



TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
TEPPCO C-13 Hobbs Line 8"
TalonLPE Project Number 700348.009.01

Sample Location (BH)	Sample ID	Sample Depth (bgs ³)	Sample Date	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	BTEX (mg/Kg)	Chloride (mg/Kg)	TPH ⁴ (C6-C12) (mg/Kg)	TPH ⁴ (>C12-C35) (mg/Kg)	TPH ⁴ (mg/Kg)
BH-1	BH-1	2.5	5/20/2010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0600	<200	<50.0	83	83
BH-2	BH-2	2.5	5/20/2010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0600	<200	<50.0	766	766
BH3	BH-3	2.5	5/20/2010	<0.100	0.134	0.459	1.68	2.27	<200	93	1566.5	1,659.5
	BH-3-5'	5	7/23/2010	NA	NA	NA	NA	NA	NA	<50.0	<50.0	<50.0
BH4	BH-4	2.5	5/20/2010	<0.0100	<0.0100	<0.0100	0.0576	<0.0600	<200	<50.0	<50.0	<50.0
BH5	BH-5	20	5/20/2010	1.24	27.3	21.4	50.3	100	<200	507	972	1,479
	BH-5-25'	25	7/23/2010	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	NA	<50.0	<50.0	<50.0
NMOCD Remedial Thresholds				10				50	250			1,000

¹ Bolded values are in excess of the NMOCD Remediation Thresholds

² NA : Not Analyzed

³ bgs : feet below ground surface

⁴ TPH : Total Petroleum Hydrocarbons



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

WBENC: 237019

HUB: 1752439743100-86536

DBE: VN 20657

NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX

El Paso: T104704221-08-TX

Midland: T104704392-08-TX

LELAP-02003

LELAP-02002

Kansas E-10317

Analytical and Quality Control Report

Kyle Waggoner
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: July 29, 2010

Work Order: 10072716



Project Name: Teppco C-13 Hobbs Line 8 in.

Project Number: 700348.009.01

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
238737	BH-5-25'	soil	2010-07-23	09:50	2010-07-27
238743	BH-3-5'	soil	2010-07-23	09:00	2010-07-27

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 9 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

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Teppco C-13 Hobbs Line 8 in. were received by TraceAnalysis, Inc. on 2010-07-27 and assigned to work order 10072716. Samples for work order 10072716 were received intact at a temperature of 0.8 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	61819	2010-07-28 at 08:30	72137	2010-07-28 at 10:41
TX1005 Extended - NEW	TX1005	61817	2010-07-28 at 09:37	72135	2010-07-28 at 09:37

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 10072716 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.

Report Date: July 29, 2010
700348.009.01

Work Order: 10072716
Teppco C-13 Hobbs Line 8 in.

Page Number: 4 of 9

Analytical Report

Sample: 238737 - BH-5-25'

Laboratory: Midland

Analysis: BTEX

QC Batch: 72137

Prep Batch: 61819

Analytical Method: S 8021B

Date Analyzed: 2010-07-28

Sample Preparation: 2010-07-28

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	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	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.60	mg/Kg	1	2.00	80	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.55	mg/Kg	1	2.00	78	38.4 - 157

Sample: 238737 - BH-5-25'

Laboratory: Midland

Analysis: TX1005 Extended - NEW

QC Batch: 72135

Prep Batch: 61817

Analytical Method: TX1005

Date Analyzed: 2010-07-28

Sample Preparation: 2010-07-28

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
C6-C12		<50.0	mg/Kg	1	50.0
>C12-C35		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		93.8	mg/Kg	1	100	94	70 - 130
n-Octane		111	mg/Kg	1	100	111	70 - 130
n-Tricosane		97.6	mg/Kg	1	100	98	70 - 130

Sample: 238743 - BH-3-5'

Laboratory: Midland

Analysis: TX1005 Extended - NEW

QC Batch: 72135

Prep Batch: 61817

Analytical Method: TX1005

Date Analyzed: 2010-07-28

Sample Preparation: 2010-07-28

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Report Date: July 29, 2010
700348.009.01

Work Order: 10072716
Teppco C-13 Hobbs Line 8 in.

Page Number: 5 of 9

Parameter	Flag	RL Result	Units	Dilution	RL
C6-C12		<50.0	mg/Kg	1	50.0
>C12-C35		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		91.1	mg/Kg	1	100	91	70 - 130
n-Octane		110	mg/Kg	1	100	110	70 - 130
n-Tricosane		95.8	mg/Kg	1	100	96	70 - 130

Method Blank (1) QC Batch: 72135

QC Batch: 72135
Prep Batch: 61817

Date Analyzed: 2010-07-28
QC Preparation: 2010-07-28

Analyzed By: kg
Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
C6-C12		<10.5	mg/Kg	50
>C12-C35		<13.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		79.3	mg/Kg	1	100	79	70 - 130
n-Octane		90.6	mg/Kg	1	100	91	70 - 130
n-Tricosane		87.2	mg/Kg	1	100	87	70 - 130

Method Blank (1) QC Batch: 72137

QC Batch: 72137
Prep Batch: 61819

Date Analyzed: 2010-07-28
QC Preparation: 2010-07-28

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.91	mg/Kg	1	2.00	96	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.75	mg/Kg	1	2.00	88	55.4 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 72135
Prep Batch: 61817

Date Analyzed: 2010-07-28
QC Preparation: 2010-07-28

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
C6-C12	280	mg/Kg	1	250	<10.5	112	75 - 125
>C12-C35	257	mg/Kg	1	250	<13.0	103	75 - 125

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
C6-C12	285	mg/Kg	1	250	<10.5	114	75 - 125	2	20
>C12-C35	262	mg/Kg	1	250	<13.0	105	75 - 125	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
n-Triacontane	91.4	96.1	mg/Kg	1	100	91	96	70 - 130
n-Octane	125	128	mg/Kg	1	100	125	128	70 - 130
n-Tricosane	104	107	mg/Kg	1	100	104	107	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 72137
Prep Batch: 61819

Date Analyzed: 2010-07-28
QC Preparation: 2010-07-28

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.00	mg/Kg	1	2.00	<0.0150	100	81.9 - 108
Toluene	1.98	mg/Kg	1	2.00	<0.00950	99	81.9 - 107
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.0106	98	78.4 - 107
Xylene	5.86	mg/Kg	1	6.00	<0.00930	98	79.1 - 107

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.99	mg/Kg	1	2.00	<0.0150	100	81.9 - 108	0	20
Toluene	1.98	mg/Kg	1	2.00	<0.00950	99	81.9 - 107	0	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.0106	97	78.4 - 107	0	20
Xylene	5.86	mg/Kg	1	6.00	<0.00930	98	79.1 - 107	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)	1.84	1.80	mg/Kg	1	2.00	92	90	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.78	1.80	mg/Kg	1	2.00	89	90	69.8 - 121

Matrix Spike (MS-1) Spiked Sample: 238737

QC Batch: 72135
Prep Batch: 61817

Date Analyzed: 2010-07-28
QC Preparation: 2010-07-28

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
C6-C12	249	mg/Kg	1	250	<10.5	100	18.8 - 120.7
>C12-C35	238	mg/Kg	1	250	<13.0	95	10 - 196.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
C6-C12	250	mg/Kg	1	250	<10.5	100	18.8 - 120.7	0	20
>C12-C35	240	mg/Kg	1	250	<13.0	96	10 - 196.2	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
n-Triacontane	88.8	85.5	mg/Kg	1	100	89	86	70 - 130
n-Octane	113	111	mg/Kg	1	100	113	111	70 - 130
n-Tricosane	96.6	94.2	mg/Kg	1	100	97	94	70 - 130

Matrix Spike (MS-1) Spiked Sample: 238784

QC Batch: 72137
Prep Batch: 61819

Date Analyzed: 2010-07-28
QC Preparation: 2010-07-28

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.09	mg/Kg	1	2.00	0.031	103	80.5 - 112
Toluene	2.06	mg/Kg	1	2.00	<0.00950	103	82.4 - 113
Ethylbenzene	2.05	mg/Kg	1	2.00	<0.0106	102	83.9 - 114
Xylene	6.20	mg/Kg	1	6.00	<0.00930	103	84 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.21	mg/Kg	1	2.00	0.031	109	80.5 - 112	6	20

continued ...

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Toluene	2.20	mg/Kg	1	2.00	<0.00950	110	82.4 - 113	7	20
Ethylbenzene	2.21	mg/Kg	1	2.00	<0.0106	110	83.9 - 114	8	20
Xylene	6.69	mg/Kg	1	6.00	<0.00930	112	84 - 114	8	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)	1.17	1.60	mg/Kg	1	2	58	80	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.21	1.59	mg/Kg	1	2	60	80	35.5 - 129

Standard (CCV-2)

QC Batch: 72135

Date Analyzed: 2010-07-28

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		mg/Kg	250	263	105	75 - 125	2010-07-28
>C12-C35		mg/Kg	250	237	95	75 - 125	2010-07-28

Standard (CCV-3)

QC Batch: 72135

Date Analyzed: 2010-07-28

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		mg/Kg	250	278	111	75 - 125	2010-07-28
>C12-C35		mg/Kg	250	262	105	75 - 125	2010-07-28

Standard (CCV-4)

QC Batch: 72135

Date Analyzed: 2010-07-28

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		mg/Kg	250	268	107	75 - 125	2010-07-28
>C12-C35		mg/Kg	250	257	103	75 - 125	2010-07-28

Standard (CCV-1)

QC Batch: 72137

Date Analyzed: 2010-07-28

Analyzed By: AG

Report Date: July 29, 2010
700348.009.01

Work Order: 10072716
Teppco C-13 Hobbs Line 8 in.

Page Number: 9 of 9

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0979	98	80 - 120	2010-07-28
Toluene		mg/Kg	0.100	0.0972	97	80 - 120	2010-07-28
Ethylbenzene		mg/Kg	0.100	0.0925	92	80 - 120	2010-07-28
Xylene		mg/Kg	0.300	0.282	94	80 - 120	2010-07-28

Standard (CCV-2)

QC Batch: 72137

Date Analyzed: 2010-07-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0970	97	80 - 120	2010-07-28
Toluene		mg/Kg	0.100	0.0959	96	80 - 120	2010-07-28
Ethylbenzene		mg/Kg	0.100	0.0929	93	80 - 120	2010-07-28
Xylene		mg/Kg	0.300	0.280	93	80 - 120	2010-07-28

