

C-141

**October
2015**

Jones, Brad A., EMNRD

From: Shacie Murray <shacie@merrion.bz>
Sent: Wednesday, March 16, 2016 11:38 AM
To: Ryan Davis; jeff davis (jdaguamoss@hotmail.com); Smith, Cory, EMNRD; Fields, Vanessa, EMNRD; Jones, Brad A., EMNRD
Subject: Sunco C141 Approval
Attachments: C141 - OCD Approval - cover page.pdf

Good afternoon,

It is my pleasure to share with you that the Sunco facility, permit NM1-9-0, has received approval on the C141 release notification and corrective action from the Aztec OCD district office. Please see attached approved form, the full C141 document is available in the administrative order file dated 3/4/2016.

Agua Moss is continuing with closure activities per approved closure plan. Reclamation equipment will be brought to the facility this week and backfill activities will begin next week.

Cory, please be advised of this advance notice of dirt work. Dirt work will begin Monday, March 21, 2016, any changes will be communicated to you.

Thank you for your time.

Shacie Murray

Merrion Oil & Gas
Operations Department
(505) 330-7605
shacie@merrion.bz

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company	Agua Moss	Contact	Shacie Murray
Address	PO Box 600 Farmington NM 87499	Telephone No.	505-324-5324
Facility Name	Sunco	Facility Type	Surface waste permit NM01-009-00

Surface Owner	Agua Moss	Mineral Owner	Agua Moss	API No.	NA
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	2	29N	12W					San Juan

Latitude 36.756524 Longitude 108.072553

NATURE OF RELEASE

Type of Release	Hydrocarbon	Volume of Release	NA	Volume Recovered	NA
Source of Release	NA	Date and Hour of Occurrence	NA	Date and Hour of Discovery	NA
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not	If YES, To Whom? Email was sent to Cory Smith on Oct 6 upon receiving sampling results.			
Required					
By Whom?	Ryan Davis	Date and Hour October 6, 2015 at 1 pm			
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

OIL CONS. DIV DIST. 3

OCT 26 2015

Describe Cause of Problem and Remedial Action Taken.*

Cause unknown, most likely a hydrocarbon release from the past. Agua Moss will work with division for remediation per rule 19.15.30 NMAC.

Describe Area Affected and Cleanup Action Taken.*

Native soil impacted from below equipment, pond and pit, see attached soil sampling results and maps. Action pending district office input.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <u>Philana Thompson</u>	OIL CONSERVATION DIVISION	
Printed Name: <u>Philana Thompson</u>	Approved by Environmental Specialist: <u>[Signature]</u>	
Title: <u>Regulatory Compliance Spec.</u>	Approval Date: <u>2/25/16</u>	Expiration Date: ☐
E-mail Address: <u>pthompson@emission.bz</u>	Conditions of Approval:	Attached ☐
Date: <u>10-21-15</u> Phone: <u>5054861171</u>		

* Attach Additional Sheets If Necessary

#NCS 1605631683

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~~C-141 Submitted November 2015~~

Background Soil Concentration		August 18, 2015																							November 19, 2015										January 28, 2016						
		Empty Tank	Cement Stabilization Pads - Leak Detection Soil			Chlorine Storage Tank	Air Compressor Building	Evaporation Pond				Sump System	Critical Point North	Critical Point South	Skimmer Pit				Equipment				Roll Off Bin	Below Grade Tank	Chlorine Storage Tank Resample	Below Grade Tank Resample	Skimmer Pit Critical Point	Cement Pad 1	Cement Stabilization Pad 2				Trench	Waste Pile	Cement Pad 1 Resample	Cement Stabilization Pad 2 Resample					Chlorine Storage Tank Re-Resample
Parameter	Adjusted Facility Background (ppm)	001 ET	002 CSP-1 Big	003 CSP-2 Small	004 CST	005 ACB	006 EPNW	007 EPSE	008 EPNE	009 EPSW	014 EPSS	015 EPCPN	016 EPCPS	010 SPNW	011 SPNE	012 SPSW	013 SPSE	017 ESW	018 ESE	019 ENE	022 ENW	020 ROB	021 BGT	001 CSTb	002 BGTb	003 SPSSCP	004 CSP-1b	005 CSP-2bnw	006 CSP-2bne	007 CSP-2bse	008 CSP-2bsw	009 EPCPSb	010 WS	005 CSP-1b	001 CSP-2bnw2	002 CSP-2bne	003 CSP-2bse	004 CSP-2bsw	006 CSTb		
Gasoline Range (C5-C10)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Method 418.1 - ND		
Diesel Range (C10-C28)	0.1	75	43	50	490	73	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	22	ND	ND	310	1900	230	620	ND	ND	35	15	32	210	240	190	ND	20	ND	ND	21				
Motor Oil Range		390	180	220	2700	290							83					260		56	1300	9300	980	2800	ND	ND	250	95	160	830	1400	890	ND	63	ND	ND	ND				
Benzene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND										
Toluene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND										
Ethylbenzene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND										
p,m-Xylene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND										
o-Xylene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND										
Total BTEX	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND										
Total Alkalinity as CaCO3	92.5	140.0	405.0	205	131	85												72	80	416	226		101				158	104	124	101	102										
Bicarbonate as CaCO3	92.5	170.0	402.0	228	160	103												88	98	484	276		123																		
Nitrate Nitrogen	22.3	14	ND	1.2	16	2.3	3.2	2.1	0.31	2.7	27	12	52	24	120	50	94	24	10	2.7	1.4	5.5	18			1.6	2.8	6.8	2.5	1.6	6.1										
Nitrite Nitrogen	0.01	ND	ND	ND	0.87	ND												ND	ND	ND	ND	ND				ND	ND	ND	ND	ND											
Chloride	39.15	150	2500	26	2500	920	150	420	77	91	280	1100	8400	180	470	370	210	1900	680	98	150	60	590			6.3	640	1800	68	120	140	370	2700		1900						
Fluoride	1.0075	3.3	ND	0.35	3.2	2.2	3.1	2.7	3.7	4.6	4.1	5.1	ND	4.5	5.2	7.0	6.1	3.1	2.0	7.2	2.3	2.4	1.8			5	4.3	7.6	6.5	13	4.8										
Sulfate	140.8	140	240	36	430	150	930	4000	4600	1000	1300	1900	1500	5300	2900	2900	2700	270	57	51	56	510	85			56	300	1000	220	1300	800										
Iron	0.01						6000	5800	5800	6300	7100	8500	11000	1000	1100	10000	10000					13000				8200															
Calcium	37.2	18000	7700	3000	21000	18000												12000	6800	12000	3900		19000				19000	34000	22000	56000	32000										
Magnesium	7.21	3100	1300	1100	2700	2700												2500	1900	1900	1700		2400				4000	3900	2900	4800	3400										
Potassium	8.29	1200	1600	580	1300	1300												1200	1000	1200	1100		1500				1900	1800	1300	1000	1400										
Sodium	25.1	500	1700	230	2300	700												2600	2300	1200	680		540				1300	1900	320	550	440										
Arsenic	3.905	2.9	ND	ND	2.9	3.1	4.0	ND	3.4	ND	3.3	3.5	3.3	3.7	3.2	3.4	3.0	3.5	2.9	4.3	2.9	3.5	2.6			ND	ND	2.9	ND	3.4	3.2		2.8								
Barium	274.5	540	130	120	1500	270	68	140	57	110	140	200	320	200	190	190	170	170	140	260	71	2100	960			150	240	400	720	870	1900		1200								
Cadmium	0.575	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND			ND	ND	ND	ND	ND	ND	ND		ND							
Chromium	8.94	4.1	3.0	1.5	6.6	5.4	1.4	1.5	2.2	2.1	4.1	3.4	5.8	5.8	6.0	5.5	5.2	5.2	2.8	3.4	2.9	6.6	5.8			4.6	6.2	5.8	4.8	4.6	6.7		7.1								
Copper	10.34						1.8	1.5	2.4	2.1	3.2	3.6	5.6	4.8	5.0	4.9	5.2					15				3.0															
Lead	17.05	8.0	3.7	2.4	8.4	7.0	4.2	2.4	3.1	2.9	3.0	3.2	3.1	3.0	3.2	2.7	3.2	4.8	4.6	5.2	3.7	2.0	7.0			2.7	4.3	3.5	5.0	2.2	7.3		8.9								
Mercury	0.315	0.16	0.035	ND	0.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.039	ND	ND	0.033	1.3	0.66			ND	0.28	ND	0.19	0.072	0.19		0.33								
Manganese	258						210	110	160	170	220	180	190	170	170	170	170					360				140															
Selenium	0.595	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND		ND								
Silver	0.2525	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND		ND								
Zinc	38.4						12	8.8	14	15	15	17	23	21	22	21	21					49				16															
Uranium	1.919						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					ND				ND															



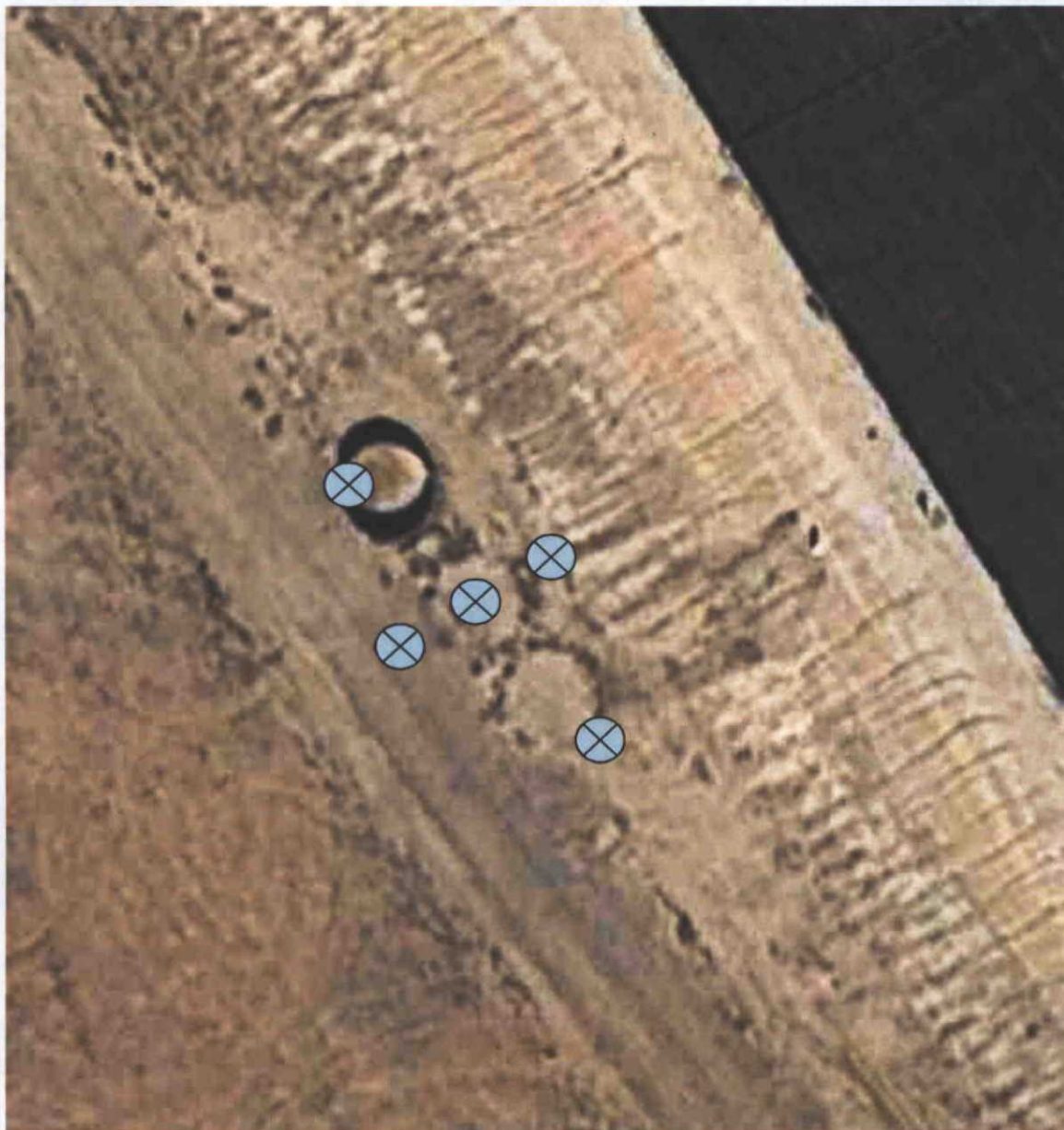
Aerial Photo Source: Google Earth Pro, 2015

Project Manager:	FAH
Drawn by:	FAH
Checked by:	MRH
Approved by:	MRH
Project No.	66157034
Scale:	1" = 88'
File Name:	
Date:	September 2015

Terracon
Consulting Engineers & Scientists
4905 Hawkins, NE Albuquerque, NM 87109
PH. (505) 797-4287 FAX. (505) 797-4288

AREA LOCATIONS
NM1-9 SURFACE WASTE DISPOSAL FACILITY CROUCH MESA ROAD SAN JUAN COUNTY, NEW MEXICO

EXHIBIT
1



Sample Aliquot Location for Composite Sample "ET"



Aerial Photo Source: Google Earth Pro, 2015

Project Manager: FAH	Project No. 66157034	 Consulting Engineers & Scientists 4905 Hawkins, NE Albuquerque, NM 87109 PH. (505) 797-4287 FAX. (505) 797-4288	AREA 1 SAMPLE LOCATIONS	EXHIBIT
Drawn by: FAH	Scale: 1" = 21'		NM1-9 SURFACE WASTE DISPOSAL FACILITY	2
Checked by: MRH	File Name:		CROUCH MESA ROAD	
Approved by: MRH	Date: September 2015		SAN JUAN COUNTY, NEW MEXICO	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: ET

Project: NM1-09

Collection Date: 8/18/2015 9:00:00 AM

Lab ID: 1508938-001

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	3.3	0.30		mg/Kg	1	8/25/2015 11:39:05 AM	20957
Chloride	150	30		mg/Kg	20	8/25/2015 11:51:29 AM	20957
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/25/2015 11:39:05 AM	20957
Nitrogen, Nitrate (As N)	14	0.30		mg/Kg	1	8/25/2015 11:39:05 AM	20957
Sulfate	140	1.5		mg/Kg	1	8/25/2015 11:39:05 AM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	0.16	0.032		mg/Kg	1	8/25/2015 9:52:42 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	2.9	2.5		mg/Kg	1	8/26/2015 1:19:29 PM	20968
Barium	540	0.50		mg/Kg	5	8/26/2015 2:40:33 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:19:29 PM	20968
Calcium	18000	130		mg/Kg	5	8/26/2015 2:40:33 PM	20968
Chromium	4.1	0.30		mg/Kg	1	8/26/2015 1:19:29 PM	20968
Lead	8.0	0.25		mg/Kg	1	8/26/2015 1:19:29 PM	20968
Magnesium	3100	50		mg/Kg	2	8/26/2015 2:34:49 PM	20968
Potassium	1200	50		mg/Kg	1	8/26/2015 1:19:29 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:19:29 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:19:29 PM	20968
Sodium	500	25		mg/Kg	1	8/26/2015 1:19:29 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	75	9.5		mg/Kg	1	8/24/2015 2:55:39 PM	20917
Motor Oil Range Organics (MRO)	390	48		mg/Kg	1	8/24/2015 2:55:39 PM	20917
Surr: DNOP	106	57.9-140		%REC	1	8/24/2015 2:55:39 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2015 10:59:43 AM	20910
Surr: BFB	83.7	75.4-113		%REC	1	8/24/2015 10:59:43 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	8/24/2015 10:59:43 AM	20910
Toluene	ND	0.048		mg/Kg	1	8/24/2015 10:59:43 AM	20910
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2015 10:59:43 AM	20910
Xylenes, Total	ND	0.095		mg/Kg	1	8/24/2015 10:59:43 AM	20910
Surr: 4-Bromofluorobenzene	97.0	80-120		%REC	1	8/24/2015 10:59:43 AM	20910

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

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



Sample Aliquot Location for Composite Samples "CSP-1" and "CSP-2"



Aerial Photo Source: Google Earth Pro, 2015

Project Manager: FAH	Project No. 66157034	 Consulting Engineers & Scientists 4905 Hawkins, NE Albuquerque, NM 87109 PH. (505) 797-4287 FAX. (505) 797-4286	AREA 2 SAMPLE LOCATIONS NM1-9 SURFACE WASTE DISPOSAL FACILITY CROUCH MESA ROAD SAN JUAN COUNTY, NEW MEXICO	EXHIBIT 3
Drawn by: FAH	Scale: 1" = 20'			
Checked by: MRH	File Name:			
Approved by: MRH	Date: September 2015			

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Project: NM1-09

Lab ID: 1508938-002

Client Sample ID: CSP-1

Collection Date: 8/18/2015 11:29:00 AM

Received Date: 8/19/2015 11:35:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	1.5		mg/Kg	5	8/25/2015 12:53:32 PM	20957
Chloride	2500	75		mg/Kg	50	8/26/2015 2:43:41 PM	20957
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/25/2015 12:53:32 PM	20957
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/25/2015 12:53:32 PM	20957
Sulfate	240	7.5		mg/Kg	5	8/25/2015 12:53:32 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	0.035	0.032		mg/Kg	1	8/25/2015 9:54:30 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.5		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Barium	130	0.10		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Calcium	7700	51		mg/Kg	2	8/26/2015 2:44:07 PM	20968
Chromium	3.0	0.30		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Lead	3.7	0.25		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Magnesium	1300	25		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Potassium	1600	51		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:24:53 PM	20968
Sodium	1700	25		mg/Kg	1	8/26/2015 1:24:53 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	43	9.6		mg/Kg	1	8/24/2015 6:40:52 PM	20917
Motor Oil Range Organics (MRO)	180	48		mg/Kg	1	8/24/2015 6:40:52 PM	20917
Surr: DNOP	110	57.9-140		%REC	1	8/24/2015 6:40:52 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2015 12:16:53 PM	20910
Surr: BFB	81.0	75.4-113		%REC	1	8/24/2015 12:16:53 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/24/2015 12:16:53 PM	20910
Toluene	ND	0.049		mg/Kg	1	8/24/2015 12:16:53 PM	20910
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2015 12:16:53 PM	20910
Xylenes, Total	ND	0.098		mg/Kg	1	8/24/2015 12:16:53 PM	20910
Surr: 4-Bromofluorobenzene	94.9	80-120		%REC	1	8/24/2015 12:16:53 PM	20910

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

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

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: CSP-2

Project: NM1-09

Collection Date: 8/18/2015 11:15:00 AM

Lab ID: 1508938-003

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.35	0.30		mg/Kg	1	8/25/2015 1:43:10 PM	20957
Chloride	26	1.5		mg/Kg	1	8/25/2015 1:43:10 PM	20957
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/25/2015 1:43:10 PM	20957
Nitrogen, Nitrate (As N)	1.2	0.30		mg/Kg	1	8/25/2015 1:43:10 PM	20957
Sulfate	36	1.5		mg/Kg	1	8/25/2015 1:43:10 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.031		mg/Kg	1	8/25/2015 9:56:20 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.5		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Barium	120	0.10		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Calcium	3000	25		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Chromium	1.5	0.30		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Lead	2.4	0.25		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Magnesium	1100	25		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Potassium	580	51		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:26:54 PM	20968
Sodium	230	25		mg/Kg	1	8/26/2015 1:26:54 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	50	9.6		mg/Kg	1	8/24/2015 7:08:06 PM	20917
Motor Oil Range Organics (MRO)	220	48		mg/Kg	1	8/24/2015 7:08:06 PM	20917
Surr: DNOP	97.5	57.9-140		%REC	1	8/24/2015 7:08:06 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2015 3:35:34 PM	20910
Surr: BFB	81.3	75.4-113		%REC	1	8/24/2015 3:35:34 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	8/24/2015 3:35:34 PM	20910
Toluene	ND	0.048		mg/Kg	1	8/24/2015 3:35:34 PM	20910
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2015 3:35:34 PM	20910
Xylenes, Total	ND	0.097		mg/Kg	1	8/24/2015 3:35:34 PM	20910
Surr: 4-Bromofluorobenzene	94.9	80-120		%REC	1	8/24/2015 3:35:34 PM	20910

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

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



Sample Aliquot Location for Composite Samples "CST" and "ACB"



Aerial Photo Source: Google Earth Pro, 2015

Project Manager: FAH	Project No. 66157034	 Consulting Engineers & Scientists 4905 Hawkins, NE Albuquerque, NM 87109 PH. (505) 797-4287 FAX. (505) 797-4288	AREA 3 SAMPLE LOCATIONS	EXHIBIT 4
Drawn by: FAH	Scale: 1" = 13'		NM1-9 SURFACE WASTE DISPOSAL FACILITY CROUCH MESA ROAD SAN JUAN COUNTY, NEW MEXICO	
Checked by: MRH	File Name:			
Approved by: MRH	Date: September 2015			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: CST

Project: NM1-09

Collection Date: 8/18/2015 12:00:00 PM

Lab ID: 1508938-004

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	3.2	0.30		mg/Kg	1	8/25/2015 2:07:59 PM	20957
Chloride	2500	75		mg/Kg	50	8/26/2015 2:56:06 PM	20957
Nitrogen, Nitrite (As N)	0.87	0.30		mg/Kg	1	8/25/2015 2:07:59 PM	20957
Nitrogen, Nitrate (As N)	16	0.30		mg/Kg	1	8/25/2015 2:07:59 PM	20957
Sulfate	430	30		mg/Kg	20	8/25/2015 2:20:24 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	0.48	0.16		mg/Kg	5	8/25/2015 10:50:29 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	2.9	2.5		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Barium	1500	1.0		mg/Kg	10	8/31/2015 10:47:23 AM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Calcium	21000	250		mg/Kg	10	8/31/2015 10:47:23 AM	20968
Chromium	6.6	0.30		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Lead	8.4	0.25		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Magnesium	2700	25		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Potassium	1300	51		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:35:38 PM	20968
Sodium	2300	25		mg/Kg	1	8/26/2015 1:35:38 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	490	99		mg/Kg	10	8/24/2015 4:51:05 PM	20917
Motor Oil Range Organics (MRO)	2700	490		mg/Kg	10	8/24/2015 4:51:05 PM	20917
Surr: DNOP	0	57.9-140	S	%REC	10	8/24/2015 4:51:05 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2015 4:00:27 PM	20910
Surr: BFB	85.9	75.4-113		%REC	1	8/24/2015 4:00:27 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	8/24/2015 4:00:27 PM	20910
Toluene	ND	0.048		mg/Kg	1	8/24/2015 4:00:27 PM	20910
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2015 4:00:27 PM	20910
Xylenes, Total	ND	0.097		mg/Kg	1	8/24/2015 4:00:27 PM	20910
Surr: 4-Bromofluorobenzene	99.2	80-120		%REC	1	8/24/2015 4:00:27 PM	20910

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

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

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: ACB

Project: NM1-09

Collection Date: 8/18/2015 12:16:00 PM

Lab ID: 1508938-005

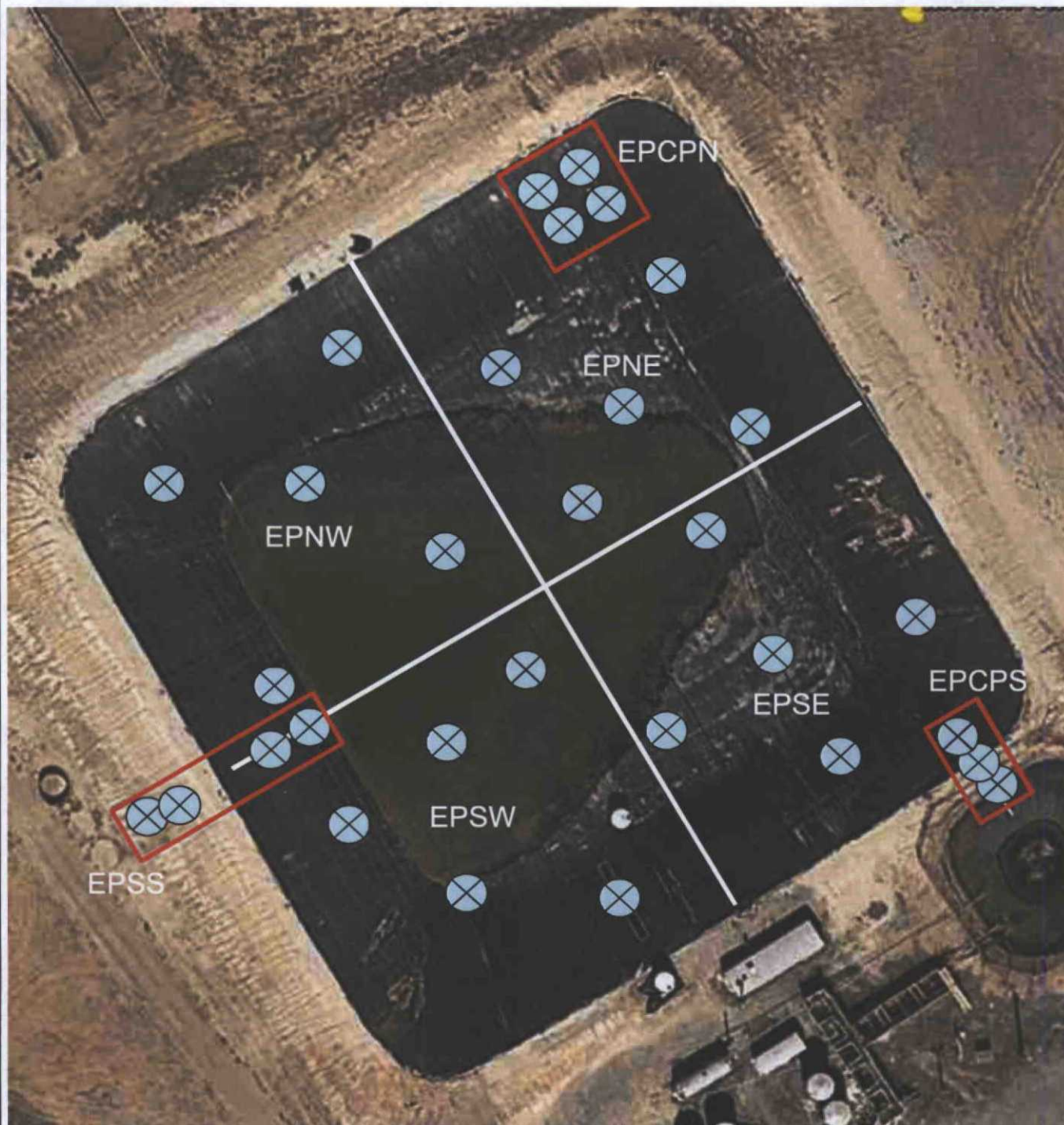
Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.2	0.30		mg/Kg	1	8/25/2015 2:57:38 PM	20957
Chloride	920	30		mg/Kg	20	8/25/2015 3:10:02 PM	20957
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/25/2015 2:57:38 PM	20957
Nitrogen, Nitrate (As N)	2.3	0.30		mg/Kg	1	8/25/2015 2:57:38 PM	20957
Sulfate	150	30		mg/Kg	20	8/25/2015 3:10:02 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.032		mg/Kg	1	8/25/2015 10:00:09 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.1	2.4		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Barium	270	0.19		mg/Kg	2	8/26/2015 2:57:08 PM	20968
Cadmium	ND	0.096		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Calcium	18000	240		mg/Kg	10	8/31/2015 10:49:16 AM	20968
Chromium	5.4	0.29		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Lead	7.0	0.24		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Magnesium	2700	24		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Potassium	1300	48		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Selenium	ND	2.4		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Silver	ND	0.24		mg/Kg	1	8/26/2015 1:37:41 PM	20968
Sodium	700	24		mg/Kg	1	8/26/2015 1:37:41 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	73	9.9		mg/Kg	1	8/24/2015 7:35:29 PM	20917
Motor Oil Range Organics (MRO)	290	49		mg/Kg	1	8/24/2015 7:35:29 PM	20917
Surr: DNOP	109	57.9-140		%REC	1	8/24/2015 7:35:29 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/24/2015 8:58:34 PM	20910
Surr: BFB	82.9	75.4-113		%REC	1	8/24/2015 8:58:34 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	8/24/2015 8:58:34 PM	20910
Toluene	ND	0.046		mg/Kg	1	8/24/2015 8:58:34 PM	20910
Ethylbenzene	ND	0.046		mg/Kg	1	8/24/2015 8:58:34 PM	20910
Xylenes, Total	ND	0.092		mg/Kg	1	8/24/2015 8:58:34 PM	20910
Surr: 4-Bromofluorobenzene	98.0	80-120		%REC	1	8/24/2015 8:58:34 PM	20910

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

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



Sample Aliquot Location for Composite Samples "EPNW", "EPNE", "EPSW", "EPSE", "EPCPN", "EPCPS" AND "EPSS"



Aerial Photo Source: Google Earth Pro, 2015

Project Manager:	FAH
Drawn by:	FAH
Checked by:	MRH
Approved by:	MRH
Project No.	66157034
Scale:	1" = 50'
File Name:	
Date:	September 2015

Terracon
Consulting Engineers & Scientists

4905 Hawkins, NE Albuquerque, NM 87109
PH. (505) 797-4287 FAX. (505) 797-4288

AREA 4 SAMPLE LOCATIONS

NM1-9 SURFACE WASTE DISPOSAL FACILITY
CROUCH MESA ROAD
SAN JUAN COUNTY, NEW MEXICO

EXHIBIT

5

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: EPNW

Project: NM1-09

Collection Date: 8/18/2015 12:36:00 PM

Lab ID: 1508938-006

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	3.1	0.30		mg/Kg	1	8/25/2015 3:22:26 PM	20957
Chloride	150	30		mg/Kg	20	8/25/2015 3:34:51 PM	20957
Nitrogen, Nitrate (As N)	3.2	0.30		mg/Kg	1	8/25/2015 3:22:26 PM	20957
Sulfate	930	30		mg/Kg	20	8/25/2015 3:34:51 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.031		mg/Kg	1	8/25/2015 10:02:00 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	4.0	2.6		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Barium	68	0.10		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Chromium	1.4	0.31		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Copper	1.8	0.31		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Iron	6000	130		mg/Kg	50	8/31/2015 10:56:25 AM	20968
Lead	4.2	0.26		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Manganese	210	0.10		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Selenium	ND	2.6		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Silver	ND	0.26		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Uranium	ND	5.2		mg/Kg	1	8/26/2015 1:39:41 PM	20968
Zinc	12	2.6		mg/Kg	1	8/26/2015 1:39:41 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/24/2015 8:02:56 PM	20917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/24/2015 8:02:56 PM	20917
Surr: DNOP	102	57.9-140		%REC	1	8/24/2015 8:02:56 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2015 9:23:21 PM	20910
Surr: BFB	84.6	75.4-113		%REC	1	8/24/2015 9:23:21 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/24/2015 9:23:21 PM	20910
Toluene	ND	0.049		mg/Kg	1	8/24/2015 9:23:21 PM	20910
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2015 9:23:21 PM	20910
Xylenes, Total	ND	0.099		mg/Kg	1	8/24/2015 9:23:21 PM	20910
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	1	8/24/2015 9:23:21 PM	20910

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: EPSE

Project: NM1-09

Collection Date: 8/18/2015 12:55:00 PM

Lab ID: 1508938-007

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.7	0.30		mg/Kg	1	8/25/2015 3:47:15 PM	20957
Chloride	420	30		mg/Kg	20	8/25/2015 3:59:39 PM	20957
Nitrogen, Nitrate (As N)	2.1	0.30		mg/Kg	1	8/25/2015 3:47:15 PM	20957
Sulfate	4000	75		mg/Kg	50	8/26/2015 3:08:31 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.031		mg/Kg	1	8/25/2015 10:03:52 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.6		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Barium	140	0.10		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Chromium	1.5	0.31		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Copper	1.5	0.31		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Iron	5800	130		mg/Kg	50	8/31/2015 10:57:54 AM	20968
Lead	2.4	0.26		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Manganese	110	0.10		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Selenium	ND	2.6		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Silver	ND	0.26		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Uranium	ND	5.2		mg/Kg	1	8/26/2015 1:41:34 PM	20968
Zinc	8.8	2.6		mg/Kg	1	8/26/2015 1:41:34 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/24/2015 8:30:33 PM	20917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/24/2015 8:30:33 PM	20917
Surr: DNOP	102	57.9-140		%REC	1	8/24/2015 8:30:33 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2015 9:48:01 PM	20910
Surr: BFB	80.7	75.4-113		%REC	1	8/24/2015 9:48:01 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	8/24/2015 9:48:01 PM	20910
Toluene	ND	0.048		mg/Kg	1	8/24/2015 9:48:01 PM	20910
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2015 9:48:01 PM	20910
Xylenes, Total	ND	0.096		mg/Kg	1	8/24/2015 9:48:01 PM	20910
Surr: 4-Bromofluorobenzene	93.7	80-120		%REC	1	8/24/2015 9:48:01 PM	20910

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: EPNE

Project: NM1-09

Collection Date: 8/18/2015 1:17:00 PM

Lab ID: 1508938-008

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	3.7	0.30		mg/Kg	1	8/25/2015 4:12:04 PM	20957
Chloride	77	30		mg/Kg	20	8/25/2015 4:24:29 PM	20957
Nitrogen, Nitrate (As N)	0.31	0.30		mg/Kg	1	8/25/2015 4:12:04 PM	20957
Sulfate	4600	75		mg/Kg	50	8/26/2015 3:20:55 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.031		mg/Kg	1	8/25/2015 10:05:36 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.4	2.4		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Barium	57	0.096		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Cadmium	ND	0.096		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Chromium	2.2	0.29		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Copper	2.4	0.29		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Iron	5800	120		mg/Kg	50	8/31/2015 10:59:24 AM	20968
Lead	3.1	0.24		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Manganese	160	0.096		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Selenium	ND	2.4		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Silver	ND	0.24		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Uranium	ND	4.8		mg/Kg	1	8/26/2015 1:43:27 PM	20968
Zinc	14	2.4		mg/Kg	1	8/26/2015 1:43:27 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/24/2015 9:25:39 PM	20917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/24/2015 9:25:39 PM	20917
Surr: DNOP	109	57.9-140		%REC	1	8/24/2015 9:25:39 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/24/2015 10:12:52 PM	20910
Surr: BFB	84.1	75.4-113		%REC	1	8/24/2015 10:12:52 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	8/24/2015 10:12:52 PM	20910
Toluene	ND	0.046		mg/Kg	1	8/24/2015 10:12:52 PM	20910
Ethylbenzene	ND	0.046		mg/Kg	1	8/24/2015 10:12:52 PM	20910
Xylenes, Total	ND	0.092		mg/Kg	1	8/24/2015 10:12:52 PM	20910
Surr: 4-Bromofluorobenzene	98.4	80-120		%REC	1	8/24/2015 10:12:52 PM	20910

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: EPSW

Project: NM1-09

Collection Date: 8/18/2015 1:30:00 PM

Lab ID: 1508938-009

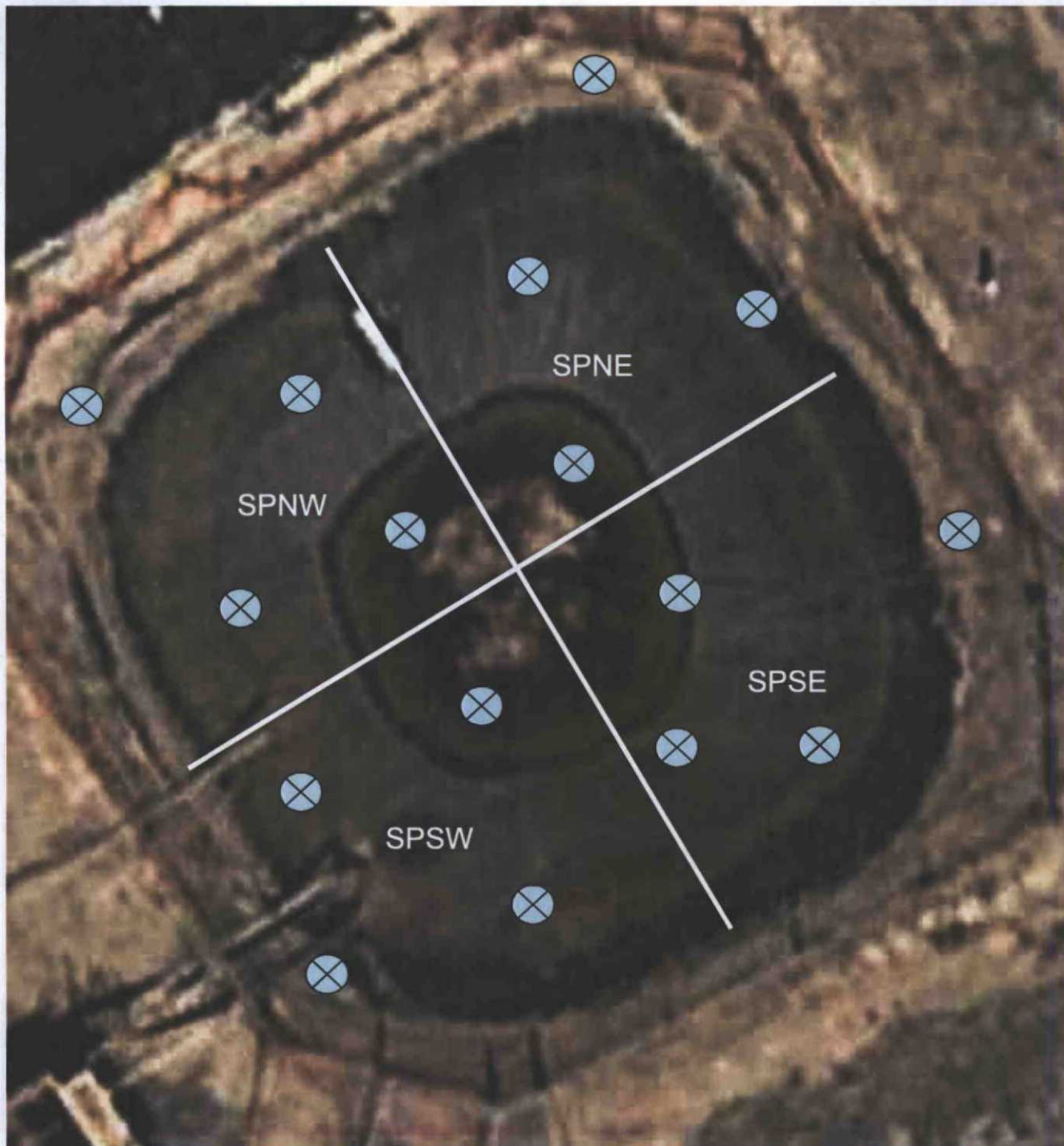
Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	4.6	0.30		mg/Kg	1	8/25/2015 4:36:54 PM	20957
Chloride	91	30		mg/Kg	20	8/25/2015 4:49:18 PM	20957
Nitrogen, Nitrate (As N)	2.7	0.30		mg/Kg	1	8/25/2015 4:36:54 PM	20957
Sulfate	1000	30		mg/Kg	20	8/25/2015 4:49:18 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.032		mg/Kg	1	8/25/2015 10:07:19 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.5		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Barium	110	0.099		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Cadmium	ND	0.099		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Chromium	2.1	0.30		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Copper	2.1	0.30		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Iron	6300	120		mg/Kg	50	8/31/2015 11:00:58 AM	20968
Lead	2.9	0.25		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Manganese	170	0.099		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Uranium	ND	5.0		mg/Kg	1	8/26/2015 1:45:21 PM	20968
Zinc	15	2.5		mg/Kg	1	8/26/2015 1:45:21 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/24/2015 9:53:24 PM	20917
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/24/2015 9:53:24 PM	20917
Surr: DNOP	95.4	57.9-140		%REC	1	8/24/2015 9:53:24 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/24/2015 10:37:43 PM	20910
Surr: BFB	81.6	75.4-113		%REC	1	8/24/2015 10:37:43 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	8/24/2015 10:37:43 PM	20910
Toluene	ND	0.047		mg/Kg	1	8/24/2015 10:37:43 PM	20910
Ethylbenzene	ND	0.047		mg/Kg	1	8/24/2015 10:37:43 PM	20910
Xylenes, Total	ND	0.095		mg/Kg	1	8/24/2015 10:37:43 PM	20910
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	8/24/2015 10:37:43 PM	20910

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

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



Sample Aliquot Location for Composite Samples "SPNW", "SPNE", "SPSW" AND "SPSE"

Aerial Photo Source: Google Earth Pro, 2015



Project Manager: FAH	Project No. 66157034	 Consulting Engineers & Scientists 4905 Hawkins, NE Albuquerque, NM 87109 PH. (505) 797-4287 FAX. (505) 797-4288	AREA 5 SAMPLE LOCATIONS	EXHIBIT 6
Drawn by: FAH	Scale: 1" = 13'		NM1-9 SURFACE WASTE DISPOSAL FACILITY CROUCH MESA ROAD SAN JUAN COUNTY, NEW MEXICO	
Checked by: MRH	File Name:			
Approved by: MRH	Date: September 2015			

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: SPNW

Project: NM1-09

Collection Date: 8/18/2015 2:24:00 PM

Lab ID: 1508938-010

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	4.5	0.30		mg/Kg	1	8/25/2015 5:26:32 PM	20957
Chloride	180	30		mg/Kg	20	8/25/2015 5:38:57 PM	20957
Nitrogen, Nitrate (As N)	24	0.30		mg/Kg	1	8/25/2015 5:26:32 PM	20957
Sulfate	5300	75		mg/Kg	50	8/26/2015 3:33:20 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.032		mg/Kg	1	8/25/2015 10:09:04 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.7	2.5		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Barium	200	0.099		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Cadmium	ND	0.099		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Chromium	5.8	0.30		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Copper	4.8	0.30		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Iron	1000	25		mg/Kg	10	8/31/2015 11:02:30 AM	20968
Lead	3.0	0.25		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Manganese	170	0.099		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Uranium	ND	5.0		mg/Kg	1	8/26/2015 1:47:29 PM	20968
Zinc	21	2.5		mg/Kg	1	8/26/2015 1:47:29 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/24/2015 10:21:03 PM	20917
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/24/2015 10:21:03 PM	20917
Surr: DNOP	87.5	57.9-140		%REC	1	8/24/2015 10:21:03 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/24/2015 11:02:36 PM	20910
Surr: BFB	82.5	75.4-113		%REC	1	8/24/2015 11:02:36 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	8/24/2015 11:02:36 PM	20910
Toluene	ND	0.047		mg/Kg	1	8/24/2015 11:02:36 PM	20910
Ethylbenzene	ND	0.047		mg/Kg	1	8/24/2015 11:02:36 PM	20910
Xylenes, Total	ND	0.093		mg/Kg	1	8/24/2015 11:02:36 PM	20910
Surr: 4-Bromofluorobenzene	96.5	80-120		%REC	1	8/24/2015 11:02:36 PM	20910

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

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

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: SPNE

Project: NM1-09

Collection Date: 8/18/2015 2:47:00 PM

Lab ID: 1508938-011

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	5.2	0.30		mg/Kg	1	8/25/2015 5:51:21 PM	20957
Chloride	470	30		mg/Kg	20	8/25/2015 6:03:45 PM	20957
Nitrogen, Nitrate (As N)	120	6.0		mg/Kg	20	8/25/2015 6:03:45 PM	20957
Sulfate	2900	75		mg/Kg	50	8/26/2015 3:45:45 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.032		mg/Kg	1	8/25/2015 10:14:32 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.2	2.5		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Barium	190	0.10		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Chromium	6.0	0.30		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Copper	5.0	0.30		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Iron	1100	25		mg/Kg	10	8/31/2015 11:04:02 AM	20968
Lead	3.2	0.25		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Manganese	170	0.10		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Uranium	ND	5.0		mg/Kg	1	8/26/2015 1:49:25 PM	20968
Zinc	22	2.5		mg/Kg	1	8/26/2015 1:49:25 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/24/2015 10:48:17 PM	20917
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/24/2015 10:48:17 PM	20917
Surr: DNOP	92.8	57.9-140		%REC	1	8/24/2015 10:48:17 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/24/2015 11:27:24 PM	20910
Surr: BFB	80.8	75.4-113		%REC	1	8/24/2015 11:27:24 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	8/24/2015 11:27:24 PM	20910
Toluene	ND	0.046		mg/Kg	1	8/24/2015 11:27:24 PM	20910
Ethylbenzene	ND	0.046		mg/Kg	1	8/24/2015 11:27:24 PM	20910
Xylenes, Total	ND	0.092		mg/Kg	1	8/24/2015 11:27:24 PM	20910
Surr: 4-Bromofluorobenzene	93.7	80-120		%REC	1	8/24/2015 11:27:24 PM	20910

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: SPSW

Project: NM1-09

Collection Date: 8/18/2015 2:32:00 PM

Lab ID: 1508938-012

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	7.0	6.0		mg/Kg	20	8/25/2015 6:28:35 PM	20957
Chloride	370	30		mg/Kg	20	8/25/2015 6:28:35 PM	20957
Nitrogen, Nitrate (As N)	50	6.0		mg/Kg	20	8/25/2015 6:28:35 PM	20957
Sulfate	2900	30		mg/Kg	20	8/25/2015 6:28:35 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.031		mg/Kg	1	8/25/2015 10:16:18 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.4	2.4		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Barium	190	0.097		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Cadmium	ND	0.097		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Chromium	5.5	0.29		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Copper	4.9	0.29		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Iron	10000	240		mg/Kg	100	8/31/2015 11:19:52 AM	20968
Lead	2.7	0.24		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Manganese	170	0.097		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Selenium	ND	2.4		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Silver	ND	0.24		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Uranium	ND	4.9		mg/Kg	1	8/26/2015 1:51:13 PM	20968
Zinc	21	2.4		mg/Kg	1	8/26/2015 1:51:13 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/24/2015 11:16:11 PM	20917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/24/2015 11:16:11 PM	20917
Surr: DNOP	92.0	57.9-140		%REC	1	8/24/2015 11:16:11 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2015 11:52:15 PM	20910
Surr: BFB	83.1	75.4-113		%REC	1	8/24/2015 11:52:15 PM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/24/2015 11:52:15 PM	20910
Toluene	ND	0.049		mg/Kg	1	8/24/2015 11:52:15 PM	20910
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2015 11:52:15 PM	20910
Xylenes, Total	ND	0.098		mg/Kg	1	8/24/2015 11:52:15 PM	20910
Surr: 4-Bromofluorobenzene	96.6	80-120		%REC	1	8/24/2015 11:52:15 PM	20910

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Project: NM1-09

Lab ID: 1508938-013

Client Sample ID: SPSE

Collection Date: 8/18/2015 2:42:00 PM

Received Date: 8/19/2015 11:35:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	6.1	6.0		mg/Kg	20	8/25/2015 6:53:24 PM	20957
Chloride	210	30		mg/Kg	20	8/25/2015 6:53:24 PM	20957
Nitrogen, Nitrate (As N)	94	6.0		mg/Kg	20	8/25/2015 6:53:24 PM	20957
Sulfate	2700	30		mg/Kg	20	8/25/2015 6:53:24 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	8/25/2015 10:18:04 AM	20937
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.0	2.4		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Barium	170	0.098		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Cadmium	ND	0.098		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Chromium	5.2	0.29		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Copper	5.2	0.29		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Iron	10000	240		mg/Kg	100	8/31/2015 11:21:21 AM	20968
Lead	3.2	0.24		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Manganese	170	0.098		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Selenium	ND	2.4		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Silver	ND	0.24		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Uranium	ND	4.9		mg/Kg	1	8/26/2015 1:53:00 PM	20968
Zinc	21	2.4		mg/Kg	1	8/26/2015 1:53:00 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/24/2015 11:43:52 PM	20917
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/24/2015 11:43:52 PM	20917
Surr: DNOP	77.3	57.9-140		%REC	1	8/24/2015 11:43:52 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2015 12:17:06 AM	20910
Surr: BFB	85.6	75.4-113		%REC	1	8/25/2015 12:17:06 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/25/2015 12:17:06 AM	20910
Toluene	ND	0.049		mg/Kg	1	8/25/2015 12:17:06 AM	20910
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2015 12:17:06 AM	20910
Xylenes, Total	ND	0.098		mg/Kg	1	8/25/2015 12:17:06 AM	20910
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	8/25/2015 12:17:06 AM	20910

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

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



Sample Aliquot Location for Composite Sample "BGT"

Aerial Photo Source: Google Earth Pro, 2015



Project Manager: FAH	Project No. 66157034	 Consulting Engineers & Scientists 4905 Hawkins, NE Albuquerque, NM 87109 PH. (505) 797-4287 FAX. (505) 797-4288	AREA 6 SAMPLE LOCATIONS	EXHIBIT
Drawn by: FAH	Scale: 1" = 6'		NM1-9 SURFACE WASTE DISPOSAL FACILITY CROUCH MESA ROAD SAN JUAN COUNTY, NEW MEXICO	7
Checked by: MRH	File Name:			
Approved by: MRH	Date: September 2015			

Background Soil Concentration

Parameter	Adjusted facility Background (ppm)	001 ET	002 CSP-1	003 CSP-2	004 CST	005 ACB	006 EPNW	007 EPSE	008 EPNE	009 EPSW	014 EPSS	015 EPCPN	016 EPCPS	010 SPNW	011 SPNE	012 SPWSW	013 SPSE	017 ESW	018 ESE	019 ENE	022 ENW	020 ROB	021 BGT
Gasoline Range (C5-C10)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diesel Range (C10-C28)	0.1	75	43	50	490	73	ND	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	22	ND	ND	ND	ND	ND
TPH (Method 8015B)	0.1	75	43	50	490	73	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	22	ND	ND	ND	310	1900	230
Benzene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,m-Xylene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Alkalinity as CaCO3	92.5	140.0	405.0	205	131	85												72	80	416	226		101
Bicarbonate as CaCO3	92.5	170.0	402.0	228	160	103												88	98	484	276		123
Nitrate Nitrogen	22.3	14	ND	1.2	16	2.3	3.2	2.1	0.31	2.7	27	12	52	24	120	50	94	24	10	2.7	1.4	5.5	18
Nitrite Nitrogen	0.01	ND	ND	ND	0.87	ND												ND	ND	ND	ND	ND	ND
Chloride	39.15	150	2500	26	2500	920	150	420	77	91	280	1100	8400	180	470	370	210	1900	680	98	150	60	590
Sulfate	140.8	140	240	36	430	150	3.1	2.7	3.7	4.6	4.1	5.1	ND	4.5	5.2	7.0	6.1	3.1	2.0	7.2	2.3	2.4	1.8
Calcium	37.2	18000	7700	3000	21000	18000		4000	4600	1000	1300	1900	1500	5300	2900	2900	2700	2500	1900	12000	3900		19000
Magnesium	7.21	3100	1300	1100	2700	2700												12000	6800	12000			2400
Potassium	8.29	1200	1600	580	1300	1300												2500	1900	1900	1700		1500
Sodium	25.1	500	1700	230	2300	700												2600	2300	1200	680		540
Arsenic	3.905	2.9	ND	ND	2.9	3.1	4.0	ND	3.4	ND	3.3	3.5	3.3	3.7	3.2	3.4	3.0	3.5	2.9	4.3	2.9	3.5	2.6
Barium	274.5	540	130	120	1500	270	68	140	57	110	140	200	320	200	190	190	170	170	140	260	71	2100	960
Cadmium	0.575	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	8.94	4.1	3.0	1.5	6.6	5.4	1.4	1.5	2.2	2.1	4.1	3.4	5.8	5.8	6.0	5.5	5.2	5.2	2.8	3.4	2.9	6.6	5.8
Copper	10.34						1.8	1.5	2.4	2.1	3.2	3.6	5.6	4.8	5.0	4.9	5.2						15
Lead	17.05	8.0	3.7	2.4	8.4	7.0	4.2	2.4	3.1	2.9	3.0	3.2	3.1	3.0	170	2.7	3.2	4.8	4.6	5.2	3.7	20	7.0
Mercury	0.315	0.16	0.035	ND	0.48	ND												0.039	ND	ND	0.033	1.3	0.66
Manganese	258	ND	ND	ND	ND	ND	210	110	160	170	220	180	190	170	170	170	170	ND	ND	ND	ND	ND	ND
Selenium	0.595	ND	ND	ND	ND	ND												ND	ND	ND	ND	ND	ND
Silver	0.2525	ND	ND	ND	ND	ND												ND	ND	ND	ND	ND	ND
Zinc	38.4						12	8.8	14	15	15	17	23	21	22	21	21					49	ND
Uranium	1.919						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						ND

Analyzed Background Soil Concentration

Sample Date: Sept. 17, 2012		Detection		Det. Limit		Non-Detect Sub.		Mean		Adjusted Facility Background
Parameter		SE Corner	NW Corner	SE Corner	NW Corner	SE Corner	NW Corner	SE/NW Average	Det. Limit	
Gasoline Range (C5-C10)		ND	ND	(mg/kg)	0.2	0.2	0.1	0.1	0.2	0.2 (mg/kg)
Diesel Range (C10-C28)		ND	ND	(mg/kg)	0.1	0.1	0.05	0.05	0.1	0.1 (mg/kg)
TPH (Method 8015B)		ND	ND	(mg/kg)	0.1	0.1	0.05	0.05	0.1	0.1 (mg/kg)
Benzene		ND	ND	(mg/kg)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/kg)
Toluene		ND	ND	(mg/kg)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/kg)
Ethylbenzene		ND	ND	(mg/kg)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/kg)
p,m-Xylene		ND	0.0136	(mg/kg)	0.01	0.01	0.005		0.0093	0.01 (mg/kg)
o-Xylene		ND	ND	(mg/kg)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/kg)
Total BTEX		ND	0.0136	(mg/kg)	0.01	0.01	0.005		0.0093	0.01 (mg/kg)
pH		7.78	7.69	(s.u.)					7.735	7.735 (s.u.)
Conductivity @ 25°C		476	368	(umhos/cm)					422	422 (umhos/cm)
Total Dissolved Solids @ 180C		332	288	(mg/L)					310	310 (mg/L)
SAR		1.50	0.400						0.95	0.95
Total Alkalinity as CaCO3		98.0	87.0	(mg/L)					92.5	92.5 (mg/L)
Total Hardness as CaCO3		124	121	(mg/L)					122.5	122.5 (mg/L)
Bicarbonate as CaCO3		98.0	87.0	(mg/L)	0.01	0.01			92.5	92.5 (mg/L)
Carbonate as CaCO3		ND	ND	(mg/L)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/L)
Hydroxide as CaCO3		ND	ND	(mg/L)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/L)
Nitrate Nitrogen		21.6	23.0	(mg/L)	0.01	0.01			22.3	22.3 (mg/L)
Nitrite Nitrogen		ND	ND	(mg/L)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/L)
Chloride		38.2	40.1	(mg/L)	0.01	0.01			39.15	39.15 (mg/L)
Fluoride		2.01	ND	(mg/L)	0.01	0.01		0.01	1.0075	1.0075 (mg/L)
Phosphate		ND	3.40	(mg/L)	0.01	0.01	0.005		1.7025	1.7025 (mg/L)
Sulfate		247	34.6	(mg/L)	0.01	0.01			140.8	140.8 (mg/L)
Iron		ND	ND	(mg/L)	0.01	0.01	0.005	0.005	0.01	0.01 (mg/L)
Calcium		36.5	37.9	(mg/L)	0.01	0.01			37.2	37.2 (mg/L)
Magnesium		7.90	6.52	(mg/L)	0.01	0.01			7.21	7.21 (mg/L)
Potassium		3.68	12.9	(mg/L)	0.01	0.01			8.29	8.29 (mg/L)
Sodium		39.4	10.8	(mg/L)	0.01	0.01			25.1	25.1 (mg/L)
Cyanide (total)		0.004	0.002	(mg/L)					0.003	0.003 (mg/L)
Arsenic		4.16	3.65	(mg/kg)	0.01	0.01			3.905	3.905 (mg/kg)
Barium		231	318	(mg/kg)	0.01	0.01			274.5	274.5 (mg/kg)
Cadmium		0.49	0.66	(mg/kg)	0.01	0.01			0.575	0.575 (mg/kg)
Chromium		8.63	9.25	(mg/kg)	0.01	0.01			8.94	8.94 (mg/kg)
Copper		6.68	14.0	(mg/kg)	0.01	0.01			10.34	10.34 (mg/kg)
Lead		11.8	22.3	(mg/kg)	0.01	0.01			17.05	17.05 (mg/kg)
Mercury		0.41	0.22	(mg/kg)	0.01	0.01			0.315	0.315 (mg/kg)
Manganese		218	298	(mg/kg)	0.01	0.01			258	258 (mg/kg)
Selenium		0.46	0.73	(mg/kg)	0.01	0.01			0.595	0.595 (mg/kg)
Silver		ND	0.50	(mg/kg)	0.01	0.01	0.005		0.2525	0.2525 (mg/kg)
Zinc		21.9	54.9	(mg/kg)	0.01	0.01			38.4	38.4 (mg/kg)

Sample Date: May 21, 2015										
Parameter	Detection		Det. Limit		Non-Detect Sub.		Mean		Adjusted Facility Background	
	SE Corner	NW Corner	SE Corner	NW Corner	SE Corner	NW Corner	SE/NW Average	Det. Limit		
TPH (Method 418.1)	ND	ND	(mg/kg)	34.3	35.4		17.15	17.70	17.425	34.85
Uranium	0.86	2.978	(pCi/g)	0.846	0.976				1.919	0.911
U-235	-0.182	0.060	(pCi/g)	0.846	0.976				-0.061	0.911
U-238	1.042	2.918	(pCi/g)	3.630	3.680				1.98	3.655
Polychlorinated Biphenyls	148.3	157.5	(mg/kg)	0.0189	0.0187				152.9	0.0188
PCB 1016	ND	ND	(mg/kg)	0.0189	0.0187	0.00945	0.00935		0.0094	0.0188
PCB 1221	ND	ND	(mg/kg)	0.0189	0.0187	0.00945	0.00935		0.0094	0.0188
PCB 1232	ND	ND	(mg/kg)	0.0189	0.0187	0.00945	0.00935		0.0094	0.0188
PCB 1242	ND	ND	(mg/kg)	0.0189	0.0187	0.00945	0.00935		0.0094	0.0188
PCB 1248	ND	ND	(mg/kg)	0.0189	0.0187	0.00945	0.00935		0.0094	0.0188
PCB 1254	ND	ND	(mg/kg)	0.0189	0.0187	0.00945	0.00935		0.0094	0.0188
PCB 1260	ND	ND	(mg/kg)	0.0189	0.0187	0.00945	0.00935		0.0094	0.0188
(S) Decachlorobiphenyl	65.5	76.0	(mg/kg)	10.0	10.0				70.75	10.0
(S) Tetrachloro-m-xylene	82.8	81.5	(mg/kg)	29.2	29.2				82.15	29.2
Carbon Tetrachloride	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
1,2-dichloroethane	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
1,1-dichloroethylene ¹	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
1,1,2,2-tetrachloroethylene ²	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
1,1,2-trichloroethylene ³	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
Methylene Chloride	ND	ND	(mg/kg)	0.0278	0.0275	0.0139	0.01375		0.013825	0.02765
Chloroform	ND	ND	(mg/kg)	0.0278	0.0275	0.0139	0.01375		0.013825	0.02765
1,1-dichloroethane	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
Ethylene Dibromide ⁴	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
1,1,1-trichloroethane	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
1,1,2-trichloroethane	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
1,1,2,2-tetrachloroethane	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
Vinyl Chloride	ND	ND	(mg/kg)	0.00556	0.00551	0.00278	0.002755		0.0027675	0.005535
Benzo-a-pyrene	ND	ND	(mg/kg)	0.0367	0.0364	0.01835	0.0182		0.018275	0.03655
Phenols	ND	ND	(mg/kg)	0.370	0.367	0.185	0.1835		0.18425	0.3685
PAHs: total naphthalene plus monomethylnaphthalenes	ND	ND	(mg/kg)	0.0367	0.0364	0.01835	0.0182		0.018275	0.03655
Naphthalene	ND	ND	(mg/kg)	0.0367	0.0364	0.01835	0.0182		0.018275	0.03655
Monomethylnaphthalenes ⁵	ND	ND	(mg/kg)	0.0556	0.0551	0.0278	0.02755		0.027675	0.05535
Radioactivity: Combined Radium-226 & Radium-228 ⁶	7.588	(pCi/g)				3.499			5.5435	5.5435
Radium-226	ND	5.249	(pCi/g)	3.660	2.990	1.83			3.5395	3.325
Radium-228	1.669	2.339	(pCi/g)	0.286	0.243				2.004	0.2645

For ND and < values, 1/2 of the Detection Limit was used as the substitution method.

¹Named 1,1-Dichloroethene in sampling results.

²Named Tetrachloroethene in sampling results.

³Named Trichloroethene in sampling results.

⁴Named 1,2-Dibromoethane in sampling results.

⁵Named 1- and 2- Methyl-naphthalene in sampling results.

⁶Value is a sum.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: BGT

Project: NM1-09

Collection Date: 8/18/2015 4:30:00 PM

Lab ID: 1508938-021

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.8	0.30		mg/Kg	1	8/25/2015 11:38:50 PM	20972
Chloride	590	30		mg/Kg	20	8/25/2015 11:51:14 PM	20972
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/25/2015 11:38:50 PM	20972
Nitrogen, Nitrate (As N)	18	0.30		mg/Kg	1	8/25/2015 11:38:50 PM	20972
Sulfate	85	1.5		mg/Kg	1	8/25/2015 11:38:50 PM	20972
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	0.66	0.16		mg/Kg	5	8/26/2015 5:48:36 PM	20992
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	2.6	2.4		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Barium	960	0.49		mg/Kg	5	8/26/2015 2:29:14 PM	20967
Cadmium	ND	0.098		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Calcium	19000	120		mg/Kg	5	8/26/2015 2:29:14 PM	20967
Chromium	5.8	0.29		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Lead	7.0	0.24		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Magnesium	2400	24		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Potassium	1500	49		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Selenium	ND	2.4		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Silver	ND	0.24		mg/Kg	1	8/26/2015 1:15:25 PM	20967
Sodium	540	24		mg/Kg	1	8/26/2015 1:15:25 PM	20967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	230	9.8		mg/Kg	1	8/25/2015 10:44:59 AM	20948
Motor Oil Range Organics (MRO)	980	49		mg/Kg	1	8/25/2015 10:44:59 AM	20948
Surr: DNOP	93.7	57.9-140		%REC	1	8/25/2015 10:44:59 AM	20948
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/25/2015 10:35:35 AM	20933
Surr: BFB	85.2	75.4-113		%REC	1	8/25/2015 10:35:35 AM	20933
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	8/25/2015 10:35:35 AM	20933
Toluene	ND	0.048		mg/Kg	1	8/25/2015 10:35:35 AM	20933
Ethylbenzene	ND	0.048		mg/Kg	1	8/25/2015 10:35:35 AM	20933
Xylenes, Total	ND	0.097		mg/Kg	1	8/25/2015 10:35:35 AM	20933
Surr: 4-Bromofluorobenzene	99.9	80-120		%REC	1	8/25/2015 10:35:35 AM	20933

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
- R RPD outside accepted recovery limits
- 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: EPCPN

Project: NM1-09

Collection Date: 8/18/2015 3:07:00 PM

Lab ID: 1508938-015

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	5.1	0.30		mg/Kg	1	8/25/2015 7:55:28 PM	20957
Chloride	1100	30		mg/Kg	20	8/25/2015 8:07:52 PM	20957
Nitrogen, Nitrate (As N)	12	0.30		mg/Kg	1	8/25/2015 7:55:28 PM	20957
Sulfate	1900	30		mg/Kg	20	8/25/2015 8:07:52 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.031		mg/Kg	1	8/25/2015 10:36:12 AM	20938
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.5	2.5		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Barium	200	0.10		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Chromium	3.4	0.30		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Copper	3.6	0.30		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Iron	8500	250		mg/Kg	100	8/31/2015 11:24:23 AM	20968
Lead	3.2	0.25		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Manganese	180	0.10		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Uranium	ND	5.0		mg/Kg	1	8/26/2015 2:04:39 PM	20968
Zinc	17	2.5		mg/Kg	1	8/26/2015 2:04:39 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/24/2015 11:14:48 PM	20917
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/24/2015 11:14:48 PM	20917
Surr: DNOP	88.0	57.9-140		%REC	1	8/24/2015 11:14:48 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/25/2015 2:20:56 AM	20910
Surr: BFB	85.8	75.4-113		%REC	1	8/25/2015 2:20:56 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	8/25/2015 2:20:56 AM	20910
Toluene	ND	0.047		mg/Kg	1	8/25/2015 2:20:56 AM	20910
Ethylbenzene	ND	0.047		mg/Kg	1	8/25/2015 2:20:56 AM	20910
Xylenes, Total	ND	0.095		mg/Kg	1	8/25/2015 2:20:56 AM	20910
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	8/25/2015 2:20:56 AM	20910

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: EPCPS

Project: NM1-09

Collection Date: 8/18/2015 3:10:00 PM

Lab ID: 1508938-016

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	6.0		mg/Kg	20	8/25/2015 8:32:41 PM	20957
Chloride	8400	300		mg/Kg	200	8/26/2015 3:58:09 PM	20957
Nitrogen, Nitrate (As N)	52	6.0		mg/Kg	20	8/25/2015 8:32:41 PM	20957
Sulfate	1500	30		mg/Kg	20	8/25/2015 8:32:41 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	0.080	0.032		mg/Kg	1	8/25/2015 10:38:03 AM	20938
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.3	2.4		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Barium	320	0.19		mg/Kg	2	8/26/2015 3:24:19 PM	20968
Cadmium	ND	0.097		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Chromium	5.8	0.29		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Copper	5.6	0.29		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Iron	11000	240		mg/Kg	100	8/31/2015 11:25:54 AM	20968
Lead	3.1	0.24		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Manganese	190	0.097		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Selenium	ND	2.4		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Silver	ND	0.24		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Uranium	ND	4.8		mg/Kg	1	8/26/2015 2:06:42 PM	20968
Zinc	23	2.4		mg/Kg	1	8/26/2015 2:06:42 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	10	9.7		mg/Kg	1	8/25/2015 4:12:06 PM	20917
Motor Oil Range Organics (MRO)	83	49		mg/Kg	1	8/25/2015 4:12:06 PM	20917
Surr: DNOP	78.9	57.9-140		%REC	1	8/25/2015 4:12:06 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/25/2015 2:45:45 AM	20910
Surr: BFB	79.6	75.4-113		%REC	1	8/25/2015 2:45:45 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/25/2015 2:45:45 AM	20910
Toluene	ND	0.050		mg/Kg	1	8/25/2015 2:45:45 AM	20910
Ethylbenzene	ND	0.050		mg/Kg	1	8/25/2015 2:45:45 AM	20910
Xylenes, Total	ND	0.10		mg/Kg	1	8/25/2015 2:45:45 AM	20910
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	8/25/2015 2:45:45 AM	20910

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
- R RPD outside accepted recovery limits
- 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: ESW

Project: NM1-09

Collection Date: 8/18/2015 3:25:00 PM

Lab ID: 1508938-017

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	3.1	0.30		mg/Kg	1	8/25/2015 8:45:05 PM	20957
Chloride	1900	75		mg/Kg	50	8/26/2015 4:10:34 PM	20957
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	8/25/2015 8:57:30 PM	20957
Nitrogen, Nitrate (As N)	24	6.0		mg/Kg	20	8/25/2015 8:57:30 PM	20957
Sulfate	270	30		mg/Kg	20	8/25/2015 8:57:30 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	0.039	0.031		mg/Kg	1	8/25/2015 10:39:54 AM	20938
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.5	2.6		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Barium	170	0.10		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Calcium	12000	130		mg/Kg	5	8/31/2015 11:27:24 AM	20968
Chromium	5.2	0.31		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Lead	4.8	0.26		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Magnesium	2500	26		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Potassium	1200	51		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Selenium	ND	2.6		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Silver	ND	0.26		mg/Kg	1	8/26/2015 2:08:31 PM	20968
Sodium	2600	26		mg/Kg	1	8/26/2015 2:08:31 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	22	9.9		mg/Kg	1	8/24/2015 10:10:07 PM	20917
Motor Oil Range Organics (MRO)	260	49		mg/Kg	1	8/24/2015 10:10:07 PM	20917
Surr: DNOP	84.6	57.9-140		%REC	1	8/24/2015 10:10:07 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2015 3:10:31 AM	20910
Surr: BFB	83.6	75.4-113		%REC	1	8/25/2015 3:10:31 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/25/2015 3:10:31 AM	20910
Toluene	ND	0.049		mg/Kg	1	8/25/2015 3:10:31 AM	20910
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2015 3:10:31 AM	20910
Xylenes, Total	ND	0.097		mg/Kg	1	8/25/2015 3:10:31 AM	20910
Surr: 4-Bromofluorobenzene	97.0	80-120		%REC	1	8/25/2015 3:10:31 AM	20910

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

CLIENT: Terracon

Client Sample ID: ESE

Project: NM1-09

Collection Date: 8/18/2015 3:38:00 PM

Lab ID: 1508938-018

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.0	0.30		mg/Kg	1	8/25/2015 9:09:54 PM	20957
Chloride	680	30		mg/Kg	20	8/25/2015 9:22:19 PM	20957
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/25/2015 9:09:54 PM	20957
Nitrogen, Nitrate (As N)	10	0.30		mg/Kg	1	8/25/2015 9:09:54 PM	20957
Sulfate	57	1.5		mg/Kg	1	8/25/2015 9:09:54 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.032		mg/Kg	1	8/25/2015 10:41:38 AM	20938
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	2.9	2.5		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Barium	140	0.098		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Cadmium	ND	0.098		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Calcium	6800	49		mg/Kg	2	8/26/2015 3:28:29 PM	20968
Chromium	2.8	0.29		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Lead	4.6	0.25		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Magnesium	1900	25		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Potassium	1000	49		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 2:10:28 PM	20968
Sodium	2300	25		mg/Kg	1	8/26/2015 2:10:28 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/24/2015 9:48:20 PM	20917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/24/2015 9:48:20 PM	20917
Surr: DNOP	86.9	57.9-140		%REC	1	8/24/2015 9:48:20 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/25/2015 3:35:15 AM	20910
Surr: BFB	79.5	75.4-113		%REC	1	8/25/2015 3:35:15 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	8/25/2015 3:35:15 AM	20910
Toluene	ND	0.046		mg/Kg	1	8/25/2015 3:35:15 AM	20910
Ethylbenzene	ND	0.046		mg/Kg	1	8/25/2015 3:35:15 AM	20910
Xylenes, Total	ND	0.091		mg/Kg	1	8/25/2015 3:35:15 AM	20910
Surr: 4-Bromofluorobenzene	92.5	80-120		%REC	1	8/25/2015 3:35:15 AM	20910

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

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

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: ENE

Project: NM1-09

Collection Date: 8/18/2015 4:02:00 PM

Lab ID: 1508938-019

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	7.2	1.5		mg/Kg	5	8/26/2015 4:47:47 PM	20972
Chloride	98	7.5		mg/Kg	5	8/26/2015 4:47:47 PM	20972
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/26/2015 4:47:47 PM	20972
Nitrogen, Nitrate (As N)	2.7	1.5		mg/Kg	5	8/26/2015 4:47:47 PM	20972
Sulfate	51	7.5		mg/Kg	5	8/26/2015 4:47:47 PM	20972
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.032		mg/Kg	1	8/25/2015 10:43:23 AM	20938
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	4.3	2.4		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Barium	260	0.19		mg/Kg	2	8/26/2015 3:30:23 PM	20968
Cadmium	ND	0.096		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Calcium	12000	120		mg/Kg	5	8/31/2015 11:29:06 AM	20968
Chromium	3.4	0.29		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Lead	5.2	0.24		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Magnesium	1900	24		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Potassium	1200	48		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Selenium	ND	2.4		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Silver	ND	0.24		mg/Kg	1	8/26/2015 2:12:24 PM	20968
Sodium	1200	24		mg/Kg	1	8/26/2015 2:12:24 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/25/2015 4:33:38 PM	20917
Motor Oil Range Organics (MRO)	56	49		mg/Kg	1	8/25/2015 4:33:38 PM	20917
Surr: DNOP	84.7	57.9-140		%REC	1	8/25/2015 4:33:38 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2015 4:00:02 AM	20910
Surr: BFB	79.3	75.4-113		%REC	1	8/25/2015 4:00:02 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/25/2015 4:00:02 AM	20910
Toluene	ND	0.049		mg/Kg	1	8/25/2015 4:00:02 AM	20910
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2015 4:00:02 AM	20910
Xylenes, Total	ND	0.098		mg/Kg	1	8/25/2015 4:00:02 AM	20910
Surr: 4-Bromofluorobenzene	91.9	80-120		%REC	1	8/25/2015 4:00:02 AM	20910

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

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

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: ROB

Project: NM1-09

Collection Date: 8/18/2015 2:15:00 PM

Lab ID: 1508938-020

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.4	0.30		mg/Kg	1	8/25/2015 11:14:01 PM	20972
Chloride	60	30		mg/Kg	20	8/25/2015 11:26:26 PM	20972
Nitrogen, Nitrate (As N)	5.5	0.30		mg/Kg	1	8/25/2015 11:14:01 PM	20972
Sulfate	510	30		mg/Kg	20	8/25/2015 11:26:26 PM	20972
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	1.3	0.16		mg/Kg	5	8/25/2015 10:56:06 AM	20938
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.5	2.5		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Barium	2100	0.99		mg/Kg	10	8/31/2015 11:30:48 AM	20968
Cadmium	1.2	0.099		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Chromium	6.6	0.30		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Copper	15	0.30		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Iron	13000	250		mg/Kg	100	9/1/2015 12:05:14 PM	20968
Lead	20	0.25		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Manganese	360	0.20		mg/Kg	2	8/26/2015 3:32:20 PM	20968
Selenium	ND	2.5		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Silver	ND	0.25		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Uranium	ND	4.9		mg/Kg	1	8/26/2015 2:14:36 PM	20968
Zinc	49	2.5		mg/Kg	1	8/26/2015 2:14:36 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	1900	94		mg/Kg	10	8/24/2015 8:43:29 PM	20917
Motor Oil Range Organics (MRO)	9300	470		mg/Kg	10	8/24/2015 8:43:29 PM	20917
Surr: DNOP	0	57.9-140	S	%REC	10	8/24/2015 8:43:29 PM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/25/2015 4:24:47 AM	20910
Surr: BFB	86.2	75.4-113		%REC	1	8/25/2015 4:24:47 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	8/25/2015 4:24:47 AM	20910
Toluene	ND	0.048		mg/Kg	1	8/25/2015 4:24:47 AM	20910
Ethylbenzene	ND	0.048		mg/Kg	1	8/25/2015 4:24:47 AM	20910
Xylenes, Total	ND	0.097		mg/Kg	1	8/25/2015 4:24:47 AM	20910
Surr: 4-Bromofluorobenzene	93.1	80-120		%REC	1	8/25/2015 4:24:47 AM	20910

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

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

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: ENW

Project: NM1-09

Collection Date: 8/18/2015 4:24:00 PM

Lab ID: 1508938-022

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.3	0.30		mg/Kg	1	8/26/2015 12:03:38 AM	20972
Chloride	150	30		mg/Kg	20	8/26/2015 12:16:03 AM	20972
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/26/2015 12:03:38 AM	20972
Nitrogen, Nitrate (As N)	1.4	0.30		mg/Kg	1	8/26/2015 12:03:38 AM	20972
Sulfate	56	1.5		mg/Kg	1	8/26/2015 12:03:38 AM	20972
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	0.033	0.031		mg/Kg	1	8/26/2015 5:35:56 PM	20992
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	2.9	2.5		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Barium	71	0.10		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Cadmium	ND	0.10		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Calcium	3900	25		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Chromium	2.9	0.31		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Lead	3.7	0.25		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Magnesium	1700	25		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Potassium	1100	51		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Selenium	ND	2.5		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Silver	ND	0.25		mg/Kg	1	8/26/2015 1:17:21 PM	20967
Sodium	680	25		mg/Kg	1	8/26/2015 1:17:21 PM	20967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	310	99		mg/Kg	10	8/25/2015 3:17:24 PM	20948
Motor Oil Range Organics (MRO)	1300	490		mg/Kg	10	8/25/2015 3:17:24 PM	20948
Surr: DNOP	0	57.9-140	S	%REC	10	8/25/2015 3:17:24 PM	20948
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/25/2015 11:25:30 AM	20933
Surr: BFB	96.4	75.4-113		%REC	1	8/25/2015 11:25:30 AM	20933
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	8/25/2015 11:25:30 AM	20933
Toluene	ND	0.047		mg/Kg	1	8/25/2015 11:25:30 AM	20933
Ethylbenzene	ND	0.047		mg/Kg	1	8/25/2015 11:25:30 AM	20933
Xylenes, Total	ND	0.094		mg/Kg	1	8/25/2015 11:25:30 AM	20933
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	8/25/2015 11:25:30 AM	20933

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-001
Client Sample ID: 1508938-001B, ET

Report Date: 09/04/15
Collection Date: 08/18/15 09:00
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	140	mg/kg		4		ASA10-3	09/04/15 11:55 / rbf
Bicarbonate, 1:2	170	mg/kg		4		ASA10-3	09/04/15 11:55 / rbf

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-002
Client Sample ID: 1508938-002B, CSP-1

Report Date: 09/04/15
Collection Date: 08/18/15 11:29
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	405	mg/kg		4		ASA10-3	09/04/15 12:06 / rbf
Bicarbonate, 1:2	402	mg/kg		4		ASA10-3	09/04/15 12:06 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-003
Client Sample ID: 1508938-003B, CSP-2

Report Date: 09/04/15
Collection Date: 08/18/15 11:15
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	205	mg/kg		4		ASA10-3	09/04/15 12:13 / rbf
Bicarbonate, 1:2	228	mg/kg		4		ASA10-3	09/04/15 12:13 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-004
Client Sample ID: 1508938-004B, CST

Report Date: 09/04/15
Collection Date: 08/18/15 12:00
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	131	mg/kg		4		ASA10-3	09/04/15 12:18 / rbf
Bicarbonate, 1:2	160	mg/kg		4		ASA10-3	09/04/15 12:18 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-005
Client Sample ID: 1508938-005B, ACB

Report Date: 09/04/15
Collection Date: 08/18/15 12:16
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	85	mg/kg		4		ASA10-3	09/04/15 12:25 / rbf
Bicarbonate, 1:2	103	mg/kg		4		ASA10-3	09/04/15 12:25 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-006
Client Sample ID: 1508938-006B, EPNW

Report Date: 09/04/15
Collection Date: 08/18/15 12:36
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 13:42 / jpv

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-007
Client Sample ID: 1508938-007B, EPSE

Report Date: 09/04/15
Collection Date: 08/18/15 12:55
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE							
Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 13:50 / jpv

**Report
Definitions:**

RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-008
Client Sample ID: 1508938-008B, EPNE

Report Date: 09/04/15
Collection Date: 08/18/15 13:17
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 13:53 / jpv

**Report
Definitions:**

RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-009
Client Sample ID: 1508938-009B, EPSW

Report Date: 09/04/15
Collection Date: 08/18/15 13:30
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 13:55 / jpv

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-010
Client Sample ID: 1508938-010B, SPNW

Report Date: 09/04/15
Collection Date: 08/18/15 14:24
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE							
Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 13:58 / jpv

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-011
Client Sample ID: 1508938-011B, SPNE

Report Date: 09/04/15
Collection Date: 08/18/15 14:47
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE							
Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 14:01 / jpv

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-012
Client Sample ID: 1508938-012B, SPSW

Report Date: 09/04/15
Collection Date: 08/18/15 14:32
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 14:03 / jpv

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-013
Client Sample ID: 1508938-013B, SPSE

Report Date: 09/04/15
Collection Date: 08/18/15 14:42
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE							
Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 14:06 / jpv

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-014
Client Sample ID: 1508938-014B, EPSS

Report Date: 09/04/15
Collection Date: 08/18/15 15:01
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE							
Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 14:09 / jpv

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-015
Client Sample ID: 1508938-015B, EPCPN

Report Date: 09/04/15
Collection Date: 08/18/15 15:07
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 14:12 / jpv

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-016
Client Sample ID: 1508938-016B, EPCPS

Report Date: 09/04/15
Collection Date: 08/18/15 15:10
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 14:25 / jpv

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-017
Client Sample ID: 1508938-017B, ESW

Report Date: 09/04/15
Collection Date: 08/18/15 15:25
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	72	mg/kg		4		ASA10-3	09/04/15 12:28 / rbf
Bicarbonate, 1:2	88	mg/kg		4		ASA10-3	09/04/15 12:28 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-018
Client Sample ID: 1508938-018B, ESE

Report Date: 09/04/15
Collection Date: 08/18/15 15:38
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	80	mg/kg		4		ASA10-3	09/04/15 12:32 / rbf
Bicarbonate, 1:2	98	mg/kg		4		ASA10-3	09/04/15 12:32 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-019
Client Sample ID: 1508938-019B, ENE

Report Date: 09/04/15
Collection Date: 08/18/15 16:02
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	416	mg/kg		4		ASA10-3	09/04/15 12:35 / rbf
Bicarbonate, 1:2	484	mg/kg		4		ASA10-3	09/04/15 12:35 / rbf

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-020
Client Sample ID: 1508938-020B, ROB

Report Date: 09/04/15
Collection Date: 08/18/15 14:15
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CYANIDE Cyanide, Total	ND	mg/kg		0.5		SW9012	09/01/15 14:28-/ jpv

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-021
Client Sample ID: 1508938-021B, BGT

Report Date: 09/04/15
Collection Date: 08/18/15 16:30
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	101	mg/kg		4		ASA10-3	09/04/15 12:42 / rbf
Bicarbonate, 1:2	123	mg/kg		4		ASA10-3	09/04/15 12:42 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B15082638-022
Client Sample ID: 1508938-022B, ENW

Report Date: 09/04/15
Collection Date: 08/18/15 16:24
Date Received: 08/28/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
WATER EXTRACTABLE CONSTITUENTS							
Alkalinity, 1:2	226	mg/kg		4		ASA10-3	09/04/15 12:45 / rbf
Bicarbonate, 1:2	276	mg/kg		4		ASA10-3	09/04/15 12:45 / rbf

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Project: Not Indicated

Report Date: 09/04/15

Work Order: B15082638

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW9012									Batch: 92777
Lab ID: MB-92777	Method Blank					Run: SFA-201-B_150901B			09/01/15 13:37
Cyanide, Total	ND	mg/kg	0.03						
Lab ID: LCS-92777	Laboratory Control Sample					Run: SFA-201-B_150901B			09/01/15 13:39
Cyanide, Total	4.38	mg/kg	0.50	89	60	140			
Lab ID: B15082638-006AMS	Sample Matrix Spike					Run: SFA-201-B_150901B			09/01/15 13:44
Cyanide, Total	4.13	mg/kg	0.52	78	50	150			
Lab ID: B15082638-006AMSD	Sample Matrix Spike Duplicate					Run: SFA-201-B_150901B			09/01/15 13:47
Cyanide, Total	4.92	mg/kg	0.51	96	50	150	17	30	
Lab ID: B15082638-020AMS	Sample Matrix Spike					Run: SFA-201-B_150901B			09/01/15 14:30
Cyanide, Total	3.73	mg/kg	0.50	72	50	150			
Lab ID: B15082638-020AMSD	Sample Matrix Spike Duplicate					Run: SFA-201-B_150901B			09/01/15 14:33
Cyanide, Total	3.82	mg/kg	0.50	73	50	150	2.2	30	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Project: Not Indicated

Report Date: 09/04/15

Work Order: B15082638

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA10-3									Batch: 92855
Lab ID: LCS-92855									09/04/15 11:52
Laboratory Control Sample									Run: ORION555A_150904A
Alkalinity, 1:2	108	mg/kg	4.0	94	70	130			
Bicarbonate, 1:2	132	mg/kg	4.0	95	70	130			
Lab ID: B15082638-001ADUP									09/04/15 12:00
Sample Duplicate									Run: ORION555A_150904A
Alkalinity, 1:2	110	mg/kg	4.0				24	30	
Bicarbonate, 1:2	134	mg/kg	4.0				24	30	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20972		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBS		Batch ID:	20972		RunNo:	28462			
Prep Date:	8/25/2015		Analysis Date:	8/25/2015		SeqNo:	860209		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID	LCS-20972		SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS		Batch ID:	20972		RunNo:	28462			
Prep Date:	8/25/2015		Analysis Date:	8/25/2015		SeqNo:	860210		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	97.6	90	110			
Chloride	14	1.5	15.00	0	94.4	90	110			
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	95.3	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	99.0	90	110			
Sulfate	29	1.5	30.00	0	96.2	90	110			

Sample ID	MB-20957		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBS		Batch ID:	20957		RunNo:	28462			
Prep Date:	8/25/2015		Analysis Date:	8/25/2015		SeqNo:	860232		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID	LCS-20957		SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS		Batch ID:	20957		RunNo:	28462			
Prep Date:	8/25/2015		Analysis Date:	8/25/2015		SeqNo:	860233		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.30	1.500	0	95.6	90	110			
Chloride	14	1.5	15.00	0	94.7	90	110			
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	95.7	90	110			
Nitrogen, Nitrate (As N)	7.5	0.30	7.500	0	99.4	90	110			
Sulfate	29	1.5	30.00	0	96.7	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	1508938-001AMS		SampType: MS	TestCode: EPA Method 300.0: Anions						
Client ID:	ET		Batch ID: 20957	RunNo: 28462						
Prep Date:	8/25/2015		Analysis Date: 8/25/2015	SeqNo: 860243		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.8	0.30	1.500	3.342	30.4	13.6	100			
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0.09000	94.4	84.9	108			
Nitrogen, Nitrate (As N)	24	0.30	7.500	14.12	128	87.6	109			S
Sulfate	140	1.5	30.00	136.7	11.1	37.4	146			S

Sample ID	1508938-001AMSD		SampType: MSD	TestCode: EPA Method 300.0: Anions						
Client ID:	ET		Batch ID: 20957	RunNo: 28462						
Prep Date:	8/25/2015		Analysis Date: 8/25/2015	SeqNo: 860244		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.9	0.30	1.500	3.342	35.1	13.6	100	1.87	20	
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0.09000	94.1	84.9	108	0.246	20	
Nitrogen, Nitrate (As N)	25	0.30	7.500	14.12	151	87.6	109	7.06	20	S
Sulfate	140	1.5	30.00	136.7	18.0	37.4	146	1.48	20	S

Sample ID	1508938-002AMS		SampType: MS	TestCode: EPA Method 300.0: Anions						
Client ID:	CSP-1		Batch ID: 20957	RunNo: 28462						
Prep Date:	8/25/2015		Analysis Date: 8/25/2015	SeqNo: 860246		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.7	1.5	1.500	0.4602	84.7	13.6	100			
Nitrogen, Nitrite (As N)	2.8	1.5	3.000	0	92.3	84.9	108			
Nitrogen, Nitrate (As N)	8.0	1.5	7.500	0.9831	93.9	87.6	109			
Sulfate	250	7.5	30.00	237.7	54.2	37.4	146			

Sample ID	1508938-002AMSD		SampType: MSD	TestCode: EPA Method 300.0: Anions						
Client ID:	CSP-1		Batch ID: 20957	RunNo: 28462						
Prep Date:	8/25/2015		Analysis Date: 8/25/2015	SeqNo: 860247		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.8	1.5	1.500	0.4602	87.7	13.6	100	2.62	20	
Nitrogen, Nitrite (As N)	2.8	1.5	3.000	0	94.7	84.9	108	2.57	20	
Nitrogen, Nitrate (As N)	8.1	1.5	7.500	0.9831	95.4	87.6	109	1.41	20	
Sulfate	250	7.5	30.00	237.7	46.8	37.4	146	0.878	20	

Sample ID	1508938-019AMS		SampType: MS	TestCode: EPA Method 300.0: Anions						
Client ID:	ENE		Batch ID: 20972	RunNo: 28485						
Prep Date:	8/25/2015		Analysis Date: 8/26/2015	SeqNo: 861123		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	1508938-019AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	ENE	Batch ID:	20972	RunNo:	28485					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861123	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.8	1.5	1.500	5.570	12.9	13.6	100			S
Chloride	93	7.5	15.00	71.57	140	64.2	131			S
Nitrogen, Nitrite (As N)	2.7	1.5	3.000	0	90.6	84.9	108			
Nitrogen, Nitrate (As N)	8.7	1.5	7.500	2.142	87.9	87.6	109			
Sulfate	54	7.5	30.00	34.67	63.7	37.4	146			

Sample ID	1508938-019AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	ENE	Batch ID:	20972	RunNo:	28485					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861124	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.5	1.5	1.500	5.570	-3.75	13.6	100	4.42	20	S
Chloride	90	7.5	15.00	71.57	125	64.2	131	2.38	20	
Nitrogen, Nitrite (As N)	2.4	1.5	3.000	0	79.8	84.9	108	12.6	20	S
Nitrogen, Nitrate (As N)	8.2	1.5	7.500	2.142	81.2	87.6	109	5.92	20	S
Sulfate	50	7.5	30.00	34.67	51.3	37.4	146	7.13	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20917		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	PBS		Batch ID:	20917		RunNo:	28409			
Prep Date:	8/21/2015		Analysis Date:	8/24/2015		SeqNo:	858936		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.2	57.9	140			

Sample ID	LCS-20917		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS		Batch ID:	20917		RunNo:	28409			
Prep Date:	8/21/2015		Analysis Date:	8/24/2015		SeqNo:	858937		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	57.4	139			
Surr: DNOP	5.6		5.000		113	57.9	140			

Sample ID	1508938-001AMS		SampType:	MS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	ET		Batch ID:	20917		RunNo:	28409			
Prep Date:	8/21/2015		Analysis Date:	8/24/2015		SeqNo:	858943		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	98	9.7	48.40	75.41	46.7	42.3	146			
Surr: DNOP	5.2		4.840		108	57.9	140			

Sample ID	1508938-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	ET		Batch ID:	20917		RunNo:	28409			
Prep Date:	8/21/2015		Analysis Date:	8/24/2015		SeqNo:	859050		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	96	10	50.15	75.41	41.6	42.3	146	1.80	28.9	S
Surr: DNOP	5.2		5.015		103	57.9	140	0	0	

Sample ID	MB-20948		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	PBS		Batch ID:	20948		RunNo:	28434			
Prep Date:	8/24/2015		Analysis Date:	8/25/2015		SeqNo:	859160		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.6	57.9	140			

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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	LCS-20948		SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID: 20948			RunNo: 28434				
Prep Date:	8/24/2015		Analysis Date: 8/25/2015			SeqNo: 859161		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.8	57.4	139			
Surr: DNOP	4.3		5.000		85.4	57.9	140			

Sample ID	1508938-021AMS		SampType: MS			TestCode: EPA Method 8015M/D: Diesel Range Organics				
Client ID:	BGT		Batch ID: 20948			RunNo: 28434				
Prep Date:	8/24/2015		Analysis Date: 8/25/2015			SeqNo: 859438		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	260	9.7	48.50	227.1	67.0	42.3	146			
Surr: DNOP	4.7		4.850		96.1	57.9	140			

Sample ID	1508938-021AMSD		SampType: MSD			TestCode: EPA Method 8015M/D: Diesel Range Organics				
Client ID:	BGT		Batch ID: 20948			RunNo: 28434				
Prep Date:	8/24/2015		Analysis Date: 8/25/2015			SeqNo: 859439		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	230	9.7	48.69	227.1	13.4	42.3	146	10.5	28.9	S
Surr: DNOP	4.8		4.869		99.0	57.9	140	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20910		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	20910		RunNo:	28415				
Prep Date:	8/21/2015		Analysis Date:	8/24/2015		SeqNo:	858379		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	790		1000		79.4	75.4	113				

Sample ID	LCS-20910		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 20910		RunNo: 28415					
Prep Date:	8/21/2015		Analysis Date: 8/24/2015		SeqNo: 858380		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	79.6	122			
Surr: BFB	890		1000		89.4	75.4	113			

Sample ID	1508938-002AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	CSP-1		Batch ID:	20910		RunNo:	28415				
Prep Date:	8/21/2015		Analysis Date:	8/24/2015		SeqNo:	858383		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	26	4.9	24.58	0	106	62.5	151				
Surr: BFB	920		983.3		93.2	75.4	113				

Sample ID	1508938-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	CSP-1		Batch ID:	20910		RunNo:	28415				
Prep Date:	8/21/2015		Analysis Date:	8/24/2015		SeqNo:	858384		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	22	4.8	24.11	0	92.0	62.5	151	16.1	22.1		
Surr: BFB	910		964.3		94.6	75.4	113	0	0		

Sample ID	MB-20933		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 20933		RunNo: 28433					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859725		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		83.6	75.4	113			

Sample ID	LCS-20933		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 20933		RunNo: 28433					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859726		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	LCS-20933		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 20933		RunNo: 28433					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859726		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.5	79.6	122			
Surr: BFB	880		1000		88.2	75.4	113			

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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20910		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 20910		RunNo: 28415					
Prep Date:	8/21/2015		Analysis Date: 8/24/2015		SeqNo: 858416		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.8	80	120			

Sample ID	LCS-20910		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 20910		RunNo: 28415					
Prep Date:	8/21/2015		Analysis Date: 8/24/2015		SeqNo: 858417		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.3	76.6	128			
Toluene	0.95	0.050	1.000	0	95.0	75	124			
Ethylbenzene	0.99	0.050	1.000	0	98.9	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	95.7	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	1508938-001AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	ET		Batch ID: 20910		RunNo: 28415					
Prep Date:	8/21/2015		Analysis Date: 8/24/2015		SeqNo: 858419		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.046	0.9276	0	87.0	69.6	136			
Toluene	0.84	0.046	0.9276	0.02029	88.2	76.2	134			
Ethylbenzene	0.88	0.046	0.9276	0.01811	92.8	75.8	137			
Xylenes, Total	2.6	0.093	2.783	0.05499	90.7	78.9	133			
Surr: 4-Bromofluorobenzene	0.98		0.9276		106	80	120			

Sample ID	1508938-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	ET		Batch ID: 20910		RunNo: 28415					
Prep Date:	8/21/2015		Analysis Date: 8/24/2015		SeqNo: 858420		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.047	0.9461	0	87.1	69.6	136	2.03	20	
Toluene	0.86	0.047	0.9461	0.02029	89.0	76.2	134	2.73	20	
Ethylbenzene	0.91	0.047	0.9461	0.01811	94.4	75.8	137	3.60	20	
Xylenes, Total	2.6	0.095	2.838	0.05499	88.6	78.9	133	0.357	20	
Surr: 4-Bromofluorobenzene	0.97		0.9461		102	80	120	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20933		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 20933		RunNo: 28433					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859761		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Sample ID	LCS-20933		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 20933		RunNo: 28433					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859762		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	97.0	76.6	128			
Toluene	0.99	0.050	1.000	0	99.0	75	124			
Ethylbenzene	1.0	0.050	1.000	0	103	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	101	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20937	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	20937	RunNo:	28436					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859233	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-20937	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	20937	RunNo:	28436					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859234	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID	1508938-013AMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	SPSE	Batch ID:	20937	RunNo:	28436					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859259	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1658	0.007606	95.6	75	125			

Sample ID	1508938-013AMSD	SampType:	MSD	TestCode:	EPA Method 7471: Mercury					
Client ID:	SPSE	Batch ID:	20937	RunNo:	28436					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859260	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1647	0.007606	93.2	75	125	3.06	20	

Sample ID	MB-20938	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	20938	RunNo:	28436					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859261	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-20938	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	20938	RunNo:	28436					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859262	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	98.7	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	1508938-014AMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	EPSS	Batch ID:	20938	RunNo:	28436					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859264	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.15	0.032	0.1630	0.003523	92.6	75	125			

Sample ID	1508938-014AMSD			SampType:	MSD		TestCode:	EPA Method 7471: Mercury			
Client ID:	EPSS		Batch ID:	20938		RunNo:	28436				
Prep Date:	8/24/2015		Analysis Date:	8/25/2015		SeqNo:	859265		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.16	0.032	0.1626	0.003523	93.2	75	125	0.409	20		

Sample ID	MB-20992	SampType: MBLK		TestCode: EPA Method 7471: Mercury						
Client ID:	PBS	Batch ID: 20992		RunNo: 28489						
Prep Date:	8/26/2015	Analysis Date: 8/26/2015		SeqNo: 861351		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-20992		SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS		Batch ID:	20992		RunNo:	28489				
Prep Date:	8/26/2015		Analysis Date:	8/26/2015		SeqNo:	861352		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.17	0.033	0.1667	0	101	80	120				

Sample ID	1508938-021AMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	BGT	Batch ID:	20992	RunNo:	28489					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861364	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.70	0.16	0.1641	0.6614	22.5	75	125			S

Sample ID	1508938-021AMSD			SampType:	MSD		TestCode:	EPA Method 7471: Mercury		
Client ID:	BGT		Batch ID:	20992		RunNo:	28489			
Prep Date:	8/26/2015		Analysis Date:	8/26/2015		SeqNo:	861365		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.63	0.16	0.1646	0.6614	-20.0	75	125	10.5	20	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	1508938-001AMS	SampType: MS		TestCode: EPA Method 6010B: Soil Metals						
Client ID:	ET	Batch ID: 20968		RunNo: 28484						
Prep Date:	8/25/2015	Analysis Date: 8/26/2015		SeqNo: 860998			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	27	2.6	25.99	2.944	91.2	75	125			
Cadmium	24	0.10	25.99	0	91.0	75	125			
Chromium	27	0.31	25.99	4.119	88.0	75	125			
Lead	28	0.26	25.99	8.006	76.8	75	125			
Potassium	3600	52	2599	1208	93.0	75	125			
Selenium	21	2.6	25.99	0	82.2	75	125			
Silver	4.7	0.26	5.199	0	89.6	75	125			
Sodium	2800	26	2599	501.9	87.7	75	125			

Sample ID	1508938-001AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	ET	Batch ID:	20968	RunNo:	28484					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	860999	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	24.59	2.944	91.6	75	125	4.60	20	
Cadmium	22	0.098	24.59	0	90.1	75	125	6.51	20	
Chromium	26	0.30	24.59	4.119	87.0	75	125	5.67	20	
Lead	27	0.25	24.59	8.006	77.1	75	125	3.71	20	
Potassium	3400	49	2459	1208	87.8	75	125	7.37	20	
Selenium	19	2.5	24.59	0	79.1	75	125	9.39	20	
Silver	4.4	0.25	4.918	0	88.7	75	125	6.55	20	
Sodium	2600	25	2459	501.9	86.1	75	125	6.00	20	

Sample ID	1508938-001AMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	ET	Batch ID:	20968	RunNo:	28484					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861037	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	5600	52	2599	3109	94.7	75	125			

Sample ID	1508938-001AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	ET	Batch ID:	20968	RunNo:	28484					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861038	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	5900	49	2459	3109	112	75	125	5.12	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20967	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	20967	RunNo:	28484					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861164	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Calcium	ND	25								
Chromium	ND	0.30								
Lead	ND	0.25								
Magnesium	ND	25								
Potassium	ND	50								
Selenium	ND	2.5								
Silver	ND	0.25								
Sodium	ND	25								

Sample ID	LCS-20967	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	20967	RunNo:	28484					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861165	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	100	80	120			
Cadmium	25	0.10	25.00	0	102	80	120			
Calcium	2500	25	2500	0	99.4	80	120			
Chromium	25	0.30	25.00	0	100	80	120			
Lead	25	0.25	25.00	0	100	80	120			
Magnesium	2400	25	2500	0	97.4	80	120			
Potassium	2400	50	2500	0	94.7	80	120			
Selenium	25	2.5	25.00	0	99.9	80	120			
Silver	5.0	0.25	5.000	0	99.7	80	120			
Sodium	2400	25	2500	0	96.3	80	120			

Sample ID	MB-20968	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	20968	RunNo:	28484					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861166	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Calcium	ND	25								
Chromium	ND	0.30								
Copper	ND	0.30								

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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508938

08-Sep-15

Client: Terracon

Project: NM1-09

Sample ID	MB-20968		SampType: MBLK			TestCode: EPA Method 6010B: Soil Metals				
Client ID:	PBS		Batch ID: 20968			RunNo: 28484				
Prep Date:	8/25/2015		Analysis Date: 8/26/2015			SeqNo: 861166		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	2.5								
Lead	ND	0.25								
Magnesium	ND	25								
Manganese	ND	0.10								
Potassium	ND	50								
Selenium	ND	2.5								
Silver	ND	0.25								
Sodium	ND	25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID	LCS-20968		SampType: LCS			TestCode: EPA Method 6010B: Soil Metals				
Client ID:	LCSS		Batch ID: 20968			RunNo: 28484				
Prep Date:	8/25/2015		Analysis Date: 8/26/2015			SeqNo: 861167		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	25.00	0	104	80	120			
Barium	25	0.10	25.00	0	100	80	120			
Cadmium	25	0.10	25.00	0	101	80	120			
Calcium	2500	25	2500	0	99.7	80	120			
Chromium	25	0.30	25.00	0	99.6	80	120			
Copper	26	0.30	25.00	0	104	80	120			
Iron	27	2.5	25.00	0	106	80	120			
Lead	25	0.25	25.00	0	99.0	80	120			
Magnesium	2400	25	2500	0	96.9	80	120			
Manganese	25	0.10	25.00	0	99.9	80	120			
Potassium	2400	50	2500	0	94.3	80	120			
Selenium	25	2.5	25.00	0	100	80	120			
Silver	5.0	0.25	5.000	0	100	80	120			
Sodium	2400	25	2500	0	96.0	80	120			
Uranium	25	5.0	25.00	0	100	80	120			
Zinc	25	2.5	25.00	0	102	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
R RPD outside accepted recovery limits
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



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: TER-Alb

Work Order Number: 1508938

RcptNo: 1

Received by/date: Ag 08/19/15

Logged By: Ashley Gallegos 8/19/2015 11:35:00 AM

Completed By: Ashley Gallegos 8/19/2015 5:18:22 PM

Reviewed By: Ag 08/20/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (If applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.6	Good	Not Present			

Chain-of-Custody Record

Client: Terracon

Mailing Address: gel p.

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Date Time Matrix Sample Request ID

8/15/15	1442	S	SPSE	(3) 402.
"	1501	S	EPSS	"
"	1507	S	EPCPN	"
"	1510	S	EPCPS	"
"	1525	S	ESW	"
"	1538	S	ESE	"
"	1602	S	ENE	"
"	1415	S	ROB	"
"	1630	S	BGT	"
"	1624	S	ENW	"

Date: 8/15/15 Relinquished by: John Wilk

Date: 8/15/15 Relinquished by:

Turn-Around Time:

☐ Standard ☐ Rush

Project Name:

NM1-9

Project #:

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 5-10

Container Type and #

Preservative Type

HEAL No. 1508938

-013

-014

-015

-016

-017

-018

-019

-020

-021

-022

-023

Received by:

Date

Remarks:

Received by:

Date

HALL ENVIRONMENTAL ANALYSIS LABORATORY



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	☒	BTEX + MTBE + TPH (Gas only)	☒	TPH 8015B (GRO / DRO / MRO)	☒	TPH (Method 418.1)	☒	EDB (Method 504.1)	☒	PAH's (8310 or 8270 SIMS)	☒	RCRA 8 Metals + Cations	☒	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	☒	8081 Pesticides / 8082 PCB's	☒	8260B (VOA)	☒	8270 (Semi-VOA)	☒	Bicarbonate	☒	RCRA 8 metals + other	☒	Air Bubbles (Y or N)	☒
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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 08, 2015

Mark Hillier

Terracon

4905 Hawkins, NE

Albuquerque, NM 87109

TEL: (505) 715-0375

FAX (505) 797-4288

RE: NM1-09

OrderNo.: 1508938

Dear Mark Hillier:

Hall Environmental Analysis Laboratory received 22 sample(s) on 8/19/2015 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



Sample Aliquot Location for Composite Samples "ENW", "ENE", "ESW" AND "ESE"

Aerial Photo Source: Google Earth Pro, 2015



Project Manager:	FAH
Drawn by:	FAH
Checked by:	MRH
Approved by:	MRH
Project No.	66157034
Scale:	1" = 21'
File Name:	
Date:	September 2015

Terracon
Consulting Engineers & Scientists
4905 Hawkins, NE Albuquerque, NM 87109
PH. (505) 797-4287 FAX. (505) 797-4288

AREA 8 SAMPLE LOCATIONS

NM1-9 SURFACE WASTE DISPOSAL FACILITY
CROUCH MESA ROAD
SAN JUAN COUNTY, NEW MEXICO

EXHIBIT

8

Analytical Report

Lab Order 1508938

Date Reported: 9/8/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: EPSS

Project: NM1-09

Collection Date: 8/18/2015 3:01:00 PM

Lab ID: 1508938-014

Matrix: SOIL

Received Date: 8/19/2015 11:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	4.1	0.30		mg/Kg	1	8/25/2015 7:05:49 PM	20957
Chloride	280	30		mg/Kg	20	8/25/2015 7:18:14 PM	20957
Nitrogen, Nitrate (As N)	27	0.30		mg/Kg	1	8/25/2015 7:05:49 PM	20957
Sulfate	1300	30		mg/Kg	20	8/25/2015 7:18:14 PM	20957
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.032		mg/Kg	1	8/25/2015 10:27:03 AM	20938
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.3	2.4		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Barium	140	0.096		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Cadmium	ND	0.096		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Chromium	4.1	0.29		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Copper	3.2	0.29		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Iron	7100	240		mg/Kg	100	8/31/2015 11:22:51 AM	20968
Lead	3.0	0.24		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Manganese	220	0.096		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Selenium	ND	2.4		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Silver	ND	0.24		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Uranium	ND	4.8		mg/Kg	1	8/26/2015 2:02:40 PM	20968
Zinc	15	2.4		mg/Kg	1	8/26/2015 2:02:40 PM	20968
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/25/2015 12:11:23 AM	20917
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/25/2015 12:11:23 AM	20917
Surr: DNOP	79.2	57.9-140		%REC	1	8/25/2015 12:11:23 AM	20917
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2015 12:41:53 AM	20910
Surr: BFB	83.7	75.4-113		%REC	1	8/25/2015 12:41:53 AM	20910
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/25/2015 12:41:53 AM	20910
Toluene	ND	0.049		mg/Kg	1	8/25/2015 12:41:53 AM	20910
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2015 12:41:53 AM	20910
Xylenes, Total	ND	0.097		mg/Kg	1	8/25/2015 12:41:53 AM	20910
Surr: 4-Bromofluorobenzene	97.6	80-120		%REC	1	8/25/2015 12:41:53 AM	20910

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

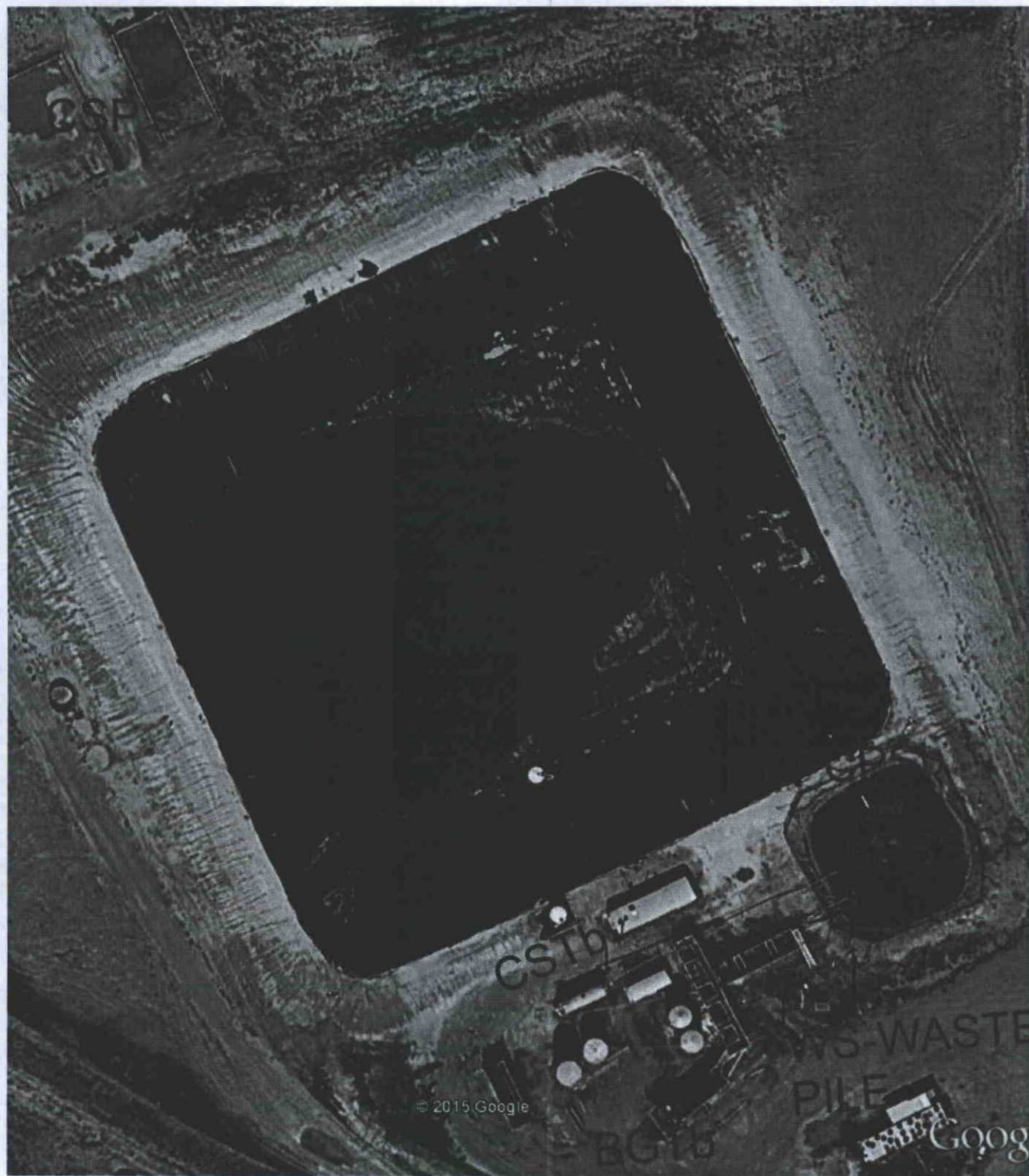
Qualifiers:

- * 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
- R RPD outside accepted recovery limits
- 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

OIL CONS. DIV DIST. 3

JAN 04 2016





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

December 10, 2015

Mark Hillier

Terracon

4905 Hawkins, NE

Albuquerque, NM 87109

TEL: (505) 715-0375

FAX (505) 797-4288

OIL CONS. DIV DIST. 3
JAN 04 2016

RE: NM1-09

OrderNo.: 1511990

Dear Mark Hillier:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/20/2015 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 Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSTb

Project: NM1-09

Collection Date: 11/19/2015 1:35:00 PM

Lab ID: 1511990-001

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	620	97		mg/Kg	10	11/24/2015 12:27:48 PM	22486
Motor Oil Range Organics (MRO)	2800	490		mg/Kg	10	11/24/2015 12:27:48 PM	22486
Surr: DNOP	0	70-130	S	%REC	10	11/24/2015 12:27:48 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/24/2015 11:44:56 PM	22473
Surr: BFB	79.3	66.2-112		%REC	1	11/24/2015 11:44:56 PM	22473

OIL CONS. DIV DIST. 3

JAN 04 2016

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: BGTb

Project: NM1-09

Collection Date: 11/19/2015 1:50:00 PM

Lab ID: 1511990-002

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/25/2015 10:40:45 AM	22486
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/25/2015 10:40:45 AM	22486
Surr: DNOP	93.2	70-130		%REC	1	11/25/2015 10:40:45 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/25/2015 12:09:18 AM	22473
Surr: BFB	75.9	66.2-112		%REC	1	11/25/2015 12:09:18 AM	22473

OIL CONS. DIV DIST. 3

JAN 04 2016

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: SPSSCP

Project: NMI-09

Collection Date: 11/19/2015 2:15:00 PM

Lab ID: 1511990-003

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	5.0	0.30		mg/Kg	1	12/4/2015 4:37:47 PM	22638
Chloride	6.3	1.5		mg/Kg	1	12/4/2015 4:37:47 PM	22638
Nitrogen, Nitrate (As N)	1.6	0.30		mg/Kg	1	12/4/2015 4:37:47 PM	22638
Sulfate	56	1.5		mg/Kg	1	12/4/2015 4:37:47 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	ND	0.033		mg/Kg	1	11/25/2015 11:24:42 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Barium	150	0.10		mg/Kg	1	12/1/2015 12:58:49 PM	22518
Cadmium	ND	0.10		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Chromium	4.6	0.30		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Copper	3.0	0.30		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Iron	8200	120		mg/Kg	50	12/1/2015 1:04:10 PM	22518
Lead	2.7	0.25		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Manganese	140	0.10		mg/Kg	1	12/1/2015 12:58:49 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Uranium	ND	5.0		mg/Kg	1	12/4/2015 9:12:54 AM	22518
Zinc	16	2.5		mg/Kg	1	11/30/2015 2:29:27 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/25/2015 11:02:08 AM	22486
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/25/2015 11:02:08 AM	22486
Surr: DNOP	92.0	70-130		%REC	1	11/25/2015 11:02:08 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/25/2015 12:33:37 AM	22473
Surr: BFB	78.4	66.2-112		%REC	1	11/25/2015 12:33:37 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.050		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Toluene	ND	0.050		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Ethylbenzene	ND	0.050		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Xylenes, Total	ND	0.099		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	11/24/2015 3:07:07 PM	22473
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	11/24/2015 3:07:07 PM	22473
Surr: Dibromofluoromethane	82.6	70-130		%REC	1	11/24/2015 3:07:07 PM	22473
Surr: Toluene-d8	111	70-130		%REC	1	11/24/2015 3:07:07 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon**Project:** NM1-09**Lab ID:** 1511990-004**Matrix:** SOIL**Client Sample ID:** CSP-1b**Collection Date:** 11/19/2015 2:00:00 PM**Received Date:** 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	4.3	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Chloride	640	30		mg/Kg	20	12/4/2015 2:46:06 PM	22638
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Bromide	2.0	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Nitrogen, Nitrate (As N)	2.8	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Sulfate	300	7.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.28	0.17		mg/Kg	5	11/25/2015 11:55:21 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Barium	240	0.099		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Calcium	19000	120		mg/Kg	5	12/1/2015 1:05:34 PM	22518
Chromium	6.2	0.30		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Lead	4.3	0.25		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Magnesium	4000	49		mg/Kg	2	11/30/2015 2:54:51 PM	22518
Potassium	1900	99		mg/Kg	2	11/30/2015 2:54:51 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Sodium	1300	49		mg/Kg	2	11/30/2015 2:54:51 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	35	10		mg/Kg	1	11/25/2015 11:23:30 AM	22486
Motor Oil Range Organics (MRO)	250	50		mg/Kg	1	11/25/2015 11:23:30 AM	22486
Surr: DNOP	92.1	70-130		%REC	1	11/25/2015 11:23:30 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/25/2015 12:57:54 AM	22473
Surr: BFB	79.3	66.2-112		%REC	1	11/25/2015 12:57:54 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.046		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Toluene	ND	0.046		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Ethylbenzene	ND	0.046		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Xylenes, Total	ND	0.092		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	11/24/2015 4:29:29 PM	22473
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	1	11/24/2015 4:29:29 PM	22473
Surr: Dibromofluoromethane	81.7	70-130		%REC	1	11/24/2015 4:29:29 PM	22473
Surr: Toluene-d8	109	70-130		%REC	1	11/24/2015 4:29:29 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSP-2bnw

Project: NM1-09

Collection Date: 11/19/2015 2:15:00 PM

Lab ID: 1511990-005

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	7.6	0.36		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Chloride	1800	75		mg/Kg	50	12/7/2015 8:57:52 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Bromide	3.8	0.30		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Nitrogen, Nitrate (As N)	6.8	0.30		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Sulfate	1000	30		mg/Kg	20	12/4/2015 3:10:55 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	ND	0.032		mg/Kg	1	11/25/2015 11:31:52 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	2.9	2.5		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Barium	400	0.20		mg/Kg	2	11/30/2015 2:57:58 PM	22518
Cadmium	ND	0.10		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Calcium	34000	250		mg/Kg	10	12/1/2015 1:06:47 PM	22518
Chromium	5.8	0.30		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Lead	3.5	0.25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Magnesium	3900	25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Potassium	1800	50		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Sodium	1900	25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	15	9.5		mg/Kg	1	11/25/2015 12:27:42 PM	22486
Motor Oil Range Organics (MRO)	95	48		mg/Kg	1	11/25/2015 12:27:42 PM	22486
Surr: DNOP	99.1	70-130		%REC	1	11/25/2015 12:27:42 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/25/2015 1:22:12 AM	22473
Surr: BFB	79.6	66.2-112		%REC	1	11/25/2015 1:22:12 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.050		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Toluene	ND	0.050		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Ethylbenzene	ND	0.050		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Xylenes, Total	ND	0.099		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	11/24/2015 4:56:52 PM	22473
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	1	11/24/2015 4:56:52 PM	22473
Surr: Dibromofluoromethane	81.3	70-130		%REC	1	11/24/2015 4:56:52 PM	22473
Surr: Toluene-d8	107	70-130		%REC	1	11/24/2015 4:56:52 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSP-2bne

Project: NM1-09

Collection Date: 11/19/2015 2:45:00 PM

Lab ID: 1511990-006

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	6.5	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Chloride	68	30		mg/Kg	20	12/4/2015 6:29:27 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Bromide	ND	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Nitrogen, Nitrate (As N)	2.5	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Sulfate	220	30		mg/Kg	20	12/4/2015 6:29:27 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.19	0.034		mg/Kg	1	11/25/2015 11:33:40 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Barium	720	0.50		mg/Kg	5	12/1/2015 1:07:53 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Calcium	22000	120		mg/Kg	5	12/1/2015 1:07:53 PM	22518
Chromium	4.8	0.30		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Lead	5.0	0.25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Magnesium	2900	25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Potassium	1300	50		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Sodium	320	25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	32	9.7		mg/Kg	1	11/25/2015 1:31:54 PM	22486
Motor Oil Range Organics (MRO)	160	48		mg/Kg	1	11/25/2015 1:31:54 PM	22486
Surr: DNOP	97.1	70-130		%REC	1	11/25/2015 1:31:54 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/25/2015 1:46:34 AM	22473
Surr: BFB	78.9	66.2-112		%REC	1	11/25/2015 1:46:34 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Toluene	ND	0.048		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Ethylbenzene	ND	0.048		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Xylenes, Total	ND	0.096		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%REC	1	11/24/2015 5:24:24 PM	22473
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	1	11/24/2015 5:24:24 PM	22473
Surr: Dibromofluoromethane	79.2	70-130		%REC	1	11/24/2015 5:24:24 PM	22473
Surr: Toluene-d8	108	70-130		%REC	1	11/24/2015 5:24:24 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSP-2bse

Project: NM1-09

Collection Date: 11/19/2015 2:25:00 PM

Lab ID: 1511990-007

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	13	6.0		mg/Kg	20	12/7/2015 9:10:17 PM	22638
Chloride	120	30		mg/Kg	20	12/7/2015 9:10:17 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 3:48:09 PM	22638
Bromide	0.65	0.30		mg/Kg	1	12/4/2015 3:48:09 PM	22638
Nitrogen, Nitrate (As N)	1.6	0.30		mg/Kg	1	12/4/2015 3:48:09 PM	22638
Sulfate	1300	30		mg/Kg	20	12/7/2015 9:10:17 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.072	0.033		mg/Kg	1	11/25/2015 11:35:30 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	3.4	2.5		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Barium	870	0.50		mg/Kg	5	12/1/2015 1:13:57 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Calcium	56000	500		mg/Kg	20	12/1/2015 1:15:11 PM	22518
Chromium	4.6	0.30		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Lead	2.2	0.25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Magnesium	4800	25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Potassium	1000	50		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Sodium	550	25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	210	9.7		mg/Kg	1	11/25/2015 2:36:04 PM	22486
Motor Oil Range Organics (MRO)	830	49		mg/Kg	1	11/25/2015 2:36:04 PM	22486
Surr: DNOP	88.8	70-130		%REC	1	11/25/2015 2:36:04 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/25/2015 2:10:52 AM	22473
Surr: BFB	78.8	66.2-112		%REC	1	11/25/2015 2:10:52 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.047		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Toluene	ND	0.047		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Ethylbenzene	ND	0.047		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Xylenes, Total	ND	0.094		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	11/24/2015 5:51:55 PM	22473
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	1	11/24/2015 5:51:55 PM	22473
Surr: Dibromofluoromethane	76.4	70-130		%REC	1	11/24/2015 5:51:55 PM	22473
Surr: Toluene-d8	112	70-130		%REC	1	11/24/2015 5:51:55 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSP-2bsw

Project: NM1-09

Collection Date: 11/19/2015 2:35:00 PM

Lab ID: 1511990-008

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	4.8	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Chloride	140	30		mg/Kg	20	12/4/2015 5:15:01 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Bromide	1.8	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Nitrogen, Nitrate (As N)	6.1	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Sulfate	800	30		mg/Kg	20	12/4/2015 5:15:01 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.19	0.032		mg/Kg	1	11/25/2015 11:37:25 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	3.2	2.5		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Barium	1900	1.0		mg/Kg	10	12/1/2015 1:16:22 PM	22518
Cadmium	ND	0.10		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Calcium	32000	250		mg/Kg	10	12/1/2015 1:16:22 PM	22518
Chromium	6.7	0.30		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Lead	7.3	0.25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Magnesium	3400	25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Potassium	1400	50		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Sodium	440	25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	240	97		mg/Kg	10	11/30/2015 11:41:14 AM	22486
Motor Oil Range Organics (MRO)	1400	480		mg/Kg	10	11/30/2015 11:41:14 AM	22486
Surr: DNOP	0	70-130	S	%REC	10	11/30/2015 11:41:14 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/25/2015 2:35:14 AM	22473
Surr: BFB	77.3	66.2-112		%REC	1	11/25/2015 2:35:14 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Toluene	ND	0.048		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Ethylbenzene	ND	0.048		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Xylenes, Total	ND	0.095		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%REC	1	11/24/2015 6:19:21 PM	22473
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	1	11/24/2015 6:19:21 PM	22473
Surr: Dibromofluoromethane	75.2	70-130		%REC	1	11/24/2015 6:19:21 PM	22473
Surr: Toluene-d8	110	70-130		%REC	1	11/24/2015 6:19:21 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: EPCPSb

Project: NM1-09

Collection Date: 11/19/2015 1:30:00 PM

Lab ID: 1511990-009

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	370	30		mg/Kg	20	12/4/2015 5:39:49 PM	22638

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: WS

Project: NM1-09

Collection Date: 11/19/2015 2:55:00 PM

Lab ID: 1511990-010

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2700	75		mg/Kg	50	12/7/2015 9:22:41 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.33	0.033		mg/Kg	1	11/25/2015 11:39:16 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	2.8	2.5		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Barium	1200	0.99		mg/Kg	10	12/1/2015 1:17:29 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Chromium	7.1	0.30		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Lead	8.9	0.25		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 3:13:48 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	190	10		mg/Kg	1	11/25/2015 4:44:28 PM	22486
Motor Oil Range Organics (MRO)	890	50		mg/Kg	1	11/25/2015 4:44:28 PM	22486
Surr: DNOP	85.3	70-130		%REC	1	11/25/2015 4:44:28 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/25/2015 2:59:30 AM	22473
Surr: BFB	78.4	66.2-112		%REC	1	11/25/2015 2:59:30 AM	22473

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

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

Anatek Labs, Inc.

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

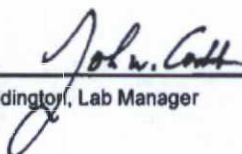
Batch #: 151125023
Project Name: 1511990

Analytical Results Report

Sample Number	151125023-001	Sampling Date	11/19/2015	Date/Time Received	11/25/2015 12:00 PM
Client Sample ID	1511990-003B / SPSSCP	Sampling Time	2:15 PM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	1	12/3/2015	MER	EPA 335.4	
%moisture	13.2	Percent		11/30/2015	MER	%moisture	

Authorized Signature


John Coddington, 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.

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 151125023
Project Name: 1511990

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.473	mg/kg	0.5	94.6	90-110	12/3/2015	12/3/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
151125023-001	Cyanide	ND	13.3	mg/kg	14.2	93.7	70-130	12/3/2015	12/3/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	13.6	mg/kg	14.2	95.8	2.2	0-25	12/3/2015	12/3/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/Kg	1	12/3/2015	12/3/2015

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; CO ID00013; FL(NELAP); E87893; ID ID00013; MT: CERT0028; NM: 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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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated

Report Date: 12/07/15

Lab ID: B15111912-001
Client Sample ID: 1511990-004B CSP-1b

Collection Date: 11/19/15 14:00
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	158	mg/kg		4		ASA10-3	12/01/15 10:09 / rbf
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Lab ID: B15111912-002
Client Sample ID: 1511990-005B CSP-2bnw

Collection Date: 11/19/15 14:15
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	104	mg/kg		4		ASA10-3	12/01/15 10:22 / rbf
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Lab ID: B15111912-003
Client Sample ID: 1511990-006B CSP-2bne

Collection Date: 11/19/15 14:45
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	124	mg/kg		4		ASA10-3	12/01/15 10:27 / rbf
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Lab ID: B15111912-004
Client Sample ID: 1511990-007B CSP-2bsw

Collection Date: 11/19/15 14:25
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	101	mg/kg		4		ASA10-3	12/01/15 10:32 / rbf
-----------------	-----	-------	--	---	--	---------	----------------------

Lab ID: B15111912-005
Client Sample ID: 1511990-008B CSP-2bsw

Collection Date: 11/19/15 14:35
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	102	mg/kg		4		ASA10-3	12/01/15 10:37 / rbf
-----------------	-----	-------	--	---	--	---------	----------------------

Report: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Report Date: 12/07/15

Project: Not Indicated

Work Order: B15111912

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA10-3										Batch: 95234
Lab ID: LCS-95234		Laboratory Control Sample				Run: AR50_151201A				12/01/15 10:04
Alkalinity, 1:2		97.6	mg/kg	4.0	89	70	130			
Lab ID: B15111912-005A DUP		Sample Duplicate				Run: AR50_151201A				12/01/15 10:44
Alkalinity, 1:2		102	mg/kg	4.0				0.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22638	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	22638	RunNo:	30634					
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936263	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID	LCS-22638	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	22638	RunNo:	30634					
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936264	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	103	90	110			
Chloride	14	1.5	15.00	0	94.6	90	110			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	94.2	90	110			
Bromide	7.0	0.30	7.500	0	94.0	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	98.5	90	110			
Sulfate	29	1.5	30.00	0	95.7	90	110			

Sample ID	1511990-003AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	SPSSCP	Batch ID:	22638	RunNo:	30634					
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936273	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.0	0.30	1.500	5.001	-1.16	13.6	100			S
Chloride	21	1.5	15.00	6.265	95.5	64.2	131			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	91.7	84.9	108			
Bromide	7.0	0.30	7.500	0	93.0	83.6	114			
Nitrogen, Nitrate (As N)	8.9	0.30	7.500	1.562	98.3	87.6	109			
Sulfate	80	1.5	30.00	56.40	77.2	37.4	146			

Sample ID	1511990-003AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions						
Client ID:	SPSSCP	Batch ID:	22638	RunNo:	30634						
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936274	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	4.9	0.30	1.500	5.001	-6.38	13.6	100	1.58	20	S	
Chloride	21	1.5	15.00	6.265	97.5	64.2	131	1.45	20		
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	93.0	84.9	108	1.41	20		
Bromide	7.0	0.30	7.500	0	93.8	83.6	114	0.871	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	1511990-003AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	SPSSCP		Batch ID: 22638		RunNo: 30634					
Prep Date:	12/4/2015		Analysis Date: 12/4/2015		SeqNo: 936274		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	9.0	0.30	7.500	1.562	99.8	87.6	109	1.21	20	
Sulfate	79	1.5	30.00	56.40	74.4	37.4	146	1.08	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22486	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	22486	RunNo:	30442					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	929168	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-22486	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	22486	RunNo:	30442					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	929169	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.0	57.4	139			
Surr: DNOP	4.6		5.000		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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22473	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	22473	RunNo:	30448					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	929762	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.8	66.2	112			

Sample ID	LCS-22473	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	22473	RunNo:	30448					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	929763	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	79.6	122			
Surr: BFB	1000		1000		104	66.2	112			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A30448	RunNo:	30448					
Prep Date:		Analysis Date:	11/24/2015	SeqNo:	929783	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	760		1000		76.4	66.2	112			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A30448	RunNo:	30448					
Prep Date:		Analysis Date:	11/24/2015	SeqNo:	929784	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		100	66.2	112			

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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	mb-22473	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	22473	RunNo:	30450					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	930097	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.7	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.1	70	130			
Surr: Dibromofluoromethane	0.40		0.5000		80.5	70	130			
Surr: Toluene-d8	0.54		0.5000		107	70	130			

Sample ID	lcs-22473	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	22473	RunNo:	30450					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	930098	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.050	1.000	0	86.9	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.2	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.6	70	130			
Surr: Dibromofluoromethane	0.39		0.5000		78.3	70	130			
Surr: Toluene-d8	0.53		0.5000		107	70	130			

Sample ID	1511990-003ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	SPSSCP	Batch ID:	22473	RunNo:	30450					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	930109	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	0.9930	0	98.3	70	130			
Toluene	1.2	0.050	0.9930	0	121	65	138			
Surr: 1,2-Dichloroethane-d4	0.46		0.4965		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4965		91.5	70	130			
Surr: Dibromofluoromethane	0.43		0.4965		85.9	70	130			
Surr: Toluene-d8	0.54		0.4965		109	70	130			

Sample ID	1511990-003amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	SPSSCP	Batch ID:	22473	RunNo:	30450					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	930111	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.049	0.9843	0	92.8	70	130	6.64	20	
Toluene	1.1	0.049	0.9843	0	117	65	138	4.28	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	1511990-003amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	SPSSCP	Batch ID:	22473	RunNo:	30450					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	930111	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.4921		90.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.47		0.4921		96.0	70	130	0	0	
Surr: Dibromofluoromethane	0.40		0.4921		80.6	70	130	0	0	
Surr: Toluene-d8	0.54		0.4921		110	70	130	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22515	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930696	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-22515	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930699	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1667	0	112	80	120			

Sample ID	1511990-004AMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	CSP-1b	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930718	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.28	0.16	0.1639	0.2757	2.16	75	125			S

Sample ID	1511990-004AMSD	SampType:	MSD	TestCode:	EPA Method 7471: Mercury					
Client ID:	CSP-1b	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930719	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.29	0.16	0.1615	0.2757	6.91	75	125	2.69	20	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22518	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	22518	RunNo:	30467					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	929949	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Selenium	ND	2.5								
Silver	ND	0.25								

Sample ID	LCS-22518		SampType: LCS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS		Batch ID: 22518		RunNo: 30467					
Prep Date:	11/24/2015		Analysis Date: 11/25/2015		SeqNo: 929950		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	28	2.5	25.00	0	110	80	120			
Barium	26	0.10	25.00	0	102	80	120			
Cadmium	26	0.10	25.00	0	104	80	120			
Chromium	26	0.30	25.00	0	103	80	120			
Lead	26	0.25	25.00	0	103	80	120			
Selenium	27	2.5	25.00	0	106	80	120			
Silver	5.3	0.25	5.000	0	106	80	120			

Sample ID	MB-22518		SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS		Batch ID:	22518		RunNo:	30518				
Prep Date:	11/24/2015		Analysis Date:	11/30/2015		SeqNo:	931694		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Calcium	ND	25								
Copper	ND	0.30								
Iron	ND	2.5								
Magnesium	ND	25								
Manganese	ND	0.10								
Potassium	ND	50								
Sodium	ND	25								
Zinc	ND	2.5								

Sample ID	LCS-22518		SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS		Batch ID:	22518		RunNo:	30518				
Prep Date:	11/24/2015		Analysis Date:	11/30/2015		SeqNo:	931695		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	LCS-22518		SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	LCSS		Batch ID:	22518		RunNo:	30518			
Prep Date:	11/24/2015		Analysis Date:	11/30/2015		SeqNb:	931695		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2600	25	2500	0	102	80	120			
Copper	26	0.30	25.00	0	105	80	120			
Iron	27	2.5	25.00	0	107	80	120			
Magnesium	2500	25	2500	0	100	80	120			
Manganese	25	0.10	25.00	0	101	80	120			
Potassium	2400	50	2500	0	97.7	80	120			
Sodium	2500	25	2500	0	98.9	80	120			
Zinc	26	2.5	25.00	0	105	80	120			

Sample ID	1511990-003AMS		SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SPSSCP		Batch ID:	22518		RunNo:	30518			
Prep Date:	11/24/2015		Analysis Date:	11/30/2015		SeqNo:	931708		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.05	2.047	91.4	75	125			
Cadmium	23	0.10	25.05	0	92.1	75	125			
Chromium	27	0.30	25.05	4.628	89.5	75	125			
Copper	28	0.30	25.05	2.963	98.6	75	125			
Lead	24	0.25	25.05	2.695	85.8	75	125			
Selenium	22	2.5	25.05	0	88.7	75	125			
Silver	4.7	0.25	5.011	0	94.2	75	125			
Zinc	37	2.5	25.05	16.17	84.2	75	125			

Sample ID	1511990-003AMSD		SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SPSSCP		Batch ID:	22518		RunNo:	30518			
Prep Date:	11/24/2015		Analysis Date:	11/30/2015		SeqNo:	931709		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	24.76	2.047	95.6	75	125	3.07	20	
Cadmium	23	0.099	24.76	0	93.0	75	125	0.222	20	
Chromium	27	0.30	24.76	4.628	91.1	75	125	0.510	20	
Copper	28	0.30	24.76	2.963	100	75	125	0.218	20	
Lead	24	0.25	24.76	2.695	86.6	75	125	0.282	20	
Selenium	23	2.5	24.76	0	93.1	75	125	3.65	20	
Silver	4.7	0.25	4.951	0	95.4	75	125	0.0487	20	
Zinc	38	2.5	24.76	16.17	87.2	75	125	1.33	20	

Qualifiers:

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	1511990-003AMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP	Batch ID:	22518	RunNo:	30548					
Prep Date:	11/24/2015	Analysis Date:	12/1/2015	SeqNo:	932725	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	170	0.10	25.05	147.4	70.3	75	125			S
Manganese	150	0.10	25.05	137.8	41.8	75	125			S

Sample ID	1511990-003AMSD		SampType: MSD		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP		Batch ID: 22518		RunNo: 30548					
Prep Date:	11/24/2015		Analysis Date: 12/1/2015		SeqNo: 932726		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	190	0.099	24.76	147.4	184	75	125	15.6	20	S
Manganese	160	0.099	24.76	137.8	71.7	75	125	4.80	20	S

Sample ID	MB-22518	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	22518	RunNo:	30620					
Prep Date:	11/24/2015	Analysis Date:	12/4/2015	SeqNo:	935263	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	5.0								

Sample ID	LCS-22518	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	22518	RunNo:	30620					
Prep Date:	11/24/2015	Analysis Date:	12/4/2015	SeqNo:	935264	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	26	5.0	25.00	0	103	80	120			

Sample ID	1511990-003AMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP	Batch ID:	22518	RunNo:	30620					
Prep Date:	11/24/2015	Analysis Date:	12/4/2015	SeqNo:	935277	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	22	5.0	25.05	0	88.6	75	125			

Sample ID	1511990-003AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP	Batch ID:	22518	RunNo:	30620					
Prep Date:	11/24/2015	Analysis Date:	12/4/2015	SeqNo:	935278	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	23	5.0	24.76	0	91.3	75	125	1.89	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
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| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | |



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: TER-Alb

Work Order Number: 1511990

RcptNo: 1

Received by/date:	<i>AEJ</i>	<i>11/20/15</i>
Logged By:	Ashley Gallegos	11/20/2015 9:56:00 AM
Completed By:	Ashley Gallegos	11/23/2015 9:07:12 AM
Reviewed By:	<i>JA</i>	<i>11/23/15</i>

Chain of Custody

- | | | | |
|--|---|-----------------------------|---|
| 1. Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☒ |
| 2. Is Chain of Custody complete? | Yes ☒ | No ☐ | Not Present ☐ |
| 3. How was the sample delivered? | Client | | |

Log In

- | | | | |
|---|---|--|--|
| 4. Was an attempt made to cool the samples? | Yes ☒ | No ☐ | NA ☐ |
| 5. Were all samples received at a temperature of >0° C to 6.0°C | Yes ☒ | No ☐ | NA ☐ |
| 6. Sample(s) in proper container(s)? | Yes ☒ | No ☐ | |
| 7. Sufficient sample volume for indicated test(s)? | Yes ☒ | No ☐ | |
| 8. Are samples (except VOA and ONG) properly preserved? | Yes ☒ | No ☐ | |
| 9. Was preservative added to bottles? | Yes ☐ | No ☒ | NA ☐ |
| 10. VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA Vials ☒ |
| 11. Were any sample containers received broken? | Yes ☐ | No ☒ | |
| 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) | Yes ☒ | No ☐ | |
| 13. Are matrices correctly identified on Chain of Custody? | Yes ☒ | No ☐ | |
| 14. Is it clear what analyses were requested? | Yes ☒ | No ☐ | |
| 15. Were all holding times able to be met?
(If no, notify customer for authorization.) | Yes ☒ | No ☐ | |

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Not Present			



February 18, 2016

OIL CONS. DIV DIST. 3

Oil Conservation Division
District III
New Mexico Energy
Minerals and Natural Resources
Attn: Cory Smith
1000 Rio Brazos Road,
Aztec, NM 87410

FEB 22 2016

Re: Sunco Surface Waste Facility, Permit NM1-9-0
C-141 Release Notification and Corrective Action
Submitted November 2015

Mr. Smith,

In October of 2015, Agua Moss submitted a form C-141 for the Sunco Surface Waste Facility. Since the submittal, Agua Moss has worked with the OCD District III office to remediate the problem areas. The additional required samples are attached to this letter along with a spreadsheet summarizing the data. Attachments include November 2015 sampling results, January 2016 sampling results, and summary spreadsheet.

Please attach this letter and information to the C-141 submission referenced above for final review.

Sincerely,

Agua Moss

Philana Thompson
Regulatory Compliance Spec.
pthompson@merrion.bz
505-486-1171



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

February 08, 2016

Mark Hillier

Terracon

4905 Hawkins, NE

Albuquerque, NM 87109

TEL: (505) 715-0375

FAX (505) 797-4288

OIL CONS. DIV DIST. 3

FEB 22 2016

RE: NM1-9 Waste Fac

OrderNo.: 1601B35

Dear Mark Hillier:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/29/2016 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 Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1601B35

Date Reported: 2/8/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Project:** NM1-9 Waste Fac**Lab ID:** 1601B35-001**Client Sample ID:** CSP-2 bnw2**Collection Date:** 1/28/2016 11:10:00 AM**Received Date:** 1/29/2016**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1900	75		mg/Kg	50	2/4/2016 5:19:37 PM	23569
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	20	9.4		mg/Kg	1	2/2/2016 8:33:07 PM	23498
Motor Oil Range Organics (MRO)	63	47		mg/Kg	1	2/2/2016 8:33:07 PM	23498
Surr: DNOP	99.1	70-130		%Rec	1	2/2/2016 8:33:07 PM	23498
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/1/2016 11:35:56 PM	23477
Surr: BFB	95.7	66.2-112		%Rec	1	2/1/2016 11:35:56 PM	23477

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

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

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Client Sample ID:** CSP-2 bne 2**Project:** NM1-9 Waste Fac**Collection Date:** 1/28/2016 11:30:00 AM**Lab ID:** 1601B35-002**Matrix:** SOIL**Received Date:** 1/29/2016

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/2/2016 9:00:13 PM	23498
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/2/2016 9:00:13 PM	23498
Surr: DNOP	91.5	70-130		%Rec	1	2/2/2016 9:00:13 PM	23498
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/1/2016 11:59:14 PM	23477
Surr: BFB	89.0	66.2-112		%Rec	1	2/1/2016 11:59:14 PM	23477

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

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

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Client Sample ID:** CSP-2 bse 2**Project:** NM1-9 Waste Fac**Collection Date:** 1/28/2016 11:45:00 AM**Lab ID:** 1601B35-003**Matrix:** SOIL**Received Date:** 1/29/2016

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/2/2016 9:27:00 PM	23498
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/2/2016 9:27:00 PM	23498
Surr: DNOP	90.9	70-130		%Rec	1	2/2/2016 9:27:00 PM	23498
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/2/2016 12:22:33 AM	23477
Surr: BFB	91.0	66.2-112		%Rec	1	2/2/2016 12:22:33 AM	23477

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

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

Analytical Report

Lab Order 1601B35

Date Reported: 2/8/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Project:** NM1-9 Waste Fac**Lab ID:** 1601B35-004**Client Sample ID:** CSP-2 bsw 2**Collection Date:** 1/28/2016 11:55:00 AM**Received Date:** 1/29/2016**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	21	9.8		mg/Kg	1	2/2/2016 9:54:00 PM	23498
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/2/2016 9:54:00 PM	23498
Surr: DNOP	94.4	70-130		%Rec	1	2/2/2016 9:54:00 PM	23498
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/2/2016 12:45:55 AM	23477
Surr: BFB	89.8	66.2-112		%Rec	1	2/2/2016 12:45:55 AM	23477

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

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

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Client Sample ID:** CSP-1 b 2**Project:** NM1-9 Waste Fac**Collection Date:** 1/28/2016 12:05:00 PM**Lab ID:** 1601B35-005**Matrix:** SOIL**Received Date:** 1/29/2016

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/2/2016 10:20:36 PM	23498
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/2/2016 10:20:36 PM	23498
Surr: DNOP	94.2	70-130		%Rec	1	2/2/2016 10:20:36 PM	23498
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/2/2016 1:09:22 AM	23477
Surr: BFB	92.9	66.2-112		%Rec	1	2/2/2016 1:09:22 AM	23477

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

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

Analytical Report

Lab Order 1601B35

Date Reported: 2/8/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Client Sample ID:** CST b 2**Project:** NM1-9 Waste Fac**Collection Date:** 1/28/2016 12:30:00 PM**Lab ID:** 1601B35-006**Matrix:** SOIL**Received Date:** 1/29/2016

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: TOM
Petroleum Hydrocarbons, TR	ND	19		mg/Kg	1	2/2/2016	23505

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B35

08-Feb-16

Client: Terracon
Project: NM1-9 Waste Fac

Sample ID	MB-23569	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	23569	RunNo:	31901					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	976133	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23569	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	23569	RunNo:	31901					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	976134	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B35

08-Feb-16

Client: Terracon
Project: NM1-9 Waste Fac

Sample ID	MB-23505	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	23505	RunNo:	31860					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974843	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-23505	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	23505	RunNo:	31860					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974844	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	101	83.4	127			

Sample ID	LCSD-23505	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	23505	RunNo:	31860					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974845	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	102	83.4	127	1.29	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B35

08-Feb-16

Client: Terracon
Project: NM1-9 Waste Fac

Sample ID	MB-23498	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23498	RunNo:	31849					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974593	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.4	70	130			

Sample ID	LCS-23498	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23498	RunNo:	31849					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974595	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.0	65.8	136			
Surr: DNOP	4.7		5.000		93.8	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B35

08-Feb-16

Client: Terracon
Project: NM1-9 Waste Fac

Sample ID	MB-23477	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23477	RunNo:	31822					
Prep Date:	1/29/2016	Analysis Date:	2/1/2016	SeqNo:	974200	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.1	66.2	112			

Sample ID	LCS-23477	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23477	RunNo:	31822					
Prep Date:	1/29/2016	Analysis Date:	2/1/2016	SeqNo:	974202	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.9	79.6	122			
Surr: BFB	1000		1000		99.8	66.2	112			

Sample ID	MB-23504	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974988	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		93.2	66.2	112			

Sample ID	LCS-23504	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974989	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.0	66.2	112			

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
R RPD outside accepted recovery limits
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



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: TER-Alb

Work Order Number: 1601B35

RcptNo: 1

Received by/date:

Logged By:

Anne Thorne

1/19/2016 11:50:00 AM

Anne Thorne

Completed By:

Anne Thorne

1/29/2016

Anne Thorne

Reviewed By:

JA

01/29/16

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

(Note discrepancies on chain of custody)

Yes ☒

No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted? _____

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

(If no, notify customer for authorization.)

Yes ☒

No ☐

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Not Present			

Chain-of-Custody Record

Client: Terraviva

Mailing Address: 4905 Hawkins NE
Alb, NM 87109
 Phone #: 505-797-4287
 Email or Fax#: mark.hall@hallenv.com

A/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
☐ NELAP ☐ Other _____

EDD (Type) _____

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/16	1110	S	CSP-2bnw2	(1) 402		11601B35
"	1130	S	CSP-2bnw2	"		202
"	1145	S	CSP-2bse2	"		203
"	1155	"	CSP-2bsew2	"		204
"	1205	"	CSP-1b2	"		205
"	1230	"	CSTb2	"		206

Relinquished by: Mark Hall Date: 9/16/11 Time: 11:50

Received by: Andy L Date: 11/19/16 Time: 11:50

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: NM1-9 Waste Fac.

Project #: 60157034

Project Manager: M. Hall

Sampler: M. Hall

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.8

BTX + MTBE + TMBs (8021)	BTX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAHs (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
		X								X	
		X									
		X									
		X									
		X									
			X								

Remarks: 10% Ozone T



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

December 10, 2015

Mark Hillier

Terracon

4905 Hawkins, NE

Albuquerque, NM 87109

TEL: (505) 715-0375

FAX (505) 797-4288

RE: NM1-09

OrderNo.: 1511990

Dear Mark Hillier:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/20/2015 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 qualifers 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 Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Project:** NM1-09**Lab ID:** 1511990-001**Client Sample ID:** CSTb**Collection Date:** 11/19/2015 1:35:00 PM**Received Date:** 11/20/2015 9:56:00 AM**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	620	97		mg/Kg	10	11/24/2015 12:27:48 PM	22486
Motor Oil Range Organics (MRO)	2800	490		mg/Kg	10	11/24/2015 12:27:48 PM	22486
Surr: DNOP	0	70-130	S	%REC	10	11/24/2015 12:27:48 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/24/2015 11:44:56 PM	22473
Surr: BFB	79.3	66.2-112		%REC	1	11/24/2015 11:44:56 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: BGTb

Project: NM1-09

Collection Date: 11/19/2015 1:50:00 PM

Lab ID: 1511990-002

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/25/2015 10:40:45 AM	22486
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/25/2015 10:40:45 AM	22486
Surr: DNOP	93.2	70-130		%REC	1	11/25/2015 10:40:45 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/25/2015 12:09:18 AM	22473
Surr: BFB	75.9	66.2-112		%REC	1	11/25/2015 12:09:18 AM	22473

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

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

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: SPSSCP

Project: NM1-09

Collection Date: 11/19/2015 2:15:00 PM

Lab ID: 1511990-003

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	5.0	0.30		mg/Kg	1	12/4/2015 4:37:47 PM	22638
Chloride	6.3	1.5		mg/Kg	1	12/4/2015 4:37:47 PM	22638
Nitrogen, Nitrate (As N)	1.6	0.30		mg/Kg	1	12/4/2015 4:37:47 PM	22638
Sulfate	56	1.5		mg/Kg	1	12/4/2015 4:37:47 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	ND	0.033		mg/Kg	1	11/25/2015 11:24:42 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Barium	150	0.10		mg/Kg	1	12/1/2015 12:58:49 PM	22518
Cadmium	ND	0.10		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Chromium	4.6	0.30		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Copper	3.0	0.30		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Iron	8200	120		mg/Kg	50	12/1/2015 1:04:10 PM	22518
Lead	2.7	0.25		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Manganese	140	0.10		mg/Kg	1	12/1/2015 12:58:49 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:29:27 PM	22518
Uranium	ND	5.0		mg/Kg	1	12/4/2015 9:12:54 AM	22518
Zinc	16	2.5		mg/Kg	1	11/30/2015 2:29:27 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/25/2015 11:02:08 AM	22486
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/25/2015 11:02:08 AM	22486
Surr: DNOP	92.0	70-130		%REC	1	11/25/2015 11:02:08 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/25/2015 12:33:37 AM	22473
Surr: BFB	78.4	66.2-112		%REC	1	11/25/2015 12:33:37 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.050		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Toluene	ND	0.050		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Ethylbenzene	ND	0.050		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Xylenes, Total	ND	0.099		mg/Kg	1	11/24/2015 3:07:07 PM	22473
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	11/24/2015 3:07:07 PM	22473
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	11/24/2015 3:07:07 PM	22473
Surr: Dibromofluoromethane	82.6	70-130		%REC	1	11/24/2015 3:07:07 PM	22473
Surr: Toluene-d8	111	70-130		%REC	1	11/24/2015 3:07:07 PM	22473

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
- R RPD outside accepted recovery limits
- 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

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Client Sample ID:** CSP-1b**Project:** NM1-09**Collection Date:** 11/19/2015 2:00:00 PM**Lab ID:** 1511990-004**Matrix:** SOIL**Received Date:** 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	4.3	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Chloride	640	30		mg/Kg	20	12/4/2015 2:46:06 PM	22638
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Bromide	2.0	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Nitrogen, Nitrate (As N)	2.8	1.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
Sulfate	300	7.5		mg/Kg	5	12/4/2015 2:33:42 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.28	0.17		mg/Kg	5	11/25/2015 11:55:21 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Barium	240	0.099		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Calcium	19000	120		mg/Kg	5	12/1/2015 1:05:34 PM	22518
Chromium	6.2	0.30		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Lead	4.3	0.25		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Magnesium	4000	49		mg/Kg	2	11/30/2015 2:54:51 PM	22518
Potassium	1900	99		mg/Kg	2	11/30/2015 2:54:51 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:53:15 PM	22518
Sodium	1300	49		mg/Kg	2	11/30/2015 2:54:51 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	35	10		mg/Kg	1	11/25/2015 11:23:30 AM	22486
Motor Oil Range Organics (MRO)	250	50		mg/Kg	1	11/25/2015 11:23:30 AM	22486
Surr: DNOP	92.1	70-130		%REC	1	11/25/2015 11:23:30 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/25/2015 12:57:54 AM	22473
Surr: BFB	79.3	66.2-112		%REC	1	11/25/2015 12:57:54 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.046		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Toluene	ND	0.046		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Ethylbenzene	ND	0.046		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Xylenes, Total	ND	0.092		mg/Kg	1	11/24/2015 4:29:29 PM	22473
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	11/24/2015 4:29:29 PM	22473
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	1	11/24/2015 4:29:29 PM	22473
Surr: Dibromofluoromethane	81.7	70-130		%REC	1	11/24/2015 4:29:29 PM	22473
Surr: Toluene-d8	109	70-130		%REC	1	11/24/2015 4:29:29 PM	22473

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

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

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Client Sample ID:** CSP-2bnw**Project:** NM1-09**Collection Date:** 11/19/2015 2:15:00 PM**Lab ID:** 1511990-005**Matrix:** SOIL**Received Date:** 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	7.6	0.30		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Chloride	1800	75		mg/Kg	50	12/7/2015 8:57:52 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Bromide	3.8	0.30		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Nitrogen, Nitrate (As N)	6.8	0.30		mg/Kg	1	12/4/2015 2:58:31 PM	22638
Sulfate	1000	30		mg/Kg	20	12/4/2015 3:10:55 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	ND	0.032		mg/Kg	1	11/25/2015 11:31:52 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	2.9	2.5		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Barium	400	0.20		mg/Kg	2	11/30/2015 2:57:58 PM	22518
Cadmium	ND	0.10		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Calcium	34000	250		mg/Kg	10	12/1/2015 1:06:47 PM	22518
Chromium	5.8	0.30		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Lead	3.5	0.25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Magnesium	3900	25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Potassium	1800	50		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
Sodium	1900	25		mg/Kg	1	11/30/2015 2:56:21 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	15	9.5		mg/Kg	1	11/25/2015 12:27:42 PM	22486
Motor Oil Range Organics (MRO)	95	48		mg/Kg	1	11/25/2015 12:27:42 PM	22486
Surr: DNOP	99.1	70-130		%REC	1	11/25/2015 12:27:42 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/25/2015 1:22:12 AM	22473
Surr: BFB	79.6	66.2-112		%REC	1	11/25/2015 1:22:12 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.050		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Toluene	ND	0.050		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Ethylbenzene	ND	0.050		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Xylenes, Total	ND	0.099		mg/Kg	1	11/24/2015 4:56:52 PM	22473
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	11/24/2015 4:56:52 PM	22473
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	1	11/24/2015 4:56:52 PM	22473
Surr: Dibromofluoromethane	81.3	70-130		%REC	1	11/24/2015 4:56:52 PM	22473
Surr: Toluene-d8	107	70-130		%REC	1	11/24/2015 4:56:52 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSP-2bne

Project: NM1-09

Collection Date: 11/19/2015 2:45:00 PM

Lab ID: 1511990-006

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	6.5	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Chloride	68	30		mg/Kg	20	12/4/2015 6:29:27 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Bromide	ND	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Nitrogen, Nitrate (As N)	2.5	0.30		mg/Kg	1	12/4/2015 6:17:03 PM	22638
Sulfate	220	30		mg/Kg	20	12/4/2015 6:29:27 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.19	0.034		mg/Kg	1	11/25/2015 11:33:40 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Barium	720	0.50		mg/Kg	5	12/1/2015 1:07:53 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Calcium	22000	120		mg/Kg	5	12/1/2015 1:07:53 PM	22518
Chromium	4.8	0.30		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Lead	5.0	0.25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Magnesium	2900	25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Potassium	1300	50		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
Sodium	320	25		mg/Kg	1	11/30/2015 2:59:28 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	32	9.7		mg/Kg	1	11/25/2015 1:31:54 PM	22486
Motor Oil Range Organics (MRO)	160	48		mg/Kg	1	11/25/2015 1:31:54 PM	22486
Surr: DNOP	97.1	70-130		%REC	1	11/25/2015 1:31:54 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/25/2015 1:46:34 AM	22473
Surr: BFB	78.9	66.2-112		%REC	1	11/25/2015 1:46:34 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Toluene	ND	0.048		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Ethylbenzene	ND	0.048		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Xylenes, Total	ND	0.096		mg/Kg	1	11/24/2015 5:24:24 PM	22473
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%REC	1	11/24/2015 5:24:24 PM	22473
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	1	11/24/2015 5:24:24 PM	22473
Surr: Dibromofluoromethane	79.2	70-130		%REC	1	11/24/2015 5:24:24 PM	22473
Surr: Toluene-d8	108	70-130		%REC	1	11/24/2015 5:24:24 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSP-2bse

Project: NM1-09

Collection Date: 11/19/2015 2:25:00 PM

Lab ID: 1511990-007

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	13	6.0		mg/Kg	20	12/7/2015 9:10:17 PM	22638
Chloride	120	30		mg/Kg	20	12/7/2015 9:10:17 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 3:48:09 PM	22638
Bromide	0.65	0.30		mg/Kg	1	12/4/2015 3:48:09 PM	22638
Nitrogen, Nitrate (As N)	1.6	0.30		mg/Kg	1	12/4/2015 3:48:09 PM	22638
Sulfate	1300	30		mg/Kg	20	12/7/2015 9:10:17 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.072	0.033		mg/Kg	1	11/25/2015 11:35:30 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	3.4	2.5		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Barium	870	0.50		mg/Kg	5	12/1/2015 1:13:57 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Calcium	56000	500		mg/Kg	20	12/1/2015 1:15:11 PM	22518
Chromium	4.6	0.30		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Lead	2.2	0.25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Magnesium	4800	25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Potassium	1000	50		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
Sodium	550	25		mg/Kg	1	11/30/2015 3:02:34 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	210	9.7		mg/Kg	1	11/25/2015 2:36:04 PM	22486
Motor Oil Range Organics (MRO)	830	49		mg/Kg	1	11/25/2015 2:36:04 PM	22486
Surr: DNOP	88.8	70-130		%REC	1	11/25/2015 2:36:04 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/25/2015 2:10:52 AM	22473
Surr: BFB	78.8	66.2-112		%REC	1	11/25/2015 2:10:52 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.047		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Toluene	ND	0.047		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Ethylbenzene	ND	0.047		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Xylenes, Total	ND	0.094		mg/Kg	1	11/24/2015 5:51:55 PM	22473
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	11/24/2015 5:51:55 PM	22473
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	1	11/24/2015 5:51:55 PM	22473
Surr: Dibromofluoromethane	76.4	70-130		%REC	1	11/24/2015 5:51:55 PM	22473
Surr: Toluene-d8	112	70-130		%REC	1	11/24/2015 5:51:55 PM	22473

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

CLIENT: Terracon

Client Sample ID: CSP-2bsw

Project: NM1-09

Collection Date: 11/19/2015 2:35:00 PM

Lab ID: 1511990-008

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	4.8	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Chloride	140	30		mg/Kg	20	12/4/2015 5:15:01 PM	22638
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Bromide	1.8	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Nitrogen, Nitrate (As N)	6.1	0.30		mg/Kg	1	12/4/2015 5:02:35 PM	22638
Sulfate	800	30		mg/Kg	20	12/4/2015 5:15:01 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.19	0.032		mg/Kg	1	11/25/2015 11:37:25 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	3.2	2.5		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Barium	1900	1.0		mg/Kg	10	12/1/2015 1:16:22 PM	22518
Cadmium	ND	0.10		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Calcium	32000	250		mg/Kg	10	12/1/2015 1:16:22 PM	22518
Chromium	6.7	0.30		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Lead	7.3	0.25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Magnesium	3400	25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Potassium	1400	50		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
Sodium	440	25		mg/Kg	1	11/30/2015 3:10:37 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	240	97		mg/Kg	10	11/30/2015 11:41:14 AM	22486
Motor Oil Range Organics (MRO)	1400	480		mg/Kg	10	11/30/2015 11:41:14 AM	22486
Surr: DNOP	0	70-130	S	%REC	10	11/30/2015 11:41:14 AM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/25/2015 2:35:14 AM	22473
Surr: BFB	77.3	66.2-112		%REC	1	11/25/2015 2:35:14 AM	22473
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Toluene	ND	0.048		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Ethylbenzene	ND	0.048		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Xylenes, Total	ND	0.095		mg/Kg	1	11/24/2015 6:19:21 PM	22473
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%REC	1	11/24/2015 6:19:21 PM	22473
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	1	11/24/2015 6:19:21 PM	22473
Surr: Dibromofluoromethane	75.2	70-130		%REC	1	11/24/2015 6:19:21 PM	22473
Surr: Toluene-d8	110	70-130		%REC	1	11/24/2015 6:19:21 PM	22473

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

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

Analytical Report

Lab Order 1511990

Date Reported: 12/10/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Terracon**Client Sample ID:** EPCPSb**Project:** NM1-09**Collection Date:** 11/19/2015 1:30:00 PM**Lab ID:** 1511990-009**Matrix:** SOIL**Received Date:** 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	370	30		mg/Kg	20	12/4/2015 5:39:49 PM	22638

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon

Client Sample ID: WS

Project: NM1-09

Collection Date: 11/19/2015 2:55:00 PM

Lab ID: 1511990-010

Matrix: SOIL

Received Date: 11/20/2015 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2700	75		mg/Kg	50	12/7/2015 9:22:41 PM	22638
EPA METHOD 7471: MERCURY							Analyst: DBD
Mercury	0.33	0.033		mg/Kg	1	11/25/2015 11:39:16 AM	22515
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	2.8	2.5		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Barium	1200	0.99		mg/Kg	10	12/1/2015 1:17:29 PM	22518
Cadmium	ND	0.099		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Chromium	7.1	0.30		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Lead	8.9	0.25		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Selenium	ND	2.5		mg/Kg	1	11/30/2015 3:13:48 PM	22518
Silver	ND	0.25		mg/Kg	1	11/30/2015 3:13:48 PM	22518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	190	10		mg/Kg	1	11/25/2015 4:44:28 PM	22486
Motor Oil Range Organics (MRO)	890	50		mg/Kg	1	11/25/2015 4:44:28 PM	22486
Surr: DNOP	85.3	70-130		%REC	1	11/25/2015 4:44:28 PM	22486
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/25/2015 2:59:30 AM	22473
Surr: BFB	78.4	66.2-112		%REC	1	11/25/2015 2:59:30 AM	22473

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

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

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

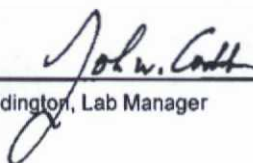
Batch #: 151125023
Project Name: 1511990

Analytical Results Report

Sample Number	151125023-001	Sampling Date	11/19/2015	Date/Time Received	11/25/2015 12:00 PM
Client Sample ID	1511990-003B / SPSSCP	Sampling Time	2:15 PM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	1	12/3/2015	MER	EPA 335.4	
%moisture	13.2	Percent		11/30/2015	MER	%moisture	

Authorized Signature


John Coddington, 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.

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 151125023
Project Name: 1511990

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.473	mg/kg	0.5	94.6	90-110	12/3/2015	12/3/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
151125023-001	Cyanide	ND	13.3	mg/kg	14.2	93.7	70-130	12/3/2015	12/3/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	13.6	mg/kg	14.2	95.8	2.2	0-25	12/3/2015	12/3/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/Kg	1	12/3/2015	12/3/2015

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; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: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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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated

Report Date: 12/07/15

Lab ID: B15111912-001
Client Sample ID: 1511990-004B CSP-1b

Collection Date: 11/19/15 14:00
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
----------	--------	-------	------------	----	-------------	--------	--------------------

WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	158	mg/kg		4		ASA10-3	12/01/15 10:09 / rbf
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Lab ID: B15111912-002
Client Sample ID: 1511990-005B CSP-2bnw

Collection Date: 11/19/15 14:15
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	104	mg/kg		4		ASA10-3	12/01/15 10:22 / rbf
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Lab ID: B15111912-003
Client Sample ID: 1511990-006B CSP-2bne

Collection Date: 11/19/15 14:45
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	124	mg/kg		4		ASA10-3	12/01/15 10:27 / rbf
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Lab ID: B15111912-004
Client Sample ID: 1511990-007B CSP-2bse

Collection Date: 11/19/15 14:25
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	101	mg/kg		4		ASA10-3	12/01/15 10:32 / rbf
-----------------	-----	-------	--	---	--	---------	----------------------

Lab ID: B15111912-005
Client Sample ID: 1511990-008B CSP-2bsw

Collection Date: 11/19/15 14:35
Date Received: 11/24/15
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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WATER EXTRACTABLE CONSTITUENTS

Alkalinity, 1:2	102	mg/kg		4		ASA10-3	12/01/15 10:37 / rbf
-----------------	-----	-------	--	---	--	---------	----------------------

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Report Date: 12/07/15

Project: Not Indicated

Work Order: B15111912

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA10-3										Batch: 95234
Lab ID: LCS-95234		Laboratory Control Sample					Run: AR50_151201A			12/01/15 10:04
Alkalinity, 1:2		97.6	mg/kg	4.0	89	70	130			
Lab ID: B15111912-005A DUP		Sample Duplicate					Run: AR50_151201A			12/01/15 10:44
Alkalinity, 1:2		102	mg/kg	4.0				0.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22638	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	22638	RunNo:	30634					
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936263	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID	LCS-22638	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	22638	RunNo:	30634					
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936264	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	103	90	110			
Chloride	14	1.5	15.00	0	94.6	90	110			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	94.2	90	110			
Bromide	7.0	0.30	7.500	0	94.0	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	98.5	90	110			
Sulfate	29	1.5	30.00	0	95.7	90	110			

Sample ID	1511990-003AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	SPSSCP	Batch ID:	22638	RunNo:	30634					
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936273	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.0	0.30	1.500	5.001	-1.16	13.6	100			S
Chloride	21	1.5	15.00	6.265	95.5	64.2	131			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	91.7	84.9	108			
Bromide	7.0	0.30	7.500	0	93.0	83.6	114			
Nitrogen, Nitrate (As N)	8.9	0.30	7.500	1.562	98.3	87.6	109			
Sulfate	80	1.5	30.00	56.40	77.2	37.4	146			

Sample ID	1511990-003AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	SPSSCP	Batch ID:	22638	RunNo:	30634					
Prep Date:	12/4/2015	Analysis Date:	12/4/2015	SeqNo:	936274	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.9	0.30	1.500	5.001	-6.38	13.6	100	1.58	20	S
Chloride	21	1.5	15.00	6.265	97.5	64.2	131	1.45	20	
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	93.0	84.9	108	1.41	20	
Bromide	7.0	0.30	7.500	0	93.8	83.6	114	0.871	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	1511990-003AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	SPSSCP		Batch ID: 22638		RunNo: 30634					
Prep Date:	12/4/2015		Analysis Date: 12/4/2015		SeqNo: 936274		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	9.0	0.30	7.500	1.562	99.8	87.6	109	1.21	20	
Sulfate	79	1.5	30.00	56.40	74.4	37.4	146	1.08	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22486	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	22486	RunNo:	30442					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	929168	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-22486	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	22486	RunNo:	30442					
Prep Date:	11/23/2015	Analysis Date:	11/24/2015	SeqNo:	929169	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.0	57.4	139			
Surr: DNOP	4.6		5.000		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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22473		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 22473		RunNo: 30448					
Prep Date:	11/23/2015		Analysis Date: 11/24/2015		SeqNo: 929762		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.8	66.2	112			

Sample ID	LCS-22473		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 22473		RunNo: 30448					
Prep Date:	11/23/2015		Analysis Date: 11/24/2015		SeqNo: 929763		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	79.6	122			
Surr: BFB	1000		1000		104	66.2	112			

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: A30448		RunNo: 30448					
Prep Date:			Analysis Date: 11/24/2015		SeqNo: 929783		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	760		1000		76.4	66.2	112			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: A30448		RunNo: 30448					
Prep Date:			Analysis Date: 11/24/2015		SeqNo: 929784		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		100	66.2	112			

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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	mb-22473		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	PBS		Batch ID: 22473		RunNo: 30450					
Prep Date:	11/23/2015		Analysis Date: 11/24/2015		SeqNo: 930097		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.7	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.1	70	130			
Surr: Dibromofluoromethane	0.40		0.5000		80.5	70	130			
Surr: Toluene-d8	0.54		0.5000		107	70	130			

Sample ID	lcs-22473		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS		Batch ID: 22473		RunNo: 30450					
Prep Date:	11/23/2015		Analysis Date: 11/24/2015		SeqNo: 930098		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.050	1.000	0	86.9	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.2	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.6	70	130			
Surr: Dibromofluoromethane	0.39		0.5000		78.3	70	130			
Surr: Toluene-d8	0.53		0.5000		107	70	130			

Sample ID	1511990-003ams		SampType: MS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	SPSSCP		Batch ID: 22473		RunNo: 30450					
Prep Date:	11/23/2015		Analysis Date: 11/24/2015		SeqNo: 930109		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	0.9930	0	98.3	70	130			
Toluene	1.2	0.050	0.9930	0	121	65	138			
Surr: 1,2-Dichloroethane-d4	0.46		0.4965		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4965		91.5	70	130			
Surr: Dibromofluoromethane	0.43		0.4965		85.9	70	130			
Surr: Toluene-d8	0.54		0.4965		109	70	130			

Sample ID	1511990-003amsd		SampType: MSD		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	SPSSCP		Batch ID: 22473		RunNo: 30450					
Prep Date:	11/23/2015		Analysis Date: 11/24/2015		SeqNo: 930111		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.049	0.9843	0	92.8	70	130	6.64	20	
Toluene	1.1	0.049	0.9843	0	117	65	138	4.28	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	1511990-003amsd	SampType:	MSD		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	SPSSCP	Batch ID:	22473		RunNo:	30450				
Prep Date:	11/23/2015	Analysis Date:	11/24/2015		SeqNo:	930111		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.4921		90.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.47		0.4921		96.0	70	130	0	0	
Surr: Dibromofluoromethane	0.40		0.4921		80.6	70	130	0	0	
Surr: Toluene-d8	0.54		0.4921		110	70	130	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22515	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930696	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-22515	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930699	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1667	0	112	80	120			

Sample ID	1511990-004AMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	CSP-1b	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930718	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.28	0.16	0.1639	0.2757	2.16	75	125			S

Sample ID	1511990-004AMSD	SampType:	MSD	TestCode:	EPA Method 7471: Mercury					
Client ID:	CSP-1b	Batch ID:	22515	RunNo:	30488					
Prep Date:	11/24/2015	Analysis Date:	11/25/2015	SeqNo:	930719	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.29	0.16	0.1615	0.2757	6.91	75	125	2.69	20	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	MB-22518		SampType: MBLK		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	PBS		Batch ID: 22518		RunNo: 30467					
Prep Date:	11/24/2015		Analysis Date: 11/25/2015		SeqNo: 929949		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Selenium	ND	2.5								
Silver	ND	0.25								

Sample ID	LCS-22518		SampType: LCS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS		Batch ID: 22518		RunNo: 30467					
Prep Date:	11/24/2015		Analysis Date: 11/25/2015		SeqNo: 929950		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	28	2.5	25.00	0	110	80	120			
Barium	26	0.10	25.00	0	102	80	120			
Cadmium	26	0.10	25.00	0	104	80	120			
Chromium	26	0.30	25.00	0	103	80	120			
Lead	26	0.25	25.00	0	103	80	120			
Selenium	27	2.5	25.00	0	106	80	120			
Silver	5.3	0.25	5.000	0	106	80	120			

Sample ID	MB-22518		SampType: MBLK		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	PBS		Batch ID: 22518		RunNo: 30518					
Prep Date:	11/24/2015		Analysis Date: 11/30/2015		SeqNo: 931694		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								
Copper	ND	0.30								
Iron	ND	2.5								
Magnesium	ND	25								
Manganese	ND	0.10								
Potassium	ND	50								
Sodium	ND	25								
Zinc	ND	2.5								

Sample ID	LCS-22518		SampType: LCS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS		Batch ID: 22518		RunNo: 30518					
Prep Date:	11/24/2015		Analysis Date: 11/30/2015		SeqNo: 931695		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	LCS-22518		SampType: LCS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS		Batch ID: 22518		RunNo: 30518					
Prep Date:	11/24/2015		Analysis Date: 11/30/2015		SeqNo: 931695		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2600	25	2500	0	102	80	120			
Copper	26	0.30	25.00	0	105	80	120			
Iron	27	2.5	25.00	0	107	80	120			
Magnesium	2500	25	2500	0	100	80	120			
Manganese	25	0.10	25.00	0	101	80	120			
Potassium	2400	50	2500	0	97.7	80	120			
Sodium	2500	25	2500	0	98.9	80	120			
Zinc	26	2.5	25.00	0	105	80	120			

Sample ID	1511990-003AMS		SampType: MS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP		Batch ID: 22518		RunNo: 30518					
Prep Date:	11/24/2015		Analysis Date: 11/30/2015		SeqNo: 931708		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.05	2.047	91.4	75	125			
Cadmium	23	0.10	25.05	0	92.1	75	125			
Chromium	27	0.30	25.05	4.628	89.5	75	125			
Copper	28	0.30	25.05	2.963	98.6	75	125			
Lead	24	0.25	25.05	2.695	85.8	75	125			
Selenium	22	2.5	25.05	0	88.7	75	125			
Silver	4.7	0.25	5.011	0	94.2	75	125			
Zinc	37	2.5	25.05	16.17	84.2	75	125			

Sample ID	1511990-003AMSD		SampType: MSD		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP		Batch ID: 22518		RunNo: 30518					
Prep Date:	11/24/2015		Analysis Date: 11/30/2015		SeqNo: 931709		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	24.76	2.047	95.6	75	125	3.07	20	
Cadmium	23	0.099	24.76	0	93.0	75	125	0.222	20	
Chromium	27	0.30	24.76	4.628	91.1	75	125	0.510	20	
Copper	28	0.30	24.76	2.963	100	75	125	0.218	20	
Lead	24	0.25	24.76	2.695	86.6	75	125	0.282	20	
Selenium	23	2.5	24.76	0	93.1	75	125	3.65	20	
Silver	4.7	0.25	4.951	0	95.4	75	125	0.0487	20	
Zinc	38	2.5	24.76	16.17	87.2	75	125	1.33	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511990

10-Dec-15

Client: Terracon

Project: NM1-09

Sample ID	1511990-003AMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP	Batch ID:	22518	RunNo:	30548					
Prep Date:	11/24/2015	Analysis Date:	12/1/2015	SeqNo:	932725	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	170	0.10	25.05	147.4	70.3	75	125			S
Manganese	150	0.10	25.05	137.8	41.8	75	125			S

Sample ID	1511990-003AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP	Batch ID:	22518	RunNo:	30548					
Prep Date:	11/24/2015	Analysis Date:	12/1/2015	SeqNo:	932726	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	190	0.099	24.76	147.4	184	75	125	15.6	20	S
Manganese	160	0.099	24.76	137.8	71.7	75	125	4.80	20	S

Sample ID	MB-22518	SampType: MBLK			TestCode: EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID: 22518			RunNo: 30620					
Prep Date:	11/24/2015	Analysis Date: 12/4/2015			SeqNo: 935263		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	5.0								

Sample ID	LCS-22518	SampType: LCS			TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID: 22518			RunNo: 30620					
Prep Date:	11/24/2015	Analysis Date: 12/4/2015			SeqNo: 935264		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	26	5.0	25.00	0	103	80	120			

Sample ID	1511990-003AMS	SampType: MS		TestCode: EPA Method 6010B: Soil Metals						
Client ID:	SPSSCP	Batch ID: 22518		RunNo: 30620						
Prep Date:	11/24/2015	Analysis Date: 12/4/2015		SeqNo: 935277		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	22	5.0	25.05	0	88.6	75	125			

Sample ID	1511990-003AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SPSSCP	Batch ID:	22518	RunNo:	30620					
Prep Date:	11/24/2015	Analysis Date:	12/4/2015	SeqNo:	935278	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	23	5.0	24.76	0	91.3	75	125	1.89	20	

Qualifiers:

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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



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: TER-Alb

Work Order Number: 1511990

RcptNo: 1

Received by/date:

Logged By:

Ashley Gallegos

11/20/2015 9:56:00 AM

Completed By:

Ashley Gallegos

11/23/2015 9:07:12 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

(Note discrepancies on chain of custody)

Yes ☒

No ☐

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

(If no, notify customer for authorization.)

Yes ☒

No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Not Present			

