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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

Denied

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Enterprise Field Services, LLC	Contact Aaron Dailey
Address 614 Reilly Avenue, Farmington NM 87401	Telephone No. (505)599-2286
Facility Name Atlantic Fruitland 24 Com #2	Facility Type Well Head Meter Run Location

Surface Owner BLM	Mineral Owner BLM	API No. 30-045-27801

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	24	31N	10W					San Juan

Latitude N 36.88176 **Longitude** W107.83993 (Decimal Degrees)

NATURE OF RELEASE

Type of Release: Natural gas condensate	Volume of Release: Unknown (estimated @ 3-4 barrels)	Volume Recovered: Estimated 100 cubic yards petroleum contaminated soil remove
Source of Release: Catalytic heater piping on meter tube	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 7.17.2012 @ 16:00 hours
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 JUL 26 '18
OIL CONS. DIV.
DIST. 3

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Enterprise measurement technician found stained soil beneath the meter tube. The technician discovered the source of the leak, which was the ¼" gas supply valve to the catalytic heater, which was a result of the meter tube filling with condensate and overflowing through the catalytic heater. The technician shut in this supply valve and contacted his supervisor and the Enterprise environmental department.

Describe Area Affected and Cleanup Action Taken.*
Initial cleanup actions began 7/17/2012 and were completed August 8, 2012. Subsequent site investigation was conducted using third party environmental contractor and Geoprobe assessment on May 9, 2013. Please refer to the supplemental Environmental Site investigation attached to this "final" c-141 report for details.

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:	OIL CONSERVATION DIVISION
Printed Name: Matt Marra	Approved by Environmental Specialist:
Title: Senior Director, Environmental	Approval Date: 3/6/18 Expiration Date:
E-mail Address: memarra@eprod.com	Conditions of Approval: Attached ☒
Date: 7-18-2013 Phone: (713) 381-6684	

* Attach Additional Sheets If Necessary

NJK1326749584
Need additional delineation
See attached Conditions of Approval

24

Fields, Vanessa, EMNRD

From: Fields, Vanessa, EMNRD
Sent: Monday, March 5, 2018 3:16 PM
To: 'Long, Thomas'
Cc: Smith, Cory, EMNRD; Stone, Brian
Subject: RE: Atlantic Fruitland Com #002 historic release

Thank you.

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

From: Long, Thomas [mailto:tjlong@eprod.com]
Sent: Monday, March 5, 2018 3:10 PM
To: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Cc: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Stone, Brian <bmstone@eprod.com>
Subject: RE: Atlantic Fruitland Com #002 historic release

Vanessa,

I will get it on the schedule. I will keep you informed as to when it is scheduled.

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Fields, Vanessa, EMNRD [mailto:Vanessa.Fields@state.nm.us]
Sent: Monday, March 05, 2018 3:08 PM
To: Long, Thomas
Cc: Smith, Cory, EMNRD
Subject: Atlantic Fruitland Com #002 historic release

Good afternoon Tom,

Per our phone conversation the OCD is conducting an internal audit of old releases and found the following to be open.

Atlantic Fruitland 24 Com #002 release from meter tube.

As discussed please further delineate area SC 3-SC5 & SB 15. Sample for 8015 and 8021 constituents.

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

Southwest
GEOSCIENCE
606 S. Rio Grande Avenue, Suite A
Aztec, New Mexico 87410
Ph: (505) 334-5200
Fax: (505) 334-5204

June 26, 2013

Enterprise Products Operating, LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: **Mr. Aaron Dailey**

Re: **Supplemental Environmental Site Investigation**
Atlantic Fruitland 24 Com #2
NW ¼ SW ¼, Sec 24, Township 31 North, Range 10 West
Rural San Juan County, NM
SWG Project No. 0413G004

Dear Mr. Dailey:

Southwest Geoscience (SWG) appreciates the opportunity to submit this Supplemental Environmental Site Investigation (SESI) letter report describing sampling and assessment activities completed at the Enterprise Products Operating, LLC (Enterprise) Atlantic Fruitland 24 Com #2 release site, referred to hereinafter as the "Site" or "subject Site". The Site is located in the NW ¼ of the SW ¼ of Section 24, Township 31 North, Range 10 West in rural San Juan County, New Mexico, on land managed by the US Bureau of Land Management.

A topographic map is included as Figure 1, an aerial photograph of the Site vicinity is included as Figure 2, and a Site Map is included as Figure 3 of Attachment A.

Initial Response/Assessment Activities

On July 19, 2012, Enterprise responded to a condensate release at the Site. The initial response and assessment activities were documented in the *Atlantic Fruitland 24 Com #2 Release Assessment and Mitigation Report – Animas Environmental Services, LLC (AES)*, dated October 2, 2012 and submitted to the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD). The release occurred at an above-grade meter run, and remediation activities were performed intermittently during July and August of 2012 utilizing hand tools and a hydro-excavator. The final excavation measured approximately 14 feet by 13 feet, with an approximate depth of 12 feet below grade surface (bgs). An estimated 100 cubic yards of soil were ultimately removed from the location for disposal/treatment at the JFJ Landfarm on Crouch Mesa, in San Juan County, New Mexico.

Composite confirmation samples collected subsequent to the final hydro-excavation activities indicated that total petroleum hydrocarbon (TPH) concentrations were still present in soils above the OCD Remediation Action Levels (RALs).

Supplemental Environmental Site Investigation Activities

On May 9th, 2013, Enterprise performed additional Site investigation activities utilizing a Geoprobe® drilling rig. An OCD representative was present to witness supplemental investigation activities, which were performed by SWG environmental professional Kyle Summers and Louis Trujillo with Earth Worx Environmental. Five soil borings (SB-10 through SB-15) were advanced in the vicinity of the release to further evaluate subsurface conditions at the

Site. Soil borings SB-10 through SB-14 were advanced beyond the prior limits of the excavation to evaluate potential lateral extent of constituents of concern (COCs). Soil boring SB-15 was advanced at an angle beneath the meter run to intercept the center-line at a depth of approximately 15 to 20 feet bgs to evaluate the vertical extent of impact directly beneath the source of release. The relative locations of the soil borings are presented on Figure 3, Attachment A.

During the advancement of the soil borings, soil samples were collected continuously utilizing four-foot core barrel samplers to the termination depth of each soil boring. Soil samples were observed to document soil lithology, color, moisture content, and visual and olfactory evidence of petroleum hydrocarbons. Upon retrieval of each core barrel from the borehole, a portion of the soil sample was placed into a plastic ziplock bag for field screening utilizing a photoionization detector (PID) capable of detecting volatile organic compounds (VOCs). The PID was calibrated utilizing an isobutylene standard prior to use in the field.

During the completion of each soil boring, an on-site geoscientist documented the lithology encountered and constructed a profile of the soil column from the surface to the boring terminus. Soil samples from each boring location were visually inspected and logged in the field. The lithology encountered during the advancement of soil borings SB-10 through SB-14 included dry moderate yellowish brown silty sand and silty clay to a depth of approximately 12 feet bgs. Soil recovery at shallow depths (< 10 feet) was frequently poor due to the presence of hard dry layers of soil plugging the sample barrel. The silty sands/clays were underlain by sandy silt to the terminus of the boring at probe refusal. The terminus of each boring encountered sandstone or weathered sandstone. The lithology at soil boring SB-15 included silty sand and gravel backfill to a depth of approximately 12 feet bgs, underlain by moderate yellowish brown silty sand and silty clay to the terminus of the boring on sandstone at approximately 18' bgs. The following table identifies the total depth of each soil boring at probe refusal in sandstone:

Soil Boring ID	Total Depth (feet bgs)
SB-10	28
SB-11	18
SB-12	15
SB-13	15
SB-14	28
SB-15	18

With the exception of soil boring SB-15, petroleum hydrocarbon odors were not detected in the soil samples collected during the Geoprobe® sampling event. The PID readings from SB-10 through SB-14 did not exceed 5 parts per million (ppm) at any sample interval. Soil boring SB-15 exhibited elevated PID readings ranging from 505 ppm to 557 ppm from the bottom of the former excavation (12 feet bgs) to the terminus of the boring on sandstone at 18 feet bgs.

Based on field screening or visual observations, at least one soil sample was selected from each soil boring for laboratory analysis. The SESI soil samples were placed in laboratory prepared glassware, sealed with custody tape/labels and placed on ice in a cooler, which was

secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico for standard turnaround. The executed chain-of-custody form and laboratory data sheets are provided in Appendix C

Hall performed the analyses of samples under an adequate and documented quality assurance program to meet the project and data quality objectives. The laboratory's quality assurance program is generally consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. In addition, the data generated by Hall meets the intralaboratory performance standards for the selected analytical method and the performance standards are sufficient to meet the bias, precision, sensitivity, representativeness, comparability, and completeness, as specified in the project data quality objectives.

The prior assessment report identifies a previous Site ranking of "40" on the NMOCD site ranking system. SWG grades the Site ranking as "30" based on the following information: Arch Rock Spring is located approximately 650 feet east of the Site. The spring, although dry at the time of the investigation, would theoretically conduct groundwater to the surface from a perched aquifer in the adjacent mesa. Due to its ephemeral nature, the spring should be considered a potential surface water body as opposed to a "water source". Additionally, the spring is located upgradient from the Site with respect to surface drainage, and the perched aquifer that feeds it would likely be at a higher elevation than the Site, precluding any potential interaction. Each of the ephemeral drainages referenced in the AES report are > 200 feet from the release location. Groundwater was not encountered during the SESI activities, and a search of the NM Office of the State Engineer Water Rights Reporting System did not identify any registered water wells within 2,000 feet of the site. However, a C-144 report from the nearby BP America Atlantic LS 017 well indicates that groundwater may be < 50 feet bgs.

SWG compared the TPH GRO/DRO and BTEX concentrations or laboratory reporting limits (RLs) associated with the soil samples collected from the SESI Geoprobe® borings to the OCD *Remediation Action Levels* for Sites having a total ranking score of >20. The results of the soil sample analyses are summarized in Table 1 included in Attachment B.

Total Petroleum Hydrocarbons

SESI soil samples collected from soil borings SB-10 through SB-14 did not exhibit TPH GRO/DRO concentrations above the laboratory RLs, which are below the OCD's *Remediation Action Level* of 100 mg/Kg.

SESI soil samples SB-15 (12'-14') and SB-15 (16'-18') exhibited combined TPH GRO/DRO concentrations of 663 mg/Kg and 956 mg/Kg, respectively, which are above the OCD's *Remediation Action Level* of 100 mg/Kg.

Benzene and Total BTEX

SESI soil samples collected from soil borings SB-10 through SB-14 did not exhibit benzene, toluene, ethylbenzene, total xylenes, or total BTEX concentrations above the laboratory RLs, which are below the OCD's *Remediation Action Levels*.

SESI soil sample SB-15 (12'-14') exhibited BTEX constituent and total BTEX concentrations above the laboratory RLs, but below the OCD's *Remediation Action Levels*.

SESI soil sample SB-15 (16'-18') exhibited a total BTEX concentration of 52.6 mg/Kg, which exceeds the OCD's *Remediation Action Level of 50 mg/Kg.*

Conclusions / Recommendations

Based on the data obtained during the SESI and subsequent laboratory analyses, limited soil impact remains at the Site in the immediate vicinity of the meter run, at depths between 12 feet and 18 feet bgs. However, the complete lack of benzene, and relatively low total BTEX concentrations would seem to indicate a release that is already undergoing significant natural degradation. Additionally, the affected material appears to be confined to the immediate area of release and is underlain by sandstone.

SWG has the following recommendations:

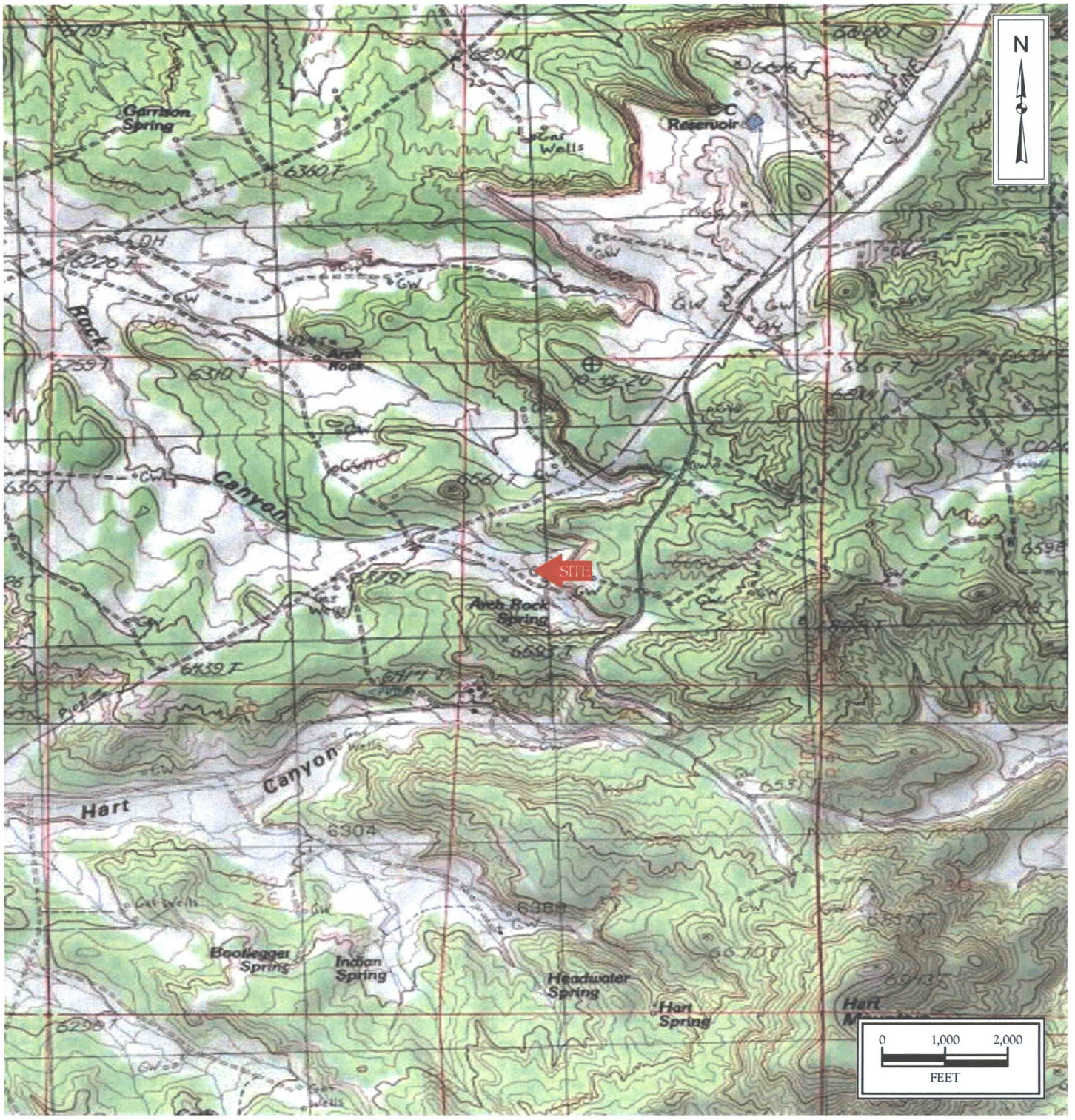
- **Report the results of this investigation to the New Mexico OCD;**
- **Request that no further action be required in relation to this release at this time.**

If you should have any questions or comments regarding this letter report, please contact the undersigned at (505) 334-5200.

Sincerely,
Southwest Geoscience

Kyle Summers C.P.G.
Manager, Four Corners

B. Chris Mitchell, P.G.
Principal Geoscientist



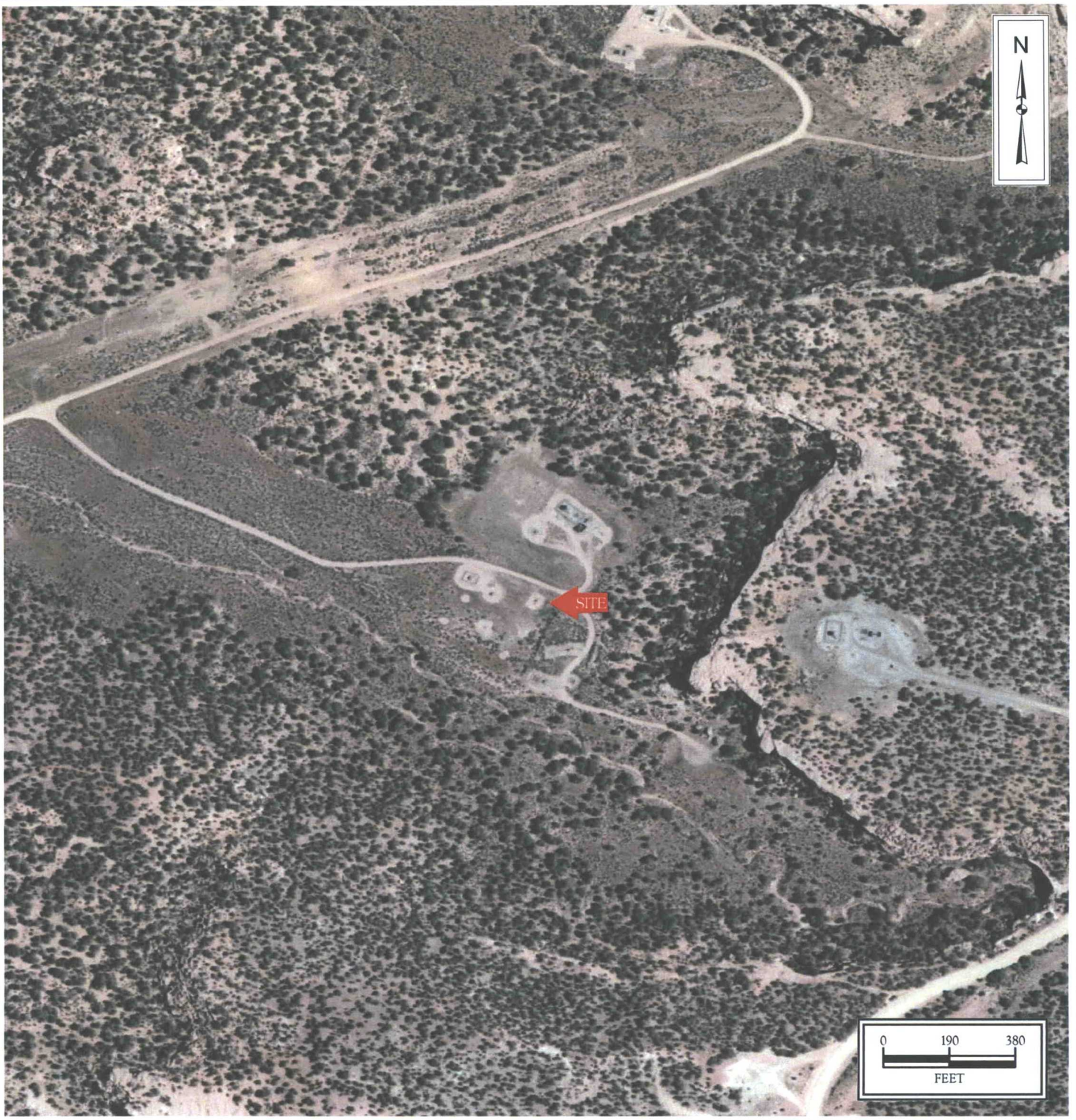
Atlantic Fruitland 24 Com #2
N36° 52' 54.34; W107° 50' 23.75"
Rural San Juan County, New Mexico

N36.88176°
W107.83993°

SWG Project No. 0413G004

Southwest GEOSCIENCE

Figure 1
Topographic Map
Mount Nebo and Turley
New Mexico Quadrangles
Contour Interval = 20 Feet
1985



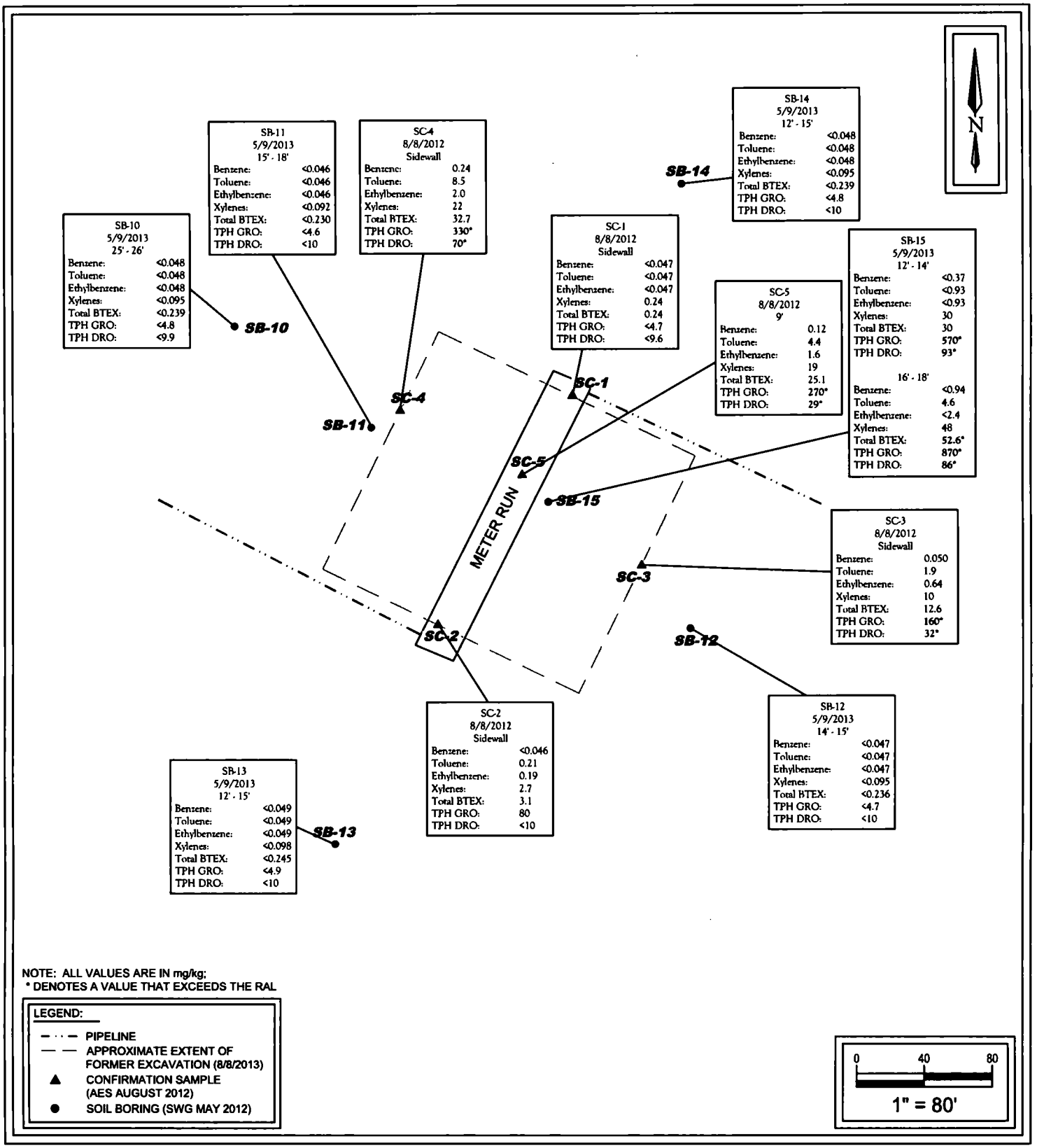
Atlantic Fruitland 24 Com #2
N36° 52' 54.34; W107° 50' 23.75"
Rural San Juan County, New Mexico

SWG Project No. 0413G004

Southwest GEOSCIENCE

Figure 2

Site Vicinity Map



Atlantic Fruitland 24 Com #2
N36° 52' 54.34"; W107° 50' 23.75"
Rural San Juan County, New Mexico

SWG Project No. 0413G004

Southwest GEOSCIENCE

Figure 3

Site Map

Southwest GEOSCIENCE

TABLE 1
Atlantic Fruitland 24 Com #2
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Entergy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level				10	NE	NE	NE	50	100	
Soil Samples Previously Collected Following Final Response Actions										
SC-1	8/8/2012	C	Sidewall	<0.047	<0.047	<0.047	0.24	0.24	<4.7	<9.6
SC-2	8/8/2012	C	Sidewall	<0.046	0.21	0.19	2.7	3.1	80	<10
SC-3	8/8/2012	C	Sidewall	0.050	1.9	0.64	10	12.6	**160**	**32**
SC-4	8/8/2012	C	Sidewall	0.24	8.5	2.0	22	32.7	**330**	**70**
SC-5	8/8/2012	C	9	0.12	4.4	1.6	19	25.1	**270**	**29**
Soil Samples Collected by SWG During April 2013										
SB-10	5/9/2013	G	25-26	<0.048	<0.048	<0.048	<0.095	<0.239	<4.8	<9.9
SB-11	5/9/2013	G	15-18	<0.046	<0.046	<0.046	<0.092	<0.230	<4.6	<10
SB-12	5/9/2013	G	14-15	<0.047	<0..047	<0.047	<0.095	<0.236	<4.7	<10
SB-13	5/9/2013	G	12-15	<0.049	<0.049	<0.049	<0.098	<0.245	<4.9	<10
SB-14	5/9/2013	G	12-15	<0.048	<0.048	<0.048	<0.095	<0.239	<4.8	<10
SB-15	5/9/2013	G	12-14	<0.37	<0.93	<0.93	30	30	**570**	**93**
SB-15	5/9/2013	G	16-18	<0.94	4.6	<2.4	48	**52.6**	**870**	**86**

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level

NE = Not Established

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

May 20, 2013

Kyle Summers

Southwest Geoscience
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Atlantic Fruitland 24 Com #2 OrderNo.: 1305505

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 5/14/2013 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. 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. 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.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1305505**
Date Reported: **5/20/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Project: Atlantic Fruitland 24 Com #2
Lab ID: 1305505-001 **Matrix:** SOIL

Client Sample ID: SB-10 (25'-26')
Collection Date: 5/9/2013 10:05:00 AM
Received Date: 5/14/2013 10:10:00 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	5/16/2013 9:09:48 PM	7452
Surr: DNOP	104	63-147		%REC	1	5/16/2013 9:09:48 PM	7452
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/15/2013 6:29:21 PM	7440
Surr: BFB	94.1	80-120		%REC	1	5/15/2013 6:29:21 PM	7440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	5/15/2013 6:29:21 PM	7440
Toluene	ND	0.048		mg/Kg	1	5/15/2013 6:29:21 PM	7440
Ethylbenzene	ND	0.048		mg/Kg	1	5/15/2013 6:29:21 PM	7440
Xylenes, Total	ND	0.095		mg/Kg	1	5/15/2013 6:29:21 PM	7440
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	5/15/2013 6:29:21 PM	7440

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
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: Southwest Geoscience
Project: Atlantic Fruitland 24 Com #2
Lab ID: 1305505-002 **Matrix:** SOIL

Client Sample ID: SB-11 (15'-18')
Collection Date: 5/9/2013 11:00:00 AM
Received Date: 5/14/2013 10:10:00 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	5/16/2013 9:37:50 PM	7452
Surr: DNOP	110	63-147		%REC	1	5/16/2013 9:37:50 PM	7452
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/15/2013 6:58:03 PM	7440
Surr: BFB	93.9	80-120		%REC	1	5/15/2013 6:58:03 PM	7440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	5/15/2013 6:58:03 PM	7440
Toluene	ND	0.046		mg/Kg	1	5/15/2013 6:58:03 PM	7440
Ethylbenzene	ND	0.046		mg/Kg	1	5/15/2013 6:58:03 PM	7440
Xylenes, Total	ND	0.092		mg/Kg	1	5/15/2013 6:58:03 PM	7440
Surr: 4-Bromofluorobenzene	99.7	80-120		%REC	1	5/15/2013 6:58:03 PM	7440

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
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: Southwest Geoscience
Project: Atlantic Fruitland 24 Com #2
Lab ID: 1305505-003 **Matrix:** SOIL

Client Sample ID: SB-12 (14'-15')
Collection Date: 5/9/2013 11:30:00 AM
Received Date: 5/14/2013 10:10:00 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	5/16/2013 10:05:36 PM	7452
Surr: DNOP	120	63-147		%REC	1	5/16/2013 10:05:36 PM	7452
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/15/2013 9:21:02 PM	7440
Surr: BFB	93.5	80-120		%REC	1	5/15/2013 9:21:02 PM	7440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	5/15/2013 9:21:02 PM	7440
Toluene	ND	0.047		mg/Kg	1	5/15/2013 9:21:02 PM	7440
Ethylbenzene	ND	0.047		mg/Kg	1	5/15/2013 9:21:02 PM	7440
Xylenes, Total	ND	0.095		mg/Kg	1	5/15/2013 9:21:02 PM	7440
Surr: 4-Bromofluorobenzene	99.0	80-120		%REC	1	5/15/2013 9:21:02 PM	7440

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
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: Southwest Geoscience
Project: Atlantic Fruitland 24 Com #2
Lab ID: 1305505-004 **Matrix:** SOIL

Client Sample ID: SB-13 (12'-15')
Collection Date: 5/9/2013 12:15:00 PM
Received Date: 5/14/2013 10:10:00 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	5/16/2013 10:33:21 PM	7452
Surr: DNOP	114	63-147		%REC	1	5/16/2013 10:33:21 PM	7452
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/15/2013 9:49:42 PM	7440
Surr: BFB	94.8	80-120		%REC	1	5/15/2013 9:49:42 PM	7440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	5/15/2013 9:49:42 PM	7440
Toluene	ND	0.049		mg/Kg	1	5/15/2013 9:49:42 PM	7440
Ethylbenzene	ND	0.049		mg/Kg	1	5/15/2013 9:49:42 PM	7440
Xylenes, Total	ND	0.098		mg/Kg	1	5/15/2013 9:49:42 PM	7440
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/15/2013 9:49:42 PM	7440

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
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: Southwest Geoscience
Client Sample ID: SB-14 (12'-15')
Project: Atlantic Fruitland 24 Com #2
Collection Date: 5/9/2013 12:45:00 PM
Lab ID: 1305505-005 **Matrix:** SOIL **Received Date:** 5/14/2013 10:10:00 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	5/16/2013 11:00:58 PM	7452
Surr: DNOP	108	63-147		%REC	1	5/16/2013 11:00:58 PM	7452
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/15/2013 10:18:22 PM	7440
Surr: BFB	94.2	80-120		%REC	1	5/15/2013 10:18:22 PM	7440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	5/15/2013 10:18:22 PM	7440
Toluene	ND	0.048		mg/Kg	1	5/15/2013 10:18:22 PM	7440
Ethylbenzene	ND	0.048		mg/Kg	1	5/15/2013 10:18:22 PM	7440
Xylenes, Total	ND	0.095		mg/Kg	1	5/15/2013 10:18:22 PM	7440
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/15/2013 10:18:22 PM	7440

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
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: Southwest Geoscience
Project: Atlantic Fruitland 24 Com #2
Lab ID: 1305505-006 **Matrix:** SOIL

Client Sample ID: SB-15 (12'-14')
Collection Date: 5/9/2013 1:25:00 PM
Received Date: 5/14/2013 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	50	10		mg/Kg	1	5/16/2013 11:28:21 PM	7452
Surr: DNOP	118	63-147		%REC	1	5/16/2013 11:28:21 PM	7452
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	570	93		mg/Kg	20	5/15/2013 10:47:00 PM	7440
Surr: BFB	209	80-120	S	%REC	20	5/15/2013 10:47:00 PM	7440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.37		mg/Kg	20	5/15/2013 10:47:00 PM	7440
Toluene	ND	0.93		mg/Kg	20	5/15/2013 10:47:00 PM	7440
Ethylbenzene	ND	0.93		mg/Kg	20	5/15/2013 10:47:00 PM	7440
Xylenes, Total	30	1.9		mg/Kg	20	5/15/2013 10:47:00 PM	7440
Surr: 4-Bromofluorobenzene	109	80-120		%REC	20	5/15/2013 10:47:00 PM	7440

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
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: Southwest Geoscience
Project: Atlantic Fruitland 24 Com #2
Lab ID: 1305505-007 **Matrix:** SOIL

Client Sample ID: SB-15 (16'-18')
Collection Date: 5/9/2013 1:40:00 PM
Received Date: 5/14/2013 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	86	10		mg/Kg	1	5/16/2013 11:55:55 PM	7452
Surr: DNOP	125	63-147		%REC	1	5/16/2013 11:55:55 PM	7452
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	870	240		mg/Kg	50	5/15/2013 11:15:39 PM	7440
Surr: BFB	151	80-120	S	%REC	50	5/15/2013 11:15:39 PM	7440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.94		mg/Kg	50	5/15/2013 11:15:39 PM	7440
Toluene	4.6	2.4		mg/Kg	50	5/15/2013 11:15:39 PM	7440
Ethylbenzene	ND	2.4		mg/Kg	50	5/15/2013 11:15:39 PM	7440
Xylenes, Total	48	4.7		mg/Kg	50	5/15/2013 11:15:39 PM	7440
Surr: 4-Bromofluorobenzene	105	80-120		%REC	50	5/15/2013 11:15:39 PM	7440

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
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#: **1305505**

20-May-13

Client: Southwest Geoscience

Project: Atlantic Fruitland 24 Com #2

Sample ID **MB-7452**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **7452**	RunNo: **10647**
Prep Date: **5/15/2013**	Analysis Date: **5/16/2013**	SeqNo: **301683** 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		104	63	147			

Sample ID **LCS-7452**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **7452**	RunNo: **10647**
Prep Date: **5/15/2013**	Analysis Date: **5/16/2013**	SeqNo: **302005** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.7	77.1	128			
Surr: DNOP	5.2		5.000		105	63	147			

Sample ID **MB-7492**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **7492**	RunNo: **10707**
Prep Date: **5/17/2013**	Analysis Date: **5/17/2013**	SeqNo: **302574** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		86.9	63	147			

Sample ID **LCS-7492**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **7492**	RunNo: **10707**
Prep Date: **5/17/2013**	Analysis Date: **5/17/2013**	SeqNo: **302643** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.4	63	147			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305505**

20-May-13

Client: Southwest Geoscience

Project: Atlantic Fruitland 24 Com #2

Sample ID **MB-7440**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **7440**	RunNo: **10656**
Prep Date: **5/14/2013**	Analysis Date: **5/15/2013**	SeqNo: **301116** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		91.7	80	120			

Sample ID **LCS-7440**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **7440**	RunNo: **10656**
Prep Date: **5/14/2013**	Analysis Date: **5/15/2013**	SeqNo: **301117** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	62.6	136			
Surr: BFB	1000		1000		99.7	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305505**

20-May-13

Client: Southwest Geoscience

Project: Atlantic Fruitland 24 Com #2

Sample ID **MB-7440**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **7440**	RunNo: **10656**
Prep Date: **5/14/2013**	Analysis Date: **5/15/2013**	SeqNo: **301144** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.9	80	120			

Sample ID **LCS-7440**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **7440**	RunNo: **10656**
Prep Date: **5/14/2013**	Analysis Date: **5/15/2013**	SeqNo: **301145** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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: Southwest Geoscience A Work Order Number: 1305505 RcptNo: 1

Received by/date: AG 05/14/13

Logged By: Anne Thorne 5/14/2013 10:10:00 AM

Completed By: Anne Thorne 5/14/2013

Reviewed By: JO 05/14/2013

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			

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: Aztec
Project Manager: Summers

Laboratory: Hall
Address: ABQ
Contact: A. Freeman
Phone:
PO/SO #: 04136004

Sampler's Name: Kyle Summers
Sampler's Signature:

Proj. No.: 04136004
Project Name: Atlantic Fruitland 24 Com #2
No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021; TPH GRO/DRO 8015

Lab use only
Due Date:
Temp. of coolers when received (C°): 1.0
1 | 2 | 3 | 4 | 5
Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	P/O	BTEX	TPH	Lab Sample ID (Lab Use Only)
S	5/9/13	1005		X	SB-10 (25'-26')	25	26				1	X	X	1305505-001
		1100		X	SB-11 (15'-18')	15	18							-002
		1130		X	SB-12 (14'-15')	14	15							-003
		1215		X	SB-13 (12'-15')	12	15							-004
		1245		X	SB-14 (12-15')	12	15							-005
		1325		X	SB-15 (12'-14')	12	14							-006
		1340		X	SB-15 (16-18')	16	18							-007
					N/F S									
					MS									

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	5/10/13	830	Christine Walters	5/10/13	830
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Christine Walters	5/13/13	1757		05/14/13	1010
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other