

**GW-156**

**Removal of Wash  
Bay Effluent  
Holding Tank**

**Date:**

**5/2011**



**Key Energy Services  
U.S. Highway 64 Truck Yard**

**Removal of Wash Bay Effluent Holding Tank  
Remediation of Discovered Hydrocarbon Impacted Area  
Decommissioning and Closure of Four Wash Bay Sumps**

Latitude North 36 42.256, Longitude West 108 06.872  
NE1/4, NE1/4 Sec. 29-T29N-R12W  
San Juan County, New Mexico  
Regulatory Jurisdiction: NMOCD



Prepared for: Key Energy Services  
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Midland, TX 79705

Prepared by: Souder, Miller & Associates  
2101 San Juan Boulevard  
Farmington, NM 87401

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SMA Ref # 5121216

## INTRODUCTION

On behalf of Key Energy Services, Inc. Souder, Miller & Associates (SMA) has prepared this report describing activities that were completed to remediate a discovered hydrocarbon release associated with a partially buried wash bay effluent storage tank from the wash bays located within the facility. The release was discovered during a Phase II sampling investigation of soils surrounding the wash bay tank on or about May 18, 2011. The investigation by Basin Engineering was conducted to address environmental concerns noted in a Phase I Environmental Site Assessment by others. Figure 1, Vicinity Map, illustrates the location of the site at 5651 U.S. Highway 64, Farmington, NM. The site is located in Unit A (NE ¼, NE ¼) Section 29 Township 29 North, Range 12W, San Juan County, New Mexico.

On June 20, 2011, SMA was requested to evaluate the tank and related area of the yard and prepare a preliminary scope to mitigate the soils impacts discovered during the Phase II sampling. Those impacts ranged from 254 mg/kg Total Petroleum Hydrocarbons, Diesel Range (TPH-DRO) at 2 feet below surface grade (bsg) and 9.55 mg/kg at 6 feet bsg in the north test pit (TP2) to 8,860 mg/kg at 2.5 feet bsg and 476 mg/kg at 6.5 feet bsg in the south test pit (TP1).

SMA personnel viewed the location and, after corresponding with both Key personnel and New Mexico Oil Conservation Division (NMOCD), arranged for Southwest Field Services (SWFS) to initiate a One-Call utility notification in preparation for excavation and removal of the wash tank and impacted soils planned to begin June 28, 2011. A composite soil sample was constructed using aliquots from TP1 and TP2 as well as the adjacent soil stockpiles and submitted to Hall Environmental Analytical Laboratory (HEAL) of Albuquerque, NM for analysis for the RCRA 8 Toxic Metals to allow waste characterization and profiling as a Non-Exempt, Non-Hazardous Waste. As such, the excavated impacted soils could be accepted at the Industrial Ecosystems Inc. (IEI) Land Farm for bio-pile treatment and disposal.

After evaluation of the site using aerial photography, topographic maps and familiarity with the area, depth to groundwater can be assumed to be less than 100 feet bsg. The location and operation of the site are under the jurisdiction of the NMOCD. NMOCD Guidelines for Remediation of Leaks, Spills, and Releases establish action levels for constituents of concern where the depth to groundwater is less than 100 feet bsg: 10 parts per million (ppm) Benzene, 50 ppm total BTEX (Benzene, Toluene, Ethyl-Benzene, and Xylenes) and 100 ppm Total Petroleum Hydrocarbons (TPH). Under NMOCD jurisdiction, remediation of releases is frequently performed through excavation of impacted soils to the extent of the release where levels of impact are less than the action levels or to where further excavation is infeasible due to safety concerns, the presence of competent bedrock, or stability threats to existing structures.

## FIELD ACTIVITIES

Previous to SWFS and SMA beginning excavation on June 28, 2011, Key personnel had removed the remaining liquids from the wash bay holding tank and transported for disposal. One-Call notification was given and the absence of underground utilities confirmed. The Site Health and Safety Plan was discussed and acknowledged by SWFS, SMA, and Key yard personnel. The tank atmosphere was tested for explosive vapors and oxygen levels using the Key LEL/O<sub>2</sub> meter and found to be within safe limits. Surface equipment surrounding the tank was removed for later destruction and metals recycling, and excavation commenced at the previously excavated TP2 north of the tank. Excavation was limited to the north and west areas around the tank until a Super Sucker vacuum truck and crew could be available from IEI to complete sludge removal and rinsing of the tank. Cutting up the double-walled 12 foot by 12

foot steel tank was planned to take place on the site to facilitate hauling for scrap metal recycling. The IEI truck and crew arrived the afternoon of June 28, rechecked the tank atmosphere and removed the remaining sludge from the tank, transporting it to the IEI Land Farm.

On June 29, 2011, after the daily tailgate safety meeting with SWFS and SMA personnel, under the supervision of SMA, SWFS continued excavating on the north and west sides of the tank. A bench was excavated on the northwest side of the tank to a depth of approximately four feet below surface grade (bsg). SMA personnel collected soil samples for field screening for total petroleum hydrocarbons (TPH) with a Petroflag® sampling kit. A total of five samples were collected from the excavation of the northwest side of the tank for field screening, three from the bottom and one each from the east and west side walls. All five were combined in a composite for field screening of the 18 foot by 16 foot area. Based on the field screening result of over 243 ppm TPH, additional excavation was planned for the next day. A summary of field screening results is included in Table 1, Summary of Petroflag® Field Screening Results. Soil sample locations are illustrated on Figure 2, Key Energy Yard, Excavation Diagram, dated 6/30/11-7/1/11. Photographs of the excavation activities are included in Appendix A.

Excavation continued on June 30, 2011, on the south and east sides of tank. After sufficient soil was removed from the around the tank, SWFS removed the tank from the excavation and set it aside pending cutting up. SMA personnel collected one five point composite soil sample from beneath the tank at approximately seven feet bsg for Petroflag® field screening. Another five point composite sample was constructed from the north bench at a depth of 6 feet. A third composite was constructed from three aliquots from the east wall of the excavation. At this point the entire excavation was approximately 37 feet wide and 80 feet long with an average depth of seven feet bsg where sandstone bed rock was encountered. The extent of the excavation and soil sample locations are illustrated on Figure 2, Key Energy Yard, Excavation Diagram dated 6/30/11-7/1/11. A summary of field screening results is included in Table 1, Summary of Petroflag® Field Screening Results.

After field screening results indicated that levels were below regulatory standards for TPH, the three composite soil samples were packaged for laboratory analytical confirmation of closure levels. Each sample was placed in a four-ounce glass jar with a Teflon lid gasket, labeled with date and time, sealed with chain of custody evidence tape, and placed on ice for shipment to HEAL for laboratory analysis. The soil samples were analyzed by USEPA SW846 Method 8015 for Diesel Range Organics (DRO)/Gasoline Range Organics (GRO). The initial three composite samples were not analyzed by Method 8021 for BTEX as the area had previously been cleared for those constituents in the initial investigation by Basin Engineering. A summary of the laboratory analyses is included in Table 2, Summary of Laboratory Analyses and the laboratory reports are included in Appendix B. Concurrent with excavation activities, SFWS loaded 262 cubic yards of contaminated soil onto 24 cubic yard tandem super dump trucks for proper disposal at the IEI Land Farm located in Crouch Mesa, New Mexico. SWFS returned with 262 cubic yards of clean backfill material and stock piled the clean soil on the east side of the excavation.

On July 1, 2011, based on the field screening results clearing the northeast and east areas, the excavation was expanded approximately 12 feet to the west and approximately 22 feet to the south. Photographs of the excavation activities are included in Appendix A. On the south and west walls of the excavation, significant staining was consistently observed from approximately 2.5 feet bsg to approximately 8 feet bsg. Sandstone bedrock was encountered at an average depth of 8 feet, limiting the vertical extent of excavation. SMA personnel collected soil samples

for field screening for TPH by Petroflag® to guide the direction and depth of excavation. Figure 3, Key Energy Yard, Excavation Diagram, dated 7/1/11-7/5/11 illustrates the locations where soil samples for field screening were collected. As all field screening results to the south and west continued to be over closure levels, no soil samples were collected for laboratory analysis. SWFS also loaded and transported 252 cubic yards of contaminated soil to IEI for proper disposal and returned with 252 cubic yards of clean backfill material. Disposal documents are included in Appendix C.

Under the direction of SMA personnel, on July 5, 2011, SWFS continued excavating observable impacted soil from the south and southwest sides of the main excavation. Contaminated soil was removed to a depth of approximately eight feet bsg where sandstone bedrock was present. SMA's project manager determined that excavating on the southwest side of the main excavation was to be terminated due to potential safety risks associated with excavating near the edge of the cliff. To document materials not removed in that location, SMA personnel collected soil samples for field screening for total TPH with a Petroflag® as well as samples for laboratory analysis. Figure 3, Key Energy Yard, Excavation Diagram, dated 7/1/11-7/5/11 illustrates the locations where the soil samples were collected.

Then three composite soil samples were collected from the main excavation, one from the southeast wall, one from the southwest wall where excavation activities were terminated due to safety concerns and one from the excavation bottom on the southwest side. A summary of the laboratory analyses is included in Table 2, Summary of Laboratory Analyses and the laboratory reports are included in Appendix B. SWFS also loaded and transported 340 cubic yards of contaminated soil to IEI for proper disposal and returned with 330 cubic yards of clean backfill material.

From July 6, 2011 to July 8, 2011, under the supervision of SMA, SWFS expanded the excavation to the west. Hydrocarbon contaminated soil continued to be stockpiled on site for loading and transporting to IEI for proper disposal. The excavation expanded on the north side to approximately 82 feet, and to approximately 94 feet on the south side. During excavation activities various types of solid waste (oil filters, trash, tires), leach lines possibly associated with the wash tank, and a buried fiber glass sump tank and leach lines apparently associated with the sump tank. SMA periodically collected composite soil samples for field screen for TPH. Figure 4, Key Energy Yard, Excavation Diagram, dated 7/6/11, illustrates the final dimensions of the excavation and where the final composite soil samples were collected for field screening. SMA personnel also collected three closure soil samples for laboratory analysis. Two samples were collected from the west wall and one from the bottom of the excavation on the west side. After mixing the aliquots for each composite soil sample, the soil was placed in a four-ounce glass jar with a Teflon gasket in the cap, labeled with date and time, sealed with chain of custody evidence tape, and placed on ice for shipment to HEAL for laboratory analysis and closure confirmation. The soil samples were analyzed by EPA SW846 Method 8021 for BTEX and Method 8015 for Diesel Range Organics (DRO)/Gasoline Range Organics (GRO). SWFS also loaded and transported 1,214 cubic yards of contaminated soil to IEI for proper disposal and returned with 360 cubic yards of clean backfill material.

Figure 5, Key Energy Yard, Excavation Diagram, dated 7/8/11, illustrates the final dimensions of the excavation and where all composite closure soil samples were collected for laboratory analysis and closure confirmation. July 11, 2011 to July 14, 2011, under the supervision of SMA, SWFS loaded and transported 222 cubic yards of contaminated soil to IEI for proper disposal and returned with clean backfill material. As the impacted soil was being loaded and disposed, SWFS also began to backfill the excavation. Prior to placing backfill on top to the

relict flow line associated with the wash bays, SWFS sealed it by square cutting the end and gluing on a PVC end cap.

In total, approximately 2,858 cubic yards of impacted soils were transported to the Industrial Ecosystems Land Farm on Crouch Mesa, near Farmington, New Mexico for bio-pile treatment and disposal.

To backfill the excavation and prevent creation of a soft area subject to subsidence, for each lift, SWFS placed a 1.5 foot lift composed of imported clean fine grained material and then compacted the lift using the back hoe and track hoe. The lift was dampened with water and road base materials composed of larger rocks and gravel was placed onto the lift and then compacted again. This method was continued lift by lift until the entire excavation was backfilled to a depth of approximately six inches bsg. SWFS then placed and compacted a final finish grade lift of one-inch minus road base across the excavation. Photographs of the backfilling and compacting activities are included in Appendix A.

At the direction of Key Energy personnel, in order to decommission and permanently close the wash bay sumps in the building, SMA took two samples of the fluids and sludge remaining in two of the four wash bay sumps in the building. The samples were sent to HEAL for analysis for waste characterization to allow transport and disposal. Subsequently, July 15 through July 16, 2011, under the supervision of SMA, SWFS and IEI cleaned the sumps in the wash bays. The soil, fluids and sludge were removed from each 5' X 8' x 5' to 6' sump by a vacuum truck. After all materials were removed from the sumps, they were steam cleaned to remove any residual hydrocarbon materials. All soil, fluids and sludge removed from the sumps were transported to the IEI facility for proper disposal.

Over the next two days, SWFS backfilled and compacted each sump in each wash bay with one-inch minus road base. Each sump was backfilled to a depth of approximately eight inches below the surface of the surrounding slab. The last eight inches was filled with concrete, packed and the surface smoothed to match the existing concrete slabs. Photographs of the backfilling and compacting activities are included in Appendix A. Disposal documents are included in Appendix C.

## CONCLUSIONS AND RECOMMENDATIONS

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases establish action levels for contaminants of concern where the depth to groundwater is less than 100 feet bsg: 10 ppm Benzene, 50 ppm total BTEX, and 100 ppm TPH. Based on laboratory analysis, all of the soil samples collected are below the required NMOCD action levels with the exception of three samples: the two samples collected from the southwest wall of the excavation and one collected from the bottom within the southwest part of the excavation. Excavation was terminated in the area represented by these three samples due to safety risks associated with excavating near the edge of the cliff and to the sandstone bedrock that was encountered at approximately 7.5 to 8 feet bsg. NMOCD allows excavation of impacted soils to be limited by significant safety concerns, the presence of competent bedrock, or stability threats to existing structures. The limitation of the excavation posed by the cliff and by the presence of sandstone bedrock were discussed with and approved by the local NMOCD representative.

The three sumps in three wash bays and the one sump in the shop were cleaned. All soil, fluids and sludge was removed by a vacuum truck and transported to IEI land farm for proper disposal. Each sump was steam cleaned to remove any residual hydrocarbons. Finally, each

sump was abandoned by backfilling and compacting one inch road base until to a depth of approximately eight inches bgs. The last eight inches was backfilled with concrete, packed and the surface smoothed to match the existing concrete surface.

SMA considers no further action to be appropriate to address the discovered hydrocarbon release in the yard nor the decommissioning and abandonment of the wash bay sumps in the building. SMA recommends that the discovered release area be considered closed through the removal and disposal of impacted soils as documented by closure samples taken and analyzed in the laboratory. Further, a copy of this report should be sent to the New Mexico Oil Conservation Division Aztec Field Office for their records.

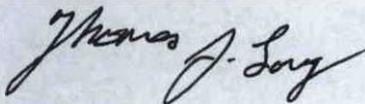
### CLOSURE AND LIMITATIONS

The scope of SMA's services consisted of the performance of a preliminary spill assessment and stabilization, work plan preparation, regulatory liaison, oversight and control of clean-up operations, disposal arrangements and documentation, project and subcontractor management, and preparation of this summary report. All work has been performed in accordance with generally accepted professional hazardous materials management practices.

If there are any questions regarding this report, please contact either Thomas Long or Cynthia Gray at 505-325-7535.

Respectfully submitted,

Thomas J. Long  
Project Scientist



Reviewed by,

Cynthia A. Gray, CHMM  
Senior Scientist



### Figures:

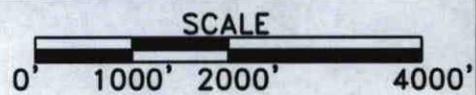
- Figure 1, Vicinity Map
- Figure 2, Site Diagram dated 6/30/11-7/1/11
- Figure 3, Site Diagram dated 7/1/11-7/5/11
- Figure 4, Site Diagram dated 7/8/11

### Tables:

- Table 1, Summary of Petroflag Field Screening Results
- Table 2, Summary of Laboratory Analyses

### Appendices:

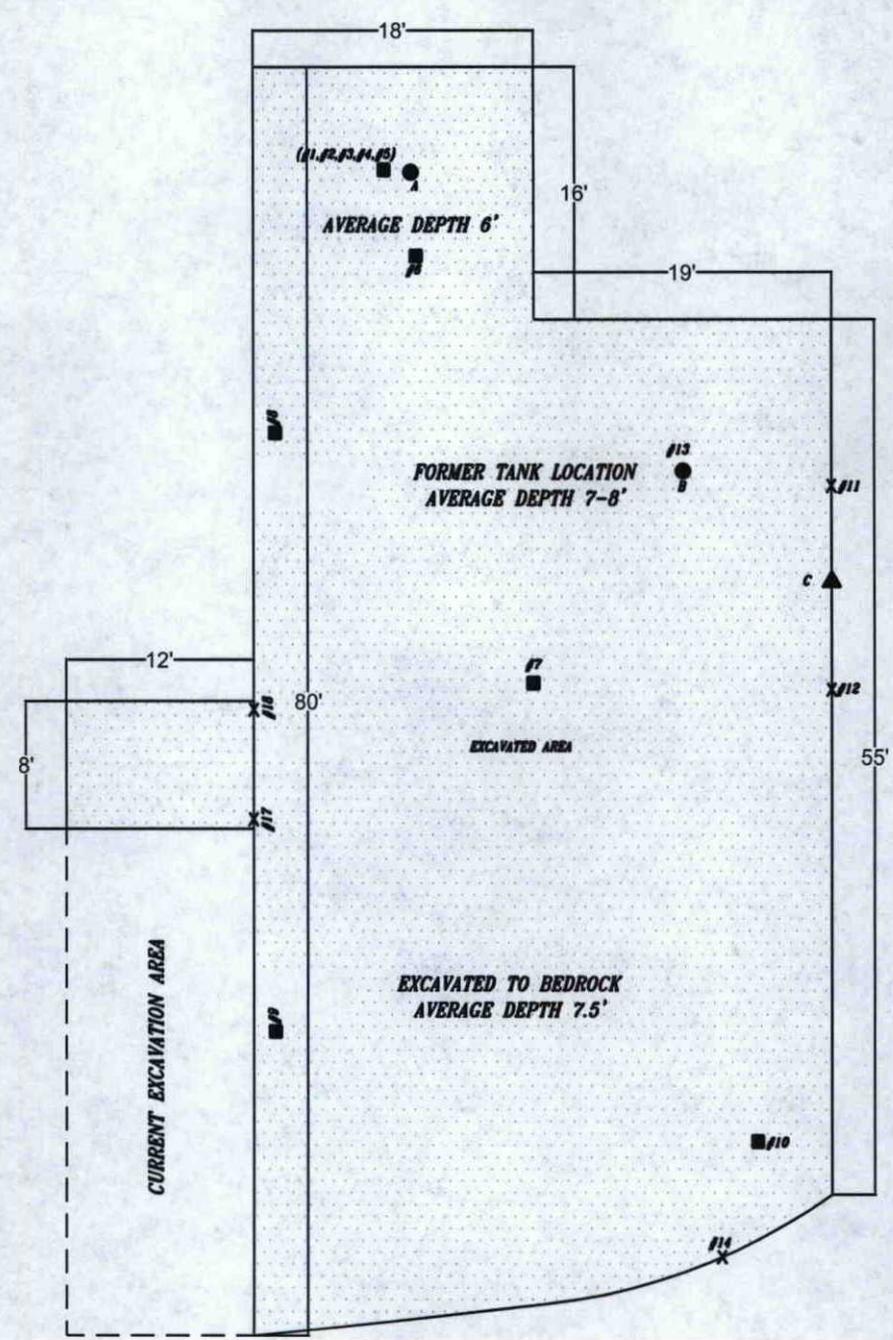
- Appendix A, Site Photography
- Appendix B, Laboratory Reports
- Appendix C, Soil Disposal Documentation



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APPROVED: CAG	DATE: 7/25/11
DRAWN BY: TLONG	DATE: 7/25/11
REVISIONS BY:	DATE:
PROJECT # 5121216	FIGURE: 1

VICINITY MAP  
 KEY ENERGY SERVICES  
 NE 1/4 NE 1/4 SEC. 29 T29N R12W  
 SAN JUAN COUNTY, NEW MEXICO



- - PETROFLAG BOTTOM COMPOSITE SAMPLE LOCATION
- x - PETROFLAG WALL COMPOSITE SAMPLE LOCATION
- - LABORATORY BOTTOM COMPOSITE SAMPLE LOCATION
- ▲ - LABORATORY WALL COMPOSITE SAMPLE LOCATION

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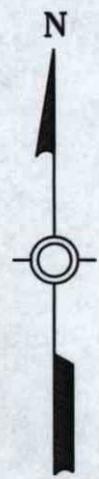
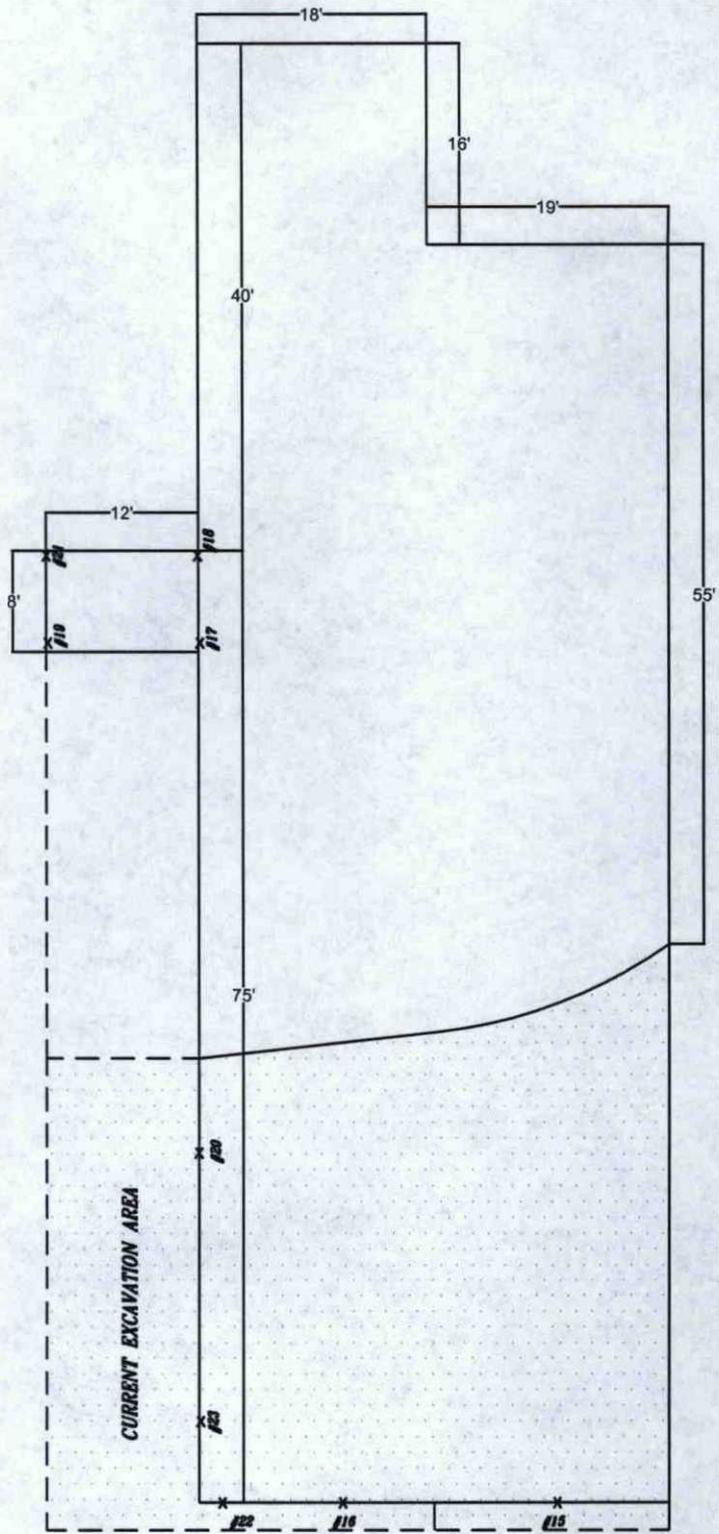


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KEY ENERGY SERVICES U.S. HIGHWAY 64 YARD  
 6/30/2011 TO 7/1/2011 SAN JUAN COUNTY, NM

FIGURE 2

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- - PETROFLAG BOTTOM COMPOSITE SAMPLE LOCATION
- x - PETROFLAG WALL COMPOSITE SAMPLE LOCATION
- - LABORATORY BOTTOM COMPOSITE SAMPLE LOCATION
- ▲ - LABORATORY WALL COMPOSITE SAMPLE LOCATION

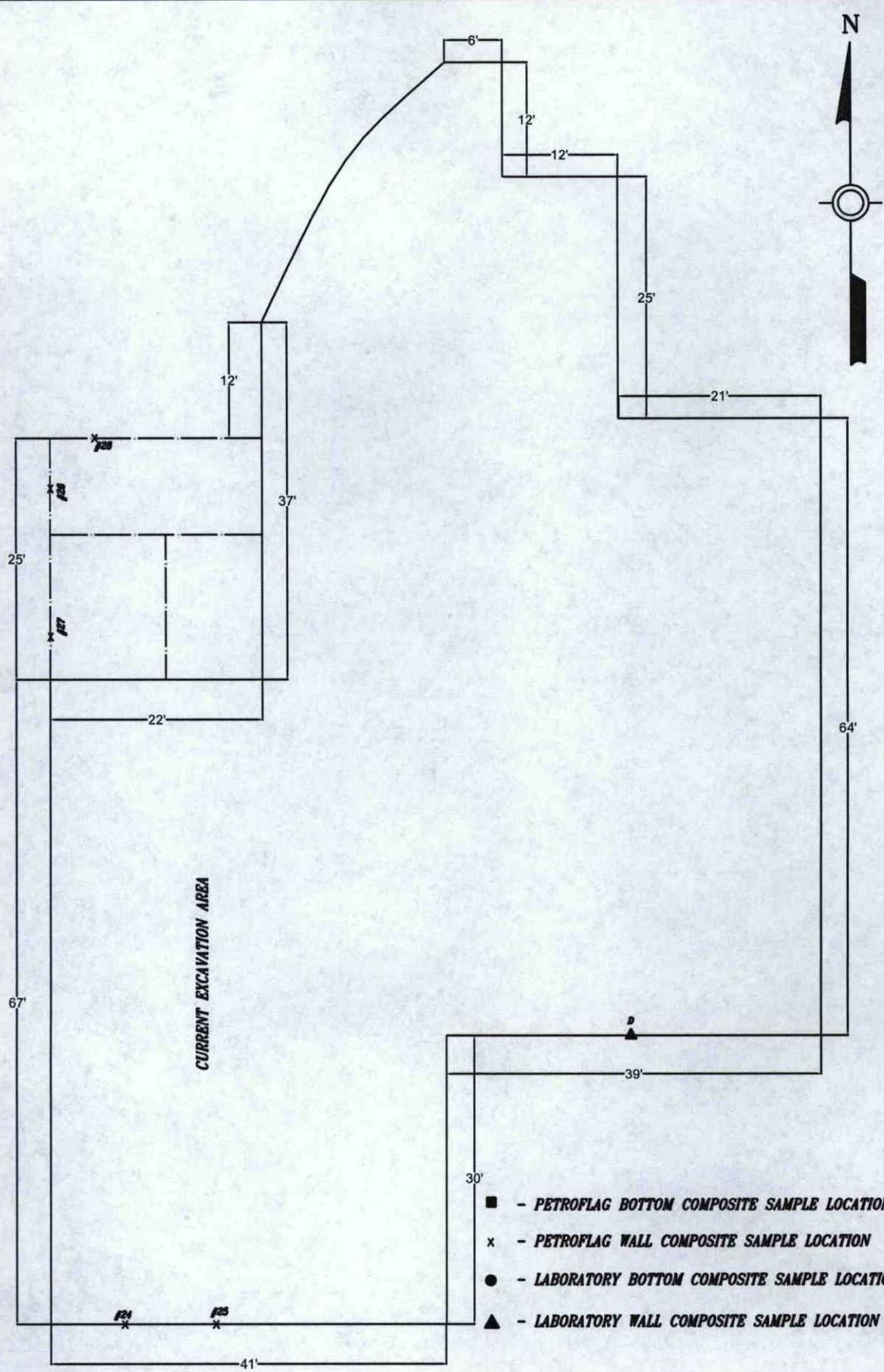


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KEY ENERGY SERVICES U.S. HIGHWAY 64 YARD  
 7/1/2011 TO 7/5/2011 SAN JUAN COUNTY, NM

FIGURE 3

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- - PETROFLAG BOTTOM COMPOSITE SAMPLE LOCATION
- x - PETROFLAG WALL COMPOSITE SAMPLE LOCATION
- - LABORATORY BOTTOM COMPOSITE SAMPLE LOCATION
- ▲ - LABORATORY WALL COMPOSITE SAMPLE LOCATION

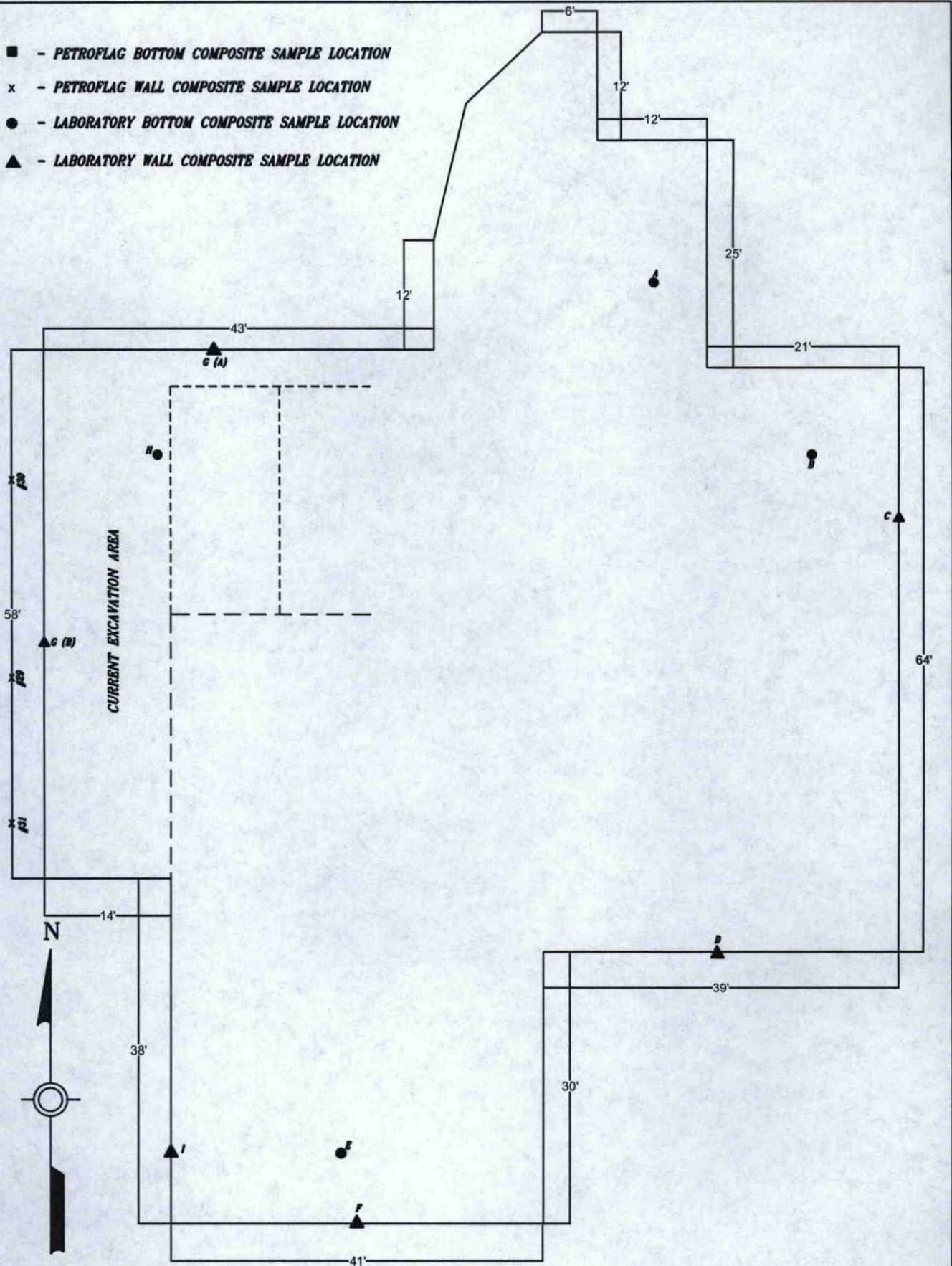


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**KEY ENERGY SERVICES U.S. HIGHWAY 64 YARD  
 7/6/2011 SAN JUAN COUNTY, NM**

**FIGURE 4**

- - PETROFLAG BOTTOM COMPOSITE SAMPLE LOCATION
- x - PETROFLAG WALL COMPOSITE SAMPLE LOCATION
- - LABORATORY BOTTOM COMPOSITE SAMPLE LOCATION
- ▲ - LABORATORY WALL COMPOSITE SAMPLE LOCATION



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**KEY ENERGY SERVICES U.S. HIGHWAY 64 YARD  
 7/8/2011 SAN JUAN COUNTY, NM**

**FIGURE 5**

**Table 1: Summary of Petroflag Analysis  
Results  
Key Energy Services  
U.S. Highway 64 Yard**

SMA Project #  
5121216 BG 1

Sample ID	Date	Depth (feet)	Result (ppm)
(1) North Bench	6/29/2011	4	22
(2) South Bench	6/29/2011	4	46
(3) Center Bench	6/29/2011	4	151
(4) East Bench	6/29/2011	Wall	
(5) Composite West	6/29/2011	4	243
(6) Composite North Bench	6/30/2011	5.5	87
(7) Composite South Excavation	6/30/2011	6.5	OR
(8) Composite A - NW Wall	6/30/2011	Wall	OR
(9) Composite B - SW Wall	6/30/2011	Wall	OR
(10) Composite SE Bottom	6/30/2011	7	552
(11) East Wall #1	6/30/2011	Wall	93
(12) East Wall #2	6/30/2011	Wall	131
(13) Under Tank	6/30/2011	8	209
(14) South Wall	6/30/2011	Wall	1435
(15) SE Wall Composite #1	6/30/2011	Wall	20
(16) SE Wall Composite #2	6/30/2011	Wall	97
(17) #1 West Wall	7/1/2011	3	OR
(18) #2 West Wall	7/1/2011	4.5	697
(19) #3 West Wall Composite	7/1/2011	Wall	1201
(20) #4 West Wall	7/5/2011	Wall	805
(21) #5 West Wall Composite	7/5/2011	Wall	634
(22) #6 Southwest Wall	7/5/2011	Wall	1422
(23) #7 West Wall	7/5/2011	Wall	OR
(24) #8 Southwest Wall	7/5/2011	Wall	162
(25) #9 Southwest Wall	7/5/2011	Wall	OR
(26) #10 West Wall Composite	7/6/2011	Wall	427
(27) #11 West Wall Composite	7/6/2011	Wall	699
(28) #12 Northwest Wall Composite	7/7/2011	Wall	862
(29)#13 Northwall Composite	7/7/2011	Wall	OR
(30) #14 West Wall Composite	7/8/2011	Wall	436
(31) #15 West Wall Composite	7/8/2011	Wall	103

Notes:OR/EEEE = Greater than the analytical range of the field instrument



Table 2: Summary of Laboratory Analysis

SMA Project # 5121216 BG 1

Key Energy Services  
U.S. Highway 64 Yard

Sample Name	Date	USEPA METHOD 8021					USEPA METHOD 8015	
		Benzene	Toluene	Ethyl-Benzene	Total Xylenes	Total BTEX	Diesel Range	Gasoline Range
(A) North End @ 5.5' 5 pt Comp	6/30/2011	NA	NA	NA	NA	NA	37	<5.0
(B) Below Tank- 8" 5 pt Comp	6/30/2011	NA	NA	NA	NA	NA	19	<5.0
(C) East Wall @ 7' - 3 pt Comp	6/30/2011	NA	NA	NA	NA	NA	12	<5.0
(D) Southeast Wall - Main Excavation	7/5/2011	<0.048	<0.048	<0.048	<0.097	<0.097	12	<4.8
(E) Southwest Bottom @7' - Main Excavation	7/5/2011	<0.046	<0.046	<0.046	<0.092	<0.092	580	<46
(F) Southwest Wall - Main Excavation	7/5/2011	<0.050	<0.050	<0.050	<0.10	<0.10	410	<5.0
(G) North Wall Composite	7/8/2011	<0.047	<0.047	<0.047	<0.093	<0.093	<10	<4.7
(H) N.W. Bottom at 7.5'	7/8/2011	<0.048	<0.048	<0.048	<0.097	<0.097	70	<4.8
(I) S.W. Wall Comp.	7/8/2011	<0.048	<0.048	<0.048	<0.095	<0.095	180	<4.8
NMOCD Action Levels**		10				50	100	

\*all results in mg/Kg

\*\*Action Levels based on groundwater depth less than 100 ft. bgs





Photo 1: View of the wash tank and bollards.



Photo 2: View of the wash tank and bollards.



Photo 3: View of the excavation around the wash tank.



Photo 4: View of the excavation around the wash tank.



Photo 5: View of the removal of the wash tank.



Photo 6: View of excavation activities along the southwest wall.



Photo 7: View of contaminated soil on the west side before excavating.

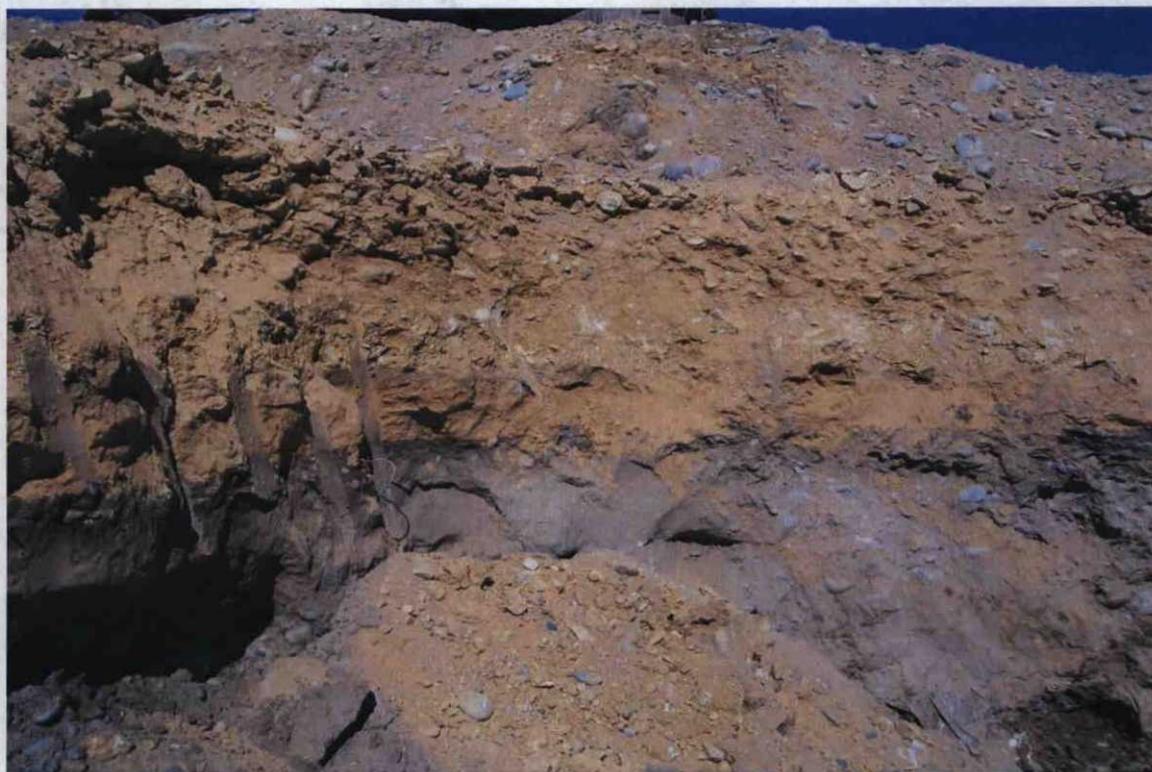


Photo 8: View of the contaminated soil on the west side before excavating.



Photo 9: View of the northwest side of the excavation.



Photo 10: View of a leach line discovered during excavation activities on the northwest side.



Photo 11: View excavation activities on the southwest corner.



Photo 12: View of the excavation, view from the south.



Photo 13: View of excavating activities on the south side.



Photo 14: View of the terminated excavation on the southwest corner.



Photo 15: View of the southwest corner of the excavation.



Photo 16: View of the west side of the excavation.



Photo 17: View of excavating activities on the northwest side.



Photo 18: View of the northwest side of the excavation.



Photo 19: View of the west side of the completed excavation.



Photo 20: View of backfilling activities on the east side of the excavation.



Photo 21: View of backfilling activities on the east side of the excavation.



Photo 22: View of backfilling activities on the east side of the excavation.



Photo 23: View of backfilling activities on the east side of the excavation.



Photo 24: View of backfilling activities of the excavation.



Photo 25: View of backfilling activities of the excavation.



Photo 26: View of backfilling activities of the excavation.



Photo 27: View of backfilling activities of the excavation.



Photo 28: View of backfilling activities of the excavation.



Photo 29: View of capped discharge line from the wash bays.



Photo 30: View of backfilling and compaction activities.



Photo 31: View of backfilling and compaction activities.



Photo 32: View of backfilling and compaction activities.



Photo 33: View of backfilled excavation.

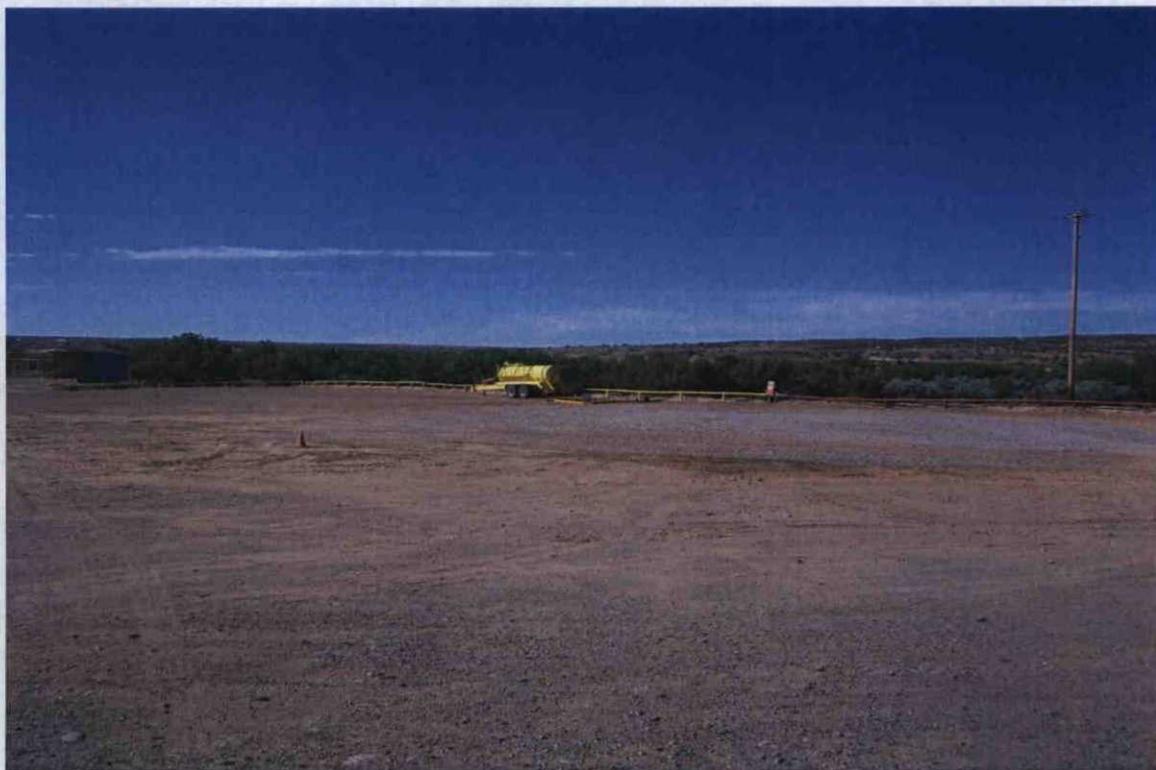


Photo 34: View of backfilled excavation.



Photo 35: View of the cleaning of the wash bay sumps.



Photo 36: View of the cleaning of the wash bay sumps.



Photo 37: View of the cleaning of the wash bay sumps.



Photo 38: View of the cleaned wash bay sumps.



Photo 39: View of the cleaned wash bay sumps.



Photo 40: View of backfilling and compaction activities of the wash bay sumps.

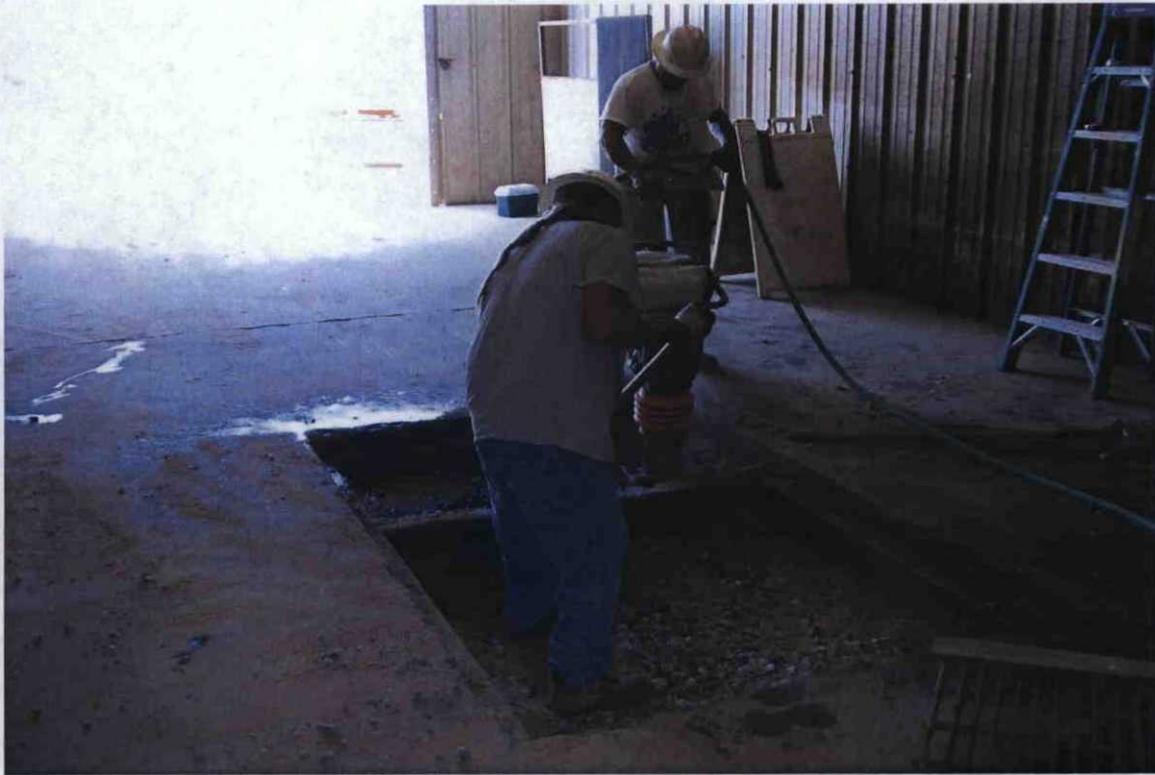


Photo 41: View of backfilling and compaction activities of the wash bay sumps.



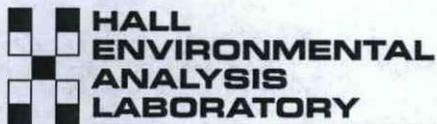
Photo 42: View of backfilling and compaction activities of the wash bay sumps.



Photo 43: View of wash bay sumps after concrete completions.



Photo 44: View of wash bay sumps after concrete completions.



COVER LETTER

Tuesday, July 05, 2011

Cindy Gray  
Souder, Miller and Associates  
2101 San Juan Boulevard  
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Hwy 64 Yard

Order No.: 1107002

Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/1/2011 for the analyses presented in the following report.

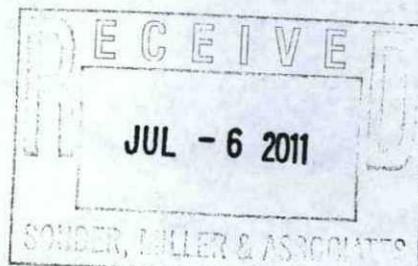
These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

  
Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682



# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
 Lab Order: 1107002  
 Project: Key Energy Hwy 64 Yard  
 Lab ID: 1107002-01

Client Sample ID: N End @ 5.5' 5 pt comp  
 Collection Date: 6/30/2011 8:05:00 AM  
 Date Received: 7/1/2011  
 Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	37	9.7		mg/Kg	1	7/1/2011 1:49:59 PM
Surr: DNOP	109	73.4-123		%REC	1	7/1/2011 1:49:59 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2011 3:22:19 PM
Surr: BFB	104	75.2-136		%REC	1	7/1/2011 3:22:19 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 05-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107002  
Project: Key Energy Hwy 64 Yard  
Lab ID: 1107002-02

Client Sample ID: Below Tank-8" 5 pt comp  
Collection Date: 6/30/2011 10:10:00 AM  
Date Received: 7/1/2011  
Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	19	9.9		mg/Kg	1	7/1/2011 2:24:23 PM
Surr: DNOP	95.0	73.4-123		%REC	1	7/1/2011 2:24:23 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2011 3:52:26 PM
Surr: BFB	102	75.2-136		%REC	1	7/1/2011 3:52:26 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 05-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107002  
Project: Key Energy Hwy 64 Yard  
Lab ID: 1107002-03

Client Sample ID: E Wall @ 7' 3 pt comp  
Collection Date: 6/30/2011 12:00:00 PM  
Date Received: 7/1/2011  
Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	12	9.9		mg/Kg	1	7/1/2011 2:59:17 PM
Surr: DNOP	97.7	73.4-123		%REC	1	7/1/2011 2:59:17 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2011 4:22:27 PM
Surr: BFB	86.4	75.2-136		%REC	1	7/1/2011 4:22:27 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** Souder, Miller and Associates  
**Project:** Key Energy Hwy 64 Yard

**Work Order:** 1107002

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

**Method:** EPA Method 8015B: Diesel Range Organics

<b>Sample ID:</b> MB-27455		MBLK									
Diesel Range Organics (DRO)	ND	mg/Kg	10								
<b>Sample ID:</b> LCS-27455		LCS									
Diesel Range Organics (DRO)	49.62	mg/Kg	10	50	0	99.2	66.7	119			
<b>Sample ID:</b> LCSD-27455		LCSD									
Diesel Range Organics (DRO)	52.62	mg/Kg	10	50	0	105	66.7	119	5.86	18.9	

**Qualifiers:**

- |  |  |
|--|--|
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | NC Non-Chlorinated                                   |
| ND Not Detected at the Reporting Limit       | R RPD outside accepted recovery limits               |

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/1/2011

Work Order Number 1107002

Received by: AT

Checklist completed by:

*[Signature]*  
Signature

07/01/11  
Date

Sample ID labels checked by:

*[Signature]*  
Initials

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

1.0°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Corrective Action \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Chain-of-Custody Record

Client: Souder Miller & Associates

Mailing Address: 2101 San Juan Blvd  
Farmington NM 87401

Phone #: 505-325-5667

Email or Fax#: Cindy Gray

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

Accreditation  
 NELAP  Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Turn-Around Time:  
 Standard  Rush Next Day Verbal

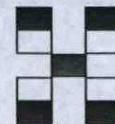
Project Name: Key Energy Hwy 64 Yard

Project #: 5121216

Project Manager: Cindy Gray

Sampler: C Gray  
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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1) <u>NMRD</u>	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
6/30/11	8:05	Soil	N End @ S.S'			1107002-1													
			5 Pt. Composite	1	Cool	-1		X											
6/30/11	10:10	Soil	Below Tank - 8"			-2													
			5 Pt. Composite	1	Cool	-2		X											
6/30/11	12:00	Soil	E. Wall @ 7'			-3													
			3 Pt. Composite	1	Cool	-3		X											

Date: 6/30/11 Time: 14:40 Relinquished by: CA

Date: 6/30/11 Time: 17:05 Relinquished by: Christa Waeter

Received by: Christa Waeter Date: 6/30/11 Time: 14:40

Received by: Christa Waeter Date: 6/30/11 Time: 09:00

Remarks: Email Verbal to Cindy Gray

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.

COVER LETTER

Monday, July 11, 2011

Cindy Gray  
Souder, Miller and Associates  
2101 San Juan Boulevard  
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Hwy 64 Yard

Order No.: 1107097

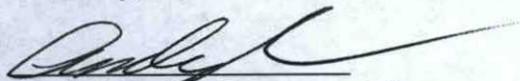
Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/6/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

  
Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682



# Hall Environmental Analysis Laboratory, Inc.

Date: 11-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107097  
Project: Key Energy Hwy 64 Yard  
Lab ID: 1107097-01

Client Sample ID: Southeast Wall Main Excavation  
Collection Date: 7/5/2011 2:00:00 PM  
Date Received: 7/6/2011  
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	12	10		mg/Kg	1	7/7/2011 4:06:04 PM
Surr: DNOP	94.9	73.4-123		%REC	1	7/7/2011 4:06:04 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/7/2011 8:39:22 PM
Surr: BFB	115	75.2-136		%REC	1	7/7/2011 8:39:22 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	7/7/2011 8:39:22 PM
Toluene	ND	0.048		mg/Kg	1	7/7/2011 8:39:22 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/7/2011 8:39:22 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/7/2011 8:39:22 PM
Surr: 4-Bromofluorobenzene	107	92-130		%REC	1	7/7/2011 8:39:22 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 11-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107097  
Project: Key Energy Hwy 64 Yard  
Lab ID: 1107097-02

Client Sample ID: Southwest Bottom @7'-Main Exc.  
Collection Date: 7/5/2011 2:40:00 PM  
Date Received: 7/6/2011  
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	580	200		mg/Kg	20	7/7/2011 4:41:30 PM
Surr: DNOP	0	73.4-123	S	%REC	20	7/7/2011 4:41:30 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	46		mg/Kg	10	7/8/2011 5:27:14 PM
Surr: BFB	92.2	75.2-136		%REC	10	7/8/2011 5:27:14 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.46		mg/Kg	10	7/7/2011 11:03:51 PM
Toluene	ND	0.46		mg/Kg	10	7/7/2011 11:03:51 PM
Ethylbenzene	ND	0.46		mg/Kg	10	7/7/2011 11:03:51 PM
Xylenes, Total	ND	0.92		mg/Kg	10	7/7/2011 11:03:51 PM
Surr: 4-Bromofluorobenzene	104	92-130		%REC	10	7/7/2011 11:03:51 PM

### Qualifiers:

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 11-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107097  
Project: Key Energy Hwy 64 Yard  
Lab ID: 1107097-03

Client Sample ID: Southwest Wall Main Excavation  
Collection Date: 7/5/2011 2:45:00 PM  
Date Received: 7/6/2011  
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	410	98		mg/Kg	10	7/8/2011 7:41:02 AM
Surr: DNOP	0	73.4-123	S	%REC	10	7/8/2011 7:41:02 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/8/2011 5:57:20 PM
Surr: BFB	97.2	75.2-136		%REC	1	7/8/2011 5:57:20 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.050		mg/Kg	1	7/8/2011 12:01:35 AM
Toluene	ND	0.050		mg/Kg	1	7/8/2011 12:01:35 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/8/2011 12:01:35 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/8/2011 12:01:35 AM
Surr: 4-Bromofluorobenzene	106	92-130		%REC	1	7/8/2011 12:01:35 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates

Project: Key Energy Hwy 64 Yard

Work Order: 1107097

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>											
Sample ID: MB-27496		MBLK									
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-27496		LCS									
Diesel Range Organics (DRO)	49.29	mg/Kg	10	50	3.765	91.1	66.7	119			
Sample ID: LCSD-27496		LCSD									
Diesel Range Organics (DRO)	47.76	mg/Kg	10	50	3.765	88.0	66.7	119	3.15	18.9	
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: MB-27495		MBLK									
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-27495		LCS									
Gasoline Range Organics (GRO)	25.42	mg/Kg	5.0	25	0	102	88.8	124			
<b>Method: EPA Method 8021B: Volatiles</b>											
Sample ID: 1107097-01A MSD		MSD									
Benzene	0.8166	mg/Kg	0.047	0.945	0	86.4	67.2	113	16.1	14.3	R
Toluene	0.9174	mg/Kg	0.047	0.945	0	97.1	62.1	116	10.7	15.9	
Ethylbenzene	0.9654	mg/Kg	0.047	0.945	0	102	67.9	127	8.37	14.4	
Xylenes, Total	2.957	mg/Kg	0.095	2.836	0	104	60.6	134	6.89	12.6	
Sample ID: MB-27495		MBLK									
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-27495		LCS									
Benzene	0.8597	mg/Kg	0.050	1	0	86.0	83.3	107			
Toluene	0.9672	mg/Kg	0.050	1	0.0145	95.3	74.3	115			
Ethylbenzene	1.012	mg/Kg	0.050	1	0	101	80.9	122			
Xylenes, Total	3.102	mg/Kg	0.10	3	0.0245	103	85.2	123			
Sample ID: 1107097-01A MS		MS									
Benzene	0.9600	mg/Kg	0.049	0.978	0	98.2	67.2	113			
Toluene	1.021	mg/Kg	0.049	0.978	0	104	62.1	116			
Ethylbenzene	1.050	mg/Kg	0.049	0.978	0	107	67.9	127			
Xylenes, Total	3.168	mg/Kg	0.098	2.933	0	108	60.6	134			

## Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/6/2011

Work Order Number 1107097

Received by: LNM

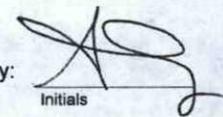
Checklist completed by:



Signature

7/6/11  
Date

Sample ID labels checked by:



Initials

Matrix:

Carrier name: Greyhound

- |   |  |                              |   |   |
|---|--|------------------------------|---|---|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  | Not Present <input type="checkbox"/>    |   |
| Custody seals intact on shipping container/cooler?      | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  | Not Present <input type="checkbox"/>    | Not Shipped <input type="checkbox"/>              |
| Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>                               | No <input type="checkbox"/>  | N/A <input checked="" type="checkbox"/> |   |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |   |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |   |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |   |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |   |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |   |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |   |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |   |
| Water - VOA vials have zero headspace?                  | No VOA vials submitted <input checked="" type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/>             | Number of preserved bottles checked for pH: _____ |
| Water - Preservation labels on bottle and cap match?    | Yes <input type="checkbox"/>                               | No <input type="checkbox"/>  | N/A <input checked="" type="checkbox"/> |   |
| Water - pH acceptable upon receipt?                     | Yes <input type="checkbox"/>                               | No <input type="checkbox"/>  | N/A <input checked="" type="checkbox"/> |   |
| Container/Temp Blank temperature?                       | 3.3°   | <6° C Acceptable             |   | <2 >12 unless noted below.                        |

If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_



COVER LETTER

Wednesday, July 20, 2011

Cindy Gray  
Souder, Miller and Associates  
2101 San Juan Boulevard  
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Yard

Order No.: 1107366

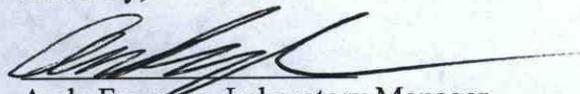
Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/12/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

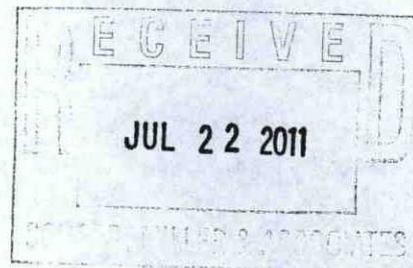
Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682



# Hall Environmental Analysis Laboratory, Inc.

Date: 20-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107366  
Project: Key Energy Yard  
Lab ID: 1107366-01

Client Sample ID: N. Wall Comp.  
Collection Date: 7/8/2011 10:20:00 AM  
Date Received: 7/12/2011  
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/14/2011 11:11:11 AM
Surr: DNOP	99.4	73.4-123		%REC	1	7/14/2011 11:11:11 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/14/2011 5:19:41 PM
Surr: BFB	84.0	75.2-136		%REC	1	7/14/2011 5:19:41 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.047		mg/Kg	1	7/14/2011 5:19:41 PM
Toluene	ND	0.047		mg/Kg	1	7/14/2011 5:19:41 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/14/2011 5:19:41 PM
Xylenes, Total	ND	0.093		mg/Kg	1	7/14/2011 5:19:41 PM
Surr: 4-Bromofluorobenzene	88.3	92-130	S	%REC	1	7/14/2011 5:19:41 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 20-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107366  
Project: Key Energy Yard  
Lab ID: 1107366-02

Client Sample ID: N.W. Bottom @7.5'  
Collection Date: 7/8/2011 10:25:00 AM  
Date Received: 7/12/2011  
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	70	9.7		mg/Kg	1	7/15/2011 10:32:59 AM
Surr: DNOP	105	73.4-123		%REC	1	7/15/2011 10:32:59 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/14/2011 5:49:40 PM
Surr: BFB	86.3	75.2-136		%REC	1	7/14/2011 5:49:40 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	7/14/2011 5:49:40 PM
Toluene	ND	0.048		mg/Kg	1	7/14/2011 5:49:40 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/14/2011 5:49:40 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/14/2011 5:49:40 PM
Surr: 4-Bromofluorobenzene	84.2	92-130	S	%REC	1	7/14/2011 5:49:40 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 20-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
 Lab Order: 1107366  
 Project: Key Energy Yard  
 Lab ID: 1107366-03

Client Sample ID: S.W. Wall Comp.  
 Collection Date: 7/8/2011 11:30:00 AM  
 Date Received: 7/12/2011  
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	180	100		mg/Kg	10	7/14/2011 2:04:28 PM
Surr: DNOP	0	73.4-123	S	%REC	10	7/14/2011 2:04:28 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/14/2011 6:19:38 PM
Surr: BFB	92.4	75.2-136		%REC	1	7/14/2011 6:19:38 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	7/14/2011 6:19:38 PM
Toluene	ND	0.048		mg/Kg	1	7/14/2011 6:19:38 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/14/2011 6:19:38 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/14/2011 6:19:38 PM
Surr: 4-Bromofluorobenzene	96.5	92-130		%REC	1	7/14/2011 6:19:38 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates  
 Project: Key Energy Yard

Work Order: 1107366

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>											
Sample ID: MB-27581		MBLK									
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-27581		LCS									
Diesel Range Organics (DRO)	50.96	mg/Kg	10	50	0	102	66.7	119			
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: MB-27576		MBLK									
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-27576		LCS									
Gasoline Range Organics (GRO)	27.18	mg/Kg	5.0	25	0	109	88.8	124			
<b>Method: EPA Method 8021B: Volatiles</b>											
Sample ID: 1107366-01A MSD		MSD									
Benzene	1.013	mg/Kg	0.047	0.946	0	107	67.2	113	1.67	14.3	
Toluene	0.9290	mg/Kg	0.047	0.946	0	98.2	62.1	116	1.40	15.9	
Ethylbenzene	1.021	mg/Kg	0.047	0.946	0	108	67.9	127	1.31	14.4	
Xylenes, Total	3.169	mg/Kg	0.095	2.838	0	112	60.6	134	1.99	12.6	
Sample ID: MB-27576		MBLK									
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-27576		LCS									
Benzene	0.9929	mg/Kg	0.050	1	0.0051	98.8	83.3	107			
Toluene	0.9024	mg/Kg	0.050	1	0	90.2	74.3	115			
Ethylbenzene	0.9748	mg/Kg	0.050	1	0.0057	96.9	80.9	122			
Xylenes, Total	3.052	mg/Kg	0.10	3	0	102	85.2	123			
Sample ID: 1107366-01A MS		MS									
Benzene	1.030	mg/Kg	0.049	0.984	0	105	67.2	113			
Toluene	0.9421	mg/Kg	0.049	0.984	0	95.7	62.1	116			
Ethylbenzene	1.034	mg/Kg	0.049	0.984	0	105	67.9	127			
Xylenes, Total	3.233	mg/Kg	0.098	2.953	0	109	60.6	134			

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/12/2011

Work Order Number 1107366

Received by:

AMG

Checklist completed by:

Signature

7/12/11  
Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No	Not Present	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No	Not Present	Not Shipped
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No	N/A	<input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes	No	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No	N/A	<input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No	N/A	<input checked="" type="checkbox"/>
Container/Temp Blank temperature?	2.9°	<6° C Acceptable		<2 >12 unless noted below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

# Chain-of-Custody Record

Client: SMA

Mailing Address: 2101 San Juan Blvd.

Farmington, NM 87401

Phone #: 505-325-7535

email or Fax#: Cindy.Gray@Soudermiller.com

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

Accreditation  
 NELAP       Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Turn-Around Time:

Standard       Rush

Project Name:

Key Energy Yard

Project #:

5121216

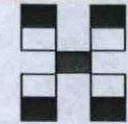
Project Manager:

Cindy Gray

Sampler: Thomas Long

On Ice:  Yes       No

Sample Temperature: 29



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021 BTEX	Air Bubbles (Y or N)
		X									X	
		X									X	
		X									X	

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
<u>7/8/11</u>	<u>1020</u>	<u>Soil</u>	<u>N. Wall Comp.</u>	<u>(1) 4oz jar</u>	<u>ICE</u>	<u>1107366-1</u>
	<u>1025</u>		<u>N.W. Bottom @ 7.5'</u>			<u>-2</u>
	<u>1130</u>		<u>SW Wall Comp</u>			<u>-3</u>

Date: 7/8/11 Time: 1430 Relinquished by: [Signature]

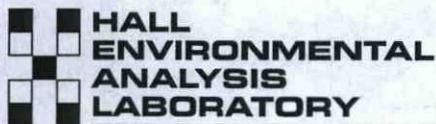
Received by: Christine Walter Date: 7/11/11 Time: 1520

Remarks:

Date: 7/11/11 Time: 1641 Relinquished by: Christine Walter

Received by: [Signature] Date: 7/12/11 Time: 11:30

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.



COVER LETTER

Thursday, July 21, 2011

Cindy Gray  
Souder, Miller and Associates  
2101 San Juan Boulevard  
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Yard

Dear Cindy Gray:

Order No.: 1107566

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 7/15/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

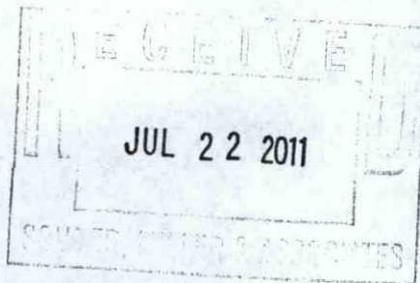
Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682



# Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107566  
Project: Key Energy Yard  
Lab ID: 1107566-01

Client Sample ID: Sump 1 West Bay  
Collection Date: 7/14/2011 3:45:00 PM  
Date Received: 7/15/2011  
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 7470: MERCURY</b>						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:55:29 PM
<b>EPA 6010B: TOTAL RECOVERABLE METALS</b>						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:41:53 PM
Barium	0.095	0.020		mg/L	1	7/18/2011 2:41:53 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:41:53 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:41:53 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:41:53 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 21-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107566  
Project: Key Energy Yard  
Lab ID: 1107566-02

Client Sample ID: Sump 4 North Bay  
Collection Date: 7/14/2011 3:55:00 PM  
Date Received: 7/15/2011  
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 7470: MERCURY</b>						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:57:17 PM
<b>EPA 6010B: TOTAL RECOVERABLE METALS</b>						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:44:21 PM
Barium	0.12	0.020		mg/L	1	7/18/2011 2:44:21 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:44:21 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:44:21 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:44:21 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits



YOUR LAB OF CHOICE

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

Anne Thorne  
Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

July 20, 2011

Date Received : July 16, 2011  
Description : 1107566  
Sample ID : SUMP 1 WEST BAY  
Collected By :  
Collection Date : 07/14/11 15:45

ESC Sample # : L526347-01  
Site ID :  
Project # : 1107566

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	07/20/11	1
Flashpoint	See Footnote		deg F	D93/1010A	07/20/11	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/l	9012B	07/20/11	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/l	9034/9030B	07/20/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit (PQL)  
Note:  
The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.  
Reported: 07/20/11 17:40 Printed: 07/20/11 17:40  
L526347-01 (FLASHPOINT) - Did Not Flash @ 170 F



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

July 20, 2011

Anne Thorne  
Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : July 16, 2011  
Description : 1107566  
Sample ID : SUMP 2 NORTH BAY  
Collected By :  
Collection Date : 07/14/11 15:55

ESC Sample # : L526347-02

Site ID :

Project # : 1107566

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	07/20/11	1
Flashpoint	See Footnote		deg F	D93/1010A	07/20/11	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/l	9012B	07/20/11	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/l	9034/9030B	07/20/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 07/20/11 17:40 Printed: 07/20/11 17:40  
L526347-02 (FLASHPOINT) - Did Not Flash @ 170 F

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L526347-01	WG546374	SAMP	Corrosivity	R1772511	T8
L526347-02	WG546374	SAMP	Corrosivity	R1772511	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory  
 Anne Thorne  
 4901 Hawkins NE  
 Albuquerque, NM 87109

Quality Assurance Report  
 Level II

L526347

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

July 20, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Corrosivity	3.90				WG546374	07/20/11 11:19
Reactive Sulf. (SW846 7.3.4.1)	< 25	mg/l			WG546418	07/20/11 09:06
Reactive CN (SW846 7.3.3.2)	< .125	mg/l			WG546419	07/20/11 17:13

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
Corrosivity		0	0	0	0	10	L526347-01	WG546374
Reactive Sulf. (SW846 7.3.4.1)	mg/l	0	0	0	0	20	L526347-01	WG546418
Flashpoint	deg F	0	0	0	0	20	L526300-04	WG546198

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Corrosivity		6.3	6.30	100.	97.98-102.02	WG546374
Reactive Sulf. (SW846 7.3.4.1)	mg/l	100	78.0	78.0	70-130	WG546418
Flashpoint	deg F	82	82.0	100.	96-104	WG546198

Analyte	Units	Result	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
			Ref	%Rec				
Corrosivity		6.30	6.30	100.	97.98-102.02	0	10	WG546374
Reactive Sulf. (SW846 7.3.4.1)	mg/l	90.0	78.0	90.0	70-130	14.3	20	WG546418
Flashpoint	deg F	82.0	82.0	100.	96-104	0	7	WG546198

Batch number /Run number / Sample number cross reference

WG546374: R1772511: L526347-01 02  
 WG546418: R1773091: L526347-01 02  
 WG546198: R1773350: L526347-01 02  
 WG546419: R1773832: L526347-01 02

\*\* Calculations are performed prior to rounding of reported values.  
 \* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

### QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates  
 Project: Key Energy Yard

Work Order: 1107566

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 7470: Mercury

Sample ID: MB-27649 MBLK Batch ID: 27649 Analysis Date: 7/19/2011 2:43:07 PM

Mercury ND mg/L 0.00020

Sample ID: LCS-27649 LCS Batch ID: 27649 Analysis Date: 7/19/2011 2:44:51 PM

Mercury 0.005013 mg/L 0.00020 0.005 2E-05 99.9 80 120

Method: EPA 6010B: Total Recoverable Metals

Sample ID: MB-27618 MBLK Batch ID: 27618 Analysis Date: 7/18/2011 2:39:44 PM

Arsenic ND mg/L 0.020

Barium ND mg/L 0.020

Cadmium ND mg/L 0.0020

Chromium ND mg/L 0.0060

Lead ND mg/L 0.0050

Selenium ND mg/L 0.050

Silver ND mg/L 0.0050

Sample ID: LCS-27618 LCS Batch ID: 27618 Analysis Date: 7/18/2011 2:35:50 PM

Arsenic 0.5194 mg/L 0.020 0.5 0 104 80 120

Barium 0.5016 mg/L 0.020 0.5 0 100 80 120

Cadmium 0.5044 mg/L 0.0020 0.5 0.0009 101 80 120

Chromium 0.5229 mg/L 0.0060 0.5 0 105 80 120

Lead 0.5007 mg/L 0.0050 0.5 0 100 80 120

Selenium 0.5133 mg/L 0.050 0.5 0 103 80 120

Silver 0.1047 mg/L 0.0050 0.1 0 105 80 120

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/15/2011

Work Order Number 1107566

Received by: AMG

Checklist completed by: [Signature] 7/15/11  
Signature Date

Sample ID labels checked by: \_\_\_\_\_  
Initials

Matrix: Carrier name Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A

Number of preserved bottles checked for pH: \_\_\_\_\_

<2 >12 unless noted below.

Container/Temp Blank temperature? 2.3° <6° C Acceptable  
If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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

Form C-138  
Revised March 12, 2007

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

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

**REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE**

1. **Generator Name and Address:**  
Key Energy, 5651 U.S. Hwy 64, Farmington, NM 87401

2. **Originating Site:**  
Key Energy Yard, 5651 U.S. Hwy 64, Farmington, NM

3. **Location of Material (Street Address, City, State or ULSTR):**  
Key Energy Yard, 5651 U.S. Hwy 64, Farmington, NM

4. **Source and Description of Waste:**  
Soils excavated from around field truck wash bay effluent holding tank in yard; old overfills and small spills.  
TPH ranging from 0 to 8000 ppm; Tested for RCRA 8 Metals  
Estimated Volume 700 yd<sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) yd<sup>3</sup> / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**  
I, YAAZ, representative or authorized agent for Key Energy do hereby  
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988  
regulatory determination, the above described waste is: (Check the appropriate classification)  
 RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-  
exempt waste. Operator Use Only: Waste Acceptance Frequency  Monthly  Weekly  Per Load  
 RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by  
characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261,  
subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check  
the appropriate items)  
 MSDS Information  RCRA Hazardous Waste Analysis  Process Knowledge  Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**  
I, YAAZ, representative for Key Energy do hereby certify that  
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples  
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results  
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of  
19.15.36 NMAC.

5. **Transporter:**

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: Industrial Ecosystems, Inc.

Address of Facility:

Method of Treatment and/or Disposal:

Evaporation  Injection  Treating Plant  Landfarm  Landfill  Other

**Waste Acceptance Status:**

APPROVED  DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ TELEPHONE NO.: \_\_\_\_\_  
Surface Waste Management Facility Authorized Agent

Hall Environmental Analysis Laboratory, Inc.

Date: 29-Jun-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1106A67  
Project: Key Energy Hwy 64 Yard  
Lab ID: 1106A67-01

Client Sample ID: Composite Stockpile & Pit  
Collection Date: 6/24/2011 1:45:00 PM  
Date Received: 6/27/2011  
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 7471: MERCURY</b> Analyst: ELS						
Mercury	ND	0.033		mg/Kg	1	6/27/2011 2:01:20 PM
<b>EPA METHOD 6010B: SOIL METALS</b> Total, not TCLP Analyst: RAGS						
Arsenic	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Barium	210	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Cadmium	ND	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Chromium	5.6	1.5		mg/Kg	5	6/28/2011 10:22:44 AM
Lead	13	1.3		mg/Kg	5	6/28/2011 10:22:44 AM
Selenium	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Silver	ND	1.3		mg/Kg	5	6/28/2011 10:22:44 AM

$Ba \quad 210 \div 20 = 10.5 \text{ mg/Kg}$  (TCLP equivalent)  
 $Cr \quad 5.6 \div 20 = 0.28 \text{ mg/Kg}$   
 $Pb \quad 13 \div 20 = 0.65 \text{ mg/Kg}$

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding time for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

PRELIMINARY

COVER LETTER

Wednesday, June 29, 2011

Cindy Gray  
Souder, Miller and Associates  
2101 San Juan Boulevard  
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Hwy 64 Yard

Order No.: 1106A67

Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/27/2011 for the analyses presented in the following report.

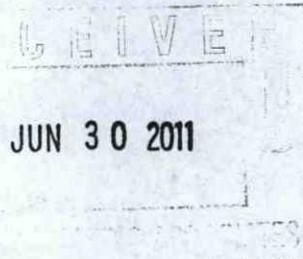
These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

  
Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682



**Hall Environmental Analysis Laboratory, Inc.**

Date: 29-Jun-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1106A67  
Project: Key Energy Hwy 64 Yard  
Lab ID: 1106A67-01

Client Sample ID: Composite Stockpile & Pit  
Collection Date: 6/24/2011 1:45:00 PM  
Date Received: 6/27/2011  
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 7471: MERCURY</b>						Analyst: ELS
Mercury	ND	0.033		mg/Kg	1	6/27/2011 2:01:20 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						Analyst: RAGS
Arsenic	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Barium	210	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Cadmium	ND	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Chromium	5.6	1.5		mg/Kg	5	6/28/2011 10:22:44 AM
Lead	13	1.3		mg/Kg	5	6/28/2011 10:22:44 AM
Selenium	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Silver	ND	1.3		mg/Kg	5	6/28/2011 10:22:44 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates  
 Project: Key Energy Hwy 64 Yard

Work Order: 1106A67

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 7471: Mercury</b>											
Sample ID: MB-27367		MBLK									
Mercury	ND	mg/Kg	0.033								
Sample ID: LCS-27367		LCS									
Mercury	0.1618	mg/Kg	0.033	0.167	0.0029	95.4	80	120			
<b>Method: EPA Method 6010B: Soil Metals</b>											
Sample ID: 1106A67-01AMSD		MSD									
Arsenic	28.10	mg/Kg	13	24.97	2.261	103	75	125	0.734	20	
Cadmium	24.80	mg/Kg	0.50	24.97	0	99.3	75	125	2.38	20	
Chromium	32.28	mg/Kg	1.5	24.97	5.558	107	75	125	0.530	20	
Lead	33.69	mg/Kg	1.3	24.97	12.96	83.0	75	125	2.07	20	
Selenium	23.25	mg/Kg	13	24.97	0	93.1	75	125	24.1	20	R
Silver	4.856	mg/Kg	1.3	4.994	0	97.2	75	125	1.95	20	
Sample ID: MB-27374		MBLK									
Arsenic	ND	mg/Kg	2.5								
Barium	ND	mg/Kg	0.10								
Cadmium	ND	mg/Kg	0.10								
Chromium	ND	mg/Kg	0.30								
Lead	ND	mg/Kg	0.25								
Selenium	ND	mg/Kg	2.5								
Silver	ND	mg/Kg	0.25								
Sample ID: LCS-27374		LCS									
Arsenic	25.79	mg/Kg	2.5	25	0	103	80	120			
Barium	25.65	mg/Kg	0.10	25	0	103	80	120			
Cadmium	24.97	mg/Kg	0.10	25	0	99.9	80	120			
Chromium	25.76	mg/Kg	0.30	25	0	103	80	120			
Lead	24.46	mg/Kg	0.25	25	0	97.8	80	120			
Selenium	24.58	mg/Kg	2.5	25	0	98.3	80	120			
Silver	4.992	mg/Kg	0.25	5	0	99.8	80	120			
Sample ID: 1106A67-01AMS		MS									
Arsenic	27.89	mg/Kg	13	24.8	2.261	103	75	125			
Cadmium	24.22	mg/Kg	0.50	24.8	0	97.7	75	125			
Chromium	32.45	mg/Kg	1.5	24.8	5.558	108	75	125			
Lead	33.00	mg/Kg	1.3	24.8	12.96	80.8	75	125			
Selenium	18.26	mg/Kg	13	24.8	0	73.6	75	125			S
Silver	4.763	mg/Kg	1.3	4.96	0	96.0	75	125			

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 H Holding times for preparation or analysis exceeded  
 NC Non-Chlorinated  
 R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

6/27/2011

Work Order Number 1106A67

Received by: AT

Checklist completed by:

Signature

*[Handwritten Signature]*  
Date 6/27/11

Sample ID labels checked by:

Initials

*[Handwritten Initials: A]*

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? 8.1°" <6° C Acceptable  
If given sufficient time to cool.

Number of preserved bottles checked for pH: \_\_\_\_\_

<2 >12 unless noted below.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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-138  
Revised March 12, 2007

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

### REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

<b>1. Generator Name and Address:</b> Key Energy, 5651 U.S. Hwy 64, Farmington, NM 87401
<b>2. Originating Site:</b> Key Energy Yard, 5651 U.S. Hwy 64, Farmington, NM
<b>3. Location of Material (Street Address, City, State or ULSTR):</b> Key Energy Yard, 5651 U.S. Hwy 64, Farmington, NM
<b>4. Source and Description of Waste:</b> Sludge and rinsate from wash bay sumps in vac truck service area  Estimated Volume <u>100 bbl</u> yd <sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd <sup>3</sup> / bbls
<b>5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b> I, <u>Cynthia Gray</u> , representative or authorized agent for <u>Key Energy Services</u> do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)  <input type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load <input checked="" type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) <input type="checkbox"/> MSDS Information <input checked="" type="checkbox"/> RCRA Hazardous Waste Analysis <input checked="" type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)
<b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b> I, _____, representative for _____ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
<b>5. Transporter:</b>

#### OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Industrial Ecosystems, Inc.

Address of Facility:

Method of Treatment and/or Disposal:

Evaporation  Injection  Treating Plant  Landfarm  Landfill  Other

Waste Acceptance Status:

APPROVED

DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TELEPHONE NO.: \_\_\_\_\_

Surface Waste Management Facility Authorized Agent

# Hall Environmental Analysis Laboratory, Inc.

Date: 19-Jul-11  
Analytical Report

CLIENT: Souder, Miller and Associates  
Lab Order: 1107566  
Project: Key Energy Yard  
Lab ID: 1107566-01

Client Sample ID: Sump 1 West Bay  
Collection Date: 7/14/2011 3:45:00 PM  
Date Received: 7/15/2011  
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 7470: MERCURY</b>						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:55:29 PM
<b>EPA 6010B: TOTAL RECOVERABLE METALS</b>						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:41:53 PM
Barium	0.095	0.020		mg/L	1	7/18/2011 2:41:53 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:41:53 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:41:53 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:41:53 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 19-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates  
 Lab Order: 1107566  
 Project: Key Energy Yard  
 Lab ID: 1107566-02

Client Sample ID: Sump 4 North Bay  
 Collection Date: 7/14/2011 3:55:00 PM  
 Date Received: 7/15/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 7470: MERCURY</b>						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:57:17 PM
<b>EPA 6010B: TOTAL RECOVERABLE METALS</b>						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:44:21 PM
Barium	0.12	0.020		mg/L	1	7/18/2011 2:44:21 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:44:21 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:44:21 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:44:21 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



Generator's Non-hazardous Waste Profile Sheet

Requested Disposal Facility: San Juan County Landfill Profile Number: 101405NM
Renewal for Profile Number: Waste Approval Expiration Date:
Check here if there are multiple generating locations for this waste. Attach additional locations.

A. Waste Generator Facility Information (must reflect location of waste generation/origin)

1. Generator Name: Key Energy
2. Site Address: 5651 US Highway 64
3. City/ZIP: Farmington, 87401
4. State: NM
5. County: San Juan
6. Contact Name/Title: Cynthia Gray, Senior Scientist
7. Email Address: cindy.gray@soudermiller.com
8. Phone: 1-505-325-5667
9. FAX: 1-505-327-1496
10. NAICS Code:
11. Generator USEPA ID #:
12. State ID# (if applicable):

B. Customer Information same as above

1. Customer Name: Souder, Miller & Associates
2. Billing Address: 2101 San Juan Blvd.
3. City, State and ZIP: Farmington, NM, 87401
4. Contact Name: Cindy Gray
5. Contact Email: cindy.gray@soudermiller.com
6. Phone: 505-325-7535
7. Transporter Name: Southwest Field Services
8. Transporter ID # (if appl.):
9. Transporter Address: 1210 Hutton Rd.
10. City, State and ZIP: Farmington, New Mexico, 87402

C. Waste Stream Information

1. DESCRIPTION
a. Common Waste Name: crushed fiberglass open-top surface tank pieces
State Waste Code(s):
b. Describe Process Generating Waste or Source of Contamination:
Fiberglass tank pieces found during clean-up excavation of an oilfield service company yard
c. Typical Color(s): dirty beige
d. Strong Odor? Yes No Describe:
e. Physical State at 70°F: Solid Liquid Powder Semi-Solid or Sludge Other:
f. Layers? Single layer Multi-layer NA
g. Water Reactive? Yes No If Yes, Describe:
h. Free Liquid Range (%): to NA(solid)
i. pH Range: N/A to N/A NA(solid)
j. Liquid Flash Point: < 140°F 140°- 199°F ≥ 200°F NA(solid)
k. Flammable Solid: Yes No

Table with 5 columns: Constituents (Total Composition Must be ≥ 100%), Lower Range, Unit of Measure, Upper Range, Unit of Measure. Row 1: Fiberglass, >99%, Row 2: Oil impacted soils, <1%

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION
a. One Time Event Base Repeat Event
b. Estimated Annual Quantity: <1 when Tons Cubic Yards Drums Gallons Other (specify):
c. Shipping Frequency: 1 Units per Month Quarter Year One Time Other
d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) Yes No
e. USDOT Shipping Description (if applicable):

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): None



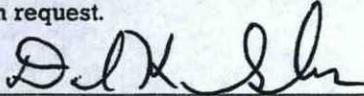
**D. Regulatory Status (Please check appropriate responses)**

- 1. Waste Identification:
  - a. Does the waste meet the definition of a USEPA listed or characteristic hazardous waste as defined by 40 CFR Part 261?  Yes  No
    - 1. If yes, please complete a hazardous waste profile.
  - b. Does the waste meet the definition of a state hazardous waste other than identified in D.1.a?  Yes  No
    - 1. If yes, please complete a hazardous waste profile.
- 2. Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation.  Yes  No
  - Delisted Hazardous Waste  Excluded Wastes Under 40CFR 261.4
  - Treated Hazardous Waste Debris  Treated Characteristic Hazardous Waste
- 3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up? If yes, see instructions.  Yes  No
- 4. Does the waste represented by this waste profile sheet contain radioactive material?  Yes  No
  - a. If yes, is disposal regulated by the Nuclear Regulatory Commission?  Yes  No
  - b. If yes, is disposal regulated by a State Agency for radioactive waste/NORM?  Yes  No
- 5. Does the waste represented by this waste profile sheet contain Polychlorinated Biphenyls (PCBs)?  Yes  No  
(If yes, list in Chemical Composition - C.1.1.)
  - a. If yes, are the PCBs regulated by 40 CFR 761?  Yes  No
  - b. If yes, is it remediation waste from a project being performed under the Self-Implementing option provided in 40 CFR 761.61(a)?  Yes  No
  - c. If yes, were the PCBs imported into the US?  Yes  No
- 6. Does the waste contain untreated, regulated medical or infectious waste?  Yes  No
- 7. Does the waste contain asbestos?  Yes  No
  - a. If Yes,  Friable  Non Friable
- 8. Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation NESHAP, 40 CFR 63 subpart GGGGG)?  Yes  No
  - a. If yes, does the waste contain <500 ppmw VOHAPs at the point of determination?  Yes  No

**E. Generator Certification (Please read and certify by signature below)**

By signing this Generator's Waste Profile Sheet, I hereby certify that all:

- 1. Information submitted in this profile and all attached documents contain true and accurate descriptions of the waste material;
- 2. Relevant information within the possession of the Generator regarding known or suspected hazards pertaining to this waste has been disclosed to WM/the Contractor;
- 3. Analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules; and
- 4. Changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by the Generator and disclosed to WM (and the Contractor if applicable) prior to providing the waste to WM (and the contractor if applicable).
- 5. Check all that apply:
  - a. Attached analytical pertains to the waste. Identify laboratory & sample ID #'s and parameters tested: \_\_\_\_\_ # Pages: \_\_\_\_\_
  - b. Only the analysis identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested). Attachment #: \_\_\_\_\_
  - c. Additional information necessary to characterize the profiled waste has been attached (other than analytical, such as MSDS). Indicate the number of attached pages: 1
  - d. I am an agent signing on behalf of the Generator, and the delegation of authority to me from the Generator for this signature is available upon request.

Certification Signature:  Title: Corporate Environmental Director

Company Name: Key Energy Services, Inc. Name (Print): Daniel K. Gibson, PG

Date: 7/12/11



WM of NM - San Juan County  
 78 County Road 3140  
 Aztec, NM, 87410  
 Ph: (505) 334-1121

Original  
 Ticket# 1373378

Customer Name SOUDERMILLERASS SOUDER MILLER Carrier SOUFIE SOUTHWEST FIELD SERVICES  
 Ticket Date 07/22/2011 Vehicle# 126 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0000062  
 State Waste Code Gen EPA ID  
 Manifest 19432 Grid  
 Destination  
 PO  
 Profile 101405NM (Key Energy Services, Inc)  
 Generator 153-KEYENERGYSERVICESINC Key Energy Services, Inc.

	Time	Scale	Operator	Inbound	Gross	
In	07/22/2011 09:35:16	Inbound 301	mgonzales			9080 lb
Out	07/22/2011 09:50:37	Outbound 302	mgonzales			8100 lb
						Net 980 lb
						Tons 0.49

Comments



Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 SpwasteSolidOth-Cu	100	3.00	Yards				
2 PGENV-T-Environmen	100		%				FARM
3 FUEL-T-Fuel Surcha	100		%				FARM

377-1003

Total Tax  
 Total Ticket

Driver's Signature

*Derma  
 Harvey*



7/22/11

BYOS

TICKET # 1373378  
19432

# SPECIAL WASTE SHIPMENT RECORD

WASTE MANAGEMENT OF NEW MEXICO, INC.

SAN JUAN COUNTY REGIONAL LANDFILL

PERMIT #SWM-052426, #SWM-052426SP

#78 CR 3140 P.O. Box 1402

Aztec, New Mexico 87410

505/334-1121

Shipment # \_\_\_\_\_

Profile # 101405NM  
(Required)

SW FIELDS # 126

1. Generator's Work site name and address (physical site address of waste generation)  
Sam as # 2

2. Generator's name and address  
Key Energy Services  
5651 Hwy 64, Farmington, NM 87401

Generator's Telephone no. \_\_\_\_\_

3. Authorized Agent name and address (if different from #2)  
Souder, Miller & Associates  
2101 San Juan Blvd, Farmington

Agent's Telephone no. 325-5667

4. Description materials	5. Container's No.   Type	6. Total Quantity (tons) (yd3)
<u>Fiberglass tank pieces</u> <u>with soils</u>	<u>1</u>   <u>B</u>	<u>2.3</u> <u>BYOS</u>

7. Special handling instructions

8. GENERATOR or AUTHORIZED AGENT CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway in accordance with applicable international and government regulations. I hereby certify that the above named material does not contain free liquid as defined by 40CFR Part 258.28 and is not a hazardous waste as defined by 40CFR 261 or any applicable state law.

Generator or Agent (Printed/typed name and title)	Generator or Agents Signature	Month/Day/Year
<u>Key Energy Services by Cynthia Gray</u>	<u>[Signature]</u>	<u>7 22 11</u>

9. Transporter 1 (Acknowledgement of receipt of materials)	Driver Signature	Month/Day/Year
Printed/typed name & title, address, telephone no. <u>Southwest Field Service</u> <u>1210 Hutton</u> <u>Farmington, NM,</u>	<u>[Signature]</u>	<u>7 22 11</u>

10. Transporter 2 ( Acknowledgement of receipt of materials)	Driver Signature	Month/Day/Year
Printed/typed name & title, address, telephone no.		<u>/ /</u>

11. Discrepancy indication space

12. Waste disposal site Location co-ordinates (X,Y, Z)  
ELEV. 5788 N 96° 46.068 W 108° 02.778

Received by name and title (Printed/typed)	SJC Landfill Rep. Signature	Month / Day / Year
<u>NICHOLE GONZALES</u> <u>SITE ATTENDANT</u>	<u>[Signature]</u>	<u>7 22 11</u>



Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 10/30/11

(20)

COMPANY NAME: Souder Miller

COMPANY REP: Paul Martinez

ORIGIN OF MATERIAL (LOCATION): Key Yard

PHONE # \_\_\_\_\_  
PAYKEY/P.O.# \_\_\_\_\_

NOTES: Southwest field serv.

H2S GAS  NON DETECT  DETECT   
PH 8 TDS \_\_\_\_\_

Paint Filter Test:  Passed  Failed

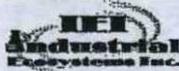
Pit  Tanks

Date	Time	Transported by	Truck#	Yards	VS Barrels	Driver's Name (Print)	Driver's Signature	Time Out
10/30	8:10	Southwest	211	10	10	Robert Galaviz	Paul Martinez	8:39
	8:13	Sullagee	002	18	18	Clay	Clay Martinez	8:39
	9:08	Southwest	211	10	10	Robert	Paul Martinez	9:22
	9:18	Sullagee	002	18	18	Clay	Clay	9:30
	9:25	Southwest	211	10	10	Robert	Paul Martinez	10:08
	10:10	Sullagee	002	18	18	Clay	Clay	10:23
	10:36	Southwest	211	10	10	Robert	Paul Martinez	10:50
	10:58	Sullagee	002	18	18	Clay	Clay	11:10
	11:30	Southwest	211	10	10	Robert	Paul Martinez	11:41
	11:50	Sullagee	002	18	18	Clay	Clay	12:00
	12:10	Southwest	211	10	10	Robert	Paul Martinez	12:30
	1:05	Sullagee	002	18	18	Clay	Clay	1:14
	1:08	Southwest	211	10	10	Robert	Paul Martinez	1:16
	1:55	Sullagee	002	18	18	Clay	Clay	2:09
	2:00	Southwest	211	10	10	Robert	Paul Martinez	2:12
	2:47	Sullagee	002	18	18	Clay	Clay	2:58
	2:50	Southwest	211	10	10	Robert	Paul Martinez	3:00
	3:32	Sullagee	002	18	18	Clay	Clay	4:05
	3:36	Southwest	211	60	10	Robert	Paul Martinez	4:10
21								
22								
23								
24								
25								
26								
27								

262cy

VS 262cy





Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 7-5-11

(5)

COMPANY NAME: Souder Miller

COMPANY REP. \_\_\_\_\_  
PHONE # \_\_\_\_\_  
PAYKEY/P.O.# Souder Miller

ORIGIN OF MATERIAL(LOCATION): Key yard

NOTES: Southwest/Sweezer

H2S GAS  NON DETECT  DETECT  
\_\_\_\_ Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS

Paint Filter Test:  Passed  Failed  Pit  Tanks

Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
7-5	8:25	Sweezer	002	18	18	Clay	Clay	8:38
	8:20	Southwest	211	10	10	Robert	Robert	8:41
	9:11	Sweezer	002	18	18	Clay	Clay	9:22
	9:11	Southwest	211	10	10	Robert	Robert	9:24
	10:00	Sweezer	002	18	18	Clay	Clay	10:11
	10:00	Southwest	211	10	10	Robert	Robert	10:14
	10:50	Sweezer	002	18	18	Clay	Clay	11:00
	10:50	Southwest	211	10	10	Robert	Robert	11:05
	11:35	Sweezer	002	18	18	Clay	Clay	11:45
	11:37	Southwest	211	10	10	Robert	Robert	11:58
	11:55	Southwest	AF4	10	10	Henry	Henry	12:10
	12:25	Sweezer	002	18	18	Clay	Clay	12:40
	12:30	Southwest	211	10	10	Robert	Robert	12:45
	12:41	Southwest	AF4	10	10	Henry	Henry	12:55
	1:18	Sweezer	002	18	18	Clay	Clay	1:28
	1:20	Southwest	211	10	10	Robert	Robert	1:30
	1:25	Southwest	AF4	10	10	Henry	Henry	1:39
	2:08	Sweezer	002	18	18	Clay	Clay	2:18
	2:12	Southwest	211	10	10	Robert	Robert	2:20
	2:16	Southwest	AF4	10	10	Henry	Henry	2:25
	3:00	Sweezer	002	18	18	Clay	Clay	3:20
	3:01	Southwest	211	10	10	Robert	Robert	3:25
	3:10	Southwest	AF4	10	10	Henry	Henry	3:25
	4:00	Sweezer	002	18	18	Clay	Clay	4:20
	4:05	SW	211	10	10	Robert	Robert	4:25
	4:10	SW	AF4	10	—	Henry	Henry	4:30

340 330 VS



Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 7-6-11

(e)

COMPANY NAME: Sonder Miller

COMPANY REP. NON-EMEMPT

ORIGIN OF MATERIAL (LOCATION): Key Yards

PHONE # \_\_\_\_\_  
PAYKEY/P.O.# \_\_\_\_\_

NOTES: Southwest / Sweazea

H2S GAS  NON DETECT  DETECT Soil  
\_\_\_\_ Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS

Paint Filter Test:  Passed  Failed  Pit  Tanks

Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
7/6	8:17	Sweazea	002	18	18	Clay	Clay	8:16
	8:17	Southwest	211	10	10	Robert	Robert	8:18
	8:18	Sweazea	001	12	12	GARY WARD	Gary	8:35
	9:05	Sweazea	002	18	18	Clay Sweazea	Clay	9:15
	9:05	Southwest	211	10	10	Robert	Robert	9:15
	9:10	Sweazea	001	12	12	GARY	Gary	9:18
	9:55	Sweazea	002	18	18	Clay	Clay	10:05
	9:55	Southwest	211	10	10	Robert	Robert	10:05
	10:00	Sweazea	001	12	12	GARY	Gary	10:08
	11:08	Sweazea	002	18	18	Clay	Clay	11:15
	11:08	Southwest	211	10	10	Robert	Robert	11:20
	11:12	Sweazea	001	12	12	GARY	Gary	11:25
	11:55	Sweazea	002	18	18	Clay	Clay	12:06
	11:58	Southwest	211	10	10	Robert	Robert	12:12
	12:01	Sweazea	001	12	12	GARY	Gary	12:10
	1:10	Sweazea	002	18	18	Clay	Clay	1:21
	1:12	Southwest	211	10	10	Robert	Robert	1:24
	1:16	Sweazea	001	12	12	GARY	Gary	1:27
	1:58	Sweazea	002	18	18	Clay	Clay	10:10
	1:58	Southwest	211	10	10	Robert	Robert	10:12
	2:13	Sweazea	001	12	12	GARY	Gary	10:13
	2:50	Sweazea	002	18	18	Clay	Clay	3:05
	2:50	SW	211	10	10	Robert	Robert	3:07
	2:56	Sweazea	001	12	12	GARY	Gary	2:30
	3:42	Sweazea	002	18	18	Clay	Clay	3:20
	3:45	SW	211	10	10	Robert	Robert	3:55
	3:50	Sweazea	001	12	12	GARY	GARY	4:00

300 CY 360 VS



Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 7-7-11 PS1

COMPANY NAME: Sander Miller

COMPANY REP: NON-Exempt

ORIGIN OF MATERIAL (LOCATION): Key yard

PHONE # \_\_\_\_\_  
PAYKEY/P.O.# Soil

NOTES: Southwest / Sweazea

H2S GAS  NON DETECT  DETECT  
\_\_\_\_ Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS

Paint Filter Test:  Passed  Failed

Pit  Tanks

VS

Date	Time	Transported by	Truck#	Yards	Remals	Driver's Name (Print)	Driver's Signature	Time Out
7/7	8:00	Sweazea	002	18	0	Clay	Clay	8:07
	8:00	Southwest	211	10	0	Robert	Robert	8:08
	8:08	Hartman	75	18	0	Roger L. Hartman	Roger L. Hartman	8:15
	8:42	Sweazea	002	18	0	Clay	Clay	8:47
	8:42	Southwest	211	10	0	Robert	Robert	8:47
	8:47	Hartman	75	18	0	Roger	Roger	8:55
	9:20	Southwest	211	10	0	Robert	Robert	9:27
	9:26	Sweazea	002	18	0	Clay	Clay	9:31
	9:33	Hartman	75	18	0	Roger	Roger	9:37
	9:55	Southwest	211	10	0	Robert	Robert	10:00
	10:12	Sweazea	002	18	0	Clay	Clay	10:20
	10:19	Hartman	75	18	0	Roger	Roger	10:25
	10:30	Southwest	211	10	0	Robert	Robert	10:27
	10:55	Sweazea	002	18	0	Clay	Clay	10:55
	11:09	Hartman	75	18	0	Roger	Roger	11:13
	11:20	Southwest	211	10	0	Robert	Robert	11:20
	11:26	Sweazea	002	18	0	Clay	Clay	11:42
	11:45	Hartman	75	18	0	Roger	Roger	11:55
	11:52	Southwest	211	10	0	Robert	Robert	11:55
	12:40	Southwest	211	10	0	Robert	Robert	12:54
	1:27	Southwest	211	10	0	Robert	Robert	1:26
	1:30	Sweazea	002	18	0	Clay	Clay	2:00
	1:31	Hartman	75	18	0	Roger	Roger	2:00
	2:05	SW	211	10	0	Robert	Robert	2:05
	2:09	Sweazea	002	18	0	Clay	Clay	2:11
	2:14	Hartman	75	18	0	Roger	Roger	2:19
	2:35	SW	211	10	0	Robert	Robert	



Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 7-7-11 pg 2

COMPANY NAME: Sonder Miller

COMPANY REP. Now-EXEMPT

ORIGIN OF MATERIAL(LOCATION): Key yard

PHONE # \_\_\_\_\_  
PAYKEY/P.O# \_\_\_\_\_

NOTES: SW / Sweazea

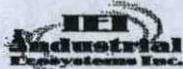
H2S GAS  NON DETECT  DETECT  
\_\_\_\_ Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS

Paint Filter Test:  Passed  Failed

Pit  Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/7	2:45	Sweazea	002	18		Clay	Clay	2:50
2		2:54	Hartman	75	18		Roger	Roger	2:55
3		3:10	SW	211	10		Robert	Robert	3:20
4	7/7	3:30	Sweazea	002	18		Clay	Clay	3:32
5		3:37	Hartman	75	18		Roger	Roger	3:41
6		3:40	SW	211	10		Robert	Robert	3:50
7		4:10	Sweazea	002	18		Clay	Clay	4:17
8		4:19	SW	211	10		Robert	Robert	4:24
9		4:24	Hartman	75	18		Roger	Roger	4:30
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									

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Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 7-8-11

COMPANY NAME: Souder Miller

COMPANY REP: NON-EXEMPT

ORIGIN OF MATERIAL(LOCATION): Key Yard

PHONE # \_\_\_\_\_  
PAYKEY/P.O.# \_\_\_\_\_

NOTES: Sw/Sweazea

H2S GAS  NON DETECT  DETECT   
\_\_\_\_\_ Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS

Paint Filter Test:  Passed  Failed  Pit  Tanks

Soil

Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	8:05	SW	211	10		Robert	[Signature]	8:10
2	8:10	Sweazea	002	18		Clay	[Signature]	8:15
3	8:16	Hartman	75	18		Roger	[Signature]	8:20
4	8:45	Sweazea	002	18		Clay	[Signature]	8:51
5	8:45	SW	211	10		Robert	[Signature]	8:50
6	8:53	Hartman	75	18		Roger	[Signature]	9:00
7	9:26	SW	211	10		Robert	[Signature]	9:30
8	9:36	Sweazea	002	18		Clay	[Signature]	9:40
9	9:40	Hartman	75	18		Roger	[Signature]	9:46
10	10:02	SW	211	10		Robert	[Signature]	10:10
11	10:35	SW	211	10		Robert	[Signature]	10:40
12	11:12	SW	211	10		Robert	[Signature]	11:20
13	11:15	Sweazea	002	18		Clay	[Signature]	11:20
14	11:20	Hartman	75	18		Roger	[Signature]	11:20
15	1:08	SW	211	10		Robert	[Signature]	1:14
16	1:42	SW	211	10		Robert	[Signature]	1:45
17	2:10	Sweazea	002	18		Clay	[Signature]	2:14
18	2:12	SW	211	10		Robert	[Signature]	2:16
19	2:15	Hartman	75	18		Roger	[Signature]	2:20
20	2:45	SW	211	10		Robert	[Signature]	2:55
21	3:20	SW	211	10		Robert	[Signature]	3:24
22	4:00	SW	211	10		Robert	[Signature]	4:05
23	4:00	Hartman	75	18		Roger	[Signature]	
24								
25								
26								
27								

3184



Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 7/11/11

COMPANY NAME: Souder Miller

COMPANY REP. Non-Exempt - Paul Martinez

ORIGIN OF MATERIAL (LOCATION): Key Yard

PHONE # \_\_\_\_\_  
PAYKEY/P.O# \_\_\_\_\_

NOTES: SW / Sweazea / Hartman  
211 002  
Robert clay  
75  
Roger

H2S GAS  NON DETECT  DETECT  
Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS \_\_\_\_\_  
Paint Filter Test:  Passed  Failed  
 Pit  Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/11	8:10	SW	211	10		Robert	Robert	8:20
2		8:21	Sweazea	002	18		Clay	Clay	8:30
3		8:27	Hartman	75	18		Roger	Roger	8:30
4		8:45	SW	211	10		Robert	Robert	8:55
5		9:20	SW	211	10		Robert	Robert	9:25
6		9:50	Sweazea	002	18		Clay	Clay	9:55
7		9:55	SW	211	10		Robert	Robert	10:00
8		10:05	Hartman	75	18		Roger	Roger	10:10
9		10:21	SW	211	10		Robert	Robert	10:31
10		10:55	Sweazea	002	18		Clay	Clay	11:05
11		11:00	SW	211	10		Robert	Robert	11:07
12		11:17	Hartman	75	18		Roger	Roger	11:22
13		11:35	SW	211	10		Robert	Robert	11:40
14		1:21	Sweazea	002	18		Clay	Clay	1:28
15		1:21	Hartman	75	18		Roger	Roger	1:28
16		1:21	SW	211	10		Robert	Robert	1:38
17		2:00	SW	211	10		Robert	Robert	2:07
18		2:25	Sweazea	002	18		Clay	Clay	2:24
19		2:27	Hartman	75	18		Roger	Roger	2:31
20		2:31	SW	211	10		Robert	Robert	2:40
21		3:02	SW	211	10		Robert	Robert	3:07
22		3:26	Sweazea	002	18		Clay	Clay	3:31
23		3:31	Hartman	75	18		Roger	Roger	3:38
24		3:37	SW	211	10		Robert	Robert	3:41
25		4:15	SW	211	10		Robert	Robert	4:20
26									
27									

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Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 07/12/11

COMPANY NAME: Souder Miller

COMPANY REP. Non-Exempt Paul  
PHONE # \_\_\_\_\_  
PAYKEY/P.O.# \_\_\_\_\_  
Martinez

ORIGIN OF MATERIAL (LOCATION): Key

NOTES: SW / Sweazer / Hartman  
211 / 002 / 75  
Robert / Clay / Roger

H2S GAS  NON DETECT  DETECT  
\_\_\_\_ Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS  
Paint Filter Test:  Passed  Failed  Pit  Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	07/12	8:15	Sweazer	002	16		Clay	Clay	8:24
2		8:19	Hartman	75	16		Roger	Roger	8:25
3		8:24	SW	211	10		Robert	Robert	8:26
4		9:03	SW	211	10		Robert	Robert	9:08
5		9:36	SW	211	10		Robert	Robert	9:42
6		10:14	SW	211	10		Robert	Robert	10:18
7		10:46	SW	211	10		Robert	Robert	10:51
8		11:20	SW	211	10		Robert	Robert	11:25
9		1:15	SW	211	10		Robert	Robert	1:20
10		1:50	SW	211	10		Robert	Robert	1:55
11		2:23	SW	211	10		Robert	Robert	2:30
12		3:55	SW	211	10		Robert	Robert	3:02
13		3:31	SW	211	10		Robert	Robert	3:37
14		4:10	SW	211	10		Robert	Robert	4:16
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27									

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Industrial Ecosystems Inc  
Soil Reclamation Center  
Material Tracking Sheet

Date: 7-13-11

COMPANY NAME: Snyder Miller

COMPANY REP. Non-Exempt  
PHONE # \_\_\_\_\_  
PAYKEY/P.O.# \_\_\_\_\_

ORIGIN OF MATERIAL(LOCATION): Key

NOTES: \_\_\_\_\_

cont. soil

H2S GAS  NON-DETECT  DETECT   
\_\_\_\_ Chlorides \_\_\_\_\_ PH \_\_\_\_\_ TDS  
Paint Filter Test:  Passed  Failed  Pit  Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/13	7:55	SW	211	10		Robert	<i>[Signature]</i>	8:05
2		8:30	SW	211	10		Robert	<i>[Signature]</i>	8:37
3		9:05	SW	211	10		Robert	<i>[Signature]</i>	9:00
4		9:40	SW	211	10		Robert	<i>[Signature]</i>	9:50
5		10:20	SW	211	10		Robert	<i>[Signature]</i>	10:28
6		10:55	SW	211	10		Robert	<i>[Signature]</i>	11:00
7		11:31	SW	211	10		Robert	<i>[Signature]</i>	11:37
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