

## Wickham, Jerry, Env. Health

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**From:** Herrmann, Patrick [Patrick.Herrmann@stantec.com]  
**Sent:** Wednesday, December 10, 2008 1:22 PM  
**To:** Drogos, Donna, Env. Health  
**Cc:** Wickham, Jerry, Env. Health; jrigter@lpfire.org; Brown, Damon; Herzog, Deborah  
**Subject:** 7-Eleven Store #32266, 1339 North Vasco Road, Livermore CA  
**Attachments:** 32266\_66277(D1 thru D4).PDF; 32266\_66276(SP1(ABCD)).PDF; 32266 Historical Soil Table.pdf

**Importance:** High

Ms. Drogos,

Attached is the laboratory analytical data for the dispenser and stockpile soil samples collected on December 4, 2008, during a fuel system upgrade at 7-Eleven Store #32266 located at 1339 North Vasco Road in Livermore, California.

A total of 4 dispenser soil samples were collected and submitted for analysis. Benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPHg) were reported below laboratory limits in all dispenser soil samples collected, with the exception of D2-5, which reported 0.21 mg/kg, 0.59 mg/kg, 0.26 mg/kg, 1.4 mg/kg, and 12 mg/kg, respectively. Methyl tertiary butyl ether (MtBE) and tert-butanol (TBA) were detected exclusively in soil sample D1-5.0, at concentrations of 0.024 mg/kg and 0.0076 mg/kg, respectively. Diisopropyl ether (DIPE), ethyl-tert-butyl ether (EtBE), and tert-amyl-methyl ether (TAME) were reported below laboratory limits in all dispenser soil samples collected.

A four-point composite sample of the stockpiled excavation material was collected and submitted for analysis. BTEX, TPHg, MtBE, DIPE, EtBE, TAME, and TBA analyzed by Environmental Protection Agency (EPA) Method 8260B were not detected at concentrations above laboratory reporting limits in the soil stockpile sample collected during this investigation. Total lead was detected at a concentration of 4.4 mg/kg by EPA method 6010B.

The dispenser and stockpile soil sample results are summarized in the attached table (Table 1). Upon your review, please notify Stantec if any additional reporting will be required by the Alameda County Environmental Health Department (i.e. unauthorized release report). Stantec will submit a hard copy report of this soil sampling work (including field notes and laboratory analytical reports).

If you have any questions or comments regarding the information presented in this email, please call me at (916) 384-0772.

Thank you,

Patrick Herrmann  
**Project Scientist**  
**Stantec**  
Ph: (916) 861-0400 Ext. 305  
Fx: (916) 861-0430  
[patrick.herrmann@stantec.com](mailto:patrick.herrmann@stantec.com)  
[stantec.com](http://stantec.com)

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 Please consider the environment before printing this email.

**Table 1**  
**Historical Soil Sample Analytical Results**

7-Eleven Store #32266  
1339 North Vasco Road  
Livermore, California

Sample I.D.	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)	TPHg (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Total Lead (mg/kg)	Notes
<b>Dispenser Samples</b>														
D1-5.0	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<b>0.024</b>	<0.0050	<0.0050	<0.0050	<b>0.0076</b>	--	a
D2-5.0	12/04/08	5.0	<b>0.21</b>	<b>0.59</b>	<b>0.26</b>	<b>1.4</b>	<b>12</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	b
D3-5.0	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	a
D4-5.0	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	b
<b>Stockpile Samples</b>														
SP1(ABCD)	12/04/08	---	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<b>4.40</b>	b,c
<p><u>Explanation:</u>            BTEX, TPHg, MtBE, DIPE, ETBE, TAME and TBA via 8260B            Total lead via 6010 B            ft bgs = feet below ground surface            mg/kg = milligrams per kilogram or parts-per-million            &lt; = Not detected above laboratory reporting limit            -- = Not Analyzed, not applicable</p> <p><u>Note:</u>            a = Matrix Spike/Matrix Spike Duplicate results for the analytes tert-butanol and toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.            b = Matrix Spike/Matrix Spike Duplicate results for the analyte methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.            c = composite soil profile samples</p>														



Report Number : 66277

Date : 12/05/2008

Damon Brown  
Stantec Consulting Corporation  
3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670

Subject : 4 Soil Samples  
Project Name : 7-Eleven Store #32266  
Project Number : 77EL.32266.48

Dear Mr. Brown,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff

Subject : 4 Soil Samples  
Project Name : 7-Eleven Store #32266  
Project Number : 77EL.32266.48

## Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples D2-5.0 and D4-5.0 for the analytes Tert-Butanol and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Matrix Spike/Matrix Spike Duplicate results associated with samples D1-5.0 and D3-5.0 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.



Report Number : 66277

Date : 12/05/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **D1-5.0**

Matrix : Soil

Lab Number : 66277-01

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Toluene</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Ethylbenzene</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Total Xylenes</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Methyl-t-butyl ether (MTBE)</b>	<b>0.024</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Tert-Butanol</b>	<b>0.0076</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>TPH as Gasoline</b>	<b>&lt; 1.0</b>	1.0	mg/Kg	EPA 8260B	12/04/2008
1,2-Dichloroethane-d4 (Surr)	93.2		% Recovery	EPA 8260B	12/04/2008
Toluene - d8 (Surr)	84.0		% Recovery	EPA 8260B	12/04/2008



Report Number : 66277

Date : 12/05/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **D2-5.0**

Matrix : Soil

Lab Number : 66277-02

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>0.21</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Toluene</b>	<b>0.59</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Ethylbenzene</b>	<b>0.26</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Total Xylenes</b>	<b>1.4</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Tert-Butanol</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>TPH as Gasoline</b>	<b>12</b>	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	91.6		% Recovery	EPA 8260B	12/04/2008
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	12/04/2008



Report Number : 66277

Date : 12/05/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **D3-5.0**

Matrix : Soil

Lab Number : 66277-03

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Toluene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Ethylbenzene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Total Xylenes</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Methyl-t-butyl ether (MTBE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Diisopropyl ether (DIPE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Ethyl-t-butyl ether (ETBE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Tert-amyl methyl ether (TAME)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Tert-Butanol</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>TPH as Gasoline</b>	< <b>1.0</b>	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	99.1		% Recovery	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	83.8		% Recovery	EPA 8260B	12/05/2008



Report Number : 66277

Date : 12/05/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **D4-5.0**

Matrix : Soil

Lab Number : 66277-04

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Toluene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Ethylbenzene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Total Xylenes</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Methyl-t-butyl ether (MTBE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Diisopropyl ether (DIPE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Ethyl-t-butyl ether (ETBE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Tert-amyl methyl ether (TAME)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>Tert-Butanol</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/04/2008
<b>TPH as Gasoline</b>	< <b>1.0</b>	1.0	mg/Kg	EPA 8260B	12/04/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/04/2008
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	12/04/2008



Report Number : 66277

Date : 12/05/2008

**QC Report : Method Blank Data**

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	98.7		%	EPA 8260B	12/05/2008
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	103		%	EPA 8260B	12/05/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

**QC Report : Matrix Spike/ Matrix Spike Duplicate**Project Name : **7-Eleven Store #32266**Project Number : **77EL.32266.48**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	66215-04	<0.0050	0.0393	0.0383	0.0319	0.0291	mg/Kg	EPA 8260B	12/3/08	81.2	76.0	6.64	70-130	25
Methyl-t-butyl ether	66215-04	<0.0050	0.0395	0.0385	0.0329	0.0296	mg/Kg	EPA 8260B	12/3/08	83.3	76.9	7.93	70-130	25
Tert-Butanol	66215-04	<0.0050	0.200	0.195	0.162	0.135	mg/Kg	EPA 8260B	12/3/08	81.2	69.2	15.9	70-130	25
Toluene	66215-04	<0.0050	0.0400	0.0390	0.0289	0.0263	mg/Kg	EPA 8260B	12/3/08	72.2	67.3	7.03	70-130	25
Benzene	66277-01	<0.0050	0.0391	0.0389	0.0295	0.0291	mg/Kg	EPA 8260B	12/5/08	75.5	74.9	0.893	70-130	25
Methyl-t-butyl ether	66277-01	0.024	0.0393	0.0391	0.0487	0.0517	mg/Kg	EPA 8260B	12/5/08	62.1	70.2	12.2	70-130	25
Tert-Butanol	66277-01	0.0076	0.199	0.198	0.160	0.155	mg/Kg	EPA 8260B	12/5/08	76.6	74.4	2.89	70-130	25
Toluene	66277-01	<0.0050	0.0399	0.0397	0.0305	0.0295	mg/Kg	EPA 8260B	12/5/08	76.5	74.3	2.96	70-130	25

**QC Report : Laboratory Control Sample (LCS)**Project Name : **7-Eleven Store #32266**Project Number : **77EL.32266.48**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0390	mg/Kg	EPA 8260B	12/3/08	88.6	70-130
Methyl-t-butyl ether	0.0393	mg/Kg	EPA 8260B	12/3/08	92.8	70-130
Tert-Butanol	0.198	mg/Kg	EPA 8260B	12/3/08	87.9	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	12/3/08	79.0	70-130
Benzene	0.0380	mg/Kg	EPA 8260B	12/4/08	87.5	70-130
Methyl-t-butyl ether	0.0382	mg/Kg	EPA 8260B	12/4/08	92.8	70-130
Tert-Butanol	0.193	mg/Kg	EPA 8260B	12/4/08	85.8	70-130
Toluene	0.0388	mg/Kg	EPA 8260B	12/4/08	77.0	70-130

Chain of Custody Number: 606277

## Stantec Chain-of-Custody Record

Field Office: 077 Sacramento  
 Address: 3017 Kilgore Road, Suite 100  
Rancho Cordova, CA

Additional documents are attached, and are part of this Record.  
 Job Name: 7-Eleven Store #32266  
 Location: 1339 North Vasco Road  
Livermore, CA

Project # 77EL.32266.48 Task # 0806  
 Project Manager Damon Brown  
 Laboratory Kiff Analytical  
 Turnaround Time 24 Hour TAT


Analysis Request

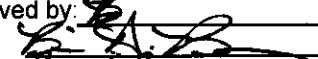
Sampler's Name Patrick Herrmann  
 Sampler's Signature 

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX - EPA 8260	TPHd (Diesel Only) 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile rganics 624/8240 (g=GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	5 Oxygenates EPA 8260B	Comments/Instructions	Number of Containers
D1-5.0	12/04/08	1105am	soil		X							X		1
D2-5.0	12/04/08	1125am	soil		X							X		1
D3-5.0	12/04/08	1135am	soil		X							X		1
D4-5.0	12/04/08	1150am	soil		X							X		1
<b>SAMPLE RECEIPT</b> Temp <u>4.0</u> Therm. ID# <u>12-1</u> Initial <u>NWP</u> Date <u>12/04/08</u> Time <u>1534</u> Coolant present: <u>Yes</u>														


01  
02  
03  
04

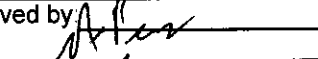
Special Instructions/Comments  
 5 oxys: MtBE, ETBE, DIPE, TAME and TBA  
 email analytical results to:  
 damon.brown@stantec.com,  
 patrick.herrmann@stantec.com

Relinquished by:  
 Sign   
 Print Patrick Herrmann  
 Company Stantec  
 Time 2:59 pm Date 12/4/08

Received by:  
 Sign   
 Print BRIAN BRANSCUM  
 Company STANTEC  
 Time 1434 Date 12/4/08

Sample Receipt  
 Total no. of containers: \_\_\_\_\_  
 Chain of custody seals: \_\_\_\_\_  
 Rec'd in good condition/cold: \_\_\_\_\_  
 Conforms to record: \_\_\_\_\_

Relinquished by:  
 Sign   
 Print BRIAN BRANSCUM  
 Company STANTEC  
 Time 1534 Date 12/4/08

Received by:  
 Sign   
 Print Nick Kiff  
 Company Kiff Analytical  
 Time 1534 Date 12/04/08

Client: Stantec  
 Client Contact: Damon Brown  
 Client Phone: (916) 861-0400  
ext. 230



Report Number : 66276

Date : 12/05/2008

Damon Brown  
Stantec Consulting Corporation  
3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670

Subject : 1 Soil Sample  
Project Name : 7-Eleven Store #32266  
Project Number : 77EL.32266.48

Dear Mr. Brown,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 66276

Date : 12/05/2008

Subject : 1 Soil Sample  
Project Name : 7-Eleven Store #32266  
Project Number : 77EL.32266.48

## Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with sample SP1(ABCD) for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.



Report Number : 66276

Date : 12/05/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **SP1(ABCD)**

Matrix : Soil

Lab Number : 66276-01

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Lead</b>	<b>4.4</b>	0.50	mg/Kg	EPA 6010B	12/05/2008
<b>Benzene</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Toluene</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Ethylbenzene</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Total Xylenes</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>Tert-Butanol</b>	<b>&lt; 0.0050</b>	0.0050	mg/Kg	EPA 8260B	12/05/2008
<b>TPH as Gasoline</b>	<b>&lt; 1.0</b>	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	95.2		% Recovery	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	83.5		% Recovery	EPA 8260B	12/05/2008

Report Number : 66276

Date : 12/05/2008

**QC Report : Method Blank Data**

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	12/05/2008
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	103		%	EPA 8260B	12/05/2008

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
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KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



**QC Report : Matrix Spike/ Matrix Spike Duplicate**Project Name : **7-Eleven Store #32266**Project Number : **77EL.32266.48**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	66277-01	<0.0050	0.0391	0.0389	0.0295	0.0291	mg/Kg	EPA 8260B	12/5/08	75.5	74.9	0.893	70-130	25
Methyl-t-butyl ether	66277-01	0.024	0.0393	0.0391	0.0487	0.0517	mg/Kg	EPA 8260B	12/5/08	62.1	70.2	12.2	70-130	25
Tert-Butanol	66277-01	0.0076	0.199	0.198	0.160	0.155	mg/Kg	EPA 8260B	12/5/08	76.6	74.4	2.89	70-130	25
Toluene	66277-01	<0.0050	0.0399	0.0397	0.0305	0.0295	mg/Kg	EPA 8260B	12/5/08	76.5	74.3	2.96	70-130	25
Lead	66100-04	6.6	50.0	50.0	51.9	51.6	mg/Kg	EPA 6010B	12/5/08	90.7	90.1	0.580	75-125	20

**QC Report : Laboratory Control Sample (LCS)**Project Name : **7-Eleven Store #32266**Project Number : **77EL.32266.48**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	12/5/08	103	85-115
Benzene	0.0380	mg/Kg	EPA 8260B	12/4/08	87.5	70-130
Methyl-t-butyl ether	0.0382	mg/Kg	EPA 8260B	12/4/08	92.8	70-130
Tert-Butanol	0.193	mg/Kg	EPA 8260B	12/4/08	85.8	70-130
Toluene	0.0388	mg/Kg	EPA 8260B	12/4/08	77.0	70-130

Chain of Custody Number: 66276

## Stantec Chain-of Custody Record

Field Office: 077 Sacramento  
 Address: 3017 Kilgore Road, Suite 100  
Rancho Cordova, CA

Additional documents are attached, and are part of this Record.  
 Job Name: 7-Eleven Store #32266  
 Location: 1339 North Vasco Road  
Livermore, CA

Project # 77EL.32266.48 Task # 0806  
 Project Manager Damon Brown  
 Laboratory Kiff Analytical  
 Turnaround Time 24 Hour TAT

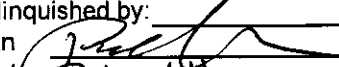
Sampler's Name Patrick Herrmann  
 Sampler's Signature 

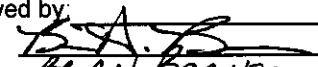
### Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX - EPA 8260	TPHg (Diesel Only) 8015 (modified)	TPH 418, 1MTPH 418.1	Aromatic Volatiles 602/8020	Volatile rganics 624/8240 (g=GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	5 Oxygenates EPA 8260B	Total Lead EPA 6010	Comments/Instructions	Number of Containers
SP1(ABCD)	12/04/08	1035am	soil		x							x	x	Please composite 4 into 1	4

**SAMPLE RECEIPT**  
 Temp °C 46 Therm. ID# SK-1  
 Initial NWP Date 12/04/08  
 Time 1:34 Coolant present: Yes / No

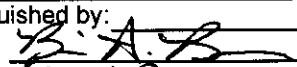
Special Instructions/Comments  
**5 oxys: MtBE, ETBE, DIPE, TAME and TBA**  
 email analytical results to:  
 damon.brown@stantec.com,  
 patrick.herrmann@stantec.com

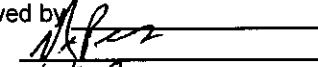
Relinquished by:  
 Sign   
 Print Patrick Herrmann  
 Company Stantec  
 Time 2:34pm Date 12/4/08

Received by:  
 Sign   
 Print BRIAN BRANSCUM  
 Company STANTEC  
 Time 1:34 Date 12/4/08

**Sample Receipt**

Total no. of containers:	
Chain of custody seals:	
Rec'd in good condition/cold:	
Conforms to record:	

Relinquished by:  
 Sign   
 Print BRIAN BRANSCUM  
 Company STANTEC  
 Time 1:53pm Date 12/4/08

Received by:  
 Sign   
 Print NICK PERRY  
 Company Kiff Analytical  
 Time 1:34 Date 12/04/08

Client: Stantec  
 Client Contact: Damon Brown  
 Client Phone: (916) 861-0400  
ext. 230