

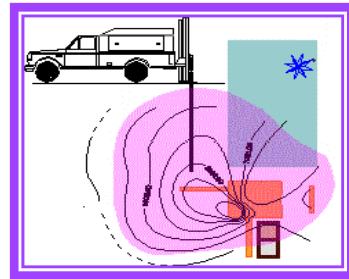
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December 05, 2008

RECEIVED

10:13 am, Jan 14, 2009

Alameda County  
Environmental Health

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**Subject: Groundwater Monitoring of Hydrocarbons and Revised Remedial Action Plan Utilizing Oxygen Releasing Compounds (ORC) related to the Former Underground Storage Tanks at the FORMER BILL CHUN SERVICE STATION @ 2301 SANTA CLARA AVENUE, ALAMEDA, CA 94501**

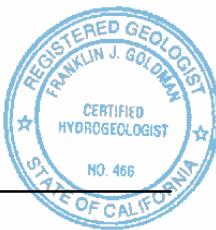
**Mr. Plunkett:**

This report summarizes the laboratory results of analyses performed for gasoline constituents in groundwater. This groundwater monitoring event represents a compilation of data covering the onsite wells and the down gradient wells installed on the Towata property. The concentrations of dissolved gasoline range organics (GROs) and benzene continues to exhibit a consistent overall decrease over many years.

Given that the plume has been demonstrated to be stable and that natural attenuation processes are occurring, it is proposed to use Oxygen Releasing Compounds (ORC) to expedite the reduction of the concentrations of benzene in groundwater beneath the Towata Flower Shop to eliminate the last issue (i.e. benzene vapor intrusion to indoor air), remaining with respect to obtaining site closure.

Sincerely,

A handwritten signature in blue ink that reads "Franklin J. Goldman".



**Franklin J. Goldman, CHG. 466**  
**Principle Hydrogeologist**

## GROUNDWATER FLOW DIRECTION

On September 07, 2008, a Slope Indicator water level meter was used to measure the depth to groundwater in the groundwater monitoring and extraction wells. The measurements were read to the nearest 100th of a foot from the top of the casing where the elevation was established by a certified land survey.

Groundwater was encountered at depths ranging from approximately between eight (8) and ten (10) feet bgs. The predominant groundwater gradient flow direction was estimated to be to the east-northeast, at 0.001, and to the southeast at 0.15 beneath the Towata Flower Shop ([See Figure 1 for Groundwater Gradient Flow and Direction Map](#)) and ([Table 1 for Depth to Water Level Measurements](#)).

## WELL PURGING AND DEVELOPMENT

Depth to groundwater was measured prior to purging to use as a reference elevation. Purging of the wells was performed by the use of 1 3/4 inch diameter disposable check valve bailors. Each well was sampled after the well purging process which entailed the removal of approximately three (3) or more well volumes from each well, allowing the water level to recover to at least 80% of the original, static water level. Temperature, electrical conductivity, and pH were monitored so that the three parameters demonstrated an error difference of within 10% from one another, over three consecutive readings ([See Appendix A for Sampling Event Logs](#)). The recorded data was used to verify that a sufficient volume of groundwater had been removed from each well casing so that anomalies caused by remnant well casing storage would not preclude us from obtaining a groundwater sample which would be representative of the aquifer contaminant distribution as a whole.

## GROUNDWATER SAMPLING FROM WELLS

Water samples were collected by lowering a plastic disposable bailer down the center of the well casing. Water samples were contained in 40-milliliter VOA vials through a low flow bottom draining plastic tube inserted into the bottom of the bailer for TPH-g, MTBE, and BTEX analyses. EPA Method 8260b for 5 oxygenates and two lead scavengers was used to confirm the presence of MTBE and other gasoline constituents. The samples were labeled and stored on ice until delivered, under chain-of-custody procedures, to American Analytics, Inc. of Chatsworth, California, a State-certified analytical laboratory.

## LABORATORY RESULTS OF HYDROCARBONS IN GROUNDWATER

Dissolved GROs and benzene in groundwater have demonstrated a general decrease in all wells since monitoring was initiated ([See Appendix B for Laboratory Data Sheets](#)) and ([Table 2 for Historical Trends of GRO and Benzene](#))

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**concentrations).** The dissolved plumes of GROs and benzene in groundwater still appear to be centered in the general vicinity of the former USTs on site and extends underneath the flower shop downgradient ([See Figures 2 and 3 for GRO and benzene concentration maps](#)). Very low levels of oxygenates still persist down gradient of the Flower shop ([See Figure 4 for oxygenates concentration map](#)).

#### **FIELD CLEANUP**

Well purge water was placed in properly labeled 55 gallon drums left on-site for transport to a legal point of disposal.

#### **CONCLUSIONS**

The center of the dissolved GRO and benzene plumes is located around the former UST location and beneath the Towata flower shop. Some low levels of oxygenates were identified in down gradient wells and appear to represent the leading edge of the dissolved gasoline plume. The plume has been demonstrated to be stable in past technical reporting.

#### **RECOMMENDATIONS**

Perform an additional round of groundwater sampling and initiate interim remediation of dissolved GRO and benzene by application of Oxygen Releasing Compounds in groundwater upgradient and down gradient of the Flower Shop. This will be performed to reduce the vapor intrusion of benzene to indoor air.

According to the groundwater monitoring report dated December 13, 2007, the production of ferrous iron and methane, and the depletion of sulfates and nitrates, in the dissolved hydrocarbon plume area, on site, are strong indicators that the site hydrocarbons are undergoing natural attenuation due the conditions that are conducive to anaerobic biodegradation of petroleum hydrocarbons.

#### **SCHEDULE FOR ORC WELL INSTALLATIONS AND LABORATORY TESTING**

ORC Socks will be installed according to the instructions provided by Regenesis ([See Appendix C for Regenesis Instructions](#)).

After installation of the ORC socks in extraction wells EW-12, EW-13, EW-14, EW-15, & EW-17, and in monitor wells MW-1, MW-2, MW-11, BF, and BG the following inorganic parameters will be measured in all wells through laboratory testing:

**ferrous iron - methane - sulfates - nitrates - total dissolved solids**

Dissolved oxygen (DO) and Oxygen Reduction Potential (ORP) will be measured in all wells in the field after purging with a peristaltic pump. The extracted water will be fed into a clear flow-through cylinder which has probes that measure DO and ORP with a YSI 556 MPS.

#### **SCHEDULE FOR LABORATORY TESTING OF HYDROCARBONS**

**Given the past history of hydrocarbon laboratory results, hydrocarbon testing and reporting will be limited to the following:**

**GROs - BTEX - 5 oxygenates & 2 lead scavengers - total trimethylbenzenes - napthalene**

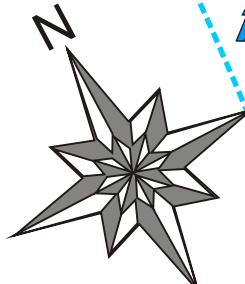
#### **LIMITATIONS**

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analyses, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. Franklin J. Goldman, recognizes that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein, is done so at the sole risk of the said user.



Approximate Scale in Feet  
Map Adapted from Certified Land Surveys



**MW-9**  
**19.42**

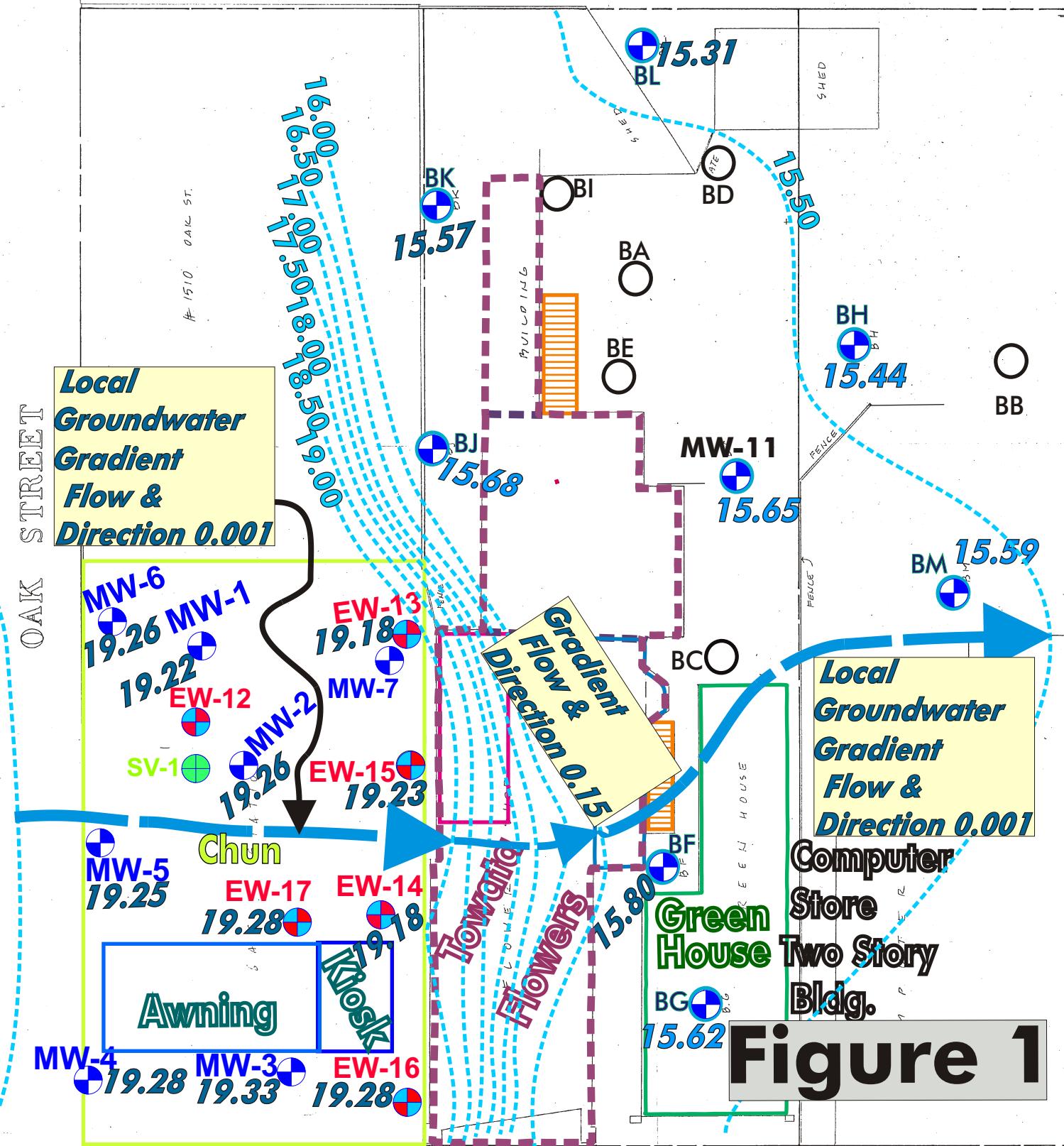
**MW-10**  
**19.87**

Lines of equal ground-water level elevation

September 07, 2008

CHUN - 2301 Santa Clara Ave., Alameda

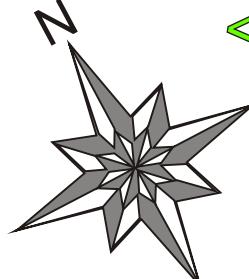
Located at the north east corner of the intersection of Oak Street and Santa Clara Avenue



# Figure 1

0 10 20 30

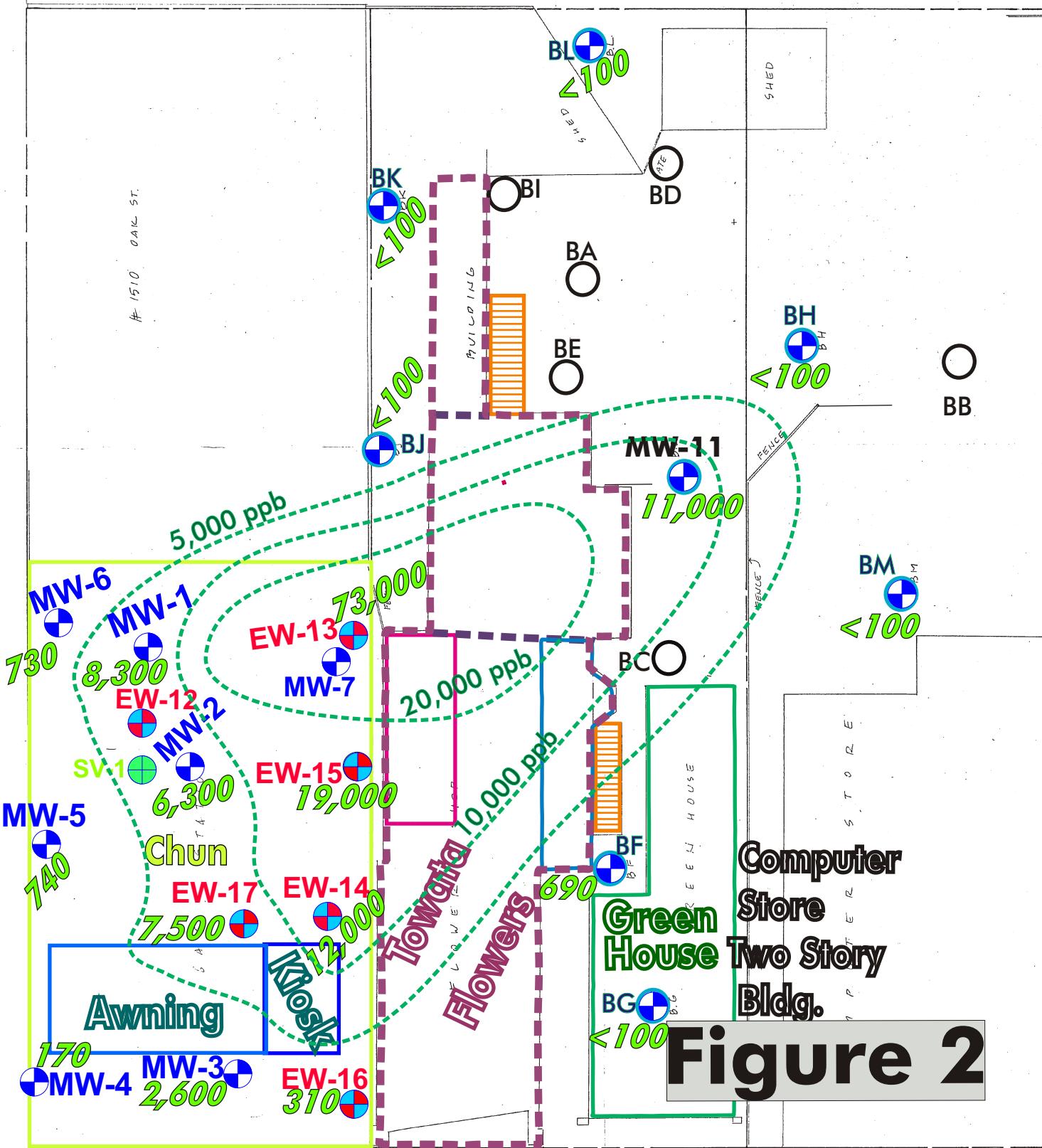
Approximate Scale in Feet  
Map Adapted from Certified  
Land Surveys



MW-10  
<100

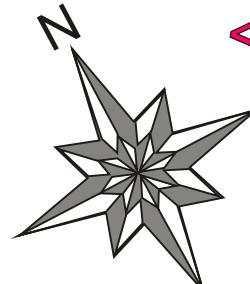
MW-9  
<100

**Lines of equal  
concentrations (ppb) of  
dissolved GROs in  
groundwater  
Sampled on  
September 4, 5, & 6, 2008  
CHUN - 2301 Santa  
Clara Ave., Alameda**





Approximate Scale in Feet  
Map Adapted from Certified  
Land Surveys

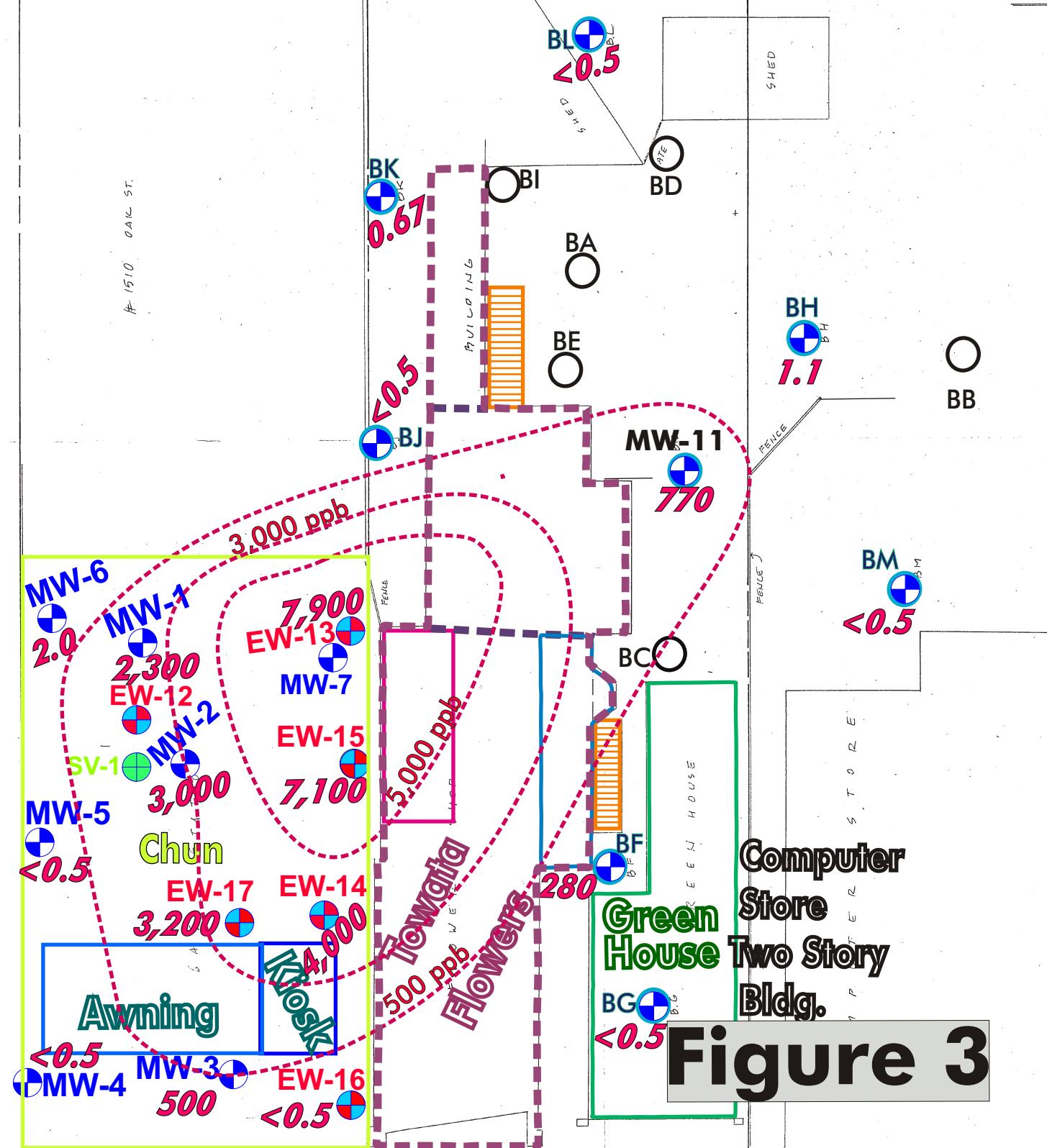


**MW-10**  
**<0.5**

**Lines of equal  
concentrations (ppb) of  
dissolved Benzene  
in groundwater  
Sampled on  
September 4, 5, & 6, 2008  
CHUN - 2301 Santa  
Clara Ave., Alameda**

**MW-9**  
**<0.5**

OAK STREET



**Figure 3**



Approximate Scale in Feet  
Map Adapted from Certified  
Land Surveys

**MW-9**

**MW-10**



**Concentrations (ppb)**  
of five (5) dissolved  
oxygenates & two (2)  
lead scavengers  
identified in

groundwater

September 4, 5, & 6 2008

**CHUN - 2301 Santa  
Clara Ave., Alameda**

# Figure 4

OAK STREET

**MW-6**  
**MW-1**  
**EW-12**  
**MW-2**  
**SV-1**  
**MW-5**

**MW-4**

**Awning**

**MW-3**  
20 ppb (EDC)

**EW-16**

# 1510 OAK ST.

**Chun**

**EW-17**

**EW-14**

**Kiosk**

**EW-13**  
**MW-7**  
**EW-15**  
3.1 ppb (EDC)  
4.4 ppb (MTBE)

**EW-16**

**Towaria**  
**Flowers**

**BK**  
3.6 ppb (EDC)  
21 ppb (TBA)  
5 ppb (MTBE)

**BI**  
**BD**

**BA**  
**BE**

**MW-11**

3.0 ppb (EDC)  
20 ppb (MTBE)

**BH**  
FENCE

**BM**  
3.5 ppb (EDC)  
9.1 ppb (MTBE)

E

S

T

R

E

**Computer  
Store**  
**Green  
House**  
**Two Story  
Bldg.**

**BG**  
12 ppb (EDC)  
31 ppb (MTBE)

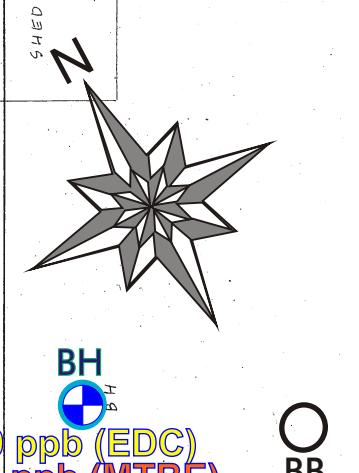
N

E

S

W

Z



**TABLE 1**  
**Depth to Groundwater Measurements**  
**September 07, 2008**  
**Chun/Towata Properties - 2301 Santa Clara Avenue, Alameda**

Well No	Depth to Groundwater from TOC (feet bgs)	TOC Elevation (feet) MSN	Water Table Elevation (feet)
MW-1	<b>9.27</b>	<b>28.49</b>	<b>19.22</b>
MW-2	<b>9.21</b>	<b>28.47</b>	<b>19.26</b>
MW-3	<b>9.45</b>	<b>28.78</b>	<b>19.33</b>
MW-4	<b>9.25</b>	<b>28.53</b>	<b>19.28</b>
MW-5	<b>9.08</b>	<b>28.33</b>	<b>19.25</b>
MW-6	<b>9.10</b>	<b>28.36</b>	<b>19.26</b>
MW-7		<b>28.44</b>	
MW-8	<b>8.86</b>	<b>28.17</b>	<b>19.31</b>
MW-9	<b>8.03</b>	<b>27.45</b>	<b>19.42</b>
MW-10	<b>7.45</b>	<b>27.32</b>	<b>19.87</b>
MW-11	<b>9.52</b>	<b>25.17</b>	<b>15.65</b>
EW-12		<b>28.25</b>	
EW-13	<b>9.46</b>	<b>28.64</b>	<b>19.18</b>
EW-14	<b>10.03</b>	<b>29.21</b>	<b>19.18</b>
EW-15	<b>9.48</b>	<b>28.71</b>	<b>19.23</b>
EW-16	<b>9.74</b>	<b>29.02</b>	<b>19.28</b>
EW-17	<b>9.67</b>	<b>28.95</b>	<b>19.28</b>
BL	<b>10.06</b>	<b>25.37</b>	<b>15.31</b>
BK	<b>9.45</b>	<b>25.02</b>	<b>15.57</b>
BJ	<b>9.35</b>	<b>25.03</b>	<b>15.68</b>

<b>BH</b>	<b>9.74</b>	<b>25.18</b>	<b>15.44</b>
<b>BM</b>	<b>9.58</b>	<b>25.17</b>	<b>15.59</b>
<b>BF</b>	<b>9.86</b>	<b>25.66</b>	<b>15.80</b>
<b>BG</b>	<b>10.23</b>	<b>25.85</b>	<b>15.62</b>

**TABLE 2 - Chun**  
**Representative Analytical for Gasoline in Groundwater Trends (ppb)**

Well Identification	Date	GROs	Benzene
MW-1	(09-06-08)	8,300	2,300
MW-1	(03-09-08)	45,000	9,400
MW-1	(09-23-07)	22,000	4,700
MW-1	(07-08-07)	57,000	11,000
	(03-24-07)	71,000	15,000
	(01-04-07)	46,000	6,500
	(09-05-06)	62,000	17,000
	(06-11-06)	65,000	21,000
	(03-13-06)	72,000	17,000
	(11-26-05)	6,400	2,600
	(08-20-05)	35,000	14,000
	(08-08-04)	29,000	9,700
	(04-24-04)	33,000	8,000
	(12-25-03)	12,000	3,400
	(09-20-03)	19,000	4,900
	(07-04-02)	43,000	7,200
	(09-17-00)	65,000	15,000
MW-2	(09-06-08)	6,300	3,000
MW-2	(03-09-08)	37,000	10,700
MW-2	(09-23-07)	14,000	6,700
MW-2	(07-08-07)	56,000	5,400
	(03-24-07)	52,000	12,000
	(01-04-07)	17,000	4,300
	(09-05-06)	24,000	8,100

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(06-11-06)	37,000	12,000
	(03-13-06)	50,000	15,000
	(11-26-05)	38,000	11,000
	(08-20-05)	31,000	10,000
	(08-08-04)	21,000	6,800
	(04-24-04)	44,000	8,400
	(12-25-03)	46,000	6,100
	(09-21-03)	27,000	2,400
	(07-04-02)	41,000	5,600
	(09-17-00)	140,000	21,000
MW-3	(09-06-08)	2,600	500
MW-3	(03-09-08)	7,300	1,300
MW-3	(09-22-07)	1,300	5,600
MW-3	(07-08-07)	5,600	1,500
	(03-24-07)	8,000	1,600
	(01-04-07)	5,500	1,400
	(09-05-06)	6,000	1,500
	(06-11-06)	7,000	2,000
	(03-13-06)	6,400	2,100
	(11-26-05)	6,100	1,200
	(08-20-05)	5,500	3,000
	(08-08-04)	2,500	400
	(04-24-04)	3,100	1,000
	(12-25-03)	3,300	290
	(09-21-03)	2,700	320
	(07-04-02)	10,000	2,300

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(09-17-00)	9,300	3,000
MW-4	(09-05-08)	170	<0.50
MW-4	(03-08-08)	860	<0.50
MW-4	(09-23-07)	<100	<0.50
MW-4	(07-08-07)	<100	<0.50
	(03-24-07)	120	<0.50
	(01-04-07)	<100	<0.50
	(09-05-06)	760	<0.50
	(06-12-06)	1,500	0.89
	(03-13-06)	320	<0.50
	(11-26-05)	<100	<0.50
	(08-20-05)	1,100	1.5
	(08-08-04)	ND	ND
	(04-24-04)	3,000	0.97
	(12-25-03)	ND	ND
	(09-20-03)	ND	ND
	(07-04-02)	ND	ND
	(09-17-00)	ND	ND
MW-5	(09-05-08)	740	<0.50
MW-5	(03-08-08)	16,000	50
MW-5	(09-24-07)	16,000	490
MW-5	(07-08-07)	23,000	72
	(03-24-07)	19,000	60
	(01-04-07)	20,000	110
	(09-05-06)	15,000	56
	(06-12-06)	14,000	91

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(03-13-06)	21,000	61
	(11-26-05)	38,000	110
	(08-20-05)	19,000	130
	(08-08-04)	13,000	82
	(04-24-04)	13,000	97
	(12-25-03)	2,300	140
	(09-21-03)	8,700	ND
	(07-04-02)	16,000	89
	(09-17-00)	44,000	490
MW-6	(09-05-08)	730	2.0
MW-6	(03-08-08)	1,500	3.4
MW-6	(09-23-07)	1,200	2.8
MW-6	(07-08-07)	720	2.8
	(03-24-07)	3,300	7.2
	(01-04-07)	390	2.0
	(09-05-06)	1,100	4.4
	(06-12-06)	910	3.3
	(03-13-06)	<100	<0.50
	(11-26-05)	480	1.4
	(08-20-05)	810	<0.5
	(08-08-04)	320	2.7
	(04-24-04)	110	3.6
	(12-25-03)	1,200	18
	(09-20-03)	500	15
	(07-04-02)	3,900	29
	(09-17-00)	10,000	110

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
<b>MW-7</b>	(09-05-06)	62,000	17,000
	(06-12-06)	NA	NA
	(03-13-06)	NA	NA
	(08-20-05)	NA	NA
	(08-08-04)	92,000	9,300
	(04-24-04)	100,000	10,000
	(12-25-03)	110,000	12,000
	(09-21-03)	110,000	4,200
	(07-04-02)	140,000	15,000
	(09-17-00)	220,000	32,000
<b>MW-8</b>	(09-05-08)	<100	<0.5
	(03-08-08)	<100	<0.5
	(09-21-07)	<100	<0.5
	(07-07-07)	<100	2.0
	(03-22-07)	500	6.0
	(01-06-07)	390	4.4
	(09-06-06)	<100	1.4
	(06-12-06)	<100	<0.5
	(03-13-06)	<100	<0.5
	(11-27-05)	<100	<0.5
	(08-22-05)	<100	<0.5
	(08-08-04)	NA	NA
	(04-24-04)	ND	ND
	(12-25-03)	ND	ND
	(09-20-03)	ND	ND
	(07-03-02)	ND	1.1

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(09-17-00)	ND	1.4
MW-9	(09-05-08)	<100	<0.5
MW-9	(09-05-08)	<100	<0.5
MW-9	(09-21-07)	<100	<0.5
MW-9	(07-07-07)	<100	<0.5
	(03-22-07)	<100	<0.5
	(01-06-07)	<100	<0.5
	(09-07-06)	<100	<0.5
	(06-13-06)	<100	<0.5
	(03-13-06)	<100	<0.5
	(11-27-05)	<100	<0.5
	(08-22-05)	<100	<0.5
	(04-24-04)	ND	ND
	(12-25-03)	ND	ND
	(09-20-03)	ND	ND
	(07-03-02)	ND	ND
	(09-17-00)	ND	ND
MW-10	(09-05-08)	<100	<0.5
MW-10	(03-08-08)	<100	<0.5
MW-10	(09-21-07)	<100	<0.5
MW-10	(07-07-07)	<100	<0.5
	(03-22-07)	<100	<0.5
	(01-06-07)	<100	<0.5
	(09-07-06)	<100	<0.5
	(06-13-06)	<100	<0.5
	(03-13-06)	<100	<0.5

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(11-27-05)	<100	<0.5
	(08-22-04)	<100	<0.5
	(04-24-04)	ND	ND
	(12-25-03)	ND	ND
	(09-20-03)	ND	ND
	(07-03-02)	ND	ND
	(09-17-00)	ND	ND
MW-11	(09-05-08)	11,000	770
MW-11	(03-08-08)	26,000	1,100
MW-11	(09-22-07)	31,000	2,000
MW-11	(07-07-07)	54,000	2,800
	(03-22-07)	57,000	3,000
	(01-05-07)	50,000	2,200
	(09-06-06)	36,000	5,900
	(06-12-06)	44,000	5,900
	(03-13-06)	47,000	5,600
	(11-26-05)	56,000	4,000
	(08-20-05)	31,000	5,100
	(08-08-04)	29,000	3,100
	(04-24-04)	38,000	5,000
	(12-25-03)	14,000	1,400
	(09-22-03)	46,000	1,700
	(10-24-02)	59,000	5,100
SV-1	(06-13-06)	NA	NA
	(03-13-06)	NA	NA
	(11-26-05)	NA	NA

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(08-08-04)	NA	NA
	(04-24-04)	9,600	740
	(12-25-03)	83,000	2,200
	(09-21-03)	89,000	2,300
	(07-04-02)	210,000	7,900
	(09-17-00)	560,000	10,000
EW-12	(09-05-06)	62,000	17,000
	(06-11-06)	NA	NA
	(03-13-06)	NA	NA
	(11-27-05)	NA	NA
	(08-08-04)	NA	NA
	(04-24-04)	12,000	920
	(12-25-03)	9,900	790
	(09-21-03)	19,000	590
	(10-31-02)	5,840	75.7
EW-13	(09-06-08)	73,000	7,900
EW-13	(03-09-08)	120,000	11,000
EW-13	(09-24-07)	84,000	5,400
EW-13	(07-09-07)	140,000	10,000
	(03-25-07)	170,000	16,000
	(01-05-07)	410,000	57,000
	(09-05-06)	120,000	12,000
	(06-11-06)	130,000	23,000
	(03-13-06)	140,000	16,000
	(11-27-05)	150,000	16,000

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(08-20-05)	130,000	27,000
	(08-08-04)	NA	NA
	(04-24-04)	100,000	19,000
	(12-25-03)	110,000	17,000
	(09-21-03)	71,000	10,000
	(10-31-02)	109,200	9,120
EW-14	(09-06-08)	12,000	4,000
EW-14	(03-09-08)	1,200	340
EW-14	(09-23-07)	41,000	9,900
EW-14	(07-09-07)	54,000	14,000
	(03-25-07)	25,000	5,400
	(01-04-07)	30,000	7,000
	(09-06-06)	20,000	4,700
	(06-11-06)	2,300	1,100
	(03-13-06)	1,300	360
	(11-27-05)	53,000	10,000
	(08-22-05)	26,000	7,100
	(08-08-04)	14,000	6,300
	(04-24-04)	9,400	4,100
	(12-25-03)	26,000	5,300
	(09-22-03)	68,000	4,100
EW-15	(09-06-08)	19,000	7,100
EW-15	(03-09-08)	1,600	200
EW-15	(09-23-07)	59,000	14,000
EW-15	(07-09-07)	46,000	5,200
	(03-25-07)	23,000	2,100

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(01-05-07)	30,000	9,700
	(09-05-06)	51,000	8,200
	(06-11-06)	25,000	2,900
	(03-13-06)	12,000	1,900
	(11-27-05)	71,000	11,000
	(08-22-05)	670,000	11,000
	(08-08-04)	36,000	3,300
	(01-21-04)	72,000	8,400
EW-16	(09-05-08)	310	<0.50
EW-16	(03-08-08)	820	100
EW-16	(09-22-07)	2,200	4.2
EW-16	(07-09-07)	2,300	53
	(03-25-07)	1,800	420
	(01-04-07)	370	2.9
	(09-05-06)	2,100	210
	(06-11-06)	1,400	680
	(03-13-06)	900	400
	(11-26-05)	1,600	160
	(08-20-05)	1,600	410
	(08-08-04)	2,500	590
	(01-21-04)	1,500	290
EW-17	(09-06-08)	7,500	3,200
EW-17	(03-09-08)	31,000	7,600
EW-17	(09-23-07)	26,000	5,300
EW-17	(07-09-07)	40,000	7,600
	(03-25-07)	44,000	7,900

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(01-04-07)	27,000	8,100
	(09-06-06)	26,000	8,900
	(06-11-06)	38,000	9,700
	(03-13-06)	29,000	6,500
	(11-27-05)	35,000	8,000
	(08-22-05)	42,000	13,000
	(08-08-04)	30,000	6,800
	(01-21-04)	18,000	2,600
BM	(09-04-08)	<100	<0.5
	(03-07-08)	<100	<0.5
	(07-07-07)	<100	<0.5
	(03-22-07)	<100	<0.5
	(01-06-07)	<100	<0.5
	(09-06-06)	<100	<0.5
	(06-12-06)	<100	<0.5
	(03-13-06)	<100	<0.5
	(11-26-05)	<100	<0.5
	(08-20-05)	<100	<0.5
BH	(09-04-08)	<100	1.1
	(03-07-08)	<100	<0.50
	(09-22-07)	<100	<0.50
	(07-07-07)	<100	<0.50
	(03-22-07)	130	<0.50
	(01-05-07)	140	12
	(09-06-06)	<100	<0.50
	(06-12-06)	<100	0.93

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(03-13-06)	<100	<0.50
	(11-26-05)	<100	0.76
	(08-20-05)	<100	<0.5
BF	(09-05-08)	690	280
	(03-08-08)	500	250
	(09-22-07)	7,300	2,600
	(07-07-07)	6,900	3,700
	(03-22-07)	5,600	1,400
	(01-05-07)	13,000	5,200
	(09-06-06)	<10,000	6,500
	(06-12-06)	14,000	11,000
	(03-13-06)	<10,000	5,300
	(11-26-05)	13,000	8,300
	(08-20-05)	3,800	89
BL	(09-04-08)	<100	<0.5
	(09-22-07)	<100	8.6
	(07-07-07)	<100	<0.5
	(03-22-07)	<100	<0.5
	(01-05-07)	<100	<0.5
	(09-07-06)	<100	<0.5
	(06-12-06)	<100	6.8
	(03-13-06)	400	110
	(11-27-05)	<100	<0.5
	(08-22-05)	<100	17
BG	(09-05-08)	<100	<0.5
	(03-08-08)	<100	<0.5

Well Identification	Date	GROs	Benzene
BG	(09-22-07)	<100	<0.5
	(07-07-07)	<100	<0.5
	(03-22-07)	120	<0.5
	(01-05-07)	<100	<0.5
	(09-07-06)	<100	3.3
	(06-12-06)	110	7.6
	(03-13-06)	<100	<0.5
	(11-27-05)	130	2.1
	(08-22-05)	100	59
BK	(09-05-08)	<100	0.67
	(03-07-08)	<100	<0.5
	(09-22-07)	450	18
	(07-07-07)	<100	<0.5
	(03-22-07)	<100	<0.5
	(01-06-07)	<100	<0.5
	(09-07-06)	1,100	0.54
	(06-11-06)	700	<0.50
	(03-13-06)	1,800	<0.50
	(11-27-05)	7,200	93
	(08-22-05)	3,600	22
BJ	(09-05-08)	<100	<0.5
	(03-08-08)	<100	<0.5
	(09-22-07)	150	4.0
	(07-07-07)	<100	<0.5
	(03-22-07)	<100	<0.5
	(01-06-07)	<100	<0.5

<b>Well Identification</b>	<b>Date</b>	<b>GROs</b>	<b>Benzene</b>
	(09-07-06)	<100	<0.5
	(06-11-06)	<100	<0.5
	(03-13-06)	790	<0.5
	(11-27-05)	6,800	90
	(08-22-05)	1,500	14

## Appendix A

### Sampling Event Sheets

# Sampling Event Logs - Chun - September 4, 5, & 6, 2008

BL	DTW 10.02'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-04-08
		3.0	70.1	998	6.9	12:30 pm	
		3.0	70.2	999	6.9	1:05	
		2.0	70.3	1002	6.9	1:25 pm	

BH	DTW 9.72'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-04-08
		3.0	69.1	788	6.8	2:00 pm	
		3.0	69.2	796	6.8	2:25	
		2.0	69.4	801	6.8	2:45 pm	

BM	DTW 9.54'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-04-08
		3.0	66.8	689	6.9	3:00 pm	
		3.0	66.9	698	6.9	3:15	
		2.0	67.2	699	6.9	3:45 pm	

BG	DTW 10.20'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	70.1	1000	7.0	6:40 am	
		2.0	70.3	1002	7.0	7:00	
		2.0	70.5	1005	7.0	7:25 am	

BF	DTW 9.83'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	67.7	798	7.0	7:55 am	
		1.5	68.5	804	7.0	8:05	
		1.5	69.1	810	7.0	8:20 am	

BJ	DTW 9.32'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	69.1	1006	7.0	8:30 am	
		1.5	69.4	1016	7.0	8:40 am	
		1.5	69.7	1035	7.0	8:55 am	

BK	DTW 9.42'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	70.9	899	7.0	9:15 am	
		1.5	71.6	910	7.0	9:25	
		1.5	71.7	919	7.0	9:35 am	

MW-11	DTW 9.50'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	70.0	1100	7.0	9:50 am	
		2.0	70.0	1118	7.0	10:00	
		2.0	70.3	1132	7.0	10:20 am	

MW-8	DTW 8.83'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	71.1	896	6.9	11:20 am	
		2.0	71.3	898	6.9	11:35	
		2.0	71.7	904	6.9	11:55 am	

MW-9	DTW 8.00'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	70.1	903	7.0	12:10 pm	
		2.0	70.5	914	7.0	12:20	
		2.0	70.7	925	7.0	12:35 pm	

MW-10	DTW 7.41'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	70.0	822	6.9	12:55 pm	
		2.0	70.1	828	6.9	1:10	
		2.0	70.2	831	6.9	1:25 pm	

MW-4	DTW 9.22'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	70.3	921	7.0	1:45 pm	
		2.0	70.7	934	7.0	2:00 pm	
		2.0	71.2	944	7.0	2:20 pm	

MW-5	DTW 9.05'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	70.2	923	7.0	2:40 pm	
		2.0	70.6	933	7.0	2:50 pm	
		2.0	71.3	945	7.0	3:10 pm	

MW-6	DTW 9.08'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		2.0	71.9	891	7.1	3:35 pm	
		2.0	72.1	910	7.1	3:50	
		2.0	72.4	923	7.1	4:05 pm	

MW-16	DTW 9.76'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-05-08
		5.0	69.4	929	7.0	4:40 pm	
		4.0	70.1	938	7.0	5:00	
		4.0	70.9	941	7.0	5:20 pm	

MW-2	DTW 9.18'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-06-08
		1.5	70.1	989	7.0	8:10 am	
		2.0	70.3	1005	7.0	8:25	
		2.0	71.1	1021	7.1	8:55 am	

EW-14	DTW 10.00'	Gallons purged	TEMP C/F (Circle One)	EC (µs/cm)	PH	TIME	09-06-08
		4.0	70.0	901	7.0	9:15 am	
		4.0					

## Appendix B

### Laboratory Data Sheets



9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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September 30, 2008

Frank Goldman  
Chun  
265 Heron Drive  
Pittsburg, CA 94565

**Re : Chun**

**A57224 / 8I10009**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 09/10/08 11:01 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytics.

Sincerely,

A handwritten signature in black ink, appearing to read "Viorel Vasile".

Viorel Vasile  
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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8260B+OXY+TPHG

BL	8I10009-01	Water	10	09/04/08 13:30	09/10/08 11:01
BH	8I10009-02	Water	10	09/04/08 14:45	09/10/08 11:01
BM	8I10009-03	Water	10	09/04/08 15:50	09/10/08 11:01
BG	8I10009-04	Water	10	09/05/08 07:30	09/10/08 11:01
BF	8I10009-05	Water	10	09/05/08 08:25	09/10/08 11:01
BJ	8I10009-06	Water	10	09/05/08 09:00	09/10/08 11:01
BK	8I10009-07	Water	10	09/05/08 09:40	09/10/08 11:01
MW-11	8I10009-08	Water	10	09/05/08 10:25	09/10/08 11:01
MW-8	8I10009-09	Water	10	09/05/08 12:00	09/10/08 11:01
MW-9	8I10009-10	Water	10	09/05/08 12:40	09/10/08 11:01
MW-10	8I10009-11	Water	10	09/05/08 13:30	09/10/08 11:01
MW-4	8I10009-12	Water	10	09/05/08 14:25	09/10/08 11:01
MW-5	8I10009-13	Water	10	09/05/08 15:15	09/10/08 11:01
MW-6	8I10009-14	Water	10	09/05/08 16:05	09/10/08 11:01
EW-16	8I10009-15	Water	10	09/05/08 17:25	09/10/08 11:01
MW-1	8I10009-16	Water	10	09/06/08 08:00	09/10/08 11:01
MW-2	8I10009-17	Water	10	09/06/08 09:00	09/10/08 11:01
EW-14	8I10009-18	Water	10	09/06/08 10:00	09/10/08 11:01
EW-17	8I10009-19	Water	10	09/06/08 11:00	09/10/08 11:01

Viorel Vasile  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
EW-15	8I10009-20	Water	10	09/06/08 12:00	09/10/08 11:01
MW-3	8I10009-21	Water	10	09/06/08 13:30	09/10/08 11:01
EW-13	8I10009-22	Water	10	09/06/08 14:40	09/10/08 11:01

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**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/04/08	09/04/08	09/04/08	09/05/08
<b>Date Prepared:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>Date Analyzed:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>AA ID No:</b>	8I10009-01	8I10009-02	8I10009-03	8I10009-04
<b>Client ID No:</b>	BL	BH	BM	BG
<b>Matrix:</b>	Water	Water	Water	Water
<b>Dilution Factor:</b>	1	1	1	1
				MRL

### 8260B+OXY+TPHG (EPA 8260B)

Acetone	<10	<10	<10	<b>21</b>	10
tert-Amyl Methyl Ether (TAME)	<2.0	<2.0	<2.0	<2.0	2.0
Benzene	<0.50	<b>1.1</b>	<0.50	<0.50	0.50
Bromobenzene	<0.50	<0.50	<0.50	<0.50	0.50
Bromochloromethane	<0.50	<0.50	<0.50	<0.50	0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	0.50
Bromoform	<0.50	<0.50	<0.50	<0.50	0.50
Bromomethane	<0.50	<0.50	<0.50	<0.50	0.50
2-Butanone (MEK)	<10	<10	<10	<10	10
tert-Butyl alcohol (TBA)	<b>21</b>	<10	<10	<10	10
sec-Butylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
tert-Butylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
n-Butylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
Carbon Disulfide	<0.50	<0.50	<0.50	<0.50	0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50	0.50
Chlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
Chloroethane	<0.50	<0.50	<0.50	<0.50	0.50
Chloroform	<0.50	<0.50	<0.50	<0.50	0.50
Chloromethane	<0.50	<0.50	<0.50	<0.50	0.50
2-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	0.50
4-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	1.0
Dibromochloromethane	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dibromoethane (EDB)	<0.50	<0.50	<0.50	<0.50	0.50
Dibromomethane	<0.50	<0.50	<0.50	<0.50	0.50
1,3-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/04/08	09/04/08	09/04/08	09/05/08
<b>Date Prepared:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>Date Analyzed:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>AA ID No:</b>	8I10009-01	8I10009-02	8I10009-03	8I10009-04
<b>Client ID No:</b>	BL	BH	BM	BG
<b>Matrix:</b>	Water	Water	Water	Water
<b>Dilution Factor:</b>	1	1	1	1
				MRL

**8260B+OXY+TPHG (EPA 8260B) (continued)**

1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
Dichlorodifluoromethane (R12)	<0.50	<0.50	<0.50	<0.50	0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dichloroethane (EDC)	<b>3.6</b>	<b>3.0</b>	<b>3.5</b>	<b>12</b>	0.50
1,1-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	0.50
trans-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	0.50
cis-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
2,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
1,3-Dichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
cis-1,3-Dichloropropylene	<0.50	<0.50	<0.50	<0.50	0.50
trans-1,3-Dichloropropylene	<0.50	<0.50	<0.50	<0.50	0.50
1,1-Dichloropropylene	<0.50	<0.50	<0.50	<0.50	0.50
Diisopropyl ether (DIPE)	<2.0	<2.0	<2.0	<2.0	2.0
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
Ethyl-tert-Butyl Ether (ETBE)	<2.0	<2.0	<2.0	<2.0	2.0
Gasoline Range Organics (GRO)	<100	<100	<100	<100	100
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	1.0
2-Hexanone (MBK)	<10	<10	<10	<10	10
Isopropylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
4-Isopropyltoluene	<b>1.9</b>	<1.0	<1.0	<b>3.0</b>	1.0
Methyl-tert-Butyl Ether (MTBE)	<b>5.0</b>	<b>20</b>	<b>9.1</b>	<b>31</b>	2.0
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	5.0
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	10
Naphthalene	<2.0	<2.0	<2.0	<2.0	2.0
n-Propylbenzene	<0.50	<0.50	<0.50	<0.50	0.50

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/04/08	09/04/08	09/04/08	09/05/08
<b>Date Prepared:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>Date Analyzed:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>AA ID No:</b>	8I10009-01	8I10009-02	8I10009-03	8I10009-04
<b>Client ID No:</b>	BL	BH	BM	BG
<b>Matrix:</b>	Water	Water	Water	Water
<b>Dilution Factor:</b>	1	1	1	1
				MRL

### 8260B+OXY+TPHG (EPA 8260B) (continued)

Styrene	<0.50	<0.50	<0.50	<0.50	0.50
1,1,1,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	0.50
1,1,2,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	0.50
Tetrachloroethylene (PCE)	<0.50	<0.50	<0.50	<0.50	0.50
Toluene	<0.50	<0.50	<0.50	<0.50	0.50
1,2,3-Trichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,2,4-Trichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50	0.50
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<0.50	0.50
Trichloroethylene (TCE)	<0.50	<0.50	<0.50	<0.50	0.50
Trichlorofluoromethane (R11)	<0.50	<0.50	<0.50	<0.50	0.50
1,2,3-Trichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<0.50	<0.50	<0.50	<0.50	0.50
1,3,5-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,2,4-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
Vinyl chloride	<0.50	<0.50	<0.50	<0.50	0.50
o-Xylene	<0.50	<0.50	<0.50	<0.50	0.50
m,p-Xylenes	<1.0	<1.0	<1.0	<1.0	1.0

<b>Surrogates</b>					<b>%REC Limits</b>
4-Bromofluorobenzene	84.0%	84.0%	84.0%	84.0%	70-140
Dibromofluoromethane	104%	104%	102%	110%	70-140
Toluene-d8	96.0%	100%	98.0%	88.0%	70-140

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/05/08
<b>Date Prepared:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>Date Analyzed:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>AA ID No:</b>	8I10009-05	8I10009-06	8I10009-07	8I10009-08
<b>Client ID No:</b>	BF	BJ	BK	MW-11
<b>Matrix:</b>	Water	Water	Water	Water
<b>Dilution Factor:</b>	5	1	1	50
				MRL

**8260B+OXY+TPHG (EPA 8260B)**

Acetone	<50	<b>40</b>	<b>11</b>	<500	10
tert-Amyl Methyl Ether (TAME)	<10	<2.0	<2.0	<100	2.0
Benzene	<b>280</b>	<0.50	<b>0.67</b>	<b>770</b>	0.50
Bromobenzene	<2.5	<0.50	<0.50	<25	0.50
Bromochloromethane	<2.5	<0.50	<0.50	<25	0.50
Bromodichloromethane	<2.5	<0.50	<0.50	<25	0.50
Bromoform	<2.5	<0.50	<0.50	<25	0.50
Bromomethane	<2.5	<0.50	<0.50	<25	0.50
2-Butanone (MEK)	<50	<10	<10	<500	10
tert-Butyl alcohol (TBA)	<50	<10	<10	<500	10
sec-Butylbenzene	<2.5	<0.50	<0.50	<25	0.50
tert-Butylbenzene	<2.5	<0.50	<0.50	<25	0.50
n-Butylbenzene	<2.5	<0.50	<0.50	<25	0.50
Carbon Disulfide	<2.5	<0.50	<0.50	<25	0.50
Carbon Tetrachloride	<2.5	<0.50	<0.50	<25	0.50
Chlorobenzene	<2.5	<0.50	<0.50	<25	0.50
Chloroethane	<2.5	<0.50	<0.50	<25	0.50
Chloroform	<2.5	<0.50	<0.50	<25	0.50
Chloromethane	<2.5	<0.50	<0.50	<25	0.50
2-Chlorotoluene	<2.5	<0.50	<0.50	<25	0.50
4-Chlorotoluene	<2.5	<0.50	<0.50	<25	0.50
1,2-Dibromo-3-chloropropane	<5.0	<1.0	<1.0	<50	1.0
Dibromochloromethane	<2.5	<0.50	<0.50	<25	0.50
1,2-Dibromoethane (EDB)	<2.5	<0.50	<0.50	<25	0.50
Dibromomethane	<2.5	<0.50	<0.50	<25	0.50
1,3-Dichlorobenzene	<2.5	<0.50	<0.50	<25	0.50
1,2-Dichlorobenzene	<2.5	<0.50	<0.50	<25	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/05/08
<b>Date Prepared:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>Date Analyzed:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>AA ID No:</b>	8I10009-05	8I10009-06	8I10009-07	8I10009-08
<b>Client ID No:</b>	BF	BJ	BK	MW-11
<b>Matrix:</b>	Water	Water	Water	Water
<b>Dilution Factor:</b>	5	1	1	50
				MRL

**8260B+OXY+TPHG (EPA 8260B) (continued)**

1,4-Dichlorobenzene	<2.5	<0.50	<0.50	<25	0.50
Dichlorodifluoromethane (R12)	<2.5	<0.50	<0.50	<25	0.50
1,1-Dichloroethane	<2.5	<0.50	<0.50	<25	0.50
1,2-Dichloroethane (EDC)	<2.5	<0.50	<0.50	<25	0.50
1,1-Dichloroethylene	<2.5	<0.50	<0.50	<25	0.50
trans-1,2-Dichloroethylene	<2.5	<0.50	<0.50	<25	0.50
cis-1,2-Dichloroethylene	<2.5	<0.50	<0.50	<25	0.50
1,2-Dichloropropane	<2.5	<0.50	<0.50	<25	0.50
2,2-Dichloropropane	<2.5	<0.50	<0.50	<25	0.50
1,3-Dichloropropane	<2.5	<0.50	<0.50	<25	0.50
cis-1,3-Dichloropropylene	<2.5	<0.50	<0.50	<25	0.50
trans-1,3-Dichloropropylene	<2.5	<0.50	<0.50	<25	0.50
1,1-Dichloropropylene	<2.5	<0.50	<0.50	<25	0.50
Diisopropyl ether (DIPE)	<10	<2.0	<2.0	<100	2.0
Ethylbenzene	<2.5	<0.50	<0.50	<b>940</b>	0.50
Ethyl-tert-Butyl Ether (ETBE)	<10	<2.0	<2.0	<100	2.0
Gasoline Range Organics (GRO)	<b>690</b>	<100	<100	<b>11000</b>	100
Hexachlorobutadiene	<5.0	<1.0	<1.0	<50	1.0
2-Hexanone (MBK)	<50	<10	<10	<500	10
Isopropylbenzene	<2.5	<0.50	<0.50	<b>41</b>	0.50
4-Isopropyltoluene	<5.0	<b>1.4</b>	<b>2.4</b>	<50	1.0
Methyl-tert-Butyl Ether (MTBE)	<10	<2.0	<2.0	<100	2.0
Methylene Chloride	<25	<5.0	<5.0	<250	5.0
4-Methyl-2-pentanone (MIBK)	<50	<10	<10	<500	10
Naphthalene	<b>11</b>	<2.0	<2.0	<b>440</b>	2.0
n-Propylbenzene	<2.5	<0.50	<0.50	<b>38</b>	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/05/08
<b>Date Prepared:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>Date Analyzed:</b>	09/15/08	09/15/08	09/15/08	09/15/08
<b>AA ID No:</b>	8I10009-05	8I10009-06	8I10009-07	8I10009-08
<b>Client ID No:</b>	BF	BJ	BK	MW-11
<b>Matrix:</b>	Water	Water	Water	Water
<b>Dilution Factor:</b>	5	1	1	50
				MRL

**8260B+OXY+TPHG (EPA 8260B) (continued)**

Styrene	<2.5	<0.50	<0.50	<25	0.50
1,1,1,2-Tetrachloroethane	<2.5	<0.50	<0.50	<25	0.50
1,1,2,2-Tetrachloroethane	<2.5	<0.50	<0.50	<25	0.50
Tetrachloroethylene (PCE)	<2.5	<0.50	<0.50	<25	0.50
Toluene	<2.5	<0.50	<0.50	<b>160</b>	0.50
1,2,3-Trichlorobenzene	<2.5	<0.50	<0.50	<25	0.50
1,2,4-Trichlorobenzene	<2.5	<0.50	<0.50	<25	0.50
1,1,1-Trichloroethane	<2.5	<0.50	<0.50	<25	0.50
1,1,2-Trichloroethane	<2.5	<0.50	<0.50	<25	0.50
Trichloroethylene (TCE)	<2.5	<0.50	<0.50	<25	0.50
Trichlorofluoromethane (R11)	<2.5	<0.50	<0.50	<25	0.50
1,2,3-Trichloropropane	<2.5	<0.50	<0.50	<25	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<2.5	<0.50	<0.50	<25	0.50
1,3,5-Trimethylbenzene	<2.5	<0.50	<0.50	<b>160</b>	0.50
1,2,4-Trimethylbenzene	<b>3.2</b>	<0.50	<0.50	<b>1300</b>	0.50
Vinyl chloride	<2.5	<0.50	<0.50	<25	0.50
o-Xylene	<2.5	<0.50	<0.50	<b>400</b>	0.50
m,p-Xylenes	<b>19</b>	<1.0	<1.0	<b>2700</b>	1.0

<b>Surrogates</b>					<b>%REC Limits</b>
4-Bromofluorobenzene	84.0%	86.0%	86.0%	86.0%	70-140
Dibromofluoromethane	110%	106%	108%	108%	70-140
Toluene-d8	94.0%	94.0%	96.0%	96.0%	70-140

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/05/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-09	8I10009-10	8I10009-11	8I10009-12	
<b>Client ID No:</b>	MW-8	MW-9	MW-10	MW-4	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	1	1	1	1	MRL

**8260B+OXY+TPHG (EPA 8260B)**

Acetone	<10	<10	<10	<10	10
tert-Amyl Methyl Ether (TAME)	<2.0	<2.0	<2.0	<2.0	2.0
Benzene	<0.50	<0.50	<0.50	<0.50	0.50
Bromobenzene	<0.50	<0.50	<0.50	<0.50	0.50
Bromochloromethane	<0.50	<0.50	<0.50	<0.50	0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	0.50
Bromoform	<0.50	<0.50	<0.50	<0.50	0.50
Bromomethane	<0.50	<0.50	<0.50	<0.50	0.50
2-Butanone (MEK)	<10	<10	<10	<10	10
tert-Butyl alcohol (TBA)	<10	<10	<10	<10	10
sec-Butylbenzene	<0.50	<0.50	<0.50	<b>0.64</b>	0.50
tert-Butylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
n-Butylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
Carbon Disulfide	<0.50	<0.50	<0.50	<0.50	0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50	0.50
Chlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
Chloroethane	<0.50	<0.50	<0.50	<0.50	0.50
Chloroform	<0.50	<0.50	<0.50	<0.50	0.50
Chloromethane	<0.50	<0.50	<0.50	<0.50	0.50
2-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	0.50
4-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	1.0
Dibromochloromethane	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dibromoethane (EDB)	<0.50	<0.50	<0.50	<0.50	0.50
Dibromomethane	<0.50	<0.50	<0.50	<0.50	0.50
1,3-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50

  
**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/05/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-09	8I10009-10	8I10009-11	8I10009-12	
<b>Client ID No:</b>	MW-8	MW-9	MW-10	MW-4	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	1	1	1	1	MRL

**8260B+OXY+TPHG (EPA 8260B) (continued)**

1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
Dichlorodifluoromethane (R12)	<0.50	<0.50	<0.50	<0.50	0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dichloroethane (EDC)	<0.50	<0.50	<0.50	<0.50	0.50
1,1-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	0.50
trans-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	0.50
cis-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
2,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
1,3-Dichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
cis-1,3-Dichloropropylene	<0.50	<0.50	<0.50	<0.50	0.50
trans-1,3-Dichloropropylene	<0.50	<0.50	<0.50	<0.50	0.50
1,1-Dichloropropylene	<0.50	<0.50	<0.50	<0.50	0.50
Diisopropyl ether (DIPE)	<2.0	<2.0	<2.0	<2.0	2.0
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
Ethyl-tert-Butyl Ether (ETBE)	<2.0	<2.0	<2.0	<2.0	2.0
Gasoline Range Organics (GRO)	<100	<100	<100	<b>170</b>	100
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	1.0
2-Hexanone (MBK)	<10	<10	<10	<10	10
Isopropylbenzene	<0.50	<0.50	<0.50	<b>1.6</b>	0.50
4-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0	1.0
Methyl-tert-Butyl Ether (MTBE)	<2.0	<2.0	<2.0	<2.0	2.0
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	5.0
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	10
Naphthalene	<2.0	<2.0	<2.0	<2.0	2.0
n-Propylbenzene	<0.50	<0.50	<0.50	<b>0.94</b>	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/05/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-09	8I10009-10	8I10009-11	8I10009-12	
<b>Client ID No:</b>	MW-8	MW-9	MW-10	MW-4	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	1	1	1	1	MRL

**8260B+OXY+TPHG (EPA 8260B) (continued)**

Styrene	<0.50	<0.50	<0.50	<0.50	0.50
1,1,1,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	0.50
1,1,2,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	0.50
Tetrachloroethylene (PCE)	<0.50	<0.50	<0.50	<0.50	0.50
Toluene	<0.50	<0.50	<0.50	<0.50	0.50
1,2,3-Trichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,2,4-Trichlorobenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50	0.50
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<0.50	0.50
Trichloroethylene (TCE)	<0.50	<0.50	<0.50	<0.50	0.50
Trichlorofluoromethane (R11)	<0.50	<0.50	<0.50	<0.50	0.50
1,2,3-Trichloropropane	<0.50	<0.50	<0.50	<0.50	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<0.50	<0.50	<0.50	<0.50	0.50
1,3,5-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
1,2,4-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	0.50
Vinyl chloride	<0.50	<0.50	<0.50	<0.50	0.50
o-Xylene	<0.50	<0.50	<0.50	<0.50	0.50
m,p-Xylenes	<1.0	<1.0	<1.0	<1.0	1.0

<b><u>Surrogates</u></b>					<b><u>%REC Limits</u></b>
4-Bromofluorobenzene	102%	100%	102%	100%	70-140
Dibromofluoromethane	80.6%	78.9%	94.7%	95.9%	70-140
Toluene-d8	110%	111%	103%	109%	70-140

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-13	8I10009-14	8I10009-15	8I10009-16	
<b>Client ID No:</b>	MW-5	MW-6	EW-16	MW-1	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	1	1	1	20	MRL

**8260B+OXY+TPHG (EPA 8260B)**

Acetone	<10	<10	<b>80</b>	<200	10
tert-Amyl Methyl Ether (TAME)	<2.0	<2.0	<2.0	<40	2.0
Benzene	<0.50	<b>2.0</b>	<0.50	<b>2300</b>	0.50
Bromobenzene	<0.50	<0.50	<0.50	<10	0.50
Bromochloromethane	<0.50	<0.50	<0.50	<10	0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<10	0.50
Bromoform	<0.50	<0.50	<0.50	<10	0.50
Bromomethane	<0.50	<0.50	<0.50	<10	0.50
2-Butanone (MEK)	<10	<10	<10	<200	10
tert-Butyl alcohol (TBA)	<10	<10	<10	<200	10
sec-Butylbenzene	<0.50	<b>1.3</b>	<0.50	<10	0.50
tert-Butylbenzene	<0.50	<0.50	<0.50	<10	0.50
n-Butylbenzene	<b>2.5</b>	<b>2.0</b>	<0.50	<b>10</b>	0.50
Carbon Disulfide	<0.50	<0.50	<0.50	<10	0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<10	0.50
Chlorobenzene	<0.50	<0.50	<0.50	<10	0.50
Chloroethane	<0.50	<0.50	<0.50	<10	0.50
Chloroform	<0.50	<0.50	<0.50	<10	0.50
Chloromethane	<0.50	<0.50	<0.50	<10	0.50
2-Chlorotoluene	<0.50	<0.50	<0.50	<10	0.50
4-Chlorotoluene	<0.50	<0.50	<0.50	<10	0.50
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<20	1.0
Dibromochloromethane	<0.50	<0.50	<0.50	<10	0.50
1,2-Dibromoethane (EDB)	<0.50	<0.50	<0.50	<10	0.50
Dibromomethane	<0.50	<0.50	<0.50	<10	0.50
1,3-Dichlorobenzene	<0.50	<0.50	<0.50	<10	0.50
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	<10	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-13	8I10009-14	8I10009-15	8I10009-16	
<b>Client ID No:</b>	MW-5	MW-6	EW-16	MW-1	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	1	1	1	20	MRL

8260B+OXY+TPHG (EPA 8260B) (continued)

1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<10	0.50
Dichlorodifluoromethane (R12)	<0.50	<0.50	<0.50	<10	0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<10	0.50
1,2-Dichloroethane (EDC)	<0.50	<0.50	<0.50	<10	0.50
1,1-Dichloroethylene	<0.50	<0.50	<0.50	<10	0.50
trans-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<10	0.50
cis-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<10	0.50
1,2-Dichloropropane	<0.50	<0.50	<0.50	<10	0.50
2,2-Dichloropropane	<0.50	<0.50	<0.50	<10	0.50
1,3-Dichloropropane	<0.50	<0.50	<0.50	<10	0.50
cis-1,3-Dichloropropylene	<0.50	<0.50	<0.50	<10	0.50
trans-1,3-Dichloropropylene	<0.50	<0.50	<0.50	<10	0.50
1,1-Dichloropropylene	<0.50	<0.50	<0.50	<10	0.50
Diisopropyl ether (DIPE)	<2.0	<2.0	<2.0	<40	2.0
Ethylbenzene	<b>0.84</b>	<b>16</b>	<0.50	<b>160</b>	0.50
Ethyl-tert-Butyl Ether (ETBE)	<2.0	<2.0	<2.0	<40	2.0
Gasoline Range Organics (GRO)	<b>740</b>	<b>730</b>	<b>310</b>	<b>8300</b>	100
Hexachlorobutadiene	<1.0	<1.0	<1.0	<20	1.0
2-Hexanone (MBK)	<10	<10	<10	<200	10
Isopropylbenzene	<0.50	<b>5.4</b>	<b>0.93</b>	<b>36</b>	0.50
4-Isopropyltoluene	<b>28</b>	<b>1.1</b>	<b>1.2</b>	<20	1.0
Methyl-tert-Butyl Ether (MTBE)	<2.0	<2.0	<2.0	<40	2.0
Methylene Chloride	<5.0	<5.0	<5.0	<100	5.0
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<200	10
Naphthalene	<b>27</b>	<b>24</b>	<b>7.3</b>	<b>200</b>	2.0
n-Propylbenzene	<0.50	<b>7.5</b>	<0.50	<b>66</b>	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/05/08	09/05/08	09/05/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-13	8I10009-14	8I10009-15	8I10009-16	
<b>Client ID No:</b>	MW-5	MW-6	EW-16	MW-1	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	1	1	1	20	MRL

**8260B+OXY+TPHG (EPA 8260B) (continued)**

Styrene	<0.50	<0.50	<0.50	<10	0.50
1,1,1,2-Tetrachloroethane	<0.50	<0.50	<0.50	<10	0.50
1,1,2,2-Tetrachloroethane	<0.50	<0.50	<0.50	<10	0.50
Tetrachloroethylene (PCE)	<0.50	<0.50	<0.50	<10	0.50
Toluene	<b>1.1</b>	<b>4.0</b>	<0.50	<b>740</b>	0.50
1,2,3-Trichlorobenzene	<0.50	<0.50	<0.50	<10	0.50
1,2,4-Trichlorobenzene	<0.50	<0.50	<0.50	<10	0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<10	0.50
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<10	0.50
Trichloroethylene (TCE)	<0.50	<0.50	<0.50	<10	0.50
Trichlorofluoromethane (R11)	<0.50	<0.50	<0.50	<10	0.50
1,2,3-Trichloropropane	<0.50	<0.50	<0.50	<10	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<0.50	<0.50	<0.50	<10	0.50
1,3,5-Trimethylbenzene	<b>22</b>	<b>9.4</b>	<0.50	<b>34</b>	0.50
1,2,4-Trimethylbenzene	<b>1.2</b>	<b>41</b>	<0.50	<b>130</b>	0.50
Vinyl chloride	<0.50	<0.50	<0.50	<10	0.50
o-Xylene	<b>11</b>	<b>20</b>	<0.50	<b>180</b>	0.50
m,p-Xylenes	<b>11</b>	<b>96</b>	<1.0	<b>520</b>	1.0

<b>Surrogates</b>					<b>%REC Limits</b>
4-Bromofluorobenzene	99.4%	98.4%	100%	100%	70-140
Dibromofluoromethane	92.6%	97.8%	99.7%	100%	70-140
Toluene-d8	101%	101%	101%	98.5%	70-140

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/06/08	09/06/08	09/06/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-17	8I10009-18	8I10009-19	8I10009-20	
<b>Client ID No:</b>	MW-2	EW-14	EW-17	EW-15	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	20	5	20	1	<b>MRL</b>

**8260B+OXY+TPHG (EPA 8260B)**

Acetone	<200	<50	<200	<10	10
tert-Amyl Methyl Ether (TAME)	<40	<10	<40	<2.0	2.0
Benzene	<b>3000</b>	<b>4000</b>	<b>3200</b>	<b>7100</b>	0.50
Bromobenzene	<10	<2.5	<10	<0.50	0.50
Bromochloromethane	<10	<2.5	<10	<0.50	0.50
Bromodichloromethane	<10	<2.5	<10	<0.50	0.50
Bromoform	<10	<2.5	<10	<0.50	0.50
Bromomethane	<10	<2.5	<10	<0.50	0.50
2-Butanone (MEK)	<200	<50	<200	<10	10
tert-Butyl alcohol (TBA)	<200	<50	<200	<10	10
sec-Butylbenzene	<10	<2.5	<10	<0.50	0.50
tert-Butylbenzene	<10	<2.5	<10	<0.50	0.50
n-Butylbenzene	<10	<2.5	<10	<0.50	0.50
Carbon Disulfide	<10	<2.5	<10	<0.50	0.50
Carbon Tetrachloride	<10	<2.5	<10	<0.50	0.50
Chlorobenzene	<10	<2.5	<10	<0.50	0.50
Chloroethane	<10	<2.5	<10	<0.50	0.50
Chloroform	<10	<2.5	<10	<0.50	0.50
Chloromethane	<10	<2.5	<10	<0.50	0.50
2-Chlorotoluene	<10	<2.5	<10	<0.50	0.50
4-Chlorotoluene	<10	<2.5	<10	<0.50	0.50
1,2-Dibromo-3-chloropropane	<20	<5.0	<20	<1.0	1.0
Dibromochloromethane	<10	<2.5	<10	<0.50	0.50
1,2-Dibromoethane (EDB)	<10	<2.5	<10	<0.50	0.50
Dibromomethane	<10	<2.5	<10	<0.50	0.50
1,3-Dichlorobenzene	<10	<2.5	<10	<0.50	0.50
1,2-Dichlorobenzene	<10	<2.5	<10	<0.50	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/06/08	09/06/08	09/06/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-17	8I10009-18	8I10009-19	8I10009-20	
<b>Client ID No:</b>	MW-2	EW-14	EW-17	EW-15	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	20	5	20	1	<b>MRL</b>

**8260B+OXY+TPHG (EPA 8260B) (continued)**

1,4-Dichlorobenzene	<10	<2.5	<10	<0.50	0.50
Dichlorodifluoromethane (R12)	<10	<2.5	<10	<0.50	0.50
1,1-Dichloroethane	<10	<2.5	<10	<0.50	0.50
1,2-Dichloroethane (EDC)	<10	<2.5	<10	<b>3.1</b>	0.50
1,1-Dichloroethylene	<10	<2.5	<10	<0.50	0.50
trans-1,2-Dichloroethylene	<10	<2.5	<10	<0.50	0.50
cis-1,2-Dichloroethylene	<10	<2.5	<10	<0.50	0.50
1,2-Dichloropropane	<10	<2.5	<10	<0.50	0.50
2,2-Dichloropropane	<10	<2.5	<10	<0.50	0.50
1,3-Dichloropropane	<10	<2.5	<10	<0.50	0.50
cis-1,3-Dichloropropylene	<10	<2.5	<10	<0.50	0.50
trans-1,3-Dichloropropylene	<10	<2.5	<10	<0.50	0.50
1,1-Dichloropropylene	<10	<2.5	<10	<0.50	0.50
Diisopropyl ether (DIPE)	<40	<10	<40	<2.0	2.0
Ethylbenzene	<b>10</b>	<b>66</b>	<b>18</b>	<b>57</b>	0.50
Ethyl-tert-Butyl Ether (ETBE)	<40	<10	<40	<2.0	2.0
Gasoline Range Organics (GRO)	<b>6300</b>	<b>12000</b>	<b>7500</b>	<b>19000</b>	100
Hexachlorobutadiene	<20	<5.0	<20	<1.0	1.0
2-Hexanone (MBK)	<200	<50	<200	<10	10
Isopropylbenzene	<10	<2.5	<10	<b>1.4</b>	0.50
4-Isopropyltoluene	<20	<5.0	<20	<b>1.0</b>	1.0
Methyl-tert-Butyl Ether (MTBE)	<40	<10	<40	<b>4.4</b>	2.0
Methylene Chloride	<100	<25	<100	<5.0	5.0
4-Methyl-2-pentanone (MIBK)	<200	<50	<200	<b>11</b>	10
Naphthalene	<b>120</b>	<b>110</b>	<b>87</b>	<b>180</b>	2.0
n-Propylbenzene	<10	<2.5	<10	<b>0.62</b>	0.50

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/06/08	09/06/08	09/06/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-17	8I10009-18	8I10009-19	8I10009-20	
<b>Client ID No:</b>	MW-2	EW-14	EW-17	EW-15	
<b>Matrix:</b>	Water	Water	Water	Water	
<b>Dilution Factor:</b>	20	5	20	1	<b>MRL</b>

**8260B+OXY+TPHG (EPA 8260B) (continued)**

Styrene	<10	<2.5	<10	<0.50	0.50
1,1,1,2-Tetrachloroethane	<10	<2.5	<10	<0.50	0.50
1,1,2,2-Tetrachloroethane	<10	<2.5	<10	<0.50	0.50
Tetrachloroethylene (PCE)	<10	<2.5	<10	<0.50	0.50
Toluene	<b>440</b>	<b>900</b>	<b>530</b>	<b>1000</b>	0.50
1,2,3-Trichlorobenzene	<10	<2.5	<10	<0.50	0.50
1,2,4-Trichlorobenzene	<10	<2.5	<10	<0.50	0.50
1,1,1-Trichloroethane	<10	<2.5	<10	<0.50	0.50
1,1,2-Trichloroethane	<10	<2.5	<10	<0.50	0.50
Trichloroethylene (TCE)	<10	<2.5	<10	<0.50	0.50
Trichlorofluoromethane (R11)	<10	<2.5	<10	<0.50	0.50
1,2,3-Trichloropropane	<10	<2.5	<10	<0.50	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<10	<2.5	<10	<0.50	0.50
1,3,5-Trimethylbenzene	<b>22</b>	<b>53</b>	<b>26</b>	<b>130</b>	0.50
1,2,4-Trimethylbenzene	<b>12</b>	<b>220</b>	<b>85</b>	<b>280</b>	0.50
Vinyl chloride	<10	<2.5	<10	<0.50	0.50
o-Xylene	<b>120</b>	<b>280</b>	<b>150</b>	<b>730</b>	0.50
m,p-Xylenes	<b>170</b>	<b>1700</b>	<b>530</b>	<b>2000</b>	1.0

<b>Surrogates</b>					<b>%REC Limits</b>
4-Bromofluorobenzene	102%	99.4%	102%	108%	70-140
Dibromofluoromethane	99.5%	100%	97.9%	92.8%	70-140
Toluene-d8	101%	98.4%	102%	111%	70-140

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/06/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-21	8I10009-22	
<b>Client ID No:</b>	MW-3	EW-13	
<b>Matrix:</b>	Water	Water	
<b>Dilution Factor:</b>	5	200	MRL

### 8260B+OXY+TPHG (EPA 8260B)

Acetone	<50	<2000	10
tert-Amyl Methyl Ether (TAME)	<10	<400	2.0
Benzene	<b>500</b>	<b>7900</b>	0.50
Bromobenzene	<2.5	<100	0.50
Bromochloromethane	<2.5	<100	0.50
Bromodichloromethane	<2.5	<100	0.50
Bromoform	<2.5	<100	0.50
Bromomethane	<2.5	<100	0.50
2-Butanone (MEK)	<50	<2000	10
tert-Butyl alcohol (TBA)	<50	<2000	10
sec-Butylbenzene	<b>3.4</b>	<100	0.50
tert-Butylbenzene	<2.5	<100	0.50
n-Butylbenzene	<b>2.5</b>	<100	0.50
Carbon Disulfide	<2.5	<100	0.50
Carbon Tetrachloride	<2.5	<100	0.50
Chlorobenzene	<2.5	<100	0.50
Chloroethane	<2.5	<100	0.50
Chloroform	<2.5	<100	0.50
Chloromethane	<2.5	<100	0.50
2-Chlorotoluene	<2.5	<100	0.50
4-Chlorotoluene	<2.5	<100	0.50
1,2-Dibromo-3-chloropropane	<5.0	<200	1.0
Dibromochloromethane	<2.5	<100	0.50
1,2-Dibromoethane (EDB)	<2.5	<100	0.50
Dibromomethane	<2.5	<100	0.50
1,3-Dichlorobenzene	<2.5	<100	0.50
1,2-Dichlorobenzene	<2.5	<100	0.50

  
**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/06/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-21	8I10009-22	
<b>Client ID No:</b>	MW-3	EW-13	
<b>Matrix:</b>	Water	Water	
<b>Dilution Factor:</b>	5	200	MRL

### 8260B+OXY+TPHG (EPA 8260B) (continued)

1,4-Dichlorobenzene	<2.5	<100	0.50
Dichlorodifluoromethane (R12)	<2.5	<100	0.50
1,1-Dichloroethane	<2.5	<100	0.50
1,2-Dichloroethane (EDC)	<b>20</b>	<100	0.50
1,1-Dichloroethylene	<2.5	<100	0.50
trans-1,2-Dichloroethylene	<2.5	<100	0.50
cis-1,2-Dichloroethylene	<2.5	<100	0.50
1,2-Dichloropropane	<2.5	<100	0.50
2,2-Dichloropropane	<2.5	<100	0.50
1,3-Dichloropropane	<2.5	<100	0.50
cis-1,3-Dichloropropylene	<2.5	<100	0.50
trans-1,3-Dichloropropylene	<2.5	<100	0.50
1,1-Dichloropropylene	<2.5	<100	0.50
Diisopropyl ether (DIPE)	<10	<400	2.0
Ethylbenzene	<b>19</b>	<b>730</b>	0.50
Ethyl-tert-Butyl Ether (ETBE)	<10	<400	2.0
Gasoline Range Organics (GRO)	<b>2600</b>	<b>73000</b>	100
Hexachlorobutadiene	<5.0	<200	1.0
2-Hexanone (MBK)	<50	<2000	10
Isopropylbenzene	<b>30</b>	<100	0.50
4-Isopropyltoluene	<5.0	<200	1.0
Methyl-tert-Butyl Ether (MTBE)	<10	<400	2.0
Methylene Chloride	<25	<1000	5.0
4-Methyl-2-pentanone (MIBK)	<50	<2000	10
Naphthalene	<b>33</b>	<400	2.0
n-Propylbenzene	<b>25</b>	<100	0.50

  
**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun  
**Method:** VOCs, OXY & TPH Gasoline by GC/MS

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08  
**Units:** ug/L

<b>Date Sampled:</b>	09/06/08	09/06/08	
<b>Date Prepared:</b>	09/16/08	09/16/08	
<b>Date Analyzed:</b>	09/16/08	09/16/08	
<b>AA ID No:</b>	8I10009-21	8I10009-22	
<b>Client ID No:</b>	MW-3	EW-13	
<b>Matrix:</b>	Water	Water	
<b>Dilution Factor:</b>	5	200	MRL

### 8260B+OXY+TPHG (EPA 8260B) (continued)

Styrene	<2.5	<100	0.50
1,1,1,2-Tetrachloroethane	<2.5	<100	0.50
1,1,2,2-Tetrachloroethane	<2.5	<100	0.50
Tetrachloroethylene (PCE)	<2.5	<100	0.50
Toluene	<b>13</b>	<b>21000</b>	0.50
1,2,3-Trichlorobenzene	<2.5	<100	0.50
1,2,4-Trichlorobenzene	<2.5	<100	0.50
1,1,1-Trichloroethane	<2.5	<100	0.50
1,1,2-Trichloroethane	<2.5	<100	0.50
Trichloroethylene (TCE)	<2.5	<100	0.50
Trichlorofluoromethane (R11)	<2.5	<100	0.50
1,2,3-Trichloropropane	<2.5	<100	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<2.5	<100	0.50
1,3,5-Trimethylbenzene	<b>4.1</b>	<b>210</b>	0.50
1,2,4-Trimethylbenzene	<b>11</b>	<b>860</b>	0.50
Vinyl chloride	<2.5	<100	0.50
o-Xylene	<b>15</b>	<b>3600</b>	0.50
m,p-Xylenes	<b>110</b>	<b>7700</b>	1.0

<b>Surrogates</b>	<b>%REC Limits</b>	
4-Bromofluorobenzene	99.1%	99.2%
Dibromofluoromethane	95.0%	95.4%
Toluene-d8	103%	98.9%

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### VOCs, OXY & TPH Gasoline by GC/MS - Quality Control

Batch B8I1517 - EPA 5030B

#### Blank (B8I1517-BLK1)

Prepared & Analyzed: 09/15/08

Acetone	<10	10	ug/L
tert-Amyl Methyl Ether (TAME)	<2.0	2.0	ug/L
Benzene	<0.50	0.50	ug/L
Bromobenzene	<0.50	0.50	ug/L
Bromochloromethane	<0.50	0.50	ug/L
Bromodichloromethane	<0.50	0.50	ug/L
Bromoform	<0.50	0.50	ug/L
Bromomethane	<0.50	0.50	ug/L
2-Butanone (MEK)	<10	10	ug/L
tert-Butyl alcohol (TBA)	<10	10	ug/L
sec-Butylbenzene	<0.50	0.50	ug/L
tert-Butylbenzene	<0.50	0.50	ug/L
n-Butylbenzene	<0.50	0.50	ug/L
Carbon Disulfide	<0.50	0.50	ug/L
Carbon Tetrachloride	<0.50	0.50	ug/L
Chlorobenzene	<0.50	0.50	ug/L
Chloroethane	<0.50	0.50	ug/L
Chloroform	<0.50	0.50	ug/L
Chloromethane	<0.50	0.50	ug/L
2-Chlorotoluene	<0.50	0.50	ug/L
4-Chlorotoluene	<0.50	0.50	ug/L
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L
Dibromochloromethane	<0.50	0.50	ug/L
1,2-Dibromoethane (EDB)	<0.50	0.50	ug/L
Dibromomethane	<0.50	0.50	ug/L
1,3-Dichlorobenzene	<0.50	0.50	ug/L
1,2-Dichlorobenzene	<0.50	0.50	ug/L
1,4-Dichlorobenzene	<0.50	0.50	ug/L
Dichlorodifluoromethane (R12)	<0.50	0.50	ug/L
1,1-Dichloroethane	<0.50	0.50	ug/L
1,2-Dichloroethane (EDC)	<0.50	0.50	ug/L

  
**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**VOCs, OXY & TPH Gasoline by GC/MS - Quality Control***Batch B8I1517 - EPA 5030B***Blank (B8I1517-BLK1) Continued****Prepared & Analyzed: 09/15/08**

1,1-Dichloroethylene	<0.50	0.50	ug/L
trans-1,2-Dichloroethylene	<0.50	0.50	ug/L
cis-1,2-Dichloroethylene	<0.50	0.50	ug/L
1,2-Dichloropropane	<0.50	0.50	ug/L
2,2-Dichloropropane	<0.50	0.50	ug/L
1,3-Dichloropropane	<0.50	0.50	ug/L
cis-1,3-Dichloropropylene	<0.50	0.50	ug/L
trans-1,3-Dichloropropylene	<0.50	0.50	ug/L
1,1-Dichloropropylene	<0.50	0.50	ug/L
Diisopropyl ether (DIPE)	<2.0	2.0	ug/L
Ethylbenzene	<0.50	0.50	ug/L
Ethyl-tert-Butyl Ether (ETBE)	<2.0	2.0	ug/L
Gasoline Range Organics (GRO)	<100	100	ug/L
Hexachlorobutadiene	<1.0	1.0	ug/L
2-Hexanone (MBK)	<10	10	ug/L
Isopropylbenzene	<0.50	0.50	ug/L
4-Isopropyltoluene	<1.0	1.0	ug/L
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L
Methylene Chloride	<5.0	5.0	ug/L
4-Methyl-2-pentanone (MIBK)	<10	10	ug/L
Naphthalene	<2.0	2.0	ug/L
n-Propylbenzene	<0.50	0.50	ug/L
Styrene	<0.50	0.50	ug/L
1,1,1,2-Tetrachloroethane	<0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	<0.50	0.50	ug/L
Tetrachloroethylene (PCE)	<0.50	0.50	ug/L
Toluene	<0.50	0.50	ug/L
1,2,3-Trichlorobenzene	<0.50	0.50	ug/L
1,2,4-Trichlorobenzene	<0.50	0.50	ug/L
1,1,1-Trichloroethane	<0.50	0.50	ug/L
1,1,2-Trichloroethane	<0.50	0.50	ug/L

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**Viorel Vasile**  
Operations Manager

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LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>VOCs, OXY &amp; TPH Gasoline by GC/MS - Quality Control</b>										
<i>Batch B8I1517 - EPA 5030B</i>										
<b>Blank (B8I1517-BLK1) Continued</b>										
Prepared & Analyzed: 09/15/08										
Trichloroethylene (TCE)	<0.50	0.50	ug/L							
Trichlorofluoromethane (R11)	<0.50	0.50	ug/L							
1,2,3-Trichloropropane	<0.50	0.50	ug/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<0.50	0.50	ug/L							
1,3,5-Trimethylbenzene	<0.50	0.50	ug/L							
1,2,4-Trimethylbenzene	<0.50	0.50	ug/L							
Vinyl chloride	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	41.4		ug/L	50		82.8	70-140			
Surrogate: Dibromofluoromethane	49.6		ug/L	50		99.2	70-140			
Surrogate: Toluene-d8	49.1		ug/L	50		98.2	70-140			
<b>LCS (B8I1517-BS1)</b>										
Prepared & Analyzed: 09/15/08										
Benzene	<b>16.8</b>	0.50	ug/L	20		84.0	75-125			
Bromodichloromethane	<b>18.5</b>	0.50	ug/L	20		92.5	75-125			
Bromoform	<b>23.8</b>	0.50	ug/L	20		119	75-125			
Carbon Tetrachloride	<b>22.0</b>	0.50	ug/L	20		110	75-125			
Chlorobenzene	<b>18.1</b>	0.50	ug/L	20		90.5	75-125			
Chloroethane	<b>19.3</b>	0.50	ug/L	20		96.5	75-125			
Chloroform	<b>18.4</b>	0.50	ug/L	20		92.0	75-125			
Chloromethane	<b>15.7</b>	0.50	ug/L	20		78.5	65-125			
Dibromochloromethane	<b>21.1</b>	0.50	ug/L	20		106	75-125			
1,4-Dichlorobenzene	<b>19.8</b>	0.50	ug/L	20		99.0	75-125			
1,1-Dichloroethane	<b>16.8</b>	0.50	ug/L	20		84.0	70-125			
1,2-Dichloroethane (EDC)	<b>18.4</b>	0.50	ug/L	20		92.0	75-125			
1,1-Dichloroethylene	<b>18.3</b>	0.50	ug/L	20		91.5	70-130			
trans-1,2-Dichloroethylene	<b>18.3</b>	0.50	ug/L	20		91.5	75-125			
cis-1,2-Dichloroethylene	<b>18.0</b>	0.50	ug/L	20		90.0	75-125			
1,2-Dichloropropane	<b>15.5</b>	0.50	ug/L	20		77.5	75-130			
cis-1,3-Dichloropropylene	<b>16.0</b>	0.50	ug/L	20		80.0	75-125			

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### VOCs, OXY & TPH Gasoline by GC/MS - Quality Control

Batch B8I1517 - EPA 5030B

#### LCS (B8I1517-BS1) Continued

Prepared & Analyzed: 09/15/08

Ethylbenzene	16.9	0.50	ug/L	20		84.5	75-125			
Methyl-tert-Butyl Ether (MTBE)	17.7	2.0	ug/L	20		88.5	75-125			
Methylene Chloride	18.6	5.0	ug/L	20		93.0	75-130			
1,1,2,2-Tetrachloroethane	15.5	0.50	ug/L	20		77.5	70-135			
Tetrachloroethylene (PCE)	23.2	0.50	ug/L	20		116	75-125			
Toluene	16.7	0.50	ug/L	20		83.5	75-125			
1,1,1-Trichloroethane	19.4	0.50	ug/L	20		97.0	75-125			
1,1,2-Trichloroethane	17.5	0.50	ug/L	20		87.5	75-125			
Trichloroethylene (TCE)	18.1	0.50	ug/L	20		90.5	75-125			
Vinyl chloride	22.0	0.50	ug/L	20		110	75-125			
o-Xylene	17.3	0.50	ug/L	20		86.5	75-125			
Surrogate: 4-Bromofluorobenzene	40.1		ug/L	50		80.2	70-140			
Surrogate: Dibromofluoromethane	47.3		ug/L	50		94.6	70-140			
Surrogate: Toluene-d8	42.2		ug/L	50		84.4	70-140			

#### Matrix Spike (B8I1517-MS1)

Source: 8I10009-01 Prepared & Analyzed: 09/15/08

Benzene	17.7	0.50	ug/L	20	<0.50	88.5	70-130			
Bromoform	25.6	0.50	ug/L	20	<0.50	128	70-130			
Chlorobenzene	18.5	0.50	ug/L	20	<0.50	92.5	70-130			
Chloroform	19.5	0.50	ug/L	20	<0.50	97.5	70-130			
1,1-Dichloroethane	17.8	0.50	ug/L	20	<0.50	89.0	70-130			
1,1-Dichloroethylene	19.2	0.50	ug/L	20	<0.50	96.0	70-130			
cis-1,2-Dichloroethylene	19.2	0.50	ug/L	20	<0.50	96.0	70-130			
1,2-Dichloropropane	21.6	0.50	ug/L	20	<0.50	108	70-130			
Ethylbenzene	17.3	0.50	ug/L	20	<0.50	86.5	70-130			
Methyl-tert-Butyl Ether (MTBE)	23.9	2.0	ug/L	20	5.00	94.5	70-130			
n-Propylbenzene	17.6	0.50	ug/L	20	<0.50	88.0	70-130			
Tetrachloroethylene (PCE)	23.3	0.50	ug/L	20	<0.50	116	70-130			
Toluene	17.2	0.50	ug/L	20	<0.50	86.0	70-130			
1,1,1-Trichloroethane	20.4	0.50	ug/L	20	<0.50	102	70-130			
Trichloroethylene (TCE)	20.4	0.50	ug/L	20	<0.50	102	70-130			
1,3,5-Trimethylbenzene	18.6	0.50	ug/L	20	<0.50	93.0	70-130			

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>VOCs, OXY &amp; TPH Gasoline by GC/MS - Quality Control</b>										
<i>Batch B8I1517 - EPA 5030B</i>										
<b>Matrix Spike (B8I1517-MS1) Continued</b> Source: 8I10009-01 Prepared & Analyzed: 09/15/08										
Vinyl chloride	22.9	0.50	ug/L	20	<0.50	114	70-130			
Surrogate: 4-Bromofluorobenzene	42.0		ug/L	50		84.0	70-140			
Surrogate: Dibromofluoromethane	49.7		ug/L	50		99.4	70-140			
Surrogate: Toluene-d8	43.2		ug/L	50		86.4	70-140			
<b>Matrix Spike Dup (B8I1517-MSD1)</b> Source: 8I10009-01 Prepared & Analyzed: 09/15/08										
Benzene	21.3	0.50	ug/L	20	<0.50	106	70-130	18.5	30	
Bromoform	20.5	0.50	ug/L	20	<0.50	102	70-130	22.1	30	
Chlorobenzene	20.0	0.50	ug/L	20	<0.50	100	70-130	7.79	30	
Chloroform	20.7	0.50	ug/L	20	<0.50	104	70-130	5.97	30	
1,1-Dichloroethane	17.9	0.50	ug/L	20	<0.50	89.5	70-130	0.560	30	
1,1-Dichloroethylene	19.1	0.50	ug/L	20	<0.50	95.5	70-130	0.522	30	
cis-1,2-Dichloroethylene	18.7	0.50	ug/L	20	<0.50	93.5	70-130	2.64	30	
1,2-Dichloropropane	20.5	0.50	ug/L	20	<0.50	102	70-130	5.23	30	
Ethylbenzene	19.2	0.50	ug/L	20	<0.50	96.0	70-130	10.4	30	
Methyl-tert-Butyl Ether (MTBE)	22.3	2.0	ug/L	20	5.00	86.5	70-130	6.93	30	
n-Propylbenzene	18.8	0.50	ug/L	20	<0.50	94.0	70-130	6.59	30	
Tetrachloroethylene (PCE)	24.5	0.50	ug/L	20	<0.50	122	70-130	5.02	30	
Toluene	18.5	0.50	ug/L	20	<0.50	92.5	70-130	7.28	30	
1,1,1-Trichloroethane	20.1	0.50	ug/L	20	<0.50	100	70-130	1.48	30	
Trichloroethylene (TCE)	20.3	0.50	ug/L	20	<0.50	102	70-130	0.491	30	
1,3,5-Trimethylbenzene	19.1	0.50	ug/L	20	<0.50	95.5	70-130	2.65	30	
Vinyl chloride	24.6	0.50	ug/L	20	<0.50	123	70-130	7.16	30	
Surrogate: 4-Bromofluorobenzene	42.7		ug/L	50		85.4	70-140			
Surrogate: Dibromofluoromethane	50.4		ug/L	50		101	70-140			
Surrogate: Toluene-d8	47.7		ug/L	50		95.4	70-140			
<i>Batch B8I1605 - EPA 5030B</i>										
<b>Blank (B8I1605-BLK1)</b> Prepared & Analyzed: 09/16/08										
Acetone	<10	10	ug/L							
tert-Amyl Methyl Ether (TAME)	<2.0	2.0	ug/L							
Benzene	<0.50	0.50	ug/L							

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**VOCs, OXY & TPH Gasoline by GC/MS - Quality Control***Batch B8I1605 - EPA 5030B***Blank (B8I1605-BLK1) Continued**

Prepared & Analyzed: 09/16/08

Bromobenzene	<0.50	0.50	ug/L
Bromochloromethane	<0.50	0.50	ug/L
Bromodichloromethane	<0.50	0.50	ug/L
Bromoform	<0.50	0.50	ug/L
Bromomethane	<0.50	0.50	ug/L
2-Butanone (MEK)	<10	10	ug/L
tert-Butyl alcohol (TBA)	<10	10	ug/L
sec-Butylbenzene	<0.50	0.50	ug/L
tert-Butylbenzene	<0.50	0.50	ug/L
n-Butylbenzene	<0.50	0.50	ug/L
Carbon Disulfide	<0.50	0.50	ug/L
Carbon Tetrachloride	<0.50	0.50	ug/L
Chlorobenzene	<0.50	0.50	ug/L
Chloroethane	<0.50	0.50	ug/L
Chloroform	<0.50	0.50	ug/L
Chloromethane	<0.50	0.50	ug/L
2-Chlorotoluene	<0.50	0.50	ug/L
4-Chlorotoluene	<0.50	0.50	ug/L
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L
Dibromochloromethane	<0.50	0.50	ug/L
1,2-Dibromoethane (EDB)	<0.50	0.50	ug/L
Dibromomethane	<0.50	0.50	ug/L
1,3-Dichlorobenzene	<0.50	0.50	ug/L
1,2-Dichlorobenzene	<0.50	0.50	ug/L
1,4-Dichlorobenzene	<0.50	0.50	ug/L
Dichlorodifluoromethane (R12)	<0.50	0.50	ug/L
1,1-Dichloroethane	<0.50	0.50	ug/L
1,2-Dichloroethane (EDC)	<0.50	0.50	ug/L
1,1-Dichloroethylene	<0.50	0.50	ug/L
trans-1,2-Dichloroethylene	<0.50	0.50	ug/L
cis-1,2-Dichloroethylene	<0.50	0.50	ug/L



---

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### VOCs, OXY & TPH Gasoline by GC/MS - Quality Control

Batch B8I1605 - EPA 5030B

#### Blank (B8I1605-BLK1) Continued

Prepared & Analyzed: 09/16/08

1,2-Dichloropropane	<0.50	0.50	ug/L
2,2-Dichloropropane	<0.50	0.50	ug/L
1,3-Dichloropropane	<0.50	0.50	ug/L
cis-1,3-Dichloropropylene	<0.50	0.50	ug/L
trans-1,3-Dichloropropylene	<0.50	0.50	ug/L
1,1-Dichloropropylene	<0.50	0.50	ug/L
Diisopropyl ether (DIPE)	<2.0	2.0	ug/L
Ethylbenzene	<0.50	0.50	ug/L
Ethyl-tert-Butyl Ether (ETBE)	<2.0	2.0	ug/L
Gasoline Range Organics (GRO)	<100	100	ug/L
Hexachlorobutadiene	<1.0	1.0	ug/L
2-Hexanone (MBK)	<10	10	ug/L
Isopropylbenzene	<0.50	0.50	ug/L
4-Isopropyltoluene	<1.0	1.0	ug/L
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L
Methylene Chloride	<5.0	5.0	ug/L
4-Methyl-2-pentanone (MIBK)	<10	10	ug/L
Naphthalene	<2.0	2.0	ug/L
n-Propylbenzene	<0.50	0.50	ug/L
Styrene	<0.50	0.50	ug/L
1,1,1,2-Tetrachloroethane	<0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	<0.50	0.50	ug/L
Tetrachloroethylene (PCE)	<0.50	0.50	ug/L
Toluene	<0.50	0.50	ug/L
1,2,3-Trichlorobenzene	<0.50	0.50	ug/L
1,2,4-Trichlorobenzene	<0.50	0.50	ug/L
1,1,1-Trichloroethane	<0.50	0.50	ug/L
1,1,2-Trichloroethane	<0.50	0.50	ug/L
Trichloroethylene (TCE)	<0.50	0.50	ug/L
Trichlorofluoromethane (R11)	<0.50	0.50	ug/L
1,2,3-Trichloropropane	<0.50	0.50	ug/L

  
**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>VOCs, OXY &amp; TPH Gasoline by GC/MS - Quality Control</b>										
<i>Batch B8I1605 - EPA 5030B</i>										
<b>Blank (B8I1605-BLK1) Continued</b>										
Prepared & Analyzed: 09/16/08										
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	<0.50	0.50	ug/L							
1,3,5-Trimethylbenzene	<0.50	0.50	ug/L							
1,2,4-Trimethylbenzene	<0.50	0.50	ug/L							
Vinyl chloride	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	49.2		ug/L	50		98.5	70-140			
Surrogate: Dibromofluoromethane	46.8		ug/L	50		93.5	70-140			
Surrogate: Toluene-d8	50.4		ug/L	50		101	70-140			
<b>LCS (B8I1605-BS1)</b>										
Prepared & Analyzed: 09/16/08										
Benzene	<b>17.2</b>	0.50	ug/L	20		85.8	75-125			
Bromodichloromethane	<b>20.8</b>	0.50	ug/L	20		104	75-125			
Bromoform	<b>22.3</b>	0.50	ug/L	20		111	75-125			
Carbon Tetrachloride	<b>23.4</b>	0.50	ug/L	20		117	75-125			
Chlorobenzene	<b>19.0</b>	0.50	ug/L	20		95.2	75-125			
Chloroethane	<b>16.8</b>	0.50	ug/L	20		84.2	75-125			
Chloroform	<b>20.7</b>	0.50	ug/L	20		104	75-125			
Chloromethane	<b>15.9</b>	0.50	ug/L	20		79.4	65-125			
Dibromochloromethane	<b>22.4</b>	0.50	ug/L	20		112	75-125			
1,4-Dichlorobenzene	<b>19.5</b>	0.50	ug/L	20		97.4	75-125			
1,1-Dichloroethane	<b>19.9</b>	0.50	ug/L	20		99.4	70-125			
1,2-Dichloroethane (EDC)	<b>22.1</b>	0.50	ug/L	20		111	75-125			
1,1-Dichloroethylene	<b>16.4</b>	0.50	ug/L	20		81.9	70-130			
trans-1,2-Dichloroethylene	<b>17.2</b>	0.50	ug/L	20		86.0	75-125			
cis-1,2-Dichloroethylene	<b>17.1</b>	0.50	ug/L	20		85.7	75-125			
1,2-Dichloropropane	<b>17.6</b>	0.50	ug/L	20		87.8	75-130			
cis-1,3-Dichloropropylene	<b>19.5</b>	0.50	ug/L	20		97.6	75-125			
Ethylbenzene	<b>19.7</b>	0.50	ug/L	20		98.7	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>18.9</b>	2.0	ug/L	20		94.4	75-125			
Methylene Chloride	<b>16.0</b>	5.0	ug/L	20		79.8	75-130			

**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>VOCs, OXY &amp; TPH Gasoline by GC/MS - Quality Control</b>										
<i>Batch B8I1605 - EPA 5030B</i>										
<b>LCS (B8I1605-BS1) Continued</b>										
Prepared & Analyzed: 09/16/08										
1,1,2,2-Tetrachloroethane	19.0	0.50	ug/L	20		94.8	70-135			
Tetrachloroethylene (PCE)	17.9	0.50	ug/L	20		89.4	75-125			
Toluene	18.5	0.50	ug/L	20		92.3	75-125			
1,1,1-Trichloroethane	22.2	0.50	ug/L	20		111	75-125			
1,1,2-Trichloroethane	18.5	0.50	ug/L	20		92.4	75-125			
Trichloroethylene (TCE)	18.8	0.50	ug/L	20		93.9	75-125			
Vinyl chloride	18.5	0.50	ug/L	20		92.4	75-125			
o-Xylene	19.9	0.50	ug/L	20		99.6	75-125			
Surrogate: 4-Bromofluorobenzene	49.5		ug/L	50		98.9	70-140			
Surrogate: Dibromofluoromethane	48.6		ug/L	50		97.3	70-140			
Surrogate: Toluene-d8	48.4		ug/L	50		96.7	70-140			
<b>Matrix Spike (B8I1605-MS1)</b>										
Source: 8I10009-09 Prepared & Analyzed: 09/16/08										
Benzene	17.8	0.50	ug/L	20	<0.50	89.2	70-130			
Bromoform	22.7	0.50	ug/L	20	<0.50	114	70-130			
Chlorobenzene	19.2	0.50	ug/L	20	<0.50	95.8	70-130			
Chloroform	21.2	0.50	ug/L	20	<0.50	106	70-130			
1,1-Dichloroethane	19.0	0.50	ug/L	20	<0.50	95.2	70-130			
1,1-Dichloroethylene	17.2	0.50	ug/L	20	<0.50	86.2	70-130			
cis-1,2-Dichloroethylene	18.8	0.50	ug/L	20	<0.50	93.8	70-130			
1,2-Dichloropropane	18.3	0.50	ug/L	20	<0.50	91.4	70-130			
Ethylbenzene	19.6	0.50	ug/L	20	<0.50	98.2	70-130			
Methyl-tert-Butyl Ether (MTBE)	21.2	2.0	ug/L	20	<2.0	106	70-130			
n-Propylbenzene	17.8	0.50	ug/L	20	<0.50	89.0	70-130			
Tetrachloroethylene (PCE)	18.1	0.50	ug/L	20	<0.50	90.5	70-130			
Toluene	18.4	0.50	ug/L	20	<0.50	92.0	70-130			
1,1,1-Trichloroethane	22.1	0.50	ug/L	20	<0.50	111	70-130			
Trichloroethylene (TCE)	19.2	0.50	ug/L	20	<0.50	95.8	70-130			
1,3,5-Trimethylbenzene	18.5	0.50	ug/L	20	<0.50	92.5	70-130			
Vinyl chloride	18.8	0.50	ug/L	20	<0.50	93.8	70-130			
Surrogate: 4-Bromofluorobenzene	48.8		ug/L	50		97.5	70-140			
Surrogate: Dibromofluoromethane	50.9		ug/L	50		102	70-140			

Viorel Vasile  
Operations Manager



## LABORATORY ANALYSIS RESULTS

Client: Chun  
Project No: NA  
Project Name: Chun

AA Project No: A57224  
Date Received: 09/10/08  
Date Reported: 09/30/08

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>VOCs, OXY &amp; TPH Gasoline by GC/MS - Quality Control</b>										
<i>Batch B8I1605 - EPA 5030B</i>										
<b>Matrix Spike (B8I1605-MS1) Continued</b> Source: 8I10009-09 Prepared & Analyzed: 09/16/08										
Surrogate: Toluene-d8	48.3		ug/L	50		96.6	70-140			
<b>Matrix Spike Dup (B8I1605-MSD1)</b> Source: 8I10009-09 Prepared & Analyzed: 09/16/08										
Benzene	17.8	0.50	ug/L	20	<0.50	89.2	70-130	0.0560	30	
Bromoform	21.6	0.50	ug/L	20	<0.50	108	70-130	5.05	30	
Chlorobenzene	19.3	0.50	ug/L	20	<0.50	96.6	70-130	0.884	30	
Chloroform	20.9	0.50	ug/L	20	<0.50	104	70-130	1.66	30	
1,1-Dichloroethane	19.1	0.50	ug/L	20	<0.50	95.5	70-130	0.367	30	
1,1-Dichloroethylene	17.1	0.50	ug/L	20	<0.50	85.4	70-130	0.874	30	
cis-1,2-Dichloroethylene	18.7	0.50	ug/L	20	<0.50	93.5	70-130	0.267	30	
1,2-Dichloropropane	18.2	0.50	ug/L	20	<0.50	91.0	70-130	0.384	30	
Ethylbenzene	20.0	0.50	ug/L	20	<0.50	100	70-130	1.82	30	
Methyl-tert-Butyl Ether (MTBE)	20.1	2.0	ug/L	20	<2.0	100	70-130	5.47	30	
n-Propylbenzene	18.5	0.50	ug/L	20	<0.50	92.4	70-130	3.69	30	
Tetrachloroethylene (PCE)	18.2	0.50	ug/L	20	<0.50	91.2	70-130	0.716	30	
Toluene	18.4	0.50	ug/L	20	<0.50	92.0	70-130	0.00	30	
1,1,1-Trichloroethane	22.1	0.50	ug/L	20	<0.50	110	70-130	0.226	30	
Trichloroethylene (TCE)	19.1	0.50	ug/L	20	<0.50	95.4	70-130	0.471	30	
1,3,5-Trimethylbenzene	19.3	0.50	ug/L	20	<0.50	96.4	70-130	4.18	30	
Vinyl chloride	18.4	0.50	ug/L	20	<0.50	92.2	70-130	1.77	30	
Surrogate: 4-Bromofluorobenzene	49.0		ug/L	50		98.0	70-140			
Surrogate: Dibromofluoromethane	49.2		ug/L	50		98.5	70-140			
Surrogate: Toluene-d8	48.9		ug/L	50		97.7	70-140			

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** Chun  
**Project No:** NA  
**Project Name:** Chun

**AA Project No:** A57224  
**Date Received:** 09/10/08  
**Date Reported:** 09/30/08

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### Special Notes

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**Viorel Vasile**  
Operations Manager

Franklin J. Goldman  
 PO BOX 59, Sonoma, CA 95476  
 FJGoldmanCHG@yahoo.com  
 FAX: (949) 606-8711  
 Cell: (707) 235-9979

# CHAIN OF CUSTODY RECORD

Laboratory Analysis P.O. No. \_\_\_\_\_

Laboratory Please Call Accounts Payable for P.O. No. \_\_\_\_\_

Date: 09/07/08 Sheet 1 of 3

8510009

A57224

#106217

Project Name Chun

Project Number \_\_\_\_\_

Address 2301 SANTA CLARA  
 ALAMEDA, CA 94501

Sampler's Name:

Frank Goldman

Sampler's Signature:

Sample Number

Location

Date

Time

BL

09/04/08 1:30 PM

				Parameters											
				TPH as Gasoline 8015	TPH as Diesel 8015	TPH-g/BTEX 8015/8020 & MTBE	BTEX & EPA 8020	Oil and Grease 5520	Volatile Organics (8010)	CAM Metals (17)	Pr. Pollutant Metals (13)	Base/Neu/Acids (Organic)	Pesticides 8140/8141	SOIL SAMPLE	WATER SAMPLE
BL															
BI															
BM															
BG															
BF															
BJ															
BK															
MW-11															
MW-8															
MW-9															

10:15 AM  
 9/10/08

8510009-01

-02

-03

-04

-05

-06

-07

-08

RECEIVED BY 10:15 AM

-09

-10

Relinquished By

Date

Time

Received By

Date

Time

Total Number of  
 Containers this Sheet:

Method of Shipment:

Special Shipment/Handling  
 or Storage Requirements:

FedEx

Date

Time

Received in Lab By

Date

Time

Keep on Ice

Franklin J. Goldman  
 PO BOX 59, Sonoma, CA 95476  
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A57224 / 8T10009

# CHAIN OF CUSTODY RECORD

Laboratory Analysis P.O. No.

Laboratory Please Call Accounts Payable for P.O. No.

Date: 09/07/08 Sheet 2 Of 3

Project Name <u>Chun</u>				Parameters										American Analytics			
Project Number				TPH as Gasoline 8015	TPH as Diesel 8015	TPH-g/BTEX 8015/8020 & MTBE	BTEX & EPA 8020	Oil and Grease 5520	Volatile Organics (8010)	CAM Metals (17)	Pr. Pollutant Metals (13)	Base/Neu/Acids (Organic)	Pesticides 8140/8141	Method 8260b for 5 oxygenates & 2 lead scavengers 8260b, 8095, 2 lead scavengers, Naphthalene, BTEX, GROs Bulk density, moisture, porosity fraction of organic carbon	SOIL SAMPLE	WATER SAMPLE	9765 Eton Ave Chatsworth, CA 91311 Phone: (818) 998-5547
Address <u>2301 SANTA CLARA ALAMEDA, CA 94501</u>														Phone Turnaround Time			
Sampler's Name: <u>Frank Goldman</u>														<input type="checkbox"/> Rush	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour	<input checked="" type="checkbox"/> 5-Day
Sampler's Signature <u>Frank Goldman</u>														Repeat to: <u>Frank</u>			
Sample Number	Location	Date	Time												Comments		
MW-10		09/05/08	1:30 pm												8T10009-11		
MW-4			2:25 pm												-1L		
MW-5			3:15 pm												-12		
MW-6			4:05 pm												-14		
EW-16	↓		5:25 pm												-15		
MW-1		09/06/08	8:00 AM												-16		
MW-2			9:00 AM												-17		
EW-14			10:00 AM												-18		
EW-17			11:00 AM												-19		
EW-15	↓		12:00 pm												-20		
Relinquished By <u>Frank Goldman</u> FEDEx	Date 9/8/08	Time 8:45 AM	Received By <u>Feder</u>	Date 9/8/08	Time 8:45 AM	Total Number of Containers this Sheet:											
Dispatched By <u>Frank Goldman</u> FEDEx	Date	Time	Received in Lab By <u>J. Cen</u>	Date 9/10/08	Time 11:01	Method of Shipment:											
						Special Shipment/Handling or Storage Requirements:											
						Keep on Ice											

**Franklin J. Goldman**  
**PO BOX 59, Sonoma, CA 95476**  
**FJGoldmanCHG@yahoo.com**  
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**Cell: (707) 235-9979**

# **CHAIN OF CUSTODY RECORD**

Laboratory Analysis P.O. No.

Laboratory Please Call Accounts Payable for P.O. No.

Date: 09/07/08 Sheet 3 of 3

Project Name Chun

**Project Number:**

Address 2301 SANTA CLARA  
ALAMEDA, CA 94501

Sampler's Name:  
**Frank Goldman**

Sampler's Signature

Sample Number / Location

MW-3

H57224 / 8210009

#106219

Relinquished By <i>Sally Steller</i> <i>FEDER</i> <i>TIGER</i>	Date 9/8/8	Time 8 <sup>15</sup> AM	Received By <i>D. F. TIGER</i>	Date 9/8/8	Time 8 <sup>16</sup> AM	Total Number of Containers this Sheet:
Dispatched By	Date	Time	Received in Lab By <i>L. C.</i>	Date 9/10/88	Time 11:00	Method of Shipment: Special Shipment/Handling or Storage Requirements:
						Keep on Ice

## **Appendix C**

### **ORC Sock Installation**



# **REGENESIS**

## **Oxygen Release Compound (ORC<sup>®</sup>)**

### **Installation Instructions**

**(Replaceable Filter-Sock Application)**

ORC Filter Socks are used to enhance bioremediation of petroleum hydrocarbons in groundwater. The filter sock contains ORC and an inert carrier matrix. The socks come in one foot sections. They are laced together to span the vertical polluted saturated zone in monitoring type wells. Once the socks are laced together and lowered into the wells, they become hydrated and begin releasing oxygen. The following instructions are vital to proper installation and subsequent removal of the socks.

#### **SAFETY PRECAUTIONS:**

- ORC is completely non-toxic, but is composed of ultra-fine particles.
- Wear dust masks and goggles to prevent soft tissue irritation
- Reference the Material Safety Data Sheet for specific technical and physical information.

#### **CONDITION OF SOURCE WELL:**

- Test for well deviation and smoothness before ORC installation.
- For the test, use a 5 foot section of pipe with an outside diameter 1/2 inch smaller than the source well's inside diameter.

#### **KEY REQUIREMENTS FOR INSTALLATION:**

- **SOCKS MUST BE INSTALLED WITH BLACK GROMMETS ON TOP**
- Wrap Socks as independent units (see page 3, figure 5)
- A maximum of **20** ea. 2-inch socks per section.
- A maximum of **8** ea. 4-inch socks per section.
- A maximum of **6** ea. 6-inch socks per section.
- Make sure each sock is properly shaped (cylindrical and without bends) to facilitate ease of installation and removal.

#### **HELPFUL HINTS:**

- ORC matrix hardens into a cement once hydrated
- Minimize slack between each sock, by periodically pulling up slack while lacing
- Tie off ORC retrieval lines to the well cap. Regenesis recommends the use of a 3/8" diameter x 6" long eyebolt.

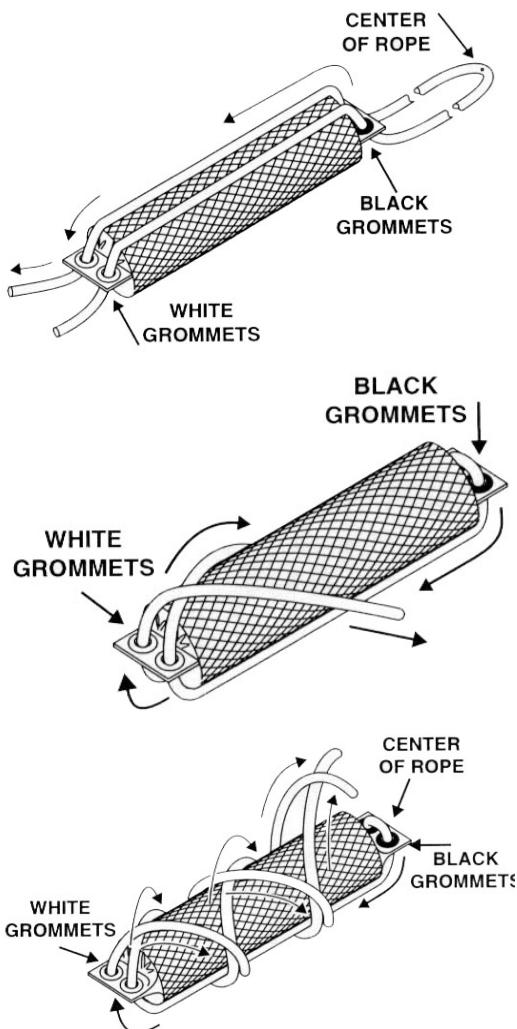
- The ORC Socks should be wetted to prevent excessive dusting prior to installation
- Make sure your work area is clean to avoid oil and dirt deposits on the socks.

## FILTER-SOCK REMOVAL:

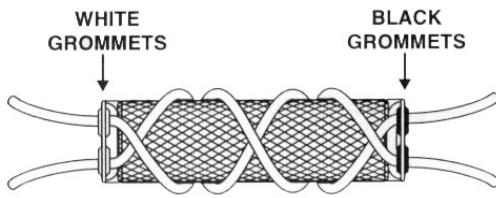
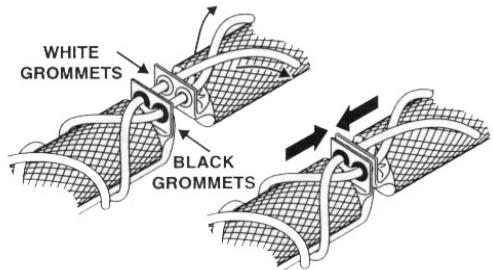
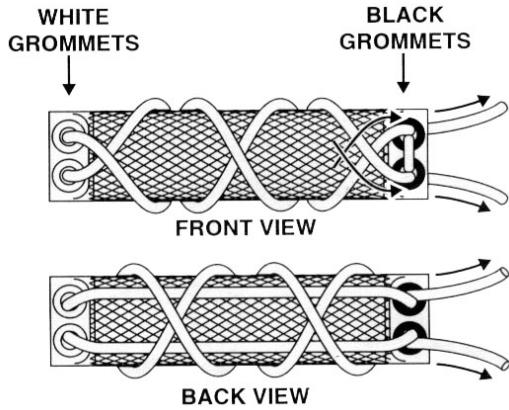
- ORC Socks will be approximately 20% heavier after water saturation
- Static friction from screened casing may cause difficulty in removal
- A winch and stanchion (or comparable equipment) may be necessary to help remove the socks due to increased weight, friction, etc.

## LACING DIAGRAMS FOR SOCK INSTALLATION:

### 4 INCH AND 6 INCH SOCK LACING DIAGRAM:



1. Find the center of the rope. Begin lacing the ORC Socks by threading the two ends of the installation rope through the black grommets and then through the white grommets at the bottom of the same side of the bottom sock
2. Pull the rope through the bottom sock, making sure the center of the rope is between the black grommets. Cross the ropes over each other.
3. Loop the ends of the rope around the back of the sock and cross them. Repeat this step once again, so the rope is wrapped around the sock with two full turns.



4. Bring the ends of the rope around from the back, cross them, and thread them into the black grommets. The rope ends should be inserted into the black grommets diagonally from the white ones they started from. Threading the black grommets will be tight only on the bottom sock due to the unique lacing pattern.

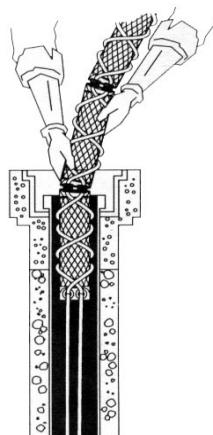
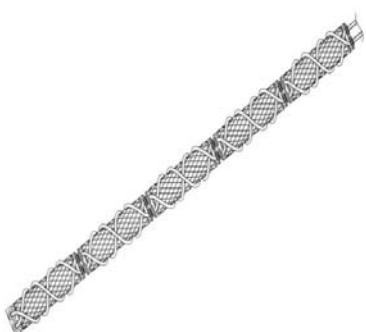
5. To avoid the ORC Sock slipping past each other, the socks must be laced with the grommet flaps of the bottom sock and second sock butting against each other (as shown)

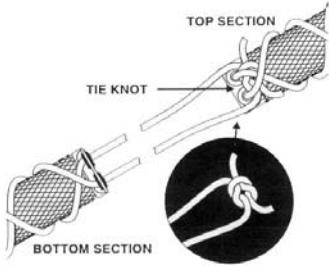
6. The remaining socks on the rope section are laced up according to Figure 6. Make sure that the rope is turned around the sock two full turns, with the grommets of each sock butting up against the next sock as shown in Figure 5.

7. Lace each subsequent ORC Sock exactly the same as in Figure 5 and 6.

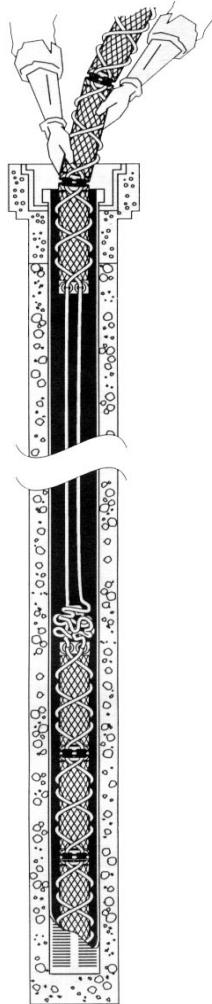
**IMPORTANT:** *Do not exceed the maximum number of socks per section (see "Key Requirements D & E" on page 1).*

*Minimize the slack between the socks*



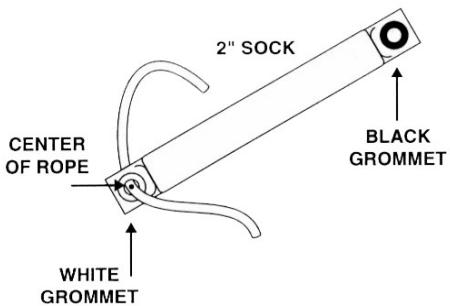


8. If you need to install more ORC Socks than the maximum allowed per well size (see "Key Requirements D & E on page 1), then multiple sections must be installed. Each section is laced exactly the same, but they should be tied off to each other. Tie the end of the rope from the lower section to the bottom sock of the upper section; this allows each section to be installed and removed independently (see well diagram)

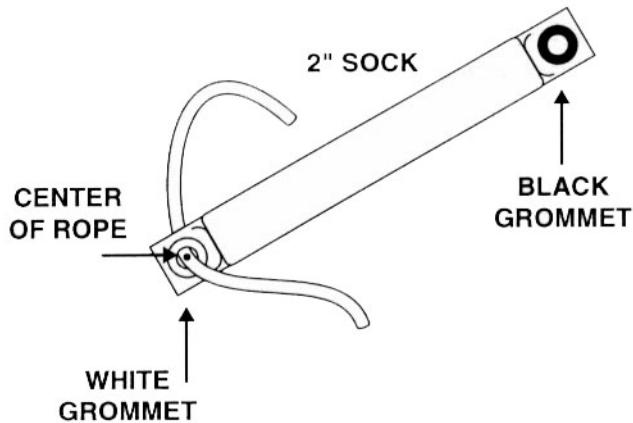


Well Diagram

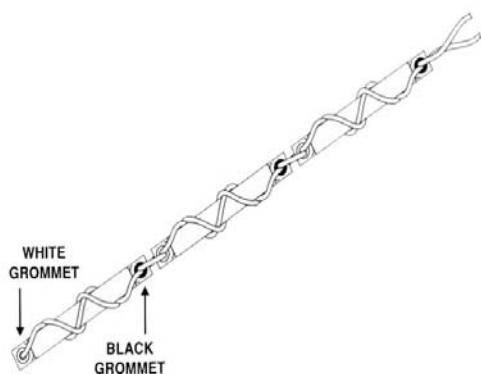
## 2 INCH SOCK LACING DIAGRAM:



9. Find the center of the rope. Begin lacing the ORC Socks by threading one end of the installation rope through the white grommet, make sure that the center of the rope is pulled through to the center of the white grommet on the bottom sock.



- Wrap each end of the installation rope around the sock twice and then cross them through the black grommet.



- Lace each subsequent sock using the same method ad describe in Figure 2 above.

**IMPORTANT:**

*Do not exceed the maximum number of socks per section (see "Key requirements B" on Page 1)  
Minimize the slack between socks*

For direct assistance or answers to any questions you may have regarding these instructions, contact Regenesis Technical Services at 949-366-8000.

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