

## **EXHIBIT 12**

### **Marcel Moreau Site Specific Report (Beacon #3519) Excerpts**

- Excerpt from the Expert Site Specific Report of Marcel Moreau (Nov. 2, 2011), submitted on behalf of Plaintiff City of Fresno, pertaining to Beacon #3519.

# Beacon #3519

4591 East Belmont Avenue, Fresno

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## MAJOR MILESTONES

1961	Three 12,000-gallon USTs were installed [10/22/1998].
Dec 10, 1998	Three single-walled (SW) steel, 12,000-gallon USTs, piping, and dispensers were removed.
Jan 19, 1999	A Permit to Operate was issued for two 15,000-gallon unleaded tanks with pressure piping. The tanks were installed in the same excavation as the former USTs.
Feb 13, 2001	MtBE was detected in groundwater samples. Quarterly groundwater sampling commenced.
July 10, 2003	Consultant concluded after two series of soil vapor extraction tests that SVE was not a feasible alternative for remediation of soil beneath the site. On behalf of Ultramar, the consultant requested CRWQCB to grant a low-risk closure for the site.
March 15, 2004	CRWQCB confirmed the completion of a site investigation and corrective action for the USTs formerly located at the facility.

## SPILL/LEAK EVENT CHRONOLOGY

Dec 10, 1998	UST Abandonment Inspection Report. Three 12,000-gallon USTs were removed. Soil samples were collected from the tank excavations and from beneath eight dispensers on two islands (only four dispenser samples were reported in the removal report). Odors were observed in the samples from the east side of Tank 2 (T2): strong odor, gray soil in S5 (15 ft bgs) and medium odor, grayish soil in S6 (17 ft bgs). All three tanks were in good condition, rusted, with no holes visible. [12/10/1998]
Dec 11, 1998	An Unauthorized Release Report (URR) was filed by Fresno County for the release of an unknown quantity of gasoline, discovered during tank removals. The source was checked as unknown.

## SOIL/GROUNDWATER CONTAMINATION CHRONOLOGY

- Feb 18, 1999                      Tank Removal / Closure Report. On Dec 10-11, 1998, three SW steel, 12,000-gallon USTs, product piping, and two dispenser islands were removed from the site. Soil samples were collected for analysis of TPHg, MtBE, and BTEX. Additional sidewall samples were collected on 12/14/1998 from the Tank 3 excavation.
- USTs: The highest concentrations of TPHg (13,000,000 ppb) and MtBE (110,000 ppb) were in the samples collected from the east end (submersible end) of Tank 3 (15 and 18 ft bgs). Lower concentrations of TPHg were detected in samples from T2 (1,900 to 9,700 ppb) but not T1. MtBE was detected at all three tank locations (15 ppb to 110,000 ppb).
- Product Line Trenches – No analytes were detected in the single sample collected (3 ft bgs).
- Dispenser Samples: TPHg (at 1,100 ppb) and MtBE (at 120 ppb) were detected in the sample near the south end of the eastern dispenser island (6 ft bgs). No analytes were detected in the other three dispenser samples. Note: the site diagram indicates samples were taken from beneath the piping adjacent to the dispensers, not directly beneath the dispensers.
- Feb 7, 2000                      Two soil borings (B-1 & B-2) were drilled to 75 ft bgs and soil samples were collected. B-1 was on the east side of the UST excavation, and B-2 was on the south side. TPHg was found only in B-1 samples, at a maximum concentration of 13,000 ppb (45 ft bgs). MtBE was detected in samples from both borings, with a high of 38,000 ppb at B-1 (31 ft bgs) and 1,600 ppb at B-2 (31 ft bgs). The borings were grouted to 30 and 41 ft bgs, and vapor extraction wells were installed (VW-1 & VW-2). The consultant concluded that no gasoline constituents were present within 20 to 30 ft of the estimated groundwater level (90 ft bgs). [6/15/2000]
- Dec 27-29, 2000                      Three monitoring wells were installed to a depth of 115 ft bgs. MW-1 was located east of the UST excavation area, and MW-2 and MW-3 were located on the southern property boundary. [4/6/2001]
- Feb 13, 2001                      Groundwater samples were collected and analyzed. Quarterly groundwater sampling commenced. [4/6/2001]

April 6, 2001

Results of Soil and Groundwater Investigation. Groundwater was measured in site wells at 99 ft bgs, and reportedly flowed to the west-southwest. No TPHg or BTEX compounds were detected in the Dec 2000 soil boring samples. MtBE was detected in soil samples collected from 10 to 85 ft bgs at the MW-1 boring, with a maximum concentration of 16,000 ppb (40 ft bgs). The 85 ft bgs sample from MW-1 also contained 6.5 ppb MtBE. The only MtBE detection at MW-2 was 5.6 ppb at 100 ft bgs. No MtBE was present in soil samples from the MW-3 boring. In groundwater, only MtBE was detected: 59 ppb in MW-1 and 6.6 ppb in MW-2. Other groundwater analytes that were ND were TPHg, BTEX, DIPE, ETBE, TAME, TBA, DCA, DBA.

July 10, 2003

Soil Vapor Extraction Test Report and Request for No Further Action. Consultant concluded after two series of soil vapor extraction tests that SVE was not a feasible alternative for remediation of soil beneath the site. Also noted was that no TPHg or BTEX had ever been detected in groundwater samples, and no MtBE concentrations above 1 ppb had been reported in groundwater since Dec 2001. A request was made for low-risk closure and permission to abandon the vapor extraction and monitoring wells.

March 15, 2004

Case Closure Summary. Fifteen water supply wells were identified within a 2,500-foot radius of the site. The closest well was approximately 600 ft west of the site and was identified as City of Fresno municipal Well #30A.

Summary and conclusions: A former release of petroleum hydrocarbons at the site resulted in the degradation of the underlying soils and groundwater. The extent of the impacted soils has been adequately evaluated. Remediating the impacted soils via SVE technology was evaluated and determined to not be a viable cleanup alternative. Further investigation of the site does not appear warranted. The results of groundwater monitoring and sampling events conducted between 2001 and 2003 revealed that the contaminant plume had stabilized and decreased. Groundwater impacts diminished to nearly non-detectable levels as of March 2002. The residual petroleum hydrocarbons in the underlying soils are likely to naturally degrade and are not anticipated to pose a threat to the beneficial use of groundwater in the area.

CRWQCB confirmed the completion of a site investigation and corrective action for the USTs formerly located at the facility.  
[RWQCB-FRESNO-016244]

May 11, 2004

Well Abandonment Report. Three monitoring wells and two VE wells were pressure-grouted. [5/11/2004]

## IDENTIFICATION OF MTBE RELEASES

### Tank Area Releases

MtBE contaminated soil was discovered at the bottom of the tank excavation in December of 1998 when three storage tanks were removed. The highest levels of MtBE contamination (110,000 ppb) were associated with the submersible pump end of Tank 3, but all samples except the sample from the fill end of Tank 1 were contaminated with MtBE at levels ranging from 15 to 21,000 ppb. Contamination detected at the fill ends of the tanks was likely the results of delivery releases, while contamination detected at the submersible pump ends of the tanks was likely the result of releases from the submersible pumps and adjacent piping. The releases were likely intermittent. The volume released is not known.

### Piping and Dispenser Area Releases

MtBE contaminated soil was discovered beneath piping adjacent to the dispensers in December of 1998 when the piping and dispensers were removed. Because of the proximity of the sample to the dispensers, the releases that produced the contamination could have originated from the piping or from the dispensers. Dispensers and adjacent piping are frequent sources of releases (see general report in this case). The releases were likely intermittent. The volume released is not known.

### Customer Spills

Small spills are common during vehicle fueling activities and no doubt occurred throughout the time this facility was in operation. Fueling spills may have contributed to the MtBE contamination present in the dispenser area.