AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.

App Number: pJK1424833743

3RP - 1014

ENTERPRISE PRODUCTS OPERATING, LLC

9/21/2017

3R-1012

Release Report/ General Correspondence

Enterprise RA

Date: Apr-Jun 2017

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.

OIL CONS. DIV DIST. 3

APR 10 2017

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Lateral 2C-80**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Jicarilla Apache Tribe**	Mineral Owner: **Jicarilla Apache Tribe**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South	Feet from	East/West	County
P	**20**	**23N**	**3W**	the ~1700	Line	the	Line ~300	**Rio Arriba**

Latitude 36.2065 Longitude 107.1833

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: **Unknown**	Volume Recovered: **None**
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: **3/27/2017 @ 3:52 p.m.**	Date and Hour of Discovery: **3/27/2017 @ 3:52 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Notification: Cory Smith – NMOCD; Hobson Sandoval - JAEPO	
By Whom? Thomas Long	Date and Hour March 28, 2017 @ 9:58 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On March 27, 2017, a third party grading lease roads collided with and severed the Lateral 2C-80 pipeline. There were no injuries or fire. The pipeline was isolated, depressurized, locked out and tagged out. Remediation was immediately initiated and is on-going.

Describe Area Affected and Cleanup Action Taken.* Repairs and remediation are currently in progress. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

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: Jon E. Fields

Printed Name: Jon E. Fields

Title: Director, Environmental

E-mail Address:jefields@eprod.com

Date: 4/4/2017 Phone: (713)381-6684

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 5/11/17 Expiration Date:

Conditions of Approval: Sample for TPH MRO/DRO/GRO Btex

Attached ☒

* Attach Additional Sheets If Necessary #NCS1713151655

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 4/10/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NCS1713151655 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in Aztec on or before N/A. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

District I
1625 N. French Dr., Hobbs, NM 88240
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Form C-141
Revised August 8, 2011

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

OIL CONS. DIV DIST. 3

APR 10 2017

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Enterprise Field Services, LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **MA 16 Inch Pig Receiver**	Facility Type: **Natural Gas Gathering Pipeline Pig Receiver**

Surface Owner: **BLM**	Mineral Owner: **BLM**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from the	East/West Line	County
H	**22**	**30N**	**7W**	the 1411			903	**Rio Arriba**

Latitude 36.801549 Longitude 107.552406

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: **Greater than 25 BBLs**	Volume Recovered: **None**
Source of Release: Human Error	Date and Hour of Occurrence: **3/29/2017 @ 5:30 p.m.**	Date and Hour of Discovery: **3/29/2017 @ 5:30 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Notification: Cory Smith – NMOCD; Whitney Thomas - BLM	
By Whom? Thomas Long	Date and Hour March 30, 2017 @ 2:50 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On March 29, 2017, Employee was waiting at the Sims Mesa pig receiver for the MA 16" pig to arrive. While waiting, the employee decided to repair a pig signal on the upstream (pressurized) side of the pig receiver barrel. The removed the bolts secured the signal to the piping. Once removed, the pig signal and produced water was ejected out of the top of the piping.

Describe Area Affected and Cleanup Action Taken.* A sampling plan has been submitted and approved by NMOCD. Upon favorable weather conditions, soil samples for laboratory analysis will be collected from affected areas to evaluated impacts and determine potential remediation action. A third party report will be included with the "Final." C-141.

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: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 5/11/17 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Sample for TPH (GRO-GRO-DRO) Btex, Chlorides Attached ☒
Date: 4/4/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary #nCS1713152930

(3)

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 4/10/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NRS1713152930 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in Aztec on or before N/A. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

District I
1625 N. French Dr., Hobbs, NM 88240
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Energy Minerals and Natural Resources

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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: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Frances Mesa Compressor Station**	Facility Type: **Natural Gas Compressor Station**

Surface Owner: **BLM**	Mineral Owner: **BLM**	Serial Number: **N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South	Feet from	East/West	County
N	**27**	**30N**	**7W**	the **1240**	Line	the **1375**	Line	**Rio Arriba**

Latitude 36.779784 Longitude -107.562634

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: **31 MCF Gas**	Volume Recovered: **None**
Source of Release: Produced Water Tank	Date and Hour of Occurrence: **5/10/2017 @ 2:00 p.m.**	Date and Hour of Discovery: **5/17/2017 @ 5:00 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Courtesy Notification Cory Smith, NMOCD	
By Whom? Thomas Long	Date and Time May 11, 2016 @ 9:15 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

OIL CONS. DIV DIST. 3
MAY 26 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On May 10, 2017 at approximately 2:00 p.m. an Enterprise Compression Technician received a call from a Conoco Phillips employee stating that there was a fire at the top of the Frances Mesa Station Produced Water Tank. The employee, along with a measurement technician, arrived at the station and verified the fire. The station was already shut-down at the time due to ongoing maintenance. Supervision was notified and contacted the San Juan County fire department. The technician began looking for any possible sources of flammable gases going into the tank. It was discovered that the slug catcher at the pig receiver, located outside the facility, had a manual drain valve leaking. This drained the slug catcher into the produced water tank inside the station. The receiver was isolated and blown down. Fire department personnel which rode to the station with the Enterprise supervisor arrived at 16:30. They determined they would not be able to get their engines to the station due to road conditions. The tank was monitored for an additional 30 minutes and all personnel left the site when it was deemed safe.

Describe Area Affected and Cleanup Action: None

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: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Field Environmental	Approval Date: 7/25/17 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☐ —
Date: 5/20/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS1720656041

1

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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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 Enterprise Field Services, LLC.	Contact: Thomas Long
Address 614 Reilly Ave., Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: San Juan 27-5 #133 Well Tie	Facility Type: Natural Gas Gathering Line

Surface Owner: Private	Mineral Owner: BLM	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	19	27 N	5W					Rio Arriba

Latitude Longitude:
N 36.55656, W -107.40523 and N 36.55685, W -107.40501

NATURE OF RELEASE

Type of Release: Natural Gas, Condensate and Produced Water	Volume of Release: Gas: 12.6 mcf Liquids: Unknown	Volume Recovered: Approximately 72 Cubic Yards
Source of Release: Internal corrosion of a steel natural gas pipeline.	Date and Hour of Occurrence: September 10, 2013	Date and Hour of Discovery Pipe leak discovered and isolated (LOTO) September 10, 2013.
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RCVD DEC 16 '13
OIL CONS. DIV.
DIST. 3

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* The release was the result of internal corrosion of a steel natural gas pipeline. Due to bad road conditions, access to site to begin excavation could not be made until October 7th. Remediation activities are in progress. Third party environmental contractor will oversee excavation activities and collect closure samples.

Describe Area Affected and Cleanup Action Taken.* Two leaks were discovered along the San Juan 27-5 #133 well tie. The release locations are N 36.55656, W -107.40523 and N 36.55685, W -107.40501. Third party environmental contractor conducted delineation of pipeline release areas to determine potential impact on soils surrounding pipeline. Approximately 72 cubic yards of contaminated soil was excavated and hauled to an OCD permitted landfarm. Third party corrective action report is attached to this "final" c-141 report.

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: Jon Fields	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Jon Fields		
Title: Director - Field Compliance	Approval Date: 4/6/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval: Records clean up.	Attached ☐
Date: 12/9/13 Phone: 713-381-6684		

* Attached Map #NJK1331056464 3R-1012

(62)

Enterprise Products
San Juan 27-5 #133 Pipeline Releases
Latitude North 36.55656, Longitude West -107.40523
Latitude North 36.55685, Longitude West -107.40501
NE ¼, SW ¼ and NW ¼, SW ¼ Section 19 T27N R5W
Rio Arriba County, New Mexico

Submitted To:

Enterprise Products
Field Environmental-San Juan Basin
614 Reilly Avenue
Farmington, NM 87401

Submitted By:

Souder, Miller & Associates
2101 San Juan Boulevard
Farmington, NM 87401
(505) 325-7535

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Figures:

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Appendices:

1.0 Executive Summary

From October 7, 2013 to November 4, 2013, Souder, Miller & Associates (SMA) responded to two hydrocarbon releases associated with the San Juan 27-5 #133 pipeline. The table below summarizes information about the releases and remediation activities.

TABLE 1: RELEASE INFORMATION

Name	San Juan 27-5 #133				
Location	Latitude/Longitude		Section, Township, Range		
	36.55685; 36.55656	-107.40501; -107.40523	Unit K (NE ¼ SW ¼) Unit L (NW ¼ SW ¼)	Section 19	T 27N, R 05W
Date Reported	September 10, 2013				
	Jim Lieb				
Land Owner	Private				
Reported To	New Mexico Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	8 inches				
Source of Release	Internal Corrosion				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume	Unknown				
Nearest Waterway	Carrizo Canyon				
Depth to Groundwater	Assumed to be less than 50 feet				
Nearest Domestic Water Source	Greater than 200 feet				
NMOCD Ranking	30				
SMA Response Dates	10/7/13, 10/8/13, 10/14/13 and 11/4/13				
Subcontractors	West States Energy Contractors (WSEC)				
Disposal Facility	Envirotech Landfarm				
Yd^3 Contaminated Soil Excavated and Disposed	72				

2.0 Introduction

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this report that describes remediation of two hydrocarbon releases associated with the San Juan 27-5 #133 pipeline. The San Juan 27-5 #133 pipeline releases were a result of internal corrosion of the steel pipeline. The releases were reported September 10, 2013. The releases are located approximately 130 feet apart, and are located in Units L (NW ¼, SW ¼) and K (NE ¼, SW ¼) Section 29 Township 27 North, Range 05 West, 36.55685, -107.40501 and 36.55656, -107.40523, Rio Arriba County, New Mexico. Figure 1, Vicinity Map, illustrates the location of the releases.

3.0 Site Ranking and Land Jurisdiction

The release sites are located approximately 800 feet east of Carrizo Canyon on privately owned land with an elevation of approximately 6,360 feet above sea level. After evaluation of the sites using aerial photography and topographic maps, SMA estimates that the depth to groundwater is less than 50 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well data base for water wells in the vicinity of the release. No wells were located in Sections 19, 24, 25 and 30 or within 1 mile of the release locations. The physical location of this release is within the jurisdiction of NMOCD. These release locations have been assigned a NMOCD ranking of 30 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm total benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 2 illustrates site ranking rationale.

4.0 Summary of Field Activities

On October 7, 2013, SMA mobilized to the site, but was called back due to inclement weather. On October 8, 2013, SMA re-mobilized to the site to collect soil samples for field screening with a calibrated PID from each of the excavated areas associated with the releases. Intermittently from October 8, 2013 to November 4, 2013, under the supervision of SMA, WSEC excavated the hydrocarbon impacted soils associated with the two release sites. SMA personnel guided the excavation activities by collecting soil samples for field screening with a calibrated PID. Tables 3 and 4 summarize the field screening results

SMA collected five composite soil samples from the northern excavation on October 14, 2013 after field screening results indicated that the hydrocarbon impacted soil had been removed. The vertical, reachable, extent with the onsite equipment at the southern excavation was achieved on November 4, 2013, and SMA collected five composite soil samples for laboratory analysis. All laboratory soil samples were field screened with a

calibrated PID and submitted for laboratory analysis to Hall Environmental Analysis Laboratory of Albuquerque, New Mexico. The samples were analyzed per United States Environmental Protection Agency Method 8021 BTEX, and 8015 Diesel Range Organics (DRO) and Gasoline Range Organics (GRO). The final excavation dimensions for the northern release site were 37 feet long by 15 feet wide by 7 feet deep. The final excavation dimensions for the southern release site were 31 feet long by 15 feet wide by 10 to 14 feet deep. Excavated below PID field screening levels were stockpiled on the east and west banks of the northern excavation, as illustrated in Figure 4. Figures 4 and 5 illustrate the extent of each excavation and composite soil sample locations and laboratory results. Site photography is included in Appendix B.

Approximately 72 cubic yards of hydrocarbon contaminated soil were removed from both excavations and transported by WSEC to Envirotech Land Farm near Bloomfield, New Mexico for proper disposal. Similarly, approximately 72 cubic yards of clean backfill material was imported to the site. Suitable excavated material, placed in the East and West Stockpiles, were screened and determined to be below field screening detection limits, was used as additional backfill material. Confirmation soil samples were collected from the East and West Stockpiles and results are included in the laboratory report and in Figure 3. Soil disposal documentation is included in Appendix C.

5.0 Conclusions and Recommendations

As noted in Section 3.0 of this report, NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 30: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH. Based on laboratory analysis, all of the soil samples collected except SC-5 (Base @ 1140 ppm DRO/GRO and 76 ppm total BTEX) from the southern excavation were below NMOCD action levels. The soil sample that exceeded NMOCD action levels for TPH and total BTEX was obtained from the base of the excavation at the maximum vertical extent of the excavation equipment (14 feet). With further excavation impractical, SMA notified Enterprise personnel, who confirmed that backfilling the site should proceed. Soil contaminant concentrations are illustrated in Figure 4 and Figure 5. A summary of laboratory analysis is included in Table 5. Laboratory reports are included in Appendix D.

SMA recommends no further action at this site.

6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment and stabilization, regulatory liaison, oversight and control of remediation operations, disposal arrangements and documentation, project management, and

preparation of this summary report. All work has been performed in accordance with generally accepted professional environmental consulting practices.

If there are any questions regarding this report, please contact either Steven Moskal or Reid Allan at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES

Steven J. Moskal
Staff Scientist

Reviewed by:

Reid S. Allan, PG
Principal Scientist

N

SCALE

0' 1000' 2000' 4000'

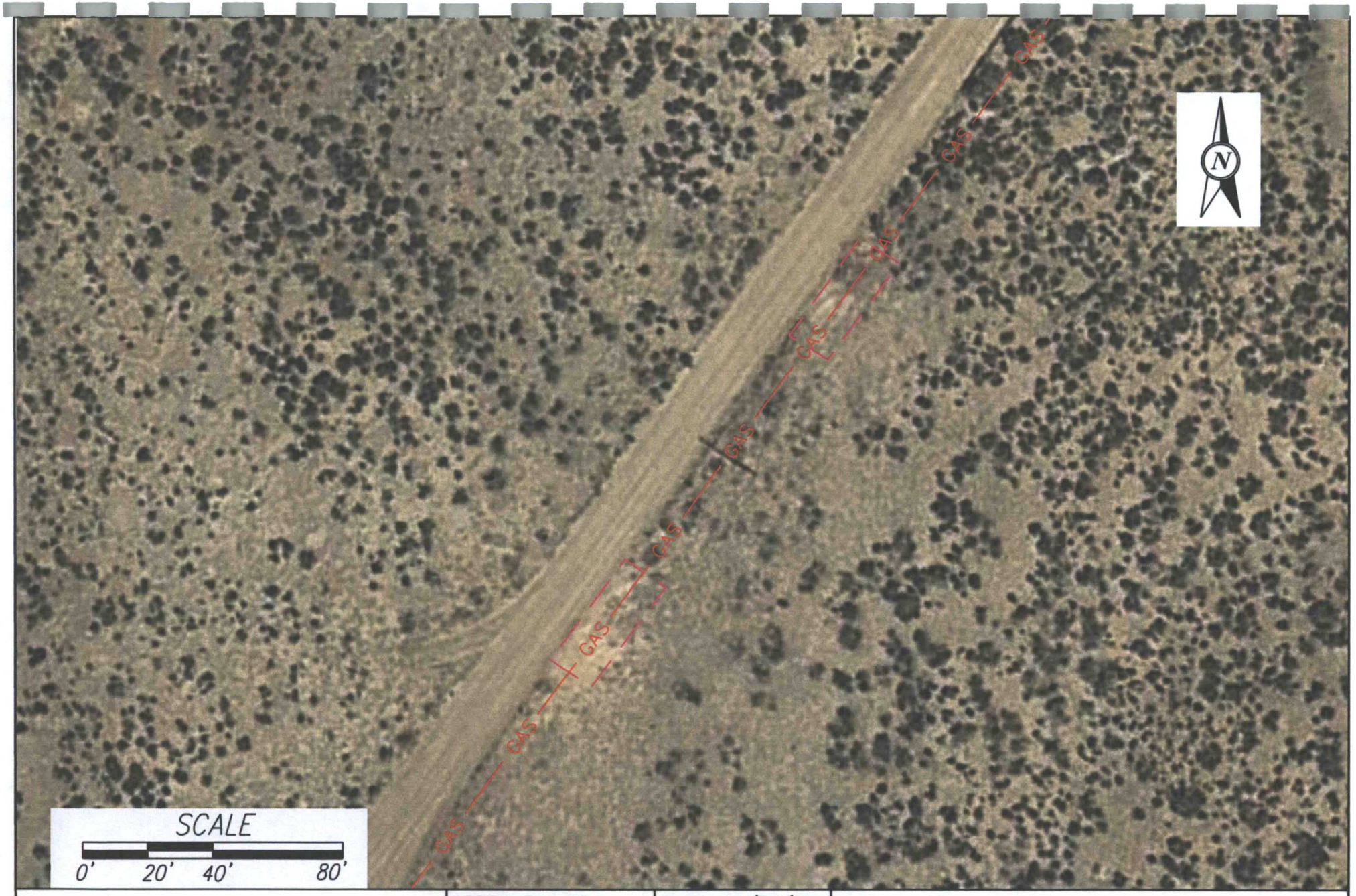
SMA
Civil / Environmental Scientists & Engineers

2101 SAN JUAN BLVD
FARMINGTON, NM 87401

FAX (505) 327-1496
PH. (505) 325-5667

APPROVED: RSA	DATE: 11/26/2013
DRAWN BY: SMOSKAL	DATE: 11/22/2013
REVISIONS BY:	DATE:
PROJECT # 5122104	FIGURE: 1

VICINITY MAP
SJ 27-5 #133 RELEASE LOCATIONS
UNIT K SECTION 19 T27N R5W
& UNIT L SECTION 19 T27N R5W
RIO ARRIBA COUNTY, NEW MEXICO



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Surveying

2101 SAN JUAN BLVD
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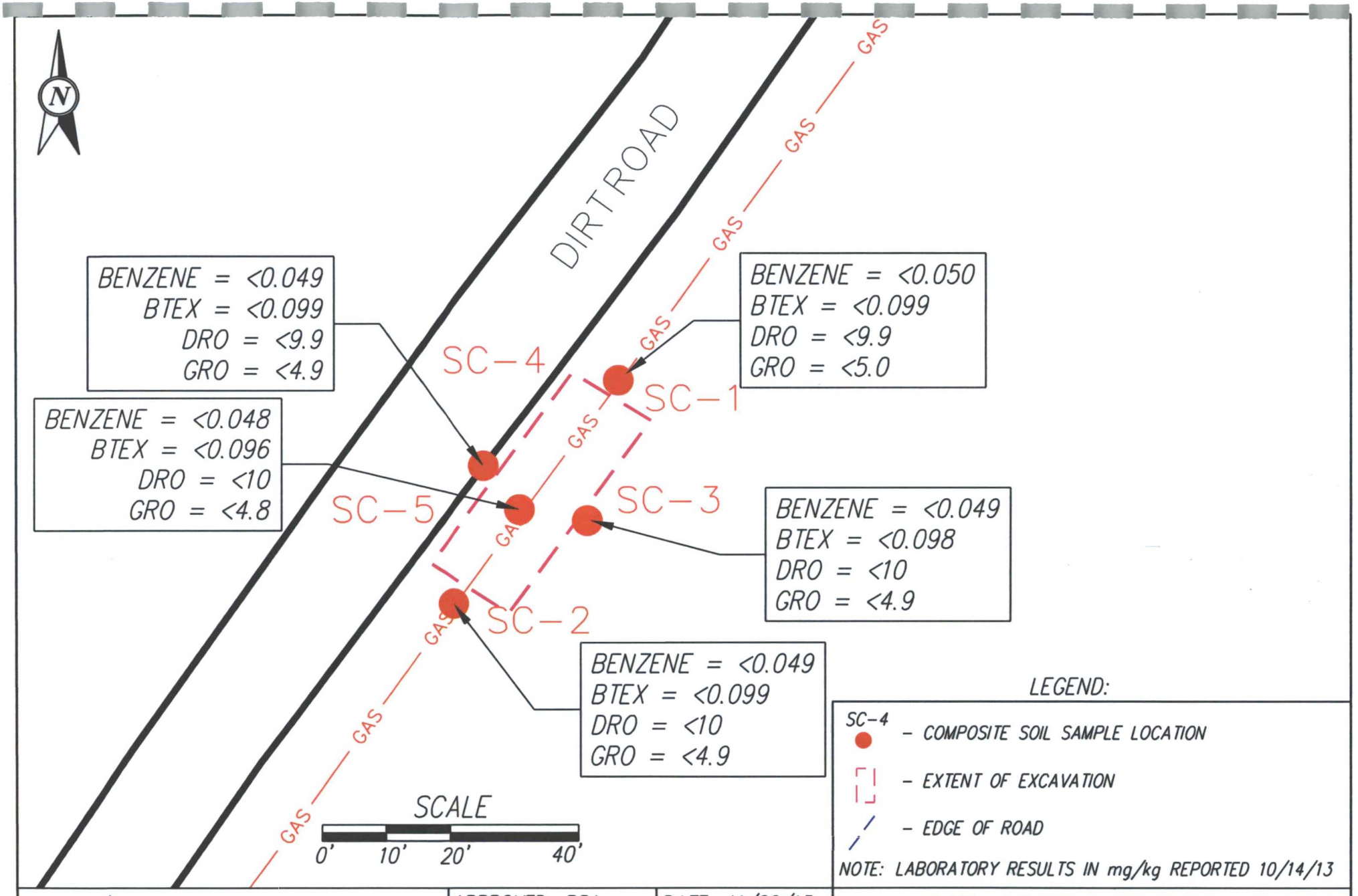
FAX (505) 327-1496
PH. (505) 325-5667

APPROVED: RSA	DATE: 11/26/13
DRAWN BY: SMOSKAL	DATE: 11/22/13
REVISIONS BY:	DATE:
PROJECT # 5122104	FIGURE: 2

SITE LOCATION MAP
SJ 27-5 #133 RELEASE LOCATIONS
UNITS K & L SECTION 19 T27N R5W
RIO ARRIBA COUNTY, NEW MEXICO



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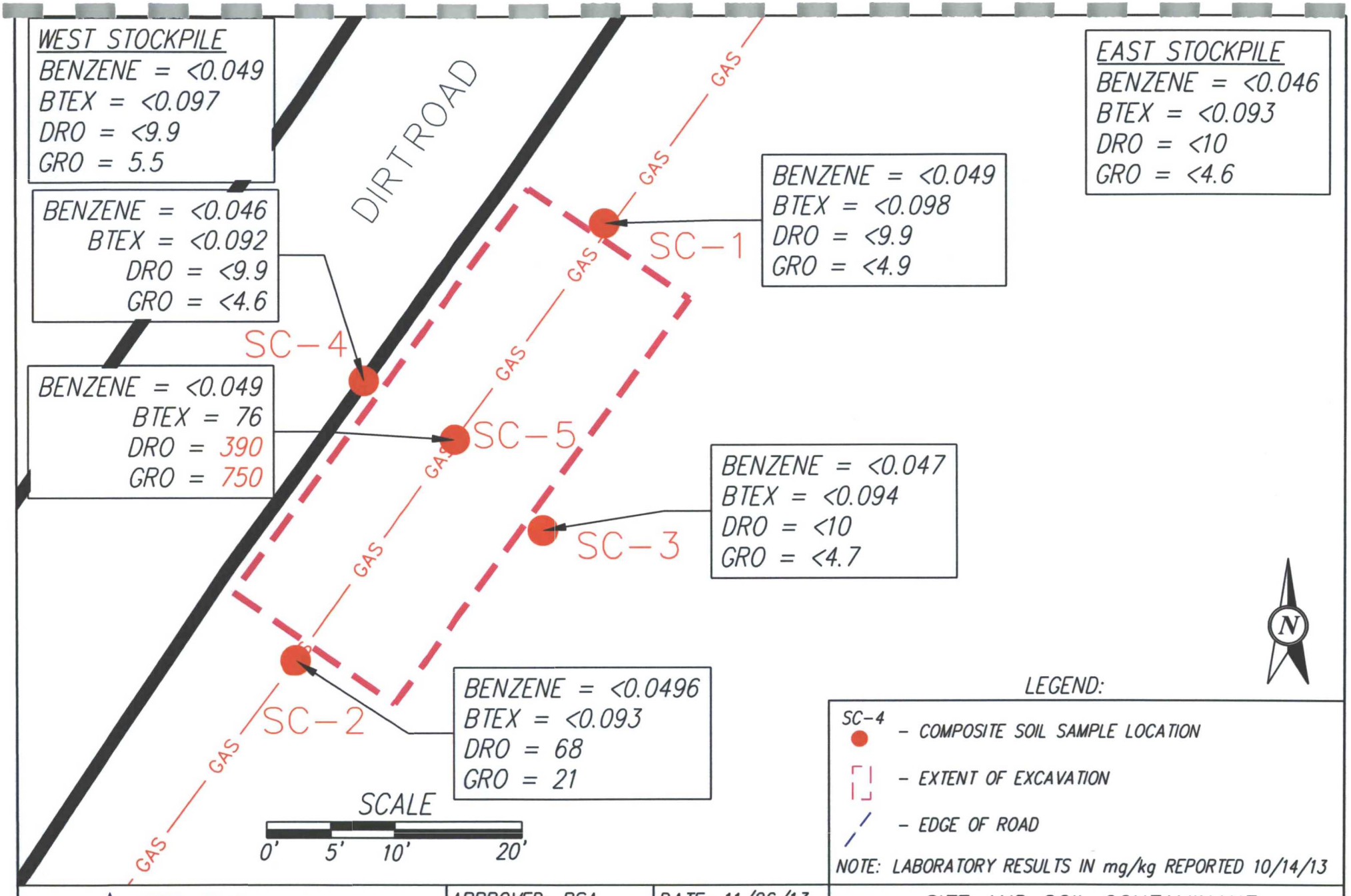
APPROVED: RSA	DATE: 11/26/13
DRAWN BY: SMOSKAL	DATE: 11/22/13
REVISIONS BY:	DATE:
PROJECT # 5122104	FIGURE: 3

SITE AND SOIL CONTAMINANT CONCENTRATION MAP
SJ 27-5 #133 NORTHERN RELEASE LOCATION
UNIT K SECTION 19 T27N R5W
RIO ARRIBA COUNTY, NEW MEXICO



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APPROVED: RSA	DATE: 11/26/13
DRAWN BY: SMOSKAL	DATE: 11/22/13
REVISIONS BY:	DATE:
PROJECT # 5122104	FIGURE: 4

SITE AND SOIL CONTAMINANT CONCENTRATION MAP
SJ 27-5 #133 SOUTHERN RELEASE LOCATION
UNIT L SECTION 19 T27N R5W
RIO ARRIBA COUNTY, NEW MEXICO

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	USGS Topo Maps; Google Earth Elevation Difference from the site **and Carrizo Canyon to the** west	
50' to 99' = 10			
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	**NMOCD Numeric Rank for this Site**	**Source for Ranking**	**Notes**
< 200' = 20		USGS Topo Maps; Google Earth; PRCC Mapping Tool	Release is located 800' west of Carrizo Canyon
200'-1000' = 10	10		
>1000' = 0			
Ranking Criteria for Horizontal Distance to a Water Well or Water Source	**NMOCD Numeric Rank for this Site**	**Source for Ranking**	**Notes**
<1000' from a water source? <200' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	**No wells located with 1.0** mile
Total Site Ranking	**30**		
Soil Remedation Standards	0 to 9	10 to 19	>19
Benzene	**10 PPM**	**10 PPM**	**10 PPM**
BTEX	**50 PPM**	**50 PPM**	**50 PPM**
TPH	**5000 PPM**	**1000 PPM**	**100 PPM**

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Results	Lab Sample Collected Y/N
10/8/2013	11:08	S-1 (N. wall)	1 to 6	0	N
10/8/2013	11:09	S-2 (S. wall)	1 to 6	0	N
10/8/2013	11:10	S-3 (E. wall, north)	1 to 6	0	N
10/8/2013	11:11	S-4 (E. wall, south)	1 to 6	400	N
10/8/2013	11:12	S-5 (W. wall, north)	1 to 6	69	N
10/8/2013	11:13	S-6 (W. wall, south)	1 to 6	49	N
10/8/2013	11:15	S-7 (base, north)	6	944	N
10/8/2013	11:16	S-8 (base, south)	6	8064	N
10/14/2013	12:49	S-1 (N. wall)	1 to 7	34	Y
10/14/2013	12:50	S-2 (S. wall)	1 to 7	2	Y
10/14/2013	12:51	S-3 (E. wall)	1 to 7	2	Y
10/14/2013	12:52	S-4 (W. wall)	1 to 7	3.2	Y
10/14/2013	12:53	S-5 (base)	7	3.0	Y

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Results	Lab Sample Collected Y/N
10/8/2013	10:25	S-1 (N. wall)	1 to 6	8	N
10/8/2013	10:26	S-2 (S. wall)	1 to 6	1964	N
10/8/2013	10:27	S-3 (E. wall)	1 to 6	275	N
10/8/2013	10:28	S-4 (W. wall)	1 to 6	1123	N
10/8/2013	10:29	S-5 (base)	6	5304	N
10/14/2013	12:54	S-1 (N. wall)	1 to 9	325	N
10/14/2013	12:55	S-2 (S. wall)	1 to 9	312	N
10/14/2013	12:56	S-3 (E. wall)	1 to 9	101	N
10/14/2013	12:57	S-4 (W. wall)	1 to 9	103	N
10/14/2013	12:58	S-5 (base)	9	4565	N
11/4/2013	10:50	SC-1/S-1 (N. wall)	1 to 8	85	Y
11/4/2013	10:52	SC-2/S-2 (S. wall)	1 to 8	107	Y
11/4/2013	10:54	SC-3/S-3 (E. wall)	1 to 8	13	Y
11/4/2013	10:57	SC-4/S-4 (W. wall)	1 to 8	4	Y
11/4/2013	10:59	S-5 (base)	11	4966	N
11/4/2013	11:14	S-6 (base, SE)	12	3984	N
11/4/2013	11:48	SC-5/S-7 (base)	13	2982	Y

LABORATORY ANALYTICAL SUMMARY							
Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX
10/14/2013	12:49	Northern Excavation SC-1 (north wall)	1 to 7	5.0	<9.9	<0.050	<0.099
10/14/2013	12:50	Northern Excavation SC-2 (south wall)	1 to 7	<4.9	<10	<0.049	<0.099
10/15/2013	12:51	Northern Excavation SC-3 (east wall)	1 to 7	<4.9	<10	<0.049	<0.098
10/16/2013	12:52	Northern Excavation SC-4 (west wall)	1 to 7	<4.9	<9.9	<0.049	<0.099
10/16/2013	12:53	Northern Excavation SC-5 (base)	7	<4.8	<10	<0.048	<0.096
11/4/2013	10:50	Southern Excavation SC-1 (north wall)	1 to 8	<4.9	<9.9	<0.049	<0.098
11/4/2013	10:52	Southern Excavation SC-2 (south wall)	1 to 8	21	68	<0.046	<0.093
11/4/2013	10:54	Southern Excavation SC-3 (east wall)	1 to 10	<4.7	<10	<0.047	<0.094
11/4/2013	10:57	Southern Excavation SC-4 (west wall)	1 to 10	<4.6	<9.9	<0.046	<0.092
11/4/2013	11:45	Southern Excavation SC-5 (base)	14	750	390	<0.49	76
11/4/2013	11:20	N Excavation West Stockpile	N/A	5.5	<9.9	<0.049	<0.097
11/4/2013	11:10	N Excavation East Stockpile	N/A	<4.6	<10	<0.046	<0.093

APPENDIX A

FIELD NOTES

SUBJECT S.J 27-5 # 133 Release PROJECT 5132104 PAGE 1 of

CLIENT Enterprise DATE 10-8-13 BY TSL

CHECKED BY

Onsite @ 1000 sign in 2070

1015 Collect Samples from Southern Excavation - 36.55656
- 107.40523

	Time	PPM
S-1 (W/wall)	1025	8 ppm
S-2 (S. wall)	1026	1964 ppm
S-3 (E. wall)	1027	275 ppm
S-4 (west wall)	1028	1123 ppm
S-5 (Base)	1029	5304 ppm

Initial Excavation 35' x 12' x 6'

1045 Collect Samples from Northern Excavation

	Time	PPM
S-1 (N. wall)	1103	9ppm
S-2 (S. wall)	1109	0ppm
S-3 E. wall (N)	1110	0ppm
S-4 E. wall (S)	1111	400ppm
S-5 W. wall (N)	1112	69ppm
S-6 W. wall (S)	1113	49 ppm

	Time	PPM
S-7 Base (N)	1115	944 ppm
S-8 Base (S)	1116	8064 ppm

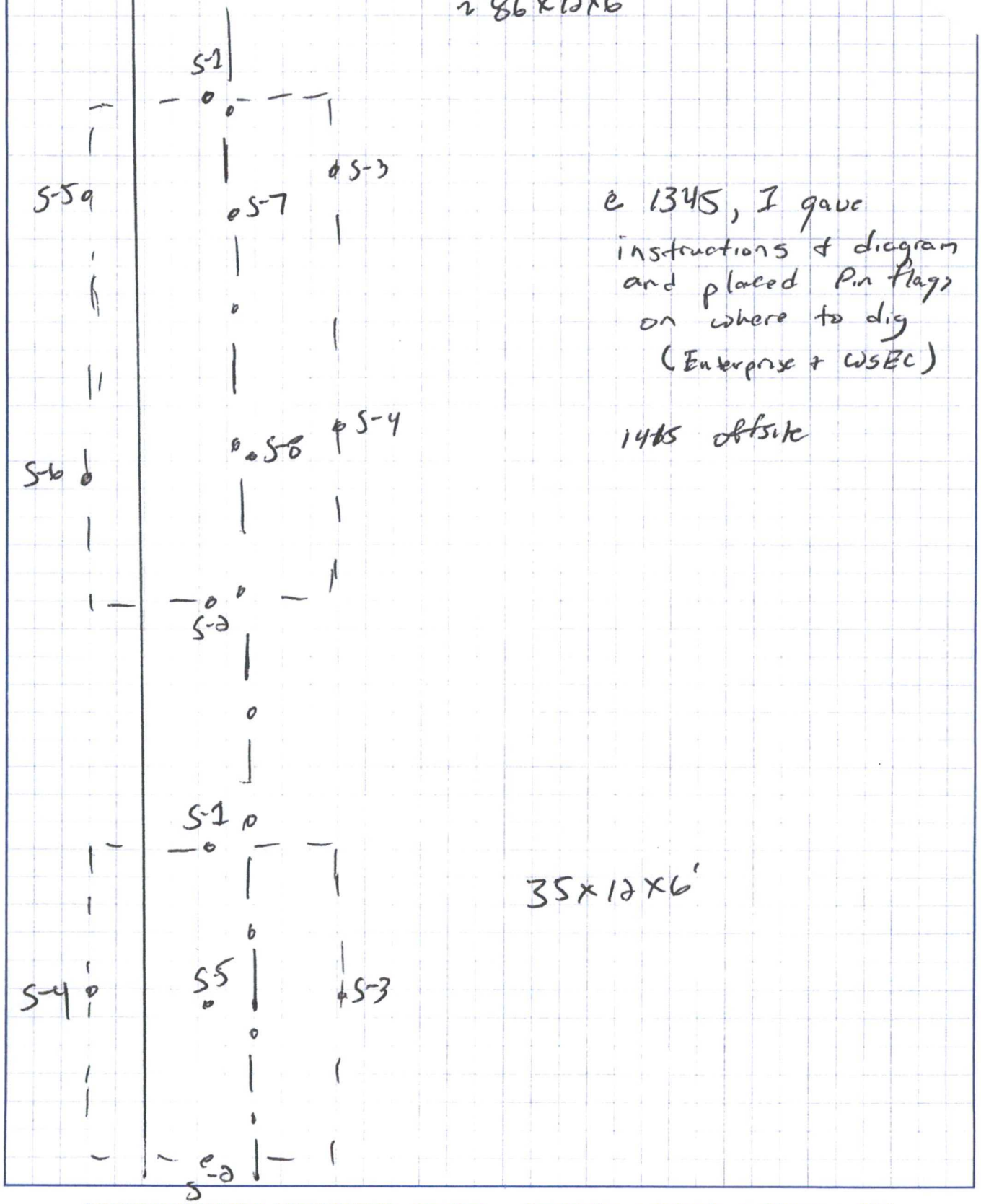
1120 Initial Excavation
86' x 12' x 6'

36.55685
107.40501
Section 19 27-5

SUBJECT SJ 27-5 #133 Release PROJECT

CLIENT Enterprise DATE 10-8-13

CHECKED BY



@ 1345, I gave instructions & diagram and placed Pin flags on where to dig (Enterprise + USBC)

1445 ~~offsite~~

SUBJECT San Juan 27-5 # 133 (Southern) PROJECT PAGE 1 of 4

CLIENT Enterprise DATE 10-14-13 BY TJL

CHECKED BY

	Time	PPM
S-1 (North wall)	1254	325
S-2 (South wall)	1255	312
S-3 (E. wall)	~~1256~~ 1256	101
S-4 (west wall)	1257	103
S-5 Base (9')	1258	4565

offsite @ 1330

SUBJECT San 27-5 #133 (Northern) PROJECT PAGE 2 of 4

CLIENT Enterprise DATE 10-14-13 BY JC

CHECKED BY

onsite @ 1215;

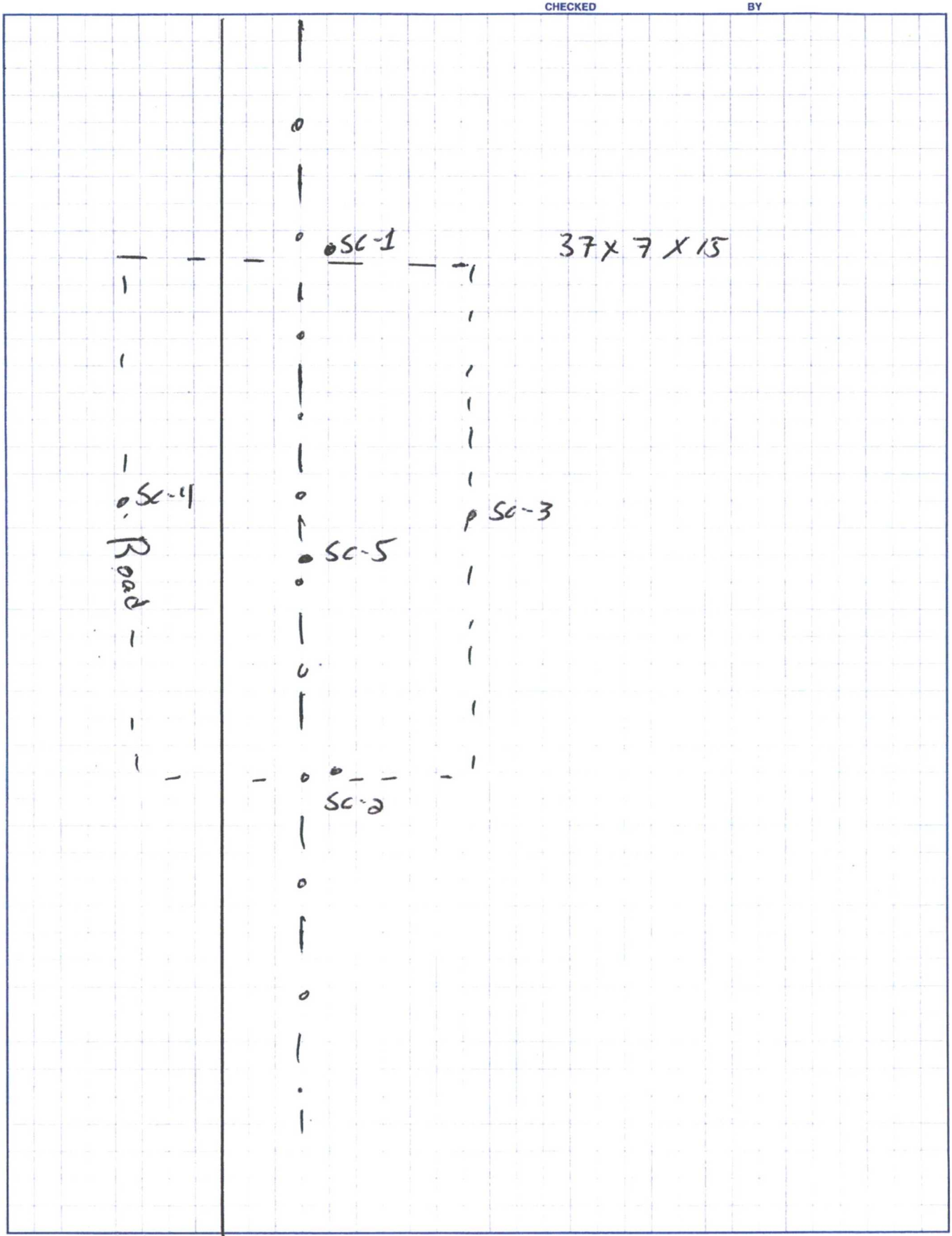
Collect ~~Samples~~ Samples from side walls + Excavation

	Time	PID
S-1 (W. wall) (1-7')	1249	34
S-2 (S. wall) (1-7')	1250	2
S-3 (E. wall) (1-7')	1251	2
S-4 (No. wall) (1-7')	1252	3.2
S-5 Base (7')	1253	3.0

SUBJECT San Juan 27-5 #133 (N) PROJECT PAGE 3 of 4

CLIENT Enterprise DATE 10-14-13 BY TJC

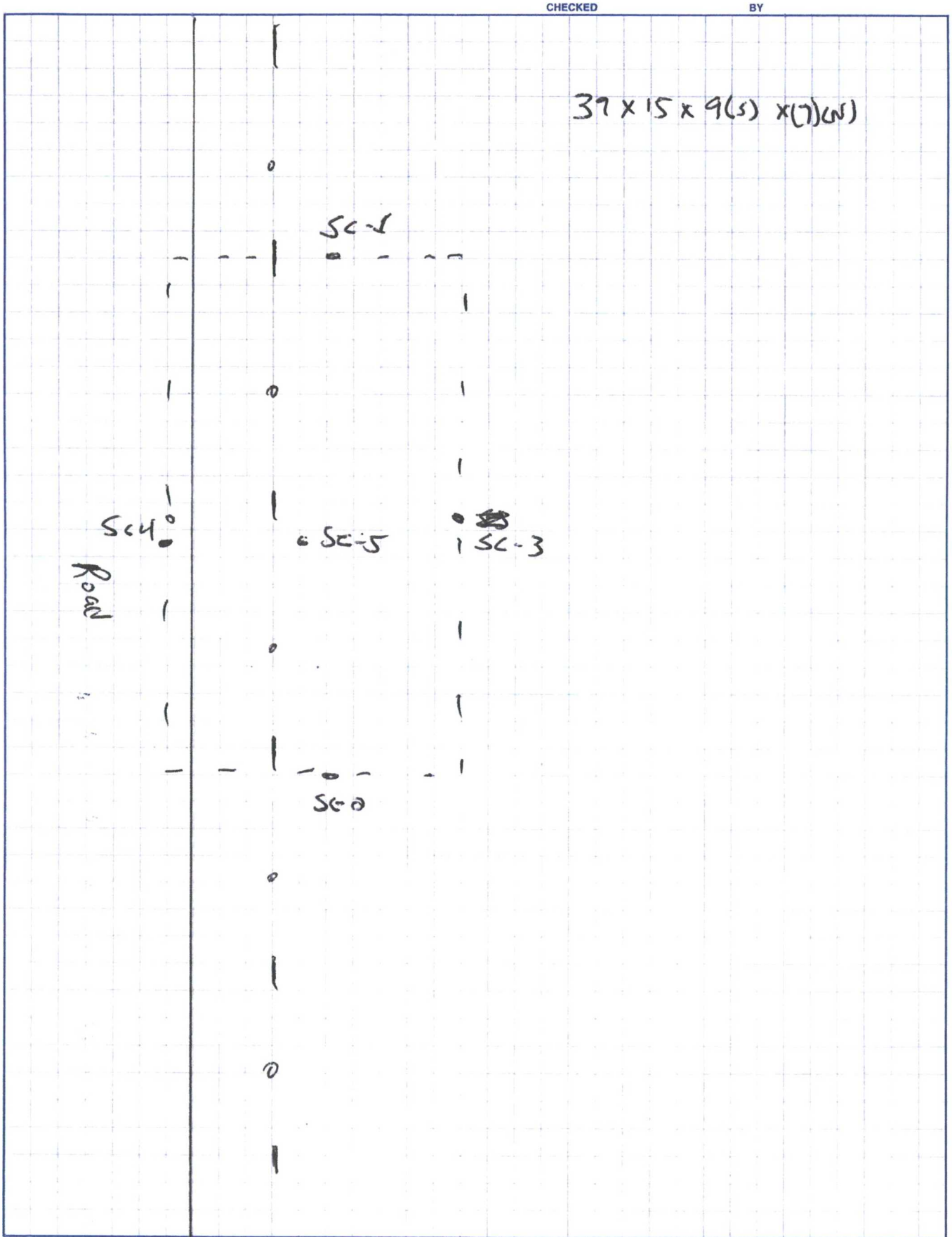
CHECKED BY



SUBJECT San Juan 27-5 #133 (S) PROJECT PAGE ~~2 of 3~~

CLIENT Enterprise DATE 10-14-15 BY TJL

CHECKED BY



SUBJECT SJ 27-5 #133 PROJECT 5192104 PAGE 1 of 3

CLIENT Enterprise DATE 11-4-13 BY TJC

CHECKED BY

onsite @ 1025; Sign in; WSEC onsite & Excavating

1035 Collect samples from side wall & Base of Excavation
1045 calibrate PID - 101 ppm

		Time	ppm
SC-1	S-1 (W) 1-8	1050	85
SC-2	S-2 (S) 1-8'	1052	10.7
SC-3	S-3 (E) 1-10'	1054	13
SC-4	S-4 (W) 1-10	1057	4
	S-5 Base 11'	1059	4966

Stock pile composite @ 1110 5.4 ppm

S-6 Base (SE) @ 1114 3484 ppm

SUBJECT SJ 27-5 #133 PROJECT 5102104 PAGE 2 of 3

CLIENT Enterprise DATE 11-4-13 BY TJC

CHECKED BY

Stock pile Composite (N. Excavation), West Stock pile = 4.6 ppm @ 11'2"

Both samples ~~@~~ from stockpile from the N. Excavation will be used as backfill; Both had very low Field Screening results. Collect Lab sample to verify.

SC-5/S-7 Base of Excavation @ 13' 2982 ppm (Vertical Extent of Equipment) @ 11:18

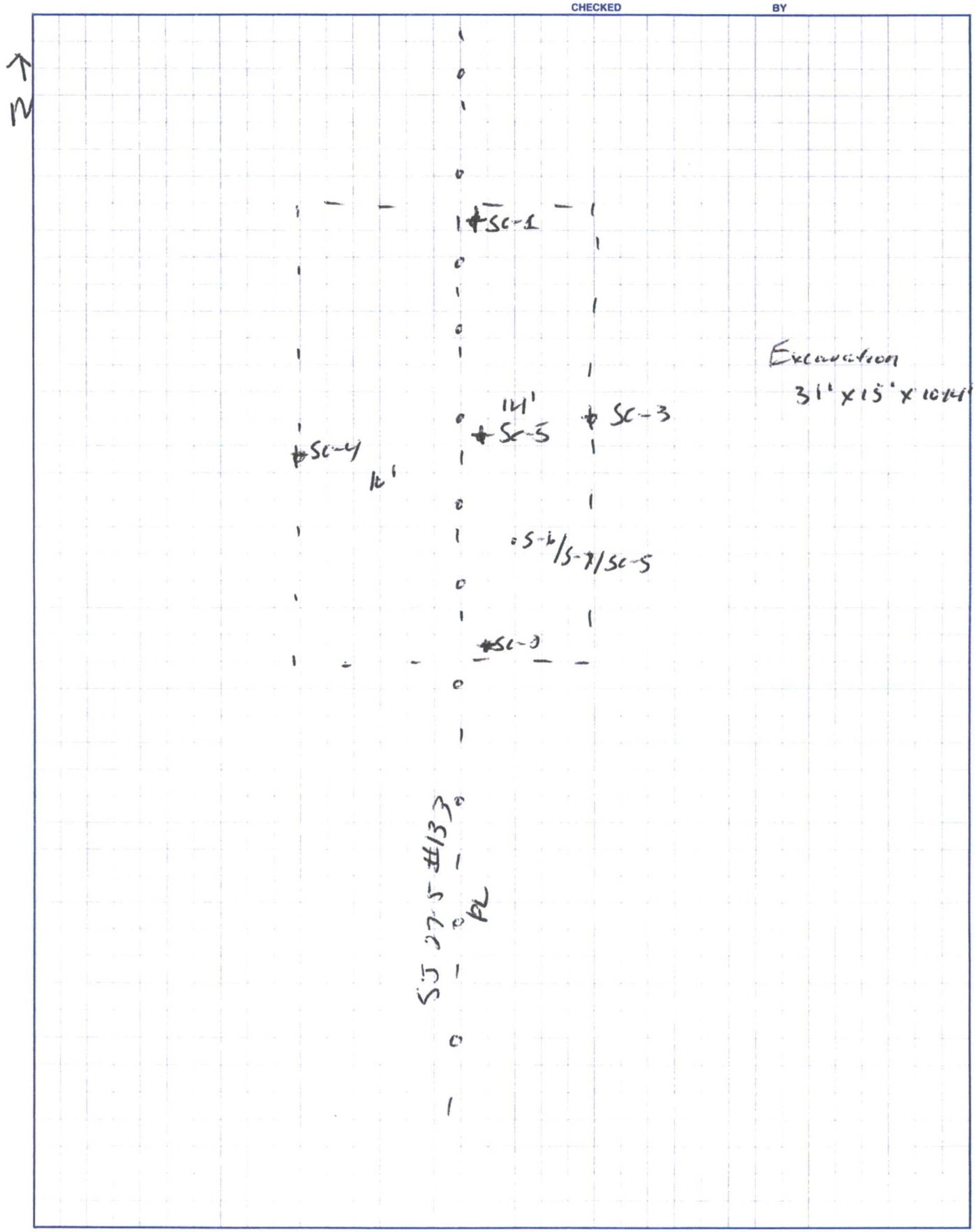
Call Russell Seale & Jim Lieb to Confirm closure of site

offsite @ 1256

SUBJECT SJ 27-5 #133 PROJECT 51221104 PAGE 3 of 3

CLIENT Enterprise DATE 11-4-13 BY TJC

CHECKED BY



APPENDIX B

SITE PHOTOGRAPHY

Site Photographs
Enterprise Products SJ 27-5 #133 Pipeline Release

Photo 1: View of the pipeline and excavation for the northern release; southern release in background.

Photo 2: View of the total extent of excavation for the southern release.

Site Photographs
Enterprise Products SJ 27-5 #133 Pipeline Release

Photo 3: View of the excavation stockpile for the northern release.

Photo 4: View of the excavation for the southern release.

Site Photographs
Enterprise Products SJ 27-5 #133 Pipeline Release

Photo 5: View of the excavation stockpile for the southern release.

Photo 6: View of the excavation and loading of hydrocarbon impacted soils at the southern release.

APPENDIX C

SOIL DISPOSAL DOCUMENTATION

envirotech

Bill of Lading

MANIFEST # 45050

DATE 11-1-13 JOB # 97057-0603

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Etech	Enterprise meedimen SanJuan 27-5 #133	Clean Soil	/	12	/	Flying M	14	145	Toby Wahler
					12					

RESULTS:			LANDFARM EMPLOYEE: Devin Robson	NOTES:
/	CHLORIDE TEST	/		
/	PAINT FILTER TEST	/	Certification of above receival & placement	RD

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. ____________ NAME Toby Wahler SIGNATURE Toby Wahler

COMPANY CONTACT ____________ PHONE ____________ DATE ____________

Signatures required prior to distribution of the legal document.

envirotech

Bill of Lading

MANIFEST # 45071

DATE 11-4-13 JOB # 97057-0663

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	E-Tech	Enterprise 55 [redacted]-27-5 133	Clean Fill	—	12	—	Flying M	14	10:10	Toby Wahler
					12					

RESULTS:

/	CHLORIDE TEST	/	LANDFARM EMPLOYEE: Dave La
/	PAINT FILTER TEST	/	Certification of above receival & placement

NOTES: RD

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Flying M NAME Toby Wahler SIGNATURE Toby Wahler

COMPANY CONTACT _____ PHONE _____ DATE 11-4-13

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Bill of Lading

MANIFEST # 45070

DATE 11-4-13 JOB # 97057-0603

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise SJ [redacted] 13327-5	LF II	cont soil	B-21	12	—	Flying M	14	10:10	Toby Wahler
2	"	"	"	B-21	12	—	"	14	15:40	Toby Wahler
					24					

RESULTS:			LANDFARM EMPLOYEE:	NOTES:
1287	CHLORIDE TEST	1	Dave Lee	
	PAINT FILTER TEST	1	Certification of above receival & placement	RDC

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Flying M NAME Toby Wahler SIGNATURE Toby Wahler

COMPANY CONTACT PHONE DATE 11-4-13

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Bill of Lading

MANIFEST # 45069

DATE 11-4-13 JOB # 97057-0603

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	E-tech	Enterprise 35 27-5 #133	Clean Fill	—	12	—	Moss	47	10:10	Lee Moss
2	〃	〃	〃	—	12	—	Moss	15	10:26	Mark Bluff
					24					

RESULTS:			LANDFARM EMPLOYEE:	NOTES:
/	CHLORIDE TEST	/		
/	PAINT FILTER TEST	/	Certification of above receival & placement	RD

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT Gary Maestas PHONE DATE 10-4-13

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Bill of Lading

MANIFEST # 45068

DATE 11-4-13 JOB # 97057-0603

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise SJ 27-5 #133	LF II	Cont Soil	B-21	12	—	Moss	47	10:10	Lee Moss
2	" "	" "	" "	B-21	12	—	Moss	15	10:20	
3	" "	" "	" "	B-21	12	—	Moss	47	15:40	Lee Moss
4	" "	" "	" "	B-21	12	—	Moss	15	15:40	
					48					

RESULTS:			LANDFARM EMPLOYEE:	NOTES:
<287	CHLORIDE TEST			
	PAINT FILTER TEST		Certification of above receival & placement	RDC

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT Gary Maestas PHONE DATE 10-4-13

Signatures required prior to distribution of the legal document.

envirotech

Bill of Lading

MANIFEST # 45052

DATE 11-1-13 JOB # 97057-0603

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	ETech	[redacted] Enterprise San Juan 27-5 #133	Clean Fill	/	12	/	moss	47	1601	Lee Moss
2		" " "	"	/	12	/		15	15A	[signature]
					24					

RESULTS:

/ CHLORIDE TEST /

/ PAINT FILTER TEST /

LANDFARM EMPLOYEE: Devin Robinson

Certification of above receival & placement

NOTES:

RD

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT Gary Maestas PHONE _____ DATE _____

Signatures required prior to distribution of the legal document.

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: www.hallenvironmental.com

October 23, 2013

Thomas Long
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401
TEL: (505) 325-7535
FAX (505) 327-1496

RE: San Juan 27-5 #133 Northern Excavation OrderNo.: 1310818

Dear Thomas Long:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/16/2013 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1310818**
Date Reported: **10/23/2013**

CLIENT: Souder, Miller and Associates
Project: San Juan 27-5 #133 Northern Excavation
Lab ID: 1310818-001 **Matrix:** SOIL

Client Sample ID: SC-1
Collection Date: 10/14/2013 12:49:00 PM
Received Date: 10/16/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: **BCN**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/18/2013 10:02:29 AM	9886
Surr: DNOP	102	66-131		%REC	1	10/18/2013 10:02:29 AM	9886
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	10/22/2013 1:04:17 AM	9887
Toluene	ND	0.050		mg/Kg	1	10/22/2013 1:04:17 AM	9887
Ethylbenzene	ND	0.050		mg/Kg	1	10/22/2013 1:04:17 AM	9887
Xylenes, Total	ND	0.099		mg/Kg	1	10/22/2013 1:04:17 AM	9887
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%REC	1	10/22/2013 1:04:17 AM	9887
Surr: 4-Bromofluorobenzene	92.8	70-130		%REC	1	10/22/2013 1:04:17 AM	9887
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/22/2013 1:04:17 AM	9887
Surr: Toluene-d8	90.4	70-130		%REC	1	10/22/2013 1:04:17 AM	9887
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: **RAA**
Gasoline Range Organics (GRO)	5.0	5.0		mg/Kg	1	10/22/2013 1:04:17 AM	9887
Surr: BFB	92.8	70-130		%REC	1	10/22/2013 1:04:17 AM	9887

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: SC-2
Project: San Juan 27-5 #133 Northern Excavation
Collection Date: 10/14/2013 12:50:00 PM
Lab ID: 1310818-002 **Matrix:** SOIL
Received Date: 10/16/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/18/2013 11:53:18 AM	9886
Surr: DNOP	151	66-131	S	%REC	1	10/18/2013 11:53:18 AM	9886
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.049		mg/Kg	1	10/22/2013 2:30:07 AM	9887
Toluene	ND	0.049		mg/Kg	1	10/22/2013 2:30:07 AM	9887
Ethylbenzene	ND	0.049		mg/Kg	1	10/22/2013 2:30:07 AM	9887
Xylenes, Total	ND	0.099		mg/Kg	1	10/22/2013 2:30:07 AM	9887
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	1	10/22/2013 2:30:07 AM	9887
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	1	10/22/2013 2:30:07 AM	9887
Surr: Dibromofluoromethane	108	70-130		%REC	1	10/22/2013 2:30:07 AM	9887
Surr: Toluene-d8	88.3	70-130		%REC	1	10/22/2013 2:30:07 AM	9887
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/22/2013 2:30:07 AM	9887
Surr: BFB	96.3	70-130		%REC	1	10/22/2013 2:30:07 AM	9887

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: SC-3
Project: San Juan 27-5 #133 Northern Excavation
Collection Date: 10/14/2013 12:51:00 PM
Lab ID: 1310818-003 **Matrix:** SOIL
Received Date: 10/16/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/18/2013 12:15:16 PM	9886
Surr: DNOP	157	66-131	S	%REC	1	10/18/2013 12:15:16 PM	9886
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.049		mg/Kg	1	10/22/2013 3:55:48 AM	9887
Toluene	ND	0.049		mg/Kg	1	10/22/2013 3:55:48 AM	9887
Ethylbenzene	ND	0.049		mg/Kg	1	10/22/2013 3:55:48 AM	9887
Xylenes, Total	ND	0.098		mg/Kg	1	10/22/2013 3:55:48 AM	9887
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	10/22/2013 3:55:48 AM	9887
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	10/22/2013 3:55:48 AM	9887
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/22/2013 3:55:48 AM	9887
Surr: Toluene-d8	84.8	70-130		%REC	1	10/22/2013 3:55:48 AM	9887
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/22/2013 3:55:48 AM	9887
Surr: BFB	101	70-130		%REC	1	10/22/2013 3:55:48 AM	9887

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: SC-4
Project: San Juan 27-5 #133 Northern Excavation
Collection Date: 10/14/2013 12:52:00 PM
Lab ID: 1310818-004 **Matrix:** SOIL
Received Date: 10/16/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/18/2013 12:37:30 PM	9886
Surr: DNOP	149	66-131	S	%REC	1	10/18/2013 12:37:30 PM	9886
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.049		mg/Kg	1	10/22/2013 4:24:20 AM	9887
Toluene	ND	0.049		mg/Kg	1	10/22/2013 4:24:20 AM	9887
Ethylbenzene	ND	0.049		mg/Kg	1	10/22/2013 4:24:20 AM	9887
Xylenes, Total	ND	0.099		mg/Kg	1	10/22/2013 4:24:20 AM	9887
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	10/22/2013 4:24:20 AM	9887
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	1	10/22/2013 4:24:20 AM	9887
Surr: Dibromofluoromethane	107	70-130		%REC	1	10/22/2013 4:24:20 AM	9887
Surr: Toluene-d8	91.2	70-130		%REC	1	10/22/2013 4:24:20 AM	9887
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/22/2013 4:24:20 AM	9887
Surr: BFB	95.9	70-130		%REC	1	10/22/2013 4:24:20 AM	9887

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: SC-5
Project: San Juan 27-5 #133 Northern Excavation
Collection Date: 10/14/2013 12:53:00 PM
Lab ID: 1310818-005 **Matrix:** SOIL
Received Date: 10/16/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/18/2013 2:44:00 PM	9886
Surr: DNOP	109	66-131		%REC	1	10/18/2013 2:44:00 PM	9886
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.048		mg/Kg	1	10/22/2013 4:52:50 AM	9887
Toluene	ND	0.048		mg/Kg	1	10/22/2013 4:52:50 AM	9887
Ethylbenzene	ND	0.048		mg/Kg	1	10/22/2013 4:52:50 AM	9887
Xylenes, Total	ND	0.096		mg/Kg	1	10/22/2013 4:52:50 AM	9887
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%REC	1	10/22/2013 4:52:50 AM	9887
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	1	10/22/2013 4:52:50 AM	9887
Surr: Dibromofluoromethane	102	70-130		%REC	1	10/22/2013 4:52:50 AM	9887
Surr: Toluene-d8	91.1	70-130		%REC	1	10/22/2013 4:52:50 AM	9887
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/22/2013 4:52:50 AM	9887
Surr: BFB	95.5	70-130		%REC	1	10/22/2013 4:52:50 AM	9887

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 greater than 2 for VOA and TOC only.
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#: **1310818**

23-Oct-13

Client: Souder, Miller and Associates

Project: San Juan 27-5 #133 Northern Excavation

Sample ID **MB-9886**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **9886**	RunNo: **14149**
Prep Date: **10/17/2013**	Analysis Date: **10/17/2013**	SeqNo: **405466** 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	10		10.00		100	63	147			

Sample ID **LCS-9886**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **9886**	RunNo: **14149**
Prep Date: **10/17/2013**	Analysis Date: **10/17/2013**	SeqNo: **405467** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.1	77.1	128			
Surr: DNOP	4.5		5.000		89.3	63	147			

Sample ID **1310818-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **9886**	RunNo: **14182**
Prep Date: **10/17/2013**	Analysis Date: **10/18/2013**	SeqNo: **406400** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	9.9	49.65	0	125	61.3	138	17.9	20	
Surr: DNOP	6.0		4.965		120	66	131	0	0	

Sample ID **1310818-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **9886**	RunNo: **14182**
Prep Date: **10/17/2013**	Analysis Date: **10/18/2013**	SeqNo: **406401** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	9.9	49.36	0	105	61.3	138			
Surr: DNOP	4.6		4.936		93.7	66	131			

Sample ID **MB-9905**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **9905**	RunNo: **14182**
Prep Date: **10/18/2013**	Analysis Date: **10/18/2013**	SeqNo: **406691** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		100	66	131			

Sample ID **LCS-9905**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **9905**	RunNo: **14182**
Prep Date: **10/18/2013**	Analysis Date: **10/18/2013**	SeqNo: **406692** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.3	66	131			

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 greater than 2 for VOA and TOC only.
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#: **1310818**

23-Oct-13

Client: Souder, Miller and Associates

Project: San Juan 27-5 #133 Northern Excavation

Sample ID **mb-9887**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **9887**	RunNo: **14226**
Prep Date: **10/17/2013**	Analysis Date: **10/21/2013**	SeqNo: **408430** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.9	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.0	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.45		0.5000		89.5	70	130			

Sample ID **LCS-9887**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **9887**	RunNo: **14226**
Prep Date: **10/17/2013**	Analysis Date: **10/21/2013**	SeqNo: **408436** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	70	130			
Toluene	0.94	0.050	1.000	0	94.0	69.9	139			
Ethylbenzene	0.99	0.050	1.000	0	98.9	70	130			
Xylenes, Total	3.1	0.10	3.000	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.2	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.45		0.5000		90.5	70	130			

Sample ID **1310818-002ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SC-2**	Batch ID: **9887**	RunNo: **14226**
Prep Date: **10/17/2013**	Analysis Date: **10/22/2013**	SeqNo: **408441** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.049	0.9852	0	102	65.1	127			
Toluene	0.90	0.049	0.9852	0.008253	90.2	69.9	148			
Ethylbenzene	0.99	0.049	0.9852	0.005499	100	70	130			
Xylenes, Total	3.1	0.099	2.956	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.4926		97.1	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.4926		94.2	70	130			
Surr: Dibromofluoromethane	0.51		0.4926		104	70	130			
Surr: Toluene-d8	0.44		0.4926		90.1	70	130			

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 greater than 2 for VOA and TOC only.
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#: **1310818**

23-Oct-13

Client: Souder, Miller and Associates

Project: San Juan 27-5 #133 Northern Excavation

Sample ID **1310818-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **SC-2** Batch ID: **9887** RunNo: **14226**

Prep Date: **10/17/2013** Analysis Date: **10/22/2013** SeqNo: **408442** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.049	0.9862	0	95.9	65.1	127	6.02	20	
Toluene	0.87	0.049	0.9862	0.008253	87.3	69.9	148	3.18	20	
Ethylbenzene	0.96	0.049	0.9862	0.005499	96.9	70	130	3.40	0	
Xylenes, Total	3.0	0.099	2.959	0	103	70	130	3.01	0	
Surr: 1,2-Dichloroethane-d4	0.47		0.4931		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.46		0.4931		92.9	70	130	0	0	
Surr: Dibromofluoromethane	0.51		0.4931		103	70	130	0	0	
Surr: Toluene-d8	0.44		0.4931		88.9	70	130	0	0	

Sample ID **mb-9887** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **PBS** Batch ID: **R14226** RunNo: **14226**

Prep Date: Analysis Date: **10/21/2013** SeqNo: **408451** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.9	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.0	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.45		0.5000		89.5	70	130			

Sample ID **lcs-9887 b** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **LCSS** Batch ID: **R14226** RunNo: **14226**

Prep Date: Analysis Date: **10/21/2013** SeqNo: **408452** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.2	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.45		0.5000		90.5	70	130			

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 greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310818**

23-Oct-13

Client: Souder, Miller and Associates

Project: San Juan 27-5 #133 Northern Excavation

Sample ID **mb-9887** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **9887** RunNo: **14226**
Prep Date: **10/17/2013** Analysis Date: **10/21/2013** SeqNo: **408368** 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	460		500.0		92.0	70	130			

Sample ID **LCS-9887** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **9887** RunNo: **14226**
Prep Date: **10/17/2013** Analysis Date: **10/21/2013** SeqNo: **408370** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.8	80	120			
Surr: BFB	450		500.0		89.9	70	130			

Sample ID **1310818-001ams** SampType: **MS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SC-1** Batch ID: **9887** RunNo: **14226**
Prep Date: **10/17/2013** Analysis Date: **10/22/2013** SeqNo: **408377** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	120	5.0	24.88	5.030	482	58	134			S
Surr: BFB	420		497.5		84.6	70	130			

Sample ID **1310818-001amsd** SampType: **MSD** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SC-1** Batch ID: **9887** RunNo: **14226**
Prep Date: **10/17/2013** Analysis Date: **10/22/2013** SeqNo: **408378** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	47	5.0	24.88	5.030	170	58	134	90.0	20	SR
Surr: BFB	420		497.5		83.9	70	130	0	0	

Sample ID **mb-9887** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **R14226** RunNo: **14226**
Prep Date: Analysis Date: **10/21/2013** SeqNo: **408412** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	460		500.0		92.0	70	130			

Sample ID **LCS-9887** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **R14226** RunNo: **14226**
Prep Date: Analysis Date: **10/21/2013** SeqNo: **408413** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	450		500.0		89.9	70	130			

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 greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-FARM | Work Order Number: 1310818 | RcptNo: 1

Received by/date: 10/16/13

Logged By: Ashley Gallegos | 10/16/2013 10:00:00 AM

Completed By: Ashley Gallegos | 10/16/2013 4:27:07 PM

Reviewed By: 10/17/13

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	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	Adjusted?
14. Is it clear what analyses were requested?	Yes ✔	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes | No | NA ✔

Person Notified: | Date:

By Whom: | Via: | eMail | Phone | Fax | In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address: 2101 San Juan Blvd.
Farmington, NM 87401

Phone #: 505.325.7535

email or Fax#: tom.longe@sounderwiller.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name: San Juan 27-5 #133
Northern Excavation

Project #: 522104

Project Manager: Thomas Longe

Sampler: TJL

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

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 Request ID	Container Type and #	Preservative Type	HEAL No. 1310818	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
10/14/13	1249	Soil	SC-1	4oz Jar	Cool	-001	X		X												
	1250		SC-2			-002	X		X												
	1251		SC-3			-003	X		X												
	1252		SC-4			-004	X		X												
↓	1253	↓	SC-5	↓	↓	-005	X		X												

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/15/13	1700	Thomas Longe	Christine Walker	10/15/13	1700
10/15/13	1800	Christine Walker		10/16/13	10:00

Remarks: Bill To Enterprise

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 08, 2013

Steve Moskal
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401
TEL: (505) 325-5667
FAX (505) 327-1496

RE: Enterprise SJ 27-5 #133 OrderNo.: 1311140

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 7 sample(s) on 11/5/2013 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1311140**
Date Reported: **11/8/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Project: Enterprise SJ 27-5 #133
Lab ID: 1311140-001 **Matrix:** SOIL

Client Sample ID: SC-1
Collection Date: 11/4/2013 10:50:00 AM
Received Date: 11/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2013 1:27:02 PM	10209
Surr: DNOP	101	66-131		%REC	1	11/7/2013 1:27:02 PM	10209
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/6/2013 11:58:11 AM	10198
Surr: BFB	111	74.5-129		%REC	1	11/6/2013 11:58:11 AM	10198
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	11/6/2013 11:58:11 AM	10198
Toluene	ND	0.049		mg/Kg	1	11/6/2013 11:58:11 AM	10198
Ethylbenzene	ND	0.049		mg/Kg	1	11/6/2013 11:58:11 AM	10198
Xylenes, Total	ND	0.098		mg/Kg	1	11/6/2013 11:58:11 AM	10198
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	11/6/2013 11:58:11 AM	10198

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: SC-2
Project: Enterprise SJ 27-5 #133
Collection Date: 11/4/2013 10:52:00 AM
Lab ID: 1311140-002 **Matrix:** SOIL **Received Date:** 11/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	68	9.9		mg/Kg	1	11/7/2013 1:58:00 PM	10209
Surr: DNOP	110	66-131		%REC	1	11/7/2013 1:58:00 PM	10209
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	21	4.6		mg/Kg	1	11/6/2013 1:24:03 PM	10198
Surr: BFB	249	74.5-129	S	%REC	1	11/6/2013 1:24:03 PM	10198
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	11/6/2013 1:24:03 PM	10198
Toluene	ND	0.046		mg/Kg	1	11/6/2013 1:24:03 PM	10198
Ethylbenzene	ND	0.046		mg/Kg	1	11/6/2013 1:24:03 PM	10198
Xylenes, Total	ND	0.093		mg/Kg	1	11/6/2013 1:24:03 PM	10198
Surr: 4-Bromofluorobenzene	121	80-120	S	%REC	1	11/6/2013 1:24:03 PM	10198

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: SC-3
Project: Enterprise SJ 27-5 #133
Collection Date: 11/4/2013 10:54:00 AM
Lab ID: 1311140-003 **Matrix:** SOIL **Received Date:** 11/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2013 2:28:56 PM	10209
Surr: DNOP	105	66-131		%REC	1	11/7/2013 2:28:56 PM	10209
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/6/2013 2:49:49 PM	10198
Surr: BFB	97.9	74.5-129		%REC	1	11/6/2013 2:49:49 PM	10198
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	11/6/2013 2:49:49 PM	10198
Toluene	ND	0.047		mg/Kg	1	11/6/2013 2:49:49 PM	10198
Ethylbenzene	ND	0.047		mg/Kg	1	11/6/2013 2:49:49 PM	10198
Xylenes, Total	ND	0.094		mg/Kg	1	11/6/2013 2:49:49 PM	10198
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	11/6/2013 2:49:49 PM	10198

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: SC-4
Project: Enterprise SJ 27-5 #133
Collection Date: 11/4/2013 10:57:00 AM
Lab ID: 1311140-004 **Matrix:** SOIL **Received Date:** 11/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2013 3:30:45 PM	10209
Surr: DNOP	99.7	66-131		%REC	1	11/7/2013 3:30:45 PM	10209
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/6/2013 3:18:21 PM	10198
Surr: BFB	95.7	74.5-129		%REC	1	11/6/2013 3:18:21 PM	10198
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	11/6/2013 3:18:21 PM	10198
Toluene	ND	0.046		mg/Kg	1	11/6/2013 3:18:21 PM	10198
Ethylbenzene	ND	0.046		mg/Kg	1	11/6/2013 3:18:21 PM	10198
Xylenes, Total	ND	0.092		mg/Kg	1	11/6/2013 3:18:21 PM	10198
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	11/6/2013 3:18:21 PM	10198

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Project: Enterprise SJ 27-5 #133
Lab ID: 1311140-005 **Matrix:** SOIL

Client Sample ID: SC-5 @ 14'
Collection Date: 11/4/2013 11:45:00 AM
Received Date: 11/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	390	10		mg/Kg	1	11/7/2013 4:01:30 PM	10209
Surr: DNOP	103	66-131		%REC	1	11/7/2013 4:01:30 PM	10209
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	750	98		mg/Kg	20	11/6/2013 11:29:36 AM	10198
Surr: BFB	220	74.5-129	S	%REC	20	11/6/2013 11:29:36 AM	10198
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.49		mg/Kg	20	11/6/2013 11:29:36 AM	10198
Toluene	7.1	0.98		mg/Kg	20	11/6/2013 11:29:36 AM	10198
Ethylbenzene	4.9	0.98		mg/Kg	20	11/6/2013 11:29:36 AM	10198
Xylenes, Total	64	2.0		mg/Kg	20	11/6/2013 11:29:36 AM	10198
Surr: 4-Bromofluorobenzene	124	80-120	S	%REC	20	11/6/2013 11:29:36 AM	10198

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Project: Enterprise SJ 27-5 #133
Lab ID: 1311140-006 **Matrix:** SOIL

Client Sample ID: N Excavaton East Stockpile
Collection Date: 11/4/2013 11:10:00 AM
Received Date: 11/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2013 4:32:29 PM	10209
Surr: DNOP	94.9	66-131		%REC	1	11/7/2013 4:32:29 PM	10209
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/6/2013 3:46:52 PM	10198
Surr: BFB	94.7	74.5-129		%REC	1	11/6/2013 3:46:52 PM	10198
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	11/6/2013 3:46:52 PM	10198
Toluene	ND	0.046		mg/Kg	1	11/6/2013 3:46:52 PM	10198
Ethylbenzene	ND	0.046		mg/Kg	1	11/6/2013 3:46:52 PM	10198
Xylenes, Total	ND	0.093		mg/Kg	1	11/6/2013 3:46:52 PM	10198
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	11/6/2013 3:46:52 PM	10198

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Project: Enterprise SJ 27-5 #133
Lab ID: 1311140-007 **Matrix:** SOIL

Client Sample ID: N Excavation West Stockpile
Collection Date: 11/4/2013 11:20:00 AM
Received Date: 11/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2013 5:03:42 PM	10209
Surr: DNOP	103	66-131		%REC	1	11/7/2013 5:03:42 PM	10209
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.5	4.9		mg/Kg	1	11/6/2013 4:15:22 PM	10198
Surr: BFB	115	74.5-129		%REC	1	11/6/2013 4:15:22 PM	10198
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	11/6/2013 4:15:22 PM	10198
Toluene	ND	0.049		mg/Kg	1	11/6/2013 4:15:22 PM	10198
Ethylbenzene	ND	0.049		mg/Kg	1	11/6/2013 4:15:22 PM	10198
Xylenes, Total	ND	0.097		mg/Kg	1	11/6/2013 4:15:22 PM	10198
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	11/6/2013 4:15:22 PM	10198

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 greater than 2 for VOA and TOC only.
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#: **1311140**

08-Nov-13

Client: Souder, Miller and Associates

Project: Enterprise SJ 27-5 #133

Sample ID **MB-10209**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **10209**	RunNo: **14632**
Prep Date: **11/6/2013**	Analysis Date: **11/7/2013**	SeqNo: **420889** 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	9.7		10.00		96.9	66	131			

Sample ID **LCS-10209**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **10209**	RunNo: **14632**
Prep Date: **11/6/2013**	Analysis Date: **11/7/2013**	SeqNo: **420892** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	62.1	127			
Surr: DNOP	4.5		5.000		89.3	66	131			

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 greater than 2 for VOA and TOC only.
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#: **1311140**

08-Nov-13

Client: Souder, Miller and Associates

Project: Enterprise SJ 27-5 #133

Sample ID **MB-10198** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **10198** RunNo: **14627**

Prep Date: **11/5/2013** Analysis Date: **11/6/2013** SeqNo: **420726** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.0	74.5	129			

Sample ID **LCS-10198** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **10198** RunNo: **14627**

Prep Date: **11/5/2013** Analysis Date: **11/6/2013** SeqNo: **420727** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.4	74.5	126			
Surr: BFB	980		1000		98.4	74.5	129			

Sample ID **1311140-002AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **SC-2** Batch ID: **10198** RunNo: **14627**

Prep Date: **11/5/2013** Analysis Date: **11/6/2013** SeqNo: **420730** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	55	4.7	23.50	21.04	146	76	156			
Surr: BFB	2900		939.8		312	74.5	129			S

Sample ID **1311140-002AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **SC-2** Batch ID: **10198** RunNo: **14627**

Prep Date: **11/5/2013** Analysis Date: **11/6/2013** SeqNo: **420731** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	60	4.7	23.47	21.04	166	76	156	8.27	17.7	S
Surr: BFB	2800		939.0		298	74.5	129	0	0	S

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 greater than 2 for VOA and TOC only.
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#: **1311140**

08-Nov-13

Client: Souder, Miller and Associates

Project: Enterprise SJ 27-5 #133

Sample ID **MB-10198**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **10198**	RunNo: **14627**
Prep Date: **11/5/2013**	Analysis Date: **11/6/2013**	SeqNo: **420742** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID **LCS-10198**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **10198**	RunNo: **14627**
Prep Date: **11/5/2013**	Analysis Date: **11/6/2013**	SeqNo: **420743** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.1	80	120			
Toluene	1.0	0.050	1.000	0	99.6	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Sample ID **1311140-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **10198**	RunNo: **14627**
Prep Date: **11/5/2013**	Analysis Date: **11/6/2013**	SeqNo: **420745** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9785	0	112	67.3	145			
Toluene	1.1	0.049	0.9785	0.006922	115	66.8	144			
Ethylbenzene	1.2	0.049	0.9785	0.01753	117	61.9	153			
Xylenes, Total	3.6	0.098	2.935	0.04923	120	65.8	149			
Surr: 4-Bromofluorobenzene	1.2		0.9785		119	80	120			

Sample ID **1311140-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **10198**	RunNo: **14627**
Prep Date: **11/5/2013**	Analysis Date: **11/6/2013**	SeqNo: **420746** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.049	0.9785	0	118	67.3	145	5.61	20	
Toluene	1.2	0.049	0.9785	0.006922	121	66.8	144	5.42	20	
Ethylbenzene	1.2	0.049	0.9785	0.01753	124	61.9	153	5.65	20	
Xylenes, Total	3.8	0.098	2.935	0.04923	127	65.8	149	5.23	20	
Surr: 4-Bromofluorobenzene	1.2		0.9785		121	80	120	0	0	S

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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-FARM | Work Order Number: 1311140 | RcptNo: 1

Received by/date: AG/KM 11/05/13

Logged By: Anne Thorne 11/5/2013 10:00:00 AM Anne Thorne

Completed By: Anne Thorne 11/5/2013 Anne Thorne

Reviewed By: IO 11/05/13

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: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: SMA	☑ Standard ☐ Rush
	Project Name: Enterprise SJ 27-5 #133
Mailing Address: 2101 San Juan Blvd. Farmington NM 87401	Project #: 5122104
Phone #: 505.325.7535	
email or Fax#: Steven.Moskal@Soudermiller.com	Project Manager: Steven Moskal
QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)	
Accreditation ☐ NELAP ☐ Other ____	Sampler: TJL
☐ EDD (Type) ____	On Ice: ☑ Yes ☐ No
	Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1311107	BTEX + MBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
11-4-13	1050	Soil	SC-1	4oz Jar	Cool	-001	X		X									
	1052		SC-2			-002	X		X									
	1054		SC-3			-003	X		X									
	1057		SC-4			-004	X		X									
	1145		SC-5 @ 14'			-005	X		X									
	1110		N. Excavation East Stockpile			-006	X		X									
	1120		N. Excavation West Stockpile			-007	X		X									

Date	Time	Relinquished by:	Received by:	Date	Time
11-4-13	1647	Thomas Long	Christine Walters	11/4/13	1647
11/4/13	1742	Christine Walters		11/05/13	1000

Remarks: Bill To Enterprise

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.