



July 8, 2015

#5B23978-BG4

NMOCD District II
1301 W Grand Ave
Artesia, NM 88210

SUBJECT: FINAL CLOSURE REPORT FOR INCIDENT 2RP-2834 JENKINS B FEDERAL #007, EDDY COUNTY, NEW MEXICO

Dear Ms. Patterson:

Souder Miller & Associates is pleased to submit the attached Final Closure Report of the remediation of the release site located on the JENKINS B FEDERAL #007 in Eddy County, New Mexico. The purpose of the Final Report is to obtain approval from New Mexico Oil Conservation Division (NMOCD) and the Bureau of Land Management (BLM) for the closure of the release that occurred on BLM property on January 30, 2015.

Souder, Miller & Associates (SMA) responded at the request of COG Operating to assess and delineate the release of production fluids associated with the McIntyre A West #16 well location. The release was initially reported to NMOCD by COG Operating on February 23, 2015 and was a result of a flow line failure. The table below summarizes information regarding the release. Results of the assessment and delineation follow in proceeding report.

Table 1: Release information and Site Ranking					
Name	Jenkins B Federal #7				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-2834	30-015-29451	SW/NE (Unit E)	Section 20	T 17S, R 30E NMPM
Estimated Date of Release	30-Jan-15				
Date Reported to NMOCD	23-Feb-15				
Reported by	Amanda Trujillo, COG Operating LLC				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Flow line failure				
Released Material	Produced Water and Oil				
Released Volume	25 bbls Produced Water and 5 bbls Oil				
Recovered Volume	24 bbls Produced Water and 4 bbls Oil				
Net Release	1 bbl Produced Water and 1 bbl Oil				
Nearest Waterway	Pecos River is over 18 miles west of the location.				
Depth to Groundwater	Estimated to be 80 feet				

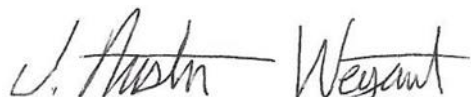


Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	10
SMA Response Dates	Initial: April 28, 2015 Mitigation Activities: May 19, 2015
Subcontractors	TCS
Disposal Facility	Lea Land, LLC
Estimated Yd ³ Contaminated Soil Excavated and Disposed	864 (Reported on Completed C-138)

A copy of the C-141 Final is located in Appendix B. For questions or comments pertaining to the release or the attached Closure Report, please feel free to contact either of us.

Submitted by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant
Project Scientist

Reviewed by:



Cynthia Gray, CHMM
Senior Scientist



FINAL CLOSURE REPORT FOR INCIDENT 2RP-2834

COG OPERATING LLC

JENKINS B FEDERAL #007

API# 30-015-29451

SECTION 20, T17S R30E, NM

EDDY COUNTY, NM



Prepared for:
COG Operating LLC
2407 Pecos Ave
Artesia, NM 88210

Prepared by:
Souder, Miller & Associates
201 S. Halagueno
Carlsbad, NM 88221
575-689-7040

July 8, 2015
SMA Reference
5B23978 BG4



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1.0 Introduction

On behalf of COG Operating LLC (COG), SMA has prepared this report that describes the assessment, initial delineation, and mitigation of a release associated with the JENKINS B FEDERAL #007 release site. The site is located in Section 20, T 17S, R 30E NMPM, Eddy County, New Mexico, on land owned by the BLM. Figure 1 illustrates the vicinity and location of the site.

2.0 Site Ranking and Land Jurisdiction

The release site is located approximately 18 miles east of the Pecos River, in an area owned by the BLM with an elevation of approximately 3,637 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 100 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No wells were located within a one mile radius of the site. Figure 1 depicts the site vicinity and Figure 2 shows the site itself. The physical location of this release is within the jurisdiction of BLM and NMOCD.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned a NMOCD ranking of 10 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates site ranking rationale.

3.0 Assessment and Initial Results

On May 7th, 2015 after receiving 811 clearance, SMA field personal assessed the release area onsite with a gas powered auger, Photo Ionization Detector, and a mobile chlorides titration kit. The potentially affected area was found to be approximately 188 feet long and 50 feet wide. The northern extent exhibited only background levels of all contaminants of concern at approximately 2 feet bsg. The southernmost portion contained the highest concentration of contaminants below six foot bsg, due to the proximity to the failed flow line and site topography. For additional information on the initial soil results and site assessment, please refer to the NMOCD approved work plan (Soil Remediation Workplan for Incident 2RP-2834). Soil samples were taken at depths ranging from surface grade to 48 inches bsg. Specific sample locations for all samples are depicted on Figure 2 (Sample Location Map) along with sampling details. All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Benzene and Total BTEX using EPA Method 8021B, Total Petroleum Hydrocarbons by EPA Method 418.1, and total Chlorides using EPA Method 300.0.

4.0 Soil Remediation Summary

SMA returned to the site on May 19, 2015 to begin the excavation of affected soils, with approval from area utilities owners via 811. SMA continuously guided the excavation activities by collecting composite soil samples for field screening with a mobile titration unit (EPA 4500) and a calibrated PID. Field screening results indicated all soils related to the incident had been removed to the delineated extent of the area of impact. Final samples were collected at the total depth of excavation and from the side walls. The final excavation measured approximately 188 feet long by 50 feet wide with depths varying from 2 to 4 feet, covering an area of approximately 6,917 square feet. A detailed excavation map is enclosed as Figure 2. In the northern and western area of the spill excavation occurred of all contaminated soil was achieved at two feet bsg. In the southern area, contaminated soils were evident to a depth of 8 foot bsg. In this area, a cap was placed at four feet bsg to contain the soils left in place. The construction of the in-situ cap (Figure #3) has been designed to prevent both capillary and leaching movement of the brine affected soils. Starting from four feet below surface grade, plastic liner was added as a capillary break between the affected soils and the caliche cap. The caliche cap consists of two feet of contaminant-free material placed, and compacted. Then, a plastic liner was added above the caliche cap and compacted to form an intrusion barrier. This barrier will prevent leaching and formation of deep root systems into the cap itself. The topsoil was then placed on top of the cap. The plastic liner on both sides of the caliche cap will effectively break the communication of precipitation through the compacted cap. Samples were then taken in the sidewalls and bottom to ensure contaminated soils had been removed from the rest of the excavation. These samples confirm that all contaminated soil from release 2RP-2834 were removed in the horizontal and vertical plane except those remaining under the cap. Contaminated soil was removed and replaced with clean backfill material to surface grade to promote vegetation growth. The contaminated soil was transported to Lea Land Landfill, near Carlsbad, NM. Waste manifest documentation is available by request.

A total of 9 soil samples were submitted for closure confirmation by laboratory analysis per EPA Methods: 8021 for benzene, toluene, ethylbenzene, and xylenes (BTEX) and 418.1 for Total Petroleum Hydrocarbons. All samples were analyzed by Hall Environmental Analytical Laboratory in Albuquerque, New Mexico. Figure 2 illustrates the extent of the excavation, location of the cap, laboratory soil sample locations, and laboratory results.

5.0 Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 10: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 1000 ppm TPH.

Laboratory analytical results for all final closure samples collected were below NMOCD action levels for Benzene, BTEX, and TPH as well as below laboratory detection limits for the methods used.

Soil contaminant concentrations are illustrated in Figure 2. A summary of laboratory analytical results is included in Table 3. Laboratory reports are included in Appendix C.

Photo documentation is available by request.

SMA recommends no further action at the JENKINS B FEDERAL #007 release location with regards to Incident #2RP-2834.

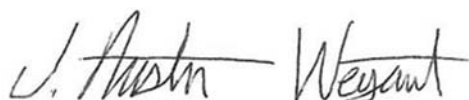
6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment and delineation, documentation of the removal of impacted soils, verification of release stabilization, regulatory liaison, and preparation of this Final Closure Report for Incident #2RP-2834. 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 either Austin Weyant at 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES

A handwritten signature in blue ink that reads "Austin Weyant". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Austin Weyant
Project Scientist

Reviewed by:

A handwritten signature in blue ink that reads "Cynthia Gray". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Cynthia Gray, CHMM
Senior Scientist

Figures:

Figure 1: Vicinity Map

Figure 2: Site Map

Figure 3: In-situ Cap and Bio barrier Design

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Table 2: Summary of Field Screening

Table 3: Summary of Laboratory Analyses

Appendices:

Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final

Appendix C: Cultural Resources Survey

FIGURE 1 VICINITY MAP



Site Location Map
Jenkins B Federal #7 - COG
Loco Hill, New Mexico

Figure 1

Date:
5/19/2015

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Copyright 2014 Souder, Miller & Associates - All Rights Reserved

Drawn	Lucas Middleton
Checked	_____
Approved	_____



201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-5551
www.soudermiller.com
Serving the Southwest & Rocky Mountain

FIGURE 2 SITE MAP



Figure 2: Site Map
Jenkins B Federal #7 - COG
Loco Hill, New Mexico

Figure 2

Date Saved:
7/7/2015

By: _____	Date: _____	Revisions	Descr: _____
By: _____	Date: _____		Descr: _____

Copyright 2014 Souder, Miller & Associates - All Rights Reserved

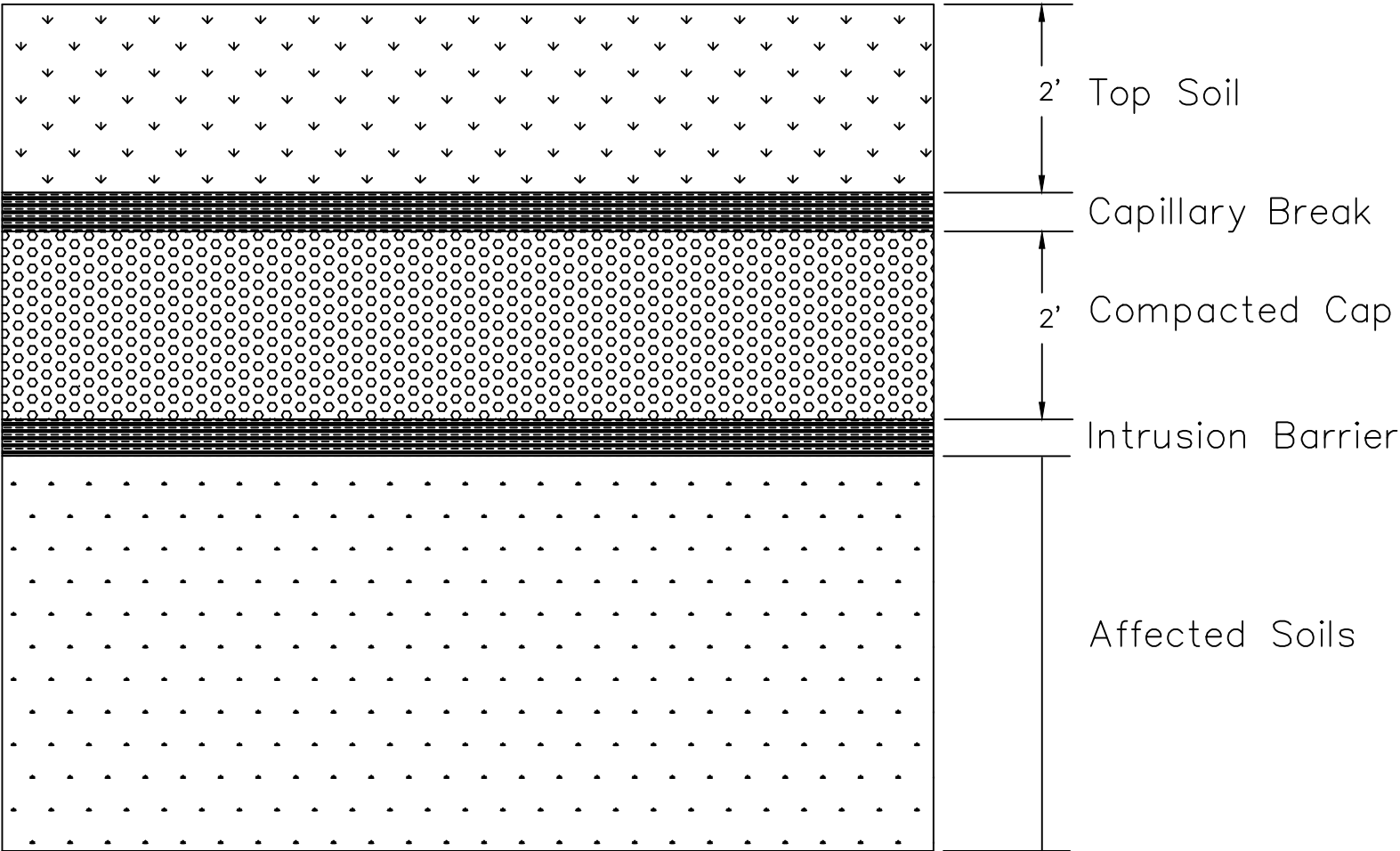
Drawn: Lucas Middleton
Checked: _____
Approved: _____



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Figure 3: In-situ Cap and Bio barrier Design

Figure 3: In-situ Cap and Biobarrier Design




			Souders, Miller & Associates			CLIENT: COG			TOWN			Rev #			Date			Description		
Designed			Drawn			Checked			FIGURE 3: CAP DESIGN AND BIOBARRIER DESIGN											
Date: July 2015									Carlsbad, NM 88220 201 S.											
Scale: Horiz: 1"=5'			Vert: 1"=5'						Halapueno Street											
Project No: 5B23978									Phone (575) 689-7040											
COG									www.soudersmiller.com									COG-JENKINS_B_FEDERAL_#7		
									Serving the Southwest & Rocky Mountains											

TABLE 1

RELEASE INFORMATION AND SITE RANKING

Table 1: Release information and Site Ranking

Name	Jenkins B Federal #7				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-2834	30-015-29451	SW/NE (Unit E)	Section 20	T 17S, R 30E NMPM
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Reported by	Amanda Trujillo, COG Operating LLC				
Land Owner	Federal				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Flow line failure				
Released Material	Produced Water and Oil				
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Recovered Volume	24 bbls Produced Water and 4 bbls Oil				
Net Release	1 bbls Produced Water and 1 bbls Oil				
Nearest Waterway	Pecos River is over 18 miles west of the location.				
Depth to Groundwater	Estimated to be 80 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	10				
SMA Response Dates	Initial: April 28, 2015 Mitigation Activities:				
Subcontractors	TCS				
Disposal Facility	Lea Land, LLC				
Estimated Yd ³ Contaminated Soil Excavated and Disposed	864 (Reported on Completed C-138)				

TABLE 2

SUMMARY OF FIELD SCREENING

Enterprise Productions
Table 3: Summary of Excavation Field Screening Results

Jenkins B Federal #7
Produce Water
7/8/15

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Reading	Lab Sample Collected Y/N
5/28/2015	11:45	J1	3'	4395	Y
5/28/2015	11:45	J2	3'	2339	Y
5/28/2015	11:45	J3	2'	3686	Y
5/28/2015	11:45	J4	2'	638	Y
5/28/2015	11:45	J5	22"	1134	Y
5/28/2015	11:45	J6	5.5'	964	Y
5/28/2015	11:45	J7	5.5'	1418	Y
5/28/2015	11:45	J8	5.5'	5388	Y
5/28/2015	11:45	J9	7'	4821	Y
5/28/2015	11:45	J10	8.5'	638	Y



TABLE 3

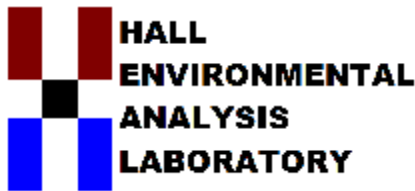
SUMMARY OF LABORATORY ANALYSES

Table 3: Summary of Laboratory Analyses

Analytical Report- 15,065,351,506,009	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1506535-001	C1	6/1/2015	1'-4'	BDL	BDL	BDL	BDL	210
1506535-002	C2	6/1/2015	1'-4'	BDL	BDL	BDL	BDL	58
1506535-003	C3	6/1/2015	1'-2'	BDL	BDL	BDL	11	BDL
1506009-001	J10	5/28/2015	8.5'	N/A	N/A	N/A	N/A	1100
1506009-002	J4	5/28/2015	2'	N/A	N/A	N/A	N/A	740
1506009-003	J6	5/28/2015	4'	N/A	N/A	N/A	N/A	1300

APPENDIX A

LABORATORY ANALYTICAL REPORTS



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

June 09, 2015

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Jenkins #7

OrderNo.: 1506009

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/1/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506009**

Date Reported: **6/9/2015**

CLIENT: Souder, Miller & Associates

Client Sample ID: J10

Project: Jenkins #7

Collection Date: 5/28/2015 11:00:00 AM

Lab ID: 1506009-001

Matrix: SOIL

Received Date: 6/1/2015 8:42:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: TOM
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/3/2015	19514
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1100	30		mg/Kg	20	6/5/2015 7:15:57 PM	19567
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	6/2/2015 8:44:04 PM	19486
Benzene	ND	0.050		mg/Kg	1	6/2/2015 8:44:04 PM	19486
Toluene	ND	0.050		mg/Kg	1	6/2/2015 8:44:04 PM	19486
Ethylbenzene	ND	0.050		mg/Kg	1	6/2/2015 8:44:04 PM	19486
Xylenes, Total	ND	0.10		mg/Kg	1	6/2/2015 8:44:04 PM	19486
Surr: 4-Bromofluorobenzene	98.2	80-120		%REC	1	6/2/2015 8:44:04 PM	19486

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506009**

Date Reported: **6/9/2015**

CLIENT: Souder, Miller & Associates

Client Sample ID: J4

Project: Jenkins #7

Collection Date: 5/28/2015 11:00:00 AM

Lab ID: 1506009-002

Matrix: SOIL

Received Date: 6/1/2015 8:42:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: TOM
Petroleum Hydrocarbons, TR	3600	200		mg/Kg	10	6/3/2015	19514
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	740	30		mg/Kg	20	6/5/2015 7:28:22 PM	19567
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.39		mg/Kg	4	6/2/2015 9:12:49 PM	19486
Benzene	ND	0.20		mg/Kg	4	6/2/2015 9:12:49 PM	19486
Toluene	ND	0.20		mg/Kg	4	6/2/2015 9:12:49 PM	19486
Ethylbenzene	ND	0.20		mg/Kg	4	6/2/2015 9:12:49 PM	19486
Xylenes, Total	ND	0.39		mg/Kg	4	6/2/2015 9:12:49 PM	19486
Surr: 4-Bromofluorobenzene	103	80-120		%REC	4	6/2/2015 9:12:49 PM	19486

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506009**

Date Reported: **6/9/2015**

CLIENT: Souder, Miller & Associates

Client Sample ID: J6

Project: Jenkins #7

Collection Date: 5/28/2015 11:00:00 AM

Lab ID: 1506009-003

Matrix: SOIL

Received Date: 6/1/2015 8:42:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: TOM
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/3/2015	19514
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1300	75		mg/Kg	50	6/5/2015 8:05:35 PM	19567
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	6/2/2015 9:41:33 PM	19486
Benzene	ND	0.049		mg/Kg	1	6/2/2015 9:41:33 PM	19486
Toluene	ND	0.049		mg/Kg	1	6/2/2015 9:41:33 PM	19486
Ethylbenzene	ND	0.049		mg/Kg	1	6/2/2015 9:41:33 PM	19486
Xylenes, Total	ND	0.099		mg/Kg	1	6/2/2015 9:41:33 PM	19486
Surr: 4-Bromofluorobenzene	98.2	80-120		%REC	1	6/2/2015 9:41:33 PM	19486

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506009

09-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID	MB-19567		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19567		RunNo:	26642				
Prep Date:	6/4/2015		Analysis Date:	6/4/2015		SeqNo:	793483		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19567		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19567		RunNo: 26642					
Prep Date:	6/4/2015		Analysis Date: 6/4/2015		SeqNo: 793484		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506009

09-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID	MB-19514		SampType:	MBLK		TestCode:	EPA Method 418.1: TPH				
Client ID:	PBS		Batch ID:	19514		RunNo:	26593				
Prep Date:	6/2/2015		Analysis Date:	6/3/2015		SeqNo:	791547		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Petroleum Hydrocarbons, TR	ND	20									

Sample ID	LCS-19514		SampType: LCS		TestCode: EPA Method 418.1: TPH					
Client ID:	LCSS		Batch ID: 19514		RunNo: 26593					
Prep Date:	6/2/2015		Analysis Date: 6/3/2015		SeqNo: 791548		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	105	86.7	126			

Sample ID	LCSD-19514		SampType: LCSD		TestCode: EPA Method 418.1: TPH					
Client ID:	LCSS02		Batch ID: 19514		RunNo: 26593					
Prep Date:	6/2/2015		Analysis Date: 6/3/2015		SeqNo: 791549		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	109	86.7	126	3.94	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506009

09-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID	MB-19486		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19486		RunNo: 26568					
Prep Date:	6/1/2015		Analysis Date: 6/2/2015		SeqNo: 790542		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	80	120			

Sample ID	LCS-19486		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19486		RunNo: 26568					
Prep Date:	6/1/2015		Analysis Date: 6/2/2015		SeqNo: 790543		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.90	0.10	1.000	0	89.6	69.8	143			
Benzene	0.98	0.050	1.000	0	97.6	76.6	128			
Toluene	0.96	0.050	1.000	0	96.4	75	124			
Ethylbenzene	0.99	0.050	1.000	0	99.1	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	98.7	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	1505D10-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	BatchQC		Batch ID: 19486		RunNo: 26568					
Prep Date:	6/1/2015		Analysis Date: 6/2/2015		SeqNo: 790546		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.099	0.9881	0	104	71.8	123			
Benzene	1.1	0.049	0.9881	0	108	69.2	126			
Toluene	1.1	0.049	0.9881	0.01001	106	65.6	128			
Ethylbenzene	1.1	0.049	0.9881	0	110	65.5	138			
Xylenes, Total	3.2	0.099	2.964	0.01914	109	63	139			
Surr: 4-Bromofluorobenzene	1.1		0.9881		108	80	120			

Sample ID	1505D10-002AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	BatchQC		Batch ID: 19486		RunNo: 26568					
Prep Date:	6/1/2015		Analysis Date: 6/2/2015		SeqNo: 790547		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.90	0.099	0.9862	0	91.0	71.8	123	13.3	21.2	
Benzene	0.99	0.049	0.9862	0	100	69.2	126	7.77	18.5	
Toluene	1.0	0.049	0.9862	0.01001	100	65.6	128	5.75	20.6	
Ethylbenzene	1.0	0.049	0.9862	0	104	65.5	138	5.51	20.1	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| 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 |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506009

09-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID		1505D10-002AMSD			SampType: MSD		TestCode: EPA Method 8021B: Volatiles				
Client ID:		BatchQC		Batch ID:		19486		RunNo: 26568			
Prep Date:		6/1/2015		Analysis Date:		6/2/2015		SeqNo: 790547		Units: mg/Kg	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total		3.1	0.099	2.959	0.01914	103	63	139	5.84	21.1	
Surr: 4-Bromofluorobenzene		1.0		0.9862		104	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1506009

RcptNo: 1

Received by/date: *JA 06/01/15*

Logged By: Anne Thorne

6/1/2015 8:42:00 AM

Anne Thorne

Completed By: Anne Thorne

6/1/2015

Anne Thorne

Reviewed By: *[Signature]*

06/01/15

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

Person Notified:	<u>AUSTIN WEYANT</u>	Date:	<u>6/1/2015</u>
By Whom:	<u>Anne Thorne</u>	Via:	<input type="checkbox"/> eMail <input checked="" type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<u>SAMPLE TEMPERATUARE-22.4</u>		
Client Instructions:	<u>PROCEED WITH ANALYSIS</u>		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	22.4	Good	Yes			



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

June 16, 2015

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Jenkins #7

OrderNo.: 1506535

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/10/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506535**Date Reported: **6/16/2015****CLIENT:** Souder, Miller & Associates**Client Sample ID:** C1**Project:** Jenkins #7**Collection Date:** 6/1/2015 12:00:00 PM**Lab ID:** 1506535-001**Matrix:** SOIL**Received Date:** 6/10/2015 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	210	30		mg/Kg	20	6/15/2015 11:18:57 AM	19726
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/15/2015 2:13:41 PM	19701
Surr: DNOP	93.0	57.9-140		%REC	1	6/15/2015 2:13:41 PM	19701
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/15/2015 10:26:44 AM	19702
Surr: BFB	88.6	75.4-113		%REC	1	6/15/2015 10:26:44 AM	19702
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	6/15/2015 10:26:44 AM	19702
Benzene	ND	0.050		mg/Kg	1	6/15/2015 10:26:44 AM	19702
Toluene	ND	0.050		mg/Kg	1	6/15/2015 10:26:44 AM	19702
Ethylbenzene	ND	0.050		mg/Kg	1	6/15/2015 10:26:44 AM	19702
Xylenes, Total	ND	0.099		mg/Kg	1	6/15/2015 10:26:44 AM	19702
Surr: 4-Bromofluorobenzene	93.1	80-120		%REC	1	6/15/2015 10:26:44 AM	19702

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506535**

Date Reported: **6/16/2015**

CLIENT: Souder, Miller & Associates

Client Sample ID: C2

Project: Jenkins #7

Collection Date: 6/1/2015 12:00:00 PM

Lab ID: 1506535-002

Matrix: SOIL

Received Date: 6/10/2015 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	58	30		mg/Kg	20	6/15/2015 11:56:12 AM	19726
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/15/2015 3:34:38 PM	19701
Surr: DNOP	96.7	57.9-140		%REC	1	6/15/2015 3:34:38 PM	19701
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2015 10:55:28 AM	19702
Surr: BFB	89.4	75.4-113		%REC	1	6/15/2015 10:55:28 AM	19702
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	6/15/2015 10:55:28 AM	19702
Benzene	ND	0.049		mg/Kg	1	6/15/2015 10:55:28 AM	19702
Toluene	ND	0.049		mg/Kg	1	6/15/2015 10:55:28 AM	19702
Ethylbenzene	ND	0.049		mg/Kg	1	6/15/2015 10:55:28 AM	19702
Xylenes, Total	ND	0.098		mg/Kg	1	6/15/2015 10:55:28 AM	19702
Surr: 4-Bromofluorobenzene	94.9	80-120		%REC	1	6/15/2015 10:55:28 AM	19702

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506535**

Date Reported: **6/16/2015**

CLIENT: Souder, Miller & Associates

Client Sample ID: C3

Project: Jenkins #7

Collection Date: 6/1/2015 12:00:00 PM

Lab ID: 1506535-003

Matrix: SOIL

Received Date: 6/10/2015 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	6/15/2015 12:33:26 PM	19726
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	11	10		mg/Kg	1	6/15/2015 4:01:58 PM	19701
Surr: DNOP	97.0	57.9-140		%REC	1	6/15/2015 4:01:58 PM	19701
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2015 11:24:12 AM	19702
Surr: BFB	89.2	75.4-113		%REC	1	6/15/2015 11:24:12 AM	19702
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	6/15/2015 11:24:12 AM	19702
Benzene	ND	0.049		mg/Kg	1	6/15/2015 11:24:12 AM	19702
Toluene	ND	0.049		mg/Kg	1	6/15/2015 11:24:12 AM	19702
Ethylbenzene	ND	0.049		mg/Kg	1	6/15/2015 11:24:12 AM	19702
Xylenes, Total	ND	0.099		mg/Kg	1	6/15/2015 11:24:12 AM	19702
Surr: 4-Bromofluorobenzene	93.5	80-120		%REC	1	6/15/2015 11:24:12 AM	19702

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506535

16-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID	MB-19726		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19726		RunNo:	26845				
Prep Date:	6/15/2015		Analysis Date:	6/15/2015		SeqNo:	801215		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19726		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19726		RunNo: 26845					
Prep Date:	6/15/2015		Analysis Date: 6/15/2015		SeqNo: 801216		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506535

16-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID	MB-19701		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19701		RunNo: 26826					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800379		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		106	57.9	140			

Sample ID	LCS-19701		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19701		RunNo: 26826					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800380		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	67.8	130			
Surr: DNOP	5.6		5.000		111	57.9	140			

Sample ID	1506535-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	C1		Batch ID: 19701		RunNo: 26826					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800442		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.8	49.21	6.878	87.8	42.3	146			
Surr: DNOP	4.7		4.921		94.6	57.9	140			

Sample ID	1506535-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	C1		Batch ID: 19701		RunNo: 26826					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800443		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.35	6.878	85.7	42.3	146	0.0648	28.9	
Surr: DNOP	4.7		5.035		92.5	57.9	140	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506535

16-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID	MB-19702		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19702		RunNo: 26837					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800493		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	880		1000		88.1	75.4	113			

Sample ID	LCS-19702		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19702		RunNo: 26837					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800494		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	64	130			
Surr: BFB	960		1000		95.6	75.4	113			

Sample ID	1506535-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	C1		Batch ID: 19702		RunNo: 26837					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800496		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.27	0	111	47.9	144			
Surr: BFB	950		970.9		97.7	75.4	113			

Sample ID	1506535-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	C1		Batch ID:	19702		RunNo:	26837				
Prep Date:	6/12/2015		Analysis Date:	6/15/2015		SeqNo:	800497		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	26	4.9	24.37	0	108	47.9	144	2.14	29.9		
Surr: BFB	960		974.7		98.9	75.4	113	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506535

16-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID	MB-19702		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19702		RunNo: 26837					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800524		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.4	80	120			

Sample ID	LCS-19702		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19702		RunNo: 26837					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800525		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	102	69.8	143			
Benzene	1.1	0.050	1.000	0	111	76.6	128			
Toluene	1.1	0.050	1.000	0	108	75	124			
Ethylbenzene	1.1	0.050	1.000	0	108	79.5	126			
Xylenes, Total	3.2	0.10	3.000	0	107	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	1506535-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	C2		Batch ID: 19702		RunNo: 26837					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800528		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.89	0.097	0.9681	0	92.1	71.8	123			
Benzene	0.97	0.048	0.9681	0	100	69.2	126			
Toluene	0.96	0.048	0.9681	0	99.7	65.6	128			
Ethylbenzene	0.99	0.048	0.9681	0	102	65.5	138			
Xylenes, Total	2.9	0.097	2.904	0	102	63	139			
Surr: 4-Bromofluorobenzene	1.0		0.9681		104	80	120			

Sample ID	1506535-002AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	C2		Batch ID: 19702		RunNo: 26837					
Prep Date:	6/12/2015		Analysis Date: 6/15/2015		SeqNo: 800529		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.95	0.098	0.9843	0	96.0	71.8	123	5.80	21.2	
Benzene	1.0	0.049	0.9843	0	102	69.2	126	3.75	18.5	
Toluene	1.0	0.049	0.9843	0	101	65.6	128	3.36	20.6	
Ethylbenzene	1.0	0.049	0.9843	0	105	65.5	138	4.50	20.1	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| 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 |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506535

16-Jun-15

Client: Souder, Miller & Associates

Project: Jenkins #7

Sample ID		1506535-002AMSD			SampType: MSD		TestCode: EPA Method 8021B: Volatiles				
Client ID:		C2		Batch ID:		19702		RunNo: 26837			
Prep Date:		6/12/2015		Analysis Date:		6/15/2015		SeqNo: 800529		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Xylenes, Total	3.1	0.098	2.953	0	104	63	139	3.79	21.1		
Surr: 4-Bromofluorobenzene	1.0		0.9843		105	80	120	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1506535

RcptNo: 1

Received by/date: JA 06/10/15

Logged By: Celina Sessa 6/10/2015 8:50:00 AM

Completed By: Celina Sessa 6/11/2015 9:53:14 AM

Reviewed By: Jm 06/11/15

Celina Sessa

Celina Sessa

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.6	Good	Yes			

APPENDIX B

FORM C141 FINAL

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: Jenkins B Federal #7	Facility Type: Wellhead

Surface Owner: Federal	Mineral Owner:	API No. 30-015-29451
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LOCATION OF RELEASE

Unit Letter E	Section 20	Township 17S	Range 30E	Feet from the 1650	North/South Line North	Feet from the 1090	East/West Line West	County Eddy
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Latitude32.8228242435965 **Longitude** -103.999198214662

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 5 bbls Oil; 25 bbls PW	Volume Recovered: 4 bbls Oil; 24 bbls PW
Source of Release: Poly Flowline	Date and Hour of Occurrence: 1/30/2015 11:00 am	Date and Hour of Discovery: 1/30/2015 11:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher – NMOCD / Jeff Robertson - BLM	
By Whom? Amanda Trujillo	Date and Hour: 1/30/2015 5:53 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*


Describe Cause of Problem and Remedial Action Taken.*

This release was caused when a weld failed on a poly flowline. Vacuum trucks were dispatched to recover the standing fluid and dispose of at an NMOCD approved facility. The flowline was repaired.

Describe Area Affected and Cleanup Action Taken.*

This release impacted the nearby pasture area. The approved workplan was completed under NMOCD and BLM guidance.

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Amanda Trujillo		
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: atrujillo@concho.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: July 16, 2015 Phone: 575-748-6940		

* Attach Additional Sheets If Necessary

APPENDIX C

CULTURAL RESOURCES SURVEY

NMCRI INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRI Activity No.: 133417	2a. Lead (Sponsoring) Agency: Bureau of Land Management-Carlsbad Field Office	2b. Other Permitting Agency(ies): N/A	3. Lead Agency Report No.: N/A															
4. Title of Report: Cultural Resource Survey Report for Souder Miller and Associates of Two Disturbed Locations (0.80 Acres) near Loco Hills within Sections 20, Township 17 South, Range 30 East in Eddy County, New Mexico Author(s) Michael Stowe, M.A., RPA			5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive															
6. Investigation Type <input type="checkbox"/> Research Design <input checked="" type="checkbox"/> Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study <input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic study <input type="checkbox"/> Site specific visit <input type="checkbox"/> Other																		
7. Description of Undertaking (what does the project entail?): The project was defined as the survey of two disturbed locations (0.80 Acres) near Loco Hills within Sections 20, Township 17 South, Range 30 East in Eddy County, New Mexico. The northern most parcel is located just to the northwest of the town of Loco Hills and measures roughly 0.63 acres and has been severely impacted by existing roadways and various oil and gas industry activities. The second parcel is located just southwest of the town of Loco Hills and measures 0.20 acres and is immediately adjacent (east) of an existing well pad location and has been severely impacted due to the proximity to this well location and associated oil and gas activities. Project area lands surveyed for the project area are owned and administered by the Bureau of Land Management-Carlsbad field office.		8. Dates of Investigation: (from: 5/17/2015 to: 5/17/2015) 9. Report Date: May 20, 2015																
10. Performing Agency/Consultant: Advanced Archaeological Solutions (ADAS) Principal Investigator: Michael Stowe, M.A., RPA Field Supervisor: Michael Stowe, M.A., RPA Field Personnel Names: Michael Stowe, M.A., RPA		11. Performing Agency/Consultant Report No.: AAS 15-327 12. Applicable Cultural Resource Permit No(s): 216-2920-06B, NM State Permit 15-172																
13. Client/Customer (project proponent): Souder Miller and Associates Contact: Austin Weyant Address: 201 South Halagueno Carlsbad, New Mexico 88220 Phone: (575) 689-7040		14. Client/Customer Project No.: N/A																
15. Land Ownership Status (<i>Must be indicated on project map</i>): <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Land Owner</th> <th style="text-align: center;">Acres Surveyed</th> <th style="text-align: center;">Acres in APE</th> </tr> </thead> <tbody> <tr> <td>Bureau of Land Management-Carlsbad Field Office</td> <td style="text-align: center;">0.80</td> <td style="text-align: center;">0.80</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;">TOTALS</td> <td style="text-align: center;">0.80</td> <td style="text-align: center;">0.80</td> </tr> </tbody> </table>				Land Owner	Acres Surveyed	Acres in APE	Bureau of Land Management-Carlsbad Field Office	0.80	0.80							TOTALS	0.80	0.80
Land Owner	Acres Surveyed	Acres in APE																
Bureau of Land Management-Carlsbad Field Office	0.80	0.80																
TOTALS	0.80	0.80																
16. Records Search(es): <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Date(s) of ARMS File Review 5/10/15</td> <td style="width: 30%;">Name of Reviewer(s) M.Stowe</td> <td style="width: 30%;"></td> </tr> <tr> <td>Date(s) of NR/SR File Review 5/10/15</td> <td>Name of Reviewer(s) M.Stowe</td> <td></td> </tr> <tr> <td>Date(s) of Other Agency File Review 5/20/15</td> <td>Name of Reviewer(s) M.Stowe</td> <td>Agency BLM-Carlsbad, per email with Hila Nelson</td> </tr> </table>				Date(s) of ARMS File Review 5/10/15	Name of Reviewer(s) M.Stowe		Date(s) of NR/SR File Review 5/10/15	Name of Reviewer(s) M.Stowe		Date(s) of Other Agency File Review 5/20/15	Name of Reviewer(s) M.Stowe	Agency BLM-Carlsbad, per email with Hila Nelson						
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Date(s) of NR/SR File Review 5/10/15	Name of Reviewer(s) M.Stowe																	
Date(s) of Other Agency File Review 5/20/15	Name of Reviewer(s) M.Stowe	Agency BLM-Carlsbad, per email with Hila Nelson																

17. Survey Data:

a. Source Graphics ☒ NAD 27 ☒ NAD 83
☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:
☒ GPS Unit Accuracy ☐ <1.0m ☒ 1-10m ☐ 10-100m ☐ >100m

b. USGS 7.5' Topographic Map Name USGS Quad Code

Loco Hills, NM	32103-G8

c. County(ies): Eddy County

17. Survey Data (continued):

d. Nearest City or Town: Loco Hills, NM

e. Legal Description:

Township (N/S)	Range (E/W)	Section	1/4	1/4	1/4
17South	30 East	20	Central and Southern Portion		

Projected legal description? Yes ☒ , No ☐ Unplatted ☐

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

The proposed project is defined as two disturbed locations (0.80 Acres) near Loco Hills within Sections 20, Township 17 South, Range 30 East in Eddy County, New Mexico. The northern most parcel is located just to the northwest of the town of Loco Hills and measures roughly 0.63 acres and has been severely impacted by existing roadways and various oil and gas industry activities. The second parcel is located just southwest of the town of Loco Hills and measures 0.20 acres and is immediately adjacent (east) of an existing well pad location and has been severely impacted due to the proximity to this well location and associated oil and gas activities. Project area lands surveyed for the project area are owned and administered by the Bureau of Land Management-Carlsbad field office. *Please see attached survey map and BLM record check map for precise locational information and land ownership.*

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverage

Configuration: ☒ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):

Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)

Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

Survey Interval (m): 15 Crew Size: 1 Fieldwork Dates: 5/17/2015 (1 Day)

Survey Person Hours: 1 Recording Person Hours: 0 Total Hours: 1

Additional Narrative:

The project area was delineated by coordinates marked on maps and by engineering flagging tape placed along the corridor route provided by the client, Souder Miller and Associates. Archaeologists used known topographic landmarks and associated project coordinates in conjunction with GPS units to locate accurate project R-O-W boundaries. The Survey crew walked multiple, parallel, non-overlapping transects spaced at approximately 50 ft (15 m) intervals, in accordance with Federal and State guidelines. All cultural resources encountered were documented these resources were categorized as I.O.s (Isolated Occurrences) or archaeological sites.

No new archaeological sites or historic properties (built environment) were encountered during the current survey During a preliminary records search of state and federal files five archaeological sites were noted within 1/2 mile of the project area (see attached table for brief site description, size and eligibility determination). All five of these previously recorded sites are located well outside (located a minimum of 500 meters away from proposed undertaking) of the proposed project pipeline ROW area (proposed area of potential effect) and will not be affected by this undertaking.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):

The project area is located within a dunal desert rangeland that has been impacted by numerous sheetwashing events and wind erosion. The topography consists of mesquite, yucca and grass stabilized sand sheet with few intermixed gravels. The vegetation consists of mesquite, yucca, and assorted range grasses and forbs which provide 75-100 percent surface visibility. The soils consist of light tan silty sand with a large amount of intermixed caliche gravels. Elevation within the project area is approximately 3580 and 3600 feet above mean sea level (AMSL).

20. a. Percent Ground Visibility: 75-100 percent b. Condition of Survey Area (grazed, bladed, undisturbed, etc.): Disturbed (roughly 95% of survey area is previously disturbed) and portions of undisturbed, large portions of the project area have been impacted by activities associated with bladed dirt roadways (located within immediate proximity of bladed caliche capped road). In addition, a large portion of the project is bordered by existing buried gas pipelines as well as numerous above ground poly pipelines and existing well pads and oil industry site areas.	
21. CULTURAL RESOURCE FINDINGS <input type="checkbox"/> Yes, See Page 3 <input checked="" type="checkbox"/> No, Discuss Why: Sterile of cultural materials due in large part to a majority of the project area having been disturbed by various previous oil and gas activities and roadways.	
22. Required Attachments (check all appropriate boxes): <input checked="" type="checkbox"/> USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn <input checked="" type="checkbox"/> Copy of NMCRIS Mapserver Map Check <input type="checkbox"/> LA Site Forms - new sites (<i>with sketch map & topographic map</i>) <input type="checkbox"/> LA Site Forms (update) - previously recorded & un-relocated sites (<i>first 2 pages minimum</i>) <input type="checkbox"/> Historic Cultural Property Inventory Forms <input type="checkbox"/> List and Description of isolates, if applicable <input type="checkbox"/> List and Description of Collections, if applicable	23. Other Attachments: <input type="checkbox"/> Photographs and Log <input checked="" type="checkbox"/> Other Attachments (Describe): BLM Record Check Map
24. I certify the information provided above is correct and accurate and meets all applicable agency standards. Principal Investigator/Responsible Archaeologist: Michael Stowe, M.A., RPA <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 40%;"> Signature </div> <div style="width: 20%;"> Date <u>5/20/15</u> </div> <div style="width: 40%;"> Title (if not PI): Principal Investigator </div> </div>	
25. Reviewing Agency: Reviewer's Name/Date Accepted () Rejected () Tribal Consultation (if applicable): <input type="checkbox"/> Yes <input type="checkbox"/> No	26. SHPO Reviewer's Name/Date: HPD Log #: SHPO File Location: Date sent to ARMS:

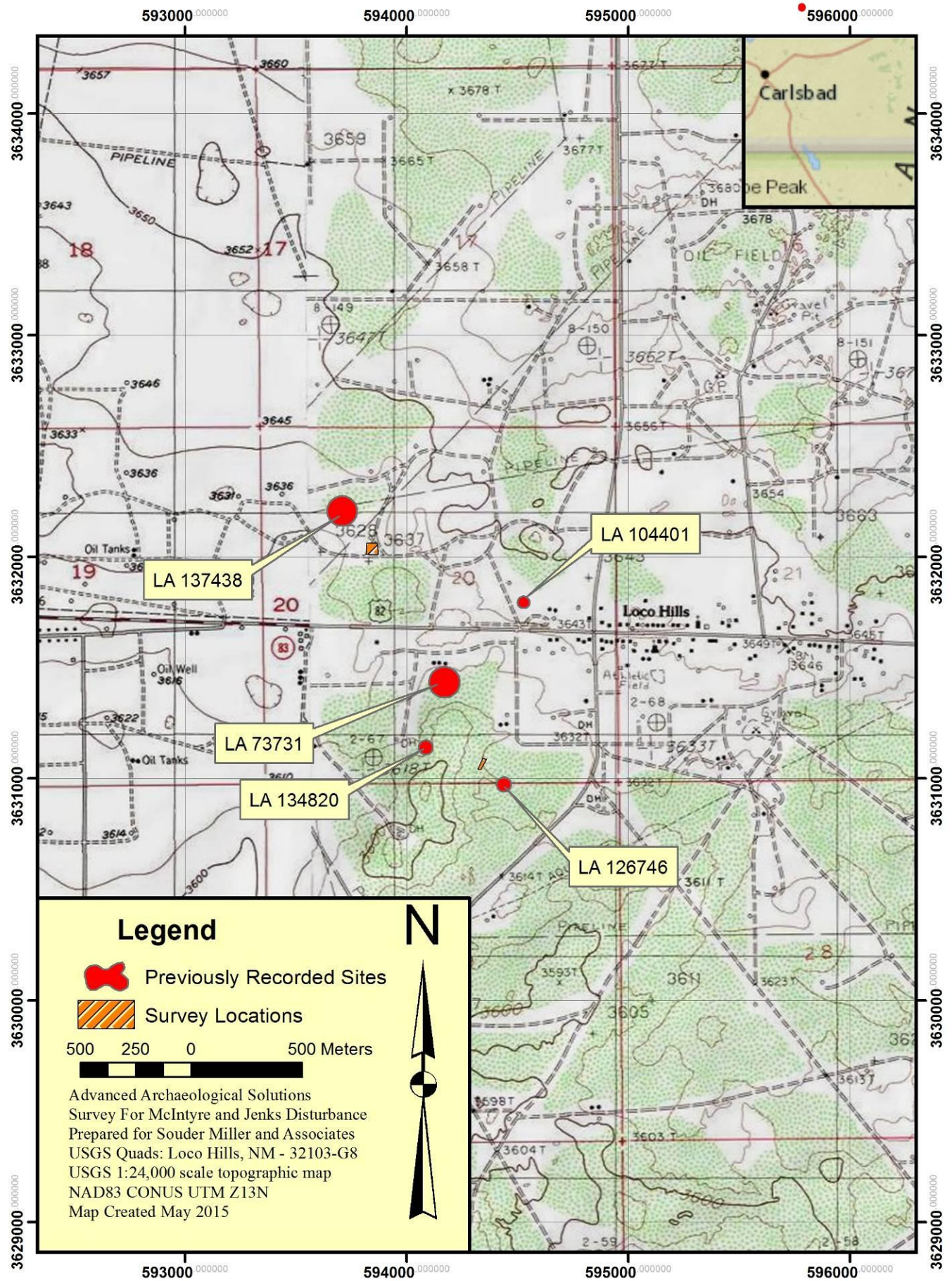
CULTURAL RESOURCE FINDINGS

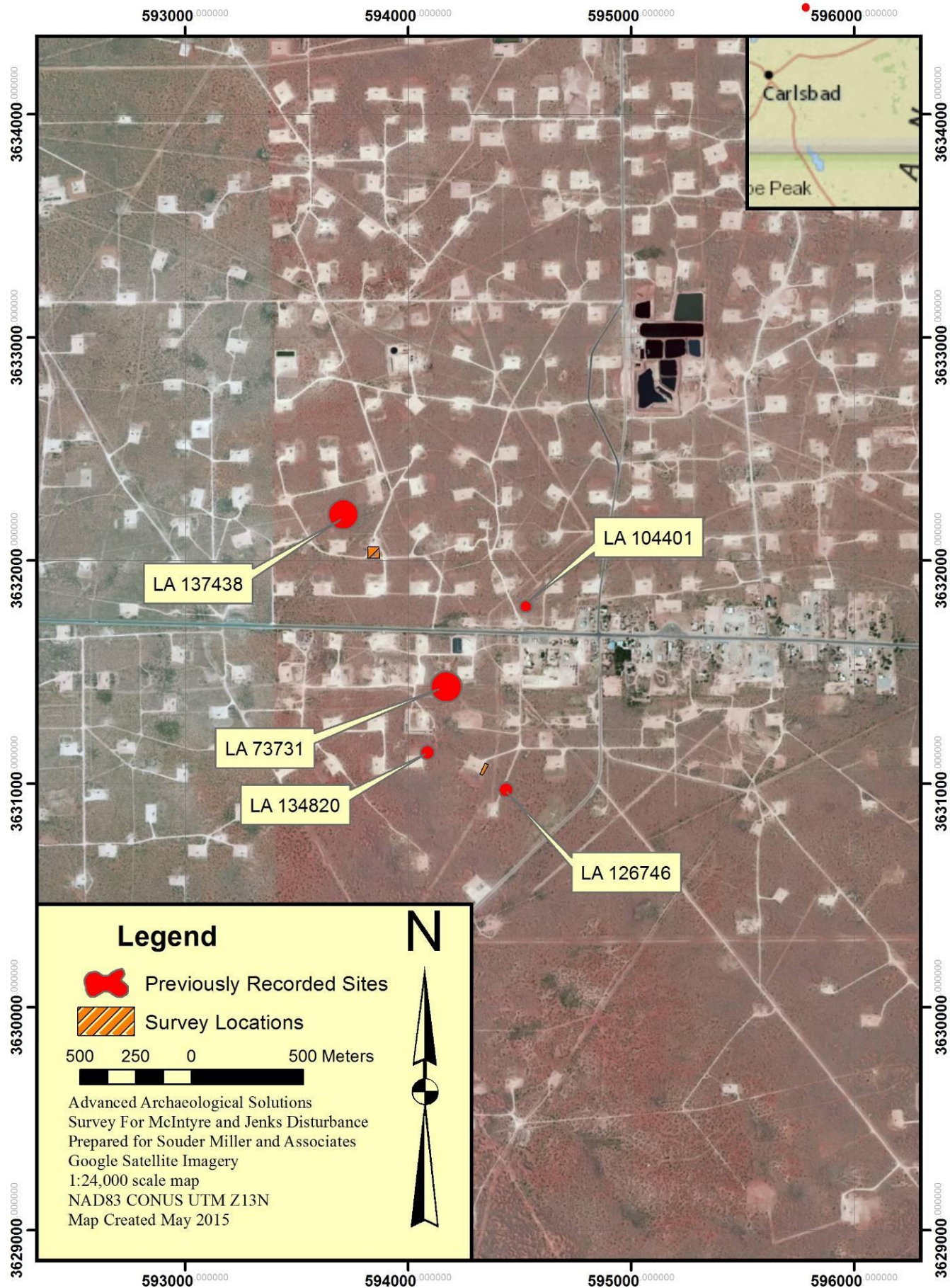
[fill in appropriate section(s)]

1. NMCRIS Activity No.: 133417	2. Lead (Sponsoring) Agency: BLM- Carlsbad Field Office	3. Lead Agency Report No.: N/A
SURVEY RESULTS: Sites discovered and registered: 0 Sites discovered and NOT registered: 0 Previously recorded sites revisited (<i>site update form required</i>): 0 Previously recorded sites not relocated (<i>site update form required</i>): 0 TOTAL SITES VISITED: 0 Total isolates recorded: 0 Non-selective isolate recording? <input type="checkbox"/> Total structures recorded (<i>new and previously recorded, including acequias</i>): 0		
MANAGEMENT SUMMARY: No new archaeological sites or historic properties (built environment) were encountered during the current survey. Additionally, no isolated occurrences were observed within the survey area. During a preliminary records search of state and federal files five archaeological sites were noted within ½ mile of the project area (see attached table for brief site description, size and eligibility determination). All five of these previously recorded sites are located well outside (located a minimum of 500 meters away from proposed undertaking) of the proposed project pipeline ROW area (proposed area of potential effect) and will not be affected by this undertaking. Archaeological clearance for Two Disturbed Locations (0.80 Acres) near Loco Hills within Sections 20, Township 17 South, Range 30 East in Eddy County, New Mexico is recommended to proceed as currently staked. The BLM and Advanced Archaeological Solutions should be immediately notified if cultural resources are encountered during the construction phase of this undertaking.		

Previously Recorded Sites located within ½ Mile of the Jenks/ McIntyre Survey Area

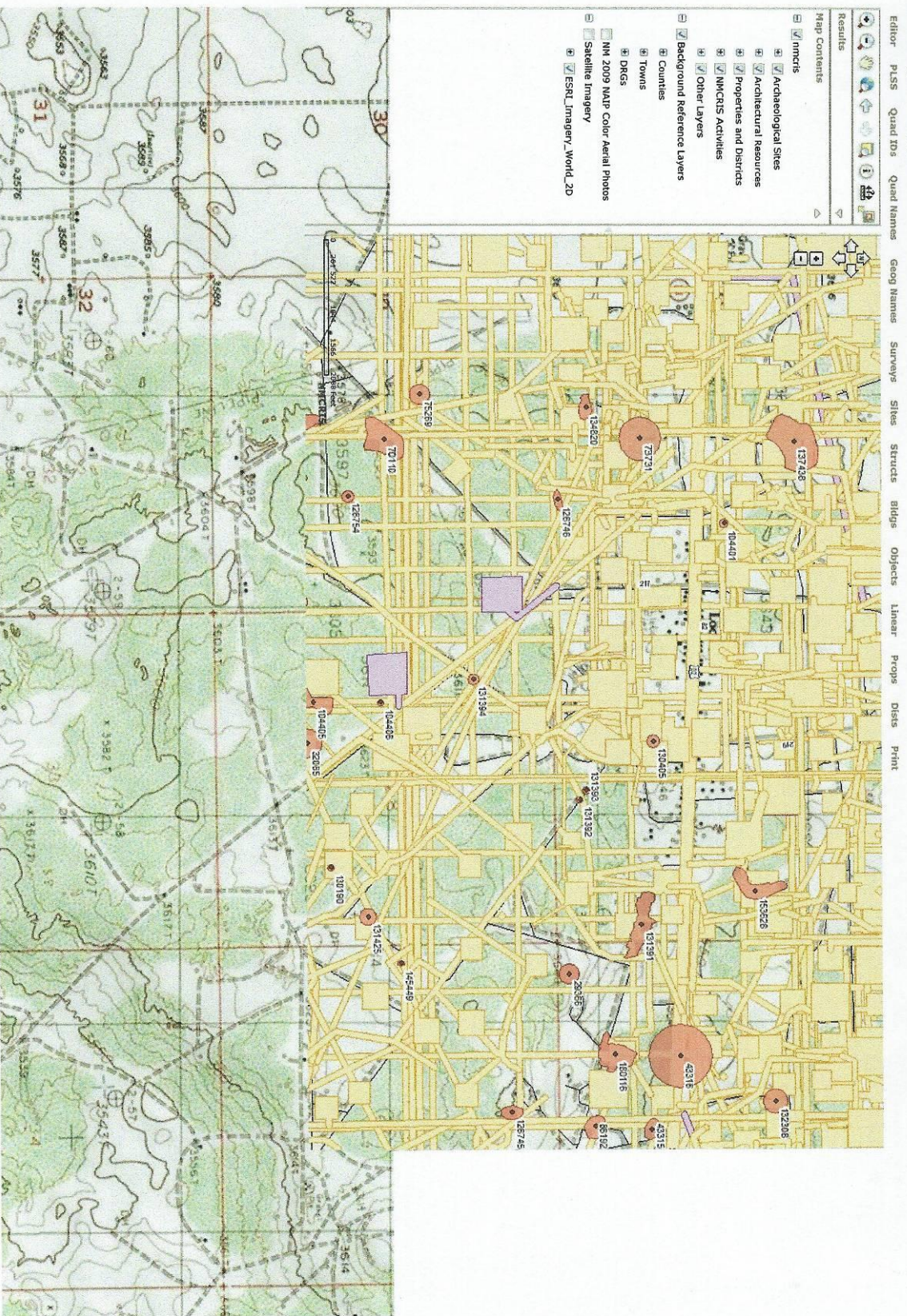
<i>LA Number</i>	<i>Size (sq m)</i>	<i>Temporal Affiliation</i>	<i>NRHP Eligibility</i>	<i>Comments</i>
104401	1200	Early Pithouse through Late Pithouse (A.D. 650-1150)	Undetermined	Roughly 100's of artifacts that include lithic debitage, ceramics, ground stone and a scatter of FCR noted throughout the site area. No features were noted within the site area.
137438	43200	Historic Period	Not Eligible	Roughly 1000's of historic artifacts that include diagnostic glass artifacts as well as many types and colors of glass shards, historic ceramics and miscellaneous historic trash. One windmill, corral, dump and structure. Site has been severely impacted.
73731	20000	Early Pithouse through Late Pithouse (A.D. 200-850)	Eligible, Criterion D	Roughly 1000's of artifacts that include lithic debitage, chipped-stone tools, diagnostic projectile points, ground stone and a scatter of FCR noted throughout the site area. Trowel tests indicate subsurface deposits to 5-10 cm below surface. Two FCR features noted.
126746	3990	Late Pithouse through Late Pueblo (A.D. 1150-1450)	Eligible, Criterion D	Roughly 1000's of artifacts that include lithic debitage, chipped-stone tools, diagnostic projectile points, ground stone and a scatter of FCR noted throughout the site area. Trowel tests indicate subsurface deposits to 5-10 cm below surface. Two FCR features noted.
134820	3160	Historic Period	Eligible, Criterion D	Roughly 10,000's of historic artifacts that include diagnostic glass artifacts as well as many types and colors of glass shards, historic ceramics and miscellaneous historic trash.





NMCRIS Core Spatial Application

[CTA Training and Documentation](#)
[Web Mapping Application Help](#)



<https://nmcris.dca.state.nm.us/nmcrisgis/default.aspx?username=MASTOWE2&password=TWfZcyMxOTcz>

5/18/2015

