQ	с	Bat	ch ID:	B50833		F	RunNo:	50833				
Prep Date:			Analysis	Date:	4/25/2018	;	S	SeqNo:	1649658	Units: mg/L			
Analyte			Result	PG	L SPK va	alue	SPK Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLimit	Qual
Arsenic			ND	0.00	10 0.001	000	0	93.1	50	0 150			
Lead			0.00050	0.000	50 0.0005	000	0	101	50	0 150			
Selenium			ND	0.00	10 0.001	000	0	92.8	5 50	0 150			
Uranium			ND	0.000	50 0.0005	000	0	91.5	5 50	0 150			
Sample ID	LCS		Samp	туре:	LCS		Tes	tCode: I	EPA 200.8:	Dissolved Me	tals		
Client ID:	LCSW		Bat	ch ID:	B50833		F	RunNo:	50833				
Prep Date:			Analysis	Date:	4/25/2018	6	S	SeqNo:	1649659	Units: mg/L			
Analyte			Result	PG	L SPK va	alue	SPK Ref Val	%REC	: LowLimi	t HighLimit	%RPD	RPDLimit	Qual
Arsenic			0.024	0.00	10 0.02	500	0	95.6	8	5 115			
Lead			0.013	0.000	50 0.01	250	0	104	8	5 115			
Selenium			0.024	0.00	10 0.02	500	0	95.9	8	5 115			
Uranium			0.012	0.000	50 0.01	250	0	93.7	. 85	5 115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 9 of 20

Client:	Atkins En	igineering As	ssociates						
Project:	Siringo								
Sample ID	MB-37814	SampType	e: MBLK	Tes	Code: EPA Metho	od 245.1: Mercu	ıry		
Client ID:	PBW	Batch ID): 37814	F	unNo: 50885				
Prep Date:	4/26/2018	Analysis Date	e: 4/27/2018	S	eqNo: 1651634	Units: mg/L			
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC LowLim	it HighLimit	%RPD	RPDLimit	Qual
Mercury		ND 0.00	0020						
Sample ID	LCS-37814	SampType	e: LCS	Tes	Code: EPA Metho	od 245.1: Mercu	ıry		
Client ID:	LCSW	Batch ID): 37814	F	unNo: 50885				
Prep Date:	4/26/2018	Analysis Date	e: 4/27/2018	5	eqNo: 1651635	Units: mg/L			
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC LowLim	it HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0051 0.00	0.005000	0	101 8	0 120			
Sample ID	1804B71-001FMS	SampType	e: MS	Tes	Code: EPA Metho	od 245.1: Mercu	ıry		
Client ID:	20180423-Siringo	Batch ID): 37814	F	unNo: 50885				
Prep Date:	4/26/2018	Analysis Date	e: 4/27/2018	5	eqNo: 1651659	Units: mg/L			
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC LowLim	it HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0053 0.00	0.005000	0.0001114	103 7	5 125			
Sample ID	1804B71-001FMSI	D SampType	e: MSD	Tes	Code: EPA Metho	od 245.1: Mercu	ıry		
Client ID:	20180423-Siringo	Batch ID	37814	F	unNo: 50885				
Prep Date:	4/26/2018	Analysis Date	e: 4/27/2018	S	eqNo: 1651660	Units: mg/L			
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC LowLim	it HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 10 of 20

Client: Project:	Atkins Engineer Siringo	ring Ass	ocia	tes								
Sample ID MB	SampType: mblk			lk	TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R50822				RunNo: 50822							
Prep Date:	Analy	sis Date:	4/2	4/2018		S	SeqNo: 1	649372	Units: mg/L			
Analyte	Res	ult PC	ΣL	SPK value	SPK	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	N	D 0	.10									
Chloride	Ν	D 0	.50									
Nitrogen, Nitrate (As N)	N	D 0	.10									
Sulfate	N	D 0	.50									
Sample ID LCS	S SampType: Ics				TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	E	Batch ID:	R50	822		F	RunNo: 5	0822				

Client ID: LCSW	Batch	ID: R5	0822	F	RunNo: 5	0822				
Prep Date:	Analysis Da	te: 4/	24/2018	5	SeqNo: 1	649373	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.6	0.50	5.000	0	92.2	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	94.1	90	110			
Sulfate	9.1	0.50	10.00	0	90.7	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit PQL
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client:	Atkins l	Engineering Ass	ociates						
Project:	Siringo								
Sample ID	MB-37781	SampType:	Tes	TestCode: EPA Method 8011/504.1: EDB					
Client ID:	PBW	Batch ID:	37781	F	RunNo: 50838				
Prep Date:	4/25/2018	Analysis Date:	4/25/2018	5	SeqNo: 164976	δ1 Units: μg/L			
Analyte		Result PC	L SPK value	SPK Ref Val	%REC Low	Limit HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoet	hane	ND 0.0)10						
Sample ID	LCS-37781	SampType:	LCS	Tes	tCode: EPA M	ethod 8011/504.1: I	EDB		
Client ID:	LCSW	Batch ID:	37781	F	RunNo: 50838				
Prep Date:	4/25/2018	Analysis Date:	4/25/2018	S	SeqNo: 16498 4	l6 Units: μg/L			
Analyte		Result PC	L SPK value	SPK Ref Val	%REC Low	Limit HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoet	hane	0.086 0.0	0.1000	0	86.2	70 130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 12 of 20

Client:	Atkins Er	ngineering	Associ	ates							
Project:	Siringo										
Sample ID MB-3	7763	SampT	ype: M	BLK	Tes	TestCode: EPA Method 8082A: PCB's					
Client ID: PBW		Batch	n ID: 37	763	F	RunNo: 5	0910				
Prep Date: 4/24	/2018	Analysis D	ate: 4	30/2018	S	SeqNo: 1	652878	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016		ND	1.0								
Aroclor 1221		ND	1.0								
Aroclor 1232		ND	1.0								
Aroclor 1242		ND	1.0								
Aroclor 1248		ND	1.0								
Aroclor 1254		ND	1.0								
Aroclor 1260		ND	1.0								
Surr: Decachlorobip	henyl	1.7		2.500		68.4	34.1	101			
Surr: Tetrachloro-m	-xylene	1.4		2.500		55.2	22.9	104			
Sample ID LCS-	37763	SampT	ype: LC	s	Tes	tCode: El	PA Method	8082A: PCB'	s		
Client ID: LCS	N	Batch	n ID: 37	763	RunNo: 50910						
Prep Date: 4/24	/2018	Analysis D	ate: 4/	30/2018	SeqNo: 1652954			Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016		3.6	1.0	5.000	0	72.2	33.4	137			
Aroclor 1260		4.3	1.0	5.000	0	86.8	27.4	141			
Surr: Decachlorobip	henyl	4.7		5.000		94.0	34.1	101			
Surr: Tetrachloro-m	-xylene	3.4		5.000		67.0	22.9	104			
Sample ID LCSI	D-37763	SampT	ype: LC	SD	Tes	tCode: El	PA Method	8082A: PCB'	s		
Client ID: LCS	502	Batch	n ID: 37	763	F	RunNo: 5	0910				
Prep Date: 4/24	l/2018	Analysis D	ate: 4/	30/2018	S	SeqNo: 1	652966	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016		4.0	1.0	5.000	0	79.2	33.4	137	9.25	17.9	
Aroclor 1260		4.7	1.0	5.000	0	93.8	27.4	141	7.75	16.2	
Surr: Decachlorobip	henyl	2.2		2.500		88.4	34.1	101	0	0	
Surr: Tetrachloro-m	-xylene	1.3		2.500		50.4	22.9	104	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 13 of 20

WO#: **1804B71** *08-May-18*

WO#:	1804B71
	08-May-18

Client: Atkins	Engineering	Associ	ates							
Project: Siring	0									
Sample ID rb	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batcl	h ID: A5	0817	F	RunNo: 5	50817				
Prep Date:	Analysis E	Date: 4	/24/2018	:	SeqNo: 1	648442	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0					-			
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 14 of 20

WO#:	1804	B71
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08-May-18	;
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Client: A Project: Si	tkins En iringo	gineering	Associ	ates							
Sample ID rb		SampT	ype: MB	BLK	Tes	tCode:	EPA Method	8260B: VOL	ATILES		
Client ID: PBW		Batch	n ID: A5	0817	F	RunNo:	50817				
Prep Date:		Analysis D	Date: 4	24/2018	:	SeqNo:	1648442	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	CowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene		ND	1.0								
Hexachlorobutadiene		ND	1.0								
2-Hexanone		ND	10								
Isopropylbenzene		ND	1.0								
4-Isopropyltoluene		ND	1.0								
4-Methyl-2-pentanone		ND	10								
Methylene Chloride		ND	3.0								
n-Butylbenzene		ND	3.0								
n-Propylbenzene		ND	1.0								
sec-Butylbenzene		ND	1.0								
Styrene		ND	1.0								
tert-Butylbenzene		ND	1.0								
1,1,1,2-Tetrachloroethane		ND	1.0								
1,1,2,2-Tetrachloroethane		ND	2.0								
Tetrachloroethene (PCE)		ND	1.0								
trans-1,2-DCE		ND	1.0								
trans-1,3-Dichloropropene		ND	1.0								
1.2.3-Trichlorobenzene		ND	1.0								
1.2.4-Trichlorobenzene		ND	1.0								
1.1.1-Trichloroethane		ND	1.0								
1.1.2-Trichloroethane		ND	1.0								
Trichloroethene (TCF)		ND	1.0								
		ND	1.0								
1 2 3-Trichloronronane		ND	2.0								
Vinyl chloride		ND	1.0								
Villyrenionae Xvlenes Total			1.0								
Surr: 1.2 Dichloroothano	٩٧	03	1.0	10.00		03 6	. 70	130			
Surr: A Bromofluorobenze	uno.	11		10.00		108	70	130			
Surr: Dibromofluorometha	no	0.0		10.00			, 70 , 70	130			
Surr: Toluene-d8	IIIC	9.3 9.3		10.00		92.8	70 70	130			
Sample ID 100ng los		SampT		s	Tes	tCode:	EPA Method	8260B · VOL	ATILES		
Client ID: LCSW		Batch	n ID: A5	0817	100	RunNo:	50817				
Prep Date:		Analysis D	Date: 4	24/2018	:	SeqNo:	1648443	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	CowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		22	1.0	20.00	0	108	3 70	130			
Toluene		19	1.0	20.00	0	94.8	5 70	130			
Chlorobenzene		19	1.0	20.00	0	96.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 15 of 20

WO#:	1804B71
	08-May-18

Client:	Atkins Engineering Associates
Project:	Siringo
-	

Sample ID 100ng Ics SampType: LCS TestCode: EPA Method 8260B: VOLAT										
Client ID: LCSW	Batch	Batch ID: A50817 RunNo: 50817								
Prep Date:	e: Analysis Date: 4/24/2018 SeqNo: 1648443 Units:									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.4	70	130			
Surr: Toluene-d8	9.3		10.00		93.0	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 16 of 20

WO#: 1804B71 08 Ma 10

08-Mav-18

Client:	Atkins En	ngineering	Associa	ates											
Project:	Siringo														
Sample ID MB-37	7765	Samp	Гуре: МЕ	BLK	TestCode: EPA Method 8310: PAHs										
Client ID: PBW		Batch ID: 37765			F	RunNo:	50850								
Prep Date: 4/24/	/2018	Analysis E	Date: 4/	26/2018	:	SeqNo: '	1650817	Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Naphthalene		ND	2.0												
1-Methylnaphthalene		ND	2.0												
2-Methylnaphthalene		ND	2.0												
Acenaphthylene		ND	2.5												
Acenaphthene		ND	2.0												
Fluorene		ND	0.80												
Phenanthrene		ND	0.60												
Anthracene		ND	0.60												
Fluoranthene		ND	0.30												
Pyrene		ND	0.30												
Benz(a)anthracene		ND	0.070												
Chrysene		ND	0.20												
Benzo(b)fluoranthene		ND	0.10												
Benzo(k)fluoranthene		ND	0.070												
Benzo(a)pyrene		ND	0.070												
Dibenz(a,h)anthracene		ND	0.12												
Benzo(g,h,i)perylene		ND	0.12												
Indeno(1,2,3-cd)pyrene)	ND	0.25												
Surr: Benzo(e)pyrene	9	15		20.00		77.4	52	133							
Sample ID LCS-3	37765	Samp	Гуре: LC	s	Tes	stCode: E	EPA Method	8310: PAHs							
Client ID: LCSW	I	Batc	h ID: 37	765	F	RunNo:	50850								
Prep Date: 4/24/	/2018	Analysis E	Date: 4/	26/2018	:	SeqNo: '	1650819	Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Naphthalene		43	2.0	80.00	0	53.4	35.5	118							
1-Methylnaphthalene		44	2.0	80.20	0	54.5	35.5	119							
2-Methylnaphthalene		44	2.0	80.00	0	54.5	32.4	122							
Acenaphthylene		48	2.5	80.20	0	59.7	47.6	128							
Acenaphthene		47	2.0	80.00	0	59.2	43.7	112							

Qualifiers:

Fluorene

Phenanthrene

Anthracene

Pyrene

Chrysene

Fluoranthene

Benz(a)anthracene

Benzo(b)fluoranthene

Benzo(k)fluoranthene

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded

4.9

2.6

2.8

5.7

5.8

0.60

2.9

0.70

0.37

0.80

0.60

0.60

0.30

0.30

0.070

0.20

0.10

0.070

8.020

4.020

4.020

8.020

8.020

0.8020

4.020

1.002

0.5000

0

0

0

0

0

0

0

0

0

- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit PQL
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range

61.3

63.7

70.6

71.2

72.2

74.8

72.1

69.9

74.0

45.9

52.7

54.1

59.1

55.2

52.9

50.6

49.7

54.5

113

114

127

116

105

126

120

118

119

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified
- Page 17 of 20

WO#:	1804B71

08-May-18

Client:	Atkins En	gineering	Associa	ates							
Project:	Siringo										
Sample ID LCS-37	765	Samp	Гуре: LC	S	Tes	tCode: E	PA Method	8310: PAHs			
Client ID: LCSW		Batc	h ID: 37	765	F	RunNo: 5					
Prep Date: 4/24/2	4/24/2018 Analysis Date: 4/26/2018 SeqNo: 1650819				Units: µg/L						
Analyte		Result	PQL	SPK value	'K value SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene		0.38	0.070	0.5020	0	75.7	49.8	120			
Dibenz(a,h)anthracene		0.74	0.12	1.002	0	73.9	52.5	126			
Benzo(g,h,i)perylene		0.74	0.12	1.000	0	74.0	52.3	120			
Indeno(1,2,3-cd)pyrene		1.4	0.25	2.004	0	71.9	46.8	114			
Surr: Benzo(e)pyrene		15		20.00		77.4	52	133			
Sample ID LCSD-3	37765	Samp	Гуре: LC	SD	Tes	tCode: E	PA Method	8310: PAHs			
Client ID: LCSS0	2	Batc	h ID: 37	765	F	RunNo: 5	0850				
Prep Date: 4/24/2	018	Analysis E	Date: 4/	26/2018	S	SeqNo: 1	650820	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene		41	2.0	80.00	0	50.8	35.5	118	4.99	19.8	
1-Methylnaphthalene		42	2.0	80.20	0	51.8	35.5	119	5.14	19.9	
2-Methylnaphthalene		41	2.0	80.00	0	51.4	32.4	122	5.76	19.4	
Acenaphthylene		46	2.5	80.20	0	57.0	47.6	128	4.53	22	
Acenaphthene		46	2.0	80.00	0	57.2	43.7	112	3.35	20.2	
Fluorene		4.6	0.80	8.020	0	58.0	45.9	113	5.64	18.9	
Phenanthrene		2.2	0.60	4.020	0	56.0	52.7	114	12.9	21	
Anthracene		2.6	0.60	4.020	0	65.2	54.1	127	8.06	19.3	
Fluoranthene		5.5	0.30	8.020	0	68.6	59.1	116	3.75	18.9	
Pyrene		5.6	0.30	8.020	0	69.8	55.2	105	3.34	19.7	
Benz(a)anthracene		0.57	0.070	0.8020	0	71.1	52.9	126	5.13	20.1	
Chrysene		2.8	0.20	4.020	0	69.7	50.6	120	3.51	18.8	
Benzo(b)fluoranthene		0.69	0.10	1.002	0	68.9	49.7	118	1.44	19	
Benzo(k)fluoranthene		0.35	0.070	0.5000	0	70.0	54.5	119	5.56	22.1	
Benzo(a)pyrene		0.36	0.070	0.5020	0	71.7	49.8	120	5.41	24.1	
Dibenz(a,h)anthracene		0.73	0.12	1.002	0	72.9	52.5	126	1.36	21.8	
Benzo(g,h,i)perylene		0.72	0.12	1.000	0	72.0	52.3	120	2.74	21.2	
Indeno(1,2,3-cd)pyrene		1.4	0.25	2.004	0	70.4	46.8	114	2.11	19.9	
Surr: Benzo(e)pyrene		14		20.00		71.4	52	133	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 18 of 20

SampType: LCS

Batch ID: 37840

Analysis Date: 4/30/2018

SampType: LCSD

Batch ID: 37840

Analysis Date: 4/30/2018

PQL

2.5

PQL

2.5

Result

Result

15

6.3

Atkins Engin

Siringo

gineering	Associa	ates							
SampT	ype: ME	BLK	Test	Code: To	otal Phenol	ics by SW-84	6 9067		
Batch	n ID: 37	840	R	unNo: 5	0919				
Analysis D	Date: 4/	/30/2018	S	eqNo: 1	653063	Units: µg/L			
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ND	2.5								E

TestCode: Total Phenolics by SW-846 9067

LowLimit

LowLimit

67.8

67.8

TestCode: Total Phenolics by SW-846 9067

Units: µg/L

HighLimit

Units: µg/L

HighLimit

139

139

%RPD

%RPD

83.1

RPDLimit

RPDLimit

21

Qual

SE

Qual

RE

RunNo: 50919

31.3

RunNo: 50919

%REC

75.9

SeqNo: 1653065

SPK value SPK Ref Val %REC

SPK value SPK Ref Val

0

0

20.00

20.00

SeqNo: 1653064

Qualifiers:	
-------------	--

Client:

Project:

Client ID:

Prep Date:

Analyte

Phenolics

Sample ID MB-37840

Sample ID LCS-37840

Sample ID LCSD-37840

LCSS02

4/30/2018

Client ID: LCSW

Prep Date:

Analyte

Phenolics

Client ID:

Prep Date:

Analyte

Phenolics

PBW

4/30/2018

4/30/2018

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 19 of 20

Client:	Atkins E	ngineering Ass	ociates						
Project:	Siringo								
Sample ID	MB-37787	SampType:	MBLK	Tes	tCode: SM2540C	MOD: Total Dis	solved So	lids	
Client ID:	PBW	Batch ID:	37787	F	RunNo: 50861				
Prep Date:	4/25/2018	Analysis Date:	4/26/2018	S	SeqNo: 1650414	Units: mg/L			
Analyte		Result PC	QL SPK value	SPK Ref Val	%REC LowLin	nit HighLimit	%RPD	RPDLimit	Qual
Total Dissolved	d Solids	ND 2	0.0						
Sample ID	LCS-37787	SampType:	LCS	Tes	tCode: SM2540C	MOD: Total Dis	solved So	lids	
Client ID:	LCSW	Batch ID:	37787	F	RunNo: 50861				
Prep Date:	4/25/2018	Analysis Date:	4/26/2018	5	SeqNo: 1650415	Units: mg/L			
Analyte		Result PC	QL SPK value	SPK Ref Val	%REC LowLim	nit HighLimit	%RPD	RPDLimit	Qual
Total Dissolved	d Solids	983 2	0.0 1000	0	98.3 8	30 120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 20 of 20

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Website: www.ha	Analysis Lab 4901 Haw querque, NM FAX: 505-34 llenvironmen	oratory kins NE (87109 San (5-4107 tal.com	nple Log-In C	heck List	
Client Name: ATK W	/ork Order Number:	1804B71		RcptNo:	1	-
Dessived Drug Fairs Walks days		1 .	11 111			
Completed By Enn Melendrez 4/24	#2018 9:00:00 AM	· · · ·	min	~~~		
Completed By: Michelle Garcia 4/24	2018 9:32:00 AM		I futille (onum)		
	······································					
Chain of Custody	•		•		·	
1. Is Chain of Custody complete?		Yes 🔽	No 🗍	Not Present	,	
2 How was the sample delivered?		FedEx				
		<u>I OULA</u>				
Log In		. 🗖				
5 Was an attempt made to cool the samples?		Yes 🗹	No 🗀			
4. Were all samples received at a temperature of >0	° C to 6.0°C	Yes 🗹	No 🗌	NA 🗀		
5. Sample(s) in proper container(s)?		Yes 🗹	No			
6. Sufficient sample volume for indicated test(s)?		Yes 🗸	No 🗌			
7. Are samples (except VOA and ONG) properly pres	erved?	Yes 🗹	Νο			
8. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗌		
•.		1	· .		2-04/24/1	Š
9. VOA vials have zero headspace?		Yes 忆	No 🗌	No VOA Vials	Y 1	
10, were any sample containers received broken?		Yes 🗀	No 💌	# of preserved		
11. Does paperwork match bottle labels?		Yes 🔽	No 🗆	for pH:	1	
(Note discrepancies on chain of custody)				C20r: Adjusted2	(12 Juniess noted)	
12. Are matrices correctly identified on Chain of Custor 12. Is it clear what analyses were requested?	dy?	Yes ⊻		Aujusteur		
14. Were all holding times able to be met?		Yes 🗹		Checked by:	mw	
Special Handling (if applicable)			÷			
15. Was client notified of all discrepancies with this or	der?	Yes 🗌	No 🗌	NA 🗹	- ·	
Person Notified		*				
By Whom:	Via:	eMail 🗌	Phone 🗌 Fax	In Person		
Regarding:						
Client Instructions:						
16. Additional remarks:						
17. Cooler Information						
Cooler No Temp °C Condition Seal Inte	ct Seal No Seal No	eal Date	Signed By			
1 0.8 Good Yes						

		www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	(†00)	335/Die 638 0 335/Die 704,5 705,5 70	и 11) 11) 11) 11) 11) 11) 11) 11	HA 13 L 13 L 14		ТЕХ + МТ ВТЕХ + МТ ТРН Меthod ТРН (Method ВТЕХ + МТ ТРН (Method В250 (РИА 8310 (РИА 8310 (РИА 8310 (РИА 8250 (УОМ 8250 (УОМ 8250 (Semi- 7 МСМ 0Л 8250 (Semi- 8250 (Semi- 825							Remarks: SEE EMAL ENCLOSED NMAC LIST plus methound via 80/58 Total Bottles: 19 + 3 trip blank is possibility. Any sub-contracted data will be clearly notated on the analytical report.	· · · · · · · · · · · · · · · · · · ·
Turn-Around Time:	L Standard KushH/07//8	Project Name:	SILINAD	Project #: V	Idsrin	A Project Manager:	Murshindry Artez	Sampler: 24/KK	On Ice: 📈 Yes 🛛 No	Sample Temperature:	Container Preservative HEAL No. Type and # Type	varies vories 001	00.5					Received by Folex Date Time Received by UZUNIA Received by: Date Time contracted to other accredited laboratories. This serves as notice of thi	
Chain-of-Custody Record	Client: AHAMS ENCITREMMY ASCULATS, INL		Mailing Address: 2904 W ZND ST	POSLUELL N'M 88201	Phone #: 575. 624.2420	email or Fax#: Sem Jing () Ort discrip Un	QA/QC Package:	Accreditation	NELAP Other	EDD (Type)	Date Time Matrix Sample Request ID	4/23/16 11:37 AR 20180-123-Durveo	Trip Blank	hu				Date: Time. Relinquished by: 2) 2) (3) 100 Date: Time. Relinquished by: If necessary, samples submitted to Hall Environmental may be subc	•

A. Fruman fream Standards-Ground water shan meet the standards of Subsection A and section unless otherwise provided. If more than one water contaminant affecting human health is present, pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the com of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floar of or immersed within ground water, as can be reasonably measured.

Arsenic (As).	0.1 mp/l
Barium (Ba).	
Cadmium (Cd)	0.01 mg/l
Chromium (Cr)	0.05 mg/l
Cyanide (CN)	0.2 mg/l
Fluoride (F)	1.6 mg/l
Lead (Pb).	0.05 mg/l
Total Mercury (Hg)	0.002 mg/l
Nitrate (NO ₃ as N).	
Selenium (Se)	0.05 mg/1
Silver (Ag)	0.05 mg/l
Uranium (U).	0.03 mg/l
Radioactivity: Combined Radium-226 & Radium-228	
Benzene	0.01 mg/l
Polychlorinated biphenyls (PCB's)	0.001 mg/1
Toluene	0.75 mg/l
	Arsenic (As). Barium (Ba). Cadmium (Cd). Chromium (Cr). Cyanide (CN). Fluoride (F). Lead (Pb). Total Mercury (Hg). Nitrate (NO ₃ as N). Selenium (Se). Silver (Ag). Uranium (U). Radioactivity: Combined Radium-226 & Radium-228. Benzene. Polychlorinated biphenyls (PCB's). Toluene.

20.6.2 NMAC

	(17)	Carbon Tetrachloride	0.01 mg/l
	(18)	1,2-dichloroethane (EDC)	0.01 mg/l
	(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
	(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
	(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
	(22)	ethylbenzene.	0.75 mg/l
	(23)	total xylenes.	0.62 mg/l
	(24)	methylene chloride	0.1 mg/l
	(25)	chloroform.	0.1 mg/l
	(26)	1,1-dichloroethane.	0.025 mg/l
	(27)	ethylene dibromide (EDB)	0.0001 mg/l
	(28)	1,1,1-trichloroethane.	
	(29)	1,1,2-trichloroethane.	0.01 mg/l
	(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
	(31)	vinyl chloride	
	(32)	PAHs: total naphthalene plus monomethyinaphthalenes	0.03 mg/l
	(33)	benzo-a-pyrene	0.0007 mg/l
В.	Other S	Standards for Domestic Water Supply	.
	(1)	Chloride (Cl)	
	(2)	Copper (Cu)	1.0 mg/l
	(3)	Iron (Fe)	1.0 mg/l
	(4)	Manganese (Mn)	0.2 mg/l
	(6)	Phenols	0.005 mg/l
	(7)	Sulfate (SO ₄)	600.0 mg/l
	(8)	Total Dissolved Solids (TDS)	1000.0 mg/l
	(9)	Zinc (Zn)	10.0 mg/l
	(10)	pH	between 6 and 9
С.	Standa	rds for Irrigation Use - Ground water shall meet the standard	s of Subsection A, B,
nd C of this see	ction unl	ess otherwise provided.	
	(1)	Aluminum (Al),	5.0 mg/l
	(2)	Boron (B)	0.75 mg/l
	(3)	Cobalt (Co)	0.05 mg/l
	(4)	Molybdenum (Mo)	1.0 mg/l
	(5)	Nickel (Ni)	0.2 mg/l
2-18-77, 1-29-8; 41	2, 11-17-	83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.111.	3103, 1-15-01; A, 9-26-

•

Chavez, Carl J, EMNRD

From:Chavez, Carl J, EMNRDSent:Friday, May 4, 2018 1:22 PMTo:'Christopher Cortez'; darrangell@gmail.comCc:Griswold, Jim, EMNRD; Griswold, Jim, EMNRDSubject:RE: 2018-05-04_Siringo ACS State Brine Well No. 1_MonitorWellInstallReport.pdf
(BW-35)

Mr. Cortez:

The New Mexico Oil Conservation Division (OCD) is in receipt of the above subject information with attachments and will update its administrative record today.

Thank you for the great communication on this discharge permit condition.

Mr. Carl J. Chavez, CHMM (#13099) New Mexico Oil Conservation Division Energy Minerals and Natural Resources Department 1220 South St Francis Drive Santa Fe, New Mexico 87505 Ph. (505) 476-3490 E-mail: <u>Carl J. Chavez@state.nm.us</u> **"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: <u>http://www.emnrd.state.nm.us/OCD</u> and see "Publications")**

From: Christopher Cortez <chris@atkinseng.com>
Sent: Friday, May 4, 2018 10:48 AM
To: darrangell@gmail.com
Cc: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: 2018-05-04_Siringo ACS State Brine Well No. 1_MonitorWellInstallReport.pdf
Importance: High

All,

See attached for the Siringo ACS State Brine Well No 1., monitor well install report. Carl as discussed earlier this week, the partial HEAL results are included. HALL is awaiting the radionuclide results from its subcontracted lab.

As soon as those results become available, I will forward them to you

Contact me with any questions,

Thanks,

Chris
Christopher R. Cortez | Operations Manager NM Licensed Drill Rig Supervisor for WD #1249 Atkins Engineering Associates Inc. 2904 W 2nd St | Roswell, NM 88201 Office 575.624.2420 | Mobile 575.914.0174 chris@atkinseng.com



05/04/2018

Darr Angell Llano Disposal, LLC PO Box 250 Lovington, NM 88260

Transmitted via email to Dar Angell at <u>darrangell@gmail.com</u>.

Re: Monitor Well Installation Report at the Siringo ACS State Brine Well No. 1, Section 26, T-17-S, R-36-E, Lea County, New Mexico.

Mr. Angell,

Atkins Engineering Associates Inc. (AEA) is pleased to submit this Monitor Well Installation Report at the Siringo ACS State Brine Well No. 1 located in Section 26, Township 17 South, Range 36 East, Lea County, New Mexico.

Permitting

On March 30, 2018, AEA submitted an *Application for Permit to Drill a Well with No Water Right* to the District II Office of the State Engineer (DII OSE). AEA received the OSE permit for L-14453 POD1 on April 10, 2018. A copy of the permit is in Appendix B: Permits and Reports.

Field Work

The week of April 17, 2018, AEA mobilized to the site and advanced one soil boring to approximately 59 feet below ground surface (bgs) using 4.25-inch inside diameter hollow stem augers. The boring was converted to site monitor well MW-1 using 15 feet of 2-inch schedule 40 PVC 0.020 slot screen and enough 2-inch schedule 40 PVC riser to get above land surface. 12/20 silica sand pack was placed inside the annular space from total depth to 2 feet above the PVC screened interval. Prior to the placement of a 3-foot layer of hydrated bentonite, AEA personnel developed the well to allow the silica sand to"settle and added silica as necessary. The remaining annular space was grouted with neat cement to approximately 2 feet bgs. The surface completion consisted of 5000 psi Quikrete, a 4"x4"x5' standup vault, 2-inch locking J-Plug, and bollards. Please see the provided log in Appendix A for well construction details.

On April 23, 2018, AEA technicians, under the direction of Ryan C. Cortez, a New Mexico Licensed Professional Surveyor, conducted a survey of monitoring well MW-1 and the Brine Well. The horizontal positions and elevations were established using a Topcon GR-5 base and receiver. Horizontal coordinates are reported in US Survey Feet NAD 83 New Mexico State Plane East Grid Coordinates, scaled to ground with a combined scale factor of 1.00016239637. Latitude and Longitude are reported in NAD 83 decimal degrees. Elevations were determined using GPS RTK observations tied to Static GPS observations of NGS Benchmark "U151" with a published Orthometric height of 3,890.55 feet NAVD88.



A stamped survey report can be found in Appendix B.

On April 23, 2018, AEA technicians sampled MW-1. The monitoring well's water column was measured using a water level meter. The completed well total depth was 60.56 feet from the top of casing (TOC) and the static water level was measured at 50.47 feet below TOC with a water column of 10.09 feet. Following water level measurement, MW-1 was low-flow purged using a decontaminated Geotech SS Geosub Electrical Submersible Pump and disposable tubing. Purging was completed when field parameters became stable.

After purging, samples were collected in Hall Environmental Analytical Laboratory (HEAL) supplied containers with preservatives, as needed, and immediately placed on ice. The samples were shipped overnight to HEAL in Albuquerque, New Mexico. Samples were tested for methanol, general chemistry, and additional dissolved phase contaminants listed on New Mexico Administrative Code Subsection A 20.6.2.3103.

Reporting and Results

After well construction and surveying, AEA submitted a well record to the DII OSE for monitor well MW-1 (L-14453 POD1). The timestamped well record can be found in Appendix B.

HEAL received the groundwater samples on April 24, 2018 with an arrival temperature of 0.8° C. All samples were analyzed within the proper holding times, and AEA has no concerns with the quality of the laboratory results. A copy of the partial HEAL laboratory report can be found in Appendix B.

At the time of this report, the radionuclide results are still pending from the HEAL subcontracted laboratory. Those results will be forward as soon as they become available.

If you have any questions please contact me at 575.624.2420 or <u>chris@atkinseng.com</u>.

This tota

Chris Cortez

CC: Carl Chavez, NMOCD, carlj.chavez@state.nm.us

Appendix A: Well Construction Log



Appendix B: Permits and Reports



NEW MEXICO OFFICE OF THE STATE ENGINEER



WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT



(check applicable box):

[10	i lees, see Olale Engineer website.							
Purpose:		Pollution Control And/Or Recovery	Ground Source Heat Pump						
Exploratory Well (Pump test)		Construction Site/Public Works Dewatering	Other(Describe):						
Monitoring Well		Mine Dewatering							
A separate permit will be required	to app	ly water to beneficial use regardle	ess if use is consumptive or nonconsumptive.						
Temporary Request - Request	Temporary Request - Requested Start Date: Requested End Date:								
Plugging Plan of Operations Submitted? 🗌 Yes 🔳 No									

1. APPLICANT(S)

^{Name:} Llano Disposal, LLC		Name:						
Contact or Agent:	check here if Agent	Contact or Agent: check here if Agent						
Darr Angell	or	Atkins Engineering Associates, Inc						
Mailing Address: PO Box 250		Mailing Address: 2904 W. 2nd St.	ZEN RO					
City: Lovington		^{City:} Roswell						
State: NM	Zip Code: 88260	State: NM Zip Code:	88201 👑 🛄					
Phone:	🗌 Home 🔲 Cell	Phone:	Cell					
Phone (Work):		Phone (Work): 575.624.2420	12 N					
E-mail (optional):		E-mail (optional): andrew@atkinseng.com	50 00					

FOR OSE INTERNAL USE	DSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16							
File No.: 1-14453	Tm. No.: (23/82	Receipt No.: 2 - 39237						
Trans Description (optional):	PODI							
Sub-Basin:	PCW/LOG Due D	Date: 4-30-19						
	1	Page 1 of 3						

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordir (Lat/Long - WGS84). District II (Roswell) and Dis	nate location must b trict VII (Cimarron) c	e reported in NM S ustomers, provide	itate Plane (NAD 83), UTM (NAD 83), <u>or</u> Latitu a PLSS location in addition to above.	ıde/Lor	ngitude
 NM State Plane (NAD83) NM West Zone NM East Zone NM Central Zone 	(Feet)	JTM (NAD83) (Mete]Zone 12N]Zone 13N	ers) Itat/Long (WGS84) (to 1/10 th of second)	o the ne	earest
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (<i>Quarters or Halves , Section, Township,</i> - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name	Range) OR
L POD-1 (MW-1)	103°19'53.39"W	32°48'40.64"N	NW1/4NW1/4 of Section 26, T17S, R3	6E, N.	M. P.M.
				29	RC
				.5	
				2	
NOTE: If more well location Additional well descriptions	s need to be describ are attached:	ed, complete form Yes 🔳 No	WR-08 (Attachment 1 – POD Descriptions) If yes, how many	12	AB
Other description relating well	to common landmark	s, streets, or other:		0	
Well is on land owned by: Ang	gell #2 Family LTD F	Partnership			
Well Information: NOTE: If n If yes, how many	nore than one (1) we	Il needs to be des	cribed, provide attachment. Attached?	Yes [No
Approximate depth of well (fee	et): ±80	C	utside diameter of well casing (inches): ±2.375		
Driller Name: Jackie D. Atkin	s	D	riller License Number: 1249		

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

monitor well for brine well conversion.

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

Trn No.: 623/82

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory:	Pollution Control and/or Recovery:	Construction	Mine De-Watering:
🗌 Include a	Include a plan for pollution	De-Watering:	Include a plan for pollution
description of	control/recovery, that includes the	Include a description of the	control/recovery, that includes the following:
any proposed	following:	proposed dewatering	A description of the need for mine
pump test, if	A description of the need for the	operation.	dewatering.
applicable.	pollution control or recovery operation.	The estimated duration of	The estimated maximum period of time
	The estimated maximum period of	the operation.	for completion of the operation.
	time for completion of the operation.	The maximum amount of	The source(s) of the water to be diverted.
	The annual diversion amount.	water to be diverted.	The geohydrologic characteristics of the
	The annual consumptive use	A description of the need	aquifer(s).
	amount	for the dewatering operation.	The maximum amount of water to be
	The maximum amount of water to be	and	diverted per annum
	diverted and injected for the duration of	A description of how the	The maximum amount of water to be
	the operation.	diverted water will be disposed	diverted for the duration of the operation.
	The method and place of discharge	of	The quality of the water
Monitoring:	The method of measurement of	Ground Source Heat Pump:	The method of measurement of water
Include the	water produced and discharged	Include a description of the	diverted.
reason for the	The source of water to be injected	geothermal heat exchange	The recharge of water to the aquifer
monitoring	The method of measurement of	project	Description of the estimated area of
well and	water injected	The number of boreholes	bydrologic effect of the project
	The characteristics of the aquifer	for the completed project and	The method and place of discharge
duration	The method of determining the	required depths	An estimation of the effects on surface
of the planned		The time frame for	water rights and underground water rights
or the planned	water and depletion from any related		from the mine dewatering project
monitoring.	atroom ovetem	constructing the geothermal	A description of the methods employed to
Until no	Dreef of any normit required from the	The duration of the project, and,	astimate offects on ourface water rights and
lonaer	New Mexico Environment Department		underground water rights and
needed		Preilminary surveys, design	Underground water rights.
neeueu	An access agreement if the	data, and additional	Liniomation on existing wells, rivers,
	applicant is not the owner of the land on	information shall be included to	springs, and wetlands within the area of
	which the pollution plume control or	provide all essential facts	nyarologic effect.
	recovery well is to be located.	relating to the request.	

ACKNOWLEDGEMENT

Laura Angell (Executive Vice President of Llano Disposal, LLC) I, We (name of applicant(s)),

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Laura Angell

Applicant Signature

Applicant Signature		Applicant Signa	ture	-	
	ACTION OF THE	STATE ENGINEER			
	This app	plication is:		-5	
	approved	partially approved	🗌 denied		A Course of the
provided it is not exercised to the detriment of Mexico nor detrimental to the public welfare an	any others having ex nd further subject to t	tisting rights, and is no he <u>attached</u> condition	ot contrary to the conservati is of approval.	ion of water	in New
Witness my hand and seal this 12th day	of April	20 18	_ , for the State Engineer,	2:5	EXICO NPTIO
Tom Blaine, P.E		, State Engineer		0	
By:	-0				
Signature		Print			
Title: Juan Hernandez, Water	Resources Man	ager 1			
Print					
	FOR OSE INTERN	IAL USE	Application	for Permit, For	rm WR-0
	File No.: L-1	4453	Trn No.: (123/	182	
				Pa	ige 3 of 3

NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

- 17-1B Depth of the well shall not exceed the thickness of the Ogallala formation.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.
- LOG The Point of Diversion L 14453 POD1 must be completed and the Well Log filed on or before 04/30/2019.

IT IS THE PERMITTEES RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

SHOULD THE PERMITTEE CHANGE THE PURPOSE OF USE TO OTHER THAN MONITORING PURPOSES, AN APPLICATION SHALL BE ACQUIRED FROM THE OFFICE OF THE STATE ENGINEER.

Trn Desc: L 14453 POD1

File Number: L 14453 Trn Number: 623182 Tom Blaine, P.E. State Engineer



Roswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201

STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr: 623182 File Nbr: L 14453 POD1

Apr. 10, 2018

CHRIS CORTEZ ATKINS ENGR ASSOC INC 2904 W 2ND ST ROSWELL, NM 88201

RE: LLANO DISPOSAL LLC

Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 04/30/2019, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 04/30/2019.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Juan Hernandez (575)622-6521

Enclosure

explore

	REWINGLOODFFICE ###2-2498.62.1128 A #CLE#PTC Divolut	
πουρο [] τωρωνόρη πού σέριη [] τόμολολη βοσ"	C Anthonistics	S Brand Same Same Same S D'Augharsteil
د سیوس وسیوس ما در ا	anna a dala ana fa sharana da Anna 2014 () en 10 ek Anna 2014 () en 10 ek	ngaran f an a ananagin a nasananyan Ananang ka ha
 maximum provident and an and Transpiring Provide Calculation MPPULLARIAL Marrier Campo Degenera, ed.: Compare a regione Compare a regione 	anna a agus an agus an la baraine ag annai 1941 (an 1946) an 1947 (an 1946) an 1947 (an 1947) an 1947 (an 1947) an 1947 (an 1947) an 1947 (an 1947)	Reported Ford & resolution & resolution (report Reported (data (refe
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104.01 34 040

2018-03-28_ldsirin_PermittoDrill (form)

Adobe Sign Document History

03/30/2018

Created:	03/30/2018
By:	Christopher Cortez (chris@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAALw8HIUecnP56-gwjVzVumtwoFxBJwvpv
Status: Transaction ID:	Signed CBJCHBCAABAALw8HIUecnP56-gwjVzVumtwoFxBJwvpv

"2018-03-28_Idsirin_PermittoDrill(form)" History

- Document uploaded by Christopher Cortez (chris@atkinseng.com) from Acrobat 03/30/2018 - 10:00:41 AM PDT- IP address: 174.126.65.140
- Document emailed to Laura Angell (angellauram@gmail.com) for signature 03/30/2018 - 10:01:32 AM PDT
- Document viewed by Laura Angell (angellauram@gmail.com) 03/30/2018 - 10:01:43 AM PDT- IP address: 66.249.80.48.
- Document e-signed by Laura Angell (angellauram@gmail.com) Signature Date: 03/30/2018 - 10:02:32 AM PDT - Time Source: server- IP address: 199.195.171.253

70 8 1147

PH 2: 50



3/302018

District II Office of the State Engineer 1900 W 2nd St. Roswell, NM 88201

Hand delivered on the date of this letter to the DII Office of the State Engineer

RE: Monitor Well Permit

To Whom It May Concern,

Atkins Engineering Associates, Inc. (AEA) has been contracted to drill a monitor well for Llano Disposal, LLC

Enclosed please find in triplicate, an *Application for Permit to Drill a Well with No Water Right* and a Check for \$5.00 to process the application.

If you have any questions, please contact me at 575.624.2420 or chris@atkinseng.com.

Sincerely,

Chris Cortez

Enclosures: as noted above

1000 54.3 3 Ņ 50





DII-NMOSE 1900 W 2nd Street Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record for L-14453 POD1 (site MW-1)

To Whom It May Concern:

Atkins Engineering Associates, Inc has completed the installation of one (1) monitoring well for Llano Disposal, LLC.

Please a well record for the following well in triplicate form:

L-14453 POD 1 (Site MW-1)

If you have any questions, please contact me at 575.624.2420 or andrew@atkinseng.com.

Sincerely,

rm

Andrew Martin | Junior Engineer Atkins Engineering Associates, Inc.



17 25

provide and the provide provid



LOCATION

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

NO	OSE POD NO. POD 1 (Site	(WELL NO e MW-1)).)		well tag id no. N/A		OSE FILE NO(L-14453	(S).			
OCATI	WELL OWNE	R NAME(S) osal, LLC) C				PHONE (OPTIONAL)				
WELL L	WELL OWNER MAILING ADDRESS PO Box 250 Attn: Dar Angell							CITYSTATEZLovingtonNM88260			
ENERAL AND	WELL DI LOCATION LATITUDE (FROM GPS) LONGITUDE		BREES MINUTES SECONDS 32 48 40.6 N 103 19 53.4 W			* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84					
1.0	NW1/4NW	1/4 of Se	ection 26, T17S, R30	DE, N. M. P.N	<i>1.</i>			NAME OF WELL DR	ILLING COMPANY		
	1249 Jackie D. Atkins						Atkins E	Engineering Associate	S		
	DRILLING STARTED DRILLING ENDED 04/17/2018 04/18/2018		DEPTH OF COM	MPLETED WELL (FT) 58	BORE HO	DLE DEPTH (FT) 59	DEPTH WATER FIR	ST ENCOUNTERED (FT 50)		
z	COMPLETED WELL IS: ARTESIAN			DRY HOL	E 📝 SHALLOW (UNCONFINED)		STATIC WATER LEV	/el in completed wi 47.9	ELL (FT)	
TIO	DRILLING FLUID:			MUD ADDITIVES – SPECIFY:			None	e			
ASING INFORMA	DRILLING METHOD: . ROTARY			HAMMER	CABLE TOO	l 🗹 othe	ER – SPECIFY:	Hollow Stem Auger (HSA)			
	DEPTH (feet bgl)		BORE HOLE	CASING MATERIAL AND/OR GRADE		R C.	ASING	CASING	CASING WALL	SLOT	
	FROM	то	DIAM (inches)	(include e note s	each casing string, and sections of screen) CONN (add coupl		NECTION FYPE bling diameter)	INSIDE DIAM. (inches)	THICKNESS (inches)	SIZE (inches)	
& C	0	43	±8.0	2 IN S	CH 40 PVC Riser		n/a	2.067	0.154	n/a	
Ŋ	43	58	±8.0	2 IN SO	CH 40 PVC Screen		n/a	2.067	0.154	0.020	
2. DRILL									72 ° ° ° 25	40	
- 1									ę.		
	DEPTH	feet bgl)	POPE HOLE	LIS	T ANNIII AR SFAI	MATERIAL	AND	AMOUNT	METLIC	DOF	
AL	FROM	TO	DIAM. (inches)	GRAV	/EL PACK SIZE-RA	NGE BY INTI	ERVAL	(cubic feet)	PLACE	MENT	
ERI	0	2	±8.0		5000 psi Q	uikrete		±0.57	from su	rface	
IAT	2	38	±8.0		Neat Cer	ment		±10.23	tremie	hose	
AR N	38	41	±8.0		Hole Plug/Bent	tonite Chips		±1.05	tremie thro	ugh HSA	
3. ANNULA	41	59	±8.0		12/20 Silica S	Sand Pack		±4.24	tremie thro	ugh HSA	
FOR	OSE INTERN	NAL USE			POD NO.		WR-2	0 WELL RECORD &	& LOG (Version 06/3	30/17)	

PAGE 1 OF 2

WELL TAG ID NO.

-	DEPTH (eet hal)					1			EST	IMATED
	FROM	TO	THICKNESS (feet)	COLOR AN INCLUDE WATE (attach sup	D TYPE OF MATERIAL EI R-BEARING CAVITIES O plemental sheets to fully de	NCOUNTERED - R FRACTURE ZONI escribe all units)	es 1	WAT BEAR (YES	TER LING? / NO)	YIE W BE ZON	ELD FOR ATER- EARING IES (gpm)
	0	9	9	Clayey sand, fine to	coarse grained sand, 5-10mr	n gravel, light brown,	dry	Y	✓ N		
	9	19	10	Clayey sand	, fine to coarse grained sand	light brown, dry		Y	✓ N		
	19	29	10	Clayey sand, fine to	coarse grained sand, 5-10mr	n gravel, light brown,	dry	Y	√ N		
	29	44	15	Sand, v	very fine to fine grained sand	, brown, dry		Y	√ N		
	44	59	15	Sandy clay, f	ine to coarse grained sand, b	rown, moist to wet	1	Y	N		
Ţ								Y	N		
VEL								Y	N		
OF \		1						Y	N		
0G								Y	N	1	
ICL								Y	N		
DOG								Y	N		
EOI								Y	N		Ø
ROG								Y	N	3	35
QXE								Y	N		a de la composición de la comp
4.1								Y	N	3	
	1							Y	N	14	
		1.000						Y	N	2	*****
								Y	N		S-
								Y	N		68
								Y	N		
								Y	N		
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:							FAL ESTIMATEDELL YIELD (gpm):0.00			0.00
NOIS	WELL TEST TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.										
TEST; RIG SUPERVI	MISCELLA.	TE(S) OF D	FORMATION: Si	te monitoring well M	W-1. VIDED ONSITE SUPERVIS	SION OF WELL CO	VSTRUCTI	ON 0'	THER TH	IAN L	CENSEE:
5.	Guadalupe I	Leyba, Sha	une Eldridge		EST OF HIS OF HER WYO	WI EDGE AND DET	IFF TUE			ATD	
6. SIGNATURE	THE UNDER CORRECT I AND THE P	RSIGNED I RECORD C ERMIT HC	HEREBY CERTIF OF THE ABOVE D DIDER WITHIN 2 June D. June TURE OF DRILLE	TIES THAT, TO THE B DESCRIBED HOLE AN 10 DAYS AFTER COM Jac Jac R / PRINT SIGNEE	EST OF HIS OR HER KNO D THAT HE OR SHE WILI PLETION OF WELL DRILI Skie D. Atkins NAME	WLEDGE AND BEL	RECORD W	0REC /ITH 1 2.5,	DATE	TE EN	UE AND GINEER
FOI	R OSE INTER	NAL USE				WR-20 WI	ELL RECO	RD &	LOG (Ve	rsion 0	6/30/2017
FIL	E NO.				POD NO.	TRN NO.					-
LO	CATION					WELL TAG ID NO				PA	GE 2 OF 2

WELL MONITORING DATA SHEET

-	1 .				Well I.D.	1 5:	116		Job Number	r: Idan	Catol-18
Atkins			Client:	Ucing	- DEO	esal LLC	Date:	04/3	23/18		
ENGI	NEERI	NG AS	SOCI	ATES	Project:	GW Sr.	mpling	7	Sampler:	npler: ZH/KR	
					Weather:	Clen	í)		Time In/Out: 1025		/
					WELL DATA		-				
Well Depth	1:	60.	56		Well Diameter:		3	2*		ht	~
Depth to W	/ater:	30.	47		Screened In	terval:			x Multiplier		
Water Colu	umn Length:	10.	09'		Depth to Fre	e Product:	1/07	EP.	x Casing Vo	olumes	-
Purge Volu	ime:		-		Free Produc	t Thickness:	NO	NE	= Purge Vol	lume	-
Water I	Height Multi	pliers (gal)	1-inch	= 0.041	2-inch :	= 0.1743	4-inch	n = 0.6613	1 gallon = 3	3.785 liters	
		21	1	_	PU	RGING DATA		TAT-1		1	
Purge Meth	nod:	Spicesi	ble PU-	2	Pump Intake	e Depth:	6	5.50			omments
Sampling N	Aethod:	Cumulative	Flow	-	Tubing Type	e:	biestech	3/4 10	1		
Time	Volume Purged (fiters)	Volume Purged	DTW (btc)	Purge Rate (L/min)	рН	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
	3a1	gal			+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	< Stabilization Criteria
1055	0.70	0.70	50.61	0.483	8.17	20.7	1149	6.31	143.4	-	SU
1101	0.25	0.95	50.57	0.40	8.12	21.2	1175	5.23	123.2	-	SC
1106	0.2	1.15	50.52	0.24	8.10	21.4	1184	5.30	112.3	-	CI
11/2	G.1	1.25	50.55	8.236	8.08	215	1220	5,54	101.9	•	CI
1118	0.21	1.46	50.49	0.22	8.06	220	237	5.15	97.3	-	CL
1124	0.39	1.85	5053	A.25	8.09	21.7	1238	5.32	96.2	-	C
1124	0.30	2.15	505)	0.24	8.06	22.1	1232	5.84	92.8	-	CI
	12										
		Clari	ty: VC = ve	ery cloudy,	CI = Cloudy,	SC = slightly	cloudy, AC	= almost clea	r, C = clear		
0.		1. A 41.02	5	0		PLING DATA	Depell			116	11
Samp		Sac C	- licno	Sampling !		5 S	Tax	Analytical La	boratory:	TICA	40
Sample	e Time:	OPE (C	maents	Final Dep	in to vvater:		li anad	Did vveli Dev	vater?	MOMOD	Durillanta ID
# Contain	iers/Type	Presen	vative	Analys	is/Method	ves	no	Filter	Size	MS/MSD	Duplicate ID
						yes	no				
2			1			yes	no				
				-		yes	no				
						yes	no			1	
						yes	no				
-	1	A	n i		C	OMMENTS		1.	11.5	1	15.5
Jam	ple T	Imes.	Hml	Ders-	1131	Tal	45-	(147)	Un	15-11	155

04/25/14 2A/KM Le 705 79436 AQ 1002 79558 79575 LC 1407 A@ Kello 79686 1002 Casite - 201/1 K 1036 Pump placed 5' above TD C. NL after pump placed: 50.46" 1046 Pin stacked Initian flow: 483 ml/min 1051 Dop pump settings to 56 100 Flow Kate: 400ml/min Drop Pung settings to 55 1105 Flow Rate: 242 ml/min , Drop Pomp Settings to: 54 1/09 No water pamping Toin pour settings up to: 55 1111 Flow Rate: 236 milmin 1116 Flow Rule: 200 ml/nin 122 Flow Pate: 200 mlain Flow Kite: 236 ml/min 128

Ambers sampled @ 1137 Polys Sampled @ 1147 Vials Sampled @ 1155 Derth to water after Sumpling (Pung still in place): 50.48 Final Depth to water (No Penp): 50.50'



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Christopher Cortez Atkins Engineering Associates 2904 West Second Street Roswell, NM 88201 TEL: (575) 624-2420 FAX: (575) 624-2421

RE: Siringo

OrderNo.: 1804B71

Dear Christopher Cortez:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/24/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Case Narrative

WO#: **1804B71** Date:

 CLIENT:
 Atkins Engineering Associates

 Project:
 Siringo

Analytical Notes Regarding EPA Method 9067:

The LCS for phenolics was below the acceptable limit. The LCSD had a passing value. The phenolic result is listed with an "E" flag to represent an estimated value due to the LCS low recovery.

Hall Environmental An	alysis	Labora	atory, In	ıc.			Analytical Report Lab Order 1804B71 Date Reported:	
CLIENT: Atkins Engineering Ass	ociates			(lient Sam	ple ID: 20	180423-Siringo	
Project: Siringo					Collectio	n Date: 4/2	23/2018 11:37:00 AM	
Lab ID: 1804B71-001		Matrix:	AQUEOU	S	Receive	d Date: 4/2	24/2018 9:00:00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METAL	S .	-	141				Analyst	DBK
Arsenic		0.0036	0.0010		mg/L	1	4/25/2018 4:40:47 PM	B50833
Lead	-	ND	0.00050		mg/L	1	4/25/2018 4:40:47 PM	B50833
Selenium		0.0035	0.0010		mg/L	1	4/25/2018 4:40:47 PM	B50833
Uranium		0.0042	0.00050		mg/L	1	4/25/2018 4:40:47 PM	B50833
EPA METHOD 300.0: ANIONS							Analyst	MRA
Fluoride		0.78	0.10		mg/L	1	4/24/2018 1:54:15 PM	R50822
Chloride		250	- 10		mg/L	. 20	4/24/2018 2:07:07 PM	R50822
Nitrogen, Nitrate (As N)		3.2	0.10		mg/L	. 1	4/24/2018 1:54:15 PM	R50822
Sulfate		72	10		mg/L	20	4/24/2018 2:07:07 PM	R50822
SM2540C MOD: TOTAL DISSOL	VED SOL	LIDS					Analyst	: sat
Total Dissolved Solids		794	40.0	*D	mg/L	1	4/26/2018 1:21:00 PM	37787
SM4500-H+B / 9040C: PH							Analyst	JRR
рН		7.61		н	pH units	1	4/26/2018 2:21:34 PM	R50879
EPA METHOD 200.7: DISSOLVE	D METAI	LS					Analyst	: pmf
Aluminum		ND	0.020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Barium		0.12	0.0020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Boron		0.16	0.040		mg/L	· 1	4/26/2018 3:07:19 PM	A50835
Cadmium		ND	0.0020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Chromium		ND	0.0060		mg/L	1	4/26/2018 3:07:19 PM	A50835
Cobalt		ND	0.0060		mg/L	1	4/26/2018 3:07:19 PM	A50835
Соррег		ND	0.0060		mg/L	1	4/26/2018 3:07:19 PM	A50835
Iron		ND	0.020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Manganese		0.019	0.0020		mg/L	1	4/26/2018 3:07:19 PM	A50835
Molybdenum		0.016	0.0080		mg/L	1	4/26/2018 3:07:19 PM	A50835
Nickei			0.010		mg/L	1	4/26/2018 3:07:19 PM	A50835
Zino			0.0050		mg/∟	1	4/26/2018 3:07:19 PM	A50835
		ND	0.010		mg/∟	1	4/20/2018 3:07:19 PM	
Mercury		ND	0 00020		ma/l	. 1	Analysi 4/27/2018 9-49-41 AM	37814
EPA METHOD 8011/504 1. EDB			0.00020		ing, E	•	Analyst	
1,2-Dibromoethane	· ·	ND	0.0095		ua/L	1	4/25/2018 10:27:16 PM	37781
EPA METHOD 8082A: PCB'S							Analyst	том
Aroclor 1016		ND	1.0		ua/l	1	4/30/2018 12:27:00 PM	37763
Aroclor 1221		ND	1.0		ua/L	1	4/30/2018 12:27:00 PM	37763
Aroclor 1232		ND	1.0		µg/L	1	4/30/2018 12:27:00 PM	37763
Aroclor 1242		ND	1.0		μg/L	1	4/30/2018 12:27:00 PM	37763
		—						

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

Qualifiers:

S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range

J Analyte detected below quantitation limits Page 1 of 0

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analy	sis Labora	tory, Inc.			Analytical Report Lab Order 1804B71 Date Reported:			
CLIENT: Atkins Engineering Associa Project: Siringo Lab ID: 1804B71-001	tes Matrix:	AQUEOUS	Client Sample ID: 20180423-Siringo Collection Date: 4/23/2018 11:37:00 AM Received Date: 4/24/2018 9:00:00 AM					
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 8082A: PCB'S		•	- 5	-	Analyst	TOM		
Aroclor 1248	ND	1.0	μg/L	1	4/30/2018 12:27:00 PM	37763		
Aroclor 1254	ND	1.0	µg/L	. 1	4/30/2018 12:27:00 PM	37763		
Aroclor 1260	ND	1.0	μg/L	1	4/30/2018 12:27:00 PM	37763		
Surr: Decachlorobiphenyl	76.0	34.1-101	%Rec	1	4/30/2018 12:27:00 PM	37763		
Surr: Tetrachloro-m-xylene	57.2	22.9-104	%Rec	· 1	4/30/2018 12:27:00 PM	37763		
EPA METHOD 8310: PAHS					Analyst	том		
Naphthalene	ND	2.0	ua/L	1	4/26/2018 1:34:00 PM	37765		
1-Methvinaphthalene	ND	2.0	µa/L	1	4/26/2018 1:34:00 PM	37765		
2-Methylnaphthalene	ND	2.0	μα/l	1	4/26/2018 1:34:00 PM	37765		
Acenaphthylene	ND	2.5	ua/L	1	4/26/2018 1:34:00 PM	37765		
Acenaphthene	ND	2.0	ua/L	. 1	4/26/2018 1:34:00 PM	37765		
Fluorene	ND	0.80	µg/L	1	4/26/2018 1:34:00 PM	37765		
Phenanthrene	ND	0.60	ua/L	1	4/26/2018 1:34:00 PM	37765		
Anthracene	ND	0.60	µa/L	1	4/26/2018 1:34:00 PM	37765		
Fluoranthene	ND	0.30	ua/L	1	4/26/2018 1:34:00 PM	37765		
Pyrene	ND	0.30	₽9/= ua/l	1	4/26/2018 1:34:00 PM	37765		
Benz(a)anthracene	ND	0.070	µg/L	1	4/26/2018 1:34:00 PM	37765		
Chrysene	ND	0.20	µg/L	1	4/26/2018 1:34:00 PM	37765		
Benzo(b)fluoranthene	ND	0.10	ug/l_	1	4/26/2018 1:34:00 PM	37765		
Benzo(k)fluoranthene	ND	0.070	µo/L	1	4/26/2018 1:34:00 PM	37765		
Benzo(a)pyrene	ND	0.070	ua/L	1	4/26/2018 1:34:00 PM	37765		
Dibenz(a,h)anthracene	ND	0.12	ua/L	1	4/26/2018 1:34:00 PM	37765		
Benzo(g,h,i)perviene	ND	0.12	ua/L	1	4/26/2018 1:34:00 PM	37765		
Indeno(1,2,3-cd)pyrene	ND	0.25	ua/L	1	4/26/2018 1:34:00 PM	37765		
Surr: Benzo(e)pyrene	71.2	52-133	%Rec	1	4/26/2018 1:34:00 PM	37765		
EPA METHOD 8260B: VOLATILES		×	7		Analyst	DJF		
Benzene	ND	1.0	u o /l	1	4/24/2018 2:37:57 PM	A50817		
Toluene	ND	1.0	ug/l	. 1	4/24/2018 2:37:57 PM	A 50817		
Ethylbenzene	ND	1.0	µg/L	. 1	4/24/2018 2:37:57 PM	A50817		
Methyl tert-butyl ether (MTBE)	ND	1.0	ug/l	1	4/24/2018 2:37:57 PM	A50817		
1.2.4-Trimethylbenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A 50817		
1,3,5-Trimethylbenzene	ND	1.0	ua/L	1	4/24/2018 2:37:57 PM	A50817		
1,2-Dichloroethane (EDC)	ND	1.0	ua/L	1	4/24/2018 2:37:57 PM	A50817		
1,2-Dibromoethane (EDB)	ND	1.0	_ə/- ⊔a/l₋	1	4/24/2018 2:37:57 PM	A50817		
Naphthalene	ND	2.0	ug/l	. 1	4/24/2018 2:37:57 PM	A50817		
1-Methylnaphthalene	ND	4.0	µa/L	1	4/24/2018 2:37:57 PM	A50817		
2-Methyinaphthalene	ND	4.0	μα/L	1	4/24/2018 2:37:57 PM	A50817		
Acetone	ND	10	μg/L	1	4/24/2018 2:37:57 PM	A50817		

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

Qualifiers:

S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range

J Analyte detected below quantitation limits Page 2 of 0

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis	s Laborat	ory, Inc.		Analytical Lab Order 1 Date Report	Report 804B71 ed:	
CLIENT: Atkins Engineering Associates			Client San	nple ID: 20180423-Siri	ngo	
Project: Siringo	-		Collectio	n Date 1/23/2018 11-	8- 37-00 AM	en de la composition de la composition La composition de la c
Lab ID: 1804B71-001	Matrix: A	QUEOUS	Receive	d Date: 4/24/2018 9:00):00 AM	
Analyses	Result	PQL Qu	al Units	DF Date Anal	vzed	Batch
EPA METHOD 8260B: VOLATILES				· · · · · · · · · · · · · · · · · · ·	Analyst	
Bromobenzene	NÌD	1.0	`uo/I	1 4/24/2018 5	-37-57 DM	A50917
Bromodichloromethane	ND	1.0	μg/L	1 4/24/2018 2		A50017
Bromoform	ND	1.0	μ <u>9</u> /Ε .	1 4/24/2018 2		A50817
Bromomethane	ND	- 1.0 - 3.0	µg/L	1 4/24/2018 2		A50817
2-Butanone	ND	10	µg/L	1 //24/2018 2		A50017
Carbon disulfide		10	µg/L	1 4/24/2018 2		A50017
Carbon Tetrachloride	ND	10	µg/∟ µg/l	1 //24/2010 2	-37.57 DM	A50917
Chlorobenzene	ND	1.0	µg/L	1 4/24/2018 2	0.37.57 DM	A50017
Chloroethane	ND	2.0	µg/L	1 4/24/2010 2	07.07 FM	A50017
Chioroform	ND	1.0	µg/L µg/l	1 4/24/20102		A50917
Chloromethane		3.0	µg/L	1 4/24/2010 2	-27.57 DM	A50017
2-Chlorotoluene		1.0	µg/L	1 4/24/20102	-37-57 DM	A50917
4-Chiorofoluene	ND	1.0	µg/L	1 1/24/20102	-37.57 DM	A50017
cis-1 2-DCE	ND	1.0	µg/L	1 4/24/2010 2	.37.37 FIV	A50017
cis-1 3-Dichloropropene	ND	1.0	µg/L	1 4/24/20102	-37-57 DM	A 50017
1 2-Dibromo-3-chloropropage		2.0	µg/L	1 4/24/20102	-27-57 DM	A50017
Dibromochloromethane	ND	1.0	µg/L	1 4/24/2010 2	.37.37 FIV	A50017
Dibromomethane	ND	1.0	µg/L	1 4/24/20102	37.57 PM	A50017
	ND	1.0	µg/L	1 4/24/20102	-37.57 FIV	A50017
1 3-Dichlorobenzene		1.0	µg/L	1 4/24/20102	-07-57 DM	A50017
	ND	1.0	µg/L	1 4/24/2010 2	.37.57 PN	A50047
Dichlorodifluoromethane	ND	1.0	µg/L	1 4/24/2010 2	.37:57 PW	A00617
1 1-Dichloroethane		1.0	µg/∟ va″	1 4/24/20162	37:07 PW	A50817
1 1-Dichloroethene		1.0	µg/L	1 4/24/2018 2 4 4/04/0048 0	:37:57 PIVI	A50617
1.2-Dichloropropage		1.0	µg/L	1 4/24/2018 2	37:57 PW	A50817
1 3-Dichloropropane		1.0	µg/L	1 4/24/2018 2 1 4/04/0040 0	:37:57 PM	A50817
2 2-Dichloropropane		1.0	µg/L	1 4/24/2018 2	:37:57 PIVI	A50817
1 1-Dichloropropene		2.0	µg/∟	1 4/24/2018 2	37:57 PIVI	A50817
Hexachlorobutadiene		1.0	µg/∟	1 4/24/2018 Z	:37:57 PM	A50817
		1.0	µg/L	1 4/24/2018 2	(37:57 PM	A50817
		10	µg/L	1 4/24/2018 2	37:57 PIVI	A50817
	, ND	1.0	µg/L	1 4/24/2018 2	37:57 PM	A50817
4-Methyl-2-pentanone		·· I.U	.µg/L	1 4/24/2018 2	:37:57 PM	A50817
Methylene Chloride		10	µg/∟ ua″	1 4/24/2018 2 4 A/04/0040.0	:37:57 PM	A50817
		3.U 2.0	µg/L	I 4/24/2018/2	.37:57 PM	A50817
		3.0	µg/L	I 4/24/2018 2	:37:57 PM	A50817
sec-Butylbenzene		1.0	µg/L	1 4/24/2018 2	:37:57 PM	A50817
Styrene		1.U 4 0	µg/∟	1 4/24/2018 2	.37:37 PM	A50817
tert-Butylbanzana		1.0	µg/L	4/24/2018 2	37:57 PM	A50817
tert-bulymenzene	ND	1.0	µg/∟	1 4/24/2018 2	:37:57 PM	A50817

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Qualifiers:

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 0
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis	Labora	atory, Inc.			Analytical Report Lab Order 1804B71 Date Reported:	
CLIENT: Atkins Engineering Associates			Client San	ple 1D: 20	180423-Siringo	
Project: Siringo Lab ID: 1804B71-001	Matrix:	AQUEOUS	Collectio Receive	n Date: 4/2 d Date: 4/2	23/2018 11:37:00 AM 24/2018 9:00:00 AM	•
Апаlyses	Result	PQL Qu	ial Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				-	Analyst	DJF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
trans-1,2-DCE	ND	[~] 1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1,1-Trichloroethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,1,2-Trichloroethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Trichloroethene (TCE)	ND	1.0	µg/L	. 1	4/24/2018 2:37:57 PM	A50817
Trichlorofluoromethane	ND	1.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
1,2,3-Trichloropropane	ND	2.0	µg/L	1	4/24/2018 2:37:57 PM	A50817
Vinyl chloride	ND	1.0	μg/L	1	4/24/2018 2:37:57 PM	A50817
Xylenes, Total	ND	1.5	µg/L	1	4/24/2018 2:37:57 PM	A50817
Surr: 1,2-Dichloroethane-d4	94.2	70-130	%Rec	1	4/24/2018 2:37:57 PM	A50817
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	1	4/24/2018 2:37:57 PM	A50817
Surr: Dibromofluoromethane	96.1	70-130	%Rec	1	4/24/2018 2:37:57 PM	A50817
Surr: Toluene-d8	92.3	70-130	%Rec	1	4/24/2018 2:37:57 PM	A50817
TOTAL PHENOLICS BY SW-846 9067					Analyst	MAB
Phenolics	7.3	2.5	E µg/L	· 1	4/30/2018	37840

* Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

Qualifiers:

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 0
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

						Analytical Report	
Hall Fr	wixonmontol Anob	ata Tabawat	The s			Lab Order 1804B71	
	ivironmental Analy	ysis Laborato	ory, Inc.		· · ·	Date Reported:	
CLIENT:	Atkins Engineering Associa	ates	<u> </u>	Client Sam	nle D: Tri	in Blank	
Project.	Siringo						
				Conection	i Date:		• • •
Lad ID:	1804B71-002	Viatrix: 1	KIP BLANK	Received	1 Date: 4/2	4/2018 9:00:00 AM	
Analyses	š.	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 8011/504.1: EDB			2.5	:	Analyst	JME
1,2-Dibro	moethane	ND .	0.0095	µg/L	1	4/25/2018 10:42:21 PM	.37781
	HOD 8260B: VOLATILES					Analyst	DJE ·
Benzene			1.0	uo/l		4/24/2018 3:07:15 PM	A 50817
Toluene	s		1.0	μg/L μσ/l	1	4/24/2018 3:07:15 PM	A50817
Ethviben	Zene	ND	1.0	μg/L μσ/Ι	. I	4/24/2018 3:07:15 PM	A50817
Methyl te	rt-butyl ether (MTBE)	ND	1.0	. P9/- ua/l	1	A/24/2018 3:07:15 PM	A50817
1.2.4-Trir	nethylbenzene	ND	1.0	µ9/⊏ ua/l	1	4/24/2018 3:07:15 PM	A50817
1.3.5-Trir	nethylbenzene	ND ND	1.0	ua/l	1	4/24/2018 3:07:15 PM	A50817
1.2-Dichl	oroethane (EDC)	ND	1.0	μ <u>ο</u> /Ι	· 1	4/24/2018 3:07:15 PM	A50817
1.2-Dibro	moethane (EDB)	ND	1.0	uo/l	1	4/24/2018 3:07:15 PM	A50817
Naphthal	ene	ND	2.0 -	. ug/l	1	4/24/2018 3:07:15 PM	A50817
1-Methvir		ND	4.0	ug/l	1	4/24/2018 3:07:15 PM	A50817
2-Methvír	haphthalene	ND	4.0	ug/l	1	4/24/2018 3:07:15 PM	A50817
Acetone		ND	10	µ9/⊂ ⊔0/I	1	4/24/2018 3:07:15 PM	A50817
Bromobe	nzene	ND	10	ug/L	1	4/24/2018 3:07:15 PM	A50817
Bromodic	hloromethane	ND	1.0	ug/l	1	4/24/2018 3:07:15 PM	A50817
Bromofor	m ·	ND	1.0	uo/l	1	4/24/2018 3:07:15 PM	A50817
Bromome	ethane	ND	3.0	uo/l	1	4/24/2018 3:07:15 PM	A50817
2-Butano	ne	ND	10	uo/l	1	4/24/2018 3:07:15 PM	A50817
Carbon d	isulfide	. ND	10	rə/= µo/l	1	4/24/2018 3:07:15 PM	A50817
Carbon T	etrachloride	ND	10	г <i>э</i> цо/і	1	4/24/2018 3:07:15 PM	A50817
Chlorobe	nzene	ND	1.0	ug/1	1	4/24/2018 3:07:15 PM	A50817
Chloroett	ane	ND	2.0	μσ/)	1	4/24/2018 3:07:15 PM	A50817
Chlorofor	m .	ND	10	ua/l	1	4/24/2018 3:07:15 PM	A50817
Chlorome	ethane	ND	3.0	μg/2 μα/Ι	1	4/24/2018 3:07:15 PM	A50817
2-Chlorot	oluene	ND	1.0	uo/l	1	4/24/2018 3:07:15 PM	A50817
4-Chlorot	oluene	ND	1.0	ug/L	1	4/24/2018 3:07:15 PM	A50817
cis-1.2-D	CE	ND	1.0	μg/C μα/Ι	· 1	4/24/2018 3:07:15 PM	A50817
cis-1 3-Di	 ichloropropene	ND	1.0	ug/l ·	. 1	4/24/2018 3:07:15 PM	A50817
1 2-Dibro	mo-3-chloropropane	ND	2.0	µg/⊏ µg/l	1	4/24/2018 3:07:15 PM	A50817
Dibromoc	bloromethane	ND	1.0	μη/l	· 1	4/24/2018 3:07:15 PM	A50817
Dibromon	nethane	ŇΠ	1.0	μη/l	. 1	4/24/2018 3:07:15 PM	A50817
1 2-Dichl		ND	1.0	ug/l	. 1	4/24/2018 3:07:15 PM	A50817
1.3-Dichir		ND	1.0	μα/l	1	4/24/2018 3:07:15 PM	A50817
1 4-Dichle		ND	1.0	P9/-	1	4/24/2018 3:07:15 PM	A50817
Dichlorod	ifluoromethane		1.0	на/I	1	4/24/2018 3:07:15 PM	Δ50817
1 1-Dichle	proethane		1.0	µgrs ug/l	י 1	4/24/2018 2-07-15 PM	A50017
1 1-Dichle	roethene	ND	1.0	µgr⊏ uo/l	1	4/24/2018 2:07:15 PM	A50817
1.2-Dichle	rooronane		1.0	P9/⊏ U0/I	י ז	4/24/2018 2:07:15 PM	A50817
, _ -Dichic	o propulio		1.0	hair		4/24/2010 3.07.10 FW	700017

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

Qualifiers:

S % Recovery outside of range due to dilution or matrix

- ${\bf B}-{\bf A}\pi a$ lyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 0
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analys	is Labor:	atory, Inc.			Analytical Report Lab Order 1804B71 Date Reported:	
CLIENT: Atkins Engineering Associates	5	. (Client Sam	iple ID: Tri	p Blank	
Project: Siringo			Collectio	n Date:		
Lab ID: 1804B71-002	- Matrix:	TRIP BLANK	Receive	d Date: 4/2	4/2018 9:00:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES			1	÷ _ +	Analyst	DJF
1,3-Dichloropropane	ND	1.0	µg/L	່ 1	4/24/2018 3:07:15 PM	A50817
2,2-Dichloropropane	ND	- 2.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1-Dichloropropene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Hexachlorobutadiene	- ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
2-Hexanone	ND	10	µg/L	1	4/24/2018 3:07:15 PM	A50817
Isopropylbenzene	ND	1.0	μg/L	1	4/24/2018 3:07:15 PM	A50817
4-Isopropyltoluene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
4-Methyl-2-pentanone	ND	10	µg/L	1	4/24/2018 3:07:15 PM	A50817
Methylene Chloride	ND	3.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
n-Butylbenzene	ND	3.0	µg/L	[.] 1	4/24/2018 3:07:15 PM	A50817
n-Propylbenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
sec-Butylbenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Styrene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
tert-Butylbenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
Tetrachloroethene (PCE)	ND	1.0	μg/L	-1	4/24/2018 3:07:15 PM	A50817
trans-1,2-DCE	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	4/24/2018 3:07:15 PM	A50817
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,1-Trichloroethane	ND	1.0	µg/L	1	4/24/2018 3:07:15 PM	A50817
1,1,2-Trichloroethane	ND	1.0	μg/L	1	4/24/2018 3:07:15 PM	A50817
Trichloroethene (TCE)	ND	1.0	μg/L	1	4/24/2018 3:07:15 PM	A50817
Trichlorofluoromethane	ND	1.0	μg/L	1	4/24/2018 3:07:15 PM	A50817
1,2,3-Trichloropropane	ND	2.0	μg/L	1	4/24/2018 3:07:15 PM	A50817
Vinyl chloride	ND	1.0	μg/L	1	4/24/2018 3:07:15 PM	A50817
Xylenes, Total	ND	1.5	μg/L	1	4/24/2018 3:07:15 PM	A50817
Surr: 1,2-Dichloroethane-d4	96.4	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817
Surr: 4-Bromofluorobenzene	108	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817
Surr: Dibromofluoromethane	100	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817
Surr: Toluene-d8	90.6	70-130	%Rec	1	4/24/2018 3:07:15 PM	A50817

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 0
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYS	SIS LAB	Batch #: 1	180426027	
Address:	4901 HAWKINS NE SUITE D		Project Name: 1	1804B71	
• •	ALBUQUERQUE, NM 87109				
Attn:	ANDY FREEMAN	· · · · ·	an a		· · -

Analytical Results Report

Sample Number	180426027-001	Sampling Date	4/23/2018	Date/Time Received	4/26/2018	10:52 AM
Client Sample ID	1804B71-001I / 20180423-SIF	RINGO				-
Matrix	Water	Sampling Time	11:37 AM	-		
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	4/27/2018	RPU	EPA 335.4	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level

ND Not Detected

PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated. Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cen0095; FL(NELAP): E871099

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client	HALL EN	/IRONMEN	ITAL ANAL	YSIS LA	3	Batch	#:	18	0426027	-
Addre	ss: 4901 HAV	VKINS NE S	SUITE D			Proje	ct Nam	e: 18	04B71	
in de la composition de la composition La composition de la c	ALBUQUE	ERQUE, NN	1 87109							
Attn:	ANDY FR	EEMAN	e trate				· 2.	•	in the state	
		1 	Analyti	cal Res	ults Re	port	· ·			
•			` Qu	anty Con						
Lab Con	trol Sample	na na seconda de la composición de la c		-						
Paramete Cyanide			LCS Result 0.529	Units mg/L	L CS S 0.4	5 105.	e c AR 8 90	%Rec ⊢110	Prep Date 4/27/2018	Analysis Date 4/27/2018
Matrix S	nike	<u>.</u>					÷.			́
Sample N 18042300	Number Parameter 05-003 Cyanide			Sample Result ND	MS Result 0.506	Units mg/L	MS Spike 0.5	%Rec 101.2	AR %Rec Prep D 80-120 4/27/20	ate Analysis Date 018 4/27/2018
Matrix S	pike Duplicate		MSD		MSD			Δ₽		
Paramete Cyanide	er		Result 0.509	Units mg/L	Spike 0.5	%Rec 101.8	%RPD 0.6	%RPD 0-20	Prep Date 4/27/2018	Analysis Date 4/27/2018
Method	Blank									
Paramete Cyanide	r			Res ND	sult)	Units mg/Լ		PQL 0.01 ·	Prep Date 4/27/2018	Analysis Date 4/27/2018
AR ND PQL RPD	Acceptable Range Not Detected Practical Quantitation L Relative Percentage Dir	imit ference								
÷			-		. * 			-		

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP);E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anatekiabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anatekiabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	1	Batch #:	180426027
Address:	4901 HAWKINS NE SUITE D	. '	Project Name:	1804B71
· · · ·	ALBUQUERQUE, NM 87109			
Attn:	ANDY FREEMAN	Жа		

Analytical Results Report

Sample Number Client Sample ID	le Number 180426027-002 S Sample ID 1804B71-001J / 20180423-SIRING		Sampling Date	4/23/2018	Date Extr	4/26/2018 4/26/2018	10:52 AM	
Matrix Comments	Water		Sampling Time	11:37 AM				
Parameter	<u> </u>	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Methanol		ND	َ mg/L	50	4/26/2018	GGH	GC/FID	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level

ND Not Detected

PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated. Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: Address:	HALL ENVIRONME 4901 HAWKINS NE ALBUQUERQUE, N ANDY ERFEMAN	NTAL ANAL SUITE D M 87109	YSIS LAI	B	Batch Projec	#: ct Nam	1 e: 1	804260 804B71	27	· · · · ·
Au		Analyti Qu	cal Res ality Cor	sults Re itrol Data	eport					
· · · · · · · · · · · · · · · · · · ·				÷ :		· ·	-		1.1	
Lab Control Sa	ample	-·. ·	•		· ·					
Parameter Methanol		LCS Result 262	Units mg/L	L CS	Spike %Re 50 104.8	c AR 3 60	% Rec -140	Ргер 4/26/	Date / 2018	Analysis Date 4/27/2018
•		· •								
Matrix Spike		-	Sample	р MS		MS		AR		
Sample Number 180426027-002	Methanol		Result ND	277	Units mg/L	Spike 250	% Rec 110.8	%Rec 60-140	Prep Date 4/26/2018	Analysis Date 4/27/2018
Matrix Spike D	uplicate	MSD		MSD			AR			•»,
Parameter		Result	Ųnits	Spike	%Rec	%RPD	%RPI) Pre	p Date	Analysis Date

Method	Blank

Methanol

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Methanol	ND	mg/L	25	4/26/2018	4/27/2018

250

106.8

3.7

0-25

4/26/2018

4/27/2018

mg/L

267

AR Acceptable Range

ND Not Detected

PQL Practical Quantitation Limit

RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Sample ID	: MB-A	Samp	Type: M	BLK	Tes	stCode: E	PA Method	200.7: Dissol	ved Meta			
Client ID:	PBW	Bat	ch ID: A	50835		RunNo: 5	0835	· · · ·		-		
Prep Date:		Analysis	Date: 4	26/2018		SeqNo: 1	651077	Units: mg/L			-	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
luminum		ND	0.020									
arium		ND	0.0020									
loron		ND	0.040	•				- 1				
admium		. ND	0.0020					-		· ·		
hromium		ND	0.0060									
obalt		ND	0.0060									
opper		ND	0.0060	•					1			
กก		ND	0.020									
anganese		ND	0.0020									
olybdenum		ŃD	0.0080		· ·							
ickel		· ND	0.010									
ilver		ND	0.0050		· ·							
inc		ND	0.010									
ample ID:	LLLCS-A	Samp	Type: LC	SLL	Tes	tCode: E	PA Method	200.7: Dissol	ved Metal	S	<u>.</u>	
lient ID:	BatchQC	Bate	h ID: A5	0835	F	RunNo: 5	0835					
rep Date:		Analysis	Date: 4/	26/2018	ę	SeqNo: 1	651080	Units: mg/L				
nalyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
uminum		ND	0.020	0.01000	0	116	50	150		-		
ırium		ND	0.0020	0.002000	0	93.5	50	150				
oron		ND	0.040	0.04000	0	93.0	50	150				
admium		0.0021	0.0020	0.002000	0	103	50	150				
nromium		ND	0.0060	0.006000	0	98.8	50	150				
ıbalt		ND	0.0060	0.006000	0	98.5	50	150				
pper		ND	0.0060	0.006000	. 0	80.3	50	150				
		0.021	0.020	0.02000		103	50	150				
n		0.0022	0.0020	0.002000	0	100	50	150				
n Inganese			0.0020		-	100						
n Inganese Ilybdenum		0.0081	0.0020	0.008000	0	100	50	150				
n Inganese blybdenum ckel		0.0081 ND	0.0020	0.008000	0	101 88.6	50 50	150 150				
n anganese blybdenum ckel ver		0.0081 ND ND	0.0020 0.0080 0.010 0.0050	0.008000 0.005000 0.005000	0	103 101 88.6 91.6	50 50 50	150 150 150				
n nganese lybdenum kel /er c	·	0.0081 ND ND ND	0.0020 0.0080 0.010 0.0050 0.010	0.008000 0.005000 0.005000 0.005000	0 0 0 0	100 101 88.6 91.6 126	50 50 50 50	150 150 150 150			- -	
n anganese slybdenum ckel ver c ample ID:	LCS-A	0.0081 ND ND ND Samp	0.0020 0.0080 0.010 0.0050 0.010 Type: LC	0.008000 0.005000 0.005000 0.005000 S	0 0 0 0 Tes	100 101 88.6 91.6 126 tCode: EI	50 50 50 50 PA Method	150 150 150 150 200.7: Dissolv	ved Metal	S .	-	
n anganese olybdenum ckel ver ic ample ID: ilient ID:	LCS-A LCSW	0.0081 ND ND Samp Bato	0.0020 0.0080 0.010 0.0050 0.010 Type: LC	0.008000 0.005000 0.005000 0.005000 S 0835	0 0 0 0 Tes	103 101 88.6 91.6 126 tCode: EI	50 50 50 90 PA Method 0835	150 150 150 150 200.7: Dissolv	ved Metal	s .	-	
n Inganese Ilyödenum ikel ver ample ID: lient ID: rep Date:	LCS-A LCSW	0.0081 ND ND Samp Bato Analysis I	0.0020 0.0080 0.010 0.0050 0.010 Type: LC h ID: A5 Date: 4/	0.008000 0.005000 0.005000 0.005000 S 0835 26/2018	0 0 0 0 Tes F	103 101 88.6 91.6 126 tCode: El RunNo: 56	50 50 50 PA Method 0835 651082	150 150 150 200.7: Dissolv Units: mg/L	ved Metal	S .	-	
n Inganese Ilybdenum ikel ver ample ID: ample ID: lient ID: rep Date: nalyte	LCS-A LCSW	0.0081 ND ND Samp Bato Analysis I Result	0.0020 0.0080 0.010 0.0050 0.010 Type: LC h ID: A5 Date: 4/ PQL	0.008000 0.005000 0.005000 0.005000 S 0835 26/2018 SPK value	0 0 0 Tes F SPK Ref Val	100 101 88.6 91.6 126 tCode: EI &unNo: 5 SeqNo: 10 %REC	50 50 50 PA Method 0835 651082 LowLimit	150 150 150 200.7: Dissolv Units: mg/L HighLimit	ved Metal	s . RPDLimit	Qual	
n anganese blybdenum ckel ver nc ample ID: ample ID: rep Date: nalyte minum	LCS-A LCSW	0.0081 ND ND Samp Bato Analysis I Result 0.57	0.0020 0.0080 0.010 0.0050 0.010 Type: LC Type: LC h ID: A5 Date: 4/ PQL 0.020	0.008000 0.005000 0.005000 0.005000 S 0835 26/2018 SPK value 0.5000	0 0 0 Tes F SPK Ref Val 0	103 101 88.6 91.6 126 tCode: El &unNo: 56 SeqNo: 10 %REC 115	50 50 50 PA Method 0835 651082 LowLimit 85	150 150 150 200.7: Dissolv Units: mg/L HighLimit 115	ved Metal	s RPDLimit	Qual	

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 1 of 0

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Atkins E Siringo	Ingineerin	g Associ	ates						•	. ¹¹ 4
Sample ID: LCS	A	Samp	Type: LC	S	Tes	stCode: E	PA Method	200,7: Dissol	ved Meta	ls	
Client ID: LCS	N jaar ka ka	Bat	ch ID: A5	0835	F	RunNo: 5	0835	- 		:	
Prep Date:		Analysis	Date: 4/	26/2018	ę	SeqNo: 1	651082	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.52	0.040	0.5000	0	104	85	115	·		
Cadmium	1. A.	0.52	0.0020	0.5000	. 0	104	85	115		•	
Chromium		0.51	0.0060	0.5000	- 0	103	· 85	115	-		
Cobalt	<i></i>	0.50	0.0060	0.5000	0	99.4	85	115			
Copper		0.51	0.0060	0.5000	0	103	85	115			
Iron		0.51	0.020	0.5000	0	103	85	115			•
Manganese	· · ·	0.52	0.0020	0.5000	0	105	85	115			
Molybdenum		0.52	0.0080	0.5000	0	103	85	115			
Nickel		0.50	0.010	0.5000	. 0	100	85	115			·
Zinc		0.51	0.010	0.5000	Ó	102	85	: 115			<i></i>
Sample ID: LCS-	A	Samp	Type: LC	S	Tes	tCode: El	PA Method	200.7: Dissol	ved Meta	ls	
Client ID: LCSV	N	Bate	ch ID: A5	0835	F	Run No: 5	0835				
Prep Date:		Analysis	Date: 4/:	26/2018	S	SeqNo: 1	651109	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver		0.13	0.0050	0.1000	0	129	85	115			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- \mathbf{S} % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

WO#:

Page 2 of 0

1804B71 02-May-18

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client: Project:	Atkins E Siringo	ngineerin	ıg Associ	ates		n t.		* • •		1.	
Sample ID:	MВ	Sam	рТуре: МІ	BLK	Tes	tCode: E	PA 200.8: 1	Dissolved Met	als	-	
Client ID:	PBW	Bat	tch ID: B5	50833	, Î	RunNo: 8	50833	ан тарана Аланана Аланана		· · · ·	
Prep Date:		Analysis	Date: 4/	/25/2018	5	SeqNo: 1	649657	Units: mg/L			-
Analyte	· ·	Result	- PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic Lead Selenium Uranium		ND ND ND ND	0.0010 0.00050 0.0010 0.00050			- - -					· . · .
Sample ID:	LLLCS	Sam	рТуре: LC	SLL	Tes	tCode: E	PA 200.8: [Dissolved Met	als		
Client ID:	BatchQC	Bat	tch ID: B5	50833	F	RunNo: 5	50833			· .	
Prep Date:		Analysis	Date: 4/	25/2018	5	SeqNo: 1	649658	Units: mg/L		· ·	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	0.0010	0.001000	0	93.1	50	150			<u>, , , , , , , , , , , , , , , , , , , </u>
Lead		0.00050	0.00050	0.0005000	0	101	50	150			
Selenium		ND	0.0010	0.001000	0	92.8	50	150			
Uranium		ND	0.00050	0.0005000	0	91.5	50	150			
Sample ID:	LCS	Samj	pType: LC	s	Tes	tCode: E	PA 200.8: [Dissolved Met	als		
Client ID:	LCSW	Bat	tch ID: 85	0833	F	RunNo: 5					
Prep Date:		Analysis	Date: 4/	25/2018	5	SeqNo: 1	649659	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		0.024	0.0010	0.02500	0	95.6	85	115			•
Lead		0.013	0.00050	0.01250	0	104	85	115			
Selenium		0.024	0.0010	0.02500	0	95.9	85	115			
Uranium		0.012	0.00050	0.01250	0	93.7	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 3 of 0

Page

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client:	Atkins Er	igineering A	Associa	ites	•			2	,		
Project:	Siringo		2 A			•			· · · ·	ngi n i Ngi ngi	
Sample ID:	MB-37814	SampTy	pe: ME	LK	Tes	stCode: E	PA Method	245.1: Mercu	гу		
Client ID:	PBW	Batch	ID: 378	314	· ·	RunNo: 5	50885	•. " . · ·		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	
Prep Date:	4/26/2018	Analysis Da	ate: 4/2	27/2018	·	SeqNo: 1	651634	Units: mg/L			
Analyte		Result	PQL	SP K value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND 0	.00020		· · · · · · · · · · · · · · · · · · ·			-		μ.	
Sample ID:	LCS-37814	SampTy	/pe: LC	s	Tes	stCo d e: E	PA Method	245.1: Mercu	у. У.		
Client ID:	LCSW	Batch	ID: 378	814	· I	RunNo: 5	50885			•	
Prep Date:	4/26/2018	Analysis Da	ate: 4/ 2	27/2018		SeqNo: 1	651635	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0051 0.	.00020	0.005000	0	101	80	120		· · ·	
Sample ID:	1804B71-001FMS	SampTy	/pe: MS	н ^с	Tes	stCode: E	PA Method	245.1: Mercui	У		
Client ID:	20180423-Siringo	Batch	ID: 378	14	I	RunNo: 5	0885				
Prep Date:	4/26/2018	Analysis Da	ate: 4/2	27/2018	:	SeqNo: 1	651659	Units: mg/L			-
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0053 0.	.00020	0.005000	0.0001114	103	75	125			-
Sample ID:	1804B71-001FMS) SampTy	/pe: MS	D	Tes	stCode: E	PA Method	245.1: Mercui	У		
Client ID:	20180423-Siringo	Batch	ID: 378	14	i	RunNo: 5	0885				
Prep Date:	4/26/2018	Analysis Da	ate: 4/2	27/2018	:	SeqNo: 1	651660	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Li mit	Qual
Mercury		0.0052 0.	00020	0.005000	0.0001114	101	7 5	125	1.68	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 4 of 0
Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client:	Atkins Eng	ineering .	Associa	ates				a - 1			•
Project:	Siringo	. 4				- -	·	• • • • •	. *		
Sample ID: MB		SampTy	/pe:mt	oik	Te	stCode: El	PA Method	300.0: Anion:	5		. ⁺
Client ID: PBW	ar en	Batch	ID: R5	0822		RunNo: 5	0822	1		- 194 	
Prep Date:	Ă	Analysis Da	ate: 4/	24/2018		SeqNo: 1	649372	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride		ND	0.10								
Chloride		ND	0.50		-						
Nitrogen, Nitrate (As N)		ND	0.10			1					
Sulfate		ND [·]	0.50						•		
Sample ID: LCS		SampTy	/pe: ics	i	Tes	stCode: El	PA Method	300.0: Anions	3		
Client ID: LCSW		Batch	ID: R5	0822	·	RunNo: 5	0822				
Prep Date:	A	Analysis Da	ate: 4/	24/2018	;	SeqNo: 10	549373	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low L imit	HighLimit	%RPD	RPDLimit	Qual
Fluoride		0.52	0.10	0.5000	0	104	90	110			
Chloride		4.6	0.50	5.000	· · O	92.2	, 9 0	110			
Nitrogen, Nitrate (As N)		2.4	0.10	2.500	0	94.1	90	110			
Sulfate		9.1	0.50	10.00	0	90. 7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level,
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 0

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client: Atkins Engineering Associates Siringo Project: Sample ID: MB-37781 SampType: MBLK TestCode: EPA Method 8011/504.1: EDB Client ID: PBW Batch ID: 37781 RunNo: 50838 Prep Date: 4/25/2018 Analysis Date: 4/25/2018 SeqNo: 1649761 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 1,2-Dibromoethane ND 0.010 Sample ID: LCS-37781 SampType: LCS TestCode: EPA Method 8011/504.1: EDB Batch ID: 37781 Client ID: LCSW RunNo: 50838 Prep Date: 4/25/2018 Units: µg/L Analysis Date: 4/25/2018 SeqNo: 1649846 Analyte PQL Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 1,2-Dibromoethane 0.086 0.010 0.1000 0 86.2 70 130

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Practical Quanitative Limit PQL
- S % Recovery outside of range due to dilution or matrix
- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified

Page 6 of 0

Hall Environmental Analysis Laboratory, Inc.

19515 Llaboratory, 111C.	

WO#: 1804B71 02-May-18

Client: Atkins Engineering Associates **Project:** Siringo Sample ID: MB-37763 SampType: MBLK TestCode: EPA Method 8082A: PCB's Client ID: PBW Batch ID: 37763 RuriNo: 50910 Prep Date: 4/24/2018 Analysis Date: 4/30/2018 SeqNo: 1652878 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Aroclor 1016 ND 1.0 Aroclor 1221 ND 1.0 Aroclor 1232 ND 1:0 Aroclor 1242 ND 1.0 Aroclor 1248 ND 1.0 Aroclor 1254 ND 1.0 . 1.0 Aroclor 1260 ND Surr: Decachlorobiphenyl 1.7 2.500 68.4 34.1 101 Surr: Tetrachloro-m-xylene 2.500 22.9 1.4 55.2 104 Sample ID: LCS-37763 SampType: LCS TestCode: EPA Method 8082A: PCB's Client ID: LCSW Batch ID: 37763 RunNo: 50910 Prep Date: 4/24/2018 Analysis Date: 4/30/2018 SeqNo: 1652954 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Aroclor 1016 3.6 1.0 5.000 0 72.2 33.4 137 Aroclor 1260 4.3 1.0 5.000 0 86.8 27.4 141 Surr: Decachlorobiphenyl 4.7 5.000 94.0 34.1 101 Surr: Tetrachloro-m-xylene 3.4 5.000 67.0 22.9 104 Sample ID: LCSD-37763 SampType: LCSD TestCode: EPA Method 8082A: PCB's Client ID: LCSS02 Batch ID: 37763 RunNo: 50910 Prep Date: 4/24/2018 Analysis Date: 4/30/2018 SeqNo: 1652966 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Aroclor 1016 4.0 1.0 5.000 0 79.2 33.4 137 9.25 17.9 4.7 Aroclor 1260 1.0 5.000 27.4 0 93.8 141 7.75 16.2 Surr: Decachlorobiphenyl 2.2 2.500 88.4 34.1 101 0 0 Surr: Tetrachloro-m-xylene 1.3 2.500 50.4 22.9 104 0 0

Qualifiers:

- * Value exceeds Maximum Contaminant Level,
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
 - Sample pH Not In Range
- RL Reporting Detection Limit

Ρ

W Sample container temperature is out of limit as specified

Page 7 of 0

ruge / or (

Client:

Project:

Chlorobenzene

Chloroethane

Chloromethane

2-Chlorotoluene

4-Chlorotoluene

cis-1,3-Dichloropropene

Dibromochloromethane

Dibromomethane

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1,1-Dichloroethane

1,1-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropane

Dichlorodifluoromethane

1,2-Dibromo-3-chloropropane

cis-1,2-DCE

Chloroform

Hall Environmental Analysis Laboratory, Inc.

Atkins Engineering Associates

1.0

2.0

1.0

3.0

1.0

1.0

1.0

1.0

2.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

2.0

ND

ND

ND

ND

ND

ND

ND

ND

NÐ

ND

Project: Siringo	н н				···· .					
Sample ID: rb	SampT	ype: Mi	BLK	· Te:	stCode: E	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batch	n ID: Å	50817	·	RunNo: 5	0817		5 - A	\$	
Prep Date:	Analysis D	ate: 4	/24/2018	- 	SeqNo: 1	648442	Units: µg/L		· ·	·. *
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qua
Benzene	ND	1.0								
Toluene	ND	1.0						- -		
Ethylbenzene	ND	1.0	•							
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0					÷.,			
1,2-Dibromoathane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0		•						
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10					-			
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								

Oualifiers:

× Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

- Η Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits J

Page 8 of 0

- Р Sample pH Not In Range RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1804B71

02-May-18

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client: Atkins Engineering Associates **Project:** Siringo Sample ID: rb SampType: MBLK TestCode: EPA Method 8260B; VOLATILES Client ID: • PBW Batch ID: A50817 RunNo: 50817 Prep Date: Analysis Date: 4/24/2018 SeqNo: 1648442 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit RPDLimit HighLimit %RPD Qual ND 1,1-Dichloropropene 1.0 ND Hexachlorobutadiene 1.0 2-Hexanone ND 10 Isopropylbenzene ND 1.0 4-Isopropyitoluene ND 1.0 4-Methyl-2-pentanone ND 10 Methylene Chloride ND 3.0 n-Butylbenzene-ND 3.0 n-Propylbenzene ND 1.0 sec-Butylbenzene ND 1.0 Styrene ND 1.0 tert-Buty/benzene ND 1.0 1,1,1,2-Tetrachioroethane ND 1.0 1,1,2,2-Tetrachloroethane ND 2.0 Tetrachloroethene (PCE) ND 1.0 trans-1,2-DCE ND 1.0 trans-1,3-Dichloropropene ND 1.0 ND 1,2,3-Trichlorobenzene 1.0 1,2,4-Trichlorobenzene ND 1.0 ND 1,1,1-Trichloroethane 1.0 1,1,2-Trichloroethane ND 1.0 Trichloroethene (TCE) ND 1.0 Trichlorofluoromethane ND 1.0 1,2,3-Trichloropropane ND 2.0 Vinyl chloride ND 1.0 Xylenes, Total ND 1.5 10.00 Surr: 1,2-Dichloroethane-d4 9.3 70 93.5 130 Surr: 4-Bromofluorobenzene 11 10.00 108 70 130 Surr: Dibromofluoromethane 9.9 10.00 99.0 70 130 Surr: Toluene-d8 9.3 10.00 92.8 70 130 Sample ID: 100ng lcs SampType: LCS TestCode: EPA Method 8260B: VOLATILES Client ID: LCSW Batch ID: A50817 RunNo: 50817 Prep Date: Analysis Date: 4/24/2018 SeqNo: 1648443 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 22 70 1.0 20.00 0 108 130 Toluene 19 1.0 20.00 0 94.8 70 130

Qualifiers:

Chlorobenzene

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

19

1.0

20.00

Ρ

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range

96.9

J Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Detection Limit

0

W Sample container temperature is out of limit as specified

70

130

Page 9 of 0

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client:Atkins Engineering AssociatesProject:Siringo

Sample ID: 100ng Ics	SampT	ype: LC	S	TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch	ID: .A5	0817	F	RunNo: 5	0817		-	•		
Prep Date:	Analysis D	ate: 4/;	24/2018	5	SeqNo: 1	648443	Units: μg/L			а. —	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	. 20	1.0	20.00	0	101	70	130				
Trichloroethene (TCE)	. 18	1.0	20.00	0 ·	90.5	- 70	130				
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	. 70	130				
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130				
Surr: Dibromofluoromethane	9.4		10.00		94.4	70	130				
Surr: Toluene-d8	9.3		. 10.00		93.0	70	130		-		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 10 of 0

Client:

Project:

Sample ID: MB-37765

Hall Environmental Analysis Laboratory, Inc.

Atkins E Siringo	ngineering Associates						-
65	SampType: MBLK	Т	estCode: EPA Metho	od 8310): PAHs	·	
	Batch ID: 37765	·· ·	RunNo 50850	· ·			

Client ID: PBW	Batc	h ID: 37	765		RunNo: 5	0850			es e	
Prep Date: 4/24/2018	Analysis I	Date: 4/	26/2018		SeqNo: 1	650817	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%RÉC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0	· · · · ·				· · .			
1-Methylnaphthalene	ND	2.0		an e c				· ·		
2-Methylnaphthalene	> ND	2.0			<i>w</i> .			• .		
Acenaphthylene	ND	2.5								
Acenaphthene	ND	2.0								
Fluorene	ND	0.80	1							
Phenanthrene	ND	0.60								
Anthracene	ND	0.60								
Fluoranthene	ND	0.30		·						
Pyrene	ND	0.30								
Benz(a)anthracene	ND	0.070								
Chrysene	ND	0.20								
Benzo(b)fluoranthene	ND	0.10								
Benzo(k)fluoranthene	ND	0.070								
Benzo(a)pyrene	ND	0.070								
Dibenz(a,h)anthracene	ND	0.12								
Benzo(g,h,i)perylene	ND	0.12								
Indeno(1,2,3-cd)pyrene	ND	0.25								
Surr: Benzo(e)pyrene	15		20.00		7 7.4	52	133			

Sample ID: LCS-37765	Sampl	Type: LC	S	Tes	tCode: El	PA Method	8310: PAHs			
Client ID: LCSW	Batci	h ID: 37	765	F	RunNo: 5	0850				
Prep Date: 4/24/2018	Analysis [Date: 4/	26/2018	5	SeqNo: 1	650819	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	43	2.0	80.00	0	53.4	35.5	118	·		
1-Methylnaphthalene	4 4	2.0	80.20	• 0	54.5	35.5	119			
2-Methylnaphthalene	44	2.0	80.00	0	54.5	32.4	122			
Acenaphthylene	48	2.5	80.20	0	59.7	47.6	128			
Acenaphthene	47	2.0	80.00	0	59.2	43.7	112	· .		
Fluorene	4.9	0.80	8.020	0	.61.3	45.9	113	,		
Phenanthrene	2.6	0.60	4.020	0	63.7	52.7	114		-	· .
Anthracene	2,8	0.60	4.020	• 0	70.6	54.1	127		-	
Fluoranthene	5.7	0.30	8.020	0 -	71.2	59.1	116			
Pyrene	5.8	0.30	8.020	0	72.2	55.2	105			
Benz(a)anthracene	0.60	0.070	0.8020	0	74.8	52.9	126			
Chrysene	2.9	0.20	4.020	0	72.1	50.6	120			
Benzo(b)fluoranthene	0.70	0.10	1.002	0	69.9	49.7	118			
Benzo(k)fluoranthene	0.37	0.070	0.5000	0	74.0	54.5	119			

Qualifiers:

ŧ Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix
- в Analyte detected in the associated Method Blank
- Value above quantitation range Е

J Analyte detected below quantitation limits

Page 11 of 0

- Ρ Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1804B71

02-May-18

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client:	Atkins En	ngineering	, Associ	ates	1. 1.		1			1.	
Project:	Siringo							· · ·	-		· · · · ·
Sample ID: LCS-37	765	Samp	Type: LC	S	Tes	stCode: E	PA Method	8310: PAHs			
Client ID: LCSW		Batc	h ID: 37	765	F	RunNo: 5	0850		2		
Prep Date: 4/24/20	018	Analysis (Date: 4/	26/2018		SeqNo: 1	650819	Units: µg/L		÷	
Analyte		Result	· PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene	··· ·	0.38	0.070	0.5020	· . 0	75.7	49.8	120	1	•	
Dibenz(a,h)anthracene		0.74	0.12	1.002	. 0	73.9	52.5	126			
Benzo(g,h,i)perylene	. •	0.74	0.12	1.000	· 0	74.0	52.3	120		.*	
ndeno(1,2,3-cd)pyrene		1.4	0.25	2.004	· 0	71.9	46.8	114		· ·	
Surr: Benzo(e)pyrene		15		20.00		77.4	52	133			
Sample ID: LCSD-3	7765	Samp1	Type: LC	SD	Tes	tCode: E	PA Method	8310: PAHs	*	-	
Client ID: LCSS02	, ·	Batc	h ID: 37 7	765	·F	RunNo: 5	0850	·			
Prep Date: 4/24/20	18	Analysis E	Date: 4/3	26/2018	S	SeqNo: 1	650820	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene		41	2.0	80.00	0	50.8	35.5	118	4.99	19.8	4
-Methylnaphthalene		42	2.0	80.20	0	51.8	35.5	119	5.14	19.9	
2-Methylnaphthalene		41	2.0	80.00	0	51.4	32.4	122	5.76	19.4	
\cenaphthylene		46	2.5	80.20	0	57.0	47.6	128	4.53	22	
cenaphthene		46	2.0	80.00	0	57.2	43.7	112	3.35	20.2	
luorene		4.6	0.80	8.020	0	58.0	45.9	113	5.64	18.9	
henanthrene		2.2	0.60	4.020	0	56.0	52.7	114	12.9	21	
Inthracene		2.6	0.60	4.020	0	65.2	54.1	127	8.06	19.3	
luoranthene		5.5	0.30	8.020	0	68.6	59.1	116	3.75	18.9	
yrene		5.6	0.30	8.020	0	69.8	55.2	105	3.34	19.7	
Benz(a)anthracene		0.57	0.070	0.8020	0	71.1	52.9	126	5.13	20.1	
Chrysene		2.8	0.20	4.020	0	69.7	50.6	120	3.51	18.8	
lenzo(b)fluoranthene		0.69	0.10	1.002	0	68. 9	49.7	11B	1.44	19	
enzo(k)fluoranthene		0.35	0.070	0.5000	0	70.0	54.5	119	5.56	22.1	
enzo(a)pyrene		0.36	0.070	0.5020	· 0	71.7	49.8	120	5.41	24.1	
)ibenz(a,h)anthracene		0.73	0.12	1.002	0	72.9	52.5	126	1.36	21.8	
епzo(g,h,i)perylene		0.72	0.12	1.000	[.] . О	72.0	52.3	120	2.74	21.2	
ideno(1,2,3-cd)pyrene		1.4	0.25	2.004	0	70.4	46.8	114	2.11	19.9	
Surr: Benzo(e)pyrene		14		20.00		71.4	52	133	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 12 of 0

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client: Project:	Atkins E Siringo	ngineering	Associ	ates	-					· · · · ·	
Sample ID:	MB-37840	SampT	ype: ME	BLK	Tes	stCode: T	otal Phenol	ics by SW-84	6 9067	• • • • • • • • • • • • • • • • • • • •	
Client ID:	PBW	Batch	n ID: 37 8	840		RunNo: 🤅	50919	· ·		- · · .	
Prep Date:	4/30/2018	Analysis D	ate: 4/	30/2018		SeqNo: 4	1653063	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	· · · · · · · · · · · · · · · · · · ·	ND	2.5	Terra de					·		E
Sample ID:	LCS-37840	SampT	ype: LC	S	Tes	tCode: T	otal Phenol	ics by SW-84	6 9067	·	
Client ID;	LCSW	Batch	n ID: 378	840	F	RunNo: 8	50919				
Prep Date:	4/30/2018	Analysis D	ate: 4/	30/2018	. 5	SeqNo: 1	653064	Units: µg/L			
Analyte	<u>.</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics		6.3	2.5	20,00	0	31.3	67.8	139			SE
Sample ID:	LCSD-37840	SampT	ype: LC	SD	Tes	tCode: T	otal Phenol	ics by SW-84	6 9067		
Client ID:	LCSS02	Batch	ID: 378	340	F	RunNo: 5	50919				
Prep Date:	4/30/2018	Analysis D	ate: 4/;	30/2018		SeqNo: 1	653065	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics		15	2.5	20.00	0	75.9	67.8	139	83.1	21	RE

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 13 of 0

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B71

02-May-18

Client: A	tkins Engineerin	g Associ	ates							
Project: Si	ringo		· · ·			· .		بر ا		: • •
Sample ID: MB-37787	Samp	Туре: М	BLK	· Tes	stCode: S	M2540C MC	DD: Total Dis	solved Sc	olids	
Client ID: PBW	Bate	h ID: 37	787	F	RunŇo: 5	0861				
Prep Date: 4/25/201	8 Analysis	Date: 4	26/2018	;	SeqNo: 1	650414	Units: mg/L		*	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0			,			·		
Sample ID: LCS-3778	7 Samp	Type: LC	s	Tes	tCode: S	M2540C MC	D: Total Dis:	solved So	lids	
Client ID: LCSW	Bato	h ID: 37	787	F	RunNo: 5	0861				. (†
Prep Date: 4/25/2018	Analysis I	Date: 4/	26/2018		SeqNo: 1	650415	Units: mg/L		·	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	983	20.0	1000	0	98.3	80	120			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 14 of 0

- PSample pH Not In RangeRLReporting Detection Limit
- W Sample container temperature is out of limit as specified

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: ATK	Work Order Numb	er: 1804B71		RcptNo:	1
		1	i ca e		
Received By: Erin Melendrez	4/24/2018 9:00:00 A	M . 1	MAL	2	· ·
Completed By: Michelle Garcia	4/24/2018 9:32:00 A	М	Minul Go	mua)	· ·
Reviewed By:	4 84/18				e e e
Min 4/24/18		*	•		· · · · · · · · · · · · · · · · · · ·
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	· · · ·
2. How was the sample delivered?		FedEx			
Log In 3 Was an attempt mode to cool the cool			Nia 🗖	 NA 🗖	· .
 was an attempt made to cool the san 	npies?	Yes 💌			· ·
4. Were all samples received at a tempe	erature of >0° C to 6.0°C	Yes 🗹	No 🗌		
5. Sample(s) in proper container(s)?		Yes 🔽	No 🗌		
6. Sufficient sample volume for indicated	test(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA and ONG) p	properly preserved?	Yes 🗹	No 🗌		
8. Was preservative added to bottles?		Yes 🗌	No 🔽	NA	1 1 1 1 8
9. VOA vials have zero headspace?		Yes 🗹	No 🗌	No VOA Vials 🗹 🕅	y-04/24/10
 Were any sample containers received 	broken?	Yes 🗆	No 🔽 🛛	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custor	dy)	Yes 🔽	No 🗌	botties checked for pH:	(12)unless noted)
12. Are matrices correctly identified on Ch	ain of Custody?	Yes 🗸	No 🗆	Adjusted?	NO
13. Is it clear what analyses were requested	ed?	Yes 🗹	No 🗌		Mus
14. Were all holding times able to be met? (If no, notify customer for authorization)	?´ h.)	Yes 🔽	No 🗌	Checked by:	
Special Handling (if applicable)	· · ·			•	. .
15. Was client notified of all discrepancies	s with this order?	Yes	No 🗌	NA 🗹	· .
Person Notified:	Date				
By Whom:	Via:	eMail P	hone 🗍 Fax	In Person	
Regarding:		· · · · · · · · · · · · · · · · · · ·			
Client Instructions:					
16. Additional remarks:					
17. Cooler Information					
Coaler No Temp °C Condition	n Seal Intact Seal No	Seal Date	Signed By		
1 0.8 Good	Yes				

 HALL ENVIRONMENTAL HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 	BTEX + MTBE + TMB's (8021) BTEX + MTBE + TMB's (8021) BTEX + MTBE + TMB's (8021) TPH (Method 8015B (Gas/Diesel) TPH (Method 504.1) BDB (Method 504.1) BCRA 8 Metals Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) BS60B (VOA) BS60B (VOA) BS270 (Semi-VOA) CMPT(GM/M/UO) MM/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/M/OA) MM/M/M/OA) MM/M/M/M/M/OA) MM/M/M/OA) MM/M/M/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/M/OA) MM/M/M/OA) MM/M/M/OA) MM/M/M/M/M/OA) MM/M/M/OA) MM/M/M/M/M/M/OA) MM/M/M/OA) MM/M/M/M/M/OA) MM/M/M/OA) M/M/M/M/M/M/M/M/M/M/M/M/M/M/M/M/M/M/M/					Remarks: SEE EMAL ENCLESED NMAC LIST plus methodol via 80/58 Total 8034105: 19 + 3 thip blank
Turn-Around Time: □ Standard KushH/OT/NS Project Name: Project #: 0 Project #: 0	Project Manager: Project Manager: Project Manager: Pampler: ZM / K.K. Pampler: ZM / K.K. Pampler: ZM / K.K. Pample Temperature: O., B Preservative Type and # Type	varies vories vo	 002			teceived by Folex Date Time A Date Time teceived by: Date Time tracted to other accredited laboratories. This serves as notice of this
Chain-of-Custody Record Client: AHAMS ENGINEERING AND Mailing Address: 2904 W 2ND ST Recuelt NM 88201 F	email or Fax#: Eum // Inf // Cot // UNUM // UM F 0A/0C Package:	4123/16 11:37 48 20180423-2011000	MD Dlank			Date: Time: Relinquished by: F Date: Time: Relinquished by: R Date: Time: Relinquished by: R

A. Fullian rearing station of source shares and meet the standards of subsection A and section unless otherwise provided. If more than one water contaminant affecting human health is present, pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the com of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floar of or immersed within ground water, as can be reasonably measured.

2

(1)	Arsenic (As).	0.1 mg/l
(2)	Barium (Ba)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN).	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/1
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO3 as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/ľ
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l

20.6.2 NMAC

	(17)	Carbon Tetrachloride	0.01 mg/l
	(18)	1,2-dichloroethane (EDC)	0.01 mg/l
	(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
	(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
	(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/]
	(22)	ethylbenzene	
	(23)	total xylenes	0.62 mg/l
	(24)	methylene chloride	0.1 mg/l
	(25)	chloroform	0.1 mg/l
	(26)	1,1-dichloroethane	0.025 mg/l
	(27)	ethylene dibromide (EDB)	0.0001 mg/1
	(28)	1,1,1-trichloroethane.	
	(29)	1,1,2-trichloroethane	0.01 mg/l
	(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
	(31)	vinyl chloride	
	(32)	PAHs: total naphthalene plus monomethyinaphthalenes	0.03 mg/l
	(33)	benzo-a-pyrene.	0.0007 mg/l
В.	Other	Standards for Domestic Water Supply	Bar
	(1)	Chloride (Cl)	
	(2)	Copper (Cu)	1.0 mg/l
	(3)	Iron (Fe)	
	(4)	Manganese (Mn)	0.2 mg/l
	(6)	Phenols	
	(7)	Sulfate (SO4)	600.0 mg/l
	(8)	Total Dissolved Solids (TDS)	
	(9)	Zinc (Zn)	
	(10)	рН	between 6 and 9
С.	Stand	ards for Irrigation Use - Ground water shall meet the standar	rds of Subsection A, B,
nd C of this s	ection u	nless otherwise provided.	
	(1)	Aluminum (Al),	5.0 mg/l
	(2)	Boron (B)	0.75 mg/l
	(3)	Cobalt (Co)	0.05 mg/l
	(1)	Molybdenum (Mo)	1.0 mg/l
	(5)	Nickel (Ni)	0.2 mg/l
2-18-77, 1-29- #1	82, 11-17	7-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.11	11.3103, 1-15-01; A, 9-26-

3

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