

**Miramar Site Investigation  
Data Validation Reports  
LDC# 20303**

TPH as JP5

*LDC*

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project    : MIRAMAR SITE INVESTIGATION  Date Received: 02/04/09
Batch No.  : 098025                       Date Extracted: 02/04/09 15:45
Sample ID  : 020409-01                    Date Analyzed: 02/04/09 19:47
Lab Samp ID: 8025-01                     Dilution Factor: 1
Lab File ID: LB04030A                    Matrix          : SOIL
Ext Btch ID: DSB006S                     % Moisture     : 12.1
Lab. Ref.: LB04025A                      Instrument ID  : GCT105
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	120	11	5.7

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	95	50-150
EXACOSANE	103	50-150

Parameter      H-C Range  
P5                C8 -C18

1/22/09

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
Client      : TREVET                      Date Collected: 02/04/09
Project    : MIRAMAR SITE INVESTIGATION  Date Received: 02/04/09
Batch No.  : 09B025                      Date Extracted: 02/04/09 15:45
Sample ID  : 020409-02                   Date Analyzed: 02/04/09 20:37
Lab Samp ID: B025-02                    Dilution Factor: 1
Lab File ID: LB04033A                   Matrix          : SOIL
Xt Btch ID: DSB006S                     % Moisture      : 9.5
Lab. Ref.: LB04025A                     Instrument ID   : GCT105
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	ND	11	5.5

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	85	50-150
EXACOSANE	100	50-150

parameter	H-C Range
P5	C8 -C18

8/2/109

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project     : MIRAMAR SITE INVESTIGATION Date Received: 02/04/09
Batch No.   : 09B025                     Date Extracted: 02/04/09 15:45
Sample ID   : 020409-03                  Date Analyzed: 02/04/09 20:53
Lab Samp ID : B025-03                    Dilution Factor: 1
Lab File ID : LB04034A                   Matrix          : SOIL
Ext Btch ID : DSB006S                    % Moisture      : 6.8
Lab. Ref.   : LB04025A                   Instrument ID   : GCT105
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	5.8d	11	5.4

JRROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	94	50-150
EXACOSANE	101	50-150

Parameter      H-C Range  
P5                C8 -C18

1/22/09

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project     : MIRAMAR SITE INVESTIGATION Date Received: 02/04/09
Batch No.   : 09B025                     Date Extracted: 02/04/09 15:45
Sample ID   : 020409-04                  Date Analyzed: 02/04/09 21:09
Lab Samp ID: B025-04                    Dilution Factor: 1
Lab File ID: LB04035A                   Matrix          : SOIL
Ext Btch ID: DSB006S                    % Moisture      : 11.2
Lab. Ref.: LB04025A                     Instrument ID   : GCT105
=====

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PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	69	11	5.6

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	86	50-150
EXACOSANE	105	50-150

parameter H-C Range  
P5 C8 -C18

2021-09

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project    : MIRAMAR SITE INVESTIGATION  Date Received: 02/04/09
Batch No.  : 09B025                      Date Extracted: 02/04/09 15:45
Sample ID  : 020409-05                   Date Analyzed: 02/04/09 22:16
Lab Samp ID: B025-05                     Dilution Factor: 1
Lab File ID: LB04039A                    Matrix          : SOIL
Ext Btch ID: DSB006S                     % Moisture     : 11.3
Calib. Ref.: LB04038A                    Instrument ID  : GCT105
=====

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PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
JP5	ND	11	5.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	95	50-150
HEXACOSANE	103	50-150

Parameter H-C Range  
JP5 C8 -C18

11/2/09

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client       : TREVET                      Date Collected: 02/04/09
Project      : MIRAMAR SITE INVESTIGATION Date Received: 02/04/09
Batch No.    : 09B025                     Date Extracted: 02/04/09 15:45
Sample ID    : 020409-06                  Date Analyzed: 02/05/09 02:56
Lab Samp ID  : B025-06T                   Dilution Factor: 10
Lab File ID  : LB04056A                   Matrix          : SOIL
Ext Btch ID  : DSB006S                    % Moisture      : 9.2
Calib. Ref.  : LB04048A                   Instrument ID   : GCT105
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	5100	110	55

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	DO	50-150
EXACOSANE	DO	50-150

Parameter H-C Range  
P5 C8 -C18

Q: DILUTION OUT

02/11/09

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project     : MIRAMAR SITE INVESTIGATION Date Received: 02/04/09
Batch No.   : 09B025                     Date Extracted: 02/04/09 15:45
Sample ID   : 020409-07                  Date Analyzed: 02/04/09 22:49
Lab Samp ID: B025-07                     Dilution Factor: 1
Lab File ID: LB04041A                    Matrix          : SOIL
Ext Btch ID: DSB006S                      % Moisture     : 9.3
Calib. Ref.: LB04038A                    Instrument ID   : GCT105
=====

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PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
IP5	ND	11	5.5

PROXIMATE PARAMETERS	% RECOVERY	QC LIMIT
PROPYLENE	89	50-150
HEXACOSANE	101	50-150

Parameter      H-C Range  
IP5              C8 -C18

02/21/09

METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project     : MIRAMAR SITE INVESTIGATION Date Received: 02/04/09
Batch No.   : 09B025                     Date Extracted: 02/04/09 15:45
Sample ID   : 020409-08                   Date Analyzed: 02/04/09 23:05
Lab Samp ID: B025-08                      Dilution Factor: 1
Lab File ID: LB04042A                     Matrix           : SOIL
Ext Btch ID: DSB006S                       % Moisture      : 11.0
Lab. Ref.: LB04038A                       Instrument ID    : GCT105
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	36	11	5.6

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	91	50-150
EXACOSANE	103	50-150

Parameter H-C Range  
P5 C8 -C18

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METHOD 3550B/M8015  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project    : MIRAMAR SITE INVESTIGATION Date Received: 02/04/09
Batch No.  : 09B025                      Date Extracted: 02/04/09 15:45
Sample ID  : 020409-09                   Date Analyzed: 02/04/09 23:22
Lab Samp ID: B025-09                     Dilution Factor: 1
Lab File ID: LB04043A                    Matrix          : SOIL
Ext Btch ID: DSB006S                     % Moisture     : 7.8
Calib. Ref.: LB04038A                    Instrument ID   : GCT105
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	ND	11	5.4

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	85	50-150
EXACOSANE	102	50-150

Parameter      H-C Range  
P5                C8 - C18

*2/21/09*

METHOD 3550B/M8015  
 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : TREVET                      Date Collected: 02/04/09
Project     : MIRAMAR SITE INVESTIGATION Date Received: 02/04/09
Batch No.   : 098025                     Date Extracted: 02/04/09 15:45
Sample ID   : 020409-10                  Date Analyzed: 02/04/09 23:55
Lab Samp ID: B025-10T                    Dilution Factor: 10
Lab File ID: LB04045A                    Matrix          : SOIL
Ext Btch ID: DSB006S                      % Moisture     : 8.3
Calib. Ref.: LB04038A                    Instrument ID   : GCT105
=====
  
```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
P5	17000	110	55

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
ROMOBENZENE	DO	50-150
EXACOSANE	DO	50-150

Parameter H-C Range  
 P5 C8 -C18

DO: DILUTION OUT

02/10/09

COC NUMBER MCAS-01  
09B025

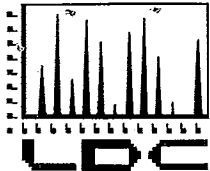
CHAIN-OF-CUSTODY RECORD

TREVET  
9888 Carroll Centre Road, Suite 228  
San Diego, CA 92126

TRND901-

PROJECT NAME	PROJECT LOCATION	PURCHASE ORDER NO.	ANALYSES REQUIRED				LABORATORY NAME
			TPH-JP5	by EPA Method 8015B			
SAMPLER NAME	PROJECT CONTACT	PROJECT NO.	AIRBILL NUMBER	PROJECT CONTACT PHONE NUMBER	LABORATORY ID (FOR LABORATORY)		COMMENTS
Miramar Site Investigation	Cather Ave. / Huggins St.	10034-003	10034-0003	EMAX Labs	Torrance, CA (310) 618-8889		
GERALD TAMASHIRO	Gerald Tamashiro - TREVET			EMAX Labs			
SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL	TYPE	T A T	LABORATORY INSTRUCTIONS/COMMENTS Temp. Blank in cooler @ 1125 AM <b>RUSH TAT - PLEASE EXPEDITE</b> SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: 2.5 C SAMPLE CONDITION: <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN
1 020409-01	2/4/09	1127	2	3	S		
2 020409-02	2/4/09	1131	1	3	S		
3 020409-03	2/4/09	1133	1	3	S		
4 020409-04	2/4/09	1134	1	3	S		
5 020409-05	2/4/09	1135	1	3	S	H	
6 020409-06	2/4/09	1137	1	3	S	US	
7 020409-07	2/4/09	1139	1	3	S	R	
8 020409-08	2/4/09	1141	1	3	S		
9 020409-09	2/4/09	1144	1	3	S		
10 020409-10	2/4/09	1147	1	3	S		
RELINQUISHED BY (Signature)	DATE	TIME	COMPANY	RECEIVED BY (Signature)	DATE	TIME	COMPANY
<i>[Signature]</i>	2/4/09	12:15	EMAX	<i>[Signature]</i>	2/4/09	14:40	EMAX

SAMPLING COMMENT:  
SAMPLING CONTAINER INFO:  
3/USUS  
RECLEANED  
Lot #: 8-274-006  
Container No: 1619



**LABORATORY DATA CONSULTANTS, INC.**

7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Trevet  
9888 Carroll Centre Road S-228  
San Diego, CA 92126  
ATTN: Mr. Gerald Tamashiro

February 11, 2009

**SUBJECT: Miramar Site Investigation, Data Validation**

Dear Mr. Tamashiro,

Enclosed is the final validation report for the fraction listed below. This SDG was received on February 10, 2009. Attachment 1 is a summary of the samples that were reviewed for each analysis.

**LDC Project # 20303:**

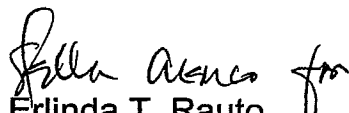
<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
09B025	TPH as JP5

The data validation was performed under EPA Level IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

  
Erlinda T. Rauto  
Operations Manager/Senior Chemist



**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Miramar Site Investigation  
**Collection Date:** February 4, 2009  
**LDC Report Date:** February 10, 2009  
**Matrix:** Soil  
**Parameters:** Total Petroleum Hydrocarbons as JP5  
**Validation Level:** EPA Level IV  
**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 09B025

**Sample Identification**

020409-01  
020409-02  
020409-03  
020409-04  
020409-05  
020409-06  
020409-07  
020409-08  
020409-09  
020409-10  
020409-01MS  
020409-01MSD

## Introduction

This data review covers 12 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B modified for Total Petroleum Hydrocarbons (TPH) as JP5.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## **I. Technical Holding Times**

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## **II. Calibration**

### **a. Initial Calibration**

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

### **b. Calibration Verification**

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 15.0% for all compounds.

## **III. Blanks**

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as JP5 contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## **IV. Accuracy and Precision Data**

### **a. Surrogate Recovery**

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for samples 020409-06 and 020409-10. Since the samples were diluted out, no data were qualified.

### **b. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### **c. Laboratory Control Samples**

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

### **V. Target Compound Identification**

All target compound identifications were within validation criteria.

### **VI. Compound Quantitation and CRQLs**

All compound quantitation and CRQLs were within validation criteria.

### **VII. System Performance**

The system performance was acceptable.

### **VIII. Overall Assessment of Data**

Data flags have been summarized at the end of this report if data has been qualified.

### **IX. Field Duplicates**

No field duplicates were identified in this SDG.

**Miramar Site Investigation**

**Total Petroleum Hydrocarbons as JP5 - Data Qualification Summary - SDG 09B025**

No Sample Data Qualified in this SDG

**Miramar Site Investigation**

**Total Petroleum Hydrocarbons as JP5 - Laboratory Blank Data Qualification Summary - SDG 09B025**

No Sample Data Qualified in this SDG

**Miramar Site Investigation**

**Total Petroleum Hydrocarbons as JP5 - Field Blank Data Qualification Summary - SDG 09B025**

No Sample Data Qualified in this SDG