

September 22, 2009

Mr. Jeffery Hu
Water Resources Control Engineer
California Environmental Protection Agency
California Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013

**Re: 2009 Third Quarter Sentry Groundwater Monitoring Results
DFSP Norwalk Facility, Norwalk**
NPDES No. CAC834001
File No. 90-02

Dear Mr. Hu:

On behalf of Defense Energy Support Center (DESC), Parsons is transmitting the groundwater monitoring results for the 2009 third quarter sentry event at the DFSP Norwalk Facility in Norwalk, California.

Parsons gauged 62 wells for depth to water and the presence of product on July 16 and 17, 2009. In addition, Blaine Tech Services, Inc. (Blaine Tech) also gauged 15 of these wells on July 20, 2009 prior to purging. Blaine Tech was retained to perform groundwater monitoring by Parsons. Two wells, GW-15 and TF-17, contained free product with thickness measured as 0.08 and 0.74 foot, respectively, as summarized in Table 1. Following gauging, thirteen wells, EXP-03, GMW-47, GMW-57 through GMW-65, MW-14, and MW-22 MID were purged and sampled on July 20 and 21, 2009.

Groundwater monitoring, sample collection, and laboratory analyses were performed in accordance with the sampling plan. Field activities included measuring water levels and free product thicknesses and purging and sampling of the designated wells. Wells sampled by Blaine Tech were purged and sampled using low-flow methods in general conformance with ASTM D6771-02. All purged groundwater was transferred to the groundwater treatment system.

All groundwater samples were labeled, entered onto a chain-of-custody form, and delivered to Calscience Environmental Laboratories, Inc., a State-certified analytical laboratory in Garden Grove, California. Groundwater samples were analyzed using U.S. Environmental Protection Agency (EPA) Method 8015 modified for total petroleum hydrocarbons (TPH) as jet propellant 5 (TPH at JP5) and for TPH as gasoline (TPHg). Groundwater samples were also analyzed for volatile organic compounds (VOCs) using EPA Method 8260B, which includes methyl-t-butyl ether (MTBE) and oxygenates. Table 2 presents a summary of the analytes detected in the sampled wells.

VOCs and TPH were not detected in groundwater samples collected from the Exposition aquifer monitoring well, EXP-3.

TPH as JP5 was detected in seven (GMW-47, -58, -59, -60, -61, -62, and MW-22 MID) of the sampled wells, with GMW-59 indicating the highest concentration at 11,000 micrograms per liter ($\mu\text{g/L}$). TPHg was detected in six (GMW-47, -58, -59, -60, -61, and -62) of the sampled wells, with GMW-59 indicating the highest concentration at 6,700 $\mu\text{g/L}$. Benzene was detected in five wells sampled, with the highest concentration present in GMW-62 (1,200 $\mu\text{g/L}$). GMW-62 also contained the highest concentrations of ethylbenzene and xylenes. MTBE was detected in three wells (GMW-58, GMW-59, and MW-22 MID) at concentrations ranging from 3.4 $\mu\text{g/L}$ to 19 $\mu\text{g/L}$. TBA was detected in two wells, GMW-47 and MW-22 MID, at concentrations of 15 $\mu\text{g/L}$ and 34 $\mu\text{g/L}$, respectively.

Groundwater extraction in the eastern area began operating on April 22, 2009 at GW-15 and on July 22, 2009 at GW-16, located approximately 100 feet north of GW-15. Results from the fourth quarter monitoring (October 2009) will allow six months of operating at GW-15 and three months at GW-16. Therefore, evaluation of the eastern expansion groundwater extraction system will be provided in the 2009 second semiannual groundwater monitoring report as well as the data presented in this letter-report. If you have any questions, please call me at 602-734-1083.

Sincerely,

PARSONS



Redwan Hassan, PG
Project Manager

Attachments: Table 1 – Groundwater Elevations
Table 2 – Summary of Groundwater Analytical Data
Table 3 – Summary of Miscellaneous Compounds Detected in Groundwater

Distribution:

Mr. Kola Olowu, DESC-FQ
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RAB Members:

Ms. Mary Jane McIntosh
Dr. Eugene Garcia
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Mr. William Miller
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Table 1

**Groundwater Elevations
Third Quarter 2009 Sentry Event**

Defense Fuel Support Point, Norwalk
Norwalk, California

Well	Sample Date	Casing Elevation (ft msl) ¹	Depth to Product (feet) ²	Depth to Water (feet) ²	Apparent Product Thickness (feet) ²	Groundwater Elevation (ft msl) ¹
EXP-1	16-Jul-09	78.44		55.06		23.38
EXP-2	16-Jul-09	79.43		54.91		24.52
EXP-3	16-Jul-09	77.58		54.02		23.56
GMW-5	16-Jul-09	77.61		29.93		47.68
GMW-6	16-Jul-09	77.31		29.51		47.80
GMW-7	17-Jul-09	75.84		27.65		48.19
GMW-15	16-Jul-09	76.21		28.32		47.89
GMW-16	16-Jul-09	77.00		29.52		47.48
GMW-17	16-Jul-09	74.66		27.15		47.51
GMW-18	17-Jul-09	75.36		27.41		47.95
GMW-19	17-Jul-09	76.83		28.79		48.04
GMW-21	17-Jul-09	76.23		28.40		47.83
GMW-32	16-Jul-09	74.62		26.71		47.91
GMW-33	16-Jul-09	74.88		27.41		47.47
GMW-35	17-Jul-09	76.12		28.12		48.00
GMW-45	16-Jul-09	74.45		27.91		46.54
GMW-47	16-Jul-09	75.98		28.22		47.76
GMW-50	16-Jul-09	75.51		27.87		47.64
GMW-51	16-Jul-09	75.93		28.15		47.78
GMW-52	16-Jul-09	75.03		27.25		47.78
GMW-53	16-Jul-09	74.90		27.04		47.86
GMW-56	16-Jul-09	76.52		29.03		47.49
GMW-57	16-Jul-09	76.66		28.87		47.79
GMW-58	16-Jul-09	75.48		26.92		48.56
GMW-59	16-Jul-09	75.28		26.20		49.08
GMW-60	16-Jul-09	76.24		28.37		47.87
GMW-61	16-Jul-09	75.60		27.69		47.91
GMW-62	17-Jul-09	76.34		28.15		48.19
GMW-63	17-Jul-09	77.32		29.11		48.21
GMW-64	17-Jul-09	75.84		27.37		48.47
GMW-65	17-Jul-09	--- ³		28.65		--- ³
GW-8	16-Jul-09	76.15		28.48		47.67
GW-15	17-Jul-09	75.36	28.51	28.59	0.08	46.84
GW-16	17-Jul-09	--- ³		28.87		--- ³
MW-10	16-Jul-09	79.12		31.42		47.70

Table 1

**Groundwater Elevations
Third Quarter 2009 Sentry Event**

Defense Fuel Support Point, Norwalk
Norwalk, California

Well	Sample Date	Casing Elevation (ft msl) ¹	Depth to Product (feet) ²	Depth to Water (feet) ²	Apparent Product Thickness (feet) ²	Groundwater Elevation (ft msl) ¹
MW-13	16-Jul-09	78.25		30.51		47.74
MW-14	16-Jul-09	78.60		31.21		47.39
MW-16	16-Jul-09	76.87		29.12		47.75
MW-17	16-Jul-09	77.86		32.25		45.61
MW-22(MID)	16-Jul-09	79.57		33.51		46.06
MW-23(MID)	16-Jul-09	79.59		31.79		47.80
MW-29	16-Jul-09	79.13		31.15		47.98
PZ-3	16-Jul-09	76.17		28.97		47.20
PZ-4	16-Jul-09	76.13		29.05		47.08
TF-8	16-Jul-09	75.60		28.42		47.18
TF-9	16-Jul-09	75.27		28.28		46.99
TF-10	16-Jul-09	74.19		27.02		47.17
TF-11	16-Jul-09	74.95		27.70		47.25
TF-13	17-Jul-09	75.90		27.81		48.09
TF-14	17-Jul-09	74.78		26.91		47.87
TF-15	17-Jul-09	75.40		26.82		48.58
TF-16	17-Jul-09	76.48		28.35		48.13
TF-17	17-Jul-09	75.26	26.90	27.64	0.74	47.77
TF-18	16-Jul-09	73.94		26.42		47.52
TF-19	16-Jul-09	75.61		27.69		47.92
TF-20	17-Jul-09	75.08		28.02		75.08
TF-21	17-Jul-09	75.60		27.31		48.29
TF-22	17-Jul-09	74.95		27.61		47.34
TF-23	17-Jul-09	75.31		26.93		48.38
TF-24	16-Jul-09	76.43		29.11		47.32
TF-25	16-Jul-09	74.85		28.88		45.97
TF-26	17-Jul-09	75.85		28.87		46.98

Notes:

¹Feet above mean sea level (MSL), based on Los Angeles County Datum, 1980.

²Below top of casing.

³To be surveyed soon.

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL DATA
JULY/AUGUST 2009 SENTRY EVENT

Defense Fuel Support Point, Norwalk
Norwalk, California

Results reported in micrograms per liter (µg/L)

Well	Sample Date	TPHjp ¹	TPHg ²	Benzene	Toluene	Ethylbenzene	Xylenes ³	1,2-DCA ⁴	MTBE ⁵	TBA ⁶
EXP-3	20-Jul-09	< 100 ⁷	< 100	< 0.50	< 0.50	< 0.50	< 1	< 0.50	< 0.50	< 10
GMW-47	20-Jul-09	1400	200	< 0.50	< 0.50	< 0.50	< 1	< 0.50	< 0.50	15
GMW-57	21-Jul-09	< 100	< 100	< 0.50	< 0.50	< 0.50	< 1	< 0.50	< 0.50	< 10
GMW-58	20-Jul-09	300	100	1.2	< 0.50	< 0.50	< 1	< 0.50	6.4	< 10
GMW-58 DUP ⁷	20-Jul-09	290	--	1.2	< 0.50	< 0.50	< 1	< 0.50	6.1	< 10
GMW-59	20-Jul-09	11000	6700	520	< 2.5	< 2.5	< 5	< 2.5	3.5	< 50
GMW-59 DUP	20-Jul-09	9100	--	520	< 2.5	< 2.5	< 5	< 2.5	3.4	< 50
GMW-60	20-Jul-09	1700	3200	940	< 5.0	11	< 10	< 5.0	< 5.0	< 100
GMW-61	20-Jul-09	560	760	350	< 2.5	< 2.5	< 5	< 2.5	< 2.5	< 50
GMW-62	21-Jul-09	1100	1800	1200	< 2.5	67	36	< 2.5	< 2.5	< 50
GMW-63	21-Jul-09	< 100	< 100	< 0.50	< 0.50	< 0.50	< 1	< 0.50	< 0.50	< 10
GMW-64	21-Jul-09	< 100	< 100	< 0.50	< 0.50	< 0.50	< 1	< 0.50	< 0.50	< 10
GMW-65	21-Jul-09	< 100	< 100	< 0.50	< 0.50	< 0.50	< 1	< 0.50	< 0.50	< 10
GW-16	03-Aug-09	< 100	< 100	< 0.50	< 0.50	< 0.50	< 1	< 0.50	< 0.50	< 10
MW-14	20-Jul-09	< 100	--	< 0.50	< 0.50	< 0.50	< 1	13	1.5	< 10
MW-22 MID	20-Jul-09	150	--	< 0.50	< 0.50	< 0.50	< 1	11	19	34

Notes:

¹TPHjp =

²TPHg = total petroleum hydrocarbons using purge and trap method and quantified against a gasoline standard.

³Xylenes = total of m,p-xylene and o-xylene when detected.

⁴1,2-DCA = 1,2-Dichloroethane.

⁵MTBE = Methyl tert-butyl ether.

⁶TBA = Tert-butyl alcohol.

⁷<100 = compound not detected at or above the indicated reporting limit.

⁷dup = duplicate.

TABLE 3**SUMMARY OF MISCELLANEOUS COMPOUNDS DETECTED IN GROUNDWATER
JULY/AUGUST 2009 SENTRY EVENT**Defense Fuel Support Point, Norwalk
Norwalk, CaliforniaResults reported in micrograms per liter ($\mu\text{g/L}$)

Well	Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Bromodichloromethane	Diisopropyl Ether (DIPE)	Isopropylbenzene	Naphthalene	n-Propylbenzene	sec-Butylbenzene
GMW-47	20-Jul-09	< 1.0 ¹	< 1.0	< 1.0	< 2.0	8.2	< 10	< 1.0	1
GMW-58	20-Jul-09	< 1.0	< 1.0	< 1.0	< 2.0	1.1	< 10	< 1.0	< 1.0
GMW-58 DUP ²	20-Jul-09	< 1.0	< 1.0	< 1.0	< 2.0	1.2	< 10	< 1.0	< 1.0
GMW-59	20-Jul-09	< 5.0	< 5.0	< 5.0	< 10	28	< 50	15	< 5.0
GMW-59 DUP	20-Jul-09	< 5.0	< 5.0	< 5.0	< 10	27	< 50	15	< 5.0
GMW-60	20-Jul-09	< 10	< 10	< 10	< 20	68	100	73	< 10
GMW-61	20-Jul-09	< 5.0	< 5.0	< 5.0	< 10	24	< 50	20	< 5.0
GMW-62	21-Jul-09	23	< 5.0	< 5.0	< 10	15	< 50	9.6	< 5.0
MW-14	20-Jul-09	< 1.0	< 1.0	< 1.0	2.4	< 1.0	< 10	< 1.0	< 1.0
MW-22 MID	20-Jul-09	< 1.0	< 1.0	< 1.0	2.9	< 1.0	< 10	< 1.0	< 1.0

Notes:¹< 1.0 = compound not detected at or above the indicated reporting limit.²DUP = duplicate.