

**NM1 - 19**

**MONITORING  
REPORT**

**YEAR(S):**

**2011**

November 23, 2011

New Mexico Energy, Minerals, & Natural Resources Dept.  
Oil Conservation Division Environmental Bureau  
Attn: Mr. Brad A. Jones  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Submittal of Third Quarterly Monitoring Report for Year 2011**  
**Gandy Marley Inc., Commercial Landfarm**  
**Gandy Marley Inc., Operator / PRP**  
**SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9,**  
**T. 11 S., R.31 E., NMPM**  
**Chaves County, New Mexico**  
**Commercial Landfarm Permit (NM-01-0019)**

Dear Mr. Jones:

Clayton M. Barnhill, CMB Environmental and Geological Services Inc., on behalf of the owner/operator, Gandy Marley Inc., submit the attached Quarterly Monitoring Report for the above-mentioned site.

If you have any questions about the contents of the report, please do not hesitate to call me. Thank you.

Sincerely,



Clayton M. Barnhill, PG  
CMB Environmental & Geological Services, Inc.  
PO Box 2304  
Roswell, NM 88202-2304  
Phone: (575) 622-2012 Phone Fax: (575) 625-0538  
Cellular: (575) 626-1615  
cmbenviro@dfn.com

Cc: Gandy Marley Inc.

## QUARTERLY MONITORING REPORT

Please include the following information:

1. Site Name: **Gandy Marley Landfarm**
2. Responsible party: **Gandy Marley Inc.**
3. Responsible party mailing address (list contact person if different):

**Gandy Marley Inc.**  
**Attn: Mr. Larry Gandy, Vice President, Project Manager**  
**PO Box 1658**  
**Roswell, NM 88202-1658**

4. Commercial Landfarm Permit Number: **NM-01-0019**
5. Address/legal description:

**SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9**  
**T. 11 S. R. 31 E., NMPM**  
**Chaves County, NM**

6. Author/consulting company:  
**Clayton M. Barnhill, PG, CMB Environmental & Geological Services, Inc.**
7. Date of report: **November 23, 2011**

**STATEMENT OF FAMILIARITY**

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature:



Name:

Clayton M. Barnhill, PG

Affiliation:

CMB Environmental and Geological Services, Inc.

Title:

Sr. / Principal Geologist

Certified Scientist #: 0246, State of Texas Professional Geologist 6121, exp. 12/31/11

Date:

11/23/2011

## I. INTRODUCTION

CMB Environmental and Geological Services Inc., on behalf of Gandy Marley Inc., the owner/operator of the Gandy Marley Inc., Landfarm located in the SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9, Township 11 South, Range 31 East, Chaves County, New Mexico, has prepared this quarterly monitoring report in accordance with conditions set forth in Commercial Landfarm Permit Number NM-01-0019 (Gandy Marley Inc., approved by the New Mexico Energy, Minerals, & Natural Resources Department Oil Conservation Division (NMOCD) Environmental Bureau on January 17, 2006.

The Gandy Marley Inc, Commercial Landfarm is located approximately 33 miles northwest of Tatum, NM in Sections 4, 5, 8 & 9, T. 11 S. R. 31 E., Chaves County, New Mexico (Figure 1). In January of 2006, the New Mexico Energy, Minerals, & Natural Resources Department Oil Conservation Division (NMOCD) Environmental Bureau approved a Commercial Landfarm Permit NM-01-0019. The Commercial Landfarm is being managed in accordance with the NMOCD approved Commercial Landfarm Permit NM-01-0019. Received soils on the landfarm are deposited in bermed cells in six-inch lifts and disked on a regular basis to enhance aeration. Groundwater below the site is at a depth between 122.62' foot (MW-2) and 130.32' foot (MW-1) below the top of casing of both monitor wells. Groundwater beneath the site has a total dissolved solids concentration of approximately 8970 milligrams per liter.

### A. Scope of Work

The approved scope of work for the third quarter of monitoring year 2011 consists of collecting confirmation soil samples beneath all site cells actively landfarmed or previously active, analyzing the subsurface soil samples for total petroleum hydrocarbons (TPH), and BTEX, and compiling and reporting data or analyses that demonstrate the media located in the remediation cell has been remediated to an acceptable level by the NMOCD Commercial Landfarm Permit NM-01-0019.

The soil sampling adequately monitored the vadose zone beneath the facility. Appendix 3 contains the complete analytical results for soils sampled in these Cells.

The sampling protocol for the monitoring activities can be found in Appendix 1. Appendix 2 contains field notes with GPS Coordinates of sample points for this monitoring event. Laboratory analysis reports of soil samples are in Appendix 3.

### B. Quarter Highlights

Third quarter 2011 soil sampling / monitoring was performed on November 1, 2011. This quarter's monitoring activities include the following:

- Collection of one Remediation Cell Soil samples from all active and previously active landfarm remediation cells for laboratory analysis of the parameters outlined in section (A) above.
- Gauging Leak Detection Monitors of Evaporation Pond # 1 with a Solinst Interface Probe.
- Preparation of this report.

## **ACTIVITIES PERFORMED DURING THIS QUARTER**

### **C. Monitoring Activities**

Landfarm Remediation cell soil samples were collected beneath the remediation cells and submitted to Trace Analysis Laboratory, located in Lubbock Texas and were analyzed for TPH using EPA Method 418.1, BTEX using EPA Method 8021B.

The soil sampling adequately monitored the vadose zone beneath the facility. Laboratory analysis reports and chain of custody forms are in Appendix 3.

A Solinst interface probe was lowered down to total depth of the PVC piping of the leak detection in evaporation pond # 1. No fluids or leaks were detected by the interface probe.

## II. SUMMARY AND CONCLUSIONS

### A. Assessment of Remediation Activities:

Gandy Marley Inc. continues to be highly effective at managing and remediating soils and operating a professional commercial landfarm facility.

Analyses from a soil sample of the remediated soils in all Landfarm Cells show the remediated soils in all cells to contain less than <0.0200 (Mg/Kg) BTEX, and TPH concentrations  $\leq$  18 (Mg/Kg) TPH. Cell 5 had a TPH concentration of 17.0 Mg/Kg. These cell soil concentrations are within the soil standard concentration limits for TPH. The contaminated media in the cells has been adequately remediated and meets the requirements of WQCC Regulation 3109. Additional soils can be added to these cells for future remediation.

A Solinst interface probe was lowered down to total depth of the PVC piping of the leak detection in evaporation pond # 1. No fluids or leaks were detected by the interface probe.

Perched groundwater below the site is at a depth of 122' feet to 130' feet below ground surface, and has a total dissolved solids concentration of approximately 8970 milligrams per liter.

The vadose zone beneath the facility has been adequately monitored by the subsurface soil samples collected beneath each cell in compliance with WQCC Regulation 3107. There has been no leaching of contaminated media into the vadose zone beneath the remediation cells. All sampled cells had BTEX soil concentrations below < 0.0200 (Mg/Kg), and TPH Concentrations  $\leq$  18 (Mg/Kg.).

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: November 23, 2011

#### LIST OF FIGURES

Figure	Included	N/A
1      Site Map	X	
2      Topographic Map with sample locations plotted	X	

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: November 23, 2011

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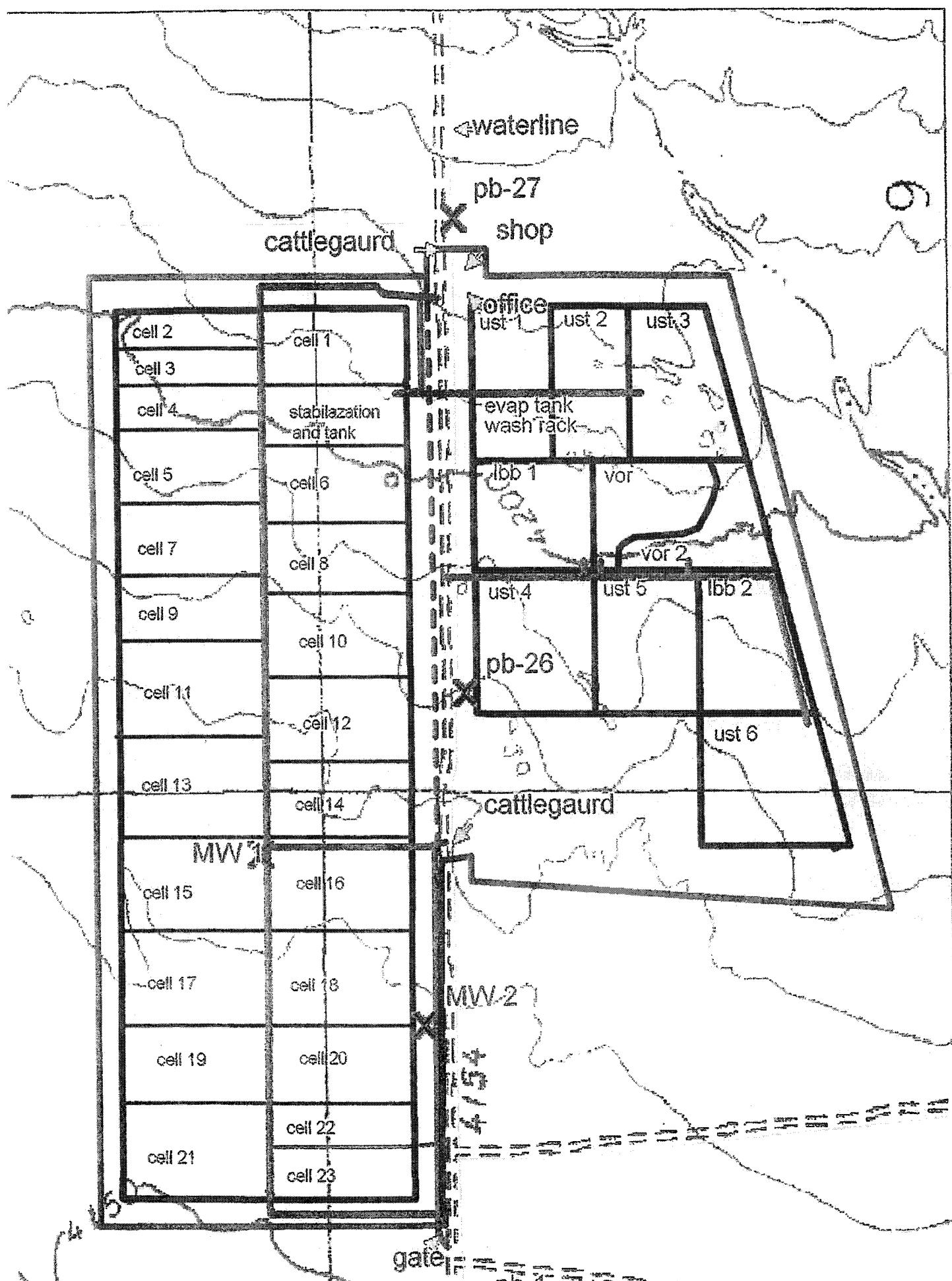
Table	Included	N/A
1      Lab Analysis Summary Reports of Cell Soil Samples	X	

## LIST OF APPENDICES

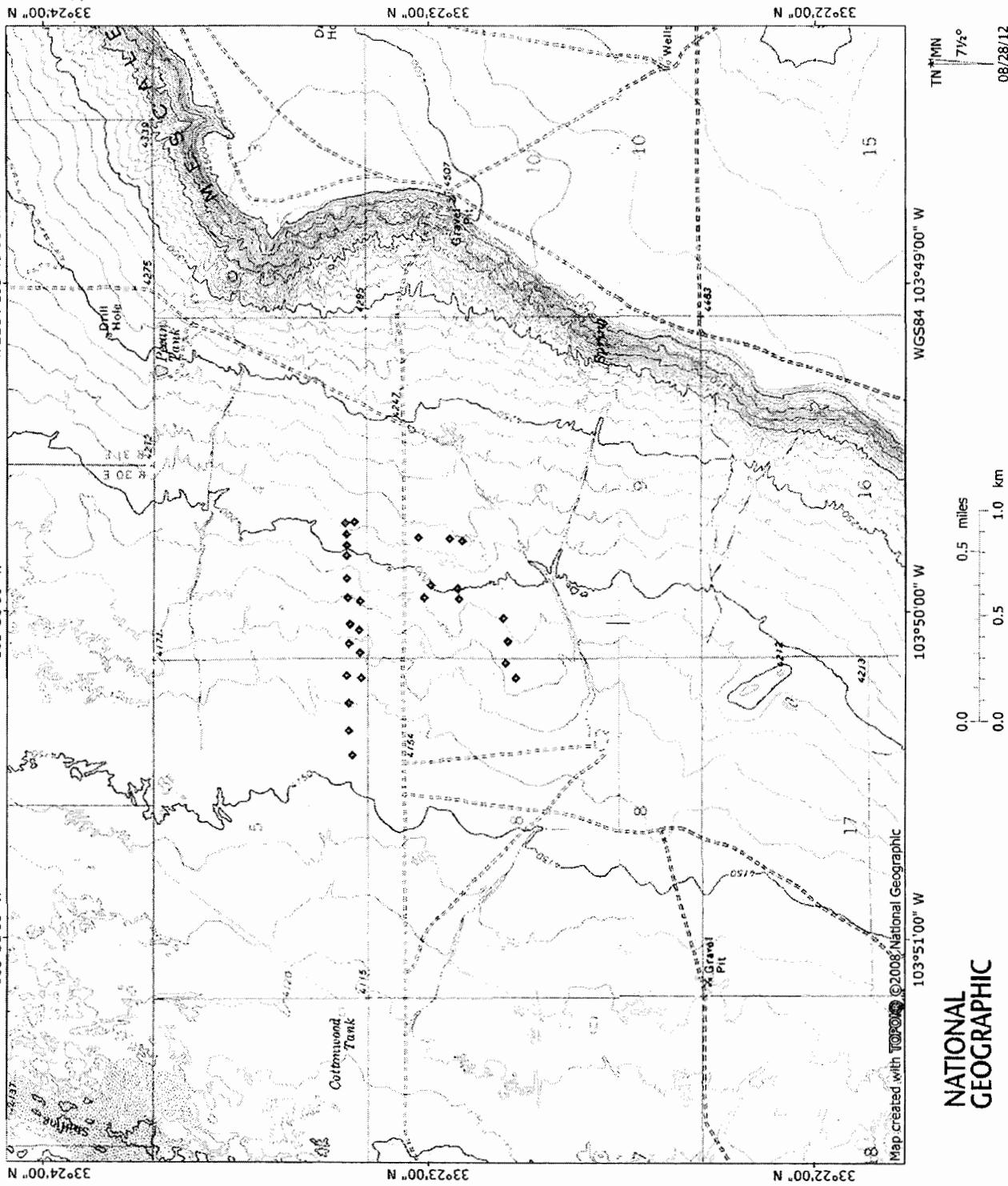
Appendix	Included	N/A
1      Sampling Protocol	X	
2      Field Notes /with GPS Coordinates of samples	X	
3      Laboratory Reports	X	

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: November 23, 2011

## **Figures:**



TOPO! map printed on 01/11/09/11 from TOPO Map of Third Quarter Sample Locations 11/01/2011  
103°51'08" W 103°50'00" W  
103°50'00" N 103°49'00" N



Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: November 23, 2011

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## Summary Report

Bret Riley  
 Gandy Marley Inc.  
 Box 1658  
 Roswell, NM 88202

Report Date: November 8, 2011

Work Order: 11110422



Project Location: Sec. 4, 5, 8, & 9 T11S-R31E, Chavez Co., NM  
 Project Name: GMI Land Farm  
 Project Number: 3rd Qtr. 2011 Soil Sampling

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
281637	Cell 1	soil	2011-11-01	10:37	2011-11-04
281638	Cell 2	soil	2011-11-01	10:45	2011-11-04
281639	Cell 3	soil	2011-11-01	10:50	2011-11-04
281640	Cell 4	soil	2011-11-01	10:55	2011-11-04
281641	Cell 5	soil	2011-11-01	11:01	2011-11-04
281642	Cell 7	soil	2011-11-01	11:07	2011-11-04
281643	Cell 9	soil	2011-11-01	11:13	2011-11-04
281644	Cell 10	soil	2011-11-01	11:18	2011-11-04
281645	Cell 11	soil	2011-11-01	11:23	2011-11-04
281646	Cell 12	soil	2011-11-01	11:26	2011-11-04
281647	Cell 13	soil	2011-11-01	11:30	2011-11-04
281648	Cell 14	soil	2011-11-01	11:35	2011-11-04
281649	Cell 15	soil	2011-11-01	11:40	2011-11-04
281650	Cell 16	soil	2011-11-01	11:44	2011-11-04
281651	Cell 17	soil	2011-11-01	11:50	2011-11-04
281652	Cell 19	soil	2011-11-01	11:55	2011-11-04
281653	Cell 21	soil	2011-11-01	12:00	2011-11-04

Sample - Field Code	BTEX				MTBE (mg/Kg)	TPH 418.1 TRPHC (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
<b>281637 - Cell 1</b>	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
<b>281638 - Cell 2</b>	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
<b>281639 - Cell 3</b>	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
<b>281640 - Cell 4</b>	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
<b>281641 - Cell 5</b>	<0.0200	<0.0200	<0.0200	<0.0200		<b>17.9</b>
<b>281642 - Cell 7</b>	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
<b>281643 - Cell 9</b>	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
<b>281644 - Cell 10</b>	<0.0200	<0.0200	<0.0200	<0.0200		<10.0

*continued ...*

*... continued*

Sample - Field Code	BTEX				MTBE MTBE (mg/Kg)	TPH 418.1 TRPHC (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
281645 - Cell 11	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281646 - Cell 12	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281647 - Cell 13	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281648 - Cell 14	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281649 - Cell 15	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281650 - Cell 16	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281651 - Cell 17	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281652 - Cell 19	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
281653 - Cell 21	<0.0200	<0.0200	<0.0200	<0.0200		<10.0

## **Appendix 1**

### **Sampling Protocol**

## **Appendix 1**

### **Sampling Protocol**

Site Remediation cells were checked for the presence of phase-separated hydrocarbons (PSH).

A Gandy Marley Inc. owned and operated front end loader dug down with the loader bucket 18" inches to 24" inches below the surface of the remediation cell. An 8" inch loader mounted drill auger was then used to create a soil boring below the exposed soil surface to a depth of 36" inches below the original ground surface of the remediation cell. An AMS 3" inch Stainless steel hand auger was then used by Clayton M. Barnhill, PG (CMB Environmental & Geological Services Inc.) to collect the soil samples beneath the remediation cells. The AMS stainless steel auger and the 8" inch drilling auger were de-contaminated between sample points by cleaning with a brush in an Alconox soap solution and then rinsing with potable water. New Nitrile gloves were changed at each sample point to avoid cross contamination. Borings were backfilled with impermeable bentonite pellets and hydrated.

Samples analyzed for TPH 418.1, BTEX 8021. Soil Samples were collected in one 4 ounce glass jar containing no preservative.

Samples were immediately placed on ice in an insulated cooler and were delivered to the Trace Analysis Laboratory, located in Lubbock, Texas, for analysis. Chain of custody documentation accompanied the samples at all times.

## **Appendix 2**

### **Field Notes**

Location: C:\My Documents\Soil Sampling  
Project / Client: 3rd Quarter Soil Sample  
Comments: GNT Land Survey Corp Environmental & Geological Services Inc.

Date: 11/01/2011

Location: 3rd Land Farm Date: 11/01/2011

Project / Client: 3rd Quarter 2011 Soil Sampling  
Comments: GNT Environmental & Geological Services Inc.

Date: 11/01/2011

Location: 3rd Land Farm Date: 11/01/2011

Cell #	Time	GPS Coordinates	Remarks	Date	Time	GPS Coordinates	Remarks
1	10:39	33.386555	Top brown clayey sand 10% silt. Gravel 0.51	11:23	33.38677	Brown clayey sand 10% silt. Gravel 0.51	Same as above
2	10:45	33.386946	Top clayey sand 10% silt. Gravel 0.51	11:24	33.38637	" "	Same as above
3	10:50	33.38689	Top brown clayey sand 10% silt. Gravel 0.51	11:30	33.38679	Reddish brown brown to above	Same as above
4	10:55	33.38688	Top brown clayey sand 10% silt. Gravel 0.51	11:35	33.38627	Tan brown and brownish soil with stones 0.51	Same as above
5	11:01	33.38688	Red clayey sand 5% silt. Gravel 0.51	11:40	33.38691	Red Brown Clayey sand. No stones. 0.51	Same as above
7	11:07	33.38669	Top brown clayey sand 0.51	11:50	33.38680	Top brown clayey sand 0.51	Same as above
9	11:13	33.38688	Top brown clayey sand 0.51	11:55	33.38678	Red brown soil 0.51	Same as above
10	11:18	33.38680	Top brown clayey sand 0.51	12:01	33.38666	Dark brown soil 0.51	Same as above

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Wdwn: Sunny + 85°F.

Cell #	Time	GPS Coordinates	Remarks	Date	Time	GPS Coordinates	Remarks
1	11:23	33.38677	Top brown clayey sand 10% silt. Gravel 0.51	10:39	33.383391	Tan brown clayey sand 0.51	Same as above
2	11:24	33.38637	" "	10:45	33.38421	" "	Same as above
3	11:30	33.38679	Reddish brown brown to above	10:50	33.38627	Tan brown clayey sand 0.51	Same as above
4	11:35	33.38627	Top brown clayey sand 10% silt. Gravel 0.51	10:55	33.38691	Red Brown Clayey sand. No stones. 0.51	Same as above
5	11:40	33.38691	Red Brown Clayey sand. No stones. 0.51	11:01	33.38677	Top brown clayey sand 0.51	Same as above
7	11:50	33.38680	Top brown clayey sand 0.51	11:07	33.38669	Top brown clayey sand 0.51	Same as above
9	11:55	33.38678	Red brown soil 0.51	11:13	33.38688	Top brown clayey sand 0.51	Same as above
10	12:01	33.38666	Dark brown soil 0.51	11:18	33.38680	Top brown clayey sand 0.51	Same as above

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TOPO! GPS Data Format DegMinSec NAD83 ElevFeet Local-Time  
WP0001,33,23,12,-103,49,43,4268,11/01/2011,03:41:03,  
WP0002,33,23,13,-103,49,43,4232,11/01/2011,03:45:29,  
WP0003,33,23,13,-103,49,46,4226,11/01/2011,03:51:22,  
WP0004,33,23,13,-103,49,48,4219,11/01/2011,03:56:23,  
WP0005,33,23,13,-103,49,50,4216,11/01/2011,04:01:55,  
WP0006,33,23,13,-103,49,54,4180,11/01/2011,04:07:49,  
WP0007,33,23,13,-103,49,57,4203,11/01/2011,04:14:29,  
WP0008,33,23,11,-103,49,58,4209,11/01/2011,04:18:34,  
WP0009,33,23,12,-103,50,2,4203,11/01/2011,04:23:13,  
WP0010,33,23,11,-103,50,3,4209,11/01/2011,04:26:41,  
WP0011,33,23,12,-103,50,6,4186,11/01/2011,04:30:36,  
WP0012,33,23,11,-103,50,8,4196,11/01/2011,04:34:03,  
WP0013,33,23,13,-103,50,12,4193,11/01/2011,04:39:31,  
WP0014,33,23,11,-103,50,12,4193,11/01/2011,04:43:02,  
WP0015,33,23,12,-103,50,17,4163,11/01/2011,04:48:20,  
WP0016,33,23,12,-103,50,22,4170,11/01/2011,04:53:31,  
WP0017,33,23,12,-103,50,26,4167,11/01/2011,04:58:11,  
WP0018,33,22,55,-103,49,47,4216,11/01/2011,05:12:28,  
WP0019,33,22,57,-103,49,46,4226,11/01/2011,05:17:07,  
WP0020,33,23,2,-103,49,46,4245,11/01/2011,05:21:40,  
WP0021,33,23,1,-103,49,57,4209,11/01/2011,05:27:06,  
WP0022,33,22,55,-103,49,57,4213,11/01/2011,05:31:19,  
WP0023,33,23,0,-103,49,55,4219,11/01/2011,05:35:55,  
WP0024,33,22,55,-103,49,56,4213,11/01/2011,05:40:27,  
WP0025,33,22,48,-103,50,1,4199,11/01/2011,05:46:14,  
WP0026,33,22,48,-103,50,5,4199,11/01/2011,05:50:35,  
WP0027,33,22,48,-103,50,9,4180,11/01/2011,05:54:43,  
WP0028,33,22,46,-103,50,12,4196,11/01/2011,05:58:36,

## **Appendix 3**

# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313  
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260

E-Mail: lab@traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

## Analytical and Quality Control Report

Bret Riley  
Gandy Marley Inc.  
Box 1658  
Roswell, NM, 88202

Report Date: November 8, 2011

Work Order: 11110422



Project Location: Sec. 4, 5, 8, & 9 T11S-R31E, Chavez Co., NM

Project Name: GMI Land Farm

Project Number: 3rd Qtr. 2011 Soil Sampling

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
281637	Cell 1	soil	2011-11-01	10:37	2011-11-04
281638	Cell 2	soil	2011-11-01	10:45	2011-11-04
281639	Cell 3	soil	2011-11-01	10:50	2011-11-04
281640	Cell 4	soil	2011-11-01	10:55	2011-11-04
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281649	Cell 15	soil	2011-11-01	11:40	2011-11-04
281650	Cell 16	soil	2011-11-01	11:44	2011-11-04
281651	Cell 17	soil	2011-11-01	11:50	2011-11-04
281652	Cell 19	soil	2011-11-01	11:55	2011-11-04
281653	Cell 21	soil	2011-11-01	12:00	2011-11-04

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 29 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



---

Dr. Blair Leftwich, Director

Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project GMI Land Farm were received by TraccAnalysis, Inc. on 2011-11-04 and assigned to work order 11110422. Samples for work order 11110422 were received intact at a temperature of 2.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	73140	2011-11-04 at 15:01	86131	2011-11-04 at 15:01
BTEX	S 8021B	73141	2011-11-04 at 15:01	86132	2011-11-04 at 15:01
TPH 418.1	E 418.1	73192	2011-11-08 at 08:00	86195	2011-11-08 at 08:29
TPH 418.1	E 418.1	73192	2011-11-08 at 08:00	86196	2011-11-08 at 10:12

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11110422 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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## Analytical Report

### Sample: 281637 - Cell 1

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-11-04	Analyzed By:	ZLM
QC Batch:	86131	Sample Preparation:	2011-11-04	Prepared By:	ZLM
Prep Batch:	73140				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	70 - 130

### Sample: 281637 - Cell 1

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-11-08	Analyzed By:	DS
QC Batch:	86195	Sample Preparation:	2011-11-08	Prepared By:	DS
Prep Batch:	73192				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U	U	<10.0	mg/Kg	1	10.0

### Sample: 281638 - Cell 2

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-11-04	Analyzed By:	ZLM
QC Batch:	86131	Sample Preparation:	2011-11-04	Prepared By:	ZLM
Prep Batch:	73140				

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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

#### Sample: 281638 - Cell 2

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86195  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U	U	<10.0	mg/Kg	1	10.0

#### Sample: 281639 - Cell 3

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

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**Sample: 281639 - Cell 3**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-11-08	Analyzed By:	DS
QC Batch:	86195	Sample Preparation:	2011-11-08	Prepared By:	DS
Prep Batch:	73192				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U	U	<10.0	mg/Kg	1	10.0

**Sample: 281640 - Cell 4**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-11-04	Analyzed By:	ZLM
QC Batch:	86131	Sample Preparation:	2011-11-04	Prepared By:	ZLM
Prep Batch:	73140				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

**Sample: 281640 - Cell 4**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-11-08	Analyzed By:	DS
QC Batch:	86195	Sample Preparation:	2011-11-08	Prepared By:	DS
Prep Batch:	73192				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U	U	<10.0	mg/Kg	1	10.0

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**Sample: 281641 - Cell 5**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	RL		Dilution	RL
				Units	Dilution		
Benzene	U	U	<0.0200	mg/Kg	1	0.0200	
Toluene	U	U	<0.0200	mg/Kg	1	0.0200	
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200	
Xylene	U	U	<0.0200	mg/Kg	1	0.0200	

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
						Amount		
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

**Sample: 281641 - Cell 5**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86195  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	RL		Dilution	RL
				Units	Dilution		
TRPHC			17.9	mg/Kg	1	1	10.0

**Sample: 281642 - Cell 7**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	RL		Dilution	RL
				Units	Dilution		
Benzene	U	U	<0.0200	mg/Kg	1	0.0200	
Toluene	U	U	<0.0200	mg/Kg	1	0.0200	
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200	
Xylene	U	U	<0.0200	mg/Kg	1	0.0200	

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	70 - 130

**Sample: 281642 - Cell 7**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86195  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U	U	<10.0	mg/Kg	1	10.0

**Sample: 281643 - Cell 9**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylenes	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	70 - 130

**Sample: 281643 - Cell 9**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86195  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

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Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC	U		<10.0		mg/Kg	1	10.0

**Sample: 281644 - Cell 10**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	U	1	<0.0200		mg/Kg	1	0.0200
Toluene	U	1	<0.0200		mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200		mg/Kg	1	0.0200
Xylene	U	1	<0.0200		mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	70 - 130

**Sample: 281644 - Cell 10**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86195  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC	U		<10.0		mg/Kg	1	10.0

**Sample: 281645 - Cell 11**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

**Sample: 281645 - Cell 11**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86195  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U	U	<10.0	mg/Kg	1	10.0

**Sample: 281646 - Cell 12**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	70 - 130

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**Sample: 281646 - Cell 12**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-11-08	Analyzed By:	DS
QC Batch:	86195	Sample Preparation:	2011-11-08	Prepared By:	DS
Prep Batch:	73192				

Parameter	Flag	Cert	Result	RL	Dilution	RL
TRPHC	U		<10.0	mg/Kg	1	10.0

**Sample: 281647 - Cell 13**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-11-04	Analyzed By:	ZLM
QC Batch:	86132	Sample Preparation:	2011-11-04	Prepared By:	ZLM
Prep Batch:	73141				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.01	mg/Kg	1	2.00	100	70 - 130

**Sample: 281647 - Cell 13**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-11-08	Analyzed By:	DS
QC Batch:	86196	Sample Preparation:	2011-11-08	Prepared By:	DS
Prep Batch:	73192				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

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**Sample: 281648 - Cell 14**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-11-04	Analyzed By:	ZLM
QC Batch:	86131	Sample Preparation:	2011-11-04	Prepared By:	ZLM
Prep Batch:	73140				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	102	70 - 130

**Sample: 281648 - Cell 14**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-11-08	Analyzed By:	DS
QC Batch:	86196	Sample Preparation:	2011-11-08	Prepared By:	DS
Prep Batch:	73192				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 281649 - Cell 15**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-11-04	Analyzed By:	ZLM
QC Batch:	86131	Sample Preparation:	2011-11-04	Prepared By:	ZLM
Prep Batch:	73140				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	70 - 130

**Sample: 281649 - Cell 15**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86196  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 281650 - Cell 16**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86131  
Prep Batch: 73140

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

**Sample: 281650 - Cell 16**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86196  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

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Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 281651 - Cell 17**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86132  
Prep Batch: 73141

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	<0.0200	mg/Kg	1	0.0200
Toluene	U	U	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	U	<0.0200	mg/Kg	1	0.0200
Xylene	U	U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

**Sample: 281651 - Cell 17**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86196  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 281652 - Cell 19**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86132  
Prep Batch: 73141

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Report Date: November 8, 2011  
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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

**Sample: 281652 - Cell 19**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 86196  
Prep Batch: 73192

Analytical Method: E 418.1  
Date Analyzed: 2011-11-08  
Sample Preparation: 2011-11-08

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U		<10.0	mg/Kg	1	10.0

**Sample: 281653 - Cell 21**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 86132  
Prep Batch: 73141

Analytical Method: S 8021B  
Date Analyzed: 2011-11-04  
Sample Preparation: 2011-11-04

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	70 - 130

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**Sample: 281653 - Cell 21**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 86196

Prep Batch: 73192

Analytical Method: E 418.1

Date Analyzed: 2011-11-08

Sample Preparation: 2011-11-08

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	U	U	<10.0	mg/Kg	1	10.0

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## Method Blanks

**Method Blank (1)** QC Batch: 86131

QC Batch: 86131  
Prep Batch: 73140

Date Analyzed: 2011-11-04  
QC Preparation: 2011-11-04

Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00335	mg/Kg	0.02
Toluene		1	<0.00471	mg/Kg	0.02
Ethylbenzene		1	<0.00440	mg/Kg	0.02
Xylene		1	<0.00557	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.74	mg/Kg	1	2.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	70 - 130

**Method Blank (1)** QC Batch: 86132

QC Batch: 86132  
Prep Batch: 73141

Date Analyzed: 2011-11-04  
QC Preparation: 2011-11-04

Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00335	mg/Kg	0.02
Toluene		1	<0.00471	mg/Kg	0.02
Ethylbenzene		1	<0.00440	mg/Kg	0.02
Xylene		1	<0.00557	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.75	mg/Kg	1	2.00	88	70 - 130

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**Method Blank (1)** QC Batch: 86195

QC Batch: 86195  
Prep Batch: 73192

Date Analyzed: 2011-11-08  
QC Preparation: 2011-11-08

Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	MDL Result	Units	RL
TRPHC			<4.79	mg/Kg	10

**Method Blank (1)** QC Batch: 86196

QC Batch: 86196  
Prep Batch: 73192

Date Analyzed: 2011-11-08  
QC Preparation: 2011-11-08

Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	MDL Result	Units	RL
TRPHC			<4.79	mg/Kg	10

Report Date: November 8, 2011  
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## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 86131  
Prep Batch: 73140

Date Analyzed: 2011-11-04  
QC Preparation: 2011-11-04

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene		1	1.85	mg/Kg	1	2.00	<0.00335	92	70 - 130
Toluene		1	1.78	mg/Kg	1	2.00	<0.00471	89	70 - 130
Ethylbenzene		1	1.83	mg/Kg	1	2.00	<0.00440	92	70 - 130
Xylene		1	5.59	mg/Kg	1	6.00	<0.00557	93	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. RPD Limit
Benzene		1	1.79	mg/Kg	1	2.00	<0.00335	90	70 - 130 3 20
Toluene		1	1.78	mg/Kg	1	2.00	<0.00471	89	70 - 130 0 20
Ethylbenzene		1	1.81	mg/Kg	1	2.00	<0.00440	90	70 - 130 1 20
Xylene		1	5.50	mg/Kg	1	6.00	<0.00557	92	70 - 130 2 20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		1.72	1.64	mg/Kg	1	2.00	86	82	70 - 130
4-Bromofluorobenzene (4-BFB)		1.84	1.73	mg/Kg	1	2.00	92	86	70 - 130

### Laboratory Control Spike (LCS-1)

QC Batch: 86132  
Prep Batch: 73141

Date Analyzed: 2011-11-04  
QC Preparation: 2011-11-04

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene		1	1.91	mg/Kg	1	2.00	<0.00335	96	70 - 130
Toluene		1	1.76	mg/Kg	1	2.00	<0.00471	88	70 - 130
Ethylbenzene		1	1.81	mg/Kg	1	2.00	<0.00440	90	70 - 130
Xylene		1	5.49	mg/Kg	1	6.00	<0.00557	92	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Limit RPD	RPD Limit	
Benzene		1	1.80	mg/Kg	1	2.00	<0.00335	90	70 - 130	6	20
Toluene		1	1.76	mg/Kg	1	2.00	<0.00471	88	70 - 130	0	20
Ethylbenzene		1	1.80	mg/Kg	1	2.00	<0.00440	90	70 - 130	1	20
Xylene		1	5.49	mg/Kg	1	6.00	<0.00557	92	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.67	1.63	mg/Kg	1	2.00	84	82	70 - 130
4-Bromofluorobenzene (4-BFB)	1.76	1.76	mg/Kg	1	2.00	88	88	70 - 130

#### Laboratory Control Spike (LCS-1)

QC Batch: 86195  
Prep Batch: 73192

Date Analyzed: 2011-11-08  
QC Preparation: 2011-11-08

Analyzed By: DS  
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			269	mg/Kg	1	250	<4.79	108	84.3 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	RPD Limit
TRPHC			269	mg/Kg	1	250	<4.79	108	84.3 - 122	0

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 86196  
Prep Batch: 73192

Date Analyzed: 2011-11-08  
QC Preparation: 2011-11-08

Analyzed By: DS  
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			296	mg/Kg	1	250	<4.79	118	84.3 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	RPD Limit
TRPHC			288	mg/Kg	1	250	<4.79	115	84.3 - 122	3

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Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 281585

QC Batch: 86131  
Prep Batch: 73140

Date Analyzed: 2011-11-04  
QC Preparation: 2011-11-04

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.94	mg/Kg	1	2.00	<0.00335	97	70 - 130
Toluene		1	2.06	mg/Kg	1	2.00	<0.00471	103	70 - 130
Ethylbenzene		1	2.21	mg/Kg	1	2.00	<0.00440	110	70 - 130
Xylene		1	6.71	mg/Kg	1	6.00	<0.00557	112	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.93	mg/Kg	1	2.00	<0.00335	96	70 - 130	0	20
Toluene		1	2.01	mg/Kg	1	2.00	<0.00471	100	70 - 130	2	20
Ethylbenzene		1	2.21	mg/Kg	1	2.00	<0.00440	110	70 - 130	0	20
Xylene		1	6.63	mg/Kg	1	6.00	<0.00557	110	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.88	mg/Kg	1	2	96	94	70 - 130	
4-Bromofluorobenzene (4-BFB)	2.00	1.98	mg/Kg	1	2	100	99	70 - 130	

**Matrix Spike (MS-1)** Spiked Sample: 281647

QC Batch: 86132  
Prep Batch: 73141

Date Analyzed: 2011-11-04  
QC Preparation: 2011-11-04

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.02	mg/Kg	1	2.00	<0.00335	101	70 - 130
Toluene		1	2.06	mg/Kg	1	2.00	<0.00471	103	70 - 130
Ethylbenzene		1	2.21	mg/Kg	1	2.00	<0.00440	110	70 - 130
Xylene		1	6.76	mg/Kg	1	6.00	<0.00557	113	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit	RPD	RPD Limit
Benzene		1	1.92	mg/Kg	1	2.00	<0.00335	96	70 - 130	5	20
Toluene		1	2.00	mg/Kg	1	2.00	<0.00471	100	70 - 130	3	20
Ethylbenzene		1	2.18	mg/Kg	1	2.00	<0.00440	109	70 - 130	1	20
Xylene		1	6.69	mg/Kg	1	6.00	<0.00557	112	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.92	1.91	mg/Kg	1	2	96	96	70 - 130
4-Bromofluorobenzene (4-BFB)	1.90	1.97	mg/Kg	1	2	95	98	70 - 130

#### Matrix Spike (MS-1) Spiked Sample: 281646

QC Batch: 86195  
Prep Batch: 73192

Date Analyzed: 2011-11-08  
QC Preparation: 2011-11-08

Analyzed By: DS  
Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			262	mg/Kg	1	250	<4.79	105	43 - 161

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit	RPD	RPD Limit
TRPHC			250	mg/Kg	1	250	<4.79	100	43 - 161	5	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 281651

QC Batch: 86196  
Prep Batch: 73192

Date Analyzed: 2011-11-08  
QC Preparation: 2011-11-08

Analyzed By: DS  
Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			272	mg/Kg	1	250	<4.79	109	43 - 161

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit	RPD	RPD Limit
TRPHC			266	mg/Kg	1	250	<4.79	106	43 - 161	2	

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Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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## Calibration Standards

### Standard (CCV-1)

QC Batch: 86131

Date Analyzed: 2011-11-04

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs Truc Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0878	88	80 - 120	2011-11-04
Toluene	1		mg/Kg	0.100	0.0846	85	80 - 120	2011-11-04
Ethylbenzene	1		mg/Kg	0.100	0.0852	85	80 - 120	2011-11-04
Xylene	1		mg/Kg	0.300	0.258	86	80 - 120	2011-11-04

### Standard (CCV-2)

QC Batch: 86131

Date Analyzed: 2011-11-04

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs Truc Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0923	92	80 - 120	2011-11-04
Toluene	1		mg/Kg	0.100	0.0898	90	80 - 120	2011-11-04
Ethylbenzene	1		mg/Kg	0.100	0.0910	91	80 - 120	2011-11-04
Xylene	1		mg/Kg	0.300	0.274	91	80 - 120	2011-11-04

### Standard (CCV-3)

QC Batch: 86131

Date Analyzed: 2011-11-04

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs Truc Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0921	92	80 - 120	2011-11-04
Toluene	1		mg/Kg	0.100	0.0905	90	80 - 120	2011-11-04
Ethylbenzene	1		mg/Kg	0.100	0.0888	89	80 - 120	2011-11-04
Xylene	1		mg/Kg	0.300	0.266	89	80 - 120	2011-11-04

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### Standard (CCV-1)

QC Batch: 86132

Date Analyzed: 2011-11-04

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0940	94	80 - 120	2011-11-04
Toluene	1		mg/Kg	0.100	0.0919	92	80 - 120	2011-11-04
Ethylbenzene	1		mg/Kg	0.100	0.0936	94	80 - 120	2011-11-04
Xylene	1		mg/Kg	0.300	0.282	94	80 - 120	2011-11-04

### Standard (CCV-2)

QC Batch: 86132

Date Analyzed: 2011-11-04

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0893	89	80 - 120	2011-11-04
Toluene	1		mg/Kg	0.100	0.0860	86	80 - 120	2011-11-04
Ethylbenzene	1		mg/Kg	0.100	0.0870	87	80 - 120	2011-11-04
Xylene	1		mg/Kg	0.300	0.262	87	80 - 120	2011-11-04

### Standard (CCV-1)

QC Batch: 86195

Date Analyzed: 2011-11-08

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	110	110	80 - 120	2011-11-08

### Standard (CCV-2)

QC Batch: 86195

Date Analyzed: 2011-11-08

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	109	109	80 - 120	2011-11-08

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### Standard (CCV-3)

QC Batch: 86195                          Date Analyzed: 2011-11-08                          Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	110	110	80 - 120	2011-11-08

### Standard (CCV-1)

QC Batch: 86196                          Date Analyzed: 2011-11-08                          Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	110	110	80 - 120	2011-11-08

### Standard (CCV-2)

QC Batch: 86196                          Date Analyzed: 2011-11-08                          Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	115	115	80 - 120	2011-11-08

### Standard (CCV-3)

QC Batch: 86196                          Date Analyzed: 2011-11-08                          Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	109	109	80 - 120	2011-11-08

## Appendix

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraccAnalysis
1	NELAP	T104704219-11-4	Lubbock

### Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

### Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

**TraceAnalysis, Inc.**

email: lab@traceanalysis.com

**Company Name:** Sankey Methods Inc.  
**Address:** PO Box 1659 Roswell, NM 88202  
**Contact Person:** Bret Raley & 505-330-2466  
**Invoice to:** bret\_raley@yahoo.com  
**Project #:** 3rd Quarter 2011 Soil Sampling Land Farm  
**Project Location (including state):** Sec. 4, S. 8 & 9 T. 11 S. R. 3 E.  
**Project Name:** Chancery  
**Sampler Signature:** [Signature]  
**Date:** 11/03/2011

**Phone #:** 575-347-0434  
**Fax #:** 575-347-0435  
**E-mail:**

LAB #	FIELD CODE	MATRIX		PRESERVATIVE		SAMPLE		DATE	TIME	# CONTAINERS	Volume / Amount	WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	(Circle or Specify Method No.)	
		LAB USE ONLY	TYPE	METHOD	TEST	TEST	METHOD														TEST	TEST
281437	Cell 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
638	Cell 2	X																				
639	Cell 3																					
640	Cell 4																					
641	Cell 5																					
642	Cell 6																					
643	Cell 7																					
644	Cell 8																					
645	Cell 9																					
646	Cell 10																					
647	Cell 11																					
648	Cell 12																					
649	Cell 13	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
<i>Relinquished by:</i>	Company: <i>John Chavis</i>	Date: <i>11/03/11</i>	Time: <i>1000</i>	Received by: <i>TJ</i>	Company: <i>11-4-11</i>	Date: <i>9:45</i>	Time: <i>INST</i>	Type: <i>LAB USE ONLY</i>	Method: <i>OBS 3.1</i>	Test: <i>c</i>	REMARKS: <i>Send copy of results to Enviro One Inc.</i>											
<i>Relinquished by:</i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	Method: <i>INST</i>	Test: <i>OBS c</i>	Test: <i>c</i>	Method: <i>COR 2.1</i>	Test: <i>c</i>	Method: <i>INST</i>	Test: <i>OBS c</i>	Method: <i>COR 2.1</i>	Test: <i>c</i>	Method: <i>INST</i>	Test: <i>OBS c</i>	Method: <i>COR 2.1</i>	Test: <i>c</i>		
<i>Relinquished by:</i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	Method: <i>INST</i>	Test: <i>OBS c</i>	Test: <i>c</i>	Method: <i>COR 2.1</i>	Test: <i>c</i>	Method: <i>INST</i>	Test: <i>OBS c</i>	Method: <i>COR 2.1</i>	Test: <i>c</i>	Method: <i>INST</i>	Test: <i>OBS c</i>	Method: <i>COR 2.1</i>	Test: <i>c</i>		

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.  
*John Chavis CO-OP*

Carrier # EX 7753 6838 8592

6701 Aberdeen Avenue, Suite 9      5002 Basin Street, Suite A1      200 East Sunset Rd., Suite E  
 Lubbock, Texas 79424      Midland, Texas 79703      El Paso, Texas 79922      BioAquatic Testing  
 Tel (806) 794-1296      Tel (432) 689-6301      Tel (915) 585-3443      2501 Mayes Rd., Ste 100  
 Fax (806) 794-1298      Fax (432) 689-6313      Fax (915) 585-4944      Carrollton, Texas 75006  
 1 (800) 378-1298      1 (888) 588-3443

<input type="checkbox"/>	Na, Ca, Mg, K, TDS, EC	Hold
<input type="checkbox"/>	CI, F <sub>i</sub> , SO <sub>4</sub> , NO <sub>3</sub> , NO <sub>2</sub> , Alkalinity	
<input type="checkbox"/>	Moisture Content	
<input type="checkbox"/>	BOD, TSS, pH	
<input type="checkbox"/>	Pesticides 8081 / 608	
<input type="checkbox"/>	PCBs 8082 / 608	
<input type="checkbox"/>	GC/MS Semi-Volatiles	
<input type="checkbox"/>	GC/MS Vol. 8260 / 624	
<input type="checkbox"/>	RCI	
<input type="checkbox"/>	TCLP Pesticides	
<input type="checkbox"/>	TCLP Semivolatiles	
<input type="checkbox"/>	TCLP Volatiles	
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
<input type="checkbox"/>	TPH 8015 GRO / DRG / TVHC	
<input type="checkbox"/>	PAH 8270 / 625	
<input type="checkbox"/>	MTEB 8021 / 602 / 8260 / 624	
<input type="checkbox"/>	TPH 8021 / 602 / 8260 / 624	
<input type="checkbox"/>	TPH 4181 TX1005 / TX1005 Ext(C35)	
<input type="checkbox"/>	MTBE	
<input type="checkbox"/>	BTX 8021 / 602 / 8260 / 624	
<input type="checkbox"/>		

Dry Weight Basis Required  
 TRRP Report Required  
 Check If Special Reporting  
 Limits Are Needed

**TraceAnalysis, Inc.**

email: lab@traceanalysis.com

## Company Name:

Bundy Marley Inc.

## Address:

(Street, City, ZIP)  
PO Box 1658 Roswell, NM 88202

## Contact Person:

Bret Riley & 505-330-2461

## Invoice to:

(If different from above)  
Riley - bret@yahoo.com  
Project #: Landfill Quarter 2011 Soil Sampling  
Project Location (including state):  
Sec. 4, S. 8, T. 11, S. R. 31E, New MexicoLAB #  
(LAB USE  
ONLY)

FIELD CODE	# CONTAINERS	VOLUME / AMOUNT	WATER	SOIL	AIR	SLUDGE	TIME	DATE	PRESERVATIVE METHOD		SAMPLING
									HC1	HNO <sub>3</sub>	
Cell 14	1	400	X				11/01/11	11/30/11			
Cell 15				X			11/01/11	11/30/11			
Cell 16					X		11/01/11	11/30/11			
Cell 17						X	11/01/11	11/30/11			
Cell 19							11/01/11	11/30/11			
Cell 21							11/01/11	11/30/11			
Temp Bulk	1	125	X								

Relinquished by: Company: Date: Time: Received by: Company: Date: Time: INST: J.P.  
John Doe 11/03/11 10am Stacy TA 11-4-11 9:45 CORR.CRelinquished by: Company: Date: Time: Received by: Company: Date: Time: INST: OBS  
John Doe 11/03/11 10am Stacy TA 11-4-11 9:45 CORR.CRelinquished by: Company: Date: Time: Received by: Company: Date: Time: INST: OBS  
John Doe 11/03/11 10am Stacy TA 11-4-11 9:45 CORR.C

**ANALYSIS REQUEST**  
**(Circle or Specify Method No.)**

Turn Around Time if different from standard

Hold

Na, Ca, Mg, K, TDS, EC

Cl, F, SO<sub>4</sub>, NO<sub>3</sub>, NO<sub>2</sub>, Alkalinity

Moisture Content

BOD, TSS, PH

Pesticides 8081 / 608

PCBs 8082 / 608

GC/Ms Vol. 8270 / 625

GC/Ms Vol. 8260 / 624

RCI

TCLP Pesticides

TCLP Semi Volatiles

TCLP Volatiles

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010200.7

PAH 8270 / 625

TPH 80.15 GRO / DRD / TVHC

TPH 418 TX1005 Ext(C35)

MTEB 8021 / 602 / 8260 / 624

MLPX 8021 / 602 / 8260 / 624

## REMARKS:

*Please send copy of results to CM Enviro and company***LAB USE ONLY** Instr.  OBS  COR  Log-In-Review Headspace Y/N  Headspace N/A Dry Weight Basis Required  
 TRRP Report Required  
 Check If Special Reporting  
 Limits Are NeededOriginal COPY  
Submit of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.Carrier # EX 7953 69388592

August 9, 2011

New Mexico Energy, Minerals, & Natural Resources Dept.  
Oil Conservation Division Environmental Bureau  
Attn: Mr. Brad A. Jones  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

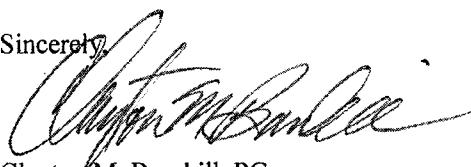
**Re: Submittal of Second Quarterly Monitoring Report for Year 2011**  
**Gandy Marley Inc., Commercial Landfarm**  
**Gandy Marley Inc., Operator / PRP**  
**SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9,**  
**T. 11 S., R.31 E., NMPM**  
**Chaves County, New Mexico**  
**Commercial Landfarm Permit (NM-01-0019)**

Dear Mr. Jones:

Clayton M. Barnhill, CMB Environmental and Geological Services Inc., on behalf of the owner/operator, Gandy Marley Inc., submit the attached Quarterly Monitoring Report for the above-mentioned site.

If you have any questions about the contents of the report, please do not hesitate to call me.  
Thank you.

Sincerely,



Clayton M. Barnhill, PG  
CMB Environmental & Geological Services, Inc.  
PO Box 2304  
Roswell, NM 88202-2304  
Phone: (575) 622-2012 Phone Fax: (575) 625-0538  
Cellular: (575) 626-1615  
cmbenviro@dfn.com

Cc: Gandy Marley Inc.

**COVER PAGE**

## QUARTERLY MONITORING REPORT

Please include the following information:

1. Site Name: **Gandy Marley Landfarm**
2. Responsible party: **Gandy Marley Inc.**
3. Responsible party mailing address (list contact person if different):

**Gandy Marley Inc.**  
**Attn: Mr. Larry Gandy, Vice President, Project Manager**  
**PO Box 1658**  
**Roswell, NM 88202-1658**

4. Commercial Landfarm Permit Number: **NM-01-0019**
5. Address/legal description:

**SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9**  
**T. 11 S. R. 31 E., NMPM**  
**Chaves County, NM**

6. Author/consulting company:  
**Clayton M. Barnhill, PG, CMB Environmental & Geological Services, Inc.**
7. Date of report: **August 9, 2011**

**STATEMENT OF FAMILIARITY**

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature:



Name:

Clayton M. Barnhill, PG

Affiliation:

CMB Environmental and Geological Services, Inc.

Title:

Sr. / Principal Geologist

Certified Scientist #:

0246, State of Texas Professional Geologist 6121, exp. 12/31/11

Date:

08/09/2011

## I. INTRODUCTION

CMB Environmental and Geological Services Inc., on behalf of Gandy Marley Inc., the owner/operator of the Gandy Marley Inc., Landfarm located in the SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9, Township 11 South, Range 31 East, Chaves County, New Mexico, has prepared this quarterly monitoring report in accordance with conditions set forth in Commercial Landfarm Permit Number NM-01-0019 (Gandy Marley Inc., approved by the New Mexico Energy, Minerals, & Natural Resources Department Oil Conservation Division (NMOCD) Environmental Bureau on January 17, 2006.

The Gandy Marley Inc, Commercial Landfarm is located approximately 33 miles northwest of Tatum, NM in Sections 4, 5, 8 & 9, T. 11 S. R. 31 E., Chaves County, New Mexico (Figure 1). In January of 2006, the New Mexico Energy, Minerals, & Natural Resources Department Oil Conservation Division (NMOCD) Environmental Bureau approved a Commercial Landfarm Permit NM-01-0019. The commercial landfarm is being managed in accordance with the NMOCD approved Commercial Landfarm Permit NM-01-0019. Received soils on the landfarm are deposited in bermed cells in six-inch lifts and disked on a regular basis to enhance aeration. Groundwater below the site is at a depth between 122.62' foot (MW-2) and 130.32' foot (MW-1) below the top of casing of both monitor wells. Groundwater beneath the site has a total dissolved solids concentration of approximately 8970 milligrams per liter.

### A. Scope of Work

The approved scope of work for the second quarter of monitoring year 2011 consists of collecting confirmation soil samples beneath all site cells actively landfarmed or previously active, analyzing the subsurface soil samples for total petroleum hydrocarbons (TPH), and BTEX, and compiling and reporting data or analyses that demonstrate the media located in the remediation cell has been remediated to an acceptable level by the NMOCD Commercial Landfarm Permit NM-01-0019.

The soil sampling adequately monitored the vadose zone beneath the facility. Appendix 3 contains the complete analytical results for soils sampled in these Cells.

The sampling protocol for the monitoring activities can be found in Appendix 1. Appendix 2 contains field notes with GPS Coordinates of sample points for this monitoring event. Laboratory analysis reports of soil samples are in Appendix 3.

### B. Quarter Highlights

Second quarter 2011 sampling / monitoring was performed on July 27, 2011. This quarter's monitoring activities include the following:

- Collection of one Remediation Cell Soil samples from all active and previously active landfarm remediation cells for laboratory analysis of the parameters outlined in section (A) above.
- Gauging Leak Detection Monitors of Evaporation Pond # 1 with a Solinst Interface Probe.
- Preparation of this report.

## **ACTIVITIES PERFORMED DURING THIS QUARTER**

### **C. Monitoring Activities**

Landfarm Remediation cell soil samples were collected beneath the remediation cells and submitted to Trace Analysis Laboratory, located in Lubbock Texas and were analyzed for TPH using EPA Method 418.1, BTEX using EPA Method 8021B.

The soil sampling adequately monitored the vadose zone beneath the facility. Laboratory analysis reports and chain of custody forms are in Appendix 3.

A Solinst interface probe was lowered down to total depth of the PVC piping of the leak detection in evaporation pond # 1. No fluids or leaks were detected by the interface probe.

## II. SUMMARY AND CONCLUSIONS

### A. Assessment of Remediation Activities:

Gandy Marley Inc. continues to be highly effective at managing and remediating soils and operating a professional commercial landfarm facility.

Analyses from a soil sample of the remediated soils in all Landfarm Cells show the remediated soils in all cells to contain less than <0.0222 (Mg/Kg) BTEX, and TPH concentrations ( $\leq$  139 (Mg/Kg) TPH). The contaminated media in the cells has been adequately remediated and meets the requirements of WQCC Regulation 3109. Additional soils can be added to these cells for future remediation.

A Solinst interface probe was lowered down to total depth of the PVC piping of the leak detection in evaporation pond # 1. No fluids or leaks were detected by the interface probe.

Perched groundwater below the site is at a depth of 122' feet to 130' feet below ground surface, and has a total dissolved solids concentration of approximately 8970 milligrams per liter.

The vadose zone beneath the facility has been adequately monitored by the subsurface soil samples collected beneath each cell in compliance with WQCC Regulation 3107. There has been no leaching of contaminated media into the vadose zone beneath the remediation cells. All sampled cells had BTEX soil concentrations below < 0.0222 (Mg/Kg), and TPH Concentrations  $\leq$  139 (Mg/Kg.).

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: August 09, 2011

## LIST OF FIGURES

Figure	Included	N/A
1      Site Map	X	
2      Topographic Map with sample locations plotted	X	

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: August 09, 2011

## LIST OF TABLES

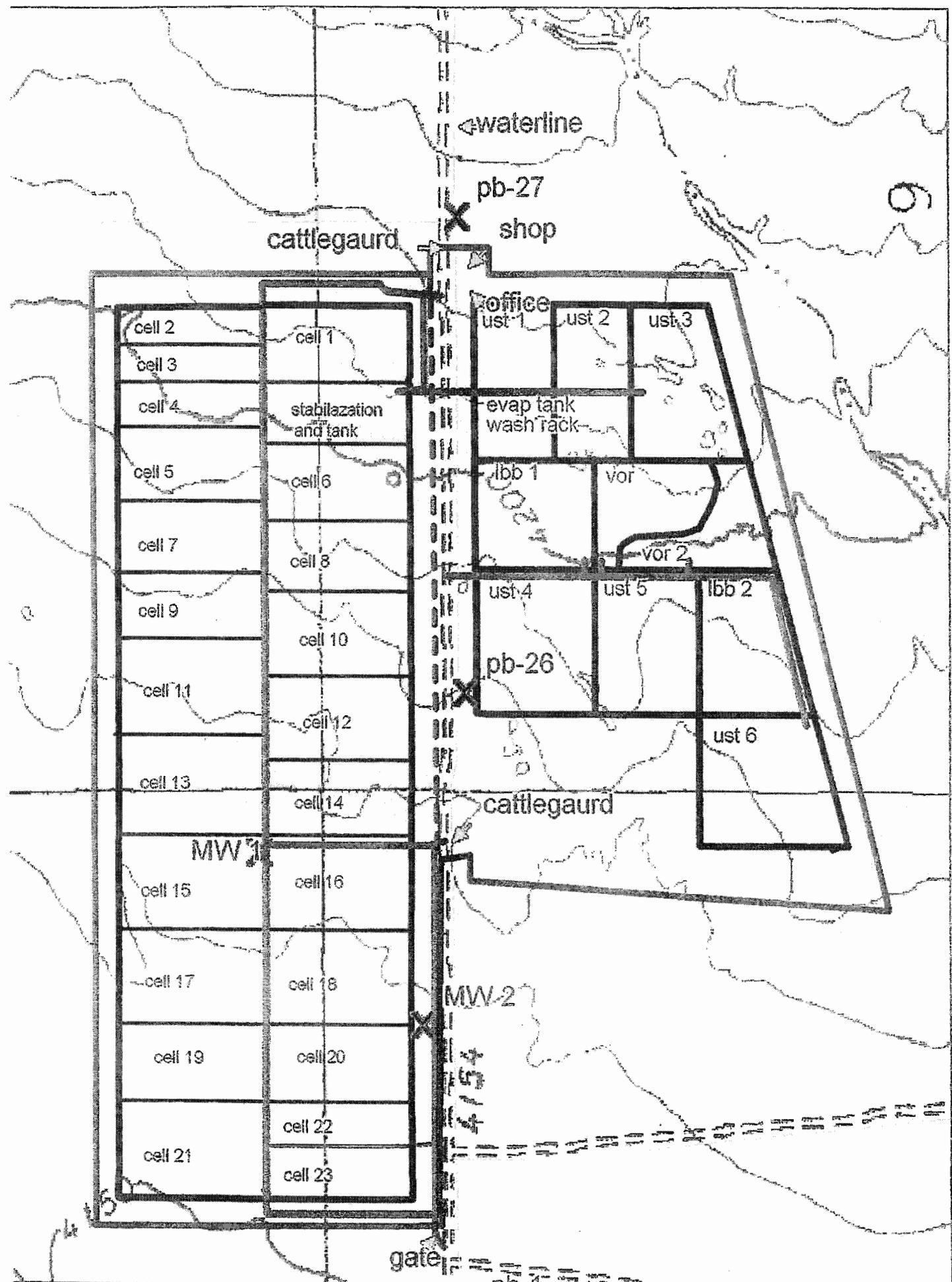
Table	Included	N/A
1      Lab Analysis Summary Reports of Cell Soil Samples	X	

## LIST OF APPENDICES

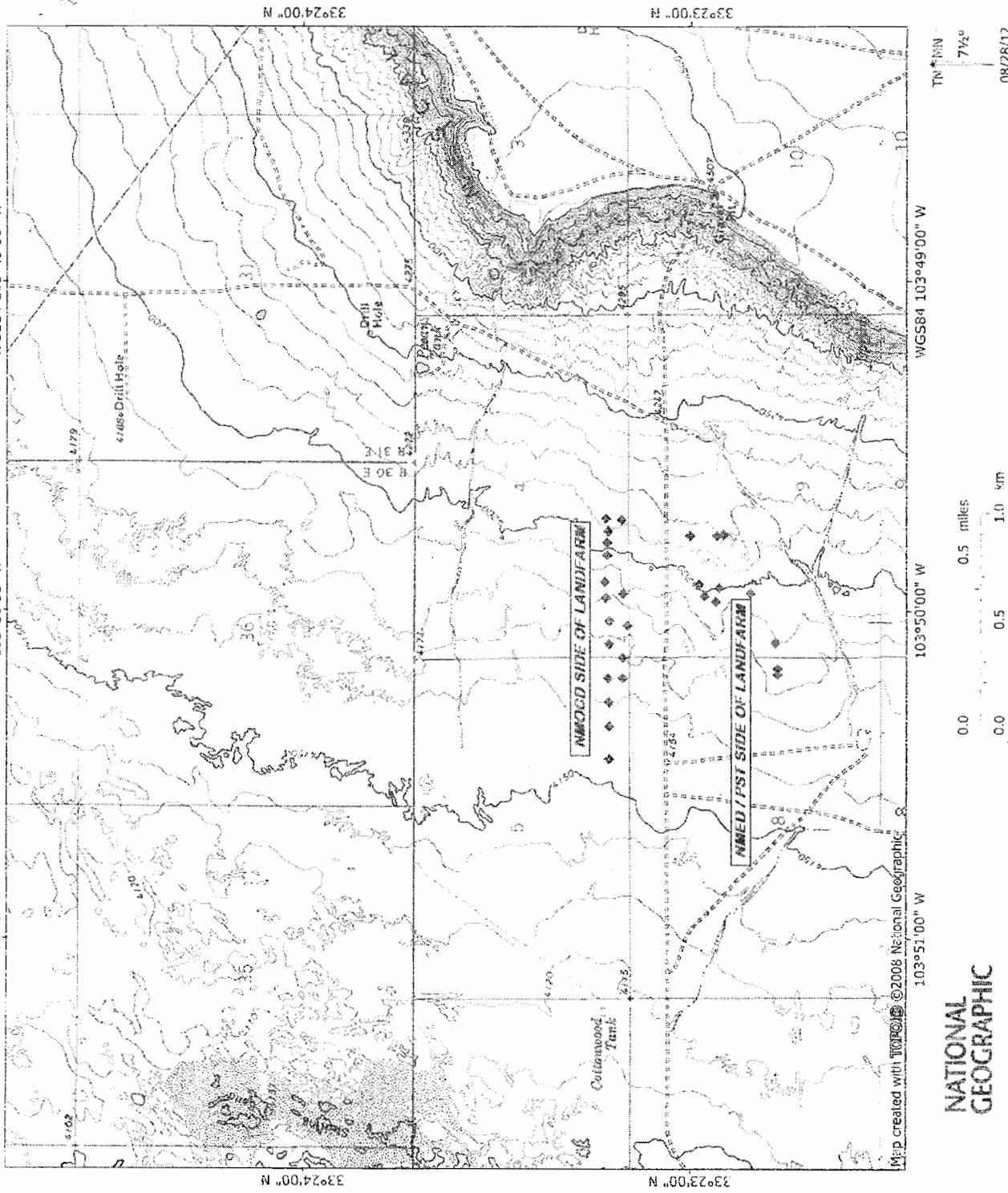
Appendix	Included	N/A
1      Sampling Protocol	X	
2      Field Notes /with GPS Coordinates of samples	X	
3      Laboratory Reports	X	

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: August 09, 2011

## **Figures:**



TOPO! map printed on 08/09/11 From TOPO Map of Soil Sampling Locations July 2011 GMI Landfarm  
WGS84 103°49'00" W  
103°50'00" W



Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: August 09, 2011

## **Tables:**

## Summary Report

Bret Riley  
 Gandy Marley Inc.  
 Box 1658  
 Roswell, NM 88202

Report Date: August 4, 2011

Work Order: 11080109



Project Location: Sec. 4, 5, 8, 9, T11S-R31E, Chaves Co., NM

Project Name: GMI Landfarm

Project Number: 2nd Qtr. 2011 Soil Sampling

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
273225	Cell 1	soil	2011-07-27	15:05	2011-07-30
273226	Cell 2	soil	2011-07-27	15:00	2011-07-30
273227	Cell 3	soil	2011-07-27	14:50	2011-07-30
273228	Cell 4	soil	2011-07-27	14:45	2011-07-30
273229	Cell 5	soil	2011-07-27	14:40	2011-07-30
273230	Cell 7	soil	2011-07-27	14:30	2011-07-30
273231	Cell 9	soil	2011-07-27	14:20	2011-07-30
273232	Cell 10	soil	2011-07-27	14:25	2011-07-30
273233	Cell 11	soil	2011-07-27	14:05	2011-07-30
273234	Cell 12	soil	2011-07-27	14:10	2011-07-30
273235	Cell 13	soil	2011-07-27	13:55	2011-07-30
273236	Cell 14	soil	2011-07-27	14:00	2011-07-30
273237	Cell 15	soil	2011-07-27	13:40	2011-07-30
273238	Cell 16	soil	2011-07-27	13:45	2011-07-30
273239	Cell 17	soil	2011-07-27	13:25	2011-07-30
273240	Cell 18	soil	2011-07-27	13:30	2011-07-30
273241	Cell 19	soil	2011-07-27	13:15	2011-07-30
273242	Cell 21	soil	2011-07-27	13:10	2011-07-30

Sample - Field Code	BTEX				MTBE (mg/Kg)	TPH 418.1 TRPHC (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
273225 - Cell 1	<0.0200	<0.0200	<0.0200	<0.0200		<b>139</b>
273226 - Cell 2	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273227 - Cell 3	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273228 - Cell 4	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273229 - Cell 5	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273230 - Cell 7	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273231 - Cell 9	<0.0200	<0.0200	<0.0200	<0.0200		<10.0

*continued ...*

... *continued*

Sample - Field Code	BTEX				MTBE MTBE (mg/Kg)	TPH 418.1 TRPHC (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
273232 - Cell 10	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273233 - Cell 11	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273234 - Cell 12	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273235 - Cell 13	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273236 - Cell 14	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273237 - Cell 15	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273238 - Cell 16	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273239 - Cell 17	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273240 - Cell 18	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273241 - Cell 19	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
273242 - Cell 21	<0.0200	<0.0200	<0.0200	<0.0200		<10.0

## **Appendix 1**

### **Sampling Protocol**

## **Appendix 1** **Sampling Protocol**

Site Remediation cells were checked for the presence of phase-separated hydrocarbons (PSH).

A Gandy Marley Inc. owned and operated front end loader dug down with the loader bucket 18" inches to 24" inches below the surface of the remediation cell. An 8" inch loader mounted drill auger was then used to create a soil boring below the exposed soil surface to a depth of 36" inches below the original ground surface of the remediation cell. An AMS 3" inch Stainless steel hand auger was then used by Clayton M. Barnhill, PG (CMB Environmental & Geological Services Inc.) to collect the soil samples beneath the remediation cells. The AMS stainless steel auger and the 8" inch drilling auger were de-contaminated between sample points by cleaning with a brush in an Alconox soap solution and then rinsing with potable water. New Nitrile gloves were changed at each sample point to avoid cross contamination. Borings were backfilled with impermeable bentonite pellets and hydrated.

Samples analyzed for TPH 418.1, BTEX 8021. Soil Samples were collected in one 4 ounce glass jar containing no preservative.

Samples were immediately placed on ice in an insulated cooler and were delivered to the Trace Analysis Laboratory, located in Lubbock, Texas, for analysis. Chain of custody documentation accompanied the samples at all times.

## **Appendix 2**

### **Field Notes**

Location Sint Landvorm

Date 07/27/11

Project / Client 2nd Quarter 2011 Soil Sampling

By: Cms Environmental &amp; Geological Services Inc.

Page 1 of 3

Location GM I Landfarm

Date 09/29/11

Project / Client 2nd Quarter 2011 Soil Sampling

By: Cms Environmental &amp; Geological Services Inc.

Page 2 of 3

Cult# Time GPS Coordinates Remarks Coll Time GPS Coordinates Remarks

23							
21	13:10	33.38691 103.84049	Brown Clayey fine gr. silt Silty Sand 15% clay. No silt	14:00	33.38625 103.83607	Brown sand. gr. 1/2-1/5' size clayey sand 15% sand stone 3' size	
19	13:15	33.38667 103.83351	15% Brown fine gr. clayey Silty 10% fine Calcareous - No silt or stone 3' size	14:05	33.38672 103.83382	Same as above.	
17	13:25	33.38656 103.83802	Same as above.	14:10	33.38627 103.83408	Same as above.	
18	13:30	33.38555 103.83803	West - Stream Clayey Silt. 15% clay. Silt, silt clst. No Stony Silt	14:20	33.38658 103.83250	Dark grey clay Silt and silt 10% sand no silt or stone 3' size	
15	13:40	33.38670 103.83729	Red Clayey Silt. No Odor 1/2-1/3' BS5	14:25	33.38636 103.83304	Greenish tan sand red by iron 1/2-1/3' size No Odor 1/2-1/3' BS5	
16	13:45	33.38622 103.83749	Brown clayey Sand, and silt. Wet silt.	14:30	33.38686 103.83148	Brown clayey Sand, and silt 1/2-1/3' size No Odor 1/2-1/3' BS5	
13	13:55	33.38671 103.83591	Red Clayey Silt. Wet Silted Sand 1/3' BS5	14:40	33.38688 103.83031	Tan brown clay Sand with 10% Caliche 1/2' 0-5"	

100 Location GNT Land Farm Date 07/27/11  
Project / Client 2nd Quarter 2011 Soil Sampling

Bigs CMS Government & Geology Inc.

Page 3 of 3  
Call # Time GPS Coordinates Remarks

4	14:45	33.38682 103.82996	Tall grass Clayey sand Wet w/ white Gravel 1/03 No debris seen 2' 3' 6' 8'
3	14:50	33.38682 103.82907	Brown - Red soil Clayey sand med gr. soil Soil 1/00 Cobbles & broken No debris or signs of holes
2	15:00	33.38686 103.82858	Red clayey soil Herr Gr. wet Soil & No debris or debris 2' 3' 6' 8'
1	15:05	33.38643 103.82861	Soil 2' soil <del>3' 3' 6' 8'</del> 103.82876

Jeff Scott - 14:55 Sampled a 1' x 1' x 1' core  
Call 302 216 65 Sampled a 1' x 1' x 1' core  
Call 302 346 65 Sampled a 1' x 1' x 1' core

*Waypoint List Second Quarter 2011 Soil Sampling Locations*

*TOPO! GPS Data Format DegMin NAD83 ElevFeet Local-Time*

WP0001, 33, 22.919, -103, 49.791, 4222, 07/27/2011, 03:43:08,  
WP0002, 33, 22.941, -103, 49.788, 4196, 07/27/2011, 03:59:28,  
WP0003, 33, 22.991, -103, 49.790, 4219, 07/27/2011, 04:05:25,  
WP0004, 33, 22.982, -103, 49.961, 4203, 07/27/2011, 04:14:07,  
WP0005, 33, 22.924, -103, 49.955, 4196, 07/27/2011, 04:25:34,  
WP0006, 33, 22.992, -103, 49.926, 4222, 07/27/2011, 04:31:33,  
WP0007, 33, 22.933, -103, 49.891, 4219, 07/27/2011, 04:41:47,  
WP0008, 33, 22.795, -103, 50.033, 4177, 07/27/2011, 04:49:57,  
WP0009, 33, 22.789, -103, 50.123, 4183, 07/27/2011, 04:58:02,  
WP0010, 33, 22.852, -103, 50.157, 4163, 07/27/2011, 05:06:00,  
WP0011, 33, 22.876, -103, 50.162, 4186, 07/27/2011, 05:12:32,  
WP0012, 33, 22.758, -103, 50.217, 4160, 07/27/2011, 05:19:18,  
WP0013, 33, 23.214, -103, 50.430, 4144, 07/27/2011, 06:10:04,  
WP0014, 33, 23.200, -103, 50.371, 4160, 07/27/2011, 06:18:02,  
WP0015, 33, 23.194, -103, 50.281, 4167, 07/27/2011, 06:26:46,  
WP0016, 33, 23.133, -103, 50.282, 4140, 07/27/2011, 06:31:28,  
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## **Appendix 3**



# TRACEANALYSIS, INC.

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## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

## Analytical and Quality Control Report

Bret Riley  
Gandy Marley Inc.  
Box 1658  
Roswell, NM, 88202

Report Date: August 4, 2011

Work Order: 11080109



Project Location: Sec. 4, 5, 8, 9, T11S-R31E, Chaves Co., NM

Project Name: GMI Landfarm

Project Number: 2nd Qtr. 2011 Soil Sampling

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
273225	Cell 1	soil	2011-07-27	15:05	2011-07-30
273226	Cell 2	soil	2011-07-27	15:00	2011-07-30
273227	Cell 3	soil	2011-07-27	14:50	2011-07-30
273228	Cell 4	soil	2011-07-27	14:45	2011-07-30
273229	Cell 5	soil	2011-07-27	14:40	2011-07-30
273230	Cell 7	soil	2011-07-27	14:30	2011-07-30
273231	Cell 9	soil	2011-07-27	14:20	2011-07-30
273232	Cell 10	soil	2011-07-27	14:25	2011-07-30
273233	Cell 11	soil	2011-07-27	14:05	2011-07-30
273234	Cell 12	soil	2011-07-27	14:10	2011-07-30
273235	Cell 13	soil	2011-07-27	13:55	2011-07-30
273236	Cell 14	soil	2011-07-27	14:00	2011-07-30
273237	Cell 15	soil	2011-07-27	13:40	2011-07-30
273238	Cell 16	soil	2011-07-27	13:45	2011-07-30
273239	Cell 17	soil	2011-07-27	13:25	2011-07-30
273240	Cell 18	soil	2011-07-27	13:30	2011-07-30
273241	Cell 19	soil	2011-07-27	13:15	2011-07-30
273242	Cell 21	soil	2011-07-27	13:10	2011-07-30

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 31 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



---

Dr. Blair Leftwich, Director

Dr. Michael Abel, Project Manager

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# Case Narrative

Samples for project GMI Landfarm were received by TraceAnalysis, Inc. on 2011-07-30 and assigned to work order 11080109. Samples for work order 11080109 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	70879	2011-08-01 at 16:24	83449	2011-08-01 at 16:24
BTEX	S 8021B	70909	2011-08-02 at 15:24	83483	2011-08-02 at 15:24
BTEX	S 8021B	70910	2011-08-02 at 15:24	83484	2011-08-02 at 15:24
TPH 418.1	E 418.1	70989	2011-08-03 at 15:00	83585	2011-08-04 at 12:07
TPH 418.1	E 418.1	70990	2011-08-03 at 15:15	83586	2011-08-04 at 12:51

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11080109 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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## Analytical Report

### Sample: 273225 - Cell 1

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 83449

Prep Batch: 70879

Analytical Method: S 8021B

Date Analyzed: 2011-08-01

Sample Preparation: 2011-08-01

Prep Method: S 5035

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	v	1	<0.0200	mg/Kg	1	0.0200
Xylene	v	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 112
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	72.7 - 114

### Sample: 273225 - Cell 1

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 83585

Prep Batch: 70989

Analytical Method: E 418.1

Date Analyzed: 2011-08-04

Sample Preparation: 2011-08-03

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			139	mg/Kg	1	10.0

### Sample: 273226 - Cell 2

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 83449

Prep Batch: 70879

Analytical Method: S 8021B

Date Analyzed: 2011-08-01

Sample Preparation: 2011-08-01

Prep Method: S 5035

Analyzed By: MT

Prepared By: MT

Report Date: August 4, 2011  
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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	v	1	<0.0200	mg/Kg	1	0.0200
Xylene	v	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 112
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	72.7 - 114

**Sample: 273226 - Cell 2**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	v		<10.0	mg/Kg	1	10.0

**Sample: 273227 - Cell 3**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	v	1	<0.0200	mg/Kg	1	0.0200
Xylene	v	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 112
4-Bromofluorobenzene (4-BFB)			2.18	mg/Kg	1	2.00	109	72.7 - 114

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**Sample: 273227 - Cell 3**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 83585

Prep Batch: 70989

Analytical Method: E 418.1

Date Analyzed: 2011-08-04

Sample Preparation: 2011-08-03

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273228 - Cell 4**

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 83449

Prep Batch: 70879

Analytical Method: S 8021B

Date Analyzed: 2011-08-01

Sample Preparation: 2011-08-01

Prep Method: S 5035

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylenes	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.63	mg/Kg	1	2.00	82	70 - 112
4-Bromofluorobenzene (4-BFB)			2.01	mg/Kg	1	2.00	100	72.7 - 114

**Sample: 273228 - Cell 4**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 83585

Prep Batch: 70989

Analytical Method: E 418.1

Date Analyzed: 2011-08-04

Sample Preparation: 2011-08-03

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

Report Date: August 4, 2011  
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**Sample: 273229 - Cell 5**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-08-01	Analyzed By:	MT
QC Batch:	83449	Sample Preparation:	2011-08-01	Prepared By:	MT
Prep Batch:	70879				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.78	mg/Kg	1	2.00	89	70 - 112
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	102	72.7 - 114

**Sample: 273229 - Cell 5**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-08-04	Analyzed By:	DS
QC Batch:	83585	Sample Preparation:	2011-08-03	Prepared By:	DS
Prep Batch:	70989				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273230 - Cell 7**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-08-02	Analyzed By:	ZLM
QC Batch:	83484	Sample Preparation:	2011-08-02	Prepared By:	ZLM
Prep Batch:	70910				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	JB	1	<0.0200	mg/Kg	1	0.0200
Xylene	JB	1	<0.0200	mg/Kg	1	0.0200

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.77	mg/Kg	1	2.00	88	70 - 112
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	72.7 - 114

**Sample: 273230 - Cell 7**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	v		<10.0	mg/Kg	1	10.0

**Sample: 273231 - Cell 9**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	j	1	<0.0200	mg/Kg	1	0.0200
Xylene	v	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.66	mg/Kg	1	2.00	83	70 - 112
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	72.7 - 114

**Sample: 273231 - Cell 9**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

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Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273232 - Cell 10**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.65	mg/Kg	1	2.00	82	70 - 112
4-Bromofluorobenzene (4-BFB)			1.86	mg/Kg	1	2.00	93	72.7 - 114

**Sample: 273232 - Cell 10**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273233 - Cell 11**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.62	mg/Kg	1	2.00	81	70 - 112
4-Bromofluorobenzene (4-BFB)			1.82	mg/Kg	1	2.00	91	72.7 - 114

**Sample: 273233 - Cell 11**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273234 - Cell 12**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 112
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	72.7 - 114

Report Date: August 4, 2011  
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**Sample: 273234 - Cell 12**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-08-04	Analyzed By:	DS
QC Batch:	83585	Sample Preparation:	2011-08-03	Prepared By:	DS
Prep Batch:	70989				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	v		<10.0	mg/Kg	1	10.0

**Sample: 273235 - Cell 13**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-08-01	Analyzed By:	MT
QC Batch:	83449	Sample Preparation:	2011-08-01	Prepared By:	MT
Prep Batch:	70879				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	v	1	<0.0200	mg/Kg	1	0.0200
Xylene	v	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 112
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	103	72.7 - 114

**Sample: 273235 - Cell 13**

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-08-04	Analyzed By:	DS
QC Batch:	83585	Sample Preparation:	2011-08-03	Prepared By:	DS
Prep Batch:	70989				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	v		<10.0	mg/Kg	1	10.0

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**Sample: 273236 - Cell 14**

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 83449

Prep Batch: 70879

Analytical Method: S 8021B

Date Analyzed: 2011-08-01

Sample Preparation: 2011-08-01

Prep Method: S 5035

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.63	mg/Kg	1	2.00	82	70 - 112
4-Bromofluorobenzene (4-BFB)			1.91	mg/Kg	1	2.00	96	72.7 - 114

**Sample: 273236 - Cell 14**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 83585

Prep Batch: 70989

Analytical Method: E 418.1

Date Analyzed: 2011-08-04

Sample Preparation: 2011-08-03

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273237 - Cell 15**

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 83449

Prep Batch: 70879

Analytical Method: S 8021B

Date Analyzed: 2011-08-01

Sample Preparation: 2011-08-01

Prep Method: S 5035

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.60	mg/Kg	1	2.00	80	70 - 112
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1	2.00	89	72.7 - 114

**Sample: 273237 - Cell 15**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	v		<10.0	mg/Kg	1	10.0

**Sample: 273238 - Cell 16**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	v	1	<0.0200	mg/Kg	1	0.0200
Xylene	v	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.77	mg/Kg	1	2.00	88	70 - 112
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	72.7 - 114

**Sample: 273238 - Cell 16**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

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Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273239 - Cell 17**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 112
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	72.7 - 114

**Sample: 273239 - Cell 17**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83585  
Prep Batch: 70989

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273240 - Cell 18**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83449  
Prep Batch: 70879

Analytical Method: S 8021B  
Date Analyzed: 2011-08-01  
Sample Preparation: 2011-08-01

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 112
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	72.7 - 114

**Sample: 273240 - Cell 18**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 83586  
Prep Batch: 70990

Analytical Method: E 418.1  
Date Analyzed: 2011-08-04  
Sample Preparation: 2011-08-03

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	u		<10.0	mg/Kg	1	10.0

**Sample: 273241 - Cell 19**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 83483  
Prep Batch: 70909

Analytical Method: S 8021B  
Date Analyzed: 2011-08-02  
Sample Preparation: 2011-08-02

Prep Method: S 5035  
Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.53	mg/Kg	1	2.00	76	70 - 112
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	72.7 - 114

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**Sample: 273241 - Cell 19**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 83586

Prep Batch: 70990

Analytical Method: E 418.1

Date Analyzed: 2011-08-04

Sample Preparation: 2011-08-03

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	v		<10.0	mg/Kg	1	10.0

**Sample: 273242 - Cell 21**

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 83483

Prep Batch: 70909

Analytical Method: S 8021B

Date Analyzed: 2011-08-02

Sample Preparation: 2011-08-02

Prep Method: S 5035

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	v	1	<0.0200	mg/Kg	1	0.0200
Xylene	v	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.48	mg/Kg	1	2.00	74	70 - 112
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	72.7 - 114

**Sample: 273242 - Cell 21**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 83586

Prep Batch: 70990

Analytical Method: E 418.1

Date Analyzed: 2011-08-04

Sample Preparation: 2011-08-03

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC	v		<10.0	mg/Kg	1	10.0

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## Method Blanks

**Method Blank (1)** QC Batch: 83449

QC Batch: 83449  
Prep Batch: 70879

Date Analyzed: 2011-08-01  
QC Preparation: 2011-08-01

Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00335	mg/Kg	0.02
Toluene		1	<0.00471	mg/Kg	0.02
Ethylbenzene		1	<0.00440	mg/Kg	0.02
Xylene		1	<0.00557	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 112
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	72.7 - 114

**Method Blank (1)** QC Batch: 83483

QC Batch: 83483  
Prep Batch: 70909

Date Analyzed: 2011-08-02  
QC Preparation: 2011-08-02

Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00335	mg/Kg	0.02
Toluene		1	<0.00471	mg/Kg	0.02
Ethylbenzene		1	<0.00440	mg/Kg	0.02
Xylene		1	<0.00557	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.76	mg/Kg	1	2.00	88	70 - 112
4-Bromofluorobenzene (4-BFB)			2.05	mg/Kg	1	2.00	102	72.7 - 114

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**Method Blank (1)** QC Batch: 83484

QC Batch: 83484  
Prep Batch: 70910

Date Analyzed: 2011-08-02  
QC Preparation: 2011-08-02

Analyzed By: ZLM  
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00335	mg/Kg	0.02
Toluene		1	<0.00471	mg/Kg	0.02
Ethylbenzene		1	0.0116	mg/Kg	0.02
Xylene		1	0.0165	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.61	mg/Kg	1	2.00	80	70 - 112
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	72.7 - 114

**Method Blank (1)** QC Batch: 83585

QC Batch: 83585  
Prep Batch: 70989

Date Analyzed: 2011-08-04  
QC Preparation: 2011-08-03

Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	MDL Result	Units	RL
TRPHC			<4.79	mg/Kg	10

**Method Blank (1)** QC Batch: 83586

QC Batch: 83586  
Prep Batch: 70990

Date Analyzed: 2011-08-04  
QC Preparation: 2011-08-03

Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	MDL Result	Units	RL
TRPHC			<4.79	mg/Kg	10

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## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 83449  
Prep Batch: 70879

Date Analyzed: 2011-08-01  
QC Preparation: 2011-08-01

Analyzed By: MT  
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.82	mg/Kg	1	2.00	<0.00335	91	75.4 - 110
Toluene		1	1.79	mg/Kg	1	2.00	<0.00471	89	73.2 - 114
Ethylbenzene		1	1.87	mg/Kg	1	2.00	<0.00440	94	74.4 - 111
Xylene		1	5.70	mg/Kg	1	6.00	<0.00557	95	75.9 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.82	mg/Kg	1	2.00	<0.00335	91	75.4 - 110	0	20
Toluene		1	1.82	mg/Kg	1	2.00	<0.00471	91	73.2 - 114	2	20
Ethylbenzene		1	1.87	mg/Kg	1	2.00	<0.00440	93	74.4 - 111	0	20
Xylene		1	5.61	mg/Kg	1	6.00	<0.00557	94	75.9 - 113	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		1.72	1.66	mg/Kg	1	2.00	86	83	67.6 - 113
4-Bromofluorobenzene (4-BFB)		1.88	1.90	mg/Kg	1	2.00	94	95	72 - 113

### Laboratory Control Spike (LCS-1)

QC Batch: 83483  
Prep Batch: 70909

Date Analyzed: 2011-08-02  
QC Preparation: 2011-08-02

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.52	mg/Kg	1	2.00	<0.00335	76	75.4 - 110
Toluene		1	1.68	mg/Kg	1	2.00	<0.00471	84	73.2 - 114
Ethylbenzene		1	1.84	mg/Kg	1	2.00	<0.00440	92	74.4 - 111
Xylene		1	5.63	mg/Kg	1	6.00	<0.00557	94	75.9 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit	RPD	RPD Limit
Benzene		1	1.68	mg/Kg	1	2.00	<0.00335	84	75.4 - 110	10	20
Toluene		1	1.80	mg/Kg	1	2.00	<0.00471	90	73.2 - 114	7	20
Ethylbenzene		1	1.87	mg/Kg	1	2.00	<0.00440	94	74.4 - 111	2	20
Xylene		1	5.74	mg/Kg	1	6.00	<0.00557	96	75.9 - 113	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.73	1.68	mg/Kg	1	2.00	86	84	67.6 - 113
4-Bromofluorobenzene (4-BFB)	1.99	1.79	mg/Kg	1	2.00	100	90	72 - 113

### Laboratory Control Spike (LCS-1)

QC Batch: 83484  
Prep Batch: 70910

Date Analyzed: 2011-08-02  
QC Preparation: 2011-08-02

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit
Benzene		1	1.82	mg/Kg	1	2.00	<0.00335	91	75.4 - 110
Toluene		1	1.85	mg/Kg	1	2.00	<0.00471	92	73.2 - 114
Ethylbenzene		1	1.82	mg/Kg	1	2.00	0.0116	91	74.4 - 111
Xylene		1	5.49	mg/Kg	1	6.00	0.0165	92	75.9 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit	RPD	RPD Limit
Benzene		1	1.79	mg/Kg	1	2.00	<0.00335	90	75.4 - 110	2	20
Toluene		1	1.78	mg/Kg	1	2.00	<0.00471	89	73.2 - 114	4	20
Ethylbenzene		1	1.82	mg/Kg	1	2.00	0.0116	91	74.4 - 111	0	20
Xylene		1	5.52	mg/Kg	1	6.00	0.0165	92	75.9 - 113	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit
Trifluorotoluene (TFT)	1.66	1.58	mg/Kg	1	2.00	83	79	67.6 - 113
4-Bromofluorobenzene (4-BFB)	1.79	1.76	mg/Kg	1	2.00	90	88	72 - 113

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### Laboratory Control Spike (LCS-1)

QC Batch: 83585  
Prep Batch: 70989

Date Analyzed: 2011-08-04  
QC Preparation: 2011-08-03

Analyzed By: DS  
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			289	mg/Kg	1	250	<4.79	116	84.3 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC			281	mg/Kg	1	250	<4.79	112	84.3 - 122	3	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

### Laboratory Control Spike (LCS-1)

QC Batch: 83586  
Prep Batch: 70990

Date Analyzed: 2011-08-04  
QC Preparation: 2011-08-03

Analyzed By: DS  
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			264	mg/Kg	1	250	<4.79	106	84.3 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC			261	mg/Kg	1	250	<4.79	104	84.3 - 122	1	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

### Matrix Spike (MS-1) Spiked Sample: 273057

QC Batch: 83449  
Prep Batch: 70879

Date Analyzed: 2011-08-01  
QC Preparation: 2011-08-01

Analyzed By: MT  
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.82	mg/Kg	1	2.00	<0.00335	91	57.5 - 115
Toluene		1	1.93	mg/Kg	1	2.00	<0.00471	96	59.8 - 125
Ethylbenzene		1	2.07	mg/Kg	1	2.00	<0.00440	104	60.5 - 130

*continued ...*

Report Date: August 4, 2011  
2nd Qtr. 2011 Soil Sampling

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GMI Landfarm

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*matrix spikes continued . . .*

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylenes	1		6.48	mg/Kg	1	6.00	<0.00557	108	62.6 - 131

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	Limit
Benzene	1		1.74	mg/Kg	1	2.00	<0.00335	87	57.5 - 115	4	20
Toluene	1		1.81	mg/Kg	1	2.00	<0.00471	90	59.8 - 125	6	20
Ethylbenzene	1		1.98	mg/Kg	1	2.00	<0.00440	99	60.5 - 130	4	20
Xylene	1		6.20	mg/Kg	1	6.00	<0.00557	103	62.6 - 131	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		1.76	1.86	mg/Kg	1	2	88	93	59.3 - 128
4-Bromofluorobenzene (4-BFB)		1.97	1.91	mg/Kg	1	2	98	96	67.4 - 130

#### Matrix Spike (MS-1)    Spiked Sample: 273363

QC Batch: 83483  
Prep Batch: 70909

Date Analyzed: 2011-08-02  
QC Preparation: 2011-08-02

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1		1.60	mg/Kg	1	2.00	<0.00335	80	57.5 - 115
Toluene	1		1.67	mg/Kg	1	2.00	<0.00471	84	59.8 - 125
Ethylbenzene	1		1.83	mg/Kg	1	2.00	<0.00440	92	60.5 - 130
Xylene	1		5.68	mg/Kg	1	6.00	<0.00557	95	62.6 - 131

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	Limit
Benzene	1		1.68	mg/Kg	1	2.00	<0.00335	84	57.5 - 115	5	20
Toluene	1		1.79	mg/Kg	1	2.00	<0.00471	90	59.8 - 125	7	20
Ethylbenzene	1		1.86	mg/Kg	1	2.00	<0.00440	93	60.5 - 130	2	20
Xylene	1		5.91	mg/Kg	1	6.00	<0.00557	98	62.6 - 131	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		1.68	1.84	mg/Kg	1	2	84	92	59.3 - 128
4-Bromofluorobenzene (4-BFB)		1.93	2.10	mg/Kg	1	2	96	105	67.4 - 130

Report Date: August 4, 2011  
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**Matrix Spike (MS-1)** Spiked Sample: 273230

QC Batch: 83484  
Prep Batch: 70910

Date Analyzed: 2011-08-02  
QC Preparation: 2011-08-02

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.08	mg/Kg	1	2.00	<0.00335	104	57.5 - 115
Toluene		1	2.17	mg/Kg	1	2.00	<0.00471	108	59.8 - 125
Ethylbenzene		1	2.34	mg/Kg	1	2.00	0.0106	116	60.5 - 130
Xylene		1	7.17	mg/Kg	1	6.00	0.017	119	62.6 - 131

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.97	mg/Kg	1	2.00	<0.00335	98	57.5 - 115	5	20
Toluene		1	2.04	mg/Kg	1	2.00	<0.00471	102	59.8 - 125	6	20
Ethylbenzene		1	2.21	mg/Kg	1	2.00	0.0106	110	60.5 - 130	6	20
Xylene		1	6.75	mg/Kg	1	6.00	0.017	112	62.6 - 131	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.84	1.69	mg/Kg	1	2	92	84	59.3 - 128	
4-Bromofluorobenzene (4-BFB)	1.98	1.90	mg/Kg	1	2	99	95	67.4 - 130	

**Matrix Spike (MS-1)** Spiked Sample: 273229

QC Batch: 83585  
Prep Batch: 70989

Date Analyzed: 2011-08-04  
QC Preparation: 2011-08-03

Analyzed By: DS  
Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			218	mg/Kg	1	250	<4.79	87	43 - 161

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC			217	mg/Kg	1	250	<4.79	87	43 - 161	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: August 4, 2011  
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**Matrix Spike (MS-1) Spiked Sample: 273240**

QC Batch: 83586  
Prep Batch: 70990

Date Analyzed: 2011-08-04  
QC Preparation: 2011-08-03

Analyzed By: DS  
Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
TRPHC			222	mg/Kg	1	250	<4.79	89	43 - 161

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
TRPHC			219	mg/Kg	1	250	<4.79	88	43 - 161	1	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (CCV-1)

QC Batch: 83449

Date Analyzed: 2011-08-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0941	94	80 - 120	2011-08-01
Toluene	1		mg/Kg	0.100	0.0935	94	80 - 120	2011-08-01
Ethylbenzene	1		mg/Kg	0.100	0.0929	93	80 - 120	2011-08-01
Xylene	1		mg/Kg	0.300	0.281	94	80 - 120	2011-08-01

### Standard (CCV-2)

QC Batch: 83449

Date Analyzed: 2011-08-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0922	92	80 - 120	2011-08-01
Toluene	1		mg/Kg	0.100	0.0875	88	80 - 120	2011-08-01
Ethylbenzene	1		mg/Kg	0.100	0.0939	94	80 - 120	2011-08-01
Xylene	1		mg/Kg	0.300	0.280	93	80 - 120	2011-08-01

### Standard (CCV-3)

QC Batch: 83449

Date Analyzed: 2011-08-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0962	96	80 - 120	2011-08-01
Toluene	1		mg/Kg	0.100	0.0949	95	80 - 120	2011-08-01
Ethylbenzene	1		mg/Kg	0.100	0.0997	100	80 - 120	2011-08-01
Xylene	1		mg/Kg	0.300	0.305	102	80 - 120	2011-08-01

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### Standard (CCV-1)

QC Batch: 83483

Date Analyzed: 2011-08-02

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0910	91	80 - 120	2011-08-02
Toluene	1		mg/Kg	0.100	0.0882	88	80 - 120	2011-08-02
Ethylbenzene	1		mg/Kg	0.100	0.0974	97	80 - 120	2011-08-02
Xylene	1		mg/Kg	0.300	0.291	97	80 - 120	2011-08-02

### Standard (CCV-2)

QC Batch: 83483

Date Analyzed: 2011-08-02

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0916	92	80 - 120	2011-08-02
Toluene	1		mg/Kg	0.100	0.0886	89	80 - 120	2011-08-02
Ethylbenzene	1		mg/Kg	0.100	0.0936	94	80 - 120	2011-08-02
Xylene	1		mg/Kg	0.300	0.287	96	80 - 120	2011-08-02

### Standard (CCV-3)

QC Batch: 83483

Date Analyzed: 2011-08-02

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0862	86	80 - 120	2011-08-02
Toluene	1		mg/Kg	0.100	0.0997	100	80 - 120	2011-08-02
Ethylbenzene	1		mg/Kg	0.100	0.0877	88	80 - 120	2011-08-02
Xylene	1		mg/Kg	0.300	0.269	90	80 - 120	2011-08-02

### Standard (CCV-1)

QC Batch: 83484

Date Analyzed: 2011-08-02

Analyzed By: ZLM

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0838	84	80 - 120	2011-08-02
Toluene		1	mg/Kg	0.100	0.0936	94	80 - 120	2011-08-02
Ethylbenzene		1	mg/Kg	0.100	0.0935	94	80 - 120	2011-08-02
Xylene		1	mg/Kg	0.300	0.284	95	80 - 120	2011-08-02

#### Standard (CCV-2)

QC Batch: 83484

Date Analyzed: 2011-08-02

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0906	91	80 - 120	2011-08-02
Toluene		1	mg/Kg	0.100	0.0881	88	80 - 120	2011-08-02
Ethylbenzene		1	mg/Kg	0.100	0.0928	93	80 - 120	2011-08-02
Xylene		1	mg/Kg	0.300	0.278	93	80 - 120	2011-08-02

#### Standard (CCV-1)

QC Batch: 83585

Date Analyzed: 2011-08-04

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	105	105	80 - 120	2011-08-04

#### Standard (CCV-2)

QC Batch: 83585

Date Analyzed: 2011-08-04

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	101	101	80 - 120	2011-08-04

Report Date: August 4, 2011  
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### Standard (CCV-3)

				Date Analyzed:	2011-08-04	Analyzed By:		DS
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	104	104	80 - 120	2011-08-04

### Standard (CCV-1)

				Date Analyzed:	2011-08-04	Analyzed By:		DS
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	104	104	80 - 120	2011-08-04

### Standard (CCV-2)

				Date Analyzed:	2011-08-04	Analyzed By:		DS
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	99.6	100	80 - 120	2011-08-04

## Appendix

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-4	Lubbock

### Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

### Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

**TraceAnalysis, Inc.**

email: lab@traceanalysis.com

Company Name: <u>Carney Marley Inc.</u>		Address: PO Box 1658 Roswell, NM 88202-5755		Phone #: <u>575-347-0434</u>		Fax #: <u>575-347-0435</u>		(Circle or Specify Method No.)		ANALYSIS REQUEST		Turn Around Time if different from standard			
Street, City, Zip:	Mailing Address:	City:	State:	Country:	State:	Country:	Method No.:	Method No.:	Method No.:	Method No.:	Method No.:	Method No.:	Method No.:	Method No.:	
Project Person:	Contact Person:	Project Name: <u>Quarter 2011 Soil Sampling</u>		E-mail: <u>cmf@cmf-fm.com</u>		Invoice to: <u>Riley - baton rouge, la</u>		Moisture Content		Na, Ca, Mg, K, TDS, EC		CI, F, SO4, NO3, NO2, Alkalinity		Hold	
Invoice to: (If different from above)		Project Location (Including state): <u>Sec. 45, 8, &amp; 9 Tl. S.R. 31.E. New Mexico</u>		Sampler Signature: <u>Charles Sampler</u>		Preservative Method:		PCBs 8082 / 608		PCBs 8081 / 608		BOD, TSS, PH		Pesticides	
Project Location (Including state): <u>Sec. 45, 8, &amp; 9 Tl. S.R. 31.E. New Mexico</u>		Matrix:		Sampling		TIME		PAH 8270 / 625		PAH 8270 / 625		TCLP Volatiles		RCI	
LAB #	FIELD CODE	# CONTAINERS	VOLUME / AMOUNT	WATER	SOL	AIR	SLUDGE	HCl	HNO3	H2SO4	NaOH	ICP	TCLP Semi-Volatiles	TCLP Pesticides	
27325	Cell 1	1	462	X				X	X	X		X	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
236	Cell 2												GC/MS Vol. 8260 / 625	GC/MS Semivol. 8270 / 625	
227	Cell 3												PCBs 8082 / 608	PCBs 8081 / 608	
228	Cell 4												BOD, TSS, PH	BOD, TSS, PH	
229	Cell 5												Moisture Content	Moisture Content	
230	Cell 7												CI, F, SO4, NO3, NO2, Alkalinity	CI, F, SO4, NO3, NO2, Alkalinity	
231	Cell 9												Na, Ca, Mg, K, TDS, EC	Na, Ca, Mg, K, TDS, EC	
232	Cell 10												Turn Around Time if different from standard	Turn Around Time if different from standard	
233	Cell 11														
234	Cell 12														
235	Cell 13														
Relinquished by:	Company:	Date:	Received by:	Company:	Date:	Time:	INST	OBS	OBS	INST	OBS	INST	LAB USE	REMARKS:	
<u>Carney Marley Inc.</u>	<u>CMIS</u>	<u>7/24/10 0500</u>					<u>Y</u>	<u>o</u>	<u>o</u>	<u>Y</u>	<u>o</u>	<u>Y</u>	<u>ONLY</u>	<u>Send Copy of Results</u>	
Relinquished by:	Company:	Date:	Received by:	Company:	Date:	Time:	INST	OBS	OBS	INST	OBS	INST	Headspace	Dry Weight Basis Required	
							<u>o</u>	<u>o</u>	<u>o</u>	<u>o</u>	<u>o</u>	<u>o</u>	<u>N</u>	TRRP Report Required	
Relinquished by:	Company:	Date:	Received by:	Company:	Date:	Time:	INST	OBS	OBS	INST	OBS	INST	Log-in-Review	Check If Special Reporting Limits Are Needed	
							<u>o</u>	<u>o</u>	<u>o</u>	<u>o</u>	<u>o</u>	<u>o</u>	<u>C</u>		

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Fed ExOrder # 7973 5737 7752

**TraceAnalysis, Inc.**

email: lab@traceanalysis.com

Company Name:

Bartley Marley Inc.

Address: (Street, City, ZIP)

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1236  
Fax (806) 794-1298  
1 (800) 378-1296Phone #: 515-347-0434Fax #: 8260/624

Contact Person:

Bret Riley & 505-330-2461  
E-mail: GMT&dtg.com  
Invoice to: Miller - Bret & Taylor

(If different from above)

Project Name:

Brett Quarter 2011 Soil Sampling

Project Location (including state):

Sec. 4, S, 8, 9, N.M., U.S.A.

Sample Date:

January 2011

Sampler Signature:

Christa

Sampler Signature:

Christa

Sample ID:

NM

Location Description:

Soil

Matrix:

Soil

Sampling Method:

SLUDGE

Preservative:

AIR

Sampling Time:

None

Sampling Date:

None

Sampling Method:

HCl

Preservative:

HNO<sub>3</sub>

Sampling Time:

H<sub>2</sub>SO<sub>4</sub>

Sampling Date:

NaOH

Sampling Method:

ICP

Preservative:

ICP

Sampling Time:

Pb Se Hg

Sampling Date:

Total Metals Ag As Ba Cd Cr Pb Se Hg

Sampling Method:

TCLP

Preservative:

Volatiles

Sampling Time:

TCLP Semivolatiles

Sampling Date:

TCLP Pesticides

Sampling Method:

RCI

Preservative:

PCBs

Sampling Time:

PCBs 8082/608

Sampling Date:

PC/Ms Semi Vol. 8270/625

Sampling Method:

GC/Ms Vol. 8260/624

Preservative:

PAH 8270/625

Sampling Time:

TPH 8015 GRO/DRO/TVHC

Sampling Date:

TPH 4181/7 TX1005 Ext(C35)

Sampling Method:

MTEB 8021/602/8260/624

Preservative:

TCP Meats Ag As Ba Cd Cr Pb Se Hg 6010/2007

Sampling Time:

TCLP Meats Ag As Ba Cd Cr Pb Se Hg 6010/2007

Sampling Date:

PAH 8270/625

Sampling Method:

COPPER IN ENVIRONMENT

Preservative:

METALS IN ENVIRONMENT

Submitting Company:

BioAquatic TestingCarrollton, Texas 75006Tel (915) 585-3443Fax (915) 588-34431 (888) 588-3443Carrier # Fed Ex 7973 5737 7752©RIONAL 07/071**ANALYSIS REQUEST**

(Circle or Specify Method No.)							
Na, Ca, Mg, K, TDS, EC	Hold	Turn Around Time if different from standard					
Cl, F, SO <sub>4</sub> , NO <sub>3</sub> , NO <sub>2</sub> , Alkalinity							
Moisture Content							
BOD, TSS, pH							
Pesticides 8081 / 608							
GC/Ms Vol. 8270 / 625							
GC/Ms Semi Vol. 8260 / 624							
RCI							
TCLP Pesticides							
TCLP Semivolatiles							
TCLP Volatiles							
Total Metals Ag As Ba Cd Cr Pb Se Hg							
TPH 8015 GRO / DRO / TVHC							
TPEX 8021/602 / 8260 / 624							
MTEB 8021 / 602 / 8260 / 624							
PAH 8270 / 625							
TPH 4181/7 TX1005 Ext(C35)							
COPPER IN ENVIRONMENT							
METALS IN ENVIRONMENT							
<b>LAB USE ONLY</b> <input checked="" type="checkbox"/> <b>INST OBS C</b> <input checked="" type="checkbox"/> <b>INST COR C</b> <input checked="" type="checkbox"/> <b>Headspace Y/N</b>							
<b>REMARKS:</b> <i>Please send copy of results Asap to Cmb enviro dfn.com</i>							
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
<i>John</i>	<i>OMBS</i>	<i>7/24/10 0500</i>					
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
<i>John</i>	<i>S-A</i>	<i>7/30/11 10:10</i>					

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019

Report Date: June 9, 2011  
**RECEIVED** Page 1

June 9, 2011

New Mexico Energy, Minerals, & Natural Resources Dept.  
Oil Conservation Division Environmental Bureau  
Attn: Mr. Brad A. Jones  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505.

2011 JUN 21 A 10:58

**Re: Submittal of First Quarterly Monitoring Report for Year 2011**  
**Gandy Marley Inc., Commercial Landfarm**  
**Gandy Marley Inc., Operator / PRP**  
**SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9,**  
**T. 11 S., R.31 E., NMPM**  
**Chaves County, New Mexico**  
**Commercial Landfarm Permit (NM-01-0019)**

Dear Mr. Jones:

Clayton M. Barnhill, CMB Environmental and Geological Services Inc., on behalf of the owner/operator, Gandy Marley Inc., submit the attached Quarterly Monitoring Report for the above-mentioned site.

If you have any questions about the contents of the report, please do not hesitate to call me. Thank you.

Sincerely,



Clayton M. Barnhill, PG  
CMB Environmental & Geological Services, Inc.  
PO Box 2304  
Roswell, NM 88202-2304  
Phone: (575) 622-2012 Phone Fax: (575) 625-0538  
Cellular: (575) 626-1615  
cmbenviro@dfn.com

Cc: Gandy Marley Inc.

## QUARTERLY MONITORING REPORT

Please include the following information:

1. Site Name: **Gandy Marley Landfarm**
2. Responsible party: **Gandy Marley Inc.**
3. Responsible party mailing address (list contact person if different):

**Gandy Marley Inc.**  
**Attn: Mr. Larry Gandy, Vice President, Project Manager**  
**PO Box 1658**  
**Roswell, NM 88202-1658**

4. Commercial Landfarm Permit Number: **NM-01-0019**

5. Address/legal description:

**SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9**  
**T. 11 S. R. 31 E., NMPM**  
**Chaves County, NM**

6. Author/consulting company:

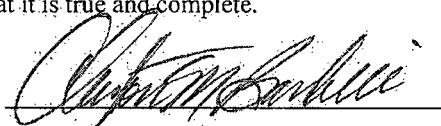
**Clayton M. Barnhill, PG, CMB Environmental & Geological Services, Inc.**

7. Date of report: **June 9, 2011**

**STATEMENT OF FAMILIARITY**

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature:



Name: Clayton M. Barnhill, PG

Affiliation: CMB Environmental and Geological Services, Inc.

Title: Sr. / Principal Geologist

Certified Scientist #: 0246, State of Texas Professional Geologist 6121, exp. 12/31/11

Date:

06/09/2011

## I. INTRODUCTION

CMB Environmental and Geological Services Inc., on behalf of Gandy Marley Inc., the owner/operator of the Gandy Marley Inc., Landfarm located in the SW/4 of Section 4, SE/4 of Section 5, NE/4 of Section 8, & NW/4 of Section 9, Township 11 South, Range 31 East, Chaves County, New Mexico, has prepared this quarterly monitoring report in accordance with conditions set forth in Commercial Landfarm Permit Number NM-01-0019 (Gandy Marley Inc., approved by the New Mexico Energy, Minerals, & Natural Resources Department Oil Conservation Division (NMOCD) Environmental Bureau on January 17, 2006.

The Gandy Marley Inc, Commercial Landfarm is located approximately 33 miles northwest of Tatum, NM in Sections 4, 5, 8 & 9, T. 11 S. R. 31 E., Chaves County, New Mexico (Figure 1). In January of 2006, the New Mexico Energy, Minerals, & Natural Resources Department Oil Conservation Division (NMOCD) Environmental Bureau approved a Commercial Landfarm Permit NM-01-0019. The Commercial Landfarm is being managed in accordance with the NMOCD approved Commercial Landfarm Permit NM-01-0019. Received soils on the landfarm are deposited in bermed cells in six-inch lifts and disked on a regular basis to enhance aeration. Groundwater below the site is at a depth between 122.62' foot (MW-2) and 130.32' foot (MW-1) below the top of casing of both monitor wells. Groundwater beneath the site has a total dissolved solids concentration of approximately 8970 milligrams per liter.

### A. Scope of Work

The approved scope of work for the first quarter of monitoring year 2011 consists of collecting confirmation soil samples beneath all site cells actively landfarmed or previously active, analyzing the subsurface soil samples for total petroleum hydrocarbons (TPH), and BTEX, and compiling and reporting data or analyses that demonstrate the media located in the remediation cell has been remediated to an acceptable level by the NMOCD Commercial Landfarm Permit NM-01-0019.

The soil sampling adequately monitored the vadose zone beneath the facility. Appendix 3 contains the complete analytical results for soils sampled in these Cells.

The sampling protocol for the monitoring activities can be found in Appendix 1. Appendix 2 contains field notes with GPS Coordinates of sample points for this monitoring event. Laboratory analysis reports of soil samples are in Appendix 3.

### B. Quarter Highlights

First quarter 2011 soil sampling / monitoring was performed on May 12, 2011. This quarter's monitoring activities include the following:

- Collection of one Remediation Cell Soil samples from all active and previously active landfarm remediation cells for laboratory analysis of the parameters outlined in section (A) above.
- Gauging Leak Detection Monitors of Evaporation Pond # 1 with a Solinst Interface Probe.
- Preparation of this report.

## ACTIVITIES PERFORMED DURING THIS QUARTER

### C. Monitoring Activities

Landfarm Remediation cell soil samples were collected beneath the remediation cells and submitted to Trace Analysis Laboratory, located in Lubbock Texas and were analyzed for TPH using EPA Method 418.1, BTEX using EPA Method 8021B.

The soil sampling adequately monitored the vadose zone beneath the facility. Laboratory analysis reports and chain of custody forms are in Appendix 3.

A Solinst interface probe was lowered down to total depth of the PVC piping of the leak detection in evaporation pond # 1. No fluids or leaks were detected by the interface probe.

## II. SUMMARY AND CONCLUSIONS

### A. Assessment of Remediation Activities:

Gandy Marley Inc. continues to be highly effective at managing and remediating soils and operating a professional commercial landfarm facility.

Analyses from a soil sample of the remediated soils in all Landfarm Cells (with the exception of Cell 21) show the remediated soils in all cells to contain less than <0.0200 (Mg/Kg) BTEX, and TPH concentrations  $\leq$  10.0 (Mg/Kg) TPH. Cell 21 had a TPH concentration of 37.2 Mg/Kg. These cell 21 soil concentrations are within the soil standard concentration limits for TPH. The contaminated media in the cells has been adequately remediated and meets the requirements of WQCC Regulation 3109. Additional soils can be added to these cells for future remediation.

A Solinst interface probe was lowered down to total depth of the PVC piping of the leak detection in evaporation pond # 1. No fluids or leaks were detected by the interface probe.

Perched groundwater below the site is at a depth of 122' feet to 130' feet below ground surface, and has a total dissolved solids concentration of approximately 8970 milligrams per liter.

The vadose zone beneath the facility has been adequately monitored by the subsurface soil samples collected beneath each cell in compliance with WQCC Regulation 3107. There has been no leaching of contaminated media into the vadose zone beneath the remediation cells. All sampled cells had BTEX soil concentrations below < 0.0200 (Mg/Kg), and TPH Concentrations  $\leq$  37.2 (Mg/Kg.).

## LIST OF FIGURES

Figure	Included	N/A
1 Site Map	X	
2 Topographic Map with sample locations plotted	X	

## LIST OF TABLES

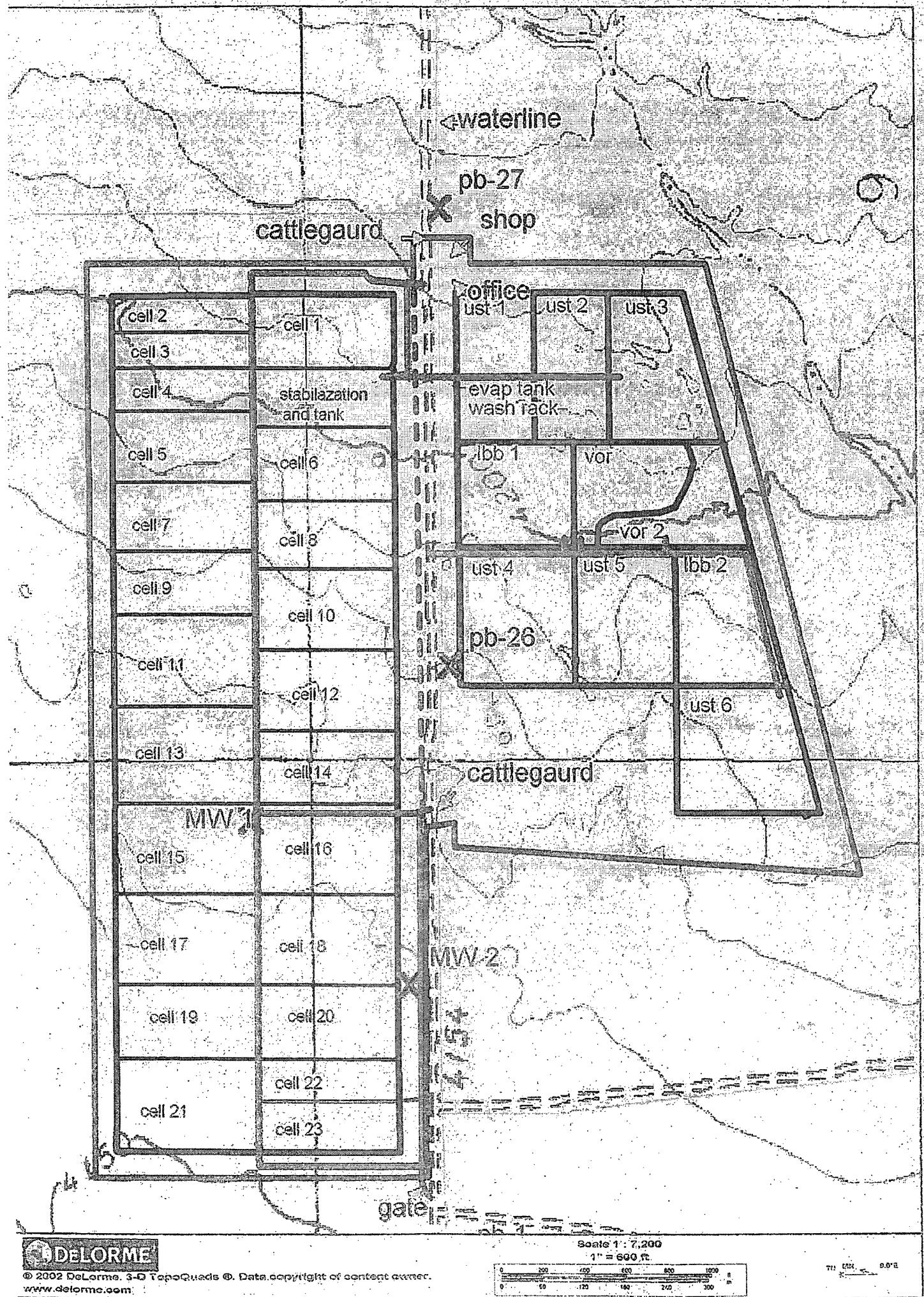
Table	Included	N/A
1      Lab Analysis Summary Reports of Cell Soil Samples	X	

## LIST OF APPENDICES

Appendix	Included	N/A
1      Sampling Protocol	X	
2      Field Notes /with GPS Coordinates of samples	X	
3      Laboratory Reports	X	

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: June 9, 2011

## **Figures:**



DELORME

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www.delorme.com

Scale 1:7,200  
1" = 600 ft.  
0 200 400 600 800 1000 ft  
0 50 100 150 200 250 300 m

Topo Quad

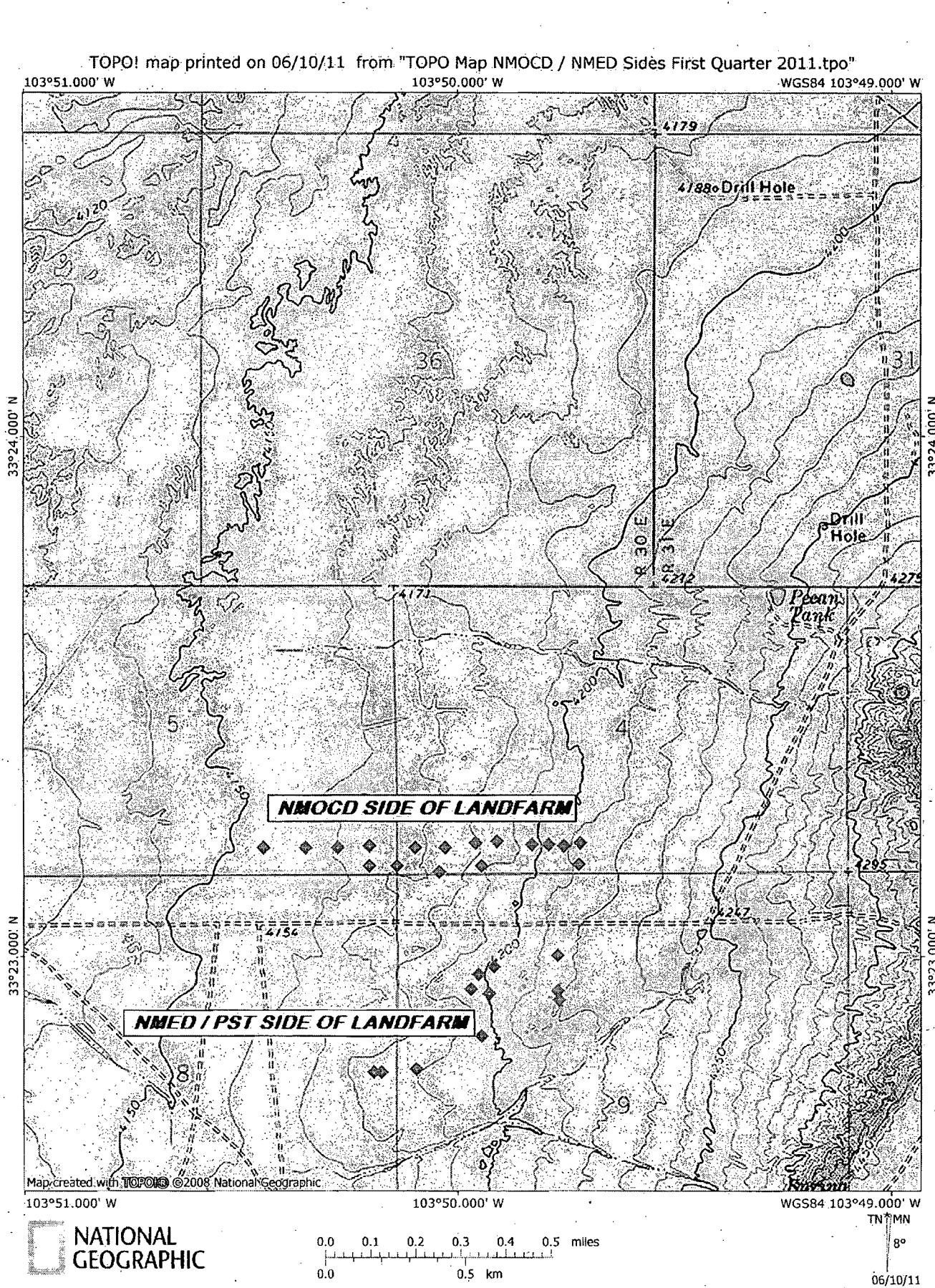
N

TOPO! map printed on 06/10/11 from "TOPO Map NMOCD / NMED Sides First Quarter 2011.tpo"

103°51.000' W

103°50.000' W

WGS84 103°49.000' W



Map created with TOPO! ©2008 National Geographic

103°51.000' W

103°50.000' W

WGS84 103°49.000' W

TN MN

8°

06/10/11

**NATIONAL  
GEOGRAPHIC**

0.0 0.1 0.2 0.3 0.4 0.5 miles  
0.0 0.5 km

Site Name: Gandy Marley Landfarm  
Commercial Landfarm Permit NM-01-0019  
Report Date: June 9, 2011

## **Tables:**

## Summary Report

Larry Gandy  
 Gandy Marley Inc.  
 Box 1658  
 Roswell, NM 88202

Report Date: May 23, 2011

Work Order: 11051618



Project Location: Sec. 4, 5, 8, 9, T11S-R31E, Chaves Co., NM  
 Project Name: GMI Landfarm  
 Project Number: 1st Quarter Soil Sampling 2011

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
266615	Cell 1	soil	2011-05-12	10:20	2011-05-14
266616	Cell 2	soil	2011-05-12	10:30	2011-05-14
266617	Cell 3	soil	2011-05-12	10:35	2011-05-14
266618	Cell 4	soil	2011-05-12	10:40	2011-05-14
266619	Cell 5	soil	2011-05-12	10:50	2011-05-14
266620	Cell 7	soil	2011-05-12	10:55	2011-05-14
266621	Cell 8	soil	2011-05-12	11:00	2011-05-14
266622	Cell 9	soil	2011-05-12	11:05	2011-05-14
266623	Cell 11	soil	2011-05-12	11:10	2011-05-14
266624	Cell 12	soil	2011-05-12	11:15	2011-05-14
266625	Cell 13	soil	2011-05-12	11:20	2011-05-14
266626	Cell 14	soil	2011-05-12	11:25	2011-05-14
266627	Cell 15	soil	2011-05-12	11:30	2011-05-14
266628	Cell 16	soil	2011-05-12	11:35	2011-05-14
266629	Cell 17	soil	2011-05-12	11:45	2011-05-14
266630	Cell 19	soil	2011-05-12	11:50	2011-05-14
266631	Cell 21	soil	2011-05-12	12:00	2011-05-14

Sample - Field Code	BTEX				MTBE MTBE (mg/Kg)	TPH 418.1 TRPHC (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
266615 - Cell 1	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266616 - Cell 2	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266617 - Cell 3	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266618 - Cell 4	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266619 - Cell 5	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266620 - Cell 7	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266621 - Cell 8	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266622 - Cell 9	<0.0200	<0.0200	<0.0200	<0.0200		<10.0

continued . . .

*...continued*

Sample - Field Code	BTEX				MTBE MTBE (mg/Kg)	TPH 418.1 TRPHC (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
266623 - Cell 11	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266624 - Cell 12	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266625 - Cell 13	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266626 - Cell 14	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266627 - Cell 15	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266628 - Cell 16	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266629 - Cell 17	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266630 - Cell 19	<0.0200	<0.0200	<0.0200	<0.0200		<10.0
266631 - Cell 21	<0.0200	<0.0200	<0.0200	<0.0200		<b>37.2</b>

## **Appendix 1**

### **Sampling Protocol**

## **Appendix 1**

### **Sampling Protocol**

Site Remediation cells were checked for the presence of phase-separated hydrocarbons (PSH).

A Gandy Marley Inc. owned and operated front end loader dug down with the loader bucket 18" inches to 24" inches below the surface of the remediation cell. An 8" inch loader mounted drill auger was then used to create a soil boring below the exposed soil surface to a depth of 36" inches below the original ground surface of the remediation cell. An AMS 3" inch Stainless steel hand auger was then used by Clayton M. Barnhill, PG (CMB Environmental & Geological Services Inc.) to collect the soil samples beneath the remediation cells. The AMS stainless steel auger and the 8" inch drilling auger were de-contaminated between sample points by cleaning with a brush in an Alconox soap solution and then rinsing with potable water. New Nitrile gloves were changed at each sample point to avoid cross contamination. Borings were backfilled with impermeable bentonite pellets and hydrated.

Samples analyzed for TPH 418.1, BTEX 8021. Soil Samples were collected in one 4 ounce glass jar containing no preservative.

Samples were immediately placed on ice in an insulated cooler and were delivered to the Trace Analysis Laboratory, located in Lubbock, Texas, for analysis. Chain of custody documentation accompanied the samples at all times.

## **Appendix 2**

### **Field Notes**

90

Location GNT Landform Date 05/12/11

Project / Client 1st Quarter 2011 Soil  
Sampling By: CMB Environmental  
& Geological Services Inc.  
Phase 1 of 4

Cell Time GPS Coordinates Remarks

1 10:20 33.38629 N Red Clay  
 103.82872 W Sand Mnd  
 Gr. well  
 sorted No  
 color Stone

2 10:30 33.38701 N Red Clay  
 103.82864 W Sand No  
 abve or Stone  
 C > 3' ss.

3 10:35 33.38691 N Brown clayey  
 103.82925 W Sand. mnd  
 well sorted  
 10% Caliche  
 No color  
 0.3' ss.

4 10:40 33.38694 N Same as  
 103.82983 W above

5 10:50 33.38695 N Brown clay  
 103.83048 W Sand mnd  
 Gr. well  
 sorted No  
 color No  
 color

91

Location GNT Landform Date 05/12/11

Project / Client 1st QTR 2011 Soil Sampling  
By: CMB Phase 2 of 4

Cell Time GPS Coordinates Remarks

6 - Out of Service

7 10:55 33.38704 N Brown clay  
 103.83186 W Sand 10%  
 caliche  
 No color  
 3' ss.

8 11:00 33.38625 N Same as  
 103.83243 W above

11:05 33.38700 N Same as  
 103.83265 W above  
 well sorted  
 sand.

11:10 33.38684 N Tuberous  
 103.83383. Sand. m. 6 gr.  
 well sorted  
 No color or  
 3' ss.

11:15 33.38606 N Brown clayey  
 103.83406 W Sand-mal  
 9% well sorted  
 No color or  
 3' ss.

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Location: GMI Land farm Date: 05/12/11  
 Project / Client: 1ST QTR 2011 Soil Sampling By CMG  
 Page 3 of 4

Cell	Time	GPS Coordinates	Remarks
13	11:20	33.38686 N 103.83497 W	Brown soil well sorted med. gr. No odor or stain 3' B.D.
14	11:25	33.38628 N 103.83572 W	Same as above w/ 10% Colic. clayey
15	11:30	33.38687 N 103.83671 W	Med. sand. 10% Colic. no stain or odor
16	11:35	33.38628 N 103.83675 W	*Damp soil Brown clay gr. No. odor - S. E 3' B.D.
17	11:45	33.38683 N 103.83797 W	Med. to Brown soil med. gr. well sorted No odor or stain 3' B.D.

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Location: GMI Land farm Date: 05/12/11  
 Project / Client: 1ST QTR 2011 Soil Sampling  
 By: CMG Page 4 of 4

Cell	Time	GPS Coordinates	Remarks
19	11:50	33.38685 N 103.83916 W	Red Sand. Med. gr. well sorted No odor or stain 3' B.D.
21	12:00	33.38683 N 103.84084 W	Red sand. Clay - No odor or stain

TOPO! GPS Data Format DegMin NAD83 ÉlevFéet Local-Time

CELL 1,33,23.178,-103,49.723,4249,05/12/2011,03:25:45,  
CELL 2,33,23.221,-103,49.719,4206,05/12/2011,03:30:07,  
CELL 3,33,23.214,-103,49.755,4216,05/12/2011,03:35:11,  
CELL 4,33,23.216,-103,49.790,4203,05/12/2011,03:40:42,  
CELL 5,33,23.217,-103,49.829,4199,05/12/2011,03:47:16,  
CELL 7,33,23.222,-103,49.911,4206,05/12/2011,03:54:46,  
CELL 8,33,23.175,-103,49.946,4183,05/12/2011,04:00:19,  
CELL 9,33,23.220,-103,49.959,4177,05/12/2011,04:03:36,  
CELL 11,33,23.211,-103,50.030,4183,05/12/2011,04:09:22,  
CELL 12,33,23.164,-103,50.044,4183,05/12/2011,04:13:51,  
CELL 13,33,23.212,-103,50.098,4190,05/12/2011,04:20:37,  
CELL 14,33,23.177,-103,50.143,4193,05/12/2011,04:26:24,  
CELL 15,33,23.212,-103,50.203,4173,05/12/2011,04:31:34,  
CELL 16,33,23.177,-103,50.205,4157,05/12/2011,04:36:34,  
CELL 17,33,23.209,-103,50.279,4167,05/12/2011,04:43:30,  
CELL 19,33,23.211,-103,50.350,4154,05/12/2011,04:51:10,  
CELL 21,33,23.210,-103,50.450,4154,05/12/2011,04:59:13,

## **Appendix 3**

# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 806•378•1296 806•794•1296 FAX 806•794•1296  
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•588•3443 FAX 915•588•4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313  
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
E-Mail: lab@traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

## Analytical and Quality Control Report

Larry Gandy  
Gandy Marley Inc.  
Box 1658  
Roswell, NM, 88202

Report Date: May 23, 2011

Work Order: 11051618



Project Location: Sec. 4, 5, 8, 9, T11S-R31E, Chaves Co., NM  
Project Name: GMI Landfarm  
Project Number: 1st Quarter Soil Sampling 2011

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
266615	Cell 1	soil	2011-05-12	10:20	2011-05-14
266616	Cell 2	soil	2011-05-12	10:30	2011-05-14
266617	Cell 3	soil	2011-05-12	10:35	2011-05-14
266618	Cell 4	soil	2011-05-12	10:40	2011-05-14
266619	Cell 5	soil	2011-05-12	10:50	2011-05-14
266620	Cell 7	soil	2011-05-12	10:55	2011-05-14
266621	Cell 8	soil	2011-05-12	11:00	2011-05-14
266622	Cell 9	soil	2011-05-12	11:05	2011-05-14
266623	Cell 11	soil	2011-05-12	11:10	2011-05-14
266624	Cell 12	soil	2011-05-12	11:15	2011-05-14
266625	Cell 13	soil	2011-05-12	11:20	2011-05-14
266626	Cell 14	soil	2011-05-12	11:25	2011-05-14
266627	Cell 15	soil	2011-05-12	11:30	2011-05-14
266628	Cell 16	soil	2011-05-12	11:35	2011-05-14
266629	Cell 17	soil	2011-05-12	11:45	2011-05-14
266630	Cell 19	soil	2011-05-12	11:50	2011-05-14
266631	Cell 21	soil	2011-05-12	12:00	2011-05-14

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 28 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



---

Dr. Blair Leftwich, Director

Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project GMI Landfarm were received by TraceAnalysis, Inc. on 2011-05-14 and assigned to work order 11051618. Samples for work order 11051618 were received intact at a temperature of 0.1 C.

Samples were analyzed for the following tests using their respective methods..

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	69001	2011-05-16 at 16:08	81271	2011-05-16 at 16:08
BTEX	S 8021B	69002	2011-05-16 at 16:08	81272	2011-05-16 at 16:08
TPH 418.1	E 418.1	69177	2011-05-20 at 14:00	81471	2011-05-21 at 12:51

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11051618 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

## Analytical Report

### Sample: 266615 - Cell 1

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-05-16	Analyzed By:	ER
QC Batch:	81271	Sample Preparation:	2011-05-16	Prepared By:	ER
Prep Batch:	69001				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 112	
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	72.7 - 114	

### Sample: 266615 - Cell 1

Laboratory:	Lubbock	Analytical Method:	E 418.1	Prep Method:	N/A
Analysis:	TPH 418.1	Date Analyzed:	2011-05-21	Analyzed By:	DS
QC Batch:	81471	Sample Preparation:	2011-05-20	Prepared By:	DS
Prep Batch:	69177				

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

### Sample: 266616 - Cell 2

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2011-05-16	Analyzed By:	ER
QC Batch:	81272	Sample Preparation:	2011-05-16	Prepared By:	ER
Prep Batch:	69002				

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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.07	mg/Kg	1	2.00	103	70 - 112
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	72.7 - 114

**Sample: 266616 - Cell 2**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266617 - Cell 3**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	101	70 - 112
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	72.7 - 114

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**Sample: 266617 - Cell 3**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266618 - Cell 4**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	70 - 112
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	101	72.7 - 114

**Sample: 266618 - Cell 4**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

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**Sample: 266619 - Cell 5**

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 81272

Prep Batch: 69002

Analytical Method: S 8021B

Date Analyzed: 2011-05-16

Sample Preparation: 2011-05-16

Prep Method: S 5035

Analyzed By: ER

Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	<0.0200	mg/Kg	1	0.0200
Toluene		1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		1	<0.0200	mg/Kg	1	0.0200
Xylene		1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 112
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	72.7 - 114

**Sample: 266619 - Cell 5**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 81471

Prep Batch: 69177

Analytical Method: E 418.1

Date Analyzed: 2011-05-21

Sample Preparation: 2011-05-20

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266620 - Cell 7**

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 81272

Prep Batch: 69002

Analytical Method: S 8021B

Date Analyzed: 2011-05-16

Sample Preparation: 2011-05-16

Prep Method: S 5035

Analyzed By: ER

Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	<0.0200	mg/Kg	1	0.0200
Toluene		1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		1	<0.0200	mg/Kg	1	0.0200
Xylene		1	<0.0200	mg/Kg	1	0.0200

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.11	mg/Kg	1	2.00	105	70 - 112
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	105	72.7 - 114

**Sample: 266620 - Cell 7**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266621 - Cell 8**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	70 - 112
4-Bromofluorobenzene (4-BFB)			2.12	mg/Kg	1	2.00	106	72.7 - 114

**Sample: 266621 - Cell 8**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

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Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC			<10.0		mg/Kg	1	10.0

**Sample: 266622 - Cell 9**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene			<0.0200		mg/Kg	1	0.0200
Toluene			<0.0200		mg/Kg	1	0.0200
Ethylbenzene			<0.0200		mg/Kg	1	0.0200
Xylene			<0.0200		mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.15	mg/Kg	1	2.00	107	70 - 112
4-Bromofluorobenzene (4-BFB)			2.16	mg/Kg	1	2.00	108	72.7 - 114

**Sample: 266622 - Cell 9**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC			<10.0		mg/Kg	1	10.0

**Sample: 266623 - Cell 11**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	70 - 112
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	72.7 - 114

**Sample: 266623 - Cell 11**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266624 - Cell 12**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	99	70 - 112
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	72.7 - 114

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**Sample: 266624 - Cell 12**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC			<10.0		mg/Kg	1	10.0

**Sample: 266625 - Cell 13**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	1		<0.0200		mg/Kg	1	0.0200
Toluene	1		<0.0200		mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200		mg/Kg	1	0.0200
Xylene	1		<0.0200		mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery	Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	70 - 112	
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	72.7 - 114	

**Sample: 266625 - Cell 13**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC			<10.0		mg/Kg	1	10.0

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**Sample: 266626 - Cell 14**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	70 - 112
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	72.7 - 114

**Sample: 266626 - Cell 14**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266627 - Cell 15**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 112
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	72.7 - 114

**Sample: 266627 - Cell 15**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266628 - Cell 16**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	<0.0200	mg/Kg	1	0.0200
Toluene		1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		1	<0.0200	mg/Kg	1	0.0200
Xylene		1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 112
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	72.7 - 114

**Sample: 266628 - Cell 16**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

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Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC			<10.0		mg/Kg	1	10.0

**Sample: 266629 - Cell 17**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	1		<0.0200		mg/Kg	1	0.0200
Toluene	1		<0.0200		mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200		mg/Kg	1	0.0200
Xylene	1		<0.0200		mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	70 - 112
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	72.7 - 114

**Sample: 266629 - Cell 17**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
TRPHC			<10.0		mg/Kg	1	10.0

**Sample: 266630 - Cell 19**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

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Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.14	mg/Kg	1	2.00	107	70 - 112
4-Bromofluorobenzene (4-BFB)			2.18	mg/Kg	1	2.00	109	72.7 - 114

**Sample: 266630 - Cell 19**

Laboratory: Lubbock  
Analysis: TPH 418.1  
QC Batch: 81471  
Prep Batch: 69177

Analytical Method: E 418.1  
Date Analyzed: 2011-05-21  
Sample Preparation: 2011-05-20

Prep Method: N/A  
Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			<10.0	mg/Kg	1	10.0

**Sample: 266631 - Cell 21**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 81272  
Prep Batch: 69002

Analytical Method: S 8021B  
Date Analyzed: 2011-05-16  
Sample Preparation: 2011-05-16

Prep Method: S 5035  
Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	1		<0.0200	mg/Kg	1	0.0200
Toluene	1		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	1		<0.0200	mg/Kg	1	0.0200
Xylene	1		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	70 - 112
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	72.7 - 114

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**Sample: 266631 - Cell 21**

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 81471

Prep Batch: 69177

Analytical Method: E 418.1

Date Analyzed: 2011-05-21

Sample Preparation: 2011-05-20

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	Result	Units	Dilution	RL
TRPHC			37.2	mg/Kg	1	10.0

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## Method Blanks

Method Blank (1) QC Batch: 81271

QC Batch: 81271  
Prep Batch: 69001

Date Analyzed: 2011-05-16  
QC Preparation: 2011-05-16

Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene	1		<0.00335	mg/Kg	0.02
Toluene	1		<0.00471	mg/Kg	0.02
Ethylbenzene	1		<0.00440	mg/Kg	0.02
Xylene	1		<0.00557	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 112
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	72.7 - 114

Method Blank (1) QC Batch: 81272

QC Batch: 81272  
Prep Batch: 69002

Date Analyzed: 2011-05-16  
QC Preparation: 2011-05-16

Analyzed By: ER  
Prepared By: ER

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene	1		<0.00335	mg/Kg	0.02
Toluene	1		<0.00471	mg/Kg	0.02
Ethylbenzene	1		<0.00440	mg/Kg	0.02
Xylene	1		<0.00557	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	70 - 112
4-Bromofluorobenzene (4-BFB)			1.86	mg/Kg	1	2.00	93	72.7 - 114

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Method Blank (1) QC Batch: 81471

QC Batch: 81471  
Prep Batch: 69177

Date Analyzed: 2011-05-21  
QC Preparation: 2011-05-20

Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Cert	MDL Result	Units	RL
TRPHC			<4.79	mg/Kg	10

## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 81271      Date Analyzed: 2011-05-16      Analyzed By: ER  
Prep Batch: 69001      QC Preparation: 2011-05-16      Prepared By: ER

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene	1	1.83	mg/Kg	1	2.00	<0.00335	92	75.4 - 110	
Toluene	1	1.85	mg/Kg	1	2.00	<0.00471	92	73.2 - 114	
Ethylbenzene	1	1.78	mg/Kg	1	2.00	<0.00440	89	74.4 - 111	
Xylene	1	5.51	mg/Kg	1	6.00	<0.00557	92	75.9 - 113	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. RPD	RPD Limit
Benzene	1	1.81	mg/Kg	1	2.00	<0.00335	90	75.4 - 110	1	20
Toluene	1	1.85	mg/Kg	1	2.00	<0.00471	92	73.2 - 114	0	20
Ethylbenzene	1	1.79	mg/Kg	1	2.00	<0.00440	90	74.4 - 111	1	20
Xylene	1	5.54	mg/Kg	1	6.00	<0.00557	92	75.9 - 113	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	F	C	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			1.74	1.87	mg/Kg	1	2.00	87	94	67.6 - 113
4-Bromofluorobenzene (4-BFB)			1.67	1.83	mg/Kg	1	2.00	84	92	72 - 113

### Laboratory Control Spike (LCS-1)

QC Batch: 81272      Date Analyzed: 2011-05-16      Analyzed By: ER  
Prep Batch: 69002      QC Preparation: 2011-05-16      Prepared By: ER

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene	1	1.76	mg/Kg	1	2.00	<0.00335	88	75.4 - 110	
Toluene	1	1.79	mg/Kg	1	2.00	<0.00471	90	73.2 - 114	
Ethylbenzene	1	1.75	mg/Kg	1	2.00	<0.00440	87	74.4 - 111	
Xylene	1	5.38	mg/Kg	1	6.00	<0.00557	90	75.9 - 113	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	RPD Limit	RPD Limit	
Benzene		i	1.82	mg/Kg	1	2.00	<0.00335	91	75.4 - 110	4	20
Toluene		i	1.83	mg/Kg	1	2.00	<0.00471	92	73.2 - 114	2	20
Ethylbenzene		i	1.78	mg/Kg	1	2.00	<0.00440	89	74.4 - 111	2	20
Xylene		i	5.48	mg/Kg	1	6.00	<0.00557	91	75.9 - 113	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.91	1.82	mg/Kg	1	2.00	96	91	67.6 - 113
4-Bromofluorobenzene (4-BFB)	1.85	1.80	mg/Kg	1	2.00	92	90	72 - 113

#### Laboratory Control Spike (LCS-1)

QC Batch: 81471  
Prep Batch: 69177

Date Analyzed: 2011-05-21  
QC Preparation: 2011-05-20

Analyzed By: DS  
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
TRPHC			259	mg/Kg	1	250	<4.79	104	84.3 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	RPD Limit
TRPHC			258	mg/Kg	1	250	<4.79	103	84.3 - 122 0

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 266530

QC Batch: 81271  
Prep Batch: 69001

Date Analyzed: 2011-05-16  
QC Preparation: 2011-05-16

Analyzed By: ER  
Prepared By: ER

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene		i	1.45	mg/Kg	1	2.00	<0.00335	72	57.5 - 115
Toluene		i	1.52	mg/Kg	1	2.00	<0.00471	76	59.8 - 125
Ethylbenzene		i	1.49	mg/Kg	1	2.00	<0.00440	74	60.5 - 130
Xylene		i	4.63	mg/Kg	1	6.00	<0.00557	77	62.6 - 131

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Limit RPD	RPD Limit
Benzene	1	1.40	mg/Kg	1	2.00	<0.00335	70	57.5 - 115	4	20
Toluene	1	1.46	mg/Kg	1	2.00	<0.00471	73	59.8 - 125	4	20
Ethylbenzene	1	1.44	mg/Kg	1	2.00	<0.00440	72	60.5 - 130	3	20
Xylene	1	4.46	mg/Kg	1	6.00	<0.00557	74	62.6 - 131	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.97	2.08	mg/Kg	1	2	98	104	59.3 - 128
4-Bromofluorobenzene (4-BFB)	1.87	1.97	mg/Kg	1	2	94	98	67.4 - 130

**Matrix Spike (MS-1) Spiked Sample: 266617**

QC Batch: 81272  
Prep Batch: 69002

Date Analyzed: 2011-05-16  
QC Preparation: 2011-05-16

Analyzed By: ER  
Prepared By: ER

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene	1	1.48	mg/Kg	1	2.00	<0.00335	74	57.5 - 115	
Toluene	1	1.62	mg/Kg	1	2.00	<0.00471	81	59.8 - 125	
Ethylbenzene	1	1.63	mg/Kg	1	2.00	<0.00440	82	60.5 - 130	
Xylene	1	5.07	mg/Kg	1	6.00	<0.00557	84	62.6 - 131	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	RPD	RPD Limit
Benzene	1	1.41	mg/Kg	1	2.00	<0.00335	70	57.5 - 115	4	20
Toluene	1	1.55	mg/Kg	1	2.00	<0.00471	78	59.8 - 125	4	20
Ethylbenzene	1	1.59	mg/Kg	1	2.00	<0.00440	80	60.5 - 130	3	20
Xylene	1	4.91	mg/Kg	1	6.00	<0.00557	82	62.6 - 131	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.96	mg/Kg	1	2	96	98	59.3 - 128
4-Bromofluorobenzene (4-BFB)	1.86	1.92	mg/Kg	1	2	93	96	67.4 - 130

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Matrix Spike (MS-1) Spiked Sample: 266619

QC Batch: 81471  
Prep Batch: 69177

Date Analyzed: 2011-05-21  
QC Preparation: 2011-05-20

Analyzed By: DS  
Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC			237	mg/Kg	1	250	<4.79	95	43 - 161

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC			228	mg/Kg	1	250	<4.79	91	43 - 161	4	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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## Calibration Standards

### Standard (CCV-2)

				Date Analyzed:	2011-05-16	Analyzed By:		ER
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0944	94	80 - 120	2011-05-16
Toluene	1		mg/Kg	0.100	0.0961	96	80 - 120	2011-05-16
Ethylbenzene	1		mg/Kg	0.100	0.0917	92	80 - 120	2011-05-16
Xylene	1		mg/Kg	0.300	0.282	94	80 - 120	2011-05-16

### Standard (CCV-3)

				Date Analyzed:	2011-05-16	Analyzed By:		ER
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0919	92	80 - 120	2011-05-16
Toluene	1		mg/Kg	0.100	0.0928	93	80 - 120	2011-05-16
Ethylbenzene	1		mg/Kg	0.100	0.0887	89	80 - 120	2011-05-16
Xylene	1		mg/Kg	0.300	0.273	91	80 - 120	2011-05-16

### Standard (CCV-1)

				Date Analyzed:	2011-05-16	Analyzed By:		ER
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0887	89	80 - 120	2011-05-16
Toluene	1		mg/Kg	0.100	0.0913	91	80 - 120	2011-05-16
Ethylbenzene	1		mg/Kg	0.100	0.0889	89	80 - 120	2011-05-16
Xylene	1		mg/Kg	0.300	0.274	91	80 - 120	2011-05-16

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### Standard (CCV-2)

QC Batch: 81272

Date Analyzed: 2011-05-16

Analyzed By: ER

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0937	94	80 - 120	2011-05-16
Toluene	1		mg/Kg	0.100	0.0961	96	80 - 120	2011-05-16
Ethylbenzene	1		mg/Kg	0.100	0.0902	90	80 - 120	2011-05-16
Xylene	1		mg/Kg	0.300	0.278	93	80 - 120	2011-05-16

### Standard (CCV-3)

QC Batch: 81272

Date Analyzed: 2011-05-16

Analyzed By: ER

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/Kg	0.100	0.0908	91	80 - 120	2011-05-16
Toluene	1		mg/Kg	0.100	0.0943	94	80 - 120	2011-05-16
Ethylbenzene	1		mg/Kg	0.100	0.0889	89	80 - 120	2011-05-16
Xylene	1		mg/Kg	0.300	0.276	92	80 - 120	2011-05-16

### Standard (CCV-1)

QC Batch: 81471

Date Analyzed: 2011-05-21

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	103	103	80 - 120	2011-05-21

### Standard (CCV-2)

QC Batch: 81471

Date Analyzed: 2011-05-21

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	103	103	80 - 120	2011-05-21

Report Date: May 23, 2011  
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**Standard (CCV-3)**

QC Batch: 81471			Date Analyzed: 2011-05-21			Analyzed By: DS		
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	104	104	80 - 120	2011-05-21

**Standard (CCV-4)**

QC Batch: 81471			Date Analyzed: 2011-05-21			Analyzed By: DS		
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC			mg/Kg	100	106	106	80 - 120	2011-05-21

## Appendix

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-TX	Lubbock

### Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

### Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
Fax (806) 794-1298  
1 (800) 378-1296

5002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel (432) 689-6301  
Fax (432) 689-6313

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

BioAquatic Testing  
2501 Mayes Rd., Ste 100  
Carrollton, Texas 75006  
Tel (972) 242-7750

Company Name: Gandy Marley Inc.  
Address: PO Box 1658 Roswell, NM 88202  
Contact Person: Larry Gandy e 575-399-5721 GMI@dtm.com  
Invoice to: (If different from above)

Phone #: 575-347-0434

Fax #: 575-347-0435

E-mail: Gandy2010@aol.com

Project #: Project Name: Quarter 2011 Soil Sampling (M11-1-0002) M I Land Farm  
Project Location (Including state): Sec. 4,5,8,9 T.11.S. R.31.E. NM

## ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX		PRESERVATIVE METHOD		SAMPLING		DATE	TIME	Method	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>				H <sub>2</sub> SO <sub>4</sub>
266665	Cell 1	1	1/4pt	X						XX	05/16/11	1020	XX
616	Cell 2											1030	
617	Cell 3											1035	
618	Cell 4											1040	
619	Cell 5											1050	
620	Cell 7											1055	
621	Cell 8											1100	
622	Cell 9											1105	
623	Cell 11											1110	
624	Cell 12											1115	
625	Cell 13			V	V				V	V		1120	V V
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR	LAB USE ONLY	REMARKS: Please Send Copy of Results ASAP To Combenviron dtm.com	
<i>John Oms</i>		05/13/11	1530					o	o	c	<i>J</i>		
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR	Intact Y / N		
								o	o	c	Headspace Y / N / NA		
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR	Login-Review MA		
				<i>John Oms</i>		05-14-11	12:00	IR	o	c		Dry Weight Basis Required	
								o	o	c	TRRP Report Required		
								o	o	c	Check If Special Reporting Limits Are Needed		

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Carrier # FPD QX 7947 5919 5452

Turn Around Time if different from standard

Hold

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
Fax (806) 794-1298  
1 (800) 378-1296

5002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel (432) 689-6301  
Fax (432) 689-6313

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

BioAquatic Testing  
2501 Mayes Rd., Ste 100  
Carrollton, Texas 75006  
Tel (972) 242-7750

Company Name:

Gandy - Merley Inc.

Phone #:

575-347-0434

Address:

(Street, City, Zip)

PO Box 1658 Roswell, NM 88202 575-347-0435

Contact Person:

Larry Gandy e 575-399-5721 GMI@dti.com

E-mail:

Invoice to:  
(If different from above)

Project Name:

1st Quarter 2011 Soil Sampling (NM 711-1-0020 GMI Landfarm

Project Location (including state):

Sec. 4, T. 18 N. R. 31 E. Chaves Co NM (GMI)

Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX		PRESERVATIVE METHOD		SAMPLING		TIME				
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
3160126	Cell 14	1	4oz	X					X			XX	05/14/11	1125
627	Cell 15													1130
628	Cell 16													1135
629	Cell 17													1145
630	Cell 19			↓	↓									1150
631	Cell 21	1	4oz										✓	1200
632	Temp Blank	1	1oz	mL										VV

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR	LAB USE ONLY	REMARKS: Please Send Copy of Results ASAP To Cmbenviro@dti.com
<i>John CMB</i>		05/13/11	1530					○ ○ ○	Intact Headspace V/N/NA	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR		
								○ ○ ○		
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR		
								○ ○ ○		

Dry Weight Basis Required  
TRRP Report Required  
Check If Special Reporting  
Limits Are Needed

Log-in-Review: *WMT*

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Turn Around Time if different from standard

Hold