



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

GEOCON Env. Consultants  6671 Brisa St  Livermore, CA 94550	Client Project ID: #E8415-06-62; Caltrans 580 @ Vasco	Date Sampled: 04/04/09
	Client Contact: John Love	Date Received: 04/06/09
	Client P.O.:	Date Reported: 04/07/09
		Date Completed: 04/07/09

**WorkOrder: 0904121**

April 07, 2009

Dear John:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **#E8415-06-62; Caltrans 580 @ Vasco**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0904121



**McCAMPBELL ANALYTICAL, INC.**

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701

Website: [www.mccampbell.com](http://www.mccampbell.com) Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: (877) 252-9262 Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**

TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

GeoTracker EDF  PDF  Excel  Write On (DW)  
 Check if sample is effluent and "J" flag is required

**RUSH**

Report To: JOAN LOVE, CHRIS MERRITT Bill To: \_\_\_\_\_  
Company: GEACON  
6671 BRISA ST E-Mail: MERRITT@GEACONINC.COM  
LIVERMORE, CA 94550 LOVERMORE@GEACONINC.COM  
Tele: (425) 371-5400 Fax: (425) 371-5415  
Project #: E-6415-06-62 Project Name: CAITRANS 550 @ JASCO  
Project Location: 550 EB @ JASCO RD  
Sampler Signature: CHRIS MERRITT / JOAN LOVE

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED		Analysis Request	Other	Comments	
		Date	Time			Water	Soil	Air	Sludge	Other	ICE (CLY)	HCL				HNO <sub>3</sub>
EXCAVATION NORTH 19'		4/4/09	1040	1	SSL	X							X			Filter Samples for Metals analysis: Yes / No
EXCAVATION EASTWALL 19'			1045	1									X			
EXCAVATION BOTTOM WEST 30'			1035	1									X			
EXCAVATION WEST 19'			1015	1									X			
EXCAVATION SOUTH 19'			1025	1									X			
EXCAVATION BOTTOM EAST 20'			0965	1									X			
IMPACTED 1	COMPOSITE 4-1		1220	1									X			
IMPACTED 2			1222	1									X			
IMPACTED 3			1225	1									X			
IMPACTED 4			1227	1									X			
OVERBURDEN 1	COMPOSITE 4-1		1232	1									X			
OVERBURDEN 2			1235	1									X			
OVERBURDEN 3			1237	1									X			
OVERBURDEN 4			1239	1									X			

Relinquished By: CHRIS MERRITT Date: 4-6-09 Time: 0925 Received By: [Signature]  
Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE# 0-6 COMMENTS:  
GOOD CONDITION ✓  
HEAD SPACE ABSENT ✓  
DECHLORINATED IN LAB ✓  
APPROPRIATE CONTAINERS ✓  
PRESERVED IN LAB ✓  
VOAS O&G METALS OTHER  
PRESERVATION pH<2

**McC Campbell Analytical, Inc.**



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

**CHAIN-OF-CUSTODY RECORD**

WorkOrder: 0904121

ClientCode: GECL

WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

**Report to:**  
John Love  
GEOCON Env. Consultants  
6671 Brisa St  
Livermore, CA 94550  
(925) 371-5900    FAX 925-371-5915

**Bill to:**  
Accounts Payable  
GEOCON Env. Consultants  
6671 Brisa St  
Livermore, CA 94550

**Requested TAT: 1 day**

**Date Received: 04/06/2009**  
**Date Printed: 04/06/2009**

Email: love@geoconinc.com; Livermore@geoc  
cc:  
PO:  
ProjectNo: #E8415-06-62; Caltrans 580 @ Vasco

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0904121-001	Excavation North 19'	Soil	4/4/2009 10:40	<input type="checkbox"/>	A	A	A									
0904121-002	Excavation East Wall 19'	Soil	4/4/2009 10:45	<input type="checkbox"/>	A	A	A									
0904121-003	Excavation Bottom West 20'	Soil	4/4/2009 10:35	<input type="checkbox"/>	A	A	A									
0904121-004	Excavation West 19'	Soil	4/4/2009 10:15	<input type="checkbox"/>	A	A	A									
0904121-005	Excavation South 19'	Soil	4/4/2009 10:25	<input type="checkbox"/>	A	A	A									
0904121-006	Excavation Bottom East 20'	Soil	4/4/2009 9:55	<input type="checkbox"/>	A	A	A									
0904121-007	Impacted 1-4	Soil	4/4/2009	<input type="checkbox"/>	A	A	A									
0904121-008	Overburden 1-4	Soil	4/4/2009	<input type="checkbox"/>	A	A	A									

**Test Legend:**

1	G-MBTEX_S	2	LUFT_S	3	TPH(DMO)_S	4		5	
6		7		8		9		10	
11		12							

**Prepared by: Maria Venegas**

**Comments:** 24hr Rush

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **GEOCON Env. Consultants**

Date and Time Received: **04/06/09 8:58:21 AM**

Project Name: **#E8415-06-62; Caltrans 580 @ Vasco**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **0904121** Matrix Soil

Carrier: Client Drop-In

#### Chain of Custody (COC) Information

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes  No
  - Container/Temp Blank temperature Cooler Temp: 0.6°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: DRY ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



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GEOCON Env. Consultants  6671 Brisa St  Livermore, CA 94550	Client Project ID: #E8415-06-62; Caltrans 580 @ Vasco	Date Sampled: 04/04/09
	Client Contact: John Love	Date Received: 04/06/09
	Client P.O.:	Date Analyzed 04/06/09-04/07/09

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method SW5030B

Analytical methods SW8021B/8015Bm

Work Order: 0904121

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	Excavation North 19'	S	1000,d7,d9	---	ND<1.0	ND<1.0	1.9	2.7	200	---#
002A	Excavtion East Wall 19'	S	19,d7	---	ND<0.025	ND<0.025	ND<0.025	ND<0.025	5	95
003A	Excavation Bottom West 20'	S	99,d7,d9	---	ND<0.050	ND<0.050	ND<0.050	ND<0.050	10	83
004A	Excavation West 19'	S	ND	---	ND	ND	ND	ND	1	85
005A	Excavation South 19'	S	11,d7	---	ND<0.025	ND<0.025	ND<0.025	ND<0.025	5	93
006A	Excavation Bottom East 20'	S	1500,d7,d9	---	ND<0.50	ND<0.50	1.7	2.5	100	124
007A	Impacted 1-4	S	390,d7,d9	---	ND<0.050	ND<0.050	0.85	1.2	10	111
008A	Overburden 1-4	S	ND	---	ND	ND	ND	ND	1	90

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
d9) no recognizable pattern



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GEOCON Env. Consultants  6671 Brisa St  Livermore, CA 94550	Client Project ID: #E8415-06-62; Caltrans 580 @ Vasco	Date Sampled: 04/04/09
	Client Contact: John Love	Date Received: 04/06/09
	Client P.O.:	Date Analyzed: 04/06/09
		Date Extracted: 04/06/09

### LUFT 5 Metals\*

Extraction method: SW3050B

Analytical methods: 6010C

Work Order: 0904121

Lab ID	Client ID	Matrix	Extraction Type	Cadmium	Chromium	Lead	Nickel	Zinc	DF	% SS
001A	Excavation North 19'	S	TOTAL	ND	36	8.5	30	37	1	112
002A	Excavation East Wall 19'	S	TOTAL	ND	31	6.8	24	32	1	117
003A	Excavation Bottom West 20'	S	TOTAL	ND	42	8.9	36	38	1	116
004A	Excavation West 19'	S	TOTAL	ND	22	5.4	20	21	1	112
005A	Excavation South 19'	S	TOTAL	ND	42	9.9	38	44	1	115
006A	Excavation Bottom East 20'	S	TOTAL	ND	35	7.8	29	34	1	117
007A	Impacted 1-4	S	TOTAL	ND	41	9.4	33	40	1	111
008A	Overburden 1-4	S	TOTAL	ND	49	23	46	70	1	106

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	NA	NA	NA	NA	NA	NA
	S	TOTAL	1.5	1.5	5.0	1.5	5.0	mg/Kg	

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

TOTAL = acid digestion.  
WET = Waste Extraction Test (STLC).  
DI WET = Waste Extraction Test using de-ionized water.



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GEOCON Env. Consultants  6671 Brisa St  Livermore, CA 94550	Client Project ID: #E8415-06-62; Caltrans 580 @ Vasco	Date Sampled: 04/04/09
	Client Contact: John Love	Date Received: 04/06/09
	Client P.O.:	Date Extracted: 04/06/09
		Date Analyzed: 04/06/09-04/07/09

### Total Extractable Petroleum Hydrocarbons\*

Extraction method: SW3550C

Analytical methods: SW8015B

Work Order: 0904121

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS
0904121-001A	Excavation North 19'	S	360,e11	ND	1	83
0904121-002A	Excavation East Wall 19'	S	22,e11	ND	1	95
0904121-003A	Excavation Bottom West 20'	S	29,e11	ND	1	91
0904121-004A	Excavation West 19'	S	ND	ND	1	98
0904121-005A	Excavation South 19'	S	17,e11	ND	1	97
0904121-006A	Excavation Bottom East 20'	S	700,e11	ND<50	10	99
0904121-007A	Impacted 1-4	S	130,e11	ND<10	2	97
0904121-008A	Overburden 1-4	S	1.5,e7,e2,e6	14	1	99

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- e2) diesel range compounds are significant; no recognizable pattern
- e6) one to a few isolated peaks present in the THP(d/mo) chromatogram
- e7) oil range compounds are significant
- e11) stoddard solvent/mineral spirit (?)



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 42478

WorkOrder 0904121

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0904121-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>f</sup>	ND	0.60	112	107	3.87	104	101	3.41	70 - 130	20	70 - 130	20
MTBE	ND	0.10	99.9	87.1	13.7	94.1	92.1	2.17	70 - 130	20	70 - 130	20
Benzene	ND	0.10	102	98.4	3.12	106	106	0	70 - 130	20	70 - 130	20
Toluene	ND	0.10	122	111	9.33	120	118	1.89	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	112	111	1.31	117	113	3.57	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	124	123	1.16	127	124	2.88	70 - 130	20	70 - 130	20
%SS:	85	0.10	100	96	3.71	105	102	2.75	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 42478 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0904121-001A	04/04/09 10:40 AM	04/06/09	04/06/09 6:57 PM	0904121-002A	04/04/09 10:45 AM	04/06/09	04/07/09 6:57 AM
0904121-003A	04/04/09 10:35 AM	04/06/09	04/07/09 8:48 AM	0904121-004A	04/04/09 10:15 AM	04/06/09	04/06/09 7:58 PM
0904121-005A	04/04/09 10:25 AM	04/06/09	04/06/09 8:59 PM	0904121-006A	04/04/09 9:55 AM	04/06/09	04/07/09 1:49 AM
0904121-007A	04/04/09	04/06/09	04/07/09 9:25 AM	0904121-008A	04/04/09	04/06/09	04/06/09 8:29 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





**QC SUMMARY REPORT FOR 6010C**

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0904121

EPA Method 6010C		Extraction SW3050B				BatchID: 42420			Spiked Sample ID 0904031-002A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Cadmium	3.8	50	106	107	0.831	10	96.6	91.7	5.21	75 - 125	20	75 - 125	20
Chromium	53	50	97.8	94.2	1.75	10	92.2	91.3	0.926	75 - 125	20	75 - 125	20
Lead	150	50	101	102	0.410	10	94.1	86.8	8.13	75 - 125	20	75 - 125	20
Nickel	51	50	97.9	94.8	1.56	10	95.7	94.2	1.61	75 - 125	20	75 - 125	20
Zinc	370	500	84.8	83.3	0.914	100	92	90	2.22	75 - 125	20	75 - 125	20
%SS:	115	250	109	121	10.5	250	103	101	1.47	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 42420 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0904121-001A	04/04/09 10:40 AM	04/06/09	04/06/09 8:18 PM	0904121-002A	04/04/09 10:45 AM	04/06/09	04/06/09 8:22 PM
0904121-003A	04/04/09 10:35 AM	04/06/09	04/06/09 8:25 PM	0904121-004A	04/04/09 10:15 AM	04/06/09	04/06/09 8:29 PM
0904121-007A	04/04/09	04/06/09	04/06/09 8:36 PM	0904121-008A	04/04/09	04/06/09	04/06/09 9:01 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**QC SUMMARY REPORT FOR 6010C**

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0904121

EPA Method 6010C		Extraction SW3050B				BatchID: 42480			Spiked Sample ID 0904121-006A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Cadmium	ND	50	122	117	4.85	10	99.4	86.3	14.2	75 - 125	20	75 - 125	20
Chromium	35	50	116	99.9	8.87	10	105	98.3	6.85	75 - 125	20	75 - 125	20
Lead	7.8	50	102	105	2.35	10	103	89.9	13.1	75 - 125	20	75 - 125	20
Nickel	29	50	94.3	97.1	1.82	10	98.8	97.8	1.07	75 - 125	20	75 - 125	20
Zinc	34	500	93.9	89.5	4.41	100	103	99.9	3.25	75 - 125	20	75 - 125	20
%SS:	117	250	117	106	9.66	250	103	103	0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 42480 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0904121-005A	04/04/09 10:25 AM	04/06/09	04/06/09 8:33 PM	0904121-006A	04/04/09 9:55 AM	04/06/09	04/06/09 8:51 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**QC SUMMARY REPORT FOR SW8015B**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 42465

WorkOrder: 0904121

Analyte	Extraction SW3550C		Spiked Sample ID: 0904103-009A							Acceptance Criteria (%)			
	Sample mg/Kg	Spiked mg/Kg	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH-Diesel (C10-C23)	210	20	NR	NR	NR	107	107	0	70 - 130	30	70 - 130	30	
%SS:	94	50	86	90	4.49	101	100	0.799	70 - 130	30	70 - 130	30	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 42465 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0904121-001A	04/04/09 10:40 AM	04/06/09	04/06/09 2:51 PM	0904121-002A	04/04/09 10:45 AM	04/06/09	04/06/09 4:04 PM
0904121-003A	04/04/09 10:35 AM	04/06/09	04/06/09 5:18 PM	0904121-004A	04/04/09 10:15 AM	04/06/09	04/06/09 7:42 PM
0904121-007A	04/04/09	04/06/09	04/07/09 9:26 AM	0904121-008A	04/04/09	04/06/09	04/06/09 10:02 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**QC SUMMARY REPORT FOR SW8015B**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 42479

WorkOrder: 0904121

Analyte	EPA Method SW8015B		Extraction SW3550C						Spiked Sample ID: 0904121-006A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	700	20	NR	NR	NR	86.6	85.8	0.822	70 - 130	30	70 - 130	30
%SS:	99	50	88	93	4.95	81	81	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 42479 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0904121-005A	04/04/09 10:25 AM	04/06/09	04/06/09 8:52 PM	0904121-006A	04/04/09 9:55 AM	04/06/09	04/07/09 9:26 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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