State of New Mexico
Oil Conservation Division

Incident ID	NRM2032540707
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	NRM2032540707
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: JENNIFER ELROD Title: SR. REGULATORY ANALYST

Signature: Jennifer Elrod Date: 04/15/2021

email: JELROD@CHISHOLMENERGY.COM Telephone: 817-953-3728

OCD Only

Received by: _____ Date: _____

Incident ID	NRM2032540707
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: JENNIFER ELROD Title: SR. REGULATORY ANALYST

Signature: Jennifer Elrod Date: 04/15/2021

email: JELROD@CHISHOLMENERGY.COM Telephone: 817-953-3728

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2032540707
District RP	
Facility ID	
Application ID	

Remediation Plan

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Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

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Printed Name: JENNIFER ELROD Title: SR. REGULATORY ANALYST

Signature: Jennifer Elrod Date: 04/15/2021

email: JELROD@CHISHOLMENERGY.COM Telephone: 817-953-3728

OCD Only

Received by: Robert Hamlet Date: 7/16/2021

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Robert Hamlet Date: 7/16/2021

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

March 2, 2021

#bodacio_env_20

NMOCD District 2
1625 N. French Drive
Hobbs, New Mexico 88210

SUBJECT: Remediation Work Plan for the BODACIOUS 5 32 FED COM #5H Release (NRM2032540707), Eddy County, New Mexico

Dear NMOCD District 2,

On behalf of Chisholm Energy Operating (CEO), Atkins Engineering Associates INC. (AEA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the BODACIOUS 5 32 FED COM #5H. The site is in Unit O, Section 5, Township 23S, Range 26E, Eddy County, New Mexico, on Federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5-minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	BODACIOUS 5 32 FED COM #5H	Company	Chisholm Energy
API Number	30-015-45836	Location	32.326965 -104.3129168
Incident Number	NRM2032540707		
Estimated Date of Release	10/22/20	Date Reported to NMOCD	10/22/20
Land Owner	BLM	Reported To	NMOCD District 2
Source of Release	PUMPER/ALARM FAILURE; VALVE SHUT UNABLE TO EQUALIZE VOLUMES IN TANKS		
Released Volume	100 bbls	Released Material	Produced Water
Recovered Volume	75 bbls	Net Release	25 bbls
NMOCD Closure Criteria	51-100 feet to groundwater		
AEA Response Dates	11/17/2020, 11/5/2020		

1.0 Background

On October 22, 2020, a release was discovered at the BODACIOUS 5 32 FED COM #5H.A pumper and a alarm failure caused the battery to not equalize causing the release. Through estimated tank volumes the release volume was estimated by operations staff but confirmed through the attached soil calculations. Initial response activities were conducted by the operator, and included source elimination by means of repair and immediate site stabilization and release recovery. Figure 1 illustrates the vicinity and site location. The C-141 forms are included in Appendix A.

2.0 Site Information and Closure Criteria

The Bodacious Tank Battery is located approximately 6 miles Southwest of Carlsbad Eddy County, New Mexico on Federal (BLM) land at an elevation of approximately 3369 feet above mean sea level (amsl).

Based upon the New Mexico Office of the State Engineers (NMOSE) online water well database, (Appendix B), depth to groundwater in the area is estimated to be 75-280 feet below grade surface (bgs). There are no known water sources within ½-mile of the location, according to the NMOSE database. (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 12/16/2020). The nearest significant watercourse is Dark Canyon Draw, located approximately 0.5 miles West and South of the location. Figure 1 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of between 51-100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization and Proposed Remediation Activities

On October 22, 2020, CEO personnel arrived on site in response to the release associated with BODACIOUS 5 32 FED COM #5H. AEA performed site delineation activities on November 5, 2020, by collecting soil samples around the release site and throughout the previously excavated area. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter.

A total of twenty (20) sample locations (SW1 – SW10 & BH1 – BH8) were investigated using a hand-auger, to depths up to 3 feet bgs. A minimum of two samples were collected at each sampling location and field-screened using the method above. A total of 20 samples were collected for laboratory analysis for total chloride using EPA Method 300.0., EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

As summarized in Table 3, results indicated that some of the location was remediated successfully by the initial action performed by CEO and its contractors. an area approximately 185 feet wide and 400 feet long remained impacted. The area is located to the south of the pad behind the production tank battery an run west near the locations entrance. The impacted area is also bordered by a. high pressure gas line to the

north and because of the initial action excavated a foot to a foot and a half below surface grade (1'-1.5'BSG). The effected soils are a Upton Gravelly loam and a indurate cemented horizon can be found at thirteen (13) to twenty one (21) inches.

AEA returned to the site to November 17, 2020, to attempt further delineation of the contaminated soil/ cemented material directly behind the Tank Battery. AEA using a gas-powered rock/cement drill to collect soil samples for field screening and third-party lab verification. The L2 delineation location could not be safely delineated to NMOCD Closure Criteria because of their proximity to production equipment.

Lab analysis confirmed field analysis that sample locations SW3, SW7 and L2, L3, and L8 were still elevated in chlorides compared to background concentrations. AEA is requesting further excavation of all off pad areas located south and west of the tank battery and shown in Figure 1. AEA is requesting no further excavation L2 because it borders the locations tank battery and further excavation was unsafe to perform. L2 is also located on the locations pad.

All samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

Figure 3 shows the extent of the excavation and sample locations. All laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

AEA and CE is planning to meet the Closure Criteria, for the off well pad areas to meet the Reclamation requirement of 19.15.29.13(D)(1), except for location L2 because of its proximity to the tank battery. All contaminated soils from the initial action were removed and hauled to a NMOCD approved facility (waste manifest available upon request. The contaminated soil were transported and disposed of at R360 Halfway facility Lea County, NM.

4.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact Austin Weyant at 575-626-3993

Submitted by:
Atkins Engineering Associates INC

J. Austin Weyant

Austin Weyant
Geoscientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Surface Water Radius Map
Figure 3: Site and Sample Location Map

Tables:

Table 2: NMOCD Closure Criteria Justification
Table 3a: Summary of Initial Sample Results
Table 3b: Summary of Closure Sample Results

Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report
Appendix C: VSP Sampling Protocol
Appendix D: Laboratory Analytical Reports
Appendix E: Open Excavation Photo Log

FIGURES

FIGURE 1
Bodacious Fed Com
Carlsbad, NM

LEGEND

- Sample Locations
- Sample Location
- Excavation Area
- Release Area

N

0 60 120 240

Scale: 1:1,415 Feet

Eddy, NM

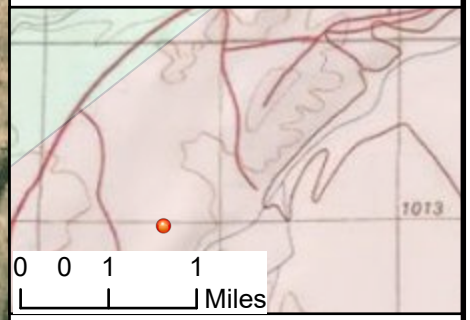
JOB No. bodacio_env_20

DATE FIELD: 11/4/20 DRAWN JAW

DATE DRAWN: 11/30/2020 REVIEW LCM

Atkins ENGINEERING ASSOCIATES

FIGURE 2-
Karst and NMOSE PODs
Bodacious 5 32 Fed



LEGEND

- OSE_Points_of_Diversion
- Release Area

BLM Karst Potential

- High
- Low
- Medium

N

0 500 1,000 2,000
Scale: 1:18,190 Feet

32.326965° -104.312916°

JOB No. bodacio>env.20
DATE FIELD: 11/04/2020 DRAWN LCM
DATE DRAWN: 11/30/2020 REVIEW JAW

Atkins ENGINEERING ASSOCIATES

FIGURE -3
Hydrology Setbacks
Bodacious 5 32 Fed

LEGEND

- Sample Location
- Release Point
- Lakes_Playas
- Springs_Seeps
- Streams_Canals
- Flowlines_SENM
- FEMA_Flood_Zones_2011

N

0 312.5 625 1,250

Scale: 1:7,451 Feet

32.326965° -104.312916°

JOB No. bodacio_env_20

DATE FIELD: 11/04/2020 DRAWN LCM

DATE DRAWN: 11/30/2020 REVIEW JAW

Atkins ENGINEERING ASSOCIATES

TABLES

Table 2:
NMOCD Closure Criteria

CHISHOLM ENERGY
NRM2032540707

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	>75ft	
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	>1/2 Mile	
Hortizontal Distance to Nearest Significant Watercourse (ft)	>1000ft	

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		**Closure Criteria (units in mg/kg)**				
		Chloride *numerical limit or background, whichever is greater	**TPH**	**GRO + DRO**	**BTEX**	**Benzene**
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	**yes or no**	**if yes, then**				
<300' from continuously flowing watercourse or other significant watercourse?	no	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	no					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	no					
<1000' from fresh water well or spring?	no					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	**no**					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	no					
<100' from wetland?	no					
within area overlying a subsurface mine	no					
within an unstable area?	no					
within a 100-year floodplain?	no					

Table 3:
Summary of Sample Results

CHISHOLM ENERGY
NRM2032540707

Sample ID	Sample Date	Depth (feet bgs)	Proposed Action/ Action Taken	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- mg/Kg
NMED Closure Criteria							3800	600
SW1	11/13/2020	0.5	in-situ	<4.5	230	120	350	570
SW2	11/13/2020	0.5	in-situ	<4.9	130	100	230	1800
SW3	11/13/2020	0.5	in-situ	<4.8	<11	<55	<61.6	280
SW4	11/13/2020	0.5	in-situ	<4.7	<9.6	<48	<62.3	64
SW5	11/13/2020	0.5	in-situ	<4.8	<11	<53	<68.8	140
SW6	11/13/2020	0.5	in-situ	<4.6	12	<53	12	320
SW7	11/13/2020	0.5	in-situ	<4.8	<10	<60	<74.8	720
SW8	11/13/2020	0.5	in-situ	<4.8	<8.4	<42	<55.2	130
SW9	11/13/2020	0.5	in-situ	<4.7	<9.6	<48	<55.6	230
SW10	11/13/2020	0.5	in-situ	<4.7	<8.7	<43	<56.4	<60
SW11	11/13/2020	0.5	in-situ	<4.8	<11	<55	<70.2	85
L2-1	11/17/2020	1	in-situ	<4.7	<10	<52	<66.7	4100
L3-1	11/17/2020	1	in-situ	<4.9	<9.7	<49	<63.6	9500
L4-2	11/17/2020	2	in-situ	<4.9	<9.0	<45	<58.9	9200
L5-2	11/17/2020	2	in-situ	<4.9	<9.0	<45	<58.9	72
L6-2	11/17/2020	2	in-situ	<5.0	140	74	214	460
L6-3	11/17/2020	3	in-situ	<4.7	140	78	218	690
L7-2	11/17/2020	2	in-situ	<4.9	<8.7	<44	<57.6	880
L7-3	11/17/2020	3	in-situ	<5.0	<9.5	<47	<61.5	920
L8-2	11/17/2020	2	in-situ	<5.0	57	<46	57	1400
L8-3	11/17/2020	3	in-situ	<4.9	18	<48	57	580

"--" = Not Analyzed

APPENDIX A
FORMS C141

APPENDIX B
NMOSE WELLS REPORT

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

2019 MAY -6 PM 3:29

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.) C-4315 B-1 C-4316 OLSSON 148	WELL TAG ID NO. NA	OSE FILE NO(S). C-4315 C-4316 GK:G 6/4/19
WELL OWNER NAME(S) MICHAEL FLANAGAN		PHONE (OPTIONAL) 303-918-2502
WELL OWNER MAILING ADDRESS 3990 FOX STREET	CITY DENVER	STATE CO ZIP 80216

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	20	01.3	N
LONGITUDE	-104	17	44.3	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 1186	RODNEY HAMMER	ENVIRO-DRILL, INC.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
04/10/19	04/11/19		75'	dry

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): dry

DRILLING FLUID: ☒ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☒ OTHER – SPECIFY: HSA

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
			NO well set				

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO C-4316	POD NO. 1	TRN NO. 642235
LOCATION 23S-26E-04 4.1-2	WELL TAG ID NO. NA	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	62	62	sand gravel with cobbles	Y (N)	
62	75	13	brown clay	Y (N)	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:
☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Rodney Hammer — 4-19-19

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4314	POD NO. 1	TRN NO. 642235	
LOCATION 23S-26E-04	4.1.2	WELL TAG ID NO. NA	PAGE 2 OF 2

APPENDIX D

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 13, 2020

Austin Weyant

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

RE: Bodacios 5 32 OrderNo.: 2011259

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/5/2020 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 #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW1
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-001 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	570	60		mg/Kg	20	11/11/2020 12:58:15 PM	56353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	230	10		mg/Kg	1	11/7/2020 3:18:46 PM	56253
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	11/7/2020 3:18:46 PM	56253
Surr: DNOP	91.1	30.4-154		%Rec	1	11/7/2020 3:18:46 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/7/2020 7:43:08 PM	56250
Surr: BFB	93.8	75.3-105		%Rec	1	11/7/2020 7:43:08 PM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	11/7/2020 7:43:08 PM	56250
Toluene	ND	0.049		mg/Kg	1	11/7/2020 7:43:08 PM	56250
Ethylbenzene	ND	0.049		mg/Kg	1	11/7/2020 7:43:08 PM	56250
Xylenes, Total	ND	0.099		mg/Kg	1	11/7/2020 7:43:08 PM	56250
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	11/7/2020 7:43:08 PM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW2
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-002 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	1800	60		mg/Kg	20	11/11/2020 1:10:40 PM	56353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	130	11		mg/Kg	1	11/7/2020 4:31:17 PM	56253
Motor Oil Range Organics (MRO)	100	53		mg/Kg	1	11/7/2020 4:31:17 PM	56253
Surr: DNOP	64.8	30.4-154		%Rec	1	11/7/2020 4:31:17 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/7/2020 8:53:12 PM	56250
Surr: BFB	90.9	75.3-105		%Rec	1	11/7/2020 8:53:12 PM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/7/2020 8:53:12 PM	56250
Toluene	ND	0.049		mg/Kg	1	11/7/2020 8:53:12 PM	56250
Ethylbenzene	ND	0.049		mg/Kg	1	11/7/2020 8:53:12 PM	56250
Xylenes, Total	ND	0.098		mg/Kg	1	11/7/2020 8:53:12 PM	56250
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	1	11/7/2020 8:53:12 PM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW3
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-003 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	280	60		mg/Kg	20	11/11/2020 1:23:05 PM	56353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	11		mg/Kg	1	11/7/2020 5:19:41 PM	56253
Motor Oil Range Organics (MRO)	ND	55		mg/Kg	1	11/7/2020 5:19:41 PM	56253
Surr: DNOP	83.6	30.4-154		%Rec	1	11/7/2020 5:19:41 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/7/2020 10:50:40 PM	56250
Surr: BFB	93.1	75.3-105		%Rec	1	11/7/2020 10:50:40 PM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/7/2020 10:50:40 PM	56250
Toluene	ND	0.048		mg/Kg	1	11/7/2020 10:50:40 PM	56250
Ethylbenzene	ND	0.048		mg/Kg	1	11/7/2020 10:50:40 PM	56250
Xylenes, Total	ND	0.096		mg/Kg	1	11/7/2020 10:50:40 PM	56250
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	11/7/2020 10:50:40 PM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW4
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-004 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	64	60		mg/Kg	20	11/11/2020 1:35:29 PM	56353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/7/2020 5:43:54 PM	56253
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/7/2020 5:43:54 PM	56253
Surr: DNOP	80.1	30.4-154		%Rec	1	11/7/2020 5:43:54 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/7/2020 11:14:14 PM	56250
Surr: BFB	90.1	75.3-105		%Rec	1	11/7/2020 11:14:14 PM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/7/2020 11:14:14 PM	56250
Toluene	ND	0.047		mg/Kg	1	11/7/2020 11:14:14 PM	56250
Ethylbenzene	ND	0.047		mg/Kg	1	11/7/2020 11:14:14 PM	56250
Xylenes, Total	ND	0.094		mg/Kg	1	11/7/2020 11:14:14 PM	56250
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	11/7/2020 11:14:14 PM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW5
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-005 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	140	60		mg/Kg	20	11/11/2020 9:49:06 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	11		mg/Kg	1	11/7/2020 6:08:04 PM	56253
Motor Oil Range Organics (MRO)	ND	53		mg/Kg	1	11/7/2020 6:08:04 PM	56253
Surr: DNOP	90.8	30.4-154		%Rec	1	11/7/2020 6:08:04 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/7/2020 11:37:48 PM	56250
Surr: BFB	91.7	75.3-105		%Rec	1	11/7/2020 11:37:48 PM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/7/2020 11:37:48 PM	56250
Toluene	ND	0.048		mg/Kg	1	11/7/2020 11:37:48 PM	56250
Ethylbenzene	ND	0.048		mg/Kg	1	11/7/2020 11:37:48 PM	56250
Xylenes, Total	ND	0.097		mg/Kg	1	11/7/2020 11:37:48 PM	56250
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	11/7/2020 11:37:48 PM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW6
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-006 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	320	60		mg/Kg	20	11/11/2020 10:26:19 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	12	11		mg/Kg	1	11/7/2020 6:32:14 PM	56253
Motor Oil Range Organics (MRO)	ND	53		mg/Kg	1	11/7/2020 6:32:14 PM	56253
Surr: DNOP	90.4	30.4-154		%Rec	1	11/7/2020 6:32:14 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/8/2020 12:01:20 AM	56250
Surr: BFB	95.0	75.3-105		%Rec	1	11/8/2020 12:01:20 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/8/2020 12:01:20 AM	56250
Toluene	ND	0.046		mg/Kg	1	11/8/2020 12:01:20 AM	56250
Ethylbenzene	ND	0.046		mg/Kg	1	11/8/2020 12:01:20 AM	56250
Xylenes, Total	ND	0.093		mg/Kg	1	11/8/2020 12:01:20 AM	56250
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	11/8/2020 12:01:20 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW7
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-007 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	720	60		mg/Kg	20	11/11/2020 10:38:44 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2020 6:56:23 PM	56253
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/7/2020 6:56:23 PM	56253
Surr: DNOP	93.5	30.4-154		%Rec	1	11/7/2020 6:56:23 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/8/2020 12:24:54 AM	56250
Surr: BFB	92.1	75.3-105		%Rec	1	11/8/2020 12:24:54 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/8/2020 12:24:54 AM	56250
Toluene	ND	0.048		mg/Kg	1	11/8/2020 12:24:54 AM	56250
Ethylbenzene	ND	0.048		mg/Kg	1	11/8/2020 12:24:54 AM	56250
Xylenes, Total	ND	0.096		mg/Kg	1	11/8/2020 12:24:54 AM	56250
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	11/8/2020 12:24:54 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW8
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-008 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	130	60		mg/Kg	20	11/11/2020 10:51:09 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	11/7/2020 7:20:32 PM	56253
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	11/7/2020 7:20:32 PM	56253
Surr: DNOP	86.0	30.4-154		%Rec	1	11/7/2020 7:20:32 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/8/2020 12:48:15 AM	56250
Surr: BFB	93.7	75.3-105		%Rec	1	11/8/2020 12:48:15 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/8/2020 12:48:15 AM	56250
Toluene	ND	0.048		mg/Kg	1	11/8/2020 12:48:15 AM	56250
Ethylbenzene	ND	0.048		mg/Kg	1	11/8/2020 12:48:15 AM	56250
Xylenes, Total	ND	0.097		mg/Kg	1	11/8/2020 12:48:15 AM	56250
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	11/8/2020 12:48:15 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW9
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-009 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	230	60		mg/Kg	20	11/11/2020 11:03:33 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/7/2020 7:44:41 PM	56253
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/7/2020 7:44:41 PM	56253
Surr: DNOP	80.4	30.4-154		%Rec	1	11/7/2020 7:44:41 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/8/2020 1:11:35 AM	56250
Surr: BFB	92.5	75.3-105		%Rec	1	11/8/2020 1:11:35 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/8/2020 1:11:35 AM	56250
Toluene	ND	0.047		mg/Kg	1	11/8/2020 1:11:35 AM	56250
Ethylbenzene	ND	0.047		mg/Kg	1	11/8/2020 1:11:35 AM	56250
Xylenes, Total	ND	0.095		mg/Kg	1	11/8/2020 1:11:35 AM	56250
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	11/8/2020 1:11:35 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW10
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-010 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	11/11/2020 11:15:58 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	11/7/2020 8:08:50 PM	56253
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	11/7/2020 8:08:50 PM	56253
Surr: DNOP	82.8	30.4-154		%Rec	1	11/7/2020 8:08:50 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/8/2020 1:35:03 AM	56250
Surr: BFB	94.2	75.3-105		%Rec	1	11/8/2020 1:35:03 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/8/2020 1:35:03 AM	56250
Toluene	ND	0.047		mg/Kg	1	11/8/2020 1:35:03 AM	56250
Ethylbenzene	ND	0.047		mg/Kg	1	11/8/2020 1:35:03 AM	56250
Xylenes, Total	ND	0.094		mg/Kg	1	11/8/2020 1:35:03 AM	56250
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	11/8/2020 1:35:03 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: SW11
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-011 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	85	60		mg/Kg	20	11/11/2020 11:53:12 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	11		mg/Kg	1	11/7/2020 8:32:58 PM	56253
Motor Oil Range Organics (MRO)	ND	55		mg/Kg	1	11/7/2020 8:32:58 PM	56253
Surr: DNOP	83.4	30.4-154		%Rec	1	11/7/2020 8:32:58 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/8/2020 1:58:46 AM	56250
Surr: BFB	94.5	75.3-105		%Rec	1	11/8/2020 1:58:46 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/8/2020 1:58:46 AM	56250
Toluene	ND	0.048		mg/Kg	1	11/8/2020 1:58:46 AM	56250
Ethylbenzene	ND	0.048		mg/Kg	1	11/8/2020 1:58:46 AM	56250
Xylenes, Total	ND	0.097		mg/Kg	1	11/8/2020 1:58:46 AM	56250
Surr: 4-Bromofluorobenzene	99.7	80-120		%Rec	1	11/8/2020 1:58:46 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L2-1
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-012 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	4100	150		mg/Kg	50	11/12/2020 8:49:00 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2020 8:57:06 PM	56253
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	11/7/2020 8:57:06 PM	56253
Surr: DNOP	87.9	30.4-154		%Rec	1	11/7/2020 8:57:06 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/8/2020 2:22:29 AM	56250
Surr: BFB	91.1	75.3-105		%Rec	1	11/8/2020 2:22:29 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/8/2020 2:22:29 AM	56250
Toluene	ND	0.047		mg/Kg	1	11/8/2020 2:22:29 AM	56250
Ethylbenzene	ND	0.047		mg/Kg	1	11/8/2020 2:22:29 AM	56250
Xylenes, Total	ND	0.093		mg/Kg	1	11/8/2020 2:22:29 AM	56250
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	11/8/2020 2:22:29 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011259**
Date Reported: **11/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L3-1
Project: Bodacios 5 32
Collection Date: 11/4/2020
Lab ID: 2011259-013 **Matrix:** SOIL **Received Date:** 11/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	9500	600		mg/Kg	200	11/12/2020 9:01:25 AM	56357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/7/2020 9:21:13 PM	56253
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/7/2020 9:21:13 PM	56253
Surr: DNOP	88.4	30.4-154		%Rec	1	11/7/2020 9:21:13 PM	56253
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/8/2020 4:43:40 AM	56250
Surr: BFB	93.1	75.3-105		%Rec	1	11/8/2020 4:43:40 AM	56250
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/8/2020 4:43:40 AM	56250
Toluene	ND	0.047		mg/Kg	1	11/8/2020 4:43:40 AM	56250
Ethylbenzene	ND	0.047		mg/Kg	1	11/8/2020 4:43:40 AM	56250
Xylenes, Total	ND	0.094		mg/Kg	1	11/8/2020 4:43:40 AM	56250
Surr: 4-Bromofluorobenzene	97.7	80-120		%Rec	1	11/8/2020 4:43:40 AM	56250

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2011259**

13-Nov-20

Client: Atkins Engineering Associates

Project: Bodacios 5 32

Sample ID: **MB-56357**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **56357**	RunNo: **73276**							
Prep Date: **11/11/2020**	Analysis Date: **11/11/2020**	SeqNo: **2578987**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56357**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **56357**	RunNo: **73276**							
Prep Date: **11/11/2020**	Analysis Date: **11/11/2020**	SeqNo: **2578988**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Sample ID: **MB-56353**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **56353**	RunNo: **73277**							
Prep Date: **11/10/2020**	Analysis Date: **11/11/2020**	SeqNo: **2579377**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56353**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **56353**	RunNo: **73277**							
Prep Date: **11/10/2020**	Analysis Date: **11/11/2020**	SeqNo: **2579378**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011259**
13-Nov-20

Client: Atkins Engineering Associates
Project: Bodacios 5 32

Sample ID: **MB-56253** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **56253** RunNo: **73202**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2575612** 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	9.0		10.00		89.7	30.4	154			

Sample ID: **LCS-56253** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **56253** RunNo: **73202**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2575613** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.4	70	130			
Surr: DNOP	4.3		5.000		86.1	30.4	154			

Sample ID: **2011259-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SW1** Batch ID: **56253** RunNo: **73202**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2575615** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	320	9.7	48.54	230.1	185	15	184			S
Surr: DNOP	3.8		4.854		78.7	30.4	154			

Sample ID: **2011259-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SW1** Batch ID: **56253** RunNo: **73202**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2575616** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	300	9.6	48.12	230.1	143	15	184	6.68	23.9	
Surr: DNOP	4.1		4.812		86.2	30.4	154	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011259**
13-Nov-20

Client: Atkins Engineering Associates
Project: Bodacios 5 32

Sample ID: **mb-56250** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574783** 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	950		1000		94.6	75.3	105			

Sample ID: **lcs-56250** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574784** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.7	72.5	106			
Surr: BFB	1000		1000		103	75.3	105			

Sample ID: **2011259-002ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SW2** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574787** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.7	23.65	0	107	61.3	114			
Surr: BFB	990		946.1		105	75.3	105			

Sample ID: **2011259-002amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SW2** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574788** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.8	24.18	0	105	61.3	114	0.423	20	
Surr: BFB	970		967.1		100	75.3	105	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011259**
13-Nov-20

Client: Atkins Engineering Associates
Project: Bodacios 5 32

Sample ID: **mb-56250** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574958** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: **LCS-56250** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574959** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.8	80	120			
Toluene	0.95	0.050	1.000	0	95.4	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.4	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: **2011259-001ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SW1** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574961** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.023	0.9285	0.01538	116	76.3	120			
Toluene	1.1	0.046	0.9285	0.01341	122	78.5	120			S
Ethylbenzene	1.1	0.046	0.9285	0	124	78.1	124			
Xylenes, Total	3.5	0.093	2.786	0	124	79.3	125			
Surr: 4-Bromofluorobenzene	0.94		0.9285		102	80	120			

Sample ID: **2011259-001amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SW1** Batch ID: **56250** RunNo: **73203**
Prep Date: **11/6/2020** Analysis Date: **11/7/2020** SeqNo: **2574962** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9208	0.01538	110	76.3	120	6.58	20	
Toluene	1.1	0.046	0.9208	0.01341	116	78.5	120	5.63	20	
Ethylbenzene	1.1	0.046	0.9208	0	118	78.1	124	5.32	20	
Xylenes, Total	3.3	0.092	2.762	0	118	79.3	125	5.51	20	
Surr: 4-Bromofluorobenzene	0.92		0.9208		99.8	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
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Atkins Engineering Assoc** Work Order Number: **2011259** RcptNo: **1**

Received By: **Juan Rojas** **11/5/2020 8:00:00 AM** Juan Rojas

Completed By: **Isaiah Ortiz** **11/5/2020 8:34:38 AM** I-OX

Reviewed By: JR 11/5/20

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. 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: SGL 11/5/20

Special Handling (if applicable)

15. 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: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Not Present			
2	0.9	Good	Not Present			

Chain-of-Custody Record

Client: ATKINS ENG

Mailing Address: 2904 W 2ND ROSWELL

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day
☑ Standard ☐ Rush

Project Name: BODACIOUS 5-32

Project #: Bodacio_CNV_20

Project Manager: AUSTIN WEYAND

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 0.4-0=0.4 (°C) 0.9-0=0.9

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2011259
11/4		SOIL	SW1	4oz		001
			SW2			002
			SW3			003
			SW4			004
			SW5			005
			SW6			006
			SW7			007
			SW8			008
			SW9			009
			SW10			010
			SW11			011
			L2-1			012

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			ACummings		11/4/20	1400
Date: 11/4/20	Time: 1900	Relinquished by: ACummings	Received by:	Via: courier	Date 11/5/20	Time 8:00

Remarks: COC 1/2

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.

Chain-of-Custody Record

Client: Atkins ENG

Mailing Address: on file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 Day
☒ Standard ☐ Rush

Project Name: Bodacious 5-32

Project #:

Project Manager:

Sampler:
On Ice: ☒ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): 0.4-0=0.4 (°C) 0.9-0=0.9

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2011759	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/4		Soil	L3-1	4oz		013	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			acummings		11/4/20	1400
11/4/20	1900	acummings		courier	11/5/20	8:00

Remarks: COC 2/2

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

Analysis Request

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 30, 2020

Austin Weyant

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

RE: Bodacios OrderNo.: 2011966

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/19/2020 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 #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L8-2
Project: Bodacios
Collection Date: 11/17/2020 12:00:00 PM
Lab ID: 2011966-001 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1400	59		mg/Kg	20	11/24/2020 2:38:42 PM	56627
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	57	9.3		mg/Kg	1	11/20/2020 5:16:44 PM	56557
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/20/2020 5:16:44 PM	56557
Surr: DNOP	110	30.4-154		%Rec	1	11/20/2020 5:16:44 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/21/2020 1:26:22 AM	56553
Surr: BFB	92.5	75.3-105		%Rec	1	11/21/2020 1:26:22 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	11/21/2020 1:26:22 AM	56553
Toluene	ND	0.050		mg/Kg	1	11/21/2020 1:26:22 AM	56553
Ethylbenzene	ND	0.050		mg/Kg	1	11/21/2020 1:26:22 AM	56553
Xylenes, Total	ND	0.099		mg/Kg	1	11/21/2020 1:26:22 AM	56553
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	11/21/2020 1:26:22 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L8-3
Project: Bodacios
Collection Date: 11/17/2020 1:30:00 PM
Lab ID: 2011966-002 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	580	60		mg/Kg	20	11/24/2020 2:51:06 PM	56627
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	18	9.5		mg/Kg	1	11/20/2020 5:26:28 PM	56557
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/20/2020 5:26:28 PM	56557
Surr: DNOP	108	30.4-154		%Rec	1	11/20/2020 5:26:28 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/21/2020 1:49:54 AM	56553
Surr: BFB	91.9	75.3-105		%Rec	1	11/21/2020 1:49:54 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	11/21/2020 1:49:54 AM	56553
Toluene	ND	0.049		mg/Kg	1	11/21/2020 1:49:54 AM	56553
Ethylbenzene	ND	0.049		mg/Kg	1	11/21/2020 1:49:54 AM	56553
Xylenes, Total	ND	0.099		mg/Kg	1	11/21/2020 1:49:54 AM	56553
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	11/21/2020 1:49:54 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L7-2
Project: Bodacios
Collection Date: 11/17/2020 12:45:00 PM
Lab ID: 2011966-003 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	880	60		mg/Kg	20	11/24/2020 3:03:31 PM	56627
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	11/20/2020 5:36:13 PM	56557
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	11/20/2020 5:36:13 PM	56557
Surr: DNOP	79.5	30.4-154		%Rec	1	11/20/2020 5:36:13 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/21/2020 2:13:25 AM	56553
Surr: BFB	90.2	75.3-105		%Rec	1	11/21/2020 2:13:25 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	11/21/2020 2:13:25 AM	56553
Toluene	ND	0.050		mg/Kg	1	11/21/2020 2:13:25 AM	56553
Ethylbenzene	ND	0.050		mg/Kg	1	11/21/2020 2:13:25 AM	56553
Xylenes, Total	ND	0.099		mg/Kg	1	11/21/2020 2:13:25 AM	56553
Surr: 4-Bromofluorobenzene	96.7	80-120		%Rec	1	11/21/2020 2:13:25 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L7-3
Project: Bodacios
Collection Date: 11/17/2020 1:06:00 PM
Lab ID: 2011966-004 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	920	59		mg/Kg	20	11/24/2020 3:40:44 PM	56627
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/20/2020 5:46:00 PM	56557
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/20/2020 5:46:00 PM	56557
Surr: DNOP	51.0	30.4-154		%Rec	1	11/20/2020 5:46:00 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/21/2020 2:36:58 AM	56553
Surr: BFB	92.2	75.3-105		%Rec	1	11/21/2020 2:36:58 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	11/21/2020 2:36:58 AM	56553
Toluene	ND	0.050		mg/Kg	1	11/21/2020 2:36:58 AM	56553
Ethylbenzene	ND	0.050		mg/Kg	1	11/21/2020 2:36:58 AM	56553
Xylenes, Total	ND	0.099		mg/Kg	1	11/21/2020 2:36:58 AM	56553
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	11/21/2020 2:36:58 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L6-2
Project: Bodacios
Collection Date: 11/17/2020 1:09:00 PM
Lab ID: 2011966-005 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	460	60		mg/Kg	20	11/24/2020 5:57:14 PM	56642
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	140	9.4		mg/Kg	1	11/20/2020 5:55:46 PM	56557
Motor Oil Range Organics (MRO)	74	47		mg/Kg	1	11/20/2020 5:55:46 PM	56557
Surr: DNOP	70.1	30.4-154		%Rec	1	11/20/2020 5:55:46 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/21/2020 3:00:34 AM	56553
Surr: BFB	91.6	75.3-105		%Rec	1	11/21/2020 3:00:34 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	11/21/2020 3:00:34 AM	56553
Toluene	ND	0.050		mg/Kg	1	11/21/2020 3:00:34 AM	56553
Ethylbenzene	ND	0.050		mg/Kg	1	11/21/2020 3:00:34 AM	56553
Xylenes, Total	ND	0.099		mg/Kg	1	11/21/2020 3:00:34 AM	56553
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	11/21/2020 3:00:34 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L6-3
Project: Bodacios
Collection Date: 11/17/2020 1:20:00 PM
Lab ID: 2011966-006 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	690	60		mg/Kg	20	11/24/2020 6:09:39 PM	56642
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	140	9.5		mg/Kg	1	11/20/2020 6:05:33 PM	56557
Motor Oil Range Organics (MRO)	78	48		mg/Kg	1	11/20/2020 6:05:33 PM	56557
Surr: DNOP	76.9	30.4-154		%Rec	1	11/20/2020 6:05:33 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/21/2020 4:34:25 AM	56553
Surr: BFB	92.4	75.3-105		%Rec	1	11/21/2020 4:34:25 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	11/21/2020 4:34:25 AM	56553
Toluene	ND	0.047		mg/Kg	1	11/21/2020 4:34:25 AM	56553
Ethylbenzene	ND	0.047		mg/Kg	1	11/21/2020 4:34:25 AM	56553
Xylenes, Total	ND	0.095		mg/Kg	1	11/21/2020 4:34:25 AM	56553
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	11/21/2020 4:34:25 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L5-2
Project: Bodacios
Collection Date: 11/17/2020 1:42:00 PM
Lab ID: 2011966-007 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	72	60		mg/Kg	20	11/24/2020 6:46:52 PM	56642
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	11/20/2020 6:15:21 PM	56557
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/20/2020 6:15:21 PM	56557
Surr: DNOP	37.2	30.4-154		%Rec	1	11/20/2020 6:15:21 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/21/2020 4:57:56 AM	56553
Surr: BFB	97.3	75.3-105		%Rec	1	11/21/2020 4:57:56 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	11/21/2020 4:57:56 AM	56553
Toluene	ND	0.049		mg/Kg	1	11/21/2020 4:57:56 AM	56553
Ethylbenzene	ND	0.049		mg/Kg	1	11/21/2020 4:57:56 AM	56553
Xylenes, Total	ND	0.097		mg/Kg	1	11/21/2020 4:57:56 AM	56553
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	11/21/2020 4:57:56 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011966**
Date Reported: **11/30/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Atkins Engineering Associates
Client Sample ID: L4-2
Project: Bodacios
Collection Date: 11/17/2020 1:55:00 PM
Lab ID: 2011966-008 **Matrix:** SOIL **Received Date:** 11/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	9200	300		mg/Kg	100	11/25/2020 11:44:49 PM	56642
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/23/2020 5:18:00 PM	56557
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2020 5:18:00 PM	56557
Surr: DNOP	103	30.4-154		%Rec	1	11/23/2020 5:18:00 PM	56557
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/21/2020 5:21:32 AM	56553
Surr: BFB	92.4	75.3-105		%Rec	1	11/21/2020 5:21:32 AM	56553
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	11/21/2020 5:21:32 AM	56553
Toluene	ND	0.050		mg/Kg	1	11/21/2020 5:21:32 AM	56553
Ethylbenzene	ND	0.050		mg/Kg	1	11/21/2020 5:21:32 AM	56553
Xylenes, Total	ND	0.099		mg/Kg	1	11/21/2020 5:21:32 AM	56553
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	11/21/2020 5:21:32 AM	56553

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
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011966**
30-Nov-20

Client: Atkins Engineering Associates
Project: Bodacios

Sample ID: **MB-56627**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **56627**	RunNo: **73617**							
Prep Date: **11/24/2020**	Analysis Date: **11/24/2020**	SeqNo: **2594053**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56627**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **56627**	RunNo: **73617**							
Prep Date: **11/24/2020**	Analysis Date: **11/24/2020**	SeqNo: **2594054**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Sample ID: **MB-56642**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **56642**	RunNo: **73617**							
Prep Date: **11/24/2020**	Analysis Date: **11/24/2020**	SeqNo: **2594085**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56642**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **56642**	RunNo: **73617**							
Prep Date: **11/24/2020**	Analysis Date: **11/24/2020**	SeqNo: **2594087**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011966**
30-Nov-20

Client: Atkins Engineering Associates
Project: Bodacios

Sample ID: **MB-56557**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **56557**	RunNo: **73527**
Prep Date: **11/19/2020**	Analysis Date: **11/20/2020**	SeqNo: **2589786** 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	8.4		10.00		83.7	30.4	154			

Sample ID: **LCS-56557**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **56557**	RunNo: **73527**
Prep Date: **11/19/2020**	Analysis Date: **11/20/2020**	SeqNo: **2589789** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	70	130			
Surr: DNOP	4.2		5.000		84.8	30.4	154			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2011966**

30-Nov-20

Client: Atkins Engineering Associates

Project: Bodacios

Sample ID: **lcs-56553**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **56553**	RunNo: **73525**
Prep Date: **11/19/2020**	Analysis Date: **11/20/2020**	SeqNo: **2589713** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.6	72.5	106			
Surr: BFB	1000		1000		101	75.3	105			

Sample ID: **mb-56553**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **56553**	RunNo: **73525**
Prep Date: **11/19/2020**	Analysis Date: **11/20/2020**	SeqNo: **2589715** 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	920		1000		92.4	75.3	105			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011966**
30-Nov-20

Client: Atkins Engineering Associates
Project: Bodacios

Sample ID: **LCS-56553** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **56553** RunNo: **73525**
Prep Date: **11/19/2020** Analysis Date: **11/20/2020** SeqNo: **2589765** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.6	80	120			
Toluene	0.94	0.050	1.000	0	94.2	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.3	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.7	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.5	80	120			

Sample ID: **mb-56553** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **56553** RunNo: **73525**
Prep Date: **11/19/2020** Analysis Date: **11/20/2020** SeqNo: **2589767** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	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
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Atkins Engineering Assoc** Work Order Number: **2011966** RcptNo: **1**

Received By: **Isaiah Ortiz** **11/19/2020 7:30:00 AM** I-OX

Completed By: **Isaiah Ortiz** **11/19/2020 8:27:59 AM** I-OX

Reviewed By: SPA 11.19.20

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. 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: SGL 11/19/20

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Not Present			
2	0.8	Good	Not Present			

Chain-of-Custody Record

Client: Atkins ENG

Mailing Address: on file

Phone #: /

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5 Days

Project Name: Bonanza

Project #: bodacio_ENV_20

Project Manager: Austin Weyant

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 2 1.2 ± 0

Cooler Temp(including CF): 0.8 ± 0 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2011966	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/17	12:00	Soil	L8-2			001	X	X					X			
	13:30		L8-3			002	X	X					X			
	12:45		L7-2			003	X	X					X			
	13:06		L7-3			004	X	X					X			
	13:09		L6-2			005	X	X					X			
	13:20		L6-3			006	X	X					X			
	13:42		L5-2			007	X	X					X			
	13:55		L4-2			008	X	X					X			

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			Gcummings		11/18/20	0935
Date: 11/18/20	Time: 1900	Relinquished by: Gcummings	Received by:	Via: coolin	Date 11/19/20	Time 0730

Remarks:

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.

APPENDIX E
OPEN EXCAVATION PHOTO LOG

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2032540707
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party CHISHOLM ENERGY OPERATING, LLC	OGRID 372137
Contact Name TIM GREEN	Contact Telephone 432-413-9747
Contact email tgreen@chisholmenergy.com	Incident # *(assigned by OCD)* NRM2032540707
Contact mailing address 801 CHERRY STREET, SUITE 1200-UNIT 20, FORT WORTH, TX 76102	

Location of Release Source

Latitude 32.326965 Longitude -104.312933
(NAD 83 in decimal degrees to 5 decimal places)

Site Name BODACIOUS 5-32 FED COM	Site Type WELL SITE LOCATION/TANK BATTERY
Date Release Discovered 10/22/2020	API# *(if applicable)* 30-025-45835/30-025-45836

Unit Letter	Section	Township	Range	County
O	5	23S	26E	EDDY

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 100	Volume Recovered (bbls) 75
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

PUMPER/ALARM FAILURE; VALVE SHUT UNABLE TO EQUALIZE VOLUMES IN TANKS
LENGTH OF SPILL IS 420' X 185' X 0.25" = 1618 cuft @ 33% POROSITY = 100 BBLS

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2032540707
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? AMOUNT SPILLED WAS MORE THAN 25 BBLS.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

YES, EMAIL NOTIFICATION WAS SENT BY JENNIFER ELROD TO MIKE BRATCHER AT OCD ARTESIA OFFICE

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: JENNIFER ELROD Title: SR. REGULATORY ANALYST

Signature: Jennifer Elrod Date: 11/04/2020

email: jelrod@chisholmenergy.com Telephone: 817-953-3728

OCD Only

Received by: Ramona Marcus Date: 12/1/2020

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 24247

CONDITIONS

Operator: CHISHOLM ENERGY OPERATING, LLC 801 Cherry Street Fort Worth, TX 76102	OGRID: 372137
	Action Number: 24247
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Workplan/Remediation Plan is approved with the following conditions: When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If evidence of depth to ground water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less. Please make sure all groundwater data is included in closure report summary. Soil samples will need to meet Table 1 Closure Criteria for proven depth to water determination. Closure samples should be representative of no more than 200 ft2, unless a variance has been approved. The samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Please make sure the edges/sidewalls are delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH, defining the edge of the release.	7/16/2021