BLUE ROCK
ENVIRONMENTAL, INC.

Mr. Mark Verhey
Humboldt County Health Department
Division of Environmental Health
100 H Street, Suite 100
Eureka, California 95501

April 19, 2006

Re: Additional Assessment & First Quarter 2006 Groundwater Monitoring Report
Former Cash Oil Fortuna
409 South Fortuna Boulevard, Fortuna, CA
HCDEH LOP No. 12652
Blue Rock Project No. NC-004

Dear Mr. Verhey,

This report presents the results of the additional assessment activities and first quarter 2006 groundwater monitoring activities at 409 South Fortuna Boulevard, Fortuna, Humboldt County, California (site) (Figure 1), and was prepared for Clyde Harvey by Blue Rock Environmental, Inc. (Blue Rock). The assessment activities included installation of two well pairs screened from approximately 4 to 10 feet below ground surface (bgs) and 15 to 20 feet bgs, and the destruction of seven monitoring wells screened from 5 to 20 feet bgs.

This work was proposed in Blue Rock's *Additional Assessment and Third Quarter 2005 Groundwater Monitoring Report*, dated September 28, 2005, which was approved by the Humboldt County Division of Environmental Health (HCDEH) in a letter dated December 14, 2005.

Background

Site Description
The former Cash Oil Service Station is located on the corner of South Fortuna Boulevard and Newburg Road in Fortuna, California. The site is located in an area of low topographic relief and is considered part of the Eel River flood plain (Figure 1). The site formerly contained one single-story building with four pump islands that were used to dispense unleaded gasoline from four fiberglass lined, single walled steel 10,000-gallon underground storage tanks (UST), three in Complex #1 and one in Complex #2 (Figure 2).

Site History

On May 8, 1997, as part of a UST system upgrade, Clearwater Group (Clearwater) observed Tank Liners Inc. drill three soil borings B-1, B-2, and B-3 for collection of soil and groundwater samples as required by the HCDEH (Figure 2). Laboratory analytical results from the soil and groundwater samples indicated that an unauthorized release of petroleum had occurred from the UST system.

In May 2000, Cash Oil Company sold the property and upgraded UST system to Golden Gate Petroleum of Martinez, California.

In August 2004, Beacom Construction (Beacom) of Fortuna, California, on behalf of Golden Gate Petroleum, removed the four (4) 10,000-gallon USTs and associated fuel dispensers from the site.

Site Investigation History

Subsurface investigation activities have been ongoing at the site since 2000. A total of approximately 15 soil borings (B-1 through B-12, and HP-9 through HP-11) have been drilled and fourteen monitoring wells (MW-1 through MW-9A/B, MW-10A/B, and MW-11A/B) have been installed at the site (Figure 2). Groundwater monitoring has been ongoing since the wells were installed. Monitoring well construction data are summarized on Table 1, soil sample data are summarized on Table 2, and groundwater sample data are summarized on Table 3.

Summary of Contaminant Type

The predominant contaminant types that have been detected in the subsurface include total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and the fuel oxygenates MTBE, TBA, ETBE, and TAME.

Summary of Hydrogeology

The first couple feet below grade consists of baserock fill. The site is underlain by sediments characterized as elastic clayey silt (MH) from a depth of ~2 to ~17 feet bgs, which is underlain by gravel (GW/GM) with a lesser amount of sand (SW/SM) to a depth of ~20 feet bgs (the maximum depth explored).

There appears to be a perched water bearing zone located within the elastic clayey silt (MH) at a general depth interval of 4 to 10 feet bgs, referred to here as the A-Zone. This zone consists of fine-grained soil types, i.e. silt/clay. Stabilized water levels in the A-Zone wells have ranged from ~2.5 – 4.5 ft bgs; however, some have been dry during the summer and fall (coinciding with the dry season).

The gravel/sand (GW/SW) unit from a depth of ~17 to 20 feet bgs (and deeper) is referred to here as the B-Zone. B-Zone wells screened from 15 to 20 feet bgs have shown groundwater flow generally toward west and west-northwest. Stabilized water levels in the B-Zone wells have ranged from ~8 - 14 ft bgs, with the highest groundwater conditions appearing to occur in the winter and spring (coinciding with seasonal precipitation).

Potentiometric data from almost all of the other wells previously installed at the site (screened from 5 to 20 feet bgs) appear to fall within the pattern of data from the B-Zone, except MW-7, which appears to be more consistent with the A-Zone data.

Summary of Remedial Efforts

In August 2004, Blue Rock supervised Van Meter Construction of Redway, California excavate 2,034 tons of petroleum contaminated soil from the vicinity of the former UST fuel system. The lateral extent of the excavation is shown on Figure 2, and the depth of the excavation was irregular, ranging from approximately 6 to 18 feet bgs. The remedial soil excavation removed an estimated 2,109 pounds (346 gallons) of hydrocarbons from the site. Blue Rock mixed approximately 750 pounds of ORC into the excavation backfill. Monitoring well MW-3 was destroyed during remedial excavation activities. Remedial activities are presented in Blue Rock's *Remedial Report of Findings*, dated September 1, 2004.

Investigation and Monitoring Methods

Permitting and Utility Clearance

Prior to drilling, Blue Rock prepared site specific Health and Safety Plan and obtained well installation and well destruction permits from HCDEH. Additionally, the site was marked by Underground Service Alert to identify utilities leading to the site.

Drilling, Soil Sampling, and Installation/Development of Dual-Completion Well Sets

On March 15, 2006, two dual-completion wells sets were installed (MW-12A & 12B and MW-13A & 13B) and seven monitoring wells were destroyed (MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-8). A Blue Rock scientist, working under the supervision of a Blue Rock California Professional Geologist, supervised all drilling and well installation activities. Drilling was performed by Mitchell Drilling Environmental (MDE), a C-57 licensed driller based in Eureka, California. MDE used a truck-mounted rill-rig equipped with 8-inch diameter hollow-stem augers to advance the borings. During drilling, soil samples were collected at five-foot intervals using a California Modified Split-Spoon sampler lined with clean, brass tubes. Soil types were logged in accordance with the Unified Soil Classification System. Additionally, soil samples were screened for the presence of volatile petroleum hydrocarbon vapors with a photo-ionizing organic vapor meter (OVM). The borings for the A-Zone wells were drilled to a total depth of 10 feet bgs, and the borings for the B-Zone wells were drilled to a total depth of 20 feet bgs.

Four soil samples were retained from each dual-completion well drilling location for laboratory analysis. These samples were selected based on filling gaps in sample depths from previous nearby borings and as confirmation samples. These samples were covered with Teflon lined plastic caps, labeled, documented on a chain-of custody form, and placed on ice in a cooler for transport to the project laboratory.

Blue Rock supervised construction of monitoring wells in the boreholes. Well screens targeted two zones: the A-Zone wells were screened from 4 to 10 feet bgs, and the B-Zone wells were screened from 15 to 20 feet bgs. The wells were constructed of clean, flush-threaded, two-inch diameter PVC well materials. Well screen consisted of 0.01-inch slot. A filter pack of Lonestar #2/12 sand extended from the bottom of each boring to one feet above the screened interval. The filter pack was sealed by a one-foot layer of hydrated bentonite. The remaining annular space was filled with cement and a tamper-resistant box will be concreted in place over the wellhead. Soil boring logs and well completion diagrams are attached.

The seven wells were destroyed by overdrilling the well annulus and grouting the boring to finished grade. The wells were overdrilled with the same size augers used to install the wells, and all the well materials were removed.

Prior to, and between, use all downhole drilling and sampling equipment was either steam-cleaned or washed in an Alconox® solution followed by double rinse in clean tap water. Soil cuttings and auger/sampler rinseate were stored in labeled 55-gallon drums on-site pending appropriate disposal. Blue Rock will utilize the analytical results for soil and/or water samples collected from the borings to coordinate soil and water recycling/disposal.

Well construction/destruction information is included in Table 1, and well locations are shown on Figure 2.

Well Surveying and Development

On March 20, 2006, the new wells were developed by surging and bailing. Development involved the removal of water from each well until such time it was relatively free of sediment, and pH, temperature, and conductivity parameters had stabilized. The water volume removed from each new well was approximately 10 saturated casing volumes.

On March 24, 2006, the new wells were surveyed according to GeoTracker requirements.

First Quarter 2006 Groundwater Monitoring Activities

On March 21, 2006, all 11 projects wells (MW-9A&B through MW-13A&B) and MW-16 (Fortuna Beacon - Humboldt Petroleum) were gauged for depth to water, and sampled.

Prior to sampling, an electronic water level indicator was used to gauge depth to water in each well, accurate to within ±0.01-foot. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized. Dissolved oxygen measurements were collected from each well.

Following recovery of water levels to approximately 80% of their static levels, groundwater samples were collected from the wells using disposable polyethylene bailers and transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox® wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinseate water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (attached).

Soil and Groundwater Sample Analyses

The soil and groundwater samples were analyzed by Kiff Analytical LLC, a DHS-certified laboratory located in Davis, California, for the following:

- TPHg, BTEX, and MTBE by EPA Method 8260B (soil and groundwater)

Investigation Results

Hydrogeological Observations

The soil types observed were consistent with previous investigation efforts. In general, the site is underlain by sediments characterized as elastic clayey silt (MH) from ~2 - ~17 feet bgs, which is underlain by gravels (GW/GM) and sands (SW/SM) to a depth of ~20 feet bgs (the maximum depth of soil sample description). Cross-sections are shown on Figures 3a and 3b, and boring logs for MW-12A/B and MW-13A/B are attached.

During these drilling efforts, groundwater was first encountered in the elastic clayey silt (MH), at a depth of approximately 10 feet bgs. Wells were installed in both the A-Zone (4 to 10 feet bgs) and the B-Zone (15 to 20 feet bgs). Water in the newly installed A-Zone wells stabilized at approximately 3 feet bgs. Water in the newly installed B-Zone wells stabilized at approximately 7 to 10 feet bgs.

On March 21, 2006, static groundwater in the A-Zone wells was present in the wells at depths ranging from approximately 2.36 (MW-10A) to 7.95 (MW-11A) feet bgs. The depth to water in MW-11A (~8 ft bgs) was not consistent with the other A-Zone wells (i.e. ~2.5-4 ft bgs). Gauging data, combined with well elevation data, were used to calculate groundwater elevations. Resulting groundwater elevations in A-Zone wells this quarter did not form a discernable pattern suitable for contouring (Figure 5a).

On March 21, 2006, static groundwater in the B-Zone wells was present in the wells at depths ranging from approximately 6.75 (MW-12B) to 10.10 (MW-9B) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevations, and to generate a groundwater elevation and gradient map. Groundwater flow direction in the B-Zone was calculated to be toward the west-northwest at a gradient of 0.063 ft/ft (Figure 5b).

The groundwater levels between the well pairs were also evaluated for potential vertical gradients between the A-Zone and B-Zone. The table below summarizes March 21, 2006 data:

Nested Well Pair	A-Zone Groundwater Elevation (Ft MSL)	B-Zone Groundwater Elevation (Ft MSL)	Vertical Distance Between A and B Zones Mid-point of Screen (ft)	Calculated Vertical Gradient
MW-9A & MW-9B	55.80	48.44	10.5	0.70 ft/ft down
MW-10A & MW-10B	56.16	51.15	10.5	0.48 ft/ft down
MW-11A & MW-11B	50.23	51.08	10.5	0.08 ft/ft up
MW-12A & MW-12B	54.43	51.47	10.5	0.28 ft/ft down
MW-13A & MW-13B	55.55	48.87	10.5	0.64 ft/ft down

These results primarily show a downward flow direction between the A-Zone and the B-Zone. As noted above, the water level in MW-11A was not consistent with other wells in the A-Zone, and this discrepancy accounts for the lone upward gradient calculated between the A- and B-Zone wells in the area of MW-1.

Soil Sample Results and Summary of Residual Soil Impacts

Neither TPHg nor BTEX were detected in any of the eight soil samples analyzed, except for low levels of ethylbenzene (0.0069 mg/kg) and xylenes (0.040 mg/kg) in sample MW-12 at 15 feet bgs. MTBE was detected in four of the eight soil samples analyzed, and concentrations ranged from 0.0094 mg/kg (MW-13 at 10 feet bgs) to 0.022 mg/kg (MW-12 at 15 feet bgs).

These results are generally consistent with previous investigation results. It appears that residual sorbed-phase gasoline is present along the western edge of the remedial excavation in the area of MW-1 (Figure 4). Cumulative soil sample analytical data are presented on Table 2.

Groundwater Sample Results and Summary of Groundwater Impacts

All of the A-Zone wells contained water for sampling, and three of the five wells contained detectable levels of MTBE ranging from 1.3 µg/L (MW-9A) to 3.8 µg/L (MW-11A). No concentrations of TPHg or BTEX were detected in the A-Zone wells this quarter. Coupled with historical grab groundwater sampling data from the same depth interval, the lateral extent of dissolved-phase contaminants in this zone appears effectively delineated in all directions. All sample results this quarter from A-Zone wells are below Clean-up Goals. The distribution of A-Zone groundwater sample results are shown on Figure 6a.

Using data from the sites B-Zone wells, neighboring site well data, the lateral extent of dissolved-phase contaminants in the B-Zone appears to be relatively well delineated. The core of the plume in this zone appears to be located on the western (downgradient) side of the former dispenser islands, and the plume appears to be elongated east-west, parallel to the direction of groundwater flow in this zone (Figure 6b). The maximum TPHg and MTBE concentrations detected in the newly installed site wells were 94 µg/L (MW-12B) and 920 µg/L (MW-9B).

The vertical extent of dissolved-phase impacts below 20 ft bgs has been previously delineated by discrete groundwater samples from HP-9, HP-10, and HP-11 at 40 ft bgs, which did not contain detectable concentrations of target analytes.

Cumulative groundwater sample analytical results are summarized in Table 3, and intrinsic bioremediation data are summarized in Table 4. Copies of the laboratory report and chain-of-custody form are attached.

Summary

There appears to be a perched water bearing zone located at within the general depth interval of 4 to 10 feet bgs, referred to here as the A-Zone. This zone consists of fine-grained soil types, i.e. silt/clay. This quarter water stabilized in the A-Zone wells ranging from approximately 2.5-4 ft bgs (although depth to water in MW-11A was anomalously low at ~8 ft bgs). The groundwater elevations in A-Zone wells did not appear to fall into a pattern suitable for contouring. These non-patterned groundwater elevations in the A-Zone may be the reflective of a slightly irregular surface of the perching horizon.

The B-Zone wells, which tap sands/gravels beginning at approximately 15 feet bgs (screened from 15 to 20 feet bgs), show groundwater flow generally toward west-northwest. This quarter depth to water in these wells generally stabilized at a depth of 7 to 10 feet bgs.

The results of the vertical gradient evaluation primarily show a downward flow direction between the A-Zone and the B-Zone.

The extent of sorbed- and dissolved-phase contaminants appears relatively well delineated. The residual sorbed-phase gasoline contaminants are located along the western edge of the remedial excavation in the area of MW-1, and the majority of this sorbed-phase mass is located at a depth interval of approximately 5 to 10 feet bgs.

The extent and magnitude of A-Zone dissolved-phase contamination appears to be relatively minimal. A-Zone well water samples for this quarter were all below Clean-up Goals.

It appears the greatest dissolved-phase impact occurs in the B-Zone, in which the dissolved-phase plume core is located around, and immediately downgradient of, the former dispenser islands. The plume in this zone appears to be elongated east-west, parallel to groundwater flow. The maximum TPHg and MTBE concentrations recently detected in this zone are approximately 94 µg/L and 920 µg/L, respectively. Impacts in this zone do not appear to extend below the depth of 40 ft bgs based on data from HP-9 through HP-11.

Project Status

- The site is currently being monitored on a quarterly basis per the HCDEH directives. The next quarterly sampling event is scheduled for June 2006. Groundwater samples will be analyzed for TPHg, BTEX, and MTBE.

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

Sincerely,
Blue Rock Environmental, Inc.

Prepared by:

Scott Ferriman
Project Scientist

Reviewed by:

Brian Gwinn, PG
Principal Geologist

PROFESSIONAL GEOLOGIST
BRIAN M. GWINN
No 6505
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Attachments:

- Table 1: Well Construction Details
- Table 2: Soil Analytical Data
- Table 3: Groundwater Elevations and Analytical Data
- Table 4: Intrinsic Bioremediation Data
- Figure 1: Site Location Map
- Figure 2: Site Plan
- Figure 3a: A-A' Cross-Section
- Figure 3b: B-B' Cross-Section
- Figure 4: TPHg in Soil Map
- Figure 5a: Groundwater Elevation Map – A-Zone– March 21, 2006
- Figure 5b: Groundwater Elevation Map – B-Zone– March 21, 2006
- Figure 6a: Groundwater Contaminant Map – A-Zone – March 21, 2006
- Figure 6b: Groundwater Contaminant Map – B-Zone – March 21, 2006
- Soil Boring Logs & Well Construction Diagrams (MW-12A/B and MW-13A/B)
- Blue Rock Gauge/Purge Calculations and Well Purging Data field sheets
- Laboratory Analytical Report and Chain-of-Custody Form

Distribution:

- Mr. Clyde Harvey, 1785 Fort Douglas Circle, Salt Lake City, UT 84103
- Mr. Dennis O'Keefe, Golden Gate Petroleum, 501 Shell Avenue, Martinez, CA 94553

Table 1
WELL CONSTRUCTION DETAILS
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Monitoring Well Identification	Date Intstalled	Intstalled by	Casing Diameter (inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement Grout (feet)
MW-1**	1/10/01	Clearwater	2	20	0-5	5-20	0.02	4.5-20	3-4.5	0-3
MW-2**	1/11/01	Clearwater	2	15	0-5	5-15	0.02	4.5-15	3-4.5	0-3
MW-3*	1/10/01	Clearwater	2	20	0-5	5-20	0.02	4.5-20	3-4.5	0-3
MW-4**	1/11/01	Clearwater	2	20	0-5	5-20	0.02	4.5-20	3-4.5	0-3
MW-5**	3/2/02	Clearwater	2	20.5	0-5	5-20	0.02	4-20	3-4	0-3
MW-6**	3/2/02	Clearwater	2	20.5	0-5	5-20	0.02	4-20	3-4	0-3
MW-7**	3/2/02	Clearwater	2	20.5	0-5	5-20	0.02	4-20	3-4	0-3
MW-8**	6/11/02	Clearwater	2	20	0-5	5-20	0.02	4-20	3-4	0-3
MW-9A	8/17/05	Blue Rock	2	10	0-4	4-10	0.01	3-10	2-3	0-2
MW-9B	8/17/05	Blue Rock	2	20	0-15	15-20	0.01	14-20	13-14	0-13
MW-10A	8/17/05	Blue Rock	2	10	0-4	4-10	0.01	3-10	2-3	0-2
MW-10B	8/17/05	Blue Rock	2	20	0-15	15-20	0.01	14-20	13-14	0-13
MW-11A	8/17/05	Blue Rock	2	10	0-4	4-10	0.01	3-10	2-3	0-2
MW-11B	8/17/05	Blue Rock	2	20	0-15	15-20	0.01	14-20	13-14	0-13
MW-12A	3/15/06	Blue Rock	2	10	0-4	4-10	0.01	3-10	2-3	0-2
MW-12B	3/15/06	Blue Rock	2	20	0-15	15-20	0.01	14-20	13-14	0-13
MW-13A	3/15/06	Blue Rock	2	10	0-4	4-10	0.01	3-10	2-3	0-2
MW-13B	3/15/06	Blue Rock	2	20	0-15	15-20	0.01	14-20	13-14	0-13
Associated Well Previously Installed On Behalf of HPI at 390 S. Fortuna Blvd, Fortuna, CA										
MW-16 (HPI)	7/21/98	Clearwater	2	20	0-10	10-20	0.02	9-20	7-9	0-7

*MW-3 was removed during remedial excavation activities in 8/04.
**Monitoring wells destroyed under permit on March 15, 2006.

Table 2
SOIL ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Depth (feet bgs)	Sample Date	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)
Soil Samples Collected at UST Removal														
T1 West	13	8/5/04	<1	<0.005	<0.005	<0.005	**0.0068**	<0.02	<0.4	<0.02	<0.02	<0.02	--	--
T1 East	13	8/5/04	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
T2 West	13	8/5/04	<1	<0.005	<0.005	<0.005	**0.006**	<0.05	--	--	--	--	--	--
T2 East	13	8/5/04	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
T3 West	13	8/5/04	<1	<0.005	<0.02	<0.005	**0.018**	<0.05	--	--	--	--	--	--
T3 East	12	8/5/04	<1	<0.005	<0.005	<0.005	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	--	--
T4 West	12	8/5/04	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
T4 East	13	8/5/04	**16**	<0.005	<0.005	<0.005	**0.0075**	<0.05	--	--	--	--	--	--
Soil Samples Collected to Verify Removal of Impacted Soil During Remedial Excavation														
EX-1	15	8/9/04	**720**	<0.1	<0.1	**2.8**	**7.0**	<0.1	**4.59**	--	--	--	--	--
EX-2	3	8/10/04	**1.4**	**0.016**	<0.005	**0.0059**	**0.017**	**0.21**	--	--	--	--	--	--
EX-3	14	8/11/04	**250**	**0.01**	<0.005	**0.072**	**0.027**	**0.059**	--	--	--	--	--	--
EX-4	5	8/12/04	**120**	**0.36**	**0.087**	**0.52**	**1.7**	**0.62**	**16**	--	--	--	--	--
EX-5	10	8/13/04	**420**	<0.05	<0.05	**2.7**	**6.3**	<0.05	--	--	--	--	--	--
EX-6	5	8/14/04	**760**	<0.25	<0.25	<0.25	<0.25	<0.25	--	--	--	--	--	--
EX-7	5	8/16/04	**1,200**	<0.25	<0.25	<0.25	<0.25	**0.84**	--	--	--	--	--	--
Investigation Samples Removed of During Remedial Excavation														
B-3	11.5	5/8/97	**170**	<0.13	<0.5	**0.74**	**4.1**	<1.3	--	--	--	--	--	--
B-4	4	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-4	8	3/14/00	<1	**0.0072**	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-8	4	3/14/00	**610**	<0.08	<0.08	<0.08	**0.083**	**0.081**	<4	<0.2	<0.2	<0.2	--	--
B-8	8	3/14/00	<1	**0.0065**	<0.005	<0.005	<0.01	<0.005	<0.5	<0.02	<0.02	<0.02	--	--
B-9	4	3/14/00	**5.2**	<0.005	<0.005	<0.005	<0.01	**0.097**	<0.5	<0.02	<0.02	<0.02	--	--
B-9	8	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	**0.038**	<0.5	<0.02	<0.02	<0.02	--	--
B-10	4	3/14/00	**1.6**	<0.005	<0.005	<0.01	<0.02	<0.05	--	--	--	--	--	--
B-10	8	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-11	4	3/14/00	**20**	<0.005	<0.005	<0.005	<0.01	**0.045**	<0.5	<0.02	<0.02	<0.02	--	--
B-11	8	3/14/00	<1	**0.0059**	<0.005	<0.005	<0.01	<0.005	<0.5	<0.02	<0.02	<0.02	--	--
MW-3	5	1/10/01	<1.0	<0.005	<0.005	<0.005	<0.005	**0.62**	**0.072**	<0.005	<0.005	**0.031**	<0.2	<0.02
MW-3	10	1/10/01	<1.0	<0.005	<0.005	<0.005	<0.005	**0.067**	<0.01	<0.005	<0.005	<0.005	<0.2	<0.02

Table 2
SOIL ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Depth (feet bgs)	Sample Date	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)
Confirmation Samples Collected from Sidewalls and Bottom of Remedial Excavation														
EB-1@18'	18	8/9/04	<1	<0.005	<0.005	<0.005	<0.005	**0.18**	--	--	--	--	--	--
EB-2@15'	15	8/12/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
EB-3@6'	6	8/12/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
EB-4@6'	6	8/12/04	<1	**0.015**	<0.005	<0.005	<0.005	**0.056**	--	--	--	--	--	--
EB-5@6'	6	8/13/04	<1	<0.005	<0.005	<0.005	<0.005	**0.03**	--	--	--	--	--	--
EB-6@7'	7	8/13/04	<1	<0.005	<0.005	<0.005	<0.005	**0.24**	--	--	--	--	--	--
EB-7@6'	6	8/14/04	<1	<0.005	<0.005	<0.005	<0.005	**0.089**	--	--	--	--	--	--
EB-8@6'	6	8/14/04	<1	<0.005	<0.005	<0.005	<0.005	**0.12**	--	--	--	--	--	--
EB-9@15'	15	8/16/04	<1	<0.005	<0.005	<0.005	<0.005	**0.30**	--	--	--	--	--	--
SW-1@10'	10	8/11/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
SW-2@10'	10	8/11/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
SW-3@10'	10	8/11/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
SW-4@10'	10	8/11/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
SW-5@5'	5	8/12/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
SW-6@5'	5	8/13/04	<1	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
SW-7@5'	5	8/13/04	<1	<0.005	<0.005	<0.005	<0.005	**0.013**	--	--	--	--	--	--
SW-8@5'	5	8/13/04	<1	<0.005	<0.005	<0.005	<0.005	**0.14**	--	--	--	--	--	--
SW-9@5'	5	8/13/04	**8.3**	<0.005	<0.005	**0.0061**	<0.005	**0.079**	--	--	--	--	--	--
SW-10@7'	7	8/16/04	**8.8**	<0.005	<0.005	**0.0059**	<0.01	**0.012**	--	--	--	--	--	--
SW-11@7'	7	8/16/04	<1	<0.005	<0.005	**0.0054**	<0.005	**0.0076**	--	--	--	--	--	--
SW-12@7'	7	8/16/04	<1	<0.005	<0.005	<0.005	<0.005	**0.0080**	--	--	--	--	--	--

Table 2
SOIL ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Depth (feet bgs)	Sample Date	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)
Investigation Soil Samples in Non-Excavated Area														
B-1	13	5/8/97	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-2	12	5/8/97	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-5	4	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-5	8	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-6	4	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-6	8	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-7	4	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-7	8	3/14/00	<1	<0.005	<0.005	<0.005	<0.01	<0.05	--	--	--	--	--	--
B-12	2.5	1/12/01	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.2	<0.02
MW-1	5	1/10/01	**630**	<0.05	<0.05	**1.6**	<0.05	<0.05	<0.5	**0.13**	<0.05	<0.05	<1	<2
MW-1	10	1/10/01	<1.0	**0.03**	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.5	<0.05
MW-2	5	1/11/01	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.5	<0.05
MW-2	10	1/11/01	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.2	<0.02
MW-4	5	1/11/01	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.2	<0.05
MW-4	10	1/11/01	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.2	<0.02
MW-5	10	3/2/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
MW-5	15	3/2/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
MW-6	10	3/2/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
MW-6	15	3/2/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
MW-7	10	3/2/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
MW-7	15	3/2/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
MW-8	10	6/11/02	<1.0	<0.005	<0.005	<0.005	<0.005	**0.0085**	<0.005	<0.005	<0.005	<0.005	--	--
MW-8	20	6/11/02	<1.0	<0.005	<0.005	<0.005	<0.005	**0.035**	**0.0083**	<0.005	<0.005	<0.005	--	--
MW-9	10	8/17/05	<1.0	**0.041**	<0.005	<0.005	**0.015**	**0.040**	--	--	--	--	--	--
MW-9	15	8/17/05	<1.0	<0.005	<0.005	<0.005	<0.005	**0.15**	--	--	--	--	--	--
MW-9	20	8/17/05	<1.0	<0.005	<0.005	<0.005	<0.005	**0.090**	--	--	--	--	--	--
MW-10	5	8/17/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
MW-10	15	8/17/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
MW-10	20	8/17/05	<1.0	<0.005	<0.005	<0.005	<0.005	**0.024**	--	--	--	--	--	--
MW-11	15	8/17/05	<1.0	<0.005	<0.005	<0.005	<0.005	**0.0081**	--	--	--	--	--	--
MW-11	20	8/17/05	<1.0	<0.005	<0.005	<0.005	<0.005	**0.052**	--	--	--	--	--	--
MW-12	5	3/15/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
MW-12	10	3/15/06	<1.0	<0.005	<0.005	<0.005	<0.005	**0.012**	--	--	--	--	--	--
MW-12	15	3/15/06	<1.0	<0.005	<0.005	**0.0069**	**0.040**	**0.022**	--	--	--	--	--	--
MW-12	20	3/15/06	<1.0	<0.005	<0.005	<0.005	<0.005	**0.017**	--	--	--	--	--	--
MW-13	5	3/15/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
MW-13	10	3/15/06	<1.0	<0.005	<0.005	<0.005	<0.005	**0.0094**	--	--	--	--	--	--
MW-13	15	3/15/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
MW-13	20	3/15/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--

Notes

bgs: below ground surface
"--" Not analyzed, available or applicable
mg/kg = milligrams per kilogram
<###: Not detected above the method detection limit as shown
TPHg: Total petroleum hydrocarbons as gasoline by EPA Method 5030/8015M or 5030/8260B
BTEX by EPA Method 8020 or 8260B
MTBE: Methyl tertiary butyl ether by EPA 8020 or 8260B

TBA: Tertiary butanol by EPA 8260B
DIPE: Di isopropyl ether by EPA 8260B
ETBE: Ethyl tertiary butyl ether by EPA 8260B
TAME: Tertiary amyl methyl ether by EPA 8260B
Methanol: by EPA Method 8260B
Ethanol: by EPA method 8260B

Table 3
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
Grab Groundwater Samples																	
GW-3 (B-3)	5/8/99	--	--	0.00	--	**23,000**	**63**	**110**	**600**	**1,630**	<130	--	--	--	--	--	--
B-4	3/14/00	--	~7	0.00	--	**210**	**4.1**	<0.5	<0.5	**0.79**	<0.5	<10	<1	<1	<1	--	--
B-5	3/14/00	--	~5	0.00	--	<50	<0.5	<0.5	<0.5	<1	**0.79**	<10	<1	<1	<1	--	--
B-6	3/14/00	--	~4	0.00	--	**110**	<0.5	<0.5	<0.5	<1	<0.5	<10	<1	<1	<1	--	--
B-7	3/14/00	--	~4	0.00	--	<50	<0.5	<0.5	<0.5	<1	<0.5	<10	<1	<1	<1	--	--
B-8	3/14/00	--	~4	0.00	--	**19,000**	**18**	**2.4**	**20**	**3.8**	**1,100**	<100	<5	**12**	**91**	--	--
B-9	3/14/00	--	~4	0.00	--	**20,000**	**36**	**22**	**11**	<8	**3,900**	<200	<10	<10	**310**	--	--
B-10	3/14/00	--	~2.5	0.00	--	<63	<0.5	<0.5	<0.5	<1	<0.5	<13	<1	<1	<1	--	--
B-11	3/14/00	--	~4.5	0.00	--	**14,000**	**26**	**2.6**	**41**	**5**	**580**	<100	<5	<5	**12**	--	--
HP-9	8/29/05	--	~40	0.00	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
HP-10	8/29/05	--	~40	0.00	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
HP-11	8/29/05	--	~40	0.00	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
Monitoring Well Groundwater Samples																	
MW-1	1/19/01	99.75	11.37	0.00	88.38	**4,900**	**5**	**1.1**	**14**	**2.3**	**200**	**29**	<1	**5.4**	**6.1**	<100	<10
Screen	5/4/01	99.75	11.29	0.00	88.46	**4,500**	**12**	<2	**7.8**	<2	**620**	**31**	<2	<2	**24**	<500	<20
5' - 20'	8/16/01	99.75	15.40	0.00	84.35	**7,700**	**13**	**1.7**	**23**	**2.6**	**280**	**16**	<0.5	**2.4**	**13**	<50	<5
	11/1/01	99.75	15.74	0.00	84.01	**3,100**	**10**	**0.85**	**9.8**	**1.4**	**220**	**22**	<0.5	**2.5**	**9.4**	<1,500	<5
	3/6/02	58.74	12.32	0.00	46.42	**7,700**	**28**	<2.5	**14**	<2.5	**980**	**39**	<2.5	**3.9**	**49**	--	--
	6/20/02	58.74	13.59	0.00	45.15	**3,400**	**33**	<2.5	**13**	<2.5	**1,100**	**40**	<2.5	**3**	**48**	--	--
	9/3/02	58.74	15.61	0.00	43.13	**1,500**	**6.2**	<2.5	<2.5	<2.5	**1,200**	**38**	<2.5	**2.9**	**40**	--	--
	12/11/02	58.74	16.31	0.00	42.43	**4,200**	**14**	<2	**9.8**	<2	**870**	**25**	<2	**2.4**	**27**	--	--
	3/7/03	58.74	12.37	0.00	46.37	**8,100**	**19**	<2.5	**15**	**3.9**	**1,300**	**39**	<2.5	<2.5	**52**	--	--
	6/3/03	58.74	11.96	0.00	46.78	**6,800**	**19**	<2.5	**12**	<2.5	**1,200**	**37**	<2.5	**3**	**54**	--	--
	9/2/03	58.74	15.21	0.00	43.53	**5,900**	**12**	<1.5	**13**	**1.7**	**800**	**27**	<1.5	**2.2**	**31**	--	--
	12/3/03	58.74	15.07	0.00	43.67	**6,100**	**6.8**	**1.5**	**15**	**2.5**	**730**	**29**	<1	**2.9**	**37**	--	--
	3/9/04	58.74	11.42	0.00	47.32	**5,500**	**11**	<2	**12**	<2	**940**	**37**	<2	**2.1**	**45**	--	--
	6/8/04	58.74	13.38	0.00	45.36	**7,000**	**11**	<5	**14**	<10	**780**	<50	<5	<5	**43**	--	--
	9/3/04	58.74	15.79	0.00	42.95	**810**	**6.8**	<1	**3.7**	<1	**400**	--	--	--	--	--	--
	12/8/04	58.74	12.79	0.00	45.95	**3,700**	**4.7**	**1.5**	**20**	**1.9**	**270**	--	--	--	--	--	--
	3/25/05	58.74	10.79	0.00	47.95	**7,400**	**4.8**	**1.4**	**21**	**1.4**	**240**	--	--	--	--	--	--
	6/13/05	58.74	12.14	0.00	46.60	**3,700**	**7.8**	**1.9**	**15**	**1.7**	**190**	--	--	--	--	--	--
	8/22/05	58.74	14.05	0.00	44.69	**2,600**	**6.3**	**0.87**	**6.8**	**1.0**	**130**	--	--	--	--	--	--
	12/16/05	58.74	13.26	0.00	45.48	**5,500**	**4.7**	**1.3**	**18**	**2.0**	**110**	--	--	--	--	--	--
	3/15/06	Monitoring well destroyed under permit															

Table 3
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
Monitoring Well Groundwater Samples																	
MW-2	1/19/01	99.24	12.41	0.00	86.83	<50	<0.5	<0.5	<0.5	<0.5	**2.4**	<5	<0.5	<0.5	<0.5	<50	<5
Screen	5/4/01	99.24	11.07	0.00	88.17	<50	<0.5	<0.5	<0.5	<0.5	**11**	<5	<0.5	<0.5	<0.5	<50	<5
5' - 15'	8/16/01	99.24	14.24	0.00	85.00	<50	<0.5	<0.5	<0.5	<0.5	**14**	<5	<0.5	<0.5	<0.5	<50	<5
	11/1/01	99.24	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/02	58.18	10.74	0.00	47.44	<50	<0.5	<0.5	<0.5	<0.5	**1.2**	<5	<0.5	<0.5	<0.5	--	--
	6/20/02	58.18	12.70	0.00	45.48	<50	<0.5	<0.5	<0.5	<0.5	**2.3**	<5	<0.5	<0.5	<0.5	--	--
	9/3/02	58.18	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	58.18	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/7/03	58.18	10.04	0.00	48.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.18	10.06	0.00	48.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/2/03	58.18	14.01	0.00	44.17	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	12/3/03	58.18	13.13	0.00	45.05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.18	9.07	0.00	49.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.18	12.14	0.00	46.04	<50	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/3/04	58.18	14.55	0.00	43.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/8/04	58.18	8.51	0.00	49.67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/25/05	58.18	8.63	0.00	49.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/13/05	58.18	10.26	0.00	47.92	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	8/22/05	58.18	13.00	0.00	45.18	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	58.18	11.06	0.00	47.12	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/06	Monitoring well destroyed under permit															
MW-3	1/19/01	99.77	9.88	0.00	89.89	<2,000	<20	<20	<20	<20	**15,000**	**560**	<20	<20	**490**	<2,000	<200
Screen	5/4/01	99.77	4.96	0.00	94.81	**4,800**	**630**	<20	**72**	**130**	**7,700**	**570**	<20	<20	**200**	<2,000	<200
5' - 20'	8/16/01	99.77	15.64	0.00	84.13	**1,300**	**14**	**0.98**	**1.6**	**1.1**	**6,800**	**320**	<0.5	**6**	**240**	<150	<5
	11/1/01	99.77	15.98	0.00	83.79	<2,000	<20	<20	<20	<20	**6,600**	**460**	<20	<20	**270**	<35,000	<200
	3/6/02	58.72	13.06	0.00	45.66	<2,000	<20	**21**	<20	<20	**6,600**	**240**	<20	<20	**160**	--	--
	6/20/02	58.72	11.70	0.00	47.02	**1,900**	**57**	<5	<5	<5	**2,900**	**90**	<5	<5	**140**	--	--
	9/3/02	58.72	15.53	0.00	43.19	<1,000	<10	<10	<10	<10	**3,300**	**130**	<10	<10	**110**	--	--
	12/11/02	58.72	16.48	0.00	42.24	<1,000	<10	<10	<10	<10	**3,600**	**110**	<10	<10	**110**	--	--
	3/7/03	58.72	4.18	0.00	54.54	**3,300**	**150**	**5.4**	**7.1**	**18**	**2,300**	**77**	<5	<5	**110**	--	--
	6/3/03	58.72	4.40	0.00	54.32	**3,000**	**100**	**4.4**	**4.2**	**12**	**1,900**	**56**	<2.5	<2.5	**96**	--	--
	9/2/03	58.72	14.69	0.00	44.03	<500	<5	<5	<5	<5	**2,300**	**68**	<5	<5	**80**	--	--
	12/3/03	58.72	14.79	0.00	43.93	**1,600**	**89**	<5	<5	**8.1**	**2,300**	**78**	<5	<5	**120**	--	--
	3/9/04	58.72	7.90	0.00	50.82	**1,500**	**23**	<3	<3	**4.9**	**1,400**	**62**	<3	<3	**68**	--	--
	6/8/04	58.72	11.28	0.00	47.44	<5,000	<50	<50	<50	<100	**1,800**	<500	<50	<50	**89**	--	--
	8/13/04	Removed during remedial soil excavation activities															
	3/15/06	Monitoring well destroyed under permit															

Table 3
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
Monitoring Well Groundwater Samples																	
MW-4	1/19/01	99.12	12.17	0.00	86.95	**150**	<1	<1	<1	<1	**680**	**210**	<1	<1	**11**	<100	<10
Screen	5/4/01	99.12	10.71	0.00	88.41	<200	<2	<2	<2	<2	**440**	**120**	<2	<2	**16**	<200	<20
5' - 20'	8/16/01	99.12	14.83	0.00	84.29	<50	<0.5	<0.5	<0.5	<0.5	**250**	<5	<0.5	<0.5	**10**	<50	<5
	11/1/01	99.12	14.76	0.00	84.36	**61**	<0.5	<0.5	<0.5	<0.5	**210**	**18**	<0.5	<0.5	**8.5**	<50	<5
	3/6/02	58.07	10.28	0.00	47.79	**220**	<0.5	<0.5	<0.5	<0.5	**130**	**40**	<0.5	<0.5	**5.4**	--	--
	6/20/02	58.07	12.41	0.00	45.66	<50	<0.5	<0.5	<0.5	<0.5	**440**	**32**	<0.5	<0.5	**20**	--	--
	9/3/02	58.07	14.34	0.00	43.73	<250	<2.5	<2.5	<2.5	<2.5	**1,300**	**35**	<2.5	<2.5	**34**	--	--
	12/11/02	58.07	15.23	0.00	42.84	<500	<5	<5	<5	<5	**2,300**	<50	<5	<5	**54**	--	--
	3/7/03	58.07	10.48	0.00	47.59	**330**	<1	<1	<1	<1	**570**	**33**	<1	<1	**28**	--	--
	6/3/03	58.07	10.12	0.00	47.95	**130**	<0.5	<0.5	<0.5	<0.5	**380**	**19**	<0.5	<0.5	**23**	--	--
	9/2/03	58.07	13.82	0.00	44.25	**85**	<0.5	<0.5	<0.5	<0.5	**390**	**12**	<0.5	<0.5	**17**	--	--
	12/3/03	58.07	13.91	0.00	44.16	**220**	<0.5	<0.5	<0.5	<0.5	**510**	**31**	<0.5	<0.5	**22**	--	--
	3/9/04	58.07	9.51	0.00	48.56	<500	<5	<5	<5	<5	**2,000**	**220**	<5	<5	**5.6**	--	--
	6/8/04	58.07	12.03	0.00	46.04	**210**	<0.5	<0.5	<0.5	<1	**420**	**25**	<0.5	<0.5	**1.5**	--	--
	9/3/04	58.07	14.41	0.00	43.66	<100	<1	<1	<1	<1	**430**	--	--	--	--	--	--
	12/8/04	58.07	10.72	0.00	47.35	<50	<0.5	<0.5	<0.5	<0.5	**140**	--	--	--	--	--	--
	3/25/05	58.07	8.97	0.00	49.10	<50	<0.5	<0.5	<0.5	<0.5	**40**	--	--	--	--	--	--
	6/13/05	58.07	10.27	0.00	47.80	<50	<0.5	<0.5	<0.5	<0.5	**22**	--	--	--	--	--	--
	8/22/05	58.07	12.72	0.00	45.35	<50	<0.5	<0.5	<0.5	<0.5	**29**	--	--	--	--	--	--
	12/16/05	58.07	11.13	0.00	46.94	<50	<0.5	<0.5	<0.5	<0.5	**13**	--	--	--	--	--	--
	3/15/06	Monitoring well destroyed under permit															
MW-5	3/6/02	58.37	4.39	0.00	53.98	<50	<0.5	<0.5	<0.5	<0.5	**0.53**	<5	<0.5	<0.5	<0.5	--	--
Screen	6/20/02	58.49	12.50	0.00	45.99	<50	<0.5	<0.5	<0.5	**0.56**	<0.5	<5	<0.5	<0.5	<0.5	--	--
5' - 20'	9/3/02	58.49	14.49	0.00	44.00	<50	<0.5	<0.5	<0.5	<0.5	**1.3**	<5	<0.5	<0.5	<0.5	--	--
	12/11/02	58.49	15.39	0.00	43.10	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/7/03	58.49	8.76	0.00	49.73	<50	<0.5	<0.5	<0.5	<0.5	**0.95**	<5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.49	8.12	0.00	50.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/2/03	58.49	14.02	0.00	44.47	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	12/3/03	58.49	14.04	0.00	44.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.49	6.35	0.00	52.14	<50	<0.5	<0.5	<0.5	<0.5	**1.1**	<5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.49	11.95	0.00	46.54	<50	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/3/04	58.49	14.50	0.00	43.99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/8/04	58.49	5.71	0.00	52.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/25/05	58.49	3.71	0.00	54.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/13/05	58.49	10.38	0.00	48.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	8/22/05	58.49	13.11	0.00	45.38	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	58.49	10.38	0.00	48.11	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/06	Monitoring well destroyed under permit															

Table 3
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
Monitoring Well Groundwater Samples																	
MW-6	3/6/02	58.02	10.28	0.00	47.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
Screen	6/20/02	58.02	12.62	0.00	45.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
5' - 20'	9/3/03	58.02	14.33	0.00	43.69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	12/11/02	58.02	15.28	0.00	42.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/7/03	58.02	10.67	0.00	47.35	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.02	10.37	0.00	47.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/2/03	58.02	13.87	0.00	44.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	12/3/03	58.02	14.38	0.00	43.64	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.02	9.62	0.00	48.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.02	12.20	0.00	45.82	<50	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/3/04	58.02	14.48	0.00	43.54	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/8/04	58.02	12.95	0.00	45.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/25/05	58.02	10.45	0.00	47.57	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/13/05	58.02	10.70	0.00	47.32	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	8/22/05	58.02	12.84	0.00	45.18	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	58.02	11.64	0.00	46.38	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/06	Monitoring well destroyed under permit															
MW-7	3/6/02	58.42	3.68	0.00	54.74	**110**	<0.5	<0.5	<0.5	<0.5	**78**	<5	<0.5	<0.5	**1.4**	--	--
Screen	6/20/02	58.42	4.27	0.00	54.15	**200**	<0.5	<0.5	<0.5	<0.5	**26**	<5	<0.5	<0.5	**0.7**	--	--
5' - 20'	9/3/02	58.42	5.77	0.00	52.65	**250**	<0.5	<0.5	<0.5	**2.5**	**30**	**15**	<0.5	<0.5	**0.51**	--	--
	12/11/02	58.42	6.21	0.00	52.21	**360**	<0.5	<0.5	<0.5	**4.5**	**37**	**9.2**	<0.5	<0.5	**0.74**	--	--
	3/7/03	58.42	3.80	0.00	54.62	**780**	<0.5	<0.5	**1.1**	**3.8**	**21**	<5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.42	3.47	0.00	54.95	**650**	<0.5	<0.5	**0.85**	**2.6**	**17**	**5.3**	<0.5	<0.5	<0.5	--	--
	9/2/03	58.42	4.70	0.00	53.72	**470**	<0.5	<0.5	**0.59**	**1.6**	**13**	**7.5**	<0.5	<0.5	<0.5	--	--
	12/3/03	58.42	4.78	0.00	53.64	**490**	<0.5	<0.5	**0.64**	**1.5**	**17**	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.42	3.45	0.00	54.97	**530**	<0.5	<0.5	**0.9**	**1.7**	**16**	**8.9**	<0.5	<0.5	<0.5	--	--
	6/8/04	58.42	3.75	0.00	54.67	**540**	<0.5	<0.5	**0.7**	**0.8**	**11**	<5	<0.5	<0.5	<0.5	--	--
	9/3/04	58.42	5.33	0.00	53.09	**290**	<0.5	<0.5	<0.5	**0.9**	**8.1**	--	--	--	--	--	--
	12/8/04	58.42	2.75	0.00	55.67	**670**	**0.57**	<0.5	**1.2**	**0.85**	**13**	--	--	--	--	--	--
	3/25/05	58.42	3.24	0.00	55.18	**1,100**	**0.56**	**0.58**	**2.8**	**0.92**	**8.4**	--	--	--	--	--	--
	6/13/05	58.42	3.87	0.00	54.55	**770**	<0.5	<0.5	**1.1**	**0.80**	**6.0**	--	--	--	--	--	--
	8/22/05	58.42	4.38	0.00	54.04	**530**	<0.5	<0.5	<0.5	<0.5	**2.7**	--	--	--	--	--	--
	12/16/05	58.42	3.72	0.00	54.70	**540**	<0.5	<0.5	<0.5	<0.5	**4.4**	--	--	--	--	--	--
	3/15/06	Monitoring well destroyed under permit															

Table 3
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
Monitoring Well Groundwater Samples																	
MW-8	6/20/02	58.81	4.75	0.00	54.06	<50	<0.5	<0.5	<0.5	<0.5	**14**	<5	<0.5	<0.5	**0.52**	--	--
Screen	9/3/02	58.81	14.76	0.00	44.05	<50	<0.5	<0.5	<0.5	**0.63**	**11**	<5	<0.5	<0.5	<0.5	--	--
5' - 20'	12/11/02	58.81	16.55	0.00	42.26	**92**	<0.5	<0.5	<0.5	**2.1**	**21**	<5	<0.5	<0.5	**1.1**	--	--
	3/7/03	58.81	11.89	0.00	46.92	**67**	<0.5	<0.5	<0.5	<0.5	**17**	<5	<0.5	<0.5	**0.99**	--	--
	6/3/03	58.81	11.67	0.00	47.14	<50	<0.5	<0.5	<0.5	<0.5	**25**	<5	<0.5	<0.5	**1.5**	--	--
	9/2/03	58.81	15.53	0.00	43.28	**51**	<0.5	<0.5	<0.5	<0.5	**56**	<5	<0.5	<0.5	**3.6**	--	--
	12/3/03	58.81	15.31	0.00	43.50	**57**	<0.5	<0.5	<0.5	<0.5	**10**	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.81	9.82	0.00	48.99	<50	<0.5	<0.5	<0.5	<0.5	**4.3**	<5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.81	13.28	0.00	45.53	<50	<0.5	<0.5	<0.5	<0.5	**37**	<5	<0.5	<0.5	**0.9**	--	--
	9/3/04	58.81	15.68	0.00	43.13	<50	<0.5	<0.5	<0.5	<0.5	**21**	--	--	--	--	--	--
	12/8/04	58.81	13.47	0.00	45.34	<50	<0.5	<0.5	<0.5	<0.5	**41**	--	--	--	--	--	--
	3/25/05	58.81	11.26	0.00	47.55	<50	<0.5	<0.5	<0.5	<0.5	**16**	--	--	--	--	--	--
	6/13/05	58.81	11.85	0.00	46.96	<50	<0.5	<0.5	<0.5	<0.5	**5.6**	--	--	--	--	--	--
	8/22/05	58.81	14.11	0.00	44.70	<50	<0.5	<0.5	<0.5	<0.5	**10**	--	--	--	--	--	--
	12/16/05	58.81	12.90	0.00	45.91	<50	<0.5	<0.5	<0.5	<0.5	**5.2**	--	--	--	--	--	--
	3/15/06	Monitoring well destroyed under permit															

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GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
Monitoring Well Groundwater Samples																	
MW-9A	8/22/05	58.57	--	--	--	well dry, no sample		--	--	--	--	--	--	--	--	--	--
Screen	12/16/05	58.57	4.26	0.00	54.31	<50	<0.5	<0.5	<0.5	<0.5	**2.0**	--	--	--	--	--	--
4' - 10'	3/21/06	58.57	2.77	0.00	55.80	<50	<0.5	<0.5	<0.5	<0.5	**1.3**	--	--	--	--	--	--
MW-9B	8/22/05	58.54	14.28	0.00	44.26	**220**	**1.6**	<1	<1	**1.0**	**860**	--	--	--	--	--	--
Screen	12/16/05	58.54	13.39	0.00	45.15	**120**	<1	<1	<1	<1	**1,000**	--	--	--	--	--	--
15' - 20'	3/21/06	58.54	10.10	0.00	48.44	<200	<2	<2	<2	<2	**920**	--	--	--	--	--	--
MW-10A	8/22/05	58.52	4.53	0.00	53.99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
Screen	12/16/05	58.52	3.28	0.00	55.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
4' - 10'	3/21/06	58.52	2.36	0.00	56.16	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-10B	8/22/05	58.56	13.58	0.00	44.98	<50	<0.5	<0.5	<0.5	<0.5	**5.3**	--	--	--	--	--	--
Screen	12/16/05	58.56	10.91	0.00	47.65	<50	<0.5	<0.5	<0.5	<0.5	**1.8**	--	--	--	--	--	--
15' - 20'	3/21/06	58.56	7.41	0.00	51.15	<50	<0.5	<0.5	<0.5	<0.5	**0.99**	--	--	--	--	--	--
MW-11A	8/22/05	58.18	--	--	--	well dry, no sample		--	--	--	--	--	--	--	--	--	--
Screen	12/16/05	58.18	--	--	--	well dry, no sample		--	--	--	--	--	--	--	--	--	--
4' - 10'	3/21/06	58.18	7.95	0.00	50.23	<50	<0.5	<0.5	<0.5	<0.5	**1.7**	--	--	--	--	--	--
MW-11B	8/22/05	58.39	13.14	0.00	45.25	<50	<0.5	<0.5	<0.5	<0.5	**160**	--	--	--	--	--	--
Screen	12/16/05	58.39	10.85	0.00	47.54	<50	<0.5	<0.5	<0.5	<0.5	**180**	--	--	--	--	--	--
15' - 20'	3/21/06	58.39	7.31	0.00	51.08	<50	<0.5	<0.5	<0.5	<0.5	**120**	--	--	--	--	--	--
MW-12A Screen 4' - 10'	3/21/06	58.25	3.82	0.00	54.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-12B Screen 15' - 20'	3/21/06	58.22	6.75	0.00	51.47	**94**	<0.5	<0.5	**0.68**	**2.4**	**4.6**	--	--	--	--	--	--
MW-13A Screen 4' - 10'	3/21/06	59.02	3.47	0.00	55.55	<50	<0.5	<0.5	<0.5	<0.5	**3.8**	--	--	--	--	--	--
MW-13B Screen 15' - 20'	3/21/06	58.62	9.75	0.00	48.87	<50	<0.5	<0.5	<0.5	<0.5	**11**	--	--	--	--	--	--

Table 3
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-16	6/20/02	57.54	12.79	0.00	44.75	--	--	--	--	--	--	--	--	--	--	--	--
(Humboldt	9/3/02	57.54	14.49	0.00	43.05	--	--	--	--	--	--	--	--	--	--	--	--
Pet. Well)	12/11/02	57.54	15.41	0.00	42.13	--	--	--	--	--	--	--	--	--	--	--	--
Screen	3/7/03	57.54	10.90	0.00	46.64	--	--	--	--	--	--	--	--	--	--	--	--
10' - 20'	6/3/03	57.54	10.76	0.00	46.78	--	--	--	--	--	--	--	--	--	--	--	--
	9/2/03	57.54	14.24	0.00	43.30	--	--	--	--	--	--	--	--	--	--	--	--
	12/3/03	57.54	14.71	0.00	42.83	--	--	--	--	--	--	--	--	--	--	--	--
	3/9/04	57.54	10.32	0.00	47.22	--	--	--	--	--	--	--	--	--	--	--	--
	6/8/04	57.54	12.33	0.00	45.21	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	57.54	14.76	0.00	42.78	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	57.54	13.27	0.00	44.27	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	57.54	10.91	0.00	46.63	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	57.54	11.03	0.00	46.51	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	57.54	13.04	0.00	44.50	<50	<0.5	<0.5	<0.5	<0.5	**57**	--	--	--	--	--	--
	12/16/05	57.54	12.07	0.00	45.47	<50	<0.5	<0.5	<0.5	<0.5	**8.2**	--	--	--	--	--	--
	3/21/06	57.54	8.81	0.00	48.73	<50	<0.5	<0.5	<0.5	<0.5	**4.2**	--	--	--	--	--	--
					MCL	---	1.0	150	300	1,750	13						
					Taste and odor threshold	5	---	42	29	17	5						
					NCRWQCB Cleanup Goals	50	0.5	42	29	17	5						

Notes :

TOC: Top of well casing referenced to arbitrary site benchmark until 3/02, MSL thereafter
DTW: Depth to water as referenced to top of casing
SPH: Separate phase hydrocarbon on top of groundwater
GWE: Groundwater elevation as referenced to benchmark
µg/L = micrograms per liter
TPHg: Total petroleum hydrocarbons as gasoline by Method 5030/8015M or 5030/8260B
MTBE: Methyl tertiary butyl ether by Method 8020 or 8260B
MW-16 (LOP #12093) was used for the purpose of obtaining additional groundwater gradient and direction data.

TBA: Tertiary butyl alcohol by Method 8260B
DIPE: Di isopropyl ether by Method 8260B
ETBE: Ethyl tertiary butyl ether by Method 8260B
TAME: Tertiary amyl methyl ether by method 8260B
Methanol: by EPA Method 8260B
Ethanol: by EPA Method 8260B
MCL : Maximum contaminant level
NCRWQCB : North Coast Region Water Quality Control Board

Table 4
INTRINSIC BIOREMEDIATION DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project # NC-004

Well ID	Date	TPHg (µg/L)	MTBE (µg/L)	DO* (mg/L)	Eh* (mV)	pH*	Total Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)	Ortho Phosphate (mg/L)	Ferrous Iron (mg/L)	Dissolved Manganese (mg/L)	TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Heterotrophic Plate Count (CFU/mL)	Aerobic Hydrocarbon Degraders (CFU/mL)
MW-1	6/20/02	3,400	1,100	0.41	--	6.4	310	0.56	7.6	1.6	--	<0.5	7.4	--	52	5.4	97	7,000	1,000
	12/11/02	4,200	870	2.91	80	5.8	370	0.87	7.9	0.87	<1	<0.5	8.1	6,800	39	12	120	20,000	50
	9/3/04	810	400	1.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	3,700	270	1.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	7,400	240	0.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	3,700	190	3.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	2,600	130	2.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	5,500	110	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/20/02	<50	2.3	0.47	0.47	6.5	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<50	<0.5	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	<0.5	2.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	<0.5	5.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	<50	<0.5	4.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	--	--	3.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	--	--	4.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6/20/02	1,900	2,900	0.42	--	6.5	340	0.54	10	1.2	--	<0.5	8.2	--	44	4.2	110	20,000	3,000
	12/11/02	<1,000	3,600	3.12	50	4.4	350	0.94	10	1.4	<1	<0.5	6.9	17,000	32	12	110	20,000	300
MW-4	6/20/02	<50	440	0.62	--	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	<500	2,300	2.87	165	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<100	430	1.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	140	1.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	40	0.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	<50	22	0.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	<50	29	0.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	13	0.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	6/20/02	<50	<0.5	0.57	--	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	<50	<0.5	2.71	197	6.1	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<50	<0.5	2.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	<0.5	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	<0.5	4.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	<50	<0.5	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	--	--	1.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	--	--	2.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4
INTRINSIC BIOREMEDIATION DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project # NC-004

Well ID	Date	TPHg (µg/L)	MTBE (µg/L)	DO* (mg/L)	Eh* (mV)	pH*	Total Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)	Ortho Phosphate (mg/L)	Ferrous Iron (mg/L)	Dissolved Manganese (mg/L)	TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Heterotrophic Plate Count (CFU/mL)	Aerobic Hydrocarbon Degraders (CFU/mL)
MW-6	6/20/02	<50	<0.5	0.56	--	6.4	87	13	<0.1	6.9	--	<0.5	<0.1	--	4.2	<3	13	200,000	40,000
	12/11/02	<50	<0.5	3.25	146	5.9	85	12	0.16	4.4	<1	<0.5	<0.1	18	3.2	<3	<10	80,000	200
	9/3/04	<50	<0.5	2.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	<0.5	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	<0.5	4.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	<50	<0.5	4.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	--	--	5.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	--	--	6.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/20/02	200	26	0.61	--	6.6	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	360	37	2.78	21	5.9	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	290	8.1	2.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	670	13	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	1,100	8.4	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	770	6.0	0.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	530	2.7	0.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	540	4.4	0.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	6/20/02	<50	14	0.58	--	6.5	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	92	21	2.37	79	5.9	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<50	21	1.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	41	2.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	16	2.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/05	<50	5.6	0.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/22/05	<50	10	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	5.2	0.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4
INTRINSIC BIOREMEDIATION DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project # NC-004

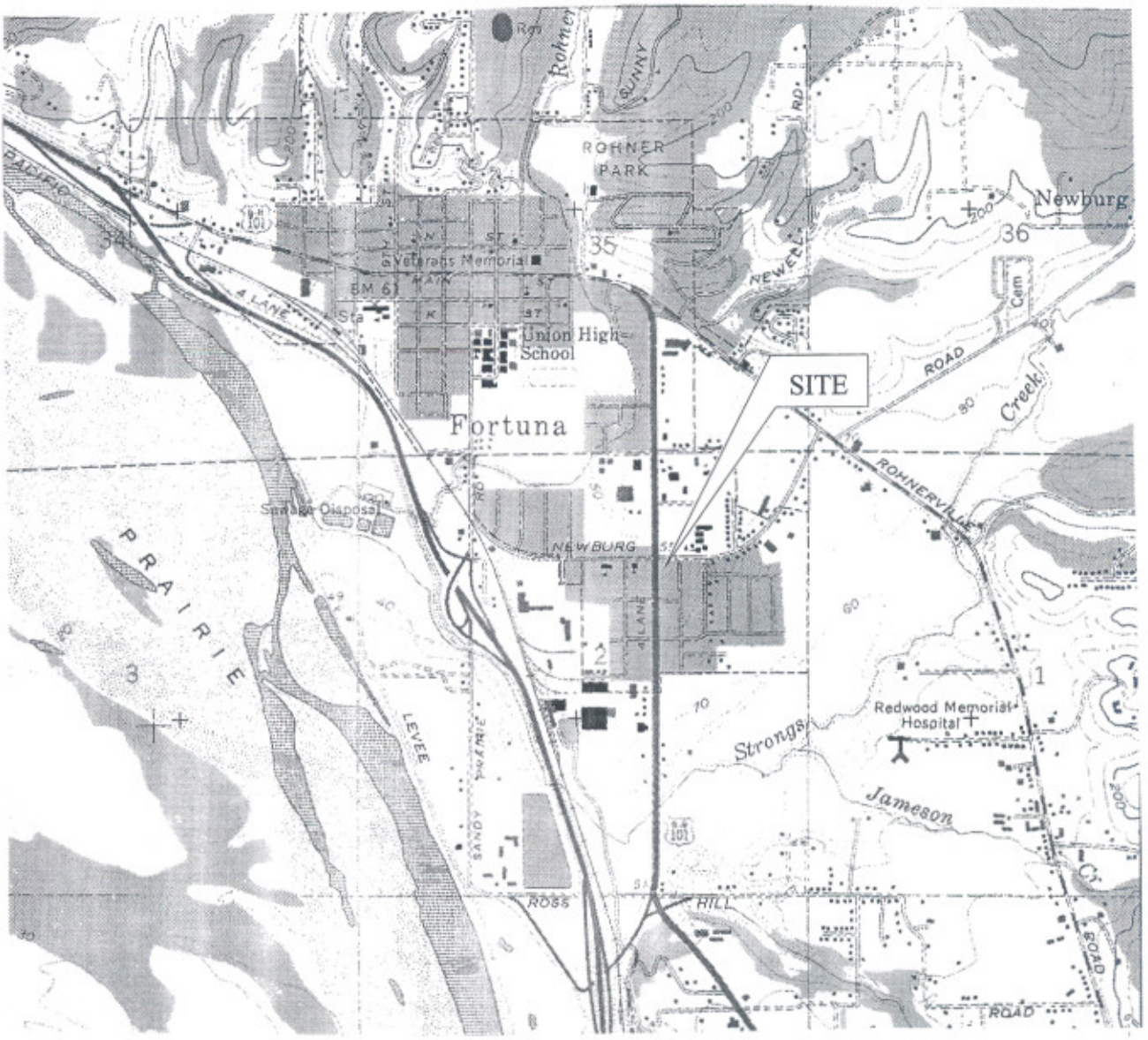
Well ID	Date	TPHg (µg/L)	MTBE (µg/L)	DO* (mg/L)	Eh* (mV)	pH*	Total Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)	Ortho Phosphate (mg/L)	Ferrous Iron (mg/L)	Dissolved Manganese (mg/L)	TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Heterotrophic Plate Count (CFU/mL)	Aerobic Hydrocarbon Degraders (CFU/mL)
MW-9A	8/22/05	dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	2.0	4.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/06	<50	1.3	1.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9B	8/22/05	220	860	3.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	120	1,000	1.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/06	<200	920	3.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10A	8/22/05	<50	<0.5	6.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	<0.5	2.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/06	<50	<0.5	1.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10B	8/22/05	<50	5.3	7.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	1.8	5.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/06	<50	0.99	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11A	8/22/05	dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/06	<50	1.7	1.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11B	8/22/05	<50	160	2.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	180	0.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/06	<50	120	0.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12A	3/21/06	<50	<0.5	1.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12B	3/21/06	94	4.6	2.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13A	3/21/06	<50	3.8	0.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13B	3/21/06	<50	11	1.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4
INTRINSIC BIOREMEDIATION DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project # NC-004

Well ID	Date	TPHg (µg/L)	MTBE (µg/L)	DO* (mg/L)	Eh* (mV)	pH*	Total Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)	Ortho Phosphate (mg/L)	Ferrous Iron (mg/L)	Dissolved Manganese (mg/L)	TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Heterotrophic Plate Count (CFU/mL)	Aerobic Hydrocarbon Degraders (CFU/mL)
MW-16 (HPI)	8/22/05	<50	57	1.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	8.2	0.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/05	<50	4.2	0.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

TPHg	Total petroleum hydrocarbons as gasoline by EPA Method 5030/8260B
MTBE	Methyl tertiary butyl ether by EPA Method 8260B
µg/L	micrograms per liter, equivalent to parts per billion - ppb
mg/L	milligrams per Liter, equivalent to parts per million - ppm
*	Parameters measured in field and recorded on field sheets
mV	Millivolts
CFU/mL	Colony forming units per milliliter
DO	Dissolved oxygen measured with downhole meter
Eh	Reduction-oxidation potential measured with downhole meter
pH	pH measured with field meter
Alkalinity	by EPA Method 310.1
Nitrate	by EPA Method 300.0
Ammonia	by EPA Method 350.2
Manganese	by EPA Method 200.7
Sulfate	by EPA Method 375.4
Sulfide	by EPA Method 376.2
Phosphate	by EPA Method 365.2
TOC	Total organic carbon by EPA Method 9060
Ferrous Iron	by Standard Method 3500
BOD	Biological oxygen demand by Standard Method 5210B
COD	Chemical oxygen demand by EPA Method 410.4
Heterotrophic Plate Count	Bacteria enumeration assay by Standard Method 9215B modified
Hydrocarbon Degraders	Bacteria enumeration assay for diesel and gasoline degraders
"--":	Not analyzed, available, or applicable
<###	Not detected above the number indicated



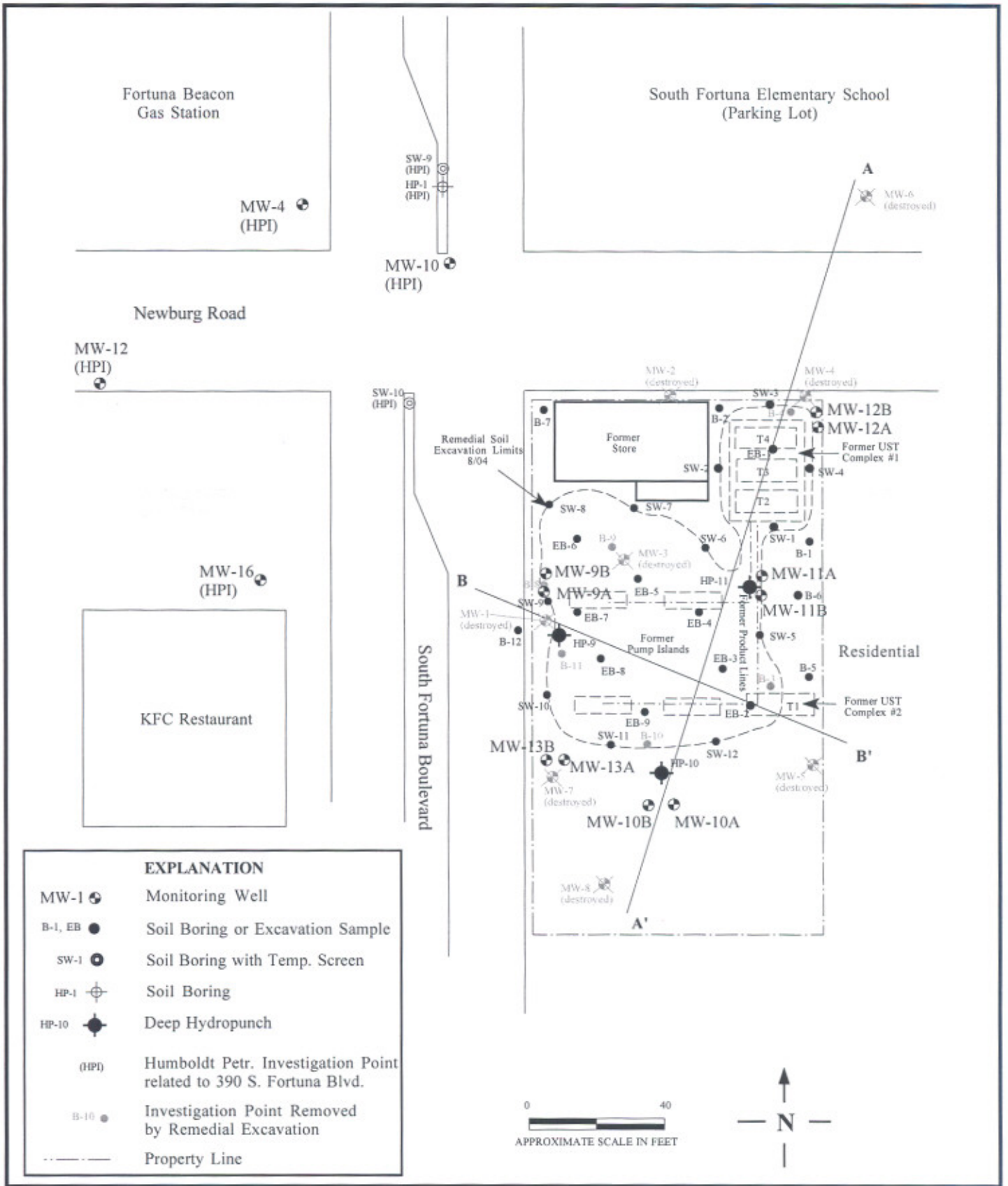
MAP SOURCE: USGS Fortuna Quadrangle

Site Location Map

Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Date	Figure
NC-004	4/04	1

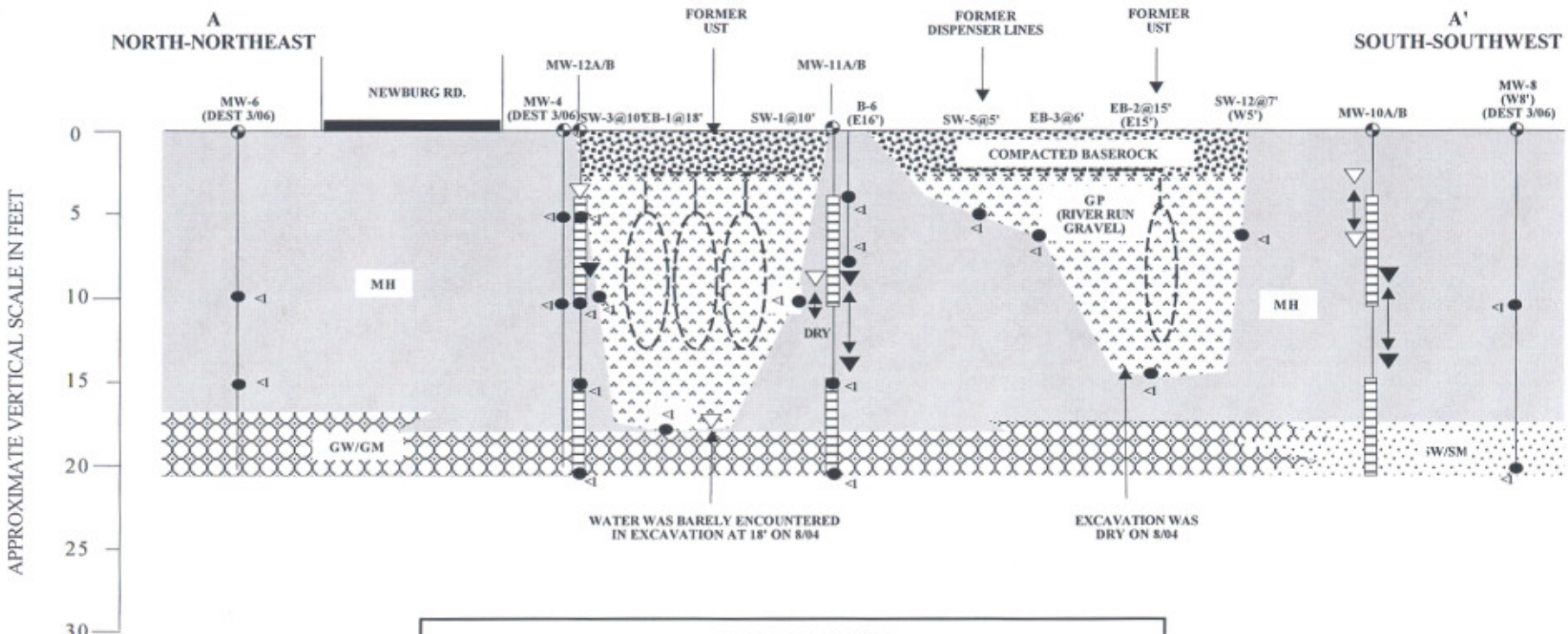


Site Plan

Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-004	4/06	2



EXPLANATION

- ELASTIC SILT (MH)
- GRAVEL / SILTY GRAVEL (GW/GM)
- SAND / SILTY SAND (SW/SM)
- RIVER RUN GRAVEL FILL (GP)
- BASEROCK
- A-ZONE STABLIZED WATER LEVELS
- B-ZONE STABLIZED WATER LEVELS
- SOIL SAMPLE

MW-3 — BORING/WELL I.D.

(N10') — DIRECTION AND DISTANCE FROM SECTION LINE

LOGGED & SCREENED INETERVAL

1.2 — TPHg CONCENTRATION (mg/kg) SOIL SAMPLES

TPHg = 10 — TPHg ISO-CONCENTRATION IN SOIL (mg/kg)

0' 30'
10'

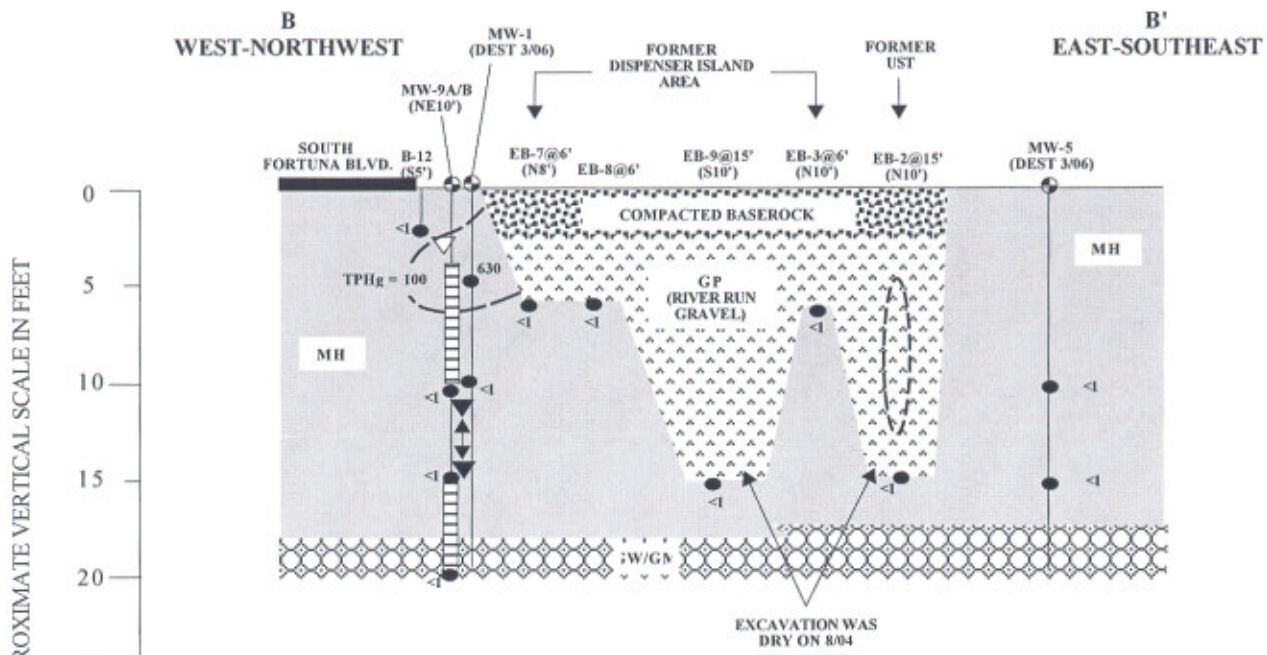
APPROXIMATE SCALE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

A-A' CROSS-SECTION

Cash Oil Fortuna
409 South Fortuna Blvd.
Fortuna, CA

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Figure Date	Figure
NC-004	4/06	3a



EXPLANATION

- ELASTIC SILT (MH)
- GRAVEL / SILTY GRAVEL (GW/GM)
- SAND / SILTY SAND (SW/SM)
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- A-ZONE STABLIZED WATER LEVELS
- B-ZONE STABLIZED WATER LEVELS
- SOIL SAMPLE

MW-3 — BORING/WELL I.D.

(N10') — DIRECTION AND DISTANCE FROM SECTION LINE

LOGGED & SCREENED INETERVAL

1.2 — TPHg CONCENTRATION (mg/kg) SOIL SAMPLES

TPHg = 10 — TPHg ISO-CONCENTRATION IN SOIL (mg/kg)

0' 30'
10'

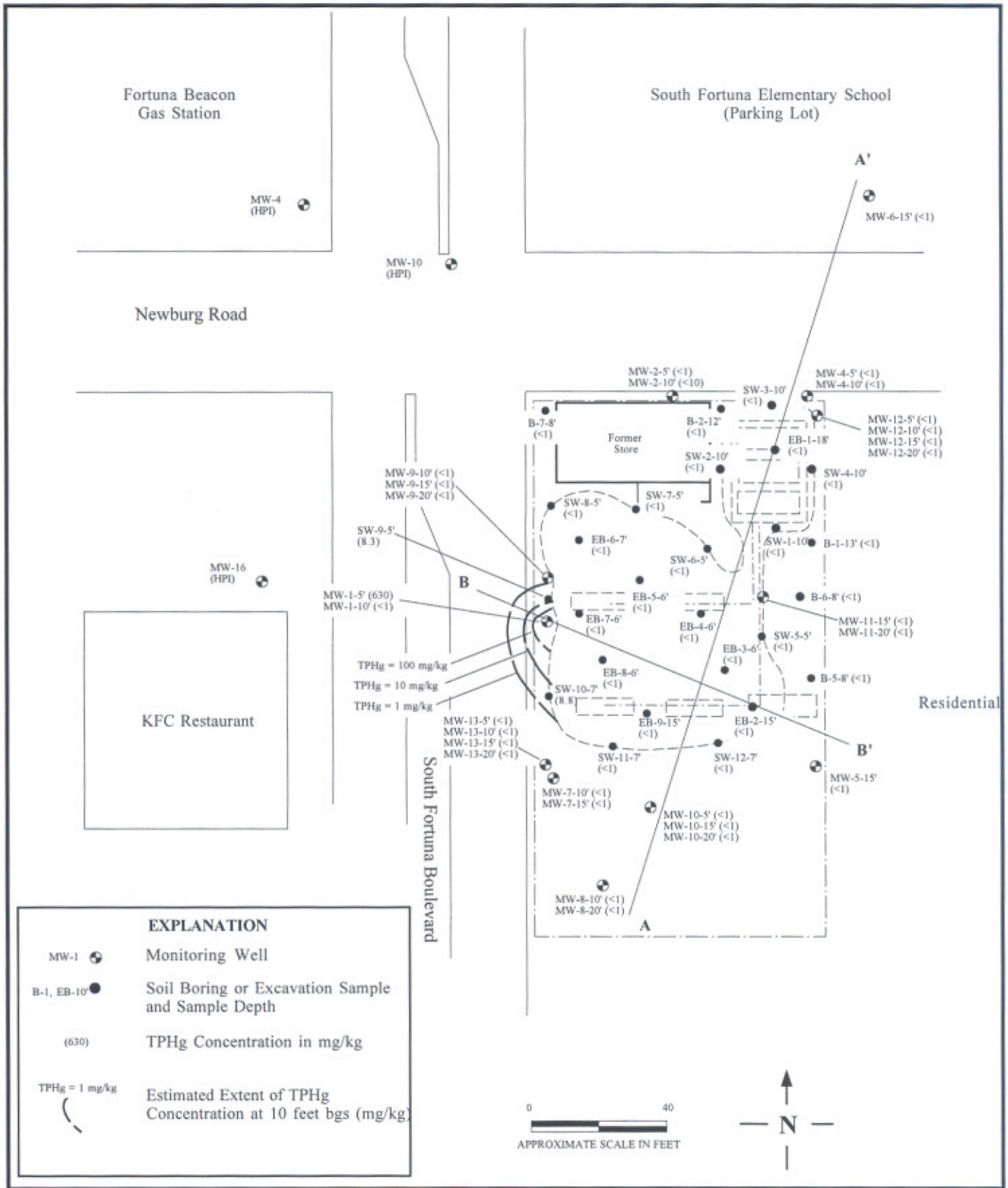
APPROXIMATE SCALE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

B-B' CROSS-SECTION

Cash Oil Fortuna
409 South Fortuna Blvd.
Fortuna, CA

BLUE ROCK ENVIRONMENTAL, INC.

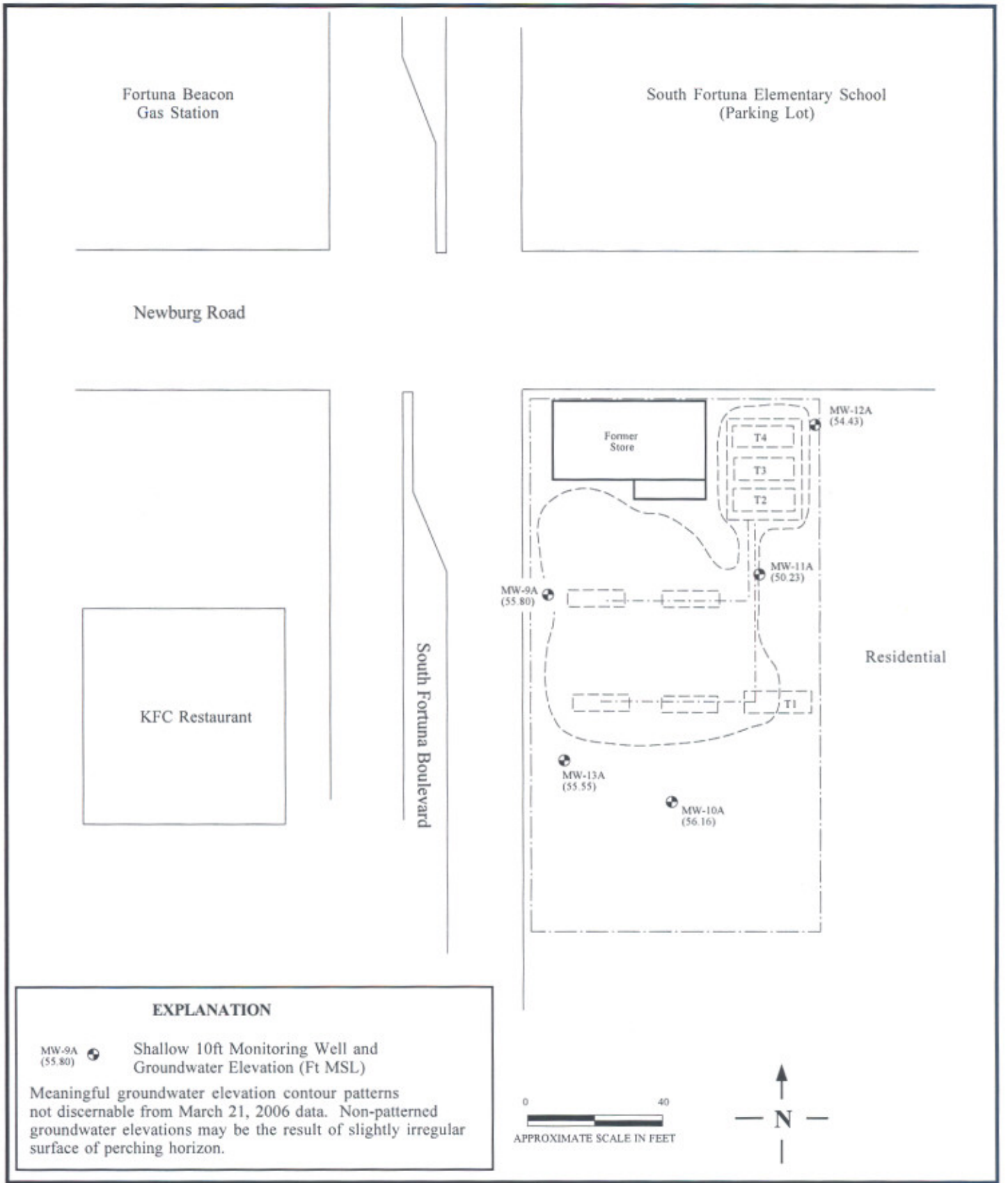
Project No.	Report Date	Figure
NC-004	9/05	3b



TPHg in Soil Map
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

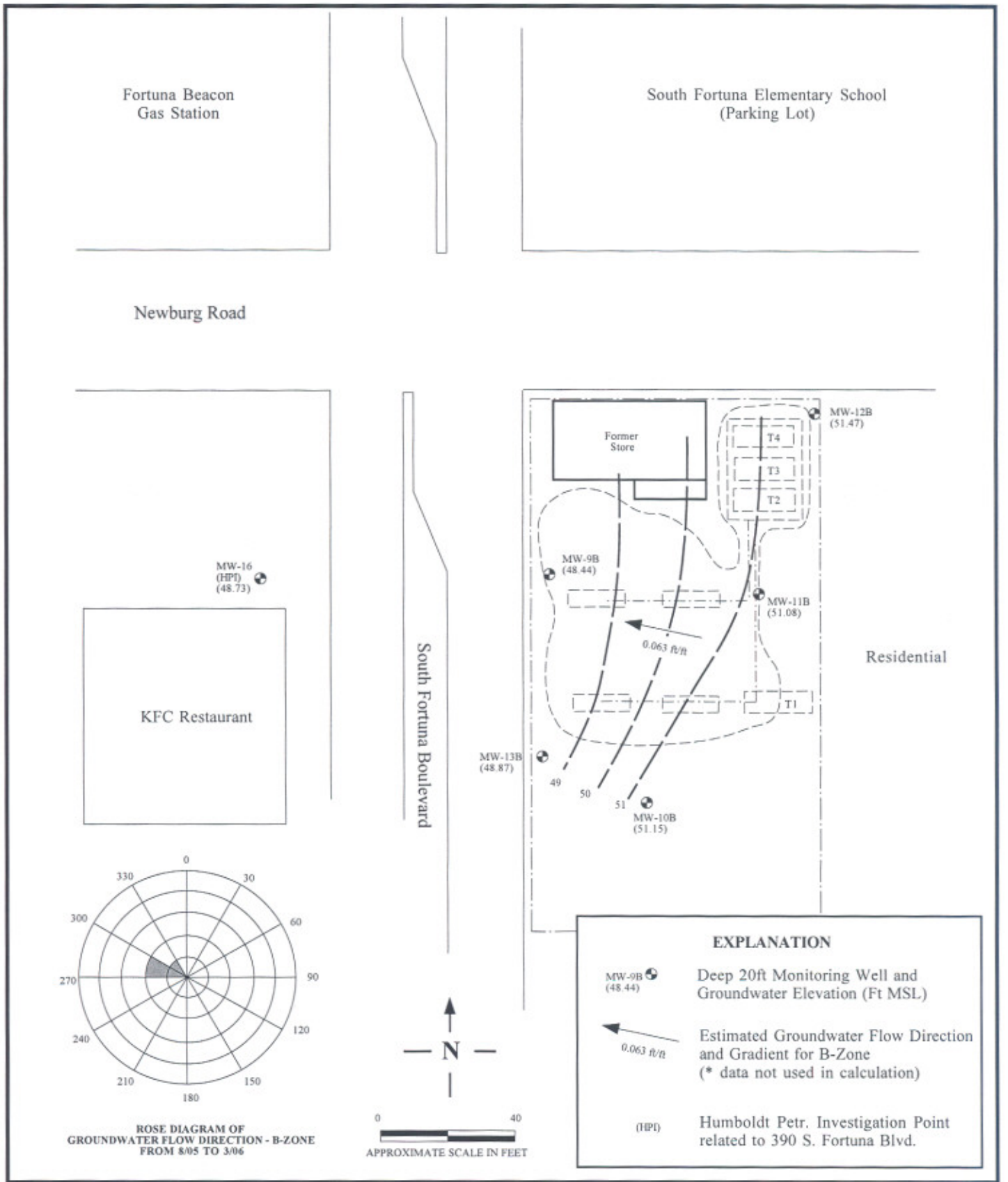
Project No.	Report Date	Figure
NC-004	4/06	4



Groundwater Elevation Map - A-Zone
March 21, 2006
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-004	4/06	5a

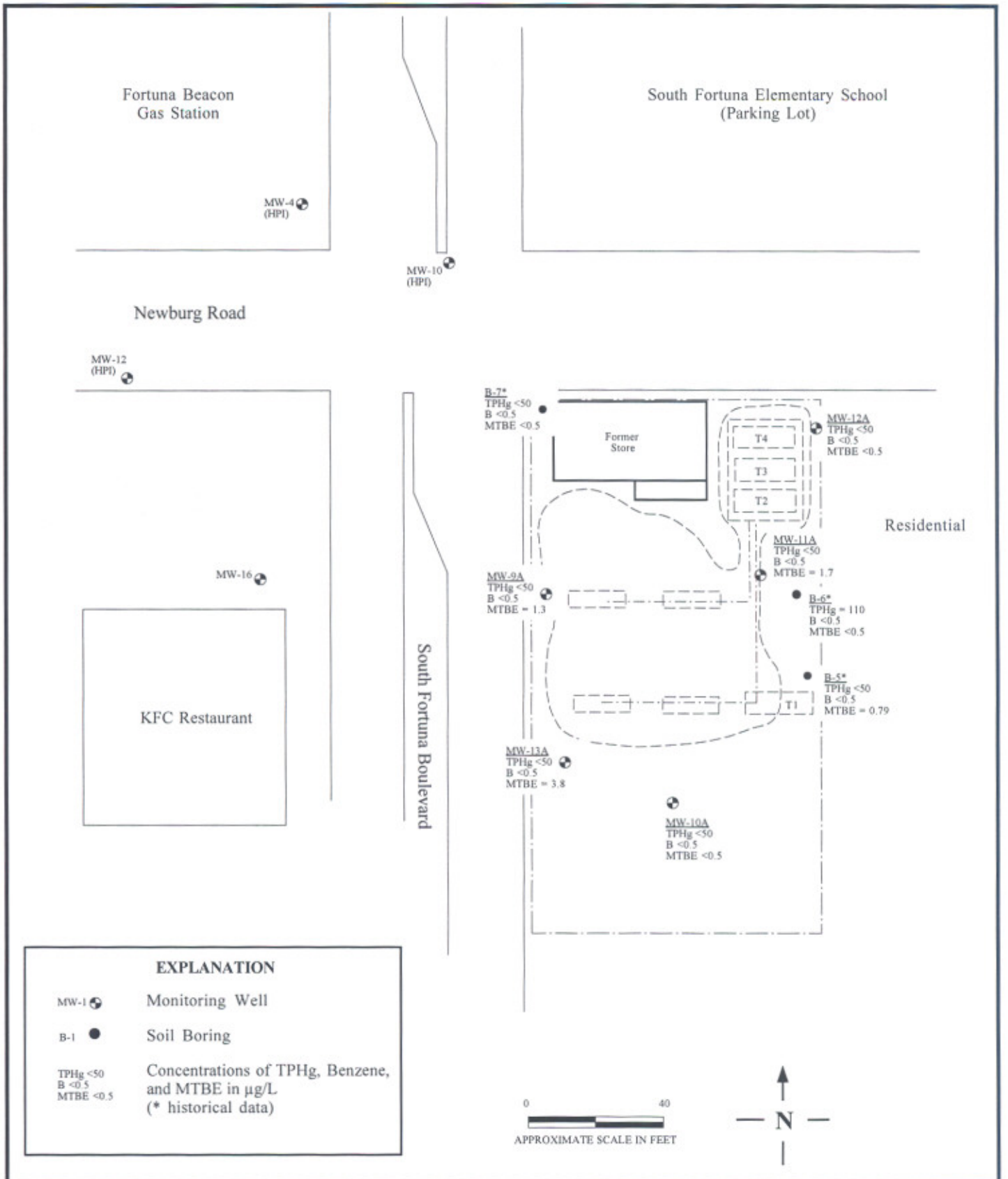


ROSE DIAGRAM OF
GROUNDWATER FLOW DIRECTION - B-ZONE
FROM 8/05 TO 3/06

Groundwater Elevation Map - B-Zone
March 21, 2006
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK
ENVIRONMENTAL, INC.

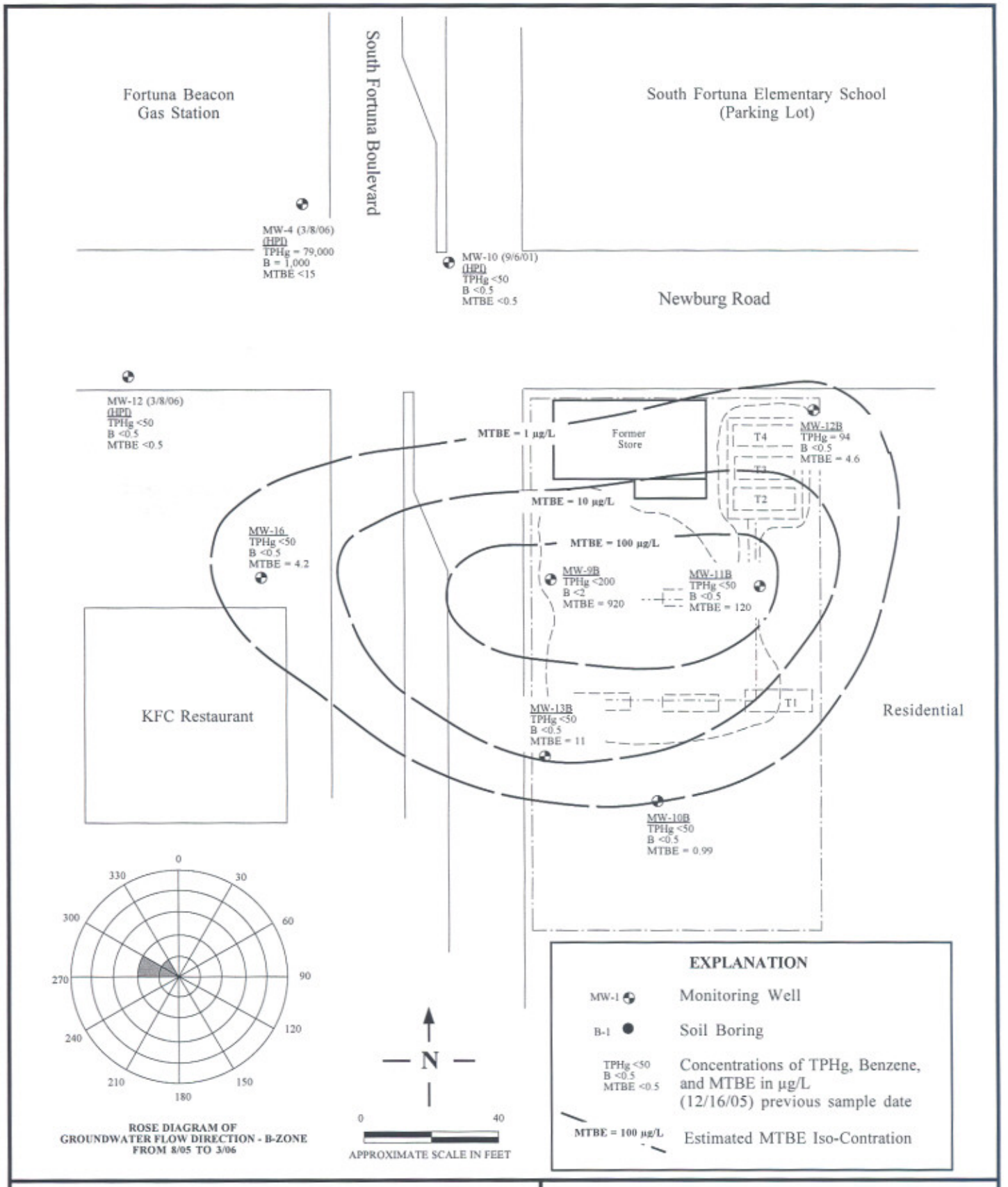
Project No.	Report Date	Figure
NC-004	4/06	5b



Groundwater Contaminant Map - A-Zone
March 21, 2006
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-004	4/06	6a



ROSE DIAGRAM OF
GROUNDWATER FLOW DIRECTION - B-ZONE
FROM 8/05 TO 3/06

Groundwater Contaminant Map - B-Zone
March 21, 2006
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK
ENVIRONMENTAL, INC.

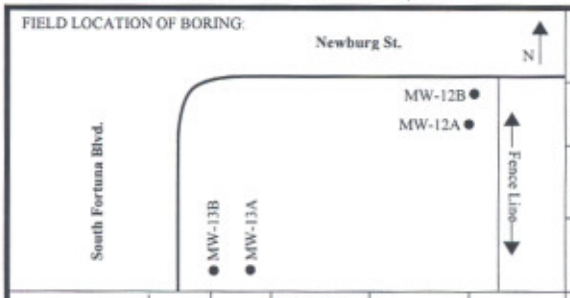
Project No.	Report Date	Figure
NC-004	4/06	6b

SOIL BORING AND WELL CONSTRUCTION LOG: MW-12A and MW-12B

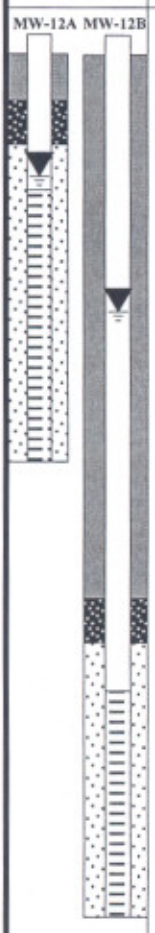
BLUE ROCK ENVIRONMENTAL, INC.

Project: NC-4

FIELD LOCATION OF BORING:



DRILLING CONTRACTOR: MDE	BORING DIAMETER: 8 inches	CLIENT/LOCATION: Former Cash Oil Fortuna 409 S. Fortuna Blvd. Fortuna CA 95540	
DRILL RIG OPERATOR: Rob Slagle	BORING DEPTH: 20 feet	SCREEN SLOT SIZE: 0.01 inches	DRILLING DATE: 3/15/06
DRILL RIG TYPE: CME- 75	WELL DEPTH: 20 feet	WELL MATERIAL: 2-in. PVC	FILTER PACK: #2/12 Sand
WELL SEAL: Neat Cement over hydrated bentonite		PLANNED USE: Monitoring	LOGGED BY: James Linderman
SAMPLING METHOD: Cal. Mod. Split-spoon		MONITORING INST: Thermo 0.99 FV	APPROVED BY: Brian Gwinn, PG
FIRST ENCOUNTERED WATER DEPTH: Approx. 10 feet		STATIC WATER DEPTH - DATE: 3/21/06: 3.82 ft MW-12A, 6.75 ft MW-12B	



WATER LEVEL: APPROX. FIRST ENCOUNTERED WATER

DEPTH (FEET)	SAMPLING INTERVAL	SAMPLING RECOVERY	OVM READING (PPM)	GRAPHIC LOG OR USCS CODE	
1–3					Gravelly Base Rock (FILL); brown; dry - moist.
4	9				
	14				
5	17		0		
6–8					Elastic Clayey SILT (MH); brown; moderate plasticity; orange and gray mottling; very stiff; moist; no odor.
9	9				
	14				
10	17		20		
11–13					
14	12				Elastic Clayey SILT (MH); brown; moderate plasticity; orange and gray mottling; very stiff; moist; no odor.
	15				
15	20		0		
16					
17–18					Silty GRAVEL (GM); brown; moderately graded; sub-angular, well rounded gravel; orange and gray mottling; ~40% silt; medium dense; wet; slight HC odor.
19	7				
	12				
20	15		0		
21–30					

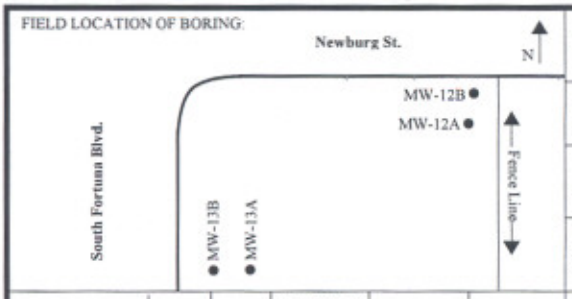
Note:
MW-12A and MW-12B were installed in individual boreholes separated by 5 feet.

SOIL BORING AND WELL CONSTRUCTION LOG: MW-13A and MW-13B

BLUE ROCK ENVIRONMENTAL, INC.

Project: NC-4

FIELD LOCATION OF BORING:



DRILLING CONTRACTOR: MDE	BORING DIAMETER: 8 inches	CLIENT/LOCATION: Former Cash Oil Fortuna 409 S. Fortuna Blvd. Fortuna CA 95540	
DRILL RIG OPERATOR: Rob Slagle	BORING DEPTH: 20 feet	SCREEN SLOT SIZE: 0.01 inches	DRILLING DATE: 3/15/06
DRILL RIG TYPE: CME- 75	WELL DEPTH: 20 feet	WELL MATERIAL: 2-in. PVC	FILTER PACK: #2/12 Sand
WELL SEAL: Neat Cement over hydrated bentonite		PLANNED USE: Monitoring	LOGGED BY: James Linderman
SAMPLING METHOD: Cal. Mod. Split-spoon		MONITORING INST: Thermo 0.99 FV	APPROVED BY: Brian Gwinn, PG
FIRST ENCOUNTERED WATER DEPTH: Approx. 10 feet		STATIC WATER DEPTH - DATE: 3/21/06: 3.82 ft MW-12A, 6.75 ft MW-12B	

WELL CONSTRUCTION DETAIL	WATER LEVEL	DEPTH (FEET)	SAMPLING INTERVAL	SAMPLING RECOVERY	OVM READING (PPM)	GRAPHIC LOG OR USCS CODE	
MW-13A MW-13B	APPROX. FIRST ENCOUNTERED WATER	1–3					Gravelly Base Rock (FILL); brown; dry-moist.
		4	7				
		5	7				
			5		0		
		6–8					Elastic Clayey SILT (MH); black; high plasticity; stiff; moist-wet; no odor.
		9	5				
			7				
		10	12		0		
		11–13					Elastic Clayey SILT (MH); brown; moderate plasticity; orange and gray mottling; <5% pebbles sub-angular; very stiff; moist; no odor.
		14	12				
			15				
		15	17		60		
		16–18					Silty SAND (SM); brown; moderately graded; very fine grained sand; orange mottling; ~40% silt; medium dense; moist-wet; no odor.
		19	12				
			12				
		20	15		80		
		21–30					

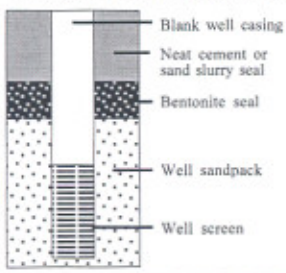
Note:
MW-13A and MW-13B were installed in individual boreholes separated by 5 feet.

UNIFIED SOIL CLASSIFICATION SYSTEM - VISUAL CLASSIFICATION OF SOILS

(ASTM D-2488)

MAJOR DIVISIONS		GROUP SYMBOL	GROUP NAME	DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravel Well-graded gravel with sand	Well-graded gravels or gravel-sand mixtures, little or no fines.
		GP	Poorly-graded gravel Poorly-graded gravel with sand	Poorly-graded gravels or gravel sand mixture, little or no fines.
		GM	Silty gravel Silty gravel with sand	Silty gravels, gravel-sand-silt mixtures.
		GC	Clayey gravel Clayey gravel with sand	Clayey gravels, gravel-sand-clay mixtures.
	SAND AND SANDY SOILS	SW	Well-graded sand Well-graded sand with gravel	Well-graded sands or gravelly sands, little or no fines.
		SP	Poorly-graded sand Poorly-graded sand with gravel	Poorly-graded sands or gravelly sands, little or no fines.
		SM	Silty sand Silty sand with gravel	Silty sands, sand-silt mixtures.
		SC	Clayey sand Clayey sand with gravel	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS	SILTS AND CLAYS	ML	Silt; Silt with sand; Silt with gravel Sandy silt; Sandy silt with gravel Gravelly silt; Gravelly silt with sand	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL	Lean clay; Lean clay with sand; Lean clay with gravel Sandy lean clay; Sandy lean clay with gravel Gravelly lean clay; Gravelly lean clay with sand	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
	ELASTIC SILTS AND CLAYS	MH	Elastic silt; Elastic silt with sand; Elastic silt with gravel Sandy elastic silt; Sandy elastic silt with gravel Gravelly elastic silt; Gravelly elastic silt with sand	Inorganic silts, micaceous or diatamaceous fine sandy or silty soils, elastic silts.
		CH	Fat clay; Fat clay with sand; Fat clay with gravel Sandy fat clay; Sandy fat clay with gravel Gravelly fat clay; Gravelly fat clay with sand	Inorganic clays of high plasticity, fat clays.
HIGHLY ORGANIC SOILS		OL/OH	Organic soil; Organic soil with sand; Organic soil with gravel Sandy organic soil; Sandy organic soil with gravel Gravelly organic soil; Gravelly organic soil with sand	Organic silts and organic silt-clays of low plasticity. Organic clays of medium to high plasticity.
		Pt	Peat	Peat and other highly organic soils.

WELL CONSTRUCTION EXPLANTION



SOIL BORING NOTES:

Blow count represents the number of blows of a 140-lb hammer falling 30 inches per blow required to drive a sampler through the last 12 inches of an 18-inch penetration.

No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only.

S = Sampler sank into medium under the weight of the hammer (no blow count)
P = Sampler was pushed into medium by drilling rig (no blow count)
NR = No Recovery

SANDS & GRAVELS	BLOWS/FT
VERY LOOSE	0 - 5
LOOSE	5 - 12
MED. DENSE	12 - 37
DENSE	37 - 62
VERY DENSE	OVER 62

SILTS & CLAYS	BLOWS/FT
SOFT	0 - 5
FIRM	5 - 10
STIFF	10 - 20
VERY STIFF	20 - 40
HARD	OVER 40

▼ Approximate stabilized water level

▽ Approximate first encountered water level

NOTE: all percentages of lithological composition presented on the soil boring logs are approximate. They represent the best estimates of a Blue Rock geologist based on visual inspection in the field.

SOIL BORING LOG AND WELL CONSTRUCTION DIAGRAM LEGEND

BLUE ROCK ENVIRONMENTAL, INC.

DAILY FIELD REPORT

PAGE _____ OF _____

Project Number: NC-4 **Date:** 3/20/06

Site Name: Former Cash Oil Fortuna **Field Personnel:** James Linderman

Site Address: 409 S. Fortuna Blvd. Fortuna CA **Proj. Manager** Scott Ferriman

Scope of work Well Development

Drum Inventory Soil: Water: Free product:

Time	Description of Activities
	Leave office
	Arrive onsite

Additional Comments:

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd. **Date:** 3/20/06 **Tech(s):** J.L.

WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPH (ft.)	NOTES
MW-12A	2"	9.91	3.34	6.57	1.05	10.50	0	
MW-12B	↓	19.21	7.13	12.08	1.93	19.30	↓	
MW-13A	↓	9.90	3.33	6.57	1.05	10.50	↓	
MW-13B	↓	19.63	9.66	9.97	1.59	15.90	↓	

Explanation:

DIA. = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV, well development 10 x CV)
SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.
4 in. dia. well cf = 0.65 gal./ft.
6 in. dia. well cf = 1.44 gal./ft.

BLUE ROCK
ENVIRONMENTAL, INC.

PURGING DATA

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 3/20/06 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-12A			---	---	---
Calc. purge	11:55	1.00	276	52.1	7.97
volume	12:00	5.00	268	52.6	7.86
10.50	12:05	10.50	299	51.7	7.77

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear/ heavy/ mod/ no sheen/ no odor

Sampling Method: Dedicated / Disposable bailer

Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-12B			---	---	---
Calc. purge	12:20	1.00	220	58.3	7.16
volume	12:25	5.00	296	58.0	7.11
19.30	12:30	12.00	290	58.1	7.08
	12:35	19.30	506	57.8	7.07

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear/ heavy/ mod/ no sheen/ no odor

Sampling Method: Dedicated / Disposable bailer

Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-13A			---	---	---
Calc. purge	12:40	1.00	810	55.0	6.63
volume	12:45	5.00	507	55.8	6.49
10.50	12:50	10.50	392	55.8	6.47

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

Clear/ heavy/ mod/ no sheen/ odor

Sampling Method: Dedicated / Disposable bailer

Sample at:

PURGING DATA

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 3/20/06 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-13B			---	---	---	Sample for:
Calc. purge	12:55	1.00	869	59.4	6.93	TPHg TPHd 8260
volume	13:00	5.00	470	60.6	6.54	BTEX MTBE Metals
15.90	13:05	10.00	372	60.3	6.45	Purging Method:
	13:10	15.90	382	60.7	6.48	PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	clear/ heavy/ mod/ no sheen/ odor					Dedicated / Disposable bailer
						Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
			---	---	---	Sample for:
Calc. purge						TPHg TPHd 8260
volume						BTEX MTBE Metals
						Purging Method:
						PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
						Dedicated / Disposable bailer
						Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
			---	---	---	Sample for:
Calc. purge						TPHg TPHd 8260
volume						BTEX MTBE Metals
						Purging Method:
						PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
						Dedicated / Disposable bailer
						Sample at:

DAILY FIELD REPORT

PAGE _____ OF _____

Project Number: NC-4 **Date:** 3/21/06

Site Name: Former Cash Oil Fortuna **Field Personnel:** James Linderman

Site Address: 409 S. Fortuna Blvd Fortuna, CA **Proj. Manager** Scott Ferriman

Scope of work 1QT06 GWS

Drum Inventory Soil: 3 Water: 3+1/4 Free product:

Time	Description of Activities
	Leave office
	Arrive onsite

Additional Comments:

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 3/21/06 **Tech(s):** JL

WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPH (ft.)	NOTES
~~MW-1~~	2"	19.72						
~~MW-2~~		14.79						
~~MW-4~~		19.75						
~~MW-5~~		19.30						
~~MW-6~~		18.80						
~~MW-7~~		19.90						
~~MW-8~~		18.25						
MW-16		19.52	8.81	10.71	1.71	5.13	0	D.O. = 0.91
MW-9B		19.89	10.10	9.79	1.56	4.68		D.O. = 3.14
MW-9A		9.91	2.77	7.14	1.14	3.42		D.O. = 1.84
MW-10B		19.32	7.41	11.91	1.90	5.70		D.O. = 1.59
MW-10A		9.79	2.36	7.43	1.18	3.54		D.O. = 1.47
MW-11B		19.88	7.31	12.57	2.01	6.03		D.O. = 0.83
MW-11A		9.92	7.95	1.97	0.31	0.93		D.O. = 1.43
MW-12A		9.91	3.82	6.09	0.97	2.91		D.O. = 1.58
MW-12B		19.21	6.75	12.46	1.99	5.97		D.O. = 2.56
MW-13A		9.90	3.47	6.43	1.02	3.06		D.O. = 0.62
MW-13B		19.63	9.75	9.88	1.58	4.74		D.O. = 1.04

Explanation:

DIA. = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV, well development 10 x CV)
SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.
4 in. dia. well cf = 0.65 gal./ft.
6 in. dia. well cf = 1.44 gal./ft.

BLUE ROCK ENVIRONMENTAL, INC.

PURGING DATA

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 3/21/06 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-9A			---	---	---
Calc. purge	9:15	0.25	476	53.3	7.28
volume	9:20	1.75	412	53.9	7.32
3.42	9:25	3.45	411	53.9	7.32

COMMENTS: color, turbidity, recharge, sheen

clear / mod / good / no sheen / no odor

Sample for: ~~TPHg~~ TPHd 8260 ~~BTEX~~ ~~MTBE~~ Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 9:30

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-9B			---	---	---
Calc. purge	9:35	0.25	488	57.6	6.33
volume	9:40	2.50	483	60.1	6.35
4.68	9:45	4.70	488	60.7	6.38

COMMENTS: color, turbidity, recharge, sheen

Clear / mod / mod / no sheen / odor

Sample for: ~~TPHg~~ TPHd 8260 ~~BTEX~~ ~~MTBE~~ Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 9:50

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-10A			---	---	---
Calc. purge	9:55	0.25	157	54.4	6.65
volume	10:00	1.75	160	54.8	6.46
3.54	10:05	3.55	152	54.9	6.43

COMMENTS: color, turbidity, recharge, sheen

Clear / mod / mod / no sheen / no odor

Sample for: ~~TPHg~~ TPHd 8260 ~~BTEX~~ ~~MTBE~~ Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 10:10

PURGING DATA

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 3/21/06 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-10B			---	---	---	Sample for:
Calc. purge	10:15	0.25	190	56.9	6.86	~~TPHg~~ TPHd 8260
volume	10:20	2.75	184	58.9	6.84	~~BTEX~~ ~~MTBE~~ Metals
5.70	10:25	5.70	183	59.1	6.86	Purging Method:
						PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	Clear/mod/mod/no sheen/no odor					Dedicated / Disposable bailer
						Sample at: 10:30

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-11A			---	---	---	Sample for:
Calc. purge	10:35	0.25	823	56.5	6.73	~~TPHg~~ TPHd 8260
volume	10:40	0.65	826	57.3	6.80	~~BTEX~~ ~~MTBE~~ Metals
0.93	10:45	0.95	849	57.3	6.87	Purging Method:
						PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	Clear/mod/poor/no sheen/no odor					Dedicated / Disposable bailer
						Sample at: 10:50

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-11B			---	---	---	Sample for:
Calc. purge	10:55	0.25	211	57.1	6.58	~~TPHg~~ TPHd 8260
volume	11:00	3.00	206	59.7	6.35	~~BTEX~~ ~~MTBE~~ Metals
6.03	11:05	6.00	208	59.9	[illegible]	Purging Method:
					6.36	PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	Clear/mod/mod/no sheen/no odor					Dedicated / Disposable bailer
						Sample at: 11:10

PURGING DATA

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 3/21/06 **Tech:** J.L.

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-13A			---	---	---
Calc. purge	11:55	0.25	365	54.7	6.55
volume	12:00	1.50	353	55.7	6.45
3.06	12:05	3.10	341	55.9	6.45

Sample for: ~~TPHg~~ TPHd 8260 ~~BTEX~~ ~~MTBE~~ Metals

Purging Method: PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear / heavy / good / no sheen / odor

Sampling Method: Dedicated / Disposable bailer

Sample at: 12:10

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-13B			---	---	---
Calc. purge	12:15	0.25	408	58.5	6.59
volume	12:20	2.50	508	60.5	6.57
4.74	12:25	4.75	430	60.6	6.58

Sample for: ~~TPHg~~ TPHd 8260 ~~BTEX~~ ~~MTBE~~ Metals

Purging Method: PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear / heavy / mod / no sheen / odor

Sampling Method: Dedicated / Disposable bailer

Sample at: 12:30

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
			---	---	---
Calc. purge					
volume					

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

Sampling Method: Dedicated / Disposable bailer

Sample at:

KIFF Analytical LLC

Report Number : 48991
Date : 3/21/2006

Scott Ferriman
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 8 Soil Samples
Project Name : Cash Oil Fortuna
Project Number : NC-4

Dear Mr. Ferriman,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 48991
Date : 3/21/2006

Project Name : **Cash Oil Fortuna**
Project Number : **NC-4**

Sample : **MW-12B-5'** Matrix : Soil Lab Number : 48991-01
Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	88.5		% Recovery	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	3/20/2006

Sample : **MW-12B-10'** Matrix : Soil Lab Number : 48991-02
Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	**0.012**	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	91.4		% Recovery	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	3/20/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 48991
Date : 3/21/2006

Project Name : **Cash Oil Fortuna**
Project Number : **NC-4**

Sample : **MW-12B-15'** Matrix : Soil Lab Number : 48991-03
Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Ethylbenzene	**0.0069**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Total Xylenes	**0.040**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Methyl-t-butyl ether (MTBE)	**0.022**	0.0050	mg/Kg	EPA 8260B	3/21/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/21/2006
Toluene - d8 (Surr)	94.5		% Recovery	EPA 8260B	3/21/2006
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	3/21/2006

Sample : **MW-12B-20'** Matrix : Soil Lab Number : 48991-04
Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	**0.017**	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	90.6		% Recovery	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/20/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 48991

Date : 3/21/2006

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-13B-5'** Matrix : Soil Lab Number : 48991-05

Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	91.9		% Recovery	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/20/2006

Sample : **MW-13B-10'** Matrix : Soil Lab Number : 48991-06

Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	**0.0094**	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	93.2		% Recovery	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/20/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 48991

Date : 3/21/2006

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-13B-15'** Matrix : Soil Lab Number : 48991-07

Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/21/2006
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/21/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/21/2006
Toluene - d8 (Surr)	93.8		% Recovery	EPA 8260B	3/21/2006
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	3/21/2006

Sample : **MW-13B-20'** Matrix : Soil Lab Number : 48991-08

Sample Date :3/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	98.5		% Recovery	EPA 8260B	3/20/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 48991

Date : 3/21/2006

QC Report : Method Blank Data

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	103		%	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	97.3		%	EPA 8260B	3/20/2006
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/20/2006
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	3/20/2006
Toluene - d8 (Surr)	106		%	EPA 8260B	3/20/2006
4-Bromofluorobenzene (Surr)	99.0		%	EPA 8260B	3/20/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 48991

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 3/21/2006

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	48992-15	<0.0050	0.0399	0.0400	0.0380	0.0385	mg/Kg	EPA 8260B	3/20/06	95.3	96.3	1.02	70-130	25
Toluene	48992-15	<0.0050	0.0399	0.0400	0.0376	0.0385	mg/Kg	EPA 8260B	3/20/06	94.2	96.2	2.10	70-130	25
Tert-Butanol	48992-15	<0.0050	0.200	0.200	0.172	0.178	mg/Kg	EPA 8260B	3/20/06	86.2	89.0	3.28	70-130	25
Methyl-t-Butyl Ether	48992-15	<0.0050	0.0399	0.0400	0.0349	0.0361	mg/Kg	EPA 8260B	3/20/06	87.5	90.2	3.02	70-130	25
Benzene	48991-08	<0.0050	0.0392	0.0382	0.0402	0.0382	mg/Kg	EPA 8260B	3/20/06	102	99.8	2.69	70-130	25
Toluene	48991-08	<0.0050	0.0392	0.0382	0.0405	0.0387	mg/Kg	EPA 8260B	3/20/06	103	101	2.17	70-130	25
Tert-Butanol	48991-08	<0.0050	0.196	0.191	0.172	0.175	mg/Kg	EPA 8260B	3/20/06	87.6	91.5	4.40	70-130	25
Methyl-t-Butyl Ether	48991-08	<0.0050	0.0392	0.0382	0.0379	0.0366	mg/Kg	EPA 8260B	3/20/06	96.7	95.8	0.941	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 48991

Date : 3/21/2006

QC Report : Laboratory Control Sample (LCS)

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0400	mg/Kg	EPA 8260B	3/20/06	96.3	70-130
Toluene	0.0400	mg/Kg	EPA 8260B	3/20/06	96.0	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	3/20/06	89.8	70-130
Methyl-t-Butyl Ether	0.0400	mg/Kg	EPA 8260B	3/20/06	94.8	70-130
Benzene	0.0377	mg/Kg	EPA 8260B	3/20/06	100	70-130
Toluene	0.0377	mg/Kg	EPA 8260B	3/20/06	101	70-130
Tert-Butanol	0.188	mg/Kg	EPA 8260B	3/20/06	93.6	70-130
Methyl-t-Butyl Ether	0.0377	mg/Kg	EPA 8260B	3/20/06	91.4	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 48991

Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Scott Ferriman

California EDF Report? ☒ Yes ☐ No

Company / Address: Blue Rock Env, Inc. 535 3rd St. Ste. 100 Eureka CA

Sampling Company Log Code:

Phone #: (707) 441-1934 Fax #: (707) 441-1949

Global ID: T0602300452

Project #: NC-4 P.O. #:

EDF Deliverable To (Email Address): scott@bluerockenv.com

Project Name: Cash Oil Fortuna

Sampler Signature: James Lindeman

Project Address: 409 S. Fortuna Blvd. Fortuna CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar	Preservative: HCl	HNO_3	None	Matrix: Water	Soil	Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	TAT: 12 hr	24 hr	48 hr	72 hr	1 wk	For Lab Use Only
MW-12B-5'	3/15/06	1350		X								X			X	X	X															X	01
MW-12B-10'		1355		X								X			X	X	X															X	02
MW-12B-15'		1400		X								X			X	X	X															X	03
MW-12B-20'		1405		X								X			X	X	X															X	04
MW-13B-5'		1200		X								X			X	X	X															X	05
MW-13B-10'		1205		X								X			X	X	X															X	06
MW-13B-15'		1210		X								X			X	X	X															X	07
MW-13B-20'		1215		X								X			X	X	X															X	08

Relinquished by:	Date	Time	Received by:
James Lindeman	3/16/06		Fed Ex
	031706	1228	Received by Laboratory: KIFF Analytical

Remarks:

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
3.2	KT	031706	1228	TC-1	Yes / No

Distribution: White - Lab; Pink - Originator
Rev: 051805

KIFF Analytical LLC

Report Number : 49078
Date : 3/28/2006

Scott Ferriman
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 11 Water Samples
Project Name : Former Cash Oil Fortuna
Project Number : NC-4

Dear Mr. Ferriman,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF Analytical LLC

Report Number : 49078
Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**
Project Number : **NC-4**

Sample : **MW-9A** Matrix : Water Lab Number : 49078-01
Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**1.3**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/24/2006

Sample : **MW-9B** Matrix : Water Lab Number : 49078-02
Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 2.0**	2.0	ug/L	EPA 8260B	3/23/2006
Toluene	**< 2.0**	2.0	ug/L	EPA 8260B	3/23/2006
Ethylbenzene	**< 2.0**	2.0	ug/L	EPA 8260B	3/23/2006
Total Xylenes	**< 2.0**	2.0	ug/L	EPA 8260B	3/23/2006
Methyl-t-butyl ether (MTBE)	**920**	2.0	ug/L	EPA 8260B	3/23/2006
TPH as Gasoline	**< 200**	200	ug/L	EPA 8260B	3/23/2006
Toluene - d8 (Surr)	94.6		% Recovery	EPA 8260B	3/23/2006
4-Bromofluorobenzene (Surr)	97.8		% Recovery	EPA 8260B	3/23/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49078

Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-10A** Matrix : Water Lab Number : 49078-03

Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/23/2006
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/23/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/23/2006

Sample : **MW-10B** Matrix : Water Lab Number : 49078-04

Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**0.99**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	3/24/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49078
Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**
Project Number : **NC-4**

Sample : **MW-11A** Matrix : Water Lab Number : 49078-05
Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**1.7**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/24/2006

Sample : **MW-11B** Matrix : Water Lab Number : 49078-06
Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/23/2006
Methyl-t-butyl ether (MTBE)	**120**	0.50	ug/L	EPA 8260B	3/23/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/23/2006
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	3/23/2006
4-Bromofluorobenzene (Surr)	98.9		% Recovery	EPA 8260B	3/23/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49078
Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**
Project Number : **NC-4**

Sample : **MW-16** Matrix : Water Lab Number : 49078-07
Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**4.2**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/24/2006

Sample : **MW-12A** Matrix : Water Lab Number : 49078-08
Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	3/24/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49078

Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-12B** Matrix : Water Lab Number : 49078-09

Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**0.68**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**2.4**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**4.6**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**94**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/24/2006

Sample : **MW-13A** Matrix : Water Lab Number : 49078-10

Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**3.8**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/24/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49078

Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-13B** Matrix : Water Lab Number : 49078-11

Sample Date :3/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	**11**	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	98.3		% Recovery	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	3/24/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49078

Date : 3/28/2006

QC Report : Method Blank Data

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/22/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/22/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/22/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/22/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/22/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/22/2006
Toluene - d8 (Surr)	99.8		%	EPA 8260B	3/22/2006
4-Bromofluorobenzene (Surr)	92.4		%	EPA 8260B	3/22/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/23/2006
Toluene - d8 (Surr)	99.2		%	EPA 8260B	3/23/2006
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	3/23/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/23/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/23/2006
Toluene - d8 (Surr)	102		%	EPA 8260B	3/23/2006
4-Bromofluorobenzene (Surr)	106		%	EPA 8260B	3/23/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	101		%	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	107		%	EPA 8260B	3/24/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/24/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/24/2006
Toluene - d8 (Surr)	98.7		%	EPA 8260B	3/24/2006
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	3/24/2006

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49078

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	49039-03	3.3	38.5	39.8	42.9	44.1	ug/L	EPA 8260B	3/23/06	103	102	0.414	70-130	25
Toluene	49039-03	1.7	38.5	39.8	41.5	42.9	ug/L	EPA 8260B	3/23/06	103	104	0.146	70-130	25
Tert-Butanol	49039-03	<5.0	192	199	198	193	ug/L	EPA 8260B	3/23/06	103	97.3	5.44	70-130	25
Methyl-t-Butyl Ether	49039-03	17	38.5	39.8	52.6	55.0	ug/L	EPA 8260B	3/23/06	92.6	95.6	3.15	70-130	25
Benzene	49078-06	<0.50	40.0	40.0	43.8	43.2	ug/L	EPA 8260B	3/23/06	110	108	1.60	70-130	25
Toluene	49078-06	<0.50	40.0	40.0	44.4	43.6	ug/L	EPA 8260B	3/23/06	111	109	1.80	70-130	25
Tert-Butanol	49078-06	<5.0	200	200	203	212	ug/L	EPA 8260B	3/23/06	102	106	4.28	70-130	25
Methyl-t-Butyl Ether	49078-06	120	40.0	40.0	162	161	ug/L	EPA 8260B	3/23/06	99.4	96.8	2.64	70-130	25
Benzene	49078-03	<0.50	40.0	40.0	41.2	40.1	ug/L	EPA 8260B	3/23/06	103	100	2.62	70-130	25
Toluene	49078-03	<0.50	40.0	40.0	41.0	40.2	ug/L	EPA 8260B	3/23/06	103	100	1.98	70-130	25
Tert-Butanol	49078-03	<5.0	200	200	202	204	ug/L	EPA 8260B	3/23/06	101	102	0.927	70-130	25
Methyl-t-Butyl Ether	49078-03	<0.50	40.0	40.0	40.3	40.0	ug/L	EPA 8260B	3/23/06	101	100	0.674	70-130	25
Benzene	49106-08	<0.50	40.0	40.0	40.0	37.9	ug/L	EPA 8260B	3/24/06	99.9	94.8	5.23	70-130	25
Toluene	49106-08	<0.50	40.0	40.0	40.8	38.2	ug/L	EPA 8260B	3/24/06	102	95.4	6.71	70-130	25
Tert-Butanol	49106-08	<5.0	200	200	201	204	ug/L	EPA 8260B	3/24/06	100	102	1.15	70-130	25
Methyl-t-Butyl Ether	49106-08	<0.50	40.0	40.0	40.1	39.3	ug/L	EPA 8260B	3/24/06	100	98.3	1.93	70-130	25
Benzene	49095-06	<0.50	40.0	40.0	41.2	39.6	ug/L	EPA 8260B	3/24/06	103	99.1	3.78	70-130	25
Toluene	49095-06	<0.50	40.0	40.0	40.3	38.5	ug/L	EPA 8260B	3/24/06	101	96.3	4.44	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49078

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Tert-Butanol	49095-06	<5.0	200	200	204	207	ug/L	EPA 8260B	3/24/06	102	104	1.24	70-130	25
Methyl-t-Butyl Ether	49095-06	<0.50	40.0	40.0	39.3	38.7	ug/L	EPA 8260B	3/24/06	98.2	96.9	1.32	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49078

QC Report : Laboratory Control Sample (LCS)

Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	3/22/06	104	70-130
Toluene	40.0	ug/L	EPA 8260B	3/22/06	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/22/06	97.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/22/06	95.1	70-130
Benzene	40.0	ug/L	EPA 8260B	3/23/06	108	70-130
Toluene	40.0	ug/L	EPA 8260B	3/23/06	109	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/23/06	100	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/23/06	99.9	70-130
Benzene	40.0	ug/L	EPA 8260B	3/23/06	89.7	70-130
Toluene	40.0	ug/L	EPA 8260B	3/23/06	95.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/23/06	93.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/23/06	83.0	70-130
Benzene	40.0	ug/L	EPA 8260B	3/24/06	98.0	70-130
Toluene	40.0	ug/L	EPA 8260B	3/24/06	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/24/06	99.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/24/06	99.4	70-130
Benzene	40.0	ug/L	EPA 8260B	3/24/06	98.9	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49078

QC Report : Laboratory Control Sample (LCS)

Date : 3/28/2006

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	3/24/06	99.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/24/06	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/24/06	94.9	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 49078

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Scott Ferriman

California EDF Report? ☒ Yes ☐ No

Company / Address: Blue Rock Env, Inc. 535 3rd st. ste. 100 Eureka, CA

Sampling Company Log Code:

Phone #: (707) 441-1934

Fax #: (707) 441-1949

Global ID: T0602300452

Project #: NC-4

P.O. #:

EDF Deliverable To (Email Address): scott@bluerockenv.com

Project Name: Former Cash Oil Fortuna

Sampler Signature: James Lindeman

Project Address: 409 S. Fortuna Blvd Fortuna, CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	Matrix: Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)				TAT: 12 hr ☐ / 24 hr ☐ / 48 hr ☐ / 72 hr ☐ / 1 wk ☒	For Lab Use Only
MW-13B	3/21/06	1230	3					X			X				X	X	X														X	11

Relinquished by:	Date	Time	Received by:
James Lindeman	3/21/06		Fed Ex
	032206	1110	Rozmise Kiff Analytical

Remarks:

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present Yes / No

Distribution: White - Lab; Pink - Originator
Rev: 051805

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 49078

Page 1 of 2

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Scott Ferriman

California EDF Report? ☒ Yes ☐ No

Company / Address: Blue Rock Env. Inc, 535 3rd st. ste.100 Eureka, CA

Sampling Company Log Code:

Phone #: (707) 441-1934 Fax #: (707) 441-1949

Global ID: T0602300452

Project #: NC-4 P.O. #:

EDF Deliverable To (Email Address): scott@bluerockenv.com

Project Name: Former Cash Oil Fortuna

Sampler Signature: James Lindemann

Project Address: 409 S. Fortuna Blvd, Fortuna, CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar	Preservative: HCl	HNO_3	None	Matrix: Water	Soil	Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	TAT: 12 hr / 24 hr / 48 hr / 72 hr / 1 wk	For Lab Use Only
MW-9A	3/21/06	930	3					X			X				X	X	X											X (1 wk)	01
MW-9B	↓	950	↓					↓			↓				↓	↓	↓											↓	02
MW-10A	↓	1010	↓					↓			↓				↓	↓	↓											↓	03
MW-10B	↓	1030	↓					↓			↓				↓	↓	↓											↓	04
MW-11A	↓	1050	↓					↓			↓				↓	↓	↓											↓	05
MW-11B	↓	1110	↓					↓			↓				↓	↓	↓											↓	06
MW-16	↓	1250	↓					↓			↓				↓	↓	↓											↓	07
MW-12A	↓	1130	↓					↓			↓				↓	↓	↓											↓	08
MW-12B	↓	1150	↓					↓			↓				↓	↓	↓											↓	09
MW-13A	↓	1210	↓					↓			↓				↓	↓	↓											↓	10

Relinquished by:	Date	Time	Received by:
James Lindemann	3/21/06		Fed Ex
	032206	1110	Rozmc Lee Kiff Analytical

Remarks:

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
3.0	RWM	032206	1050	IR-1	(Yes) / No

Distribution: White - Lab; Pink - Originator
Rev: 051805