ExxonMobil Refining \& Supply Company
Global Remediation - US Retail
4096 Piedmont Avenue \#194
Oakland, CA 94611
510.547 .8196
510.547 .8706 FAX
jennifer.c.sediachek@exxonmobil com

Mr. Steven Plunkett
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, $2^{\text {nd }}$ Floor
Alameda, California 94502
Subject: Former Mobil Station 04-334, 2492 Castro Valley Boulevard, Castro Valley, California

Dear Mr. Plunkett:
Attached for your review and comment is a copy of the Report of Groundwater Monitoring, Second Quarter 2006 for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the May 2006 sampling event.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached report is true and correct.

If you have any questions or comments, please contact me at 510.547.8196.
Sincerely,


Attachment: ETIC Groundwater Monitoring Report dated June 2006
c: $\quad \mathrm{w} /$ attachment:
Ms. Paula Floeck - Jiffy Lube International
Mr. Dan McQuillen - Jiffy Lube Remediation Coordinator Mr. William Slautterback - Cal Lube Real Estate Limited Partnership Mr. William Peterson - Owner of Castro Valley Lumber Company
c: w/o attachment:
Ms Clrista Marting - ETIC Engineering, Inc

# Report of Groundwater Monitoring Second Quarter 2006 

## Former Mobil Station 04-334 <br> 2492 Castro Valley Boulevard Castro Valley, California

Prepared for
ExxonMobil Oil Corporation
4096 Piedmont Avenue \#194
Oakland, California 94611

Prepared by
ETIC Engineering, Inc.
2285 Morello Avenue Pleasant Hill, California 94523
(925) 602-4710


June 2006

## SITE CONTACTS

Station Number:

Former Mobil Station 04-334

Station Address:

ExxonMobil Project Manager:

ETIC Project Manager:

Regulatory Oversight:

2492 Castro Valley Boulevard Castro Valley, California

Jennifer C. Sedlachek ExxonMobil Refining and Supply Company 4096 Piedmont Avenue \#194
Oakland, California 94611
(510) 547-8196

ETIC Engineering, Inc 2285 Morello Avenue Pleasant Hill, California 94523
(925) 602-4710

Tracy Iob
Steven Plunkett Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, $2^{\text {nd }}$ Floor
Alameda, California 94502
(510) 567-6700

## INTRODUCTION

At the request of ExxonMobil Oil Corporation, ETIC Engineering, Inc. has prepared this report of groundwater monitoring for former Mobil Station 04-334. This report presents the results for the most recent groundwater monitoring conducted at the site and summarizes recent site activities. This report covers site activities from 6 February 2006, the date of the last monitoring event, through 3 May 2006, the date of the recent monitoring event. Groundwater monitoring results, well construction details, and a groundwater monitoring plan are provided in the attached figures and tables. Groundwater monitoring protocols, field data, and analytical results are provided in the attached appendixes.

## GENERAL SITE INFORMATION

## Site name:

Site address:
Current property owner:
Current site use:
Current phase of project:
Tanks at site:
Number of wells:

Former Mobil Station 04-334
2492 Castro Valley Boulevard, Castro Valley, California
Cal Lube Real Estate Limited Partnership I
Jiffy Lube Oil Change facility
Groundwater monitoring
Four former underground storage tanks removed 1983
4 (3 onsite, 1 offsite)

## GROUNDWATER MONITORING SUMMARY

| Gauging and sampling date: | 3 May 2006 |
| :--- | :--- |
| Wells gauged and sampled: | MW1-MW4 |
| Wells gauged only: | None |
| Groundwater flow direction: | East-northeast |
| Groundwater gradient: | 0.016 |
| Well screens submerged: | None |
| Well screens not submerged: | MW1-MW4 |
| Liquid-phase hydrocarbons: | Not observed or detected |
| Laboratory: | Sequoia Analytical/TestAmerica, Inc., Morgan Hill, Califomia |

## Analyses performed:

- Total Petroleum Hydrocarbons as gasoline and as diesel by EPA Method 8015B
- Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8021B
- Methyl t-butyl ether by EPA Method 8260B


## ADDITIONAL ACTIVITIES PERFORMED AT SITE

No additional activities were performed at the site.

## WORK PROPOSED FOR NEXT QUARTER

Groundwater will be monitored in accordance with the attached groundwater monitoring plan.

## Attachments:

Figure 1: Site Plan Showing Groundwater Elevations and Analytical Results
Table 1: Well Construction Details
Table 2: Groundwater Monitoring Data
Table 3: Groundwater Monitoring Plan
Appendix A: Field Protocols
Appendix B: Field Documents
Appendix C: Laboratory Analytical Reports

Figures


## Tables

TABLE 1 WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

| Well Number |  | Well Installation Date | Elevation TOC (feet) | Casing <br> Material | Total <br> Depth <br> (feet) | Well <br> Depth <br> (feet) | Borehole <br> Diameter <br> (inches) | Casing <br> Diameter (inches) |  | creened <br> nterval <br> (feet) | $\begin{gathered} \text { Slot } \\ \text { Size } \\ \text { (inches) } \\ \hline \end{gathered}$ |  | Pack rval et) | Filter Pack <br> Material |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MW1 | a | 06/24/04 | 173.23 | PVC | 20 | 20 | 8.25 | 2 | 5 | - 20 | 0.010 | 4.5 | - 20 | \#2/12 Sand |
| MW2 | a | 06/25/04 | 173.63 | PVC | 20 | 20 | 8.25 | 2 | 5 | - 20 | 0.010 | 4.5 | - 20 | \#2/12 Sand |
| MW3 | a | 06/25/04 | 171.91 | PVC | 20 | 20 | 8.25 | 2 | 5 | - 20 | 0.010 | 4.5 | - 20 | \#2/12 Sand |
| MW4 | a | 06/24/04 | 170.48 | PVC | 15 | 14 | 8.25 | 2 | 4 | - 14 | 0.010 | 3.5 | - 15 | \#2/12 Sand |

PVC Polyvinyl chioride.
TOC Top of casing.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY,
CALIFORNIA

| $\begin{gathered} \text { Well } \\ \text { ID } \\ \hline \end{gathered}$ |  | Date | Top of Casing Elevation (feet) | Depth to Water (feet) | Groundwater <br> Elevation (feet) | Benzene ( $\mu \mathrm{g} / \mathrm{L}$ ) | Toluene $(\mu \mathrm{g} / \mathrm{L})$ | Ethylbenzene ( $\mu \mathrm{g} / \mathrm{L}$ ) | Total Xylenes ( $\mu \mathrm{g} / \mathrm{L}$ ) | $\begin{aligned} & \mathrm{TPH}-\mathrm{g} \\ & (\mu \mathrm{~g} / \mathrm{L}) \end{aligned}$ | $\begin{aligned} & \mathrm{TPH}-\mathrm{d} \\ & (\mu \mathrm{~g} / \mathrm{L}) \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { MTBE } \\ & (\mu g / \mathrm{L}) \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MW1 | a | 08/13/04 | 173.23 | 7.32 | 165.91 | $<0.5$ | 0.7 | $<0.5$ | 1.0 | <50 | 71 | $1.20{ }^{\text {b }}$ |
| MW1 |  | 11/09/04 | 173.23 | 6.96 | 166.27 | $<0.5$ | 0.9 | $<0.5$ | 0.9 | $<50$ | 63 | $1.50{ }^{\text {b }}$ |
| MW1 |  | 02/16/05 | 173.23 | 6.10 | 167.13 | $<0.5$ | 1.0 | $<0.5$ | 1.5 | $<50$ | 78 | $1.30{ }^{\text {b }}$ |
| MW1 |  | 05/16/05 | 173.23 | 5.81 | 167.42 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | <50 | $1.40{ }^{\text {b }}$ |
| MWI |  | 08/17/05 | 173.23 | 6.70 | 166.53 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | <50 | $1.19{ }^{6}$ |
| MW1 |  | 11/15/05 | 173.23 | 7.55 | 165.68 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | $<50$ | $1.13{ }^{\circ}$ |
| MW1 |  | 02/06/06 | 173.23 | 6.40 | 166.83 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | 160 | $<0.5{ }^{\text {b }}$ |
| MW1 |  | 05/03/06 | 173.23 | 6.95 | 166.28 | <1.00 | <1.00 | <1.00 | $<3.00$ | <50.0 | 78 | $<0.50{ }^{\text {b }}$ |
| MW2 | a | 08/13/04 | 173.63 | 6.96 | 166.67 | $<0.5$ | 0.8 | $<0.5$ | 1.0 | $<50$ | 57 | $<0.5{ }^{\text {b }}$ |
| MW2 |  | 11/09/04 | 173.63 | 6.44 | 167.19 | $<0.5$ | 1.1 | $<0.5$ | 1.2 | $<50$ | $<50$ | $<0.5{ }^{\text {b }}$ |
| MW2 |  | 02/16/05 | 173.63 | 5.21 | 168.42 | $<0.5$ | 0.9 | $<0.5$ | 1.4 | $<50$ | 55 | $<0.5{ }^{\text {b }}$ |
| MW2 |  | 05/16/05 | 173.63 | 5.86 | 167.77 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | <50 | $<0.5{ }^{\text {b }}$ |
| MW2 |  | 08/17/05 | 173.63 | 5.72 | 167.91 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | <50 | $<0.5{ }^{\text {b }}$ |
| MW2 |  | 11/15/05 | 173.63 | 7.65 | 165.98 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | $<50$ | $<0.5{ }^{\text {b }}$ |
| MW2 |  | 02/06/06 | 173.63 | 6.24 | 167.39 | $<0.5$ | $<0.5$ | $<0.5$ | $<0.5$ | $<50$ | $<50$ | $<0.5{ }^{\text {b }}$ |
| MW2 |  | 05/03/06 | 173.63 | 6.53 | 167.10 | <1.00 | <1.00 | <1.00 | $<3.00$ | $<50.0$ | $<50$ | $<0.50^{\text {b }}$ |
| MW3 | a | 08/13/04 | 171.91 | 5.36 | 166.55 | 100 | 2.0 | 187 | 59.6 | 1,440 | 352 | $<0.5{ }^{\text {b }}$ |
| MW3 |  | 11/09/04 | 171.91 | 4.80 | 167.11 | 188 | 3.6 | 242 | 20.0 | 1,690 | 461 | $<0.5{ }^{\text {b }}$ |
| MW3 |  | 02/16/05 | 171.91 | 3.10 | 168.81 | 66.2 | 1.4 | 61.1 | 12.6 | 575 | 269 | $<0.5{ }^{\text {b }}$ |
| MW3 |  | 05/16/05 | 171.91 | 3.86 | 168.05 | 74.2 | 1.4 | 61.0 | 9.0 | 592 | 92 | $<0.5{ }^{\text {b }}$ |
| MW3 |  | 08/17/05 | 171.91 | 4.75 | 167.16 | $231^{\text {c }}$ | 2.35 | 102 | 11.4 | 1,130 | 416 | $<0.5{ }^{\text {b }}$ |
| MW3 |  | 11/15/05 | 171.91 | 6.56 | 165.35 | 57.4 | 0.95 | 62.4 | 10.5 | 452 | 193 | $<0.5{ }^{\text {b }}$ |
| MW3 |  | 02/06/06 | 171.91 | 4.00 | 167.91 | 69 | <5.0 | 64 | 10 | 830 | 165 | $<0.5{ }^{\text {b }}$ |
| MW3 |  | 05/03/06 | 171.91 | 5.44 | 166.47 | 52.1 | <1.00 | 37.0 | 4.81 | 605 | 140 | $<0.50{ }^{\text {b }}$ |

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY,
CALIFORNIA
Well
ID

Depth-to-water-level measurements in feet from top-of-casing.

| TPH-g | Total Petroleum Hydrocarbons as gasoline. |
| :--- | :--- |
| TPH-d | Total Petroleum Hydrocarbons as diesel. |
| MTBE | Methyl tertiary butyl ether. |
| $\mu \mathrm{g} / \mathrm{L}$ | Micrograms per liter. |

TABLE 3 GROUNDWATER MONITORING PLAN,
FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

| Well <br> Number | Groundwater <br> Gauging <br> Frequency | Groundwater Sampling and Analysis Frequency |  |
| :--- | :---: | :---: | :---: |
|  | $Q$ | $Q$ | MTBE |
|  | $Q$ | $Q$ | $Q$ |
| MW3 | $Q$ | $Q$ | $Q$ |
| MW4 | $Q$ | $Q$ | $Q$ |

$\mathrm{Q}=\mathrm{Quarterly}$
BTEX = Benzene, toluene, ethylbenzene, total xylenes
MTBE $=$ Methyl tertiary butyl ether .
TPH-g = Total Petroleum Hydrocarbons as gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel.

## Appendix A

Field Protocols

## PROTOCOLS FOR QUARTERLY GROUNDWATER MONITORING

## GROUNDWATER GAUGING

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquidphase hydrocarbons are generally not purged or sampled.

## WELL PURGING

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH , temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

## GROUNDWATER SAMPLING

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40 -milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

## Appendix B

## Field Documents

Client: Exxon
Project Number: UPO4-334
Site Location:
2492 Castro Valley Blvd, Castro Valley, California

Date: $5-03-06$
Station Number: 04-334
Samplers: AVEX

| AMOUNT OF PRODUCT REMOVED(L) | MONITORING WELL INTEGRITY | $\begin{aligned} & \text { DEPTHTO } \\ & \text { BOTTOM } \\ & \text { (TOC) } \end{aligned}$ | WELL <br> CASING <br> DIAMETER |
| :---: | :---: | :---: | :---: |


| MW1 | 6.95 |  |  |  |  | 19.89 | 2 " |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MW2 | 6.53 |  |  |  |  | 20.20 | $2^{\prime \prime}$ |
| MW3 | $5+4$ |  |  |  |  | 19.93 | 2 " |
| MW4 | 584 |  |  |  |  | 14.44 | 2 " |
|  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |


| Project Name: Exxon 04-334 | Well No: | Mur | Date: $05-03-6.6$ |
| :---: | :---: | :---: | :---: |
| ject No: UP04-334 1 | Personnel: | 64. |  |



| PURGING DATA <br> Purge Method: <br> BAILER / SUB |  |  |  | Purge Rate: | GPM |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Time | 1056 | 1050 | lito |  |  |
| Volume furge (gal) | 25 | 5 | 7.5 |  |  |
| Temperature ( $C$ ) | $15 \cdot 1$ | 18.2 | $13 \cdot 5$ |  |  |
| pH | 7.49 | 7.85 | 7.94 |  |  |
| Spec.Cond. (umhos) | $3 \div 5$ | 328 | 351 |  |  |
| Turbidity/Color, | sint /BRN | $\sin 3 / B$ | SUTY/BRN |  |  |
| Odor (V/N) , | a) | $\cdots$ | a) |  |  |
| Casing volumes | 1 | 2 | 3 |  |  |
| Dewatered (YN) | $\checkmark$ | N | $\omega$ |  |  |

Comments/Observations:

| SAMPLING DATA <br> Time Sampled: | 1110 |  | Approximate Depth to Water During Sampling: |  | pling: 7.0 | (feet) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comments: |  |  |  |  |  |  |  |
| Sample Number | Number of Containers | Container Type | Preservative | Volume Filled ( mL or L ) | Túridity/Color | Analysis, |  |
| MWI | 6 | Voa | HCL | 40 ml | - | TPH-g, BTEX, MTBE |  |
| Mos 1 | 2 | AMBERS | HCL | 1 L | - | TPH-D |  |
|  |  |  |  |  | - |  |  |
|  |  |  |  |  | - |  |  |
| Total Purge Volume: 7.5 (gallons) |  |  |  | Disposal: | SYSTEM - |  |  |
| Weather Conditions: |  | OK |  |  | BOLTS | (x) 1 | N |
| Condition of Well Box and Casing at Time of Sampling: |  |  | ing: 0 O |  | CAP \& LOCK | (x) 1 | N |
|  |  |  | N |  | GROUT | (x) 1 |  |
| Problems Encountered During Purging and Sampling: iv |  |  |  |  | WELL BOX. | Y, N |  |
|  |  |  |  |  | SECURED | Y 8 | N |

Engineering, inc.
GROUNDWATER PURGE AND SAMPLE

| Name: | Exxon 04-334 | Well No: | M62 |  |
| :---: | :---: | :---: | :---: | :---: |
| Project No: | UP04-334.1 | Personnel: | ALE. ${ }^{\text {d }}$ |  |

GAUGING DATA
Water Level Measuring Method: (WLM / IP
Measuring Point Description: TOC

| WELL PURGE | Total Depth (feet) | Depth to Water (feet) | Water Column (feet) | Multiplier for Casing Diameter |  |  |  | Casing Volume (gal) |  | Total Purge Volume (gal) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CALCULATION | $20.20<10.53<13.67{ }^{\frac{1}{1}} \frac{1}{1}$ |  |  |  | $\begin{aligned} & (2) \\ & 0.16 \\ & \hline \end{aligned}$ | 4 0.64 | 6 <br> 1.44 | $2-18$$6.56$ |  |  |


| PURGING DATA Purge Method: | YATERRA | ER / SUB |  | Purge Rate: | GPM |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tme ${ }^{\text {a }}$, | 09759 | 1602 | 1005 |  |  |
| Volume Purge (gal) | 2.5 | 5 | $7 \cdot 5$ |  |  |
| Temperature (C) | 17.4 | 178 | $18 \cdot 0$ |  |  |
| pH | 6.55 | 7.35 | 742 |  |  |
| Spec.Cond.(umhos) | 561 | 804 | $80^{\circ}$ |  |  |
| Turbidity ${ }^{\text {color }}$, | sives/BN | Sint/Bx | sints/Bin |  |  |
| Odor (IN), | $N$ | N | i |  |  |
| Casing Volumes | 1 | 2 | 3 |  |  |
| Dewatered (Y/N), | $\square$ | N | $N$ |  |  |
| Comments/Observations: |  |  |  |  |  |



| Project Name: | Exxon 04-334 | GROUNDWATER PURGE AND SANPLE | Well No: | MAN 3 |
| :--- | :--- | :--- | :--- | :--- | Date: $8 \leq-03<6$


| GAUGING DATA <br> Water Level Measuring Method: |  | (NLM) $/ \mathrm{IP}$ |  | Measuring Point Description: TOC |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WELL PURGE VOLUME | Total Depth (feet) | Depth to Water (feet) | Water Column (feet) |  |  |  |  | Casing Volume (gal) | Total Purge <br> Volume (gal) |
| CALCULATION | $14935.44 \rightleftharpoons 14.19$ |  |  |  |  | $\mathrm{D}_{4}$ <br> 0.64 | 6 1.44 | $2.31$ | 6.95 |


| PURGING DATA Purge Method: | WATERRA ${ }^{\text {BA }}$ | ILER / SUB |  | Purge Rate: | GPM |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trme, $\mathrm{T}^{\text {a }}$, , |  | 1630 | 1032 |  |  |
| Volume Purge (gai) | 25 | 5 | 7.5 |  |  |
| Temperature (C) | 17.1 | 16.5 | 17.1 |  |  |
| pH | 6.53 | 6.56 | 7.19 |  |  |
| Speccond. (umbos) | 925 | 929 | 935 |  |  |
| TurbidityColor, | Sint/ apey | Suty/GREY | $\text { Sity } / \text { Giecy }$ |  |  |
| odor (V/N) | $Y$ | $Y$ | $\underline{Y}$ |  |  |
| Casing Volumes, | 1 | 2 | 3 |  |  |
| Dewatered (YN) | $N$ | $N$ | N |  |  |

Comments/Observations:


## Comments:



Engineering, Inc.
GROUNDWATER PURGE AND SAMPLE


| GAUGING DATA <br> Water Level Measuring Method |  |  | Measuring Point Description: TOC |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WELLPURGE VOLUME CALCULEATION | Total Depth (feet) | Depth to Water (feet) | Water Column (feet) |  |  |  |  | Casing Volume (gal) | Total Purge Volume (gal) |
|  | 14.44 | $554$ | $5$ | $\frac{1}{10.04}$ | $(2)$ 0.16 | 4 | 6 1.44 | $142$ | $427$ |



## Comments:



## Appendix C

## Laboratory Analytical Reports

24 May, 2006

Sherris Prall
ETIC Engineering Inc - Pleasant Hill (Exxon)
2285 Morelio Avenue
Pleasant Hill, CA 94523

RE: Exxon 04-334
Work Order: MPE0257
Enclosed are the results of analyses for samples received by the laboratory on 05/03/06 19:15. The samples arrived at a temperature of $4^{\circ} \mathrm{C}$. If you have any questions concerning this report, please feel free to contact me

Sincerely,


Christina Dell
Project Manager

CA ELAP Certificate \#1210

| ETIC Engineering Inc - Pleasant Hill (Exxon) | Project: Exxon 04-334 | MPE0257 |
| :--- | :---: | :---: |
| 2285 Morello Avenue | Project Number: $04-334$ | Reported: |
| Pleasant Hill CA, 94523 | Project Manager: | Sherris Prall |

ANALYTICAL REPORT FOR SAMPLES

| Sample ID |  |  | Laboratory ID | Matrix | Date Sampled |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MW1 | MPE0257-01 | Water Received | $05 / 03 / 0611: 10$ | $05 / 03 / 0619: 15$ |  |
| MW2 | MPE0257-02 | Water | $05 / 03 / 0610: 10$ | $05 / 03 / 0619: 15$ |  |
| MW3 | MPE0257-03 | Water | $05 / 03 / 0610: 40$ | $05 / 03 / 0619: 15$ |  |
| MW4 | MPE0257-04 | Water | $05 / 03 / 0611: 45$ | $05 / 03 / 0619: 15$ |  |
|  |  |  |  |  |  |

Sequoia
Analytical

| EIIC Enginecring Inc - Pleasant Hill (Exxon) <br> 2285 Morello Avenue <br> Pleasant Hill CA, 94523 | Project: Exxon 04-334 <br> Project Number: $04-334$ <br> Project Manager: Sherris Prall |
| :--- | :---: |
| Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B |  |
| Sequoia Analytical - Morgan Hill |  |



The results in this report apply to the samples analyeed in accordance with the chain of custody document Unless otherwise stated. results are reported on a wet weight basis This analyical report must be reproduced in its entirety

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523

| Project: | Exxon 04-334 |
| ---: | ---: |
| Project Number: | $04-334$ |$\quad$ MPE0257

Project Manager: Sherris Prall
05/24/06 07:48

## Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill


MW1 (MPE0257-01) Water Sampled: 05/03/06 11:10 Received: 05/03/06 19:15

| Methyl tert-butyl ether | ND | 0.50 c | ug/l | 1 | $6 E 15028$ | $05 / 15 / 06$ | $05 / 15 / 06$ | EPA 8260B |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Surrogate. 1,2 -Dichloroethane-d |  | $9 / \%$ | $60-145$ | $"$ | $"$ | $"$ | $"$ |  |

MW2 (MPE0257-02) Water Sampled: 05/03/06 10:10 Received: 05/03/06 19:15

| Methyl tert-butyl ether | ND | 0.50 | ug/l | 1 | $6 E 15028$ | $05 / 15 / 06$ | $05 / 15 / 06$ | EPA 8260B |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Surrogate 1.2 -Dichloroethane-d4 | $92 \%$ | $60-145$ | $"$ | $"$ | $"$ | $" /$ |  |  |

MW3 (MPE0257-03) Water Sampled: 05/03/06 10:40 Received: 05/03/06 19:15

| Methyl tert-butyl ether | ND | 0.50 | ug/1 | 1 | $6 E 15028$ | $05 / 15 / 06$ | $05 / 15 / 06$ | EPA 8260B |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Surrogate 1.2-Dichloroethane-d4 |  | $101 \%$ | $60-145$ | $"$ | $"$ | $"$ | $" /$ |  |

MW4 (MPE0257-04) Water Sampled: 05/03/06 11:45 Received: 05/03/06 19:15

| Methyl tert-butyl ether | ND | 0.50 | ug/ | 1 | 6E15028 | 05/15/06 | 05/15/06 | EPA 8260B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Surrogate 1.2-Dichloroethane-d4 |  | $103 \%$ |  |  | " | " | " | $\cdots$ |


| ETIC Engineering Inc - Pleasant Hill (Exxon) | Project: Exxon 04-334 | MPE0257 |
| :--- | :---: | :---: |
| 2285 Morello Avenue | Project Number: $04-334$ | Reported: |
| Pleasant Hill CA, 94523 | Project Manager: Sherris Prall | $05 / 24 / 0607: 48$ |

## Volatile Organic Compounds by EPA Method 8021B <br> TestAmerica Analytical - Nashville

| Aeporting |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | Result | Limit | Units | Difution | Batch | Prepared | Analyzed | Method | Notes |

MW1 (MPE0257-01) Water Sampled: 05/03/06 11:10 Received: 05/03/06 19:15

| Benzene | ND | 1.00 | ug/L. | 1 | 6052623 | 05/12/06 | 05/13/06 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ehylbenzene | ND | 100 | ug. | " | " | -5/206 | 05/306 | SW846 8021 B |
| Toluene | ND | 1.00 | " | " | " | " | * | ${ }^{\prime}$ |
| Xylenes, total | ND | 3.00 | " | " | " | " | " | " |
| Surrogate a.a.a-Trifluorotoluene |  | 105\% |  |  | " | " | " | " |

MW2 (MPE0257-02) Water Sampled: 05/03/06 10:10 Received: 05/03/06 19:15

| Benzene | ND | 100 | ug/L. | 1 | 6052623 | 05/12/06 | 05/13/06 | SW846 8021 B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylbenzene | ND | 1.00 | ¢ | " | 60523 | -5/2/06 | 05/3/06 | SW846 8021B |
| Toluene | ND | 1.00 | " | " | " | " | " | ${ }^{\circ}$ |
| Xylenes, total | ND | 3.00 | " | " | " | " | " | " |

MW3 (MPE0257-03) Water Sampled: 05/03/06 10:40 Received: 05/03/06 19:15

| Benzene | 52.1 | 1.00 | ug/L | 1 | 6052623 | 05/12/06 | 05/13/06 | SW846 8021B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylbenzene | 37.0 | 1.00 | d | , |  | - | $05 / 3$ | SW8468021B |
| Toluene | ND | 100 | " | " | " | ${ }^{\prime}$ | " | ${ }^{\prime \prime}$ |
| Xylenes, total | 4.81 | 3.00 | " | " | " | " | " | " |
| Surrogate a.a.a-Trifluorotoluene |  | 106\% |  |  | " | " | " | " |

MW4 (MPE0257-04) Water Sampled: 05/03/06 11:45 Received: 05/03/06 19:15

| Benzene | ND | 100 | ug/L | 1 | 6052623 | $05 / 12 / 06$ | $05 / 13 / 06$ | SW846 8021B |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Ethylbenzene | ND | 100 | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |
| Toluenc | ND | 100 | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |  |
| Xylenes, total | ND | 3.00 | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |  |
| Surogate a.a.a-Tifluorotoluene |  | $100 \%$ | $63-134$ | $"$ | $"$ | $"$ | $"$ |  |  |

The results in this report apply to the samples analyzed in accordance with the chain of custody docmment Unless othervise stated. results are reponted on a wet weight basis This analytical report must be reproduced in its entirety

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776. 9600

FAX (408) 782-6308 www sequoialabs com
ETIC Engincering Inc - Pleasant Hill (Exxon)
2285 Morello Avenue
Pleasant Hill CA, 94523

| Project: | Exxon 04-334 |
| :---: | :---: |
| Project Number: | $04-334$ |
| Project Manager: | Sherris Prall |

## Purgeable Petroleum Hydrocarbons

## TestAmerica Analytical - Nashville

| Analye Reporting |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anatyre | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Mellod | Note |


| MW1 (MPE0257-01) Water | Sampled: 05/03/06 11:10 | Received: | /03/0 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GRO as Gasoline | ND | 50.0 | ug/L | 1 | 6052623 | 05/12/06 |  |  |
| Surrogate. a, a.a-Trifluorotoluen |  | $105 \%$ |  |  | 6.2623 |  | 05/3/06 | SW846 8015B |

MW2 (MPE0257-02) Water Sampled: 05/03/06 10:10 Received: 05/03/06 19:15

| GRO as Gasoline | ND | 50.0 | ug/L | 1 | 6052623 | 05/12/06 | 05/13/06 | SW846 8015B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Surrogate a.a.a-Trifluorotoluene |  | $102 \%$ |  |  | " | " |  |  |

MW3 (MPE0257-03) Water Sampled: 05/03/06 10:40 Received: 05/03/06 19:15


885 Jarvis Drive

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue
Pleasant Hill CA, 94523

| Project: | Exxon 04-334 |
| ---: | :---: |
| Project Number: | $04-334$ |
| Project Manager: | Sherris Prall |

05/24/06 07:48

## Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B - Quality Control Sequoia Analytical - Morgan Hill

| Analyte | Result | $\begin{array}{r} \text { Evaluation } \\ \text { Limút } \\ \hline \end{array}$ | Unis | Spike Level | Source Result | \%REC | \%REC <br> Linnits | RPD | $\begin{aligned} & \text { RPD } \\ & \text { Limit } \end{aligned}$ | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Batch 6E10037-EPA 3510 |  |  |  |  |  |  |  |  |  |  |
| Blank (6E10037-BLK1) |  |  |  | Prepared: 05/10/06 Analyzed: 05/19/06 |  |  |  |  |  |  |
| Diesel Range Organics (C10-C28) | ND | 25 | ug/l | , | , | nalyz |  |  |  |  |
| Surrogate n-Octacosane | 387 |  | " | 500 |  |  |  |  |  |  |
| LCS (6E10037-BS1) | Prepared: 05/10/06 Analyzed: 05/19/06 |  |  |  |  |  |  |  |  |  |
| Diesel Range Organics (C10-C28) |  |  |  |  |  |  |  |  |  |  |
| Surrogate n-Octacosane | 39.8 |  | " |  |  |  |  |  |  |  |
| LCS Dup (6E10037-BSD1) | Prepared: 05/10/06 Analyzed: 05/19/06 |  |  |  |  |  |  |  |  |  |
| Diesel Range Organics (C10-C28) |  |  |  |  |  |  |  |  |  |  |
|  |  |  | ug/ | 500 |  | 52 | 40-140 | 15 | 35 |  |
| Surrogate n-Octacosane | 394 |  | " | 50.0 |  | 79 | 30-115 |  |  |  |

[^0]885 Jarvis Drive

| EIIC Engineering Inc - Pleasant Hill (Exxon) | Project: Exxon 04-334 | MPE0257 |
| :--- | :---: | :---: |
| 2285 Morello Avenue | Project Number: 04-334 | Reported: |
| Pleasant Hill CA, 94523 | Project Manager: Sherris Prall | $05 / 24 / 0607: 48$ |

## Volatile Organic Compounds by EPA Method 8260B - Quality Control <br> Sequoia Analytical - Morgan Hill



[^1]The results in this report apply to the samples analyzed in accordance with the chain of custody document Unless otherwise stated. results are reported on a wet weight basis This analytical report must be reproduced in its entirety

885 Jarvis Drive

| Project: Exxon $04-334$ | MPE0257 |
| ---: | ---: |
| Project Number: $04-334$ | Reported: |
| Project Manager: | Sherris Prall | 05/24/06 07:48

## Volatile Organic Compounds by EPA Method 8021B - Quality Control TestAmerica Analytical - Nashville



| ETIC Engineering Inc - Pleasant Hill (Exxon) | Project: Exxon 04-334 | MPE0257 |
| :--- | :---: | :---: |
| 2285 Morello Avenue | Project Number: $04-334$ | Reported: |
| Pleasant Hill CA, 94523 | Project Manager: Sherris Prall | $05 / 24 / 0607: 48$ |

## Purgeable Petroleum Hydrocarbons - Quality Control <br> TestAmerica Analytical - Nashville

|  | Evaluation |  |  | Spike | Source |  | \%REC |  | RPD |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Artalyte | Result | Limit | Units | Level | Result | \%REC | Limits | RPD | Limit | Notes |

Batch 6052623-EPA 5030B (GC)


| ETIC Engineering Inc - Pleasant Hill (Exxon) | Project: Exxon 04-334 | MPE0257 |
| :--- | :---: | :---: |
| 2285 Morello Avenue | Project Number: $04-334$ | Reported: |
| Pleasant Hill CA, 94523 | Project Manager: | Sherris Prall |

## Notes and Definitions

MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume See Blank Spike
HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel
DEI Analyte DETECTED
ND Analyte NOT DEIECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

[^2]The results in this report apply to the samples analyed in accordance with the chain of custody document Unless otherwise stated. results are reported on a wet weight basis This analytical report must be reproduced in its entirety

## ErgonMobil



Stephen lao?
SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

| Client name: REC. BY (PRINT) workorder: $\qquad$ | $\frac{M_{\text {pyon }}-04-33 y}{E B}$ | DATE REC'D AT LAB: $\quad \frac{5-9-04}{} \begin{aligned} & \text { TIME REC'D AT LAB: } \\ & \text { DATELOGGED IN: } \\ & \text { (916 } \\ & 5 / 6 / 06\end{aligned}$ |  |  |  |  | For Regulatory Purposes? dRINKING WATER YES/(1O) waste water yes/no |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CIRCLE THE APPROPRIATE RESPONSE | $\begin{gathered} \mathrm{LAB} \\ \text { SAMPLE } \end{gathered}$ | $\begin{gathered} \text { DASH } \\ \vdots \end{gathered}$ | CLIENTID | $\begin{array}{\|l\|} \hline \text { CONTAINER } \\ \text { DESCRIPTION } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { PRESERVV } \\ \text { ATIVE } \\ \hline \end{array}$ | pH | SAMPLE MATRIX | $\begin{gathered} \text { DATE } \\ \text { SAMPLED } \end{gathered}$ | REMARKS: CONDTION (ETC.) |
| 1. Custody Seal(s) $\quad \begin{aligned} & \text { Present/ } / \text { Absent } \\ & \text { Intact/ } \text { Rroken* }\end{aligned}$ | 01 | G/H | HW-1 | 20 mbus | - | - |  | 5-3.ac | 11:\% |
|  | 02 | $\frac{A-E}{A-H}$ | 1 | Luor | Ha | $L$ | $L$ |  |  |
| 3. Traffic Reports or  <br> Packing List: Present/ / | 63 | A | $\frac{H w-2}{M w-3}$ | some | some | $L$ | L | F | 1010 |
|  | 04 | $\downarrow$ | H100-3 | I | 1 | $L$ | $5$ | $t$ | 1040 |
| 4. Airbill: $\quad \begin{aligned} & \text { Airbill / Sticker } \\ & \text { Present/ Absent }\end{aligned}$ |  |  |  |  |  |  |  |  | 1445 |
|  |  |  |  |  |  |  |  |  |  |
| 5. Airbill \#: |  |  |  |  |  |  |  |  |  |
| 6. Sample Labels: Presepr/ Absent |  |  |  |  |  |  |  |  |  |
| 7. Sample IDs: $\quad \begin{aligned} & \text { Lided M Not.Listed } \\ & \text { on Chain-ot-Custody }\end{aligned}$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes $\left(\mathrm{NO}_{2}{ }^{*}\right.$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 10. Sample received within hold time? O |  |  |  | 5 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 11. Adequate sample volume received? |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 12. Proper preservatives used? (Vas/ $\mathrm{No}^{*}$ |  |  |  |  |  |  |  |  |  |
| 13. Trip Blank / Temp Blank Received? (circle which, if yos) Yes N 8 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 14. Read Temp: Corrected Temp: Is corrected temp $4+1-2^{\circ} \mathrm{C}$ ? Y Y (Acceplance range for sampies requiring themal pres. **Exception (if any): METALS / DFF ON ICK or Problem COC |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| SRL Revislon 7 <br> Replaces Rev 5 (07/13/04) Eflectlve 07/19/05 | *F CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION. |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | Cage_Lot |


[^0]:    Sequoia Analytical - Morgan Hill

[^1]:    Sequoia Analytical - Morgan Hill

[^2]:    Sequoia Analytical - Morgan Hill

