



## Transmittal

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**Date:** June 3, 2010  
**To:** Mr. Paul Cho, PG  
California Regional Water Quality  
Control Board – Los Angeles  
Region (RWQCB)  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

**From:** Thandar Phyu, PG  
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**Project Number:** 0016030440.0000C  
**Project Name:** Defense Fuel Support Point (DFSP) Norwalk

Item	Description
1	Table 1 - Summary of Groundwater Elevations, April 2010 Monthly Monitoring Event
2	Table 2 - Summary of Groundwater Analytical Data, April 2010 Monthly Monitoring Event
3	Table 3 - Summary of Total Fluids and Groundwater Extraction Pump Operation, April 2010 Monthly Monitoring Event

### Remarks

On behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), AMEC Geomatrix, Inc. (AMEC), is transmitting the groundwater monitoring results for the April 2010 monthly monitoring event conducted at the DFSP Norwalk site. Groundwater elevations and analytical data for wells monitored during this event are summarized in Table 1 and Table 2, respectively, and are briefly discussed below. The operation of all extraction wells during April 2010 is summarized in Table 3.

In its February 26, 2010 letter, the RWQCB requested KMEP to increase the monitoring frequency from quarterly to monthly for wells GMW-36, GMW-O-15, GMW-O-16, GMW-O-18, GMW-O-19, and PZ-5 located in the southeastern offsite area. KMEP began monthly monitoring at these wells in March 2010.

- 1) During this monthly monitoring event, Blaine Tech Services, Inc., on behalf of SFPP, gauged and sampled groundwater monitoring wells GMW-36, GMW-O-15, GMW-O-16, GMW-O-18, GMW-O-19, and PZ-5 located in the southeastern offsite area.
- 2) Groundwater elevations have generally increased by approximately 1 to 2 feet in the southeastern area since March 2010. Free product has historically been detected in wells GMW-36 and GMW-O-15 but was not detected in either well during this event.
- 3) Similar to the March 2010 event, volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) quantified as gasoline (TPHg) and fuel product (TPHfp) were not detected in wells GMW-O-16 and GMW-O-19 during this event.

- 4) Reported concentrations of VOCs, TPHg and TPHfp in wells GMW-36 and PZ-5 were generally similar to or lower than those reported in March 2010 with the exceptions that the VOC tert-butyl alcohol (TBA) was reported at a higher concentration in both wells and that TPHfp was reported at a higher concentration in well PZ-5.
- 5) Reported concentrations of VOCs, TPHg and TPHfp in wells GMW-O-15 and GMW-O-18 were generally higher than those reported in March 2010.
- 6) The increase in concentrations may be related to temporary interruptions at the total fluids extraction (TFE) system. The extraction system only operated approximately 50% of the time between the March and April 2010 sampling events due to electrical issues which are currently being resolved. Groundwater extraction at wells GMW-36 and GMW-O-15 has resumed since February 4, 2010. The TFE pump in well GMW-36 was taken off-line for repairs between March 19 and 29, 2010. The recent restart of the groundwater extraction at these wells is expected to improve the groundwater quality in the southeastern area when the system is running more effectively. KMEP has also installed a TFE pump in well GMW-O-18 and started groundwater extraction well from this well on March 29, 2010. Monthly groundwater monitoring in southeastern offsite will continue and groundwater conditions will continue to be evaluated as additional groundwater monitoring and remediation system operations data are obtained.
- 7) An equipment blank sample was collected during this sampling event. No VOCs, TPHg, or TPHfp were detected at or above laboratory reporting limits in the equipment blank sample.

Please contact Thandar Phyu or Sherrick Baffert at (949) 642-0245 if you have any questions. Thank you.

#### **Distribution List**

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**TABLE 1**

**SUMMARY OF GROUNDWATER ELEVATIONS  
APRIL 2010 MONTHLY MONITORING EVENT**  
Defense Fuel Support Point Norwalk  
Norwalk, California

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
GMW-36	03/15/10	74.53	---	26.80	---	47.73
	04/16/10	74.53	---	26.90	---	47.63
GMW-O-15	03/15/10	74.23	--	NM <sup>1</sup>	NM <sup>1</sup>	NC
	04/16/10	74.23	---	23.10	---	51.13
GMW-O-16	03/15/10	74.10	---	26.30	---	47.80
	04/16/10	74.10	---	25.20	---	48.90
GMW-O-18	03/15/10	74.36	---	26.54	---	47.82
	04/16/10	74.36	---	24.25	---	50.11
GMW-O-19	03/15/10	74.46	---	26.16	---	48.30
	04/16/10	74.46	---	25.30	---	49.16
PZ-5	03/15/10	73.97	---	25.99	---	47.98
	04/16/10	73.97	---	25.12	---	48.85

**Notes**

1. Groundwater extraction pump was in operation; depth to groundwater was not measured.

**Abbreviations**

--- = not detected or applicable.

feet btoc = feet below top of casing.

feet msl = feet above mean sea level based on the National Geodetic Vertical Datum of 1929.

NC = not calculated.

NM = not measured.

**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL DATA**  
**APRIL 2010 MONTHLY MONITORING EVENT**  
 Defense Fuel Support Point Norwalk  
 Norwalk, California

Results reported in micrograms per liter (µg/L)

Sample ID	Date	TPHg	TPHfp	Benzene	Toluene	Ethyl-benzene	Total Xylenes <sup>1</sup>	1,2-DCA	MTBE	TBA	DIPE	ETBE	TAME
GMW-36	03/16/10	8000	22,000	830	1100	140	700	<10	16	690	<10	<10	<10
	04/16/10	4200	25,000	850	150	89	200	<5.0	11	3700	<5.0	<5.0	<5.0
GMW-O-15	03/16/10 <sup>2</sup>	530	8,900	10	1.1	0.64	2.7	<0.50	400	<10	<1.0	<1.0	1.9
	04/16/10	6700	62,000	1700	54	120	176	<10	1300	1800	<10	<10	11
GMW-O-16	03/16/10	<50	140	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
	04/16/10	<50	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
GMW-O-18	03/16/10	<50	<100	0.60	1.3	<0.50	1.77	<0.50	4.5	550	<1.0	<1.0	<1.0
	03/16/10 (DUP)	<50	<100	0.50	1.1	<0.50	1.48	<0.50	3.6	450	<1.0	<1.0	<1.0
	04/16/10	1300	6600	0.67	<0.50	3.1	12.9	<0.50	1.2	2400	<1.0	<1.0	<1.0
	04/16/10 (DUP)	1000	7300	0.57	<0.50	2.7	11.2	<0.50	1.1	2400	<1.0	<1.0	<1.0
GMW-O-19	03/15/10	<50	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
	04/16/10	<50	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
PZ-5	03/16/10	1700	890	370	2.1	33	9.4	<4.0	350	58,000	<4.0	<4.0	<4.0
	03/16/10 (DUP)	1700	850	360	<2.0	33	9.7	<4.0	340	60,000	<4.0	<4.0	<4.0
	04/16/10	1600	1100	110	<2.5	9.7	4.6	<5.0	340	91,000	<5.0	<5.0	<5.0

**Notes**

1. The total xylenes result is the sum of m,p-xylenes and o-xylenes when detected.
2. Groundwater sample collected through a sampling port.

**Abbreviations**

<5.0 = not detected at or above the laboratory reporting limit shown.  
 DUP = duplicate sample.  
 1,2-DCA = 1,2-dichloroethane.  
 DIPE = di-isopropyl ether.  
 ETBE = ethyl tert-butyl ether.  
 MTBE = methyl tert-butyl ether.  
 TAME = tert-amyl methyl ether.  
 TBA = tert-butyl alcohol.  
 TPHfp = total extractable petroleum hydrocarbons quantified using a site fuel product standard.  
 TPHg = total purgeable petroleum hydrocarbons quantified using a gasoline standard (C4-C13).

TABLE 3

**SUMMARY OF TOTAL FLUIDS AND GROUNDWATER EXTRACTION PUMP OPERATION  
APRIL 2010 MONTHLY MONITORING EVENT**

Defense Fuel Support Point Norwalk  
Norwalk, California

Location	Remediation Well ID	Well Function	Date	Status (ON/OFF)	Comments
South-Central Area	GMW-9	TFE	4/7/2010	OFF	Off due to high selenium concentration
	GMW-22	TFE	4/7/2010	OFF	Off due to high selenium concentration
	GMW-24	TFE	4/7/2010	ON	New pump
	GMW-25	GWE	4/7/2010	OFF	Off due to high selenium concentration
	GWR-3	GWE	4/7/2010	OFF	Off due to high selenium concentration
	MW-SF-2	TFE	4/7/2010	OFF	Off due to high selenium concentration
	MW-SF-3	TFE	4/7/2010	OFF	Off due to high selenium concentration
	MW-SF-6	TFE	4/7/2010	OFF	Off due to high selenium concentration
	MW-SF-11	TFE	4/7/2010	OFF	Off due to high selenium concentration
	MW-SF-12	TFE	4/7/2010	ON	New pump
	MW-SF-13	TFE	4/7/2010	ON	New pump
	MW-SF-14	TFE	4/7/2010	OFF	Off due to high selenium concentration
	MW-SF-15	TFE	4/7/2010	OFF	Off due to high selenium concentration
	MW-SF-16	TFE	4/7/2010	ON	Old pump
	MW-O-1	TFE	4/7/2010	OFF	Off due to high selenium concentration
	MW-O-2	TFE	4/7/2010	ON	New pump
	GMW-O-11	TFE	4/7/2010	ON	New Pump
	GMW-O-20	TFE	4/7/2010	OFF	Off due to high selenium concentration
GMW-O-21	TFE	4/7/2010	OFF	Off due to high selenium concentration	
GMW-O-23	TFE	4/7/2010	ON	New pump	
South-Eastern Area	GMW-O-15	TFE	4/7/2010	ON	Old pump
	GMW-O-18	TFE	4/7/2010	ON	New pump
	GMW-36	TFE	4/7/2010	ON	New pump

**Abbreviations**

GWE = groundwater extraction.

TFE = total fluids extraction.