

C A M B R I A

January 31, 2002

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

FEB 07 2002

Re: **Groundwater Monitoring and System Progress Report
Fourth Quarter 2001**
Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #130-0105



Dear Mr. Chan:

On behalf of Mr. Lynn Worthington of Golden Empire Properties, Cambria Environmental Technology, Inc. (Cambria) has prepared this groundwater monitoring and system progress report for the above-referenced site. Presented in the report are the fourth quarter 2001 activities and the anticipated first quarter 2002 activities.

If you have any questions or comments regarding this report, please call me at (510) 450-1983.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Geologist

Attachments: Groundwater Monitoring and System Progress Report, Fourth Quarter 2001

cc: Mr. Lynn Worthington, Golden Empire Properties, Inc. 5942 MacArthur Boulevard, Suite B, Oakland, CA 94605
Mr. Robert Cave, BAAQMD, Permit Services Division, 939 Ellis Street, San Francisco, CA 94109
Ms. Marie Kulka, Source Control Division, EBMUD, 375 11th Street, Oakland, CA 94607

Oakland, CA
San Ramon, CA
Sonoma, CA

**Cambria
Environmental
Technology, Inc.**

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FEB 07 2002

C A M B R I A

GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FOURTH QUARTER 2001

Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #130-0105

January 31, 2002

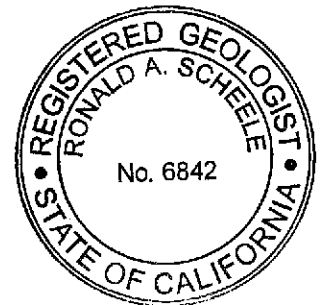


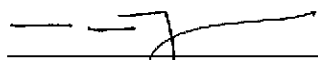
Prepared for:

Mr. Lynn Worthington
Golden Empire Properties, Inc.
5942 MacArthur Boulevard, Suite B
Oakland, CA 94605

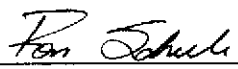
Prepared by:

Cambria Environmental Technology, Inc.
6262 Hollis Street
Emeryville, California 94608





Matthew A. Meyers
Staff Geologist



Ron Scheele, RG
Senior Geologist

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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FOURTH QUARTER 2001

Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #130-0105

January 31, 2002



INTRODUCTION

On behalf of Mr. Lynn Worthington of Golden Empire Properties, Cambria Environmental Technology, Inc. (Cambria) has prepared this groundwater monitoring and system progress report for the above-referenced site (see Figure 1). Presented in the report are the fourth quarter 2001 groundwater monitoring and corrective action activities and the anticipated first quarter 2002 activities.

FOURTH QUARTER 2001 ACTIVITIES

Monitoring Activities

Field Activities: On December 7, 2001, Cambria conducted quarterly monitoring activities. Cambria gauged and inspected for separate-phase hydrocarbons (SPH) monitoring wells MW-1, MW-2, MW-3 and MW-4 (Figure 1). Groundwater samples were collected from all scheduled wells not containing SPH. Field data sheets are presented in Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and total petroleum hydrocarbons as diesel (TPHd) by modified EPA Method 8015, and benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020. The groundwater analytical results are summarized in Table 1. The laboratory analytical report is presented as Appendix B.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water measurements collected during Cambria's December 7, 2001 site visit, groundwater beneath the site flows to the southwest at a gradient of 0.048 ft/ft (Figure 1). The groundwater gradient is affected by dual phase extraction (DPE) remediation system and the groundwater contours on Figure 1 do not represent static groundwater conditions. Since 1994, the primary groundwater flow direction has been toward the northwest with

a change towards the southwest usually occurring during the fourth and/or second quarters. Groundwater elevation data is presented in Table 1.

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations have decreased in MW-2, MW-3 and MW-4, and have remained relatively the same in MW-1, as compared with the previous sampling event. No SPH were detected in any of the wells. The maximum TPHg, benzene, and TPHd concentrations were detected in well MW-4 at 32,000, 4,500, and 11,000 micrograms per liter ($\mu\text{g/l}$), respectively. MTBE concentrations were below detection limits in all sampled wells. Analytical results are summarized in Table 1.

Corrective Action Activities

System Design: The dual phase extraction (DPE) remediation system consists of a trailer mounted all-electric catalytic oxidizer, a 300 cfm positive-displacement blower, a 150-gallon moisture knockout with automatic float controls, a 1 hp centrifugal transfer pump, and two 1000-lb carbon vessels connected in series. Nine wells are connected to the remediation system (RW-5 through RW-13) via a 4-inch diameter PVC a trunk line. See Figure 2 for the location of remediation enclosure and wells.

Remediation System Operations and Maintenance Activities: From October 3 to December 19, 2001, Cambria performed dual phase extraction system operation and maintenance activities. During operation and maintenance activities, individual well flow, vacuum, and hydrocarbon concentration measurements were collected from all remediation system wells and from the catalytic oxidizer/blower. During site visits, system operation parameters were also recorded in specialized field forms for future system optimization and agency inspection. As per the Bay Area Air Quality Management (BAAQMD) permit, a catalytic oxidizer operating temperature greater than 600 degrees Fahrenheit was maintained and system operation parameters were continuously measured using a chart recorder. System influent and effluent vapor samples were collected and submitted for laboratory analysis on October 3, November 6, November 14, and December 6, 2001. Groundwater treatment system influent and effluent samples were collected on November 16 and December 6, 2001. Table 2 summarizes soil vapor extraction system operations and analytical results. Table 3 summarizes groundwater extraction system operations and analytical results. The analytical laboratory reports are included as Attachment C.

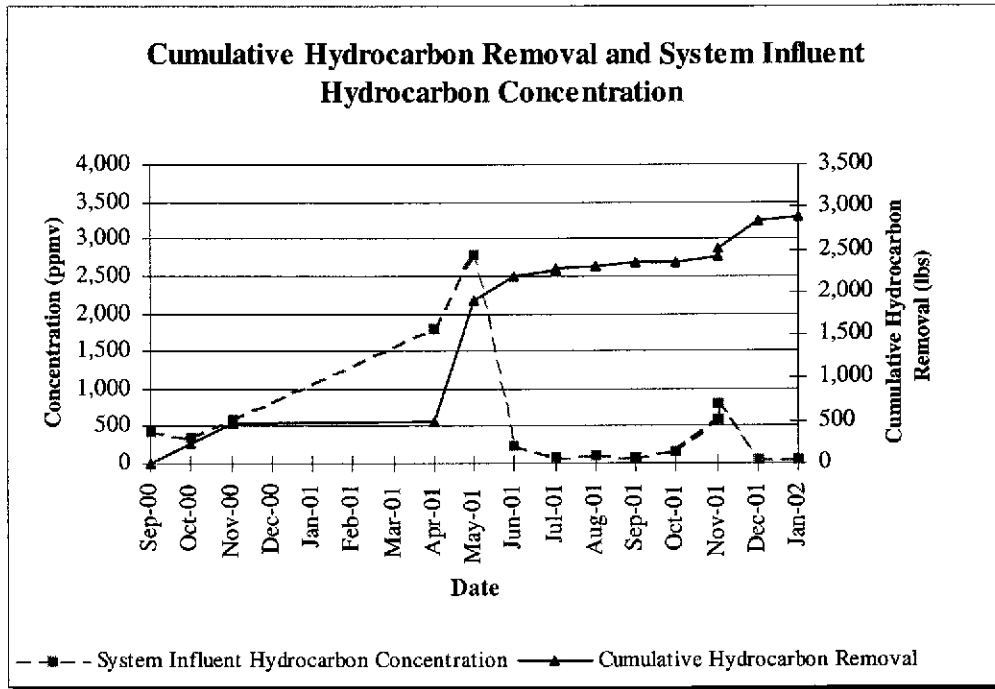
Remediation System Performance: The DPE system operated intermittently in October and November. In November the mortar around the catalytic cell was replaced to correct for low destruction efficiency problems. From October 3 to December 19, 2001, the DPE system ran for 1,548 hours. Influent vapor concentrations ranged from 50 to 810 parts per million by volume (ppmv) and the hydrocarbon recovery rate ranged from 1.0 to 15.7 lbs/day, during the fourth quarter. Effluent vapor concentrations ranged from below laboratory detection to 31 parts per million by volume

Groundwater Monitoring and System Progress Report, Fourth Quarter 2001
Former Exxon Service Station
Oakland, California
January 31, 2002

(ppmv) due to a leak in the mortar seal around the catalytic cell which caused the system to be temporarily outside of permit requirements. The system was shutdown immediately upon determination of the poor destruction efficiency, repairs were made, and additional air samples were collected to confirm that the problem had been corrected.

Groundwater sample results indicated that the groundwater extraction portion of the DPE system was operating within permit requirements. Effluent groundwater concentrations for TPHg and BTEX were below laboratory detection limits during the November 14 and December 6 sampling events indicating that no hydrocarbons were discharged to the sanitary sewer system.

To date, a total of 2,884 pounds of hydrocarbons have been destroyed by vapor extraction (see chart below) and 1.157 pounds of hydrocarbons have been removed by groundwater extraction.



ANTICIPATED FIRST QUARTER 2002 ACTIVITIES

Monitoring Activities

Cambria will gauge the site wells, check the wells for SPH, and collect groundwater samples from all wells not containing SPH. Groundwater samples will be analyzed for TPHg and TPHd by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8020. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

Corrective Action Activities:

Cambria will continue to perform DPE operation and maintenance activities twice per month during the first quarter of 2002. The groundwater extraction stingers may from time to time be switched between the monitoring wells and the remediation wells in an effort to help maximize hydrocarbon removal and site cleanup. Soil vapor samples will be collected on a monthly basis, groundwater influent and effluent samples will be collected on an as needed basis, and system operation and performance will be evaluated and submitted to the BAAQMD for the first quarter 2002 as part of the groundwater monitoring report. Records will be kept for a period of two years for possible future BAAQMD inspection.

ATTACHMENTS

Figure 1 – Groundwater Elevation and Analytical Summary Map

Table 1 – Groundwater Elevation and Analytical Data

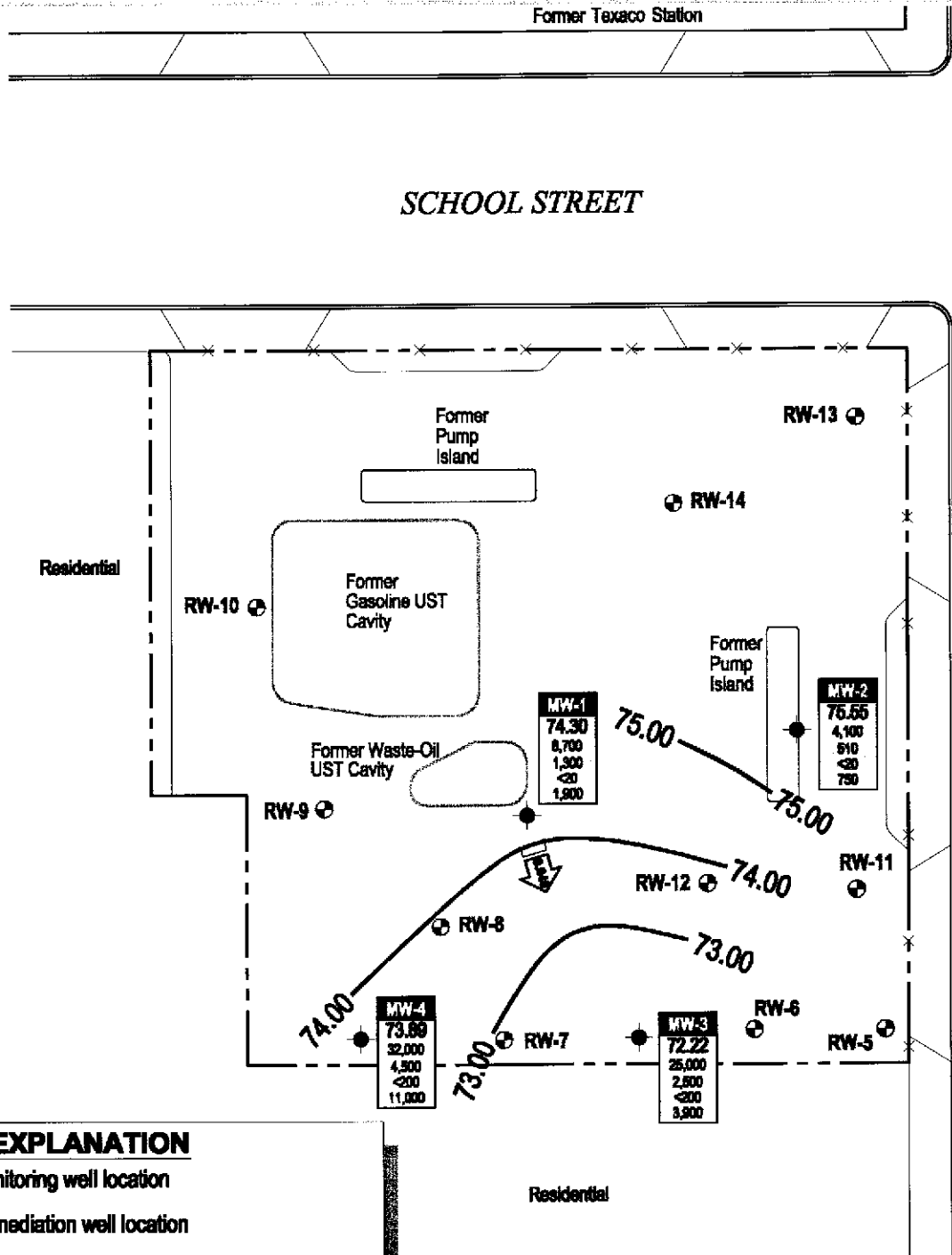
Table 2 – DPE System Performance and Analytical Results - Soil Vapor Extraction

Table 3 – DPE System Performance and Analytical Results - Groundwater Extraction

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Analytical Results for Quarterly Groundwater Sampling

Appendix C – Analytical Results for DPE System Operation



EXPLANATION

MW-1 ● Monitoring well location

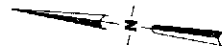
RW-6 ⊕ Remediation well location

— 74.00 — Groundwater elevation contour, in feet above mean sea level (msl), dashed where inferred

→ Groundwater flow direction and gradient

| | |
|---------|--|
| Well ID | Well designation |
| ELEV | Groundwater elevation (msl) |
| TPHg | Hydrocarbon concentrations in groundwater, in µg/l |
| Benzene | |
| MTBE | |
| TPHid | |

Residential



0 15 30

Scale (ft)

35th AVENUE

FIGURE

1

Note: Groundwater elevation contours are affected by DPE remediation system.

Former Exxon Station

3055 35th Avenue

Oakland, California



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Groundwater Elevation and Analytical Summary Map

December 7, 2001

H:\88-2004\GAC-002\FIGURES\FIGURE01-MP.DWG

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

| Well ID (TOC) | Date | GW Depth (ft) | SPH (ft) | GW Elev. (ft) | TPHg | TPHd | TPHmo | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | DO (mg/L) |
|--|-----------------|------------------|-------------|------------------|--------------------------|----------------------------|---------|--------------|------------|--------------|------------|---------------|--------------|
| <----- Concentrations in parts per billion (µg/L) -----> | | | | | | | | | | | | | |
| MW-1 | 05/25/94 | 16.79 | Sheen | 84.06 | 120,000 | 25,000 | <50,000 | 22,000 | 17,000 | 2,800 | 16,000 | --- | --- |
| 100.85 | 07/19/94 | 20.77 | --- | 80.08 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 08/18/94 | 21.04 | Sheen | 79.81 | 925,000 | --- | --- | 16,500 | 6,200 | 1,000 | 9,400 | --- | --- |
| | 11/11/94 | 15.80 | --- | 85.05 | 57,000 | --- | --- | 14,000 | 4,400 | 1,400 | 6,400 | --- | --- |
| | 02/27/95 | 15.53 | --- | 85.32 | 45,000 | --- | --- | 2,900 | 2,500 | 760 | 4,100 | --- | --- |
| | 05/23/95 | 15.29 | --- | 85.56 | 22,000 | --- | --- | 9,900 | 990 | 790 | 2,000 | --- | --- |
| | 08/22/95 | 20.90 | --- | 79.95 | 23,000 | --- | --- | 6,900 | 340 | 1,200 | 1,900 | --- | --- |
| | 11/29/95 | 22.19 | --- | 78.66 | 37,000 | --- | --- | 9,900 | 530 | 1,600 | 2,900 | --- | --- |
| | 02/21/96 | 11.69 | --- | 89.16 | 33,000 | 4,300 | --- | 10,000 | 480 | 1,000 | 1,800 | 3,300 | --- |
| | 05/21/96 | 14.62 | --- | 86.23 | 36,000 | 8,500 | --- | 8,500 | 1,400 | 1,300 | 2,800 | 1,900 | --- |
| | 08/22/96 | 22.30 | --- | 78.55 | 41,000 | 6,200 | --- | 8,600 | 1,300 | 1,500 | 2,900 | <200 | 8.0 |
| | 11/27/96 | 17.24 | Sheen | 83.61 | 38,000 | 6,100 | --- | 9,600 | 950 | 1,600 | 3,100 | <400 | 5.6 |
| | 03/20/97 | 16.65 | --- | 84.20 | 33,000 | 10,000 | --- | 6,100 | 560 | 970 | 2,200 | <400 | 8.5 |
| | 06/25/97 | 19.77 | --- | 81.08 | 31,000 | 7,400 ^a | --- | 7,400 | 440 | 890 | 1,800 | <400 | 3.7 |
| | 09/17/97 | 20.12 | --- | 80.73 | 32,000 ^d | 3,500 ^c | --- | 9,100 | 550 | 1,000 | 2,000 | <1,000 | 2.1 |
| | 12/22/97 | 12.95 | --- | 87.90 | 26,000 ^d | 5,800 ^c | --- | 7,900 | 370 | 920 | 1,500 | <790 | 0.7 |
| | 03/18/98 | 12.34 | Sheen | 88.51 | 30,000 ^d | 4,200 ^{e,f} | --- | 7,800 | 820 | 840 | 2,000 | <1,100 | 1.3 |
| | 07/14/98 | 17.34 | --- | 83.51 | 41,000 ^d | 8,900 ^{e,f} | --- | 8,200 | 1,100 | 1,200 | 3,000 | <200 | 1.8 |
| | 09/30/98 | 19.90 | --- | 80.95 | 37,000 | 3,300 | --- | 11,000 | 950 | 1,200 | 2,800 | <20 | 2.0 |
| | 12/08/98 | 15.62 | --- | 85.23 | 22,000 | 3,700 | --- | 3,000 | 1,200 | 730 | 3,100 | <900 | --- |
| | 03/29/99 | 11.98 | --- | 88.87 | 36,000 ^d | 6,800 ^e | --- | 12,000 | 750 | 1,300 | 2,400 | 950 | 0.50 |
| | 06/29/99 | 20.77 | --- | 80.08 | 28,000 ^d | 3,500 ^e | --- | 7,300 | 420 | 810 | 1,700 | <1,300 | 0.10 |
| | 09/28/99 | 19.68 | --- | 81.17 | 13,000 ^d | 3,600 ^{e,f} | --- | 3,200 | 130 | 320 | 1,100 | <210 | 0.55 |
| | 12/10/99 | 17.02 | --- | 83.83 | 25,000 ^d | 2,900 ^{e,f} | --- | 5,400 | 130 | 620 | 1,400 | <1,000 | 1.03 |
| | 03/23/00 | 12.76 | --- | 88.09 | 21,000 ^d | 3,300 ^f | --- | 4,700 | 140 | 470 | 1,100 | <350 | --- |
| | 09/07/00 | 19.45 | --- | 81.40 | 40,000 ^{d,g} | 12,000 ^{e,g} | --- | 3,700 | 1,400 | 910 | 4,900 | <50 | 0.17 |
| | 12/05/00 | 18.60 | --- | 82.25 | 26,000 ^a | 3,400 ^c | --- | 7,900 | 150 | 580 | 810 | <300 | 0.35 |
| | 03/07/01 | 16.19 | --- | 84.66 | 13,000 | 2,400 | --- | 2,700 | 43 | 69 | 300 | <100 | 0.49 |
| | 06/06/01 | 18.47 | --- | 82.38 | 19,000 | 4,000 | --- | 4,500 | 130 | 270 | 430 | <400 | 0.39 |
| | 08/30/01 | 21.70 | --- | 79.15 | 8,800 ^a | 1,400 ^d | --- | 2,100 | 45 | 91 | 240 | <130 | 0.27 |
| | 12/07/01 | 26.55 | --- | 74.30 | 8,700^d | 1,900^{e,f} | --- | 1,300 | 160 | 38 | 730 | <20 | 0.59 |

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

| Well ID (TOC) | Date | GW Depth (ft) | SPH (ft) | GW Elev. (ft) | TPHg | TPHd | TPHmo | Concentrations in parts per billion (µg/L) | | | | | DO (mg/L) |
|------------------|----------|------------------|-------------|------------------|-----------------------|-------------------------|--------|--|---------|--------------|---------|--------|--------------|
| | | | | | | | | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | |
| MW-2 | 05/25/94 | 15.65 | --- | 84.35 | 61,000 | 6,900 | <5,000 | 9,900 | 7,400 | 960 | 4,600 | --- | --- |
| 100.00 | 07/19/94 | 19.81 | --- | 80.19 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 08/18/94 | 20.37 | --- | 79.63 | 88,000 | --- | --- | 10,750 | 10,500 | 1,850 | 9,600 | --- | --- |
| | 11/11/94 | 15.52 | --- | 84.48 | 54,000 | --- | --- | 5,900 | 6,700 | 1,300 | 7,500 | --- | --- |
| | 02/27/95 | 14.46 | Sheen | 85.54 | 44,000 | --- | --- | 5,100 | 5,300 | 930 | 6,400 | --- | --- |
| | 05/23/95 | 14.17 | --- | 85.83 | 33,000 | --- | --- | 8,200 | 5,600 | 900 | 6,600 | --- | --- |
| | 08/22/95 | 19.80 | --- | 80.20 | 38,000 | --- | --- | 6,400 | 5,000 | 1,100 | 5,600 | --- | --- |
| | 11/29/95 | 21.05 | --- | 78.95 | 46,000 | --- | --- | 7,100 | 5,300 | 1,300 | 6,000 | --- | --- |
| | 02/21/96 | 10.53 | --- | 89.47 | 59,000 | --- | --- | 8,000 | 6,000 | 1,800 | 8,900 | 4,500 | --- |
| | 05/21/96 | 13.47 | --- | 86.53 | 51,000 | 3,400 | --- | 8,200 | 5,200 | 1,300 | 6,600 | 2,400 | --- |
| | 08/22/96 | 19.12 | --- | 80.88 | 37,000 | 5,700 | --- | 5,100 | 3,500 | 960 | 4,500 | <200 | 3.0 |
| | 11/27/96 | 16.61 | Sheen | 83.39 | 54,000 | 10,000 | --- | 9,800 | 7,000 | 1,800 | 7,900 | <2,000 | 3.1 |
| | 03/20/97 | 15.39 | --- | 84.61 | 27,000 | 6,100 | --- | 3,700 | 2,300 | 580 | 2,800 | <400 | 8.1 |
| | 06/25/97 | 18.62 | --- | 81.38 | 42,000 | 7,800 ^b | --- | 7,400 | 3,800 | 1,200 | 5,700 | <200 | 0.9 |
| | 09/17/97 | 19.05 | Sheen | 80.95 | 41,000 ^d | 8,900 ^e | --- | 5,200 | 3,400 | 1,300 | 5,900 | <700 | 1.2 |
| | 12/22/97 | 14.09 | --- | 85.91 | 47,000 ^d | 6,100 ^e | --- | 8,500 | 4,600 | 1,800 | 8,400 | <1,200 | 1.2 |
| | 03/18/98 | 10.83 | Sheen | 89.17 | 58,000 ^d | 7,000 ^{e,f} | --- | 9,300 | 6,100 | 1,800 | 8,200 | <1,100 | 1.1 |
| | 07/14/98 | 16.07 | --- | 83.93 | 42,000 ^d | 5,300 ^{e,f} | --- | 6,000 | 3,000 | 1,000 | 4,800 | <200 | 1.5 |
| | 09/30/98 | 18.71 | --- | 81.29 | 22,000 | 2,400 | --- | 3,600 | 1,300 | 720 | 3,200 | <30 | 1.8 |
| | 12/08/98 | 14.80 | --- | 85.20 | 32,000 | 3,100 | --- | 9,200 | 680 | 1,100 | 2,300 | <2,000 | --- |
| | 03/29/99 | 11.81 | --- | 88.19 | 28,000 ^d | 7,500 ^{e,f} | --- | 4,400 | 1,600 | 950 | 4,100 | 410 | 1.86 |
| | 06/29/99 | 19.54 | --- | 80.46 | 28,000 ^d | 3,300 ^e | --- | 3,500 | 1,100 | 690 | 3,100 | <1,000 | 0.41 |
| | 09/28/99 | 18.61 | --- | 81.39 | 15,000 ^d | 3,400 ^{e,f} | --- | 1,200 | 540 | 230 | 2,300 | <36 | 1.18 |
| | 12/10/99 | 16.53 | --- | 83.47 | 17,000 ^d | 2,500 ^{e,f} | --- | 1,300 | 780 | 420 | 2,700 | <40 | 0.17 |
| | 03/23/00 | 13.56 | --- | 86.44 | 25,000 ^d | 3,100 ⁱ | --- | 1,900 | 1,100 | 660 | 3,700 | <500 | --- |
| | 09/07/00 | 18.25 | --- | 81.75 | 62,000 ^{d,g} | 32,000 ^{e,g} | --- | 5,300 | 2,300 | 1,500 | 8,400 | <100 | 0.39 |
| | 12/05/00 | 17.45 | --- | 82.55 | 60,000 ^{d,g} | 87,000 ^{e,f,g} | --- | 5,100 | 2,200 | 1,600 | 9,000 | <200 | 0.31 |
| | 03/07/01 | 15.68 | --- | 84.32 | 34,000 | 3,900 | --- | 1,200 | 770 | 620 | 4,300 | <200 | 0.44 |
| | 06/06/01 | 17.51 | --- | 82.49 | 110,000 | 48,000 | --- | 14,000 | 9,000 | 1,900 | 12,000 | <950 | 0.24 |
| | 08/30/01 | 21.00 | --- | 79.00 | 43,000 ^{a,h} | 15,000 ^{d,h} | --- | 3,100 | 720 | 980 | 5,500 | <200 | --- |
| | 12/07/01 | 24.45 | --- | 75.55 | 4,100 ^d | 750 ^{e,f} | --- | 510 | 88 | 8.2 | 580 | <20 | 0.47 |

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

| Well ID (TOC) | Date | GW Depth (ft) | SPH (ft) | GW Elev. (ft) | TPHg | TPHd | TPHmo | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | DO (mg/L) |
|--|-----------------|------------------|-------------|------------------|---------------------------|----------------------------|------------|--------------|--------------|--------------|--------------|----------------|--------------|
| <----- Concentrations in parts per billion (µg/L) -----> | | | | | | | | | | | | | |
| MW-3 | 05/25/94 | 13.93 | Sheen | 82.94 | 56,000 | 14,000 | <50,000 | 14,000 | 14,000 | 1,300 | 11,000 | --- | --- |
| 96.87 | 07/19/94 | 17.04 | --- | 79.83 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 08/18/94 | 17.75 | --- | 79.12 | 116,000 | --- | --- | 28,300 | 26,000 | 2,400 | 15,000 | --- | --- |
| | 11/11/94 | 17.80 | --- | 79.07 | 89,000 | --- | --- | 1,600 | 1,900 | 1,900 | 14,000 | --- | --- |
| | 02/27/95 | 11.86 | Sheen | 85.01 | 250,000 | --- | --- | 22,000 | 26,000 | 7,800 | 21,000 | --- | --- |
| | 05/23/95 | 11.60 | Sheen | 85.27 | 310,000 | --- | --- | 18,000 | 17,000 | 4,500 | 2,800 | --- | --- |
| | 08/22/95 | 17.10 | --- | 79.77 | 74,000 | --- | --- | 14,000 | 13,000 | 1,900 | 11,000 | --- | --- |
| | 11/29/95 | 16.34 | --- | 80.53 | 220,000 | --- | --- | 25,000 | 25,000 | 3,500 | 19,000 | --- | --- |
| | 02/21/96 | 7.92 | --- | 88.95 | 60,000 | --- | --- | 10,000 | 7,800 | 1,500 | 8,800 | 3,400 | --- |
| | 05/21/96 | 10.86 | Sheen | 86.01 | 69,000 | 13,000 | --- | 17,000 | 9,400 | 1,700 | 9,400 | 2,600 | --- |
| | 08/22/96 | 16.50 | --- | 80.37 | 94,000 | 16,000 | --- | 17,000 | 15,000 | 2,100 | 12,000 | 330 | 2.0 |
| | 11/27/96 | 13.47 | Sheen | 83.40 | 82,000 | 24,000 | --- | 14,000 | 13,000 | 2,400 | 13,000 | <1,000 | 2.4 |
| | 03/20/97 | 12.86 | --- | 84.01 | 56,000 | 11,000 | --- | 9,900 | 6,900 | 1,300 | 8,000 | 3,500 | 9.0 |
| | 06/25/97 | 15.98 | --- | 80.89 | 49,000 | 7,700 ^b | --- | 9,700 | 7,100 | 1,300 | 7,000 | 220 | 5.8 |
| | 09/17/97 | 16.34 | Sheen | 80.53 | 78,000 ^d | 15,000 ^e | --- | 11,000 | 9,900 | 1,800 | 10,000 | <1,200 | 0.7 |
| | 12/22/97 | 10.71 | Sheen | 86.16 | 49,000 ^d | 14,000 ^e | --- | 7,300 | 5,300 | 1,400 | 7,500 | <1,100 | 3.1 |
| | 03/18/98 | 8.41 | Sheen | 88.46 | 120,000 ^d | 20,000 ^{e,f} | --- | 21,000 | 19,000 | 2,600 | 15,000 | <1,600 | 1.6 |
| | 07/14/98 | 13.51 | --- | 83.36 | 94,000 ^{d,g} | 65,000 ^{e,f,g} | --- | 18,000 | 14,000 | 1,900 | 11,000 | <1,400 | 1.8 |
| | 09/30/98 | 16.14 | --- | 80.73 | 91,000 | 9,800 | --- | 17,000 | 13,000 | 2,100 | 12,000 | <1300 | 2.0 |
| | 12/08/98 | 11.20 | --- | 85.67 | 51,000 | 4,200 | --- | 8,000 | 6,800 | 1,400 | 7,500 | <1,100 | --- |
| | 03/29/99 | 7.95 | --- | 88.92 | 39,000 ^d | 4,600 ^e | --- | 8,900 | 4,400 | 940 | 4,500 | 810 | 0.56 |
| | 06/29/99 | 16.98 | --- | 79.89 | 71,000 ^d | 6,900 ^e | --- | 12,000 | 7,300 | 1,400 | 8,400 | <1,700 | 0.19 |
| | 09/28/99 | 15.99 | --- | 80.88 | 60,000 ^d | 7,800 ^e | --- | 9,400 | 9,200 | 1,000 | 9,900 | 200 | 0.53 |
| | 12/10/99 | 13.31 | --- | 83.56 | 53,000 ^d | 5,300 ^{e,f} | --- | 8,000 | 6,400 | 1,100 | 8,100 | <200 | 0.48 |
| | 03/23/00 | 8.98 | --- | 87.89 | 77,000 ^{d,g} | 11,000 ^{g,j} | --- | 10,000 | 9,400 | 1,600 | 11,000 | <430 | --- |
| | 09/07/00 | 15.61 | --- | 81.26 | 100,000 ^{d,g} | 19,000 ^{e,f,g} | --- | 17,000 | 12,000 | 1,600 | 11,000 | <500 | --- |
| | 12/05/00 | 14.80 | --- | 82.07 | 110,000 ^{d,g} | 17,000 ^{e,g} | --- | 17,000 | 11,000 | 1,900 | 12,000 | <750 | 0.37 |
| | 03/07/01 | 14.27 | --- | 82.60 | 60,000 | 13,000 | --- | 7,000 | 4,600 | 900 | 7,100 | <350 | 0.49 |
| | 06/06/01 | 14.88 | --- | 81.99 | 43,000 | 12,000 | --- | 3,000 | 1,000 | 770 | 5,200 | <400 | 1.71 |
| | 08/30/01 | 12.43 | --- | 84.44 | 95,000 ^{a,h} | 190,000 ^{d,h} | --- | 6,900 | 10,000 | 2,700 | 15,000 | <250 | 0.24 |
| | 12/07/01 | 24.65 | --- | 72.22 | 25,000^d | 3,900^{e,f} | --- | 2,500 | 1,700 | 64 | 2,200 | <200 | 0.19 |

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

| Well ID (TOC) | Date | GW Depth (ft) | SPH (ft) | GW Elev. (ft) | TPHg | TPHd | TPHmo | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | DO (mg/L) |
|--|-----------|------------------|-------------|------------------|-----------------------|-------------------------|-------|---------|---------|--------------|---------|------------------|--------------------|
| ←----- Concentrations in parts per billion (µg/L) -----> | | | | | | | | | | | | | |
| MW-4 | 03/20/97 | 13.75 | --- | 83.59 | 47,000 | 3,100 | --- | 11,000 | 4,500 | 1,100 | 5,200 | 3,400 | 8.4 |
| 97.34 | 06/25/97 | 16.15 | --- | 81.19 | 61,000 | 5,800 ^b | --- | 16,000 | 6,100 | 1,500 | 5,900 | 780 ^c | 1.4 |
| | 09/17/97 | 17.10 | --- | 80.24 | 60,000 ^d | 4,400 ^e | --- | 17,000 | 4,900 | 1,500 | 5,700 | <1,500 | 1.5 |
| | 12/22/97 | 9.21 | --- | 88.13 | 43,000 ^d | 3,100 ^e | --- | 13,000 | 3,900 | 1,100 | 4,200 | <960 | 3.7 |
| | 03/18/98 | 9.54 | --- | 87.80 | 58,000 ^d | 5,500 ^{e,f} | --- | 14,000 | 4,700 | 1,400 | 5,700 | <1,200 | 0.8 |
| | 07/14/98 | 14.15 | --- | 83.19 | 73,000 ^d | 2,900 ^{e,f} | --- | 22,000 | 7,000 | 1,800 | 7,300 | <200 | 1.0 |
| | 09/30/98 | 16.84 | --- | 80.50 | 39,000 | 2,100 | --- | 12,000 | 2,700 | 1,000 | 3,400 | 510 | 1.1 |
| | 12/08/98 | 13.45 | --- | 83.89 | 27,000 | 1,600 | --- | 8,900 | 1,600 | 730 | 2,300 | <1,500 | --- |
| | 03/29/99 | 9.10 | --- | 88.24 | 48,000 ^d | 2,400 ^{e,f,h} | --- | 15,000 | 3,000 | 1,300 | 5,000 | 1,300 | 1.32 |
| | 06/29/99* | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 09/28/99 | 16.58 | --- | 80.76 | 24,000 ^d | 3,200 ^{e,f} | --- | 7,500 | 1,200 | 190 | 2,200 | 210 | 14.29 ^f |
| | 12/10/99 | 13.99 | --- | 83.35 | 47,000 ^d | 3,100 ^{e,f} | --- | 12,000 | 1,800 | 1,000 | 4,400 | <100 | 0.62 |
| | 03/23/00 | 10.22 | --- | 87.12 | 40,000 ^d | 3,100 ^{e,f} | --- | 11,000 | 1,600 | 910 | 3,100 | 690 | --- |
| | 09/07/00 | 16.40 | --- | 80.94 | 43,000 ^d | 5,900 ^e | --- | 10,000 | 1,100 | 1,100 | 3,400 | <450 | 1.04 |
| | 12/05/00 | 15.55 | --- | 81.79 | 69,000 ^{d,g} | 2,600 ^{e,g} | --- | 16,000 | 1,300 | 1,300 | 3,400 | <200 | 0.35 |
| | 03/20/01 | 14.03 | --- | 83.31 | 46,000 | --- | --- | 13,000 | 1,000 | 900 | 2,800 | <350 | 0.39 |
| | 06/06/01 | 15.49 | --- | 81.85 | 75,000 | 5,400 | --- | 22,000 | 1,800 | 1,900 | 6,400 | <1,200 | 2.22 |
| | 08/30/01 | 18.00 | --- | 79.34 | 43,000 ^h | 3,200 ^d | --- | 6,400 | 630 | 510 | 2,600 | <200 | 0.32 |
| | 12/07/01 | 23.45 | --- | 73.89 | 32,000 ^{d,g} | 11,000 ^{e,f,g} | --- | 4,500 | 740 | 310 | 2,300 | <200 | 0.21 |
| Trip Blank | 07/14/98 | --- | --- | --- | <50 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | --- |
| | 09/30/98 | --- | --- | --- | <50 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | --- |
| | 12/08/98 | --- | --- | --- | <50 | --- | --- | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | --- |
| | 03/29/99 | --- | --- | --- | <50 | --- | --- | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | --- |
| | 06/29/99 | --- | --- | --- | <50 | --- | --- | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | --- |
| | 03/23/00 | --- | --- | --- | <50 | --- | --- | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | --- |
| | 09/07/00 | --- | --- | --- | <50 | --- | --- | <0.5 | 1.1 | <0.5 | 1.1 | <5.0 | --- |

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

| Well ID (TOC) | Date | GW Depth (ft) | SPH (ft) | GW Elev. (ft) | TPHg | TPHd | TPHmo | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | DO (mg/L) |
|--|------|------------------|-------------|------------------|------|------|-------|---------|---------|--------------|---------|------|--------------|
| <----- Concentrations in parts per billion (µg/L) -----> | | | | | | | | | | | | | |

Abbreviations:

TOC = Top of casing elevation relative to an arbitrary datum
 GW = Groundwater
 SPH = Separate-phase hydrocarbons
 --- = not observed/not analyzed
 TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
 TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
 TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015
 Benzene, Ethylbenzene, Toluene, and Xylenes by EPA Method 8020
 MTBE = Methyl Tertiary-Butyl Ether by EPA Method 8020
 DO = Dissolved oxygen
 µg/L = Micrograms per liter, equivalent to parts per billion in water
 mg/L = Milligrams per liter, equivalent to parts per million in water
 * = Well inaccessible during site visit

Notes:

a = Result has an atypical pattern for diesel analysis
 b = Result appears to be a lighter hydrocarbon than diesel
 c = There is a >40% difference between primary and confirmation analysis
 d = Unmodified or weakly modified gasoline is significant
 e = Gasoline range compounds are significant
 f = Diesel range compounds are significant; no recognizable pattern
 g = lighter than water immiscible sheen is present
 h = one to a few isolated peaks present
 i = medium boiling point pattern does not match diesel (stoddard solvent)
 j = aged diesel? is significant
 TOC Elevation of Well MW-4 surveyed relative to an arbitrary site datum by David Hop,
 Licensed Surveyor on April 19, 1997
 # = abnormally high reading due to added hydrogen peroxide

Table 2. DPE System Performance and Analytical Results - Soil Vapor Extraction - Golden Empire Properties (Worthington), 3055 35th Street, Oakland, California

| Date | Hour Meter Readings (hrs) | System Uptime (per interval) (%) | System Inlet Temp. (degree F) | System Flow Rate (after dilution) (scfm) | System Influent HC Conc. ¹ | | System Effluent HC Conc. ² | | HC Removal Rate ³ | Emission Rate (lbs/day) | | TPHg Destruction Efficiency (%) | Gasoline Cumulative Removal (lbs) |
|----------|---------------------------|----------------------------------|-------------------------------|--|---------------------------------------|------|---------------------------------------|------|------------------------------|-------------------------|----|---------------------------------|-----------------------------------|
| | | | | | TPHg | TPHg | Benz | TPHg | TPHg | Benz | | | |
| 6/24/00 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 |
| 9/28/00 | 454 | 20% | 789 | 175 | 420 | 22 | 0.24 | 23.6 | 1.24 | 0.012 | 95 | -- | 0 |
| 10/12/00 | 696 | 72% | 950 | 88 | 360 | <10 | <0.15 | 10.1 | <0.28 | <0.004 | * | -- | 238 |
| 11/9/00 | 1251 | 83% | 820 | 55 | 590 | <10 | <0.15 | 10.5 | <0.18 | <0.002 | * | -- | 472 |
| 1/23/01 | 1313 | 3% | -- | -- | -- | -- | -- | -- | -- | -- | * | -- | 499 |
| 3/28/01 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 499 |
| 4/5/01 | 194 | 101% | 908 | 68 | 1,800 | 34 | 0.52 | 39.2 | 0.74 | 0.010 | 98 | -- | 499 |
| 5/3/01 | 863 | 100% | 1000 | 29 | 2,800 | <10 | <0.15 | 25.8 | <0.09 | <0.001 | * | -- | 1909 |
| 6/4/01 | 1114 | 33% | 820 | 79 | 240 | <10 | <0.15 | 6.1 | <0.25 | <0.003 | * | -- | 2179 |
| 7/2/01 | 1429 | 62% | 804 | 73 | 92 | 26 | 0.34 | 2.1 | <0.61 | <0.007 | 72 | -- | 2259 |
| 7/10/01 | 1621 | 100% | 900 | 110 | 92 | <10 | <0.15 | 3.2 | <0.35 | <0.005 | * | -- | 2276 |
| 8/2/01 | 1759 | 25% | 940 | 65 | 110 | <10 | <0.15 | 2.3 | <0.21 | <0.003 | * | -- | 2295 |
| 9/7/01 | 2301 | 63% | 854 | 60 | 81 | 34 | 0.52 | 1.6 | <0.66 | <0.009 | 58 | -- | 2347 |
| 10/3/01 | 2470 | 27% | 854 | 60 | 160 | <10 | 0.31 | 3.1 | <0.19 | <0.005 | * | -- | 2358 |

Table 2. DPE System Performance and Analytical Results - Soil Vapor Extraction - Golden Empire Properties (Worthington), 3055 35th Street, Oakland, California

| Date | Hour Meter Readings (hrs) | System Uptime (per interval) (%) | System Inlet Temp. (degree F) | System Flow Rate (after dilution) (scfm) | System Influent HC Conc. ¹ (ppmv) | System Effluent HC Conc. ² (ppmv) | | HC Removal Rate ³ (lbs/day) | Emission Rate (lbs/day) | | TPHg Destruction Efficiency (%) | Gasoline Cumulative Removal (lbs) |
|----------|---------------------------|----------------------------------|-------------------------------|--|--|--|-------|--|-------------------------|--------|---------------------------------|-----------------------------------|
| | | | | | TPHg | TPHg | Benz | TPHg | TPHg | Benz | | |
| 11/6/01 | 3015 | 67% | 955 | 60 | 590 | 31 | 0.43 | 11.4 | <0.60 | <0.008 | 95 | 2428 |
| 11/14/01 | 3184 | 88% | 860 | 60 | 810 | <10 | <0.15 | 15.7 | <0.19 | <0.003 | * | 2508 |
| 12/6/01 | 3710 | 96% | 806 | 60 | 50 | <10 | <0.15 | 1.0 | <0.19 | <0.003 | * | 2853 |
| 1/7/02 | 4472 | 99% | 841 | 60 | 50 | <10 | <0.15 | 1.0 | <0.19 | <0.003 | * | 2884 |

Notes and Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline

Benz = Benzene

HC Conc. = Hydrocarbon Concentrations

ppmv = Parts per million by volume. Analytical lab results converted from micrograms per liter (ug/l) to ppmv assumes the molecular weight of gasoline to be equal to that of hexane. at 1 atmosphere of pressure and 20 degrees Celsius.

¹ TPHg and benzene concentrations based on lab results by Modified EPA Methods 8015 and 8020.

² The hydrocarbon removal/emission rate is based on the Bay Area Air Quality Management's District's (BAAQMD) Procedures for Soil Vapor Extraction where Rate = concentration (ppmv) x flow rate (scfm) x 1 lb-mole/386x10⁶ft³ x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene) x 1440 min/day.

³ Gasoline Removal = The previous removal rates multiplied by the interval days of operation plus the previous total removal amount. The total TPHg removal is based on lab analytical results.

* As per BAAQMD permit conditions, system destruction efficiency need not be calculated for effluent TPHg concentrations less than 10 ppmv

Table 3. DPE System Performance and Analytical Results - Groundwater Extraction - Golden Empire Properties (Worthington), 3055 35th Street, Oakland, CA

| Date | Hour Meter Readings (hrs) | Water Meter Readings (gallons) | Total Groundwater Extracted (gallons) | System Flow Rate Per Period (gpm) | Sample ID | TPHg (ug/L) | Benzene (ug/L) | Toluene (ug/L) | Ethylbenzene (ug/L) | Total Xylenes (ug/L) | HCs Removed Per Period (lbs) | Total HCs Removed (lbs) |
|----------|---------------------------|--------------------------------|---------------------------------------|-----------------------------------|----------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|------------------------------|-------------------------|
| 10/20/00 | 878 | 0 | 0 | NC | Inf Eff | -- -- | <0.5 <0.5 | <0.5 <0.5 | <0.5 <0.5 | <0.5 <0.5 | -- | -- |
| 10/30/00 | 1004 | -- | 50 | NC | Inf Eff | -- -- | 170 <0.5 | 140 <0.5 | 16 <0.5 | 200 <0.5 | -- | -- |
| 11/9/00 | 1,251 | -- | 50 | NC | Inf Eff | 760 <50 | 120 <0.5 | 86 <0.5 | 4.2 <0.5 | 84 <0.5 | NC | NC |
| 12/15/00 | 1,267 | 760a | 50 | NC | -- | -- | -- | -- | -- | -- | -- | -- |
| 1/23/01 | 1,313 | 3,790 | 3,080 | 1.1 | In Mid Eff | 3,000 <50 <50 | 440 <0.5 <0.5 | 360 <0.5 <0.5 | 57 <0.5 <0.5 | 350 <0.5 <0.5 | 0.019 | 0.019 |
| 3/28/01 | 0 | 3,970 | 3,210 | NC | Replacement Catox System Startup | | | -- | -- | -- | 0.005 | 0.024 |
| 4/13/01 | 378 | 17,366 | 16,606 | 0.6 | IN EF-1 | 360 <50 | 45 <0.5 | 39 <0.5 | 5.1 <0.5 | 43 <0.5 | 0.335 | 0.359 |
| 6/4/01 | 1,114 | 36,058 | 35,298 | 0.4 | IN Mid EF | 54 <50 <50 | <0.5 <0.5 <0.5 | 0.69 <0.5 <0.5 | <0.5 <0.5 <0.5 | 3.1 <0.5 <0.5 | 0.056 | 0.415 |

Table 3. DPE System Performance and Analytical Results - Groundwater Extraction - Golden Empire Properties (Worthington), 3055 35th Street, Oakland, CA

| Date | Hour Meter Readings (hrs) | Water Meter Readings (gallons) | Total Groundwater Extracted (gallons) | System Flow Rate Per Period (gpm) | Sample ID | TPHg (ug/L) | Benzene (ug/L) | Toluene (ug/L) | Ethylbenzene (ug/L) | Total Xylenes (ug/L) | HCs Removed Per Period (lbs) | Total HCs Removed (lbs) |
|---|---------------------------|--------------------------------|---------------------------------------|-----------------------------------|--------------------------|--------------------|---------------------|-------------------|----------------------|----------------------|------------------------------|-------------------------|
| 7/2/01 | 1,429 | 39,433 | 38,673 | 0.2 | IN Mid EF | <50 <50 <50 | 2.5 <0.5 <0.5 | 1 <0.5 <0.5 | <0.5 <0.5 <0.5 | 5 <0.5 <0.5 | 0.002 | 0.417 |
| 9/7/01 | 2,301 | 48,566 | 47,806 | 0.2 | INF Mid (EFF-1) EF | 4,600 <50 -- | 24 <0.5 -- | 57 <0.5 -- | 15 <0.5 -- | 140 <0.5 -- | 0.004 | 0.421 |
| 11/16/01 | 3,184 | 61,892 | 61,132 | 0.3 | INF Mid (EFF-1) EF | 1100 <50 -- | 57 <0.5 -- | 42 <0.5 -- | 6.5 <0.5 -- | 110 <0.5 -- | 0.512 | 0.932 |
| 12/6/01 | 3,710 | 80,094 | 79,334 | 0.6 | INF Mid (EFF-1) EF | 410 <50 -- | 31 <0.5 -- | 14 <0.5 -- | 3.2 <0.5 -- | 48 <0.5 -- | 0.167 | 1.099 |
| 12/19/01 | 4,018 | 97,051 | 96,291 | 0.9 | -- | -- | -- | -- | -- | -- | 0.058 | 1.157 |
| Sewer Effluent Discharge Limits: | | | | | | | 5.0 | 5.0 | 5.0 | 5.0 | | |
| | | | | | | | (ug/L) | | | | | |

Notes:

TPHg = Total Petroleum Hydrocarbons as Gasoline
 BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes
 MTBE = Methyl tert-butyl ether
 ug/l = micrograms per liter
 a = Malfunctioning totalizer replaced 12/15/00 (intial reading at 760 gallons)

ND = non detect
 <n = below noted practical laboratory quantitation limits
 Inf = Influent Sample
 Eff = Effluent Sample
 NC = Not calculated, insufficient data

C A M B R I A



APPENDIX A

Groundwater Monitoring Field Data Sheets

C A M B R I A



APPENDIX B

Analytical Results for Quarterly Groundwater Sampling



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|--------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105; Worthington | Date Sampled: 12/07/01 |
| | | Date Received: 12/11/01 |
| | Client Contact: Ron Scheele | Date Extracted: 12/11/01 |
| | Client P.O: | Date Analyzed: 12/11/01 |

12/18/01

Dear Ron:

Enclosed are:

- 1). the results of 4 samples from your #130-0105; Worthington project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

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| | | |
|--|--|--------------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105; Worthington | Date Sampled: 12/07/01 |
| | Client Contact: Ron Scheele | Date Received: 12/11/01 |
| | Client P.O: | Date Extracted: 12/13-12/14/01 |
| | | Date Analyzed: 12/13-12/14/01 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluene | Ethyl- benzene | Xylenes | % Recovery Surrogate |
|---|-----------|--------|---------------------|--------|---------|---------|-------------------|---------|-------------------------|
| 85921 | MW-1 | W | 8700,a | ND<20 | 1300 | 160 | 38 | 730 | 106 |
| 85922 | MW-2 | W | 4100,a | ND<20 | 510 | 88 | 8.2 | 580 | 98 |
| 85923 | MW-3 | W | 25,000,a | ND<200 | 2500 | 1700 | 64 | 2200 | 100 |
| 85924 | MW-4 | W | 32,000,a,h | ND<200 | 4500 | 740 | 310 | 2300 | 105 |
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| | | | | | | | | | |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | W | | 50 ug/L | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | |
| | S | | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | |

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



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| | | |
|--|--|-------------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105; Worthington | Date Sampled: 12/07/01 |
| | Client Contact: Ron Scheele | Date Received: 12/11/01 |
| | Client P.O: | Date Analyzed: 12/12-12/14/01 |
| | | Date Extracted: 12/11/01 |

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

| Lab ID | Client ID | Matrix | TPH(d) [†] | % Recovery Surrogate |
|--|-----------|-----------|---------------------|----------------------|
| 85921 | MW-1 | W | 1900,d,b | 91 |
| 85922 | MW-2 | W | 750,d,b | 91 |
| 85923 | MW-3 | W | 3900,d,b | 100 |
| 85924 | MW-4 | W | 11,000d,b,h | 100 |
| | | | | |
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| | | | | |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | W | 50 ug/L | | |
| | S | 1.0 mg/kg | | |

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

† cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



QC REPORT

EPA 8015m + 8020

Date: 12/14/01

Matrix: Water

| Compound | Concentration: ug/L | | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|-----------|-----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | MSD | |

SampleID: 121201

Extraction: EPA 5030

Instrument: GC-7

| | | | | | | | |
|--------------|----|-------|-------|--------|-----|-----|-----|
| Surrogate1 | ND | 109.0 | 107.0 | 100.00 | 109 | 107 | 1.9 |
| Xylenes | ND | 30.9 | 28.6 | 30.00 | 103 | 95 | 7.7 |
| Ethylbenzene | ND | 10.2 | 9.4 | 10.00 | 102 | 94 | 8.2 |
| Toluene | ND | 10.2 | 9.5 | 10.00 | 102 | 95 | 7.1 |
| Benzene | ND | 9.4 | 8.8 | 10.00 | 94 | 88 | 6.6 |
| MTBE | ND | 8.9 | 8.3 | 10.00 | 89 | 83 | 7.0 |
| TPH (gas) | ND | 90.0 | 90.4 | 100.00 | 90 | 90 | 0.5 |

SampleID: 121101

Extraction: EPA 3510

Instrument: GC-2 A

| | | | | | | | |
|--------------|----|--------|--------|---------|----|----|-----|
| Surrogate1 | ND | 92.0 | 94.0 | 100.00 | 92 | 94 | 2.2 |
| TPH (diesel) | ND | 6450.0 | 6825.0 | 7500.00 | 86 | 91 | 5.6 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

APPENDIX C

Analytical Results for DPE System Operation

C A M B R I A



APPENDIX C

Analytical Results for DPE System Operation



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|--------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 10/03/01 |
| | | Date Received: 10/04/01 |
| | Client Contact: Ron Scheele | Date Extracted: 10/04/01 |
| | Client P.O: | Date Analyzed: 10/04/01 |

10/11/01

Dear Ron:

Enclosed are:

- 1). the results of 2 samples from your #130-0105-337; Worthington project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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| | | |
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| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 10/03/01 |
| | | Date Received: 10/04/01 |
| | Client Contact: Ron Scheele | Date Extracted: 10/04/01 |
| | Client P.O: | Date Analyzed: 10/04/01 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | % Recovery Surrogate |
|--------|-----------|--------|---------------------|------|---------|---------|--------------|---------|----------------------|
| 80187 | INF | Air | 160,a | ND | 4.6 | 3.4 | 0.54 | 2.7 | — [#] |
| 80188 | EFF | Air | ND | ND | 0.31 | 0.21 | ND | 0.16 | 117 |
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[#] ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

| | | | | | | | | | |
|--|-----|-----------|------|-------|-------|-------|-------|-------|--|
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| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | Air | 10 uL/L | 1.5 | 0.15 | 0.15 | 0.15 | 0.15 | 0.25 | |
| | S | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | |

* water and vapor samples are reported in uL/L(ppmv), wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



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<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8015m + 8020

Date: 10/04/01

Extraction: EPA 5030

Matrix: Air

| Compound | Concentration: ug/L | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | |

SampleID: 82801

Instrument: GC-12

| | | | | | | | |
|--------------|----|-------|-------|--------|-----|-----|------|
| Surrogate1 | ND | 114.0 | 102.0 | 100.00 | 114 | 102 | 11.1 |
| Xylenes | ND | 34.6 | 33.7 | 30.00 | 115 | 112 | 2.6 |
| Ethylbenzene | ND | 11.6 | 11.5 | 10.00 | 116 | 115 | 0.9 |
| Toluene | ND | 11.9 | 10.9 | 10.00 | 119 | 109 | 8.8 |
| Benzene | ND | 10.8 | 10.3 | 10.00 | 108 | 103 | 4.7 |
| MTBE | ND | 9.2 | 8.6 | 10.00 | 92 | 86 | 6.7 |
| TPH (gas) | ND | 89.5 | 93.4 | 100.00 | 89 | 93 | 4.4 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{AmountSpiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

28105 ZC 484

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #107
PACIFICCO, CA 94533

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD
TURN AROUND TIME

RUSH 24 HOUR 48 HOUR 5 DAY

Report To: Ron Scheele Bill To: Ron Scheele

Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608

Tele: (510) 450-1983

Fax: (510) 450-8295

Project #: 130-0105-337

Project Name: Worthington

Project Location: 3055 35th ST OAKLAND, CA

Sampler Signature: *[Signature]*

Analysis Request

Other

Comments

| SAMPLE ID | LOCATION | SAMPLING | | # Containers | Type Containers | MATRIX | | | | | METHOD PRESERVED | | | | BTX & TPH as Gas (602/8020 / 8015) MTDE | TPH as Diesel (8015) | Total Petroleum Oil & Grease (5520 E&P/R&F) | Total Petroleum Hydrocarbons (418.1) | EPA 501 / 8010 | BTX ONLY (EPA 602 / 8020) | EPA 608 / 8080 | EPA 608 / 8080 PCB'S ONLY | EPA 624 / 8240 / 8260 | EPA 625 / 8270 | PAH's / PNA's by EPA 625 / 8270 / 8310 | CAM-17 Metals | LUFT 5 Metals | Lead (7240/7421/239.2/6010) | RCI | | | | | | |
|-----------|-------------|----------|------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|---|----------------------|---|--------------------------------------|----------------|---------------------------|----------------|---------------------------|-----------------------|----------------|--|---------------|---------------|-----------------------------|-----|--|--|--|--|--|--|
| | | Date | Time | | | Water | Soil | Air | Sludge | Other | Ice | HCl | HNO ₃ | Other | | | | | | | | | | | | | | | | | | | | | |
| INF | Worthington | 10/3/01 | 4pm | 1 | T ₆ | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EFF | Worthington | 10/3/01 | 4pm | 1 | T ₆ | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VOAS | OBG | METALS | OTHER

ICE/® GOOD CONDITION HEAD SPACE ABSENT
PRESERVATION APPROPRIATE CONTAINERS

| | | | |
|-------------------------------------|---------------|-------------|---------------------------------|
| Relinquished By: <i>[Signature]</i> | Date: 10/3/01 | Time: 8pm | Received By: <i>[Signature]</i> |
| Relinquished By: <i>[Signature]</i> | Date: 10/04 | Time: 11:00 | Received By: <i>[Signature]</i> |
| Relinquished By: <i>[Signature]</i> | Date: 10/04 | Time: 17:00 | Received By: <i>[Signature]</i> |

Remarks:
REPORT IN PPMV
REPORTING LIMIT 10PPMV
(20 ml injection volume)
PLEASE FAX RESULTS ASAP



McCAMPBELL ANALYTICAL INC.

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<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|--------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 11/06/01 |
| | | Date Received: 11/07/01 |
| | Client Contact: Ron Scheele | Date Extracted: 11/07/01 |
| | Client P.O: | Date Analyzed: 11/07/01 |

11/14/01

Dear Ron:

Enclosed are:

- 1). the results of 2 samples from your #130-0105-337; Worthington project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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| | | |
|--|--|--------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 11/06/01 |
| | Client Contact: Ron Scheele | Date Received: 11/07/01 |
| | Client P.O: | Date Extracted: 11/07/01 |
| | | Date Analyzed: 11/07/01 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(g) [†] | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | % Recovery Surrogate |
|--------|-----------|--------|---------------------|------|---------|---------|--------------|---------|----------------------|
| 83016 | INF | Air | 590,a | ND | 11 | 12 | 3.4 | 17 | --- [#] |
| 83017 | EFF | Air | 31,a | ND | 0.43 | 0.52 | 0.15 | 0.82 | --- [#] |
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* ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

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|--|-----|-----------|------|-------|-------|-------|-------|
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | Air | 10 uL/L | 1.5 | 0.15 | 0.15 | 0.15 | 0.25 |
| | S | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 |

* water and air samples are reported in uL/L(ppmv), wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

[†]The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director



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<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8015m + 8020

Date: 11/07/01

Extraction: EPA 5030

Matrix: Air

| Compound | Concentration: ug/L | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | |

SampleID: 110701

Instrument: GC-7

| | | | | | | | |
|--------------|----|-------|-------|--------|-----|-----|-----|
| Surrogate1 | ND | 105.0 | 110.0 | 100.00 | 105 | 110 | 4.7 |
| Xylenes | ND | 33.0 | 33.5 | 30.00 | 110 | 112 | 1.5 |
| Ethylbenzene | ND | 11.0 | 11.2 | 10.00 | 110 | 112 | 1.8 |
| Toluene | ND | 10.9 | 11.4 | 10.00 | 109 | 114 | 4.5 |
| Benzene | ND | 10.1 | 10.4 | 10.00 | 101 | 104 | 2.9 |
| MTBE | ND | 9.4 | 9.4 | 10.00 | 94 | 94 | 0.0 |
| TPH (gas) | ND | 100.3 | 103.0 | 100.00 | 100 | 103 | 2.7 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation

28640 ZC521

McCAMPBELL ANALYTICAL INC.

11C 2ND AVENUE SOUTH, #D7
PACHECO, CA 94533

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD
TURN AROUND TIME

RUSH 24 HOUR 48 HOUR 5 DAY

Report To: Ron Scheele Bill To: **SAME**

Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608

Tele: (510) 450-1983 Fax: (510) 450-8295

Project #: **130-0105-337** Project Name: **WORTHINGTON**

Project Location: **3055 35TH AVE OAKLAND**

Sampler Signature: *[Signature]*

| SAMPLE ID | LOCATION | SAMPLING | | # Containers | Type Containers | MATRIX | | | | | METHOD PRESERVED | | | | Analysis Request | Other | Comments |
|-----------|----------|----------|------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|------------------|-------|----------|
| | | Date | Time | | | Water | Soil | Air | Sludge | Other | Ice | HCl | HNO ₃ | Other | | | |
| INF | Oakland | 11/6/01 | | 1 | 16 | | | X | | | | | | | | | |
| EFF | Oakland | 11/6/01 | | 1 | 16 | | | X | | | | | | | | | 83016 |
| | | | | | | | | | | | | | | | | | 83017 |

| | | | | | | | | | | | | | | |
|---|----------------------|---|--------------------------------------|----------------|---------------------------|----------------|---------------------------|-----------------------|----------------|--|---------------|---------------|-----------------------------|-----|
| BTX & TPH as Gas (602/8020 / 8015) MTBE | TPH as Diesel (8015) | Total Petroleum Oil & Grease (5520) E&P/R&F | Total Petroleum Hydrocarbons (418.1) | EPA 601 / 8010 | BTX ONLY (EPA 602 / 8020) | EPA 608 / 8080 | EPA 608 / 8080 PCB's ONLY | EPA 624 / 8240 / 8260 | EPA 625 / 8270 | PAH's / PNA's by EPA 625 / 8270 / 8310 | CAM-17 Metals | LOFT 5 Metals | Lead (7240/7421/239.2/6010) | RCI |
|---|----------------------|---|--------------------------------------|----------------|---------------------------|----------------|---------------------------|-----------------------|----------------|--|---------------|---------------|-----------------------------|-----|

ICE/ NO
GOOD CONDITION
HEAD SPACE ABSENT
PRESERVATION APPROPRIATE
CONTAINERS
VOAS/O&G/METALS/OTHER

Relinquished By: *[Signature]* Date: 11/6/01 Time: 5pm
 Relinquished By: *[Signature]* Date: 11/7/01 Time: 1045
 Relinquished By: Ultra 234 Date: 11/7/01 Time: 1200
 Received By: Secured Location
 Received By: Ultra Ex 234
 Received By: Yen Cao 11/7/01

Remarks: Report in PPMV / 10 ppm Reporting limit
20 ml injection volume
FAX RESULTS



McCAMPBELL ANALYTICAL INC.

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| | | |
|--|--|--------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 11/14/01 |
| | | Date Received: 11/15/01 |
| | Client Contact: Ron Scheele | Date Extracted: 11/15/01 |
| | Client P.O: | Date Analyzed: 11/15/01 |

11/23/01

Dear Ron:

Enclosed are:

- 1). the results of 2 samples from your #130-0105-337; Worthington project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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| | | |
|--|--|--------------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 11/14/01 |
| | Client Contact: Ron Scheele | Date Received: 11/15/01 |
| | Client P.O: | Date Extracted: 11/15-11/16/01 |
| | | Date Analyzed: 11/15-11/16/01 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | % Recovery Surrogate |
|--------|-----------|--------|---------------------|-------|---------|---------|--------------|---------|----------------------|
| 83693 | INF | Air | 810,a | ND<20 | 24 | 20 | 4.5 | 25 | --- [#] |
| 83694 | EFF | Air | ND | ND | ND | ND | ND | ND | 114 |
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[#] ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

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|--|-----|-----------|------|-------|-------|-------|-------|
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | Air | 10 uL/L | 1.5 | 0.15 | 0.15 | 0.15 | 0.25 |
| | S | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 |

* water and air samples are reported in uL/L(ppmv), wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



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 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8015m + 8020

Date: 11/15/01

Extraction: TTLC

Matrix: Air

| Compound | Concentration: ug/L | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | |

SampleID: 111401

Instrument: GC-3

| | | | | | | | |
|--------------|----|-------|-------|--------|-----|-----|------|
| Surrogate1 | ND | 113.0 | 114.0 | 100.00 | 113 | 114 | 0.9 |
| Xylenes | ND | 33.9 | 33.3 | 30.00 | 113 | 111 | 1.8 |
| Ethylbenzene | ND | 11.6 | 11.3 | 10.00 | 116 | 113 | 2.6 |
| Toluene | ND | 11.8 | 11.4 | 10.00 | 118 | 114 | 3.4 |
| Benzene | ND | 11.3 | 11.0 | 10.00 | 113 | 110 | 2.7 |
| MTBE | ND | 11.6 | 10.2 | 10.00 | 116 | 102 | 12.8 |
| TPH (gas) | ND | 91.1 | 93.8 | 100.00 | 91 | 94 | 2.9 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{AmountSpiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

28803 EC532

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #D7
PACIFIC CO, CA 94553

Telephone: (925) 798-1620

Fax: (925) 798-1622

Report To: Ron Scheele

Bill To: **SME**

Company: Cambria Environmental Technology

6262 Hollis Street

Emeryville, CA 94608

Tele: (510) 450-1983

Fax: (510) 450-8295

Project #: **130-0105-337**

Project Name: **Worthington**

Project Location: **3055 35TH AVE OAKLAND**

Sampler Signature: *[Signature]*

CHAIN OF CUSTODY RECORD

TURN AROUND TIME RUSH 24 HOUR 48 HOUR 5 DAY

| SAMPLE ID | LOCATION | SAMPLING | | # Containers | Type Containers | MATRIX | | | | | METHOD PRESERVED | | | |
|-----------|----------|----------|------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|
| | | Date | Time | | | Water | Soil | Air | Sludge | Other | Ice | HCl | HNO ₃ | Other |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---------|----------|-----|---|----|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| INF | Oakland | 11/14/01 | 5pm | 1 | Ta | | | X | | | | | | | | | | | | | | | | |
| EFF | Oakland | 11/14/01 | 5pm | 1 | Ta | | | X | | | | | | | | | | | | | | | | |

| Analysis Request | | | | | | | | | | | | Other | Comments | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|-------|----------|--|--|--|--|--|--|--|--|--|--|--|
| BTEX & TPH as Gas (602/6020 - 8015) MTDLE | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH as Diesel (8015) | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Petroleum Oil & Grease (5520 E&F/R&F) | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Petroleum Hydrocarbons (418.1) | | | | | | | | | | | | | | | | | | | | | | | | |
| EPA 601 / 8010 | | | | | | | | | | | | | | | | | | | | | | | | |
| BTEX ONLY (EPA 602 / 8020) | | | | | | | | | | | | | | | | | | | | | | | | |
| EPA 608 / 8080 | | | | | | | | | | | | | | | | | | | | | | | | |
| EPA 608 / 8080 PCB'S ONLY | | | | | | | | | | | | | | | | | | | | | | | | |
| EPA 624 / 8240 / 8260 | | | | | | | | | | | | | | | | | | | | | | | | |
| EPA 625 / 8270 | | | | | | | | | | | | | | | | | | | | | | | | |
| PAH'S / PNA'S by EPA 625 / 8270 / 8310 | | | | | | | | | | | | | | | | | | | | | | | | |
| CAM-17 Metals | | | | | | | | | | | | | | | | | | | | | | | | |
| LUFT 5 Metals | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead (7240/7421/239.2/6010) | | | | | | | | | | | | | | | | | | | | | | | | |
| RCI | | | | | | | | | | | | | | | | | | | | | | | | |

83693

83694

ICEN PRESERVATION APPROPRIATE CONTAINERS

VOAS/O&G METALS/OTHER

GOOD CONDITION

HEAD SPACE ABSENT

| | | | |
|-------------------------------------|----------------|------------|---|
| Relinquished By: <i>[Signature]</i> | Date: 11/14/01 | Time: 7pm | Received By: <i>[Signature]</i> |
| Relinquished By: <i>[Signature]</i> | Date: 11-15-01 | Time: 1110 | Received By: <i>[Signature]</i> Ultra 234 |
| Relinquished By: <i>[Signature]</i> | Date: 11-15-01 | Time: 1547 | Received By: <i>[Signature]</i> Ultra 234 |

Remarks:

REPORT IN PPMV
10 PPMV Reporting Limit
20ml injection volume
FAX RESULTS ASAP.

THANKS



McCAMPBELL ANALYTICAL INC.

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Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|----------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 11/16/2001 |
| | | Date Received: 11/19/2001 |
| | Client Contact: Ron Scheele | Date Extracted: 11/19/2001 |
| | Client P.O: | Date Analyzed: 11/19/2001 |

11/28/01

Dear Ron:

Enclosed are:

- 1). the results of 2 samples from your #130-0105-337; Worthington project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 11/16/2001 |
| | Client Contact: Ron Scheele | Date Received: 11/19/2001 |
| | Client P.O: | Date Extracted: 11/19/2001 |
| | | Date Analyzed: 11/19/2001 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluene | Ethyl-benzene | Xylenes | % Recovery Surrogate |
|--|-----------|--------|---------------------|------|---------|---------|---------------|---------|----------------------|
| 83924 | INF | W | 1100,a | --- | 57 | 42 | 6.5 | 110 | 107 |
| 83925 | EFF-1 | W | ND | --- | ND | ND | ND | ND | 106 |
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| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | W | | 50 ug/L | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | |
| | S | | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | |

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

 Edward Hamilton, Lab Director



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| | | |
|--|--|---------------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 11/16/2001 |
| | Client Contact: Ron Scheele | Date Received: 11/19/2001 |
| | Client P.O: | Date Extracted: 11/19/2001 |
| | | Date Analyzed: 11/19-11/26/2001 |

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

| Lab ID | Client ID | Matrix | TPH(d) ⁺ | % Recovery Surrogate |
|--|-----------|--------|---------------------|----------------------|
| 83924 | INF | W | 1700,d,b | 88 |
| 83925 | EFF-1 | W | ND | 105 |
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| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | W | | 50 ug/L | |
| | S | | 1.0 mg/kg | |

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

* cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



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QC REPORT

EPA 8015m + 8020

Date: 11/19/01

Matrix: Water

| Compound | Concentration: ug/L | | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|-----------|-----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | MSD | |

SampleID: 111401

Extraction: EPA 5030

Instrument: GC-3

| | | | | | | | |
|--------------|----|-------|------|--------|-----|-----|-----|
| Surrogate1 | ND | 101.0 | 99.0 | 100.00 | 101 | 99 | 2.0 |
| Xylenes | ND | 35.1 | 35.8 | 30.00 | 117 | 119 | 2.0 |
| Ethylbenzene | ND | 11.6 | 11.8 | 10.00 | 116 | 118 | 1.7 |
| Toluene | ND | 11.3 | 11.5 | 10.00 | 113 | 115 | 1.8 |
| Benzene | ND | 10.8 | 11.0 | 10.00 | 108 | 110 | 1.8 |
| MTBE | ND | 10.5 | 11.5 | 10.00 | 105 | 115 | 9.1 |
| TPH (gas) | ND | 88.2 | 88.0 | 100.00 | 88 | 88 | 0.2 |

SampleID: 111401

Extraction: EPA 3510

Instrument: GC-11 A

| | | | | | | | |
|--------------|----|--------|--------|---------|-----|-----|-----|
| Surrogate1 | ND | 106.0 | 107.0 | 100.00 | 106 | 107 | 0.9 |
| TPH (diesel) | ND | 7400.0 | 7500.0 | 7500.00 | 99 | 100 | 1.3 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



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| | | |
|--|--|----------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 12/06/2001 |
| | | Date Received: 12/07/2001 |
| | Client Contact: Ron Scheele | Date Extracted: 12/07/2001 |
| | Client P.O: | Date Analyzed: 12/07/2001 |

12/14/01

Dear Ron:

Enclosed are:

- 1). the results of 6 samples from your #130-0105-337; Worthington project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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| | | |
|--|--|----------------------------------|
| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 12/06/2001 |
| | Client Contact: Ron Scheele | Date Received: 12/07/2001 |
| | Client P.O: | Date Extracted: 12/07-12/11/2001 |
| | | Date Analyzed: 12/07-12/11/2001 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | % Recovery Surrogate |
|--------|-----------|--------|---------------------|------|---------|---------|--------------|---------|----------------------|
| 85067 | INF | Air | 50,a | ND | 4.0 | 1.4 | 0.30 | 1.9 | — [#] |
| 85068 | EFF | Air | ND | ND | ND | ND | ND | ND | 107 |
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* ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

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|--|-----|-----------|------|-------|-------|-------|-------|--|
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | Air | 10 uL/L | 1.5 | 0.15 | 0.15 | 0.15 | 0.25 | |
| | S | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | |

* water and air samples are reported in uL/L(ppmv), wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

 Edward Hamilton, Lab Director



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| | | |
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| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 12/06/2001 |
| | Client Contact: Ron Scheele | Date Received: 12/07/2001 |
| | Client P.O: | Date Extracted: 12/07-12/11/2001 |
| | | Date Analyzed: 12/07-12/11/2001 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluene | Ethyl-benzene | Xylenes | % Recovery Surrogate |
|--|-----------|--------|---------------------|------|---------|---------|---------------|---------|----------------------|
| 85072 | INF | W | 410,a | --- | 31 | 14 | 3.2 | 48 | 104 |
| 85073 | EFF-1 | W | ND | ND | ND | ND | ND | ND | 99 |
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| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | W | | 50 ug/L | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | |
| | S | | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | |

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



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| Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608 | Client Project ID: #130-0105-337; Worthington | Date Sampled: 12/06/2001 |
| | Client Contact: Ron Scheele | Date Received: 12/07/2001 |
| | Client P.O: | Date Extracted: 12/07/2001 |
| | | Date Analyzed: 12/07-12/11/2001 |

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)


| Lab ID | Client ID | Matrix | TPH(d) ⁺ | % Recovery Surrogate |
|--|-----------|--------|---------------------|----------------------|
| 85069 | INF | W | 950,d,b,g | 105 |
| 85070 | EFF-1 | W | 86,b,g | 94 |
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| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | W | | 50 ug/L | |
| | S | | 1.0 mg/kg | |

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L.

* cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

*The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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QC REPORT

EPA 8015m + 8020

Date: 12/07/01

Extraction: EPA 5030

Matrix: Water/Air

| Compound | Concentration: ug/L | | | %Recovery | | RPD |
|----------|---------------------|----|-----|-----------|-----|-----|
| | Sample | MS | MSD | MS | MSD | |

SampleID: 120601

Instrument: GC-3

| | | | | | | | |
|--------------|----|-------|-------|--------|-----|-----|-----|
| Surrogate1 | ND | 102.0 | 100.0 | 100.00 | 102 | 100 | 2.0 |
| Xylenes | ND | 34.4 | 34.4 | 30.00 | 115 | 115 | 0.0 |
| Ethylbenzene | ND | 11.4 | 11.2 | 10.00 | 114 | 112 | 1.8 |
| Toluene | ND | 11.1 | 11.3 | 10.00 | 111 | 113 | 1.8 |
| Benzene | ND | 10.6 | 10.5 | 10.00 | 106 | 105 | 0.9 |
| MTBE | ND | 11.2 | 10.6 | 10.00 | 112 | 106 | 5.5 |
| TPH (gas) | ND | 85.1 | 86.1 | 100.00 | 85 | 86 | 1.2 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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QC REPORT

EPA 8015m + 8020

Date: 12/07/01

Extraction: EPA 5030

Matrix: Water

| Compound | Concentration: ug/L | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | |

SampleID: 120501

Instrument: GC-6 A

| | | | | | | | |
|--------------|----|--------|--------|---------|-----|-----|-----|
| Surrogate1 | ND | 109.0 | 104.0 | 100.00 | 109 | 104 | 4.7 |
| TPH (diesel) | ND | 8875.0 | 8450.0 | 7500.00 | 118 | 113 | 4.9 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation

291372c sub.doc

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110 2ND AVENUE SOUTH, #107
PACHECO, CA 94553

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME
RUSH 24 HOUR 48 HOUR 5 DAY

Report To: Ron Scheele Bill To: SAME
Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608
Tele: (510) 450-1983 Fax: (510) 450-8295
Project #: 130-0105-337 Project Name: WORTHINGTON
Project Location: OAKLAND 3055 35TH ST
Sampler Signature: *Fame Full*

| SAMPLE ID | LOCATION | SAMPLING | | # Containers | Type Containers | MATRIX | | | | | METHOD PRESERVED | | Analysis Request | Other | Comments | | | |
|-----------|-------------|----------|--------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|----------|--|-------|--|
| | | Date | Time | | | Water | Soil | Air | Sludge | Other | Ice | HCl | | | | HNO ₃ | Other | |
| INF EFF | Worthington | 12/6/01 | 4:30p | 1 | Bag | | | X | | | | | | | | REPORT IN PPMV - 20ml injection Vol 10 PPMV Limit | | |
| | | | 4:30p | 1 | Bag | | | X | | | | | | | | | | |
| INF | | | 5:00pm | 1 | AMB | X | | | | | | | | | | | | |
| EFF-1 | | | | | 1 | AMB | X | | | | | | | | | | | |
| EFF-2 | | | | | 1 | AMB | X | | | | | | | | | | | |
| INF | | | | 5:15p | 3 | Von | X | | | | X | | X | | | | | |
| EFF-1 | | | | 3 | Von | X | | | | X | | X | | | | | | |
| EFF-2 | | | | 3 | Von | X | | | | X | | X | | | | | | |

- * INF
- + EFF-1
- ✓ EFF-2
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- ✓ EFF-1
- ✓ EFF-2

85067
85068
85069
85070
85071
85072
85073
85074

Relinquished By: *Fame Full* Date: 12/6/01 Time: 7pm Received By: *Second Location*
Relinquished By: *Sara Dwight* Date: 12/7/01 Time: 3:45p Received By: *Chris Erickson*
Relinquished By: *W. Miller* Date: 12/7/01 Time: 4:50p Received By: *W. Miller*

Remarks: only run EP2 if EP1 was hit
IDENTIFIED
GOOD CONDITION
HEAD SPACE ABSENT
PRESERVATION APPROPRIATE
CONTAINERS
VOAS O&G METALS OTHER
filtered + preserved upon receipt for TPH/d