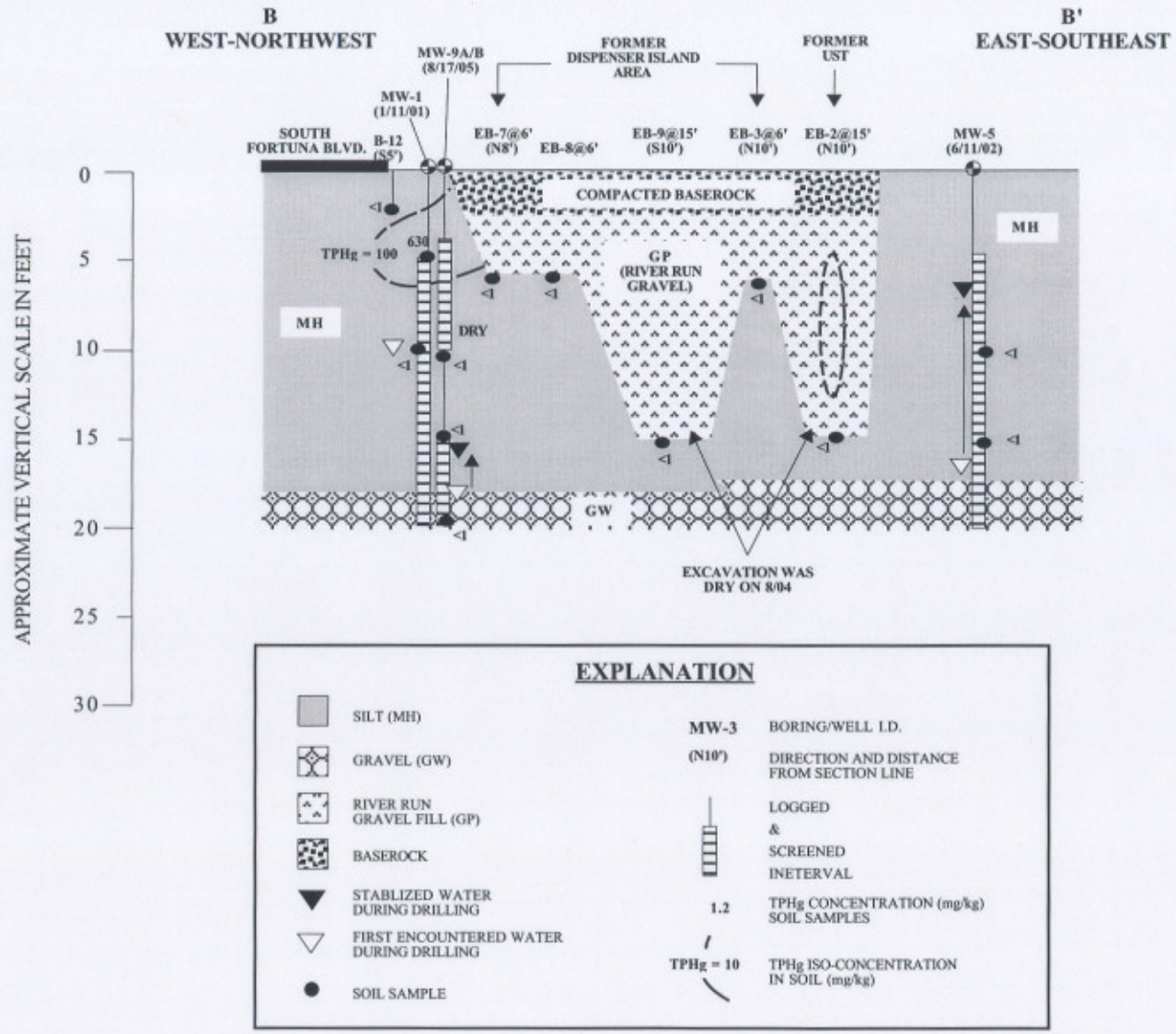


0' 30'

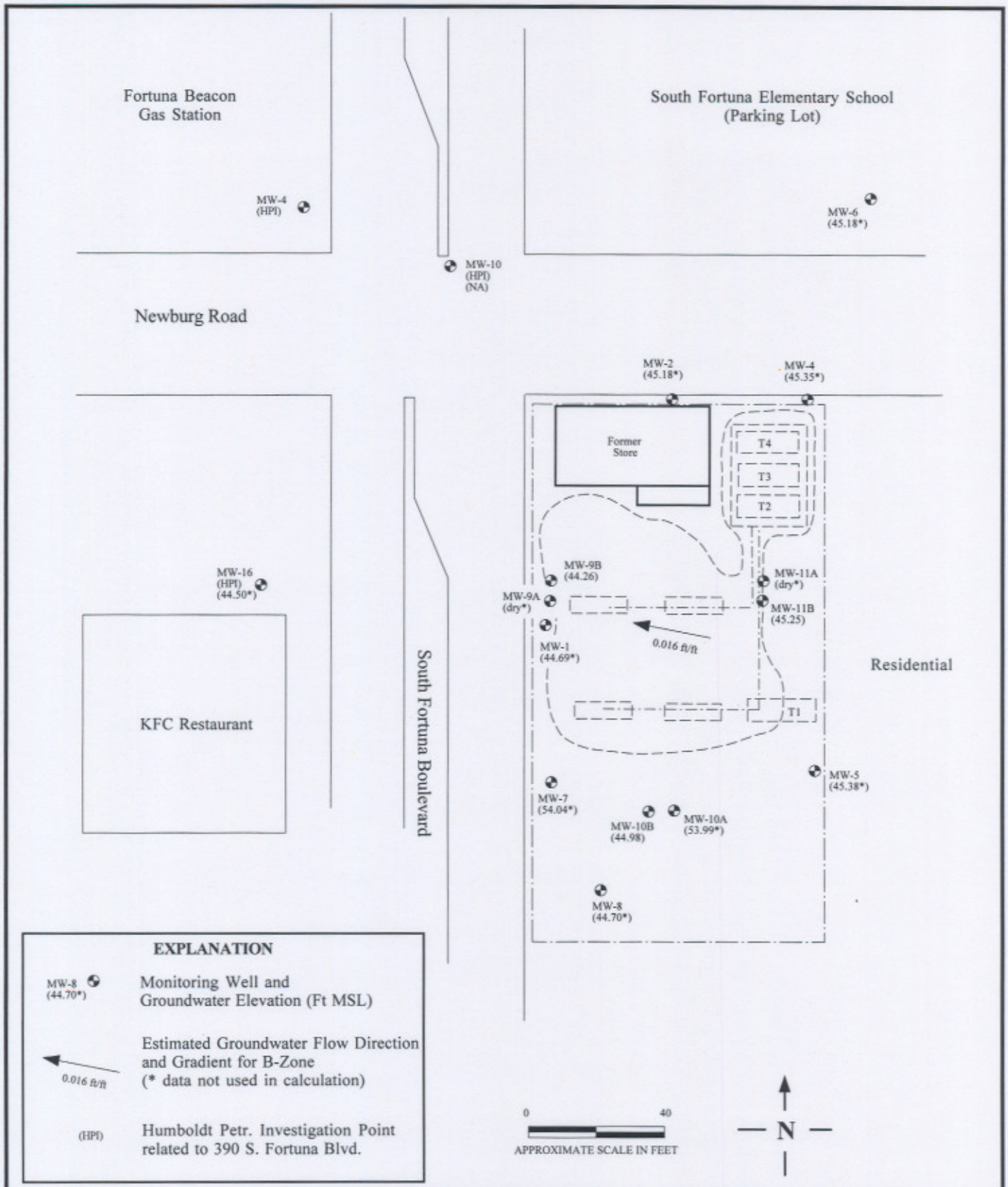
10'

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.

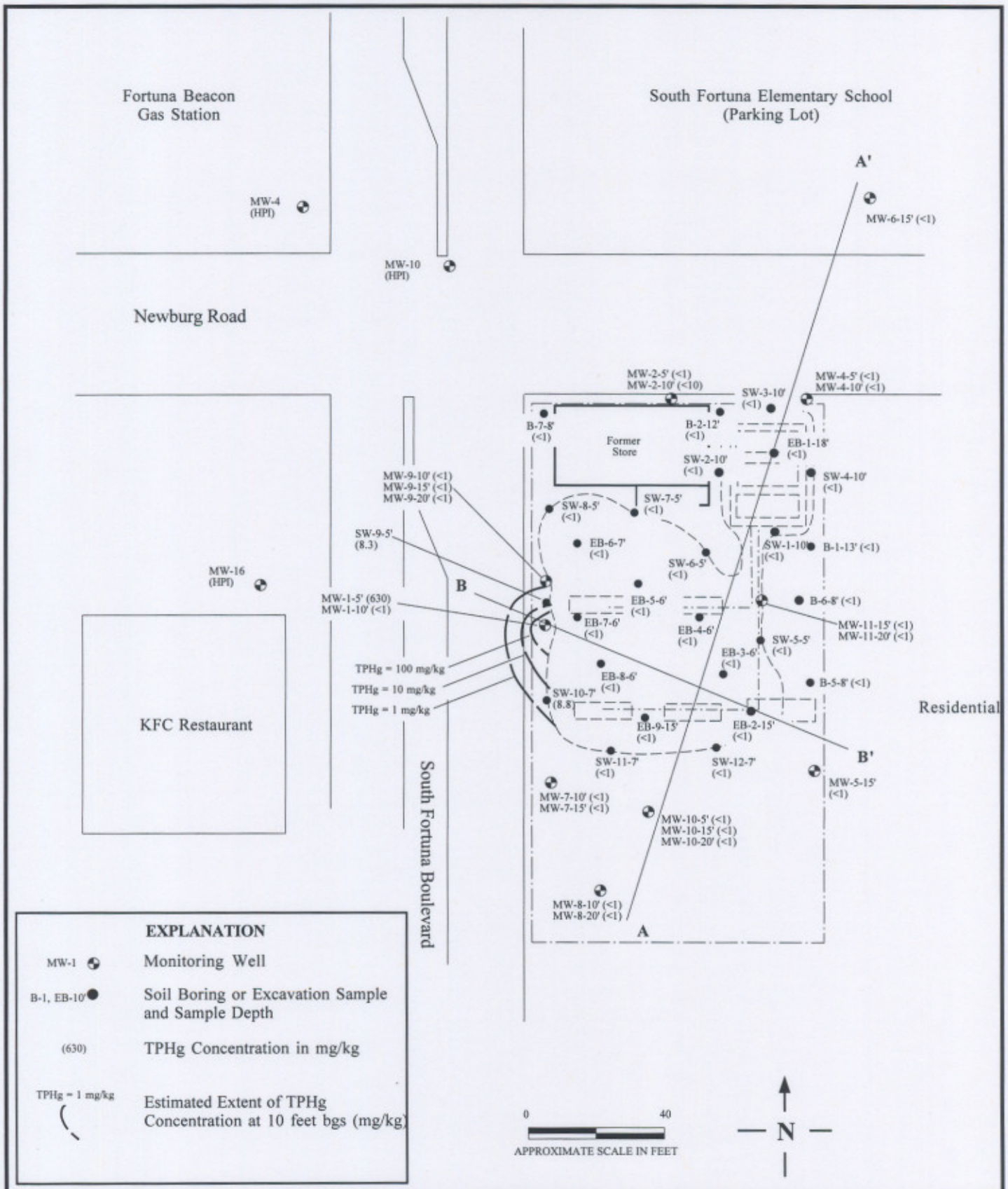
Project No.	Report Date	Figure
NC-004	9/05	3b



Groundwater Elevation Map - B-Zone
August 22, 2005
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

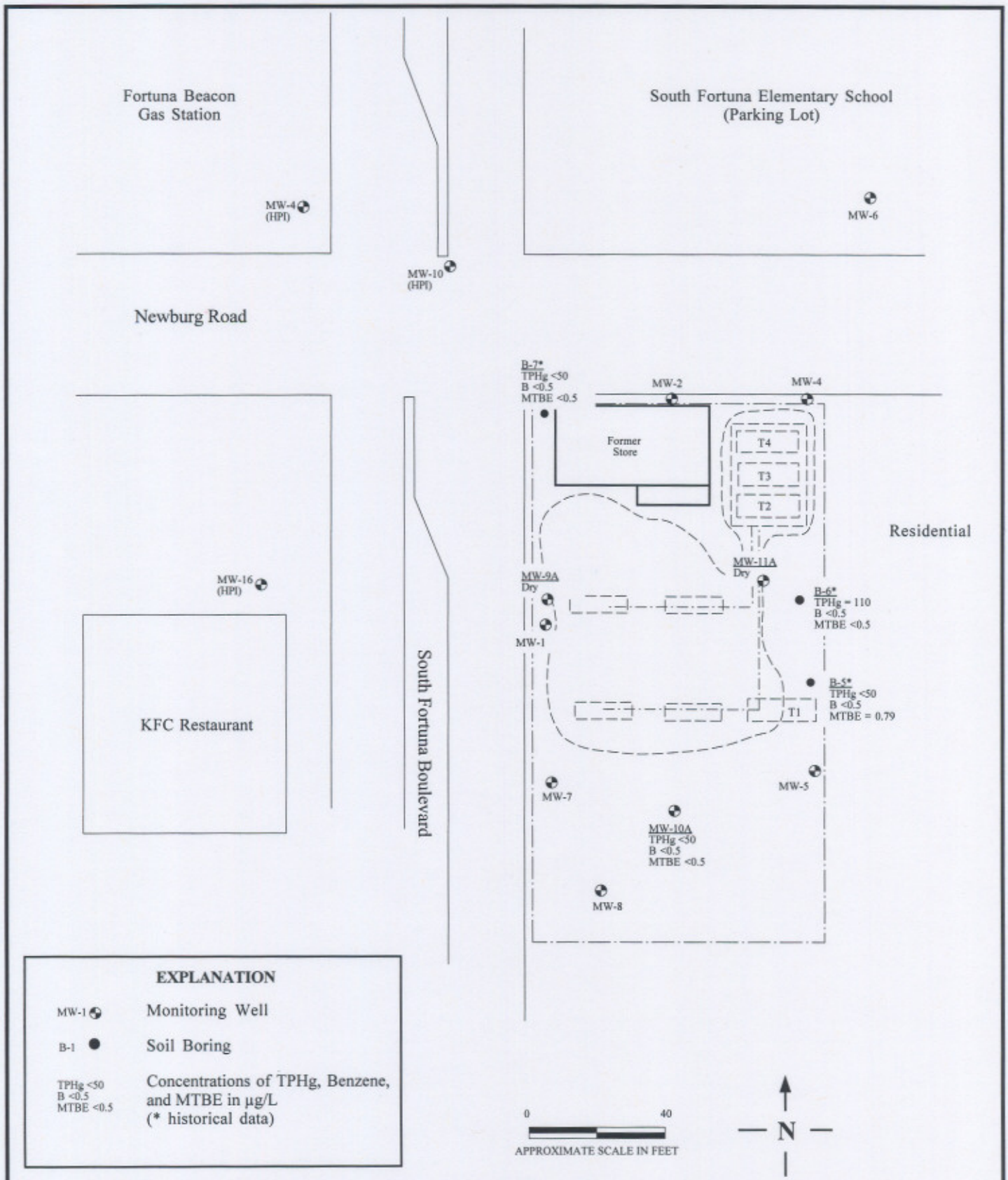
Project No.	Report Date	Figure
NC-004	9/05	4



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

BLUE ROCK ENVIRONMENTAL, INC.

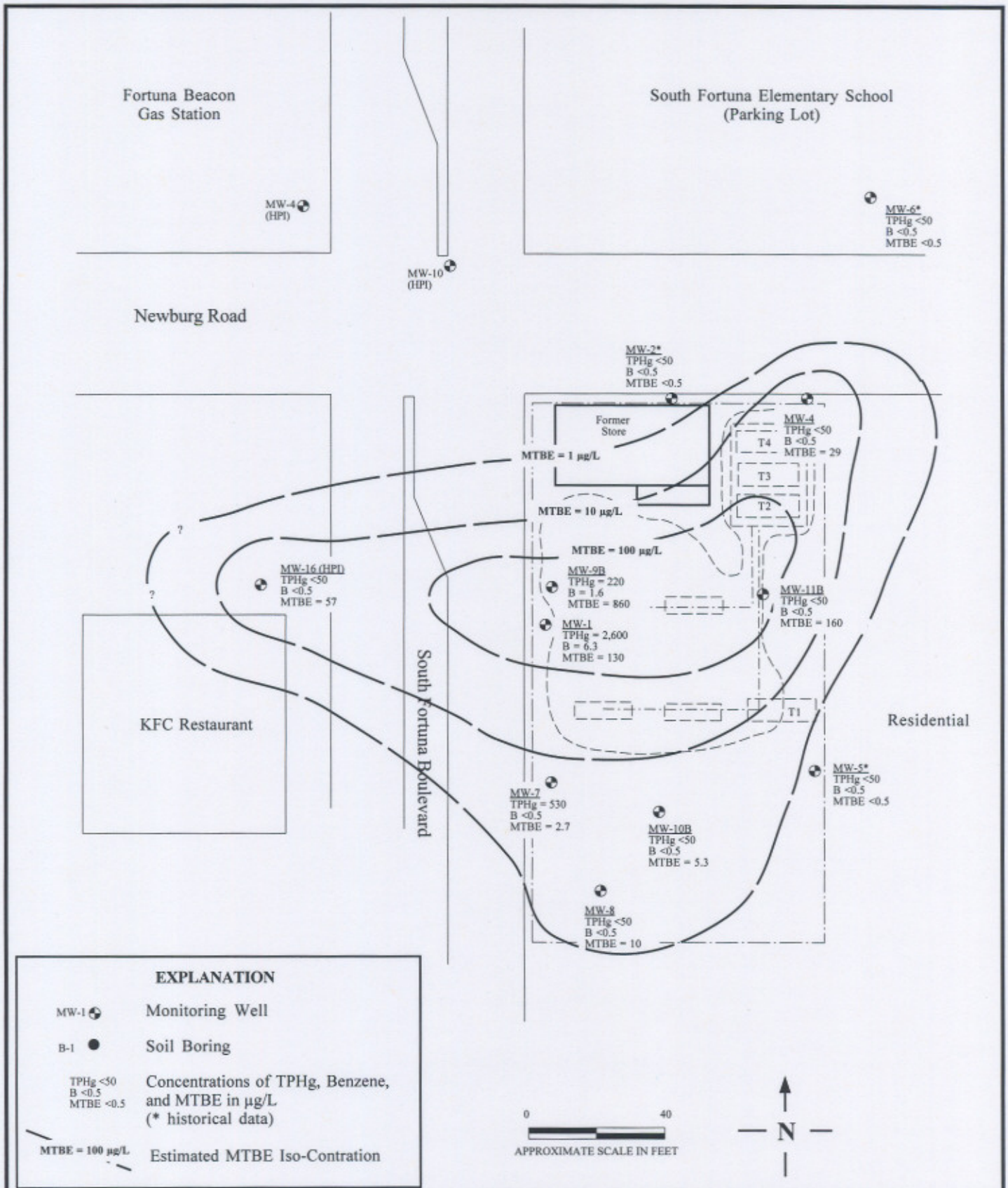
Project No.	Report Date	Figure
NC-004	9/05	5



Groundwater Contaminant Map - A-Zone
August 22, 2005
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

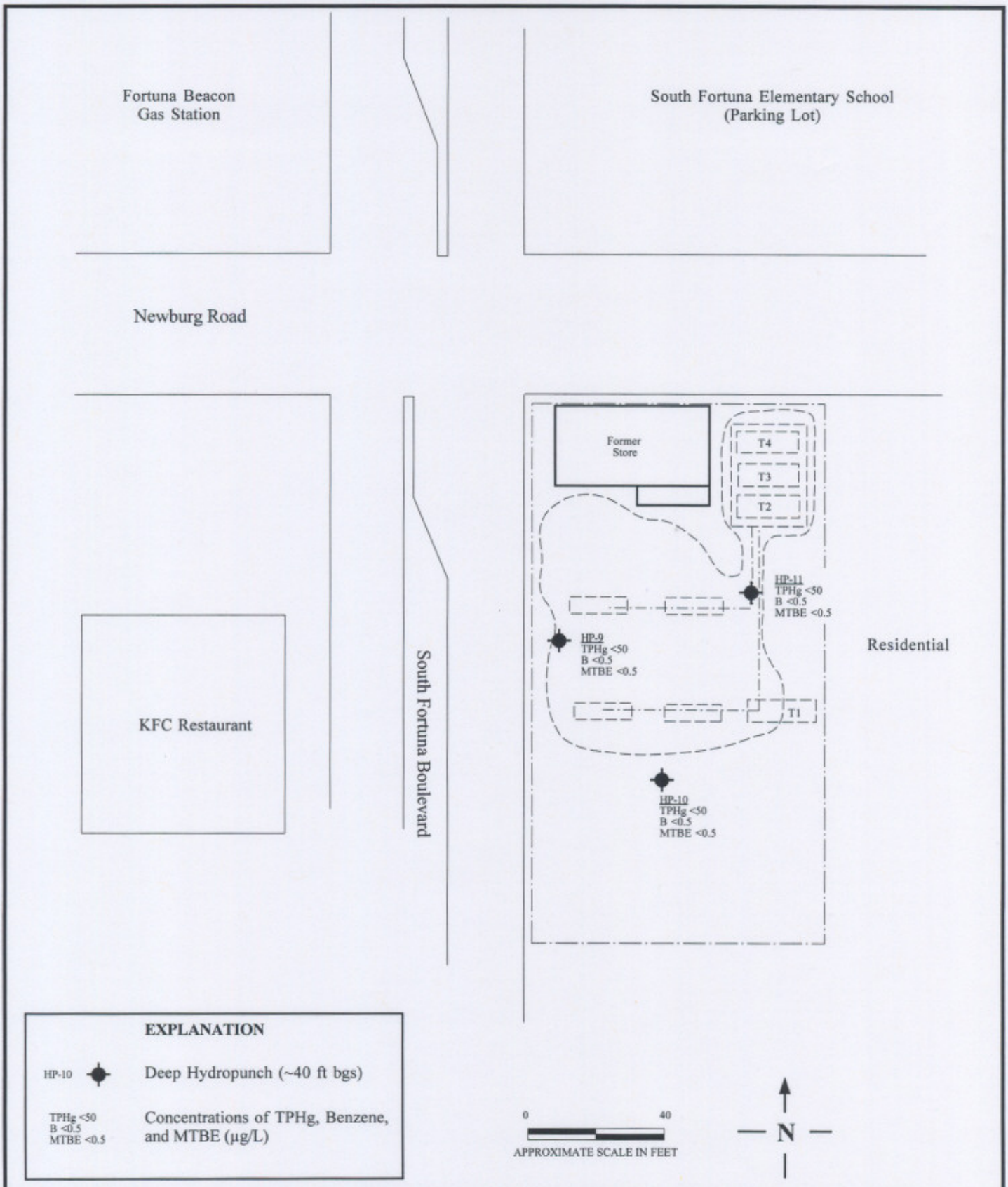
Project No.	Report Date	Figure
NC-004	9/05	6a



Groundwater Contaminant Map - B-Zone
August 22, 2005
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-004	9/05	6b



Groundwater Contaminant Map - C-Zone
August 29, 2005
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

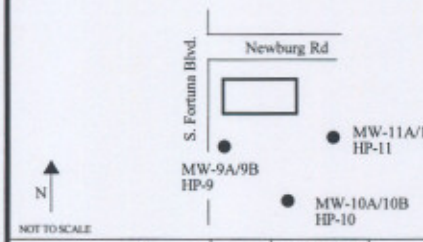
Project No.	Report Date	Figure
NC-004	9/05	6c

SOIL BORING LOG & WELL CONSTRUCTION: MW-9A & MW-9B & HP-9

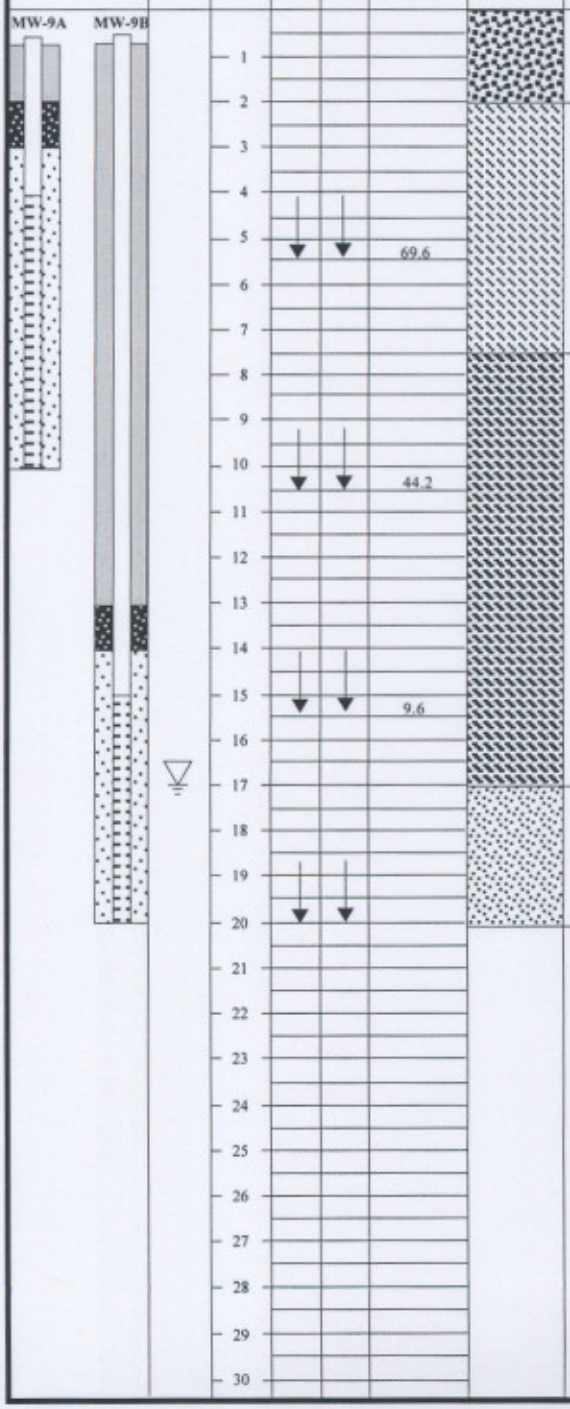
BLUE ROCK ENVIRONMENTAL, INC.

Project: NC-004

FIELD LOCATION OF BORING:



DRILLING CONTRACTOR: Mitchell Drilling	BORING DIAMETER: 8-inches each	CLIENT/LOCATION: Former Cash Oil, 409 S. Fortuna Blvd, Fortuna, CA	
DRILL RIG OPERATOR: Juan Ceja	BORING DEPTHS: 10 and 20 feet	SCREEN SLOT SIZE: 0.010-inch	DRILLING DATE: 8/17/05
DRILL RIG TYPE: CME 75	WELL DEPTHS: 10 and 20 feet	WELL MATERIAL: Sch 40 PVC	FILTER PACK: #2/12 Sand
WELL SEAL / BOREHOLE FILL: Neat Cement over Hyrdated Bentonite		PLANNED USE: Monitoring	LOGGED BY: James Linderman
SAMPLING METHOD: California Mod. Split-Spoon		MONITORING INST: Thermo 580B PID	APPROVED BY: Brian Gwinn, PG
FIRST ENCOUNTERED WATER DEPTH: ~17 feet bgs		STATIC WATER DEPTH - DATE:	



GRAVEL FILL (GP).

Clayey SILT (ML); dark gray, low plasticity, very stiff, moist.

Elastic Clayey SILT (MH); gray w/orange mottles, medium - high plasticity, stiff, moist.

SAND (SW); brownish-orange, medium grained sand with silt, medium dense, wet.

Notes:

(1) MW-9A, and MW-9B were installed in individual boreholes separated by 5 feet.

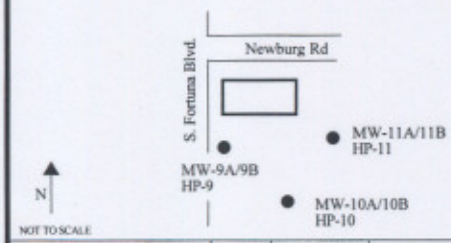
(2) HP-9 was drilled on 8/29/05 by Fisch Environmental using a direct-push drill-rig. In order to collect a depth discrete groundwater sample, the boirng was not logged. An expendable groundwater sampling tool was driven to 40 feet bgs and retracted to 35 feet bgs to collect a groundwater sample.

SOIL BORING LOG & WELL CONSTRUCTION: MW-10A & MW-10B & HP-10

BLUE ROCK ENVIRONMENTAL, INC.

Project: NC-004

FIELD LOCATION OF BORING:



DRILLING CONTRACTOR: Mitchell Drilling	BORING DIAMETER: 8-inches each	CLIENT/LOCATION: Former Cash Oil, 409 S. Fortuna Blvd, Fortuna, CA	
DRILL RIG OPERATOR: Juan Ceja	BORING DEPTHS: 10 and 20 feet	SCREEN SLOT SIZE: 0.010-inch	DRILLING DATE: 8/17/05
DRILL RIG TYPE: CME 75	WELL DEPTHS: 10 and 20 feet	WELL MATERIAL: Sch 40 PVC	FILTER PACK: #2/12 Sand
WELL SEAL / BOREHOLE FILL: Neat Cement over Hyrdated Bentonite		PLANNED USE: Monitoring	LOGGED BY: James Linderman
SAMPLING METHOD: California Mod. Split-Spoon		MONITORING INST: Thermo 580B PID	APPROVED BY: Brian Gwinn, PG
FIRST ENCOUNTERED WATER DEPTH: ~17 feet bgs		STATIC WATER DEPTH - DATE:	

WELL CONSTRUCTION DETAIL	WATER LEVEL	DEPTH (FEET)	SAMPLING INTERVAL	SAMPLING RECOVERY	OVM READING (PPM)	GRAPHIC LOG OR USCS CODE	
MW-10A MW-10B		1					GRAVEL FILL (GP).
		2					
		3					
		4					
		5	▼	▼	1.1		Clayey SILT (ML); dark brown, low plasticity, moist.
		6					
		7					
		8					
		9					Elastic Clayey SILT (MH); dark brown with tan-gray mottles, medium plasticity, some organic matter (plant material), very stiff,
		10	▼	▼	2.0		
		11					
		12					
		13					
		14					Elastic Clayey SILT (MH); tan-gray w/orange mottles, medium plasticity, stiff; moist-wet.
		15	▼	▼	0.0		
		16					
	▽	17					
		18					
		19					SAND (SW); tan, fine grained sand, medium dense, wet.
		20	▼	▼	0.8		
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					

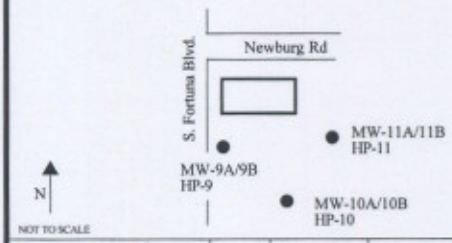
Notes:
(1) MW-10A, and MW-10B were installed in individual boreholes separated by 5 feet.
(2) HP-10 was drilled on 8/29/05 by Fisch Environmental using a direct-push drill-rig. In order to collect a depth discrete groundwater sample, the boirng was not logged. An expendable groundwater sampling tool was driven to 40 feet bgs and retracted to 35 feet bgs to collect a groundwater sample.

SOIL BORING LOG & WELL CONSTRUCTION: MW-11A & MW-11B & HP-11

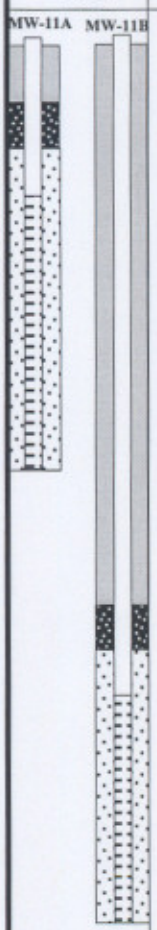
BLUE ROCK ENVIRONMENTAL, INC.

Project: NC-004

FIELD LOCATION OF BORING:



DRILLING CONTRACTOR: Mitchell Drilling	BORING DIAMETER: 8-inches each	CLIENT/LOCATION: Former Cash Oil, 409 S. Fortuna Blvd, Fortuna, CA	
DRILL RIG OPERATOR: Juan Ceja	BORING DEPTHS: 10 and 20 feet	SCREEN SLOT SIZE: 0.010-inch	DRILLING DATE: 8/17/05
DRILL RIG TYPE: CME 75	WELL DEPTHS: 10 and 20 feet	WELL MATERIAL: Sch 40 PVC	FILTER PACK: #2/12 Sand
WELL SEAL / BOREHOLE FILL: Neat Cement over Hyrdated Bentonite		PLANNED USE: Monitoring	LOGGED BY: James Linderman
SAMPLING METHOD: California Mod. Split-Spoon		MONITORING INST: Thermo 580B PID	APPROVED BY: Brian Gwinn, PG
FIRST ENCOUNTERED WATER DEPTH: ~15 feet bgs		STATIC WATER DEPTH - DATE:	

WELL CONSTRUCTION DETAIL	WATER LEVEL	DEPTH (FEET)	SAMPLING: INTERVAL	SAMPLING: RECOVERY	OVM READING (PPM)	GRAPHIC LOG OR USCS CODE	
		1–20					GRAVEL FILL (GP).
		5	▼	▼			Clayey SILT (ML); dark gray, low plasticity, some organic matter, firm, moist.
		10	▼	▼			Elastic Clayey SILT (MH); gray w/orange mottles, medium plasticity, very stiff, moist.
	▽	15	▼	▼			SAND (SW); brownish-orange, medium grained sand, some silt, some fine gravel, medium dense, wet.
		20	▼	▼			
		21–30					

Notes:

(1) MW-11A, and MW-11B were installed in individual boreholes separated by 5 feet.

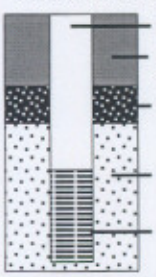
(2) HP-11 was drilled on 8/29/05 by Fisch Environmental using a direct-push drill-rig. In order to collect a depth discrete groundwater sample, the boirng was not logged. An expendable groundwater sampling tool was driven to 40 feet bgs and retracted to 35 feet bgs to collect a groundwater sample.

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.

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd. **Date:** 8/22/05 **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	14.05	5.67	0.90	2.70	0	DO = 2.56
MW-2		14.79	13.00	1.79	0.28	0.84		DO = 3.01
MW-4		19.75	12.72	7.03	1.12	3.36		DO = 0.66
MW-5		19.30	13.11	6.19	0.99	2.97		DO = 1.63
MW-6		18.80	12.84	5.96	0.95	2.85		DO = 5.91
MW-7		19.90	4.38	15.52	2.48	7.44		DO = 0.51
MW-8		18.25	14.11	4.14	0.66	1.98		DO = 0.67
MW-16		19.52	13.04	6.48	1.03	3.09		DO = 1.01
MW-9		19.89	14.28	5.61	0.89	8.90		DO = 3.37
MW-9PZ		9.91						well dry no sample
MW-10		19.32	13.58	5.74	0.91	9.10	0	DO = 7.04
MW-10PZ		9.79	4.53	5.26	0.84	8.40		DO = 6.11
MW-11		19.88	13.14	6.74	1.07	10.70		DO = 2.81
MW-11PZ		9.92						well dry no sample

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:** 8/22/05 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-1			---	---	---
Calc. purge	16:50	0.25	585	66.3	6.30
volume	16:55	1.50	598	65.0	6.37
2.70	17:00	2.75	609	53.8	6.42

COMMENTS: color, turbidity, recharge, sheen

clear / low / mod. / no sheen / HC odor

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

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 17:05

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-4			---	---	---
Calc. purge	16:10	0.25	225	66.5	5.99
volume	16:15	1.75	281	64.6	6.07
3.36	16:20	3.35	343	63.9	6.18

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: 16:25

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-7			---	---	---
Calc. purge	16:30	0.50	275	73.0	5.96
volume	16:35	3.75	296	72.0	6.23
7.44	16:40	7.50	311	71.2	6.26

COMMENTS: color, turbidity, recharge, sheen

clear / low / good / no sheen / HC odor

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

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 16:45

PURGING DATA

Job No.: NC-4 **Location:** 4109 S. Fortuna Blvd **Date:** 8/22/05 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-8			---	---	---
Calc. purge	15:50	0.25	226	70.8	5.58
volume	15:55	1.00	238	68.6	5.62
1.98	16:00	2.00	235	67.8	5.72

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: 16:05

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-9			---	---	---
Calc. purge	14:45	0.50	1755	66.2	6.39
volume	14:50	5.00			
8.90	14:55	8.90	well	Dry	
			@	4 gal.	

COMMENTS: color, turbidity, recharge, sheen

clear / mod. / mod. / no sheen /

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

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 15:00

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-9PZ			---	---	---
Calc. purge		well	Dry		
volume		no	sample		

COMMENTS: color, turbidity, recharge, sheen

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

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at:

PURGING DATA

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 8/22/05 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-10			---	---	---
Calc. purge	13:25	0.50	758	67.7	6.63
volume	13:30	4.50	779	66.2	6.65
9.10	13:35	9.10	well	Dry	
			@ 6 gal.		

COMMENTS: color, turbidity, recharge, sheen

clear / heavy / 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: 13:40

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-10 PZ			---	---	---
Calc. purge	12:50	0.50	1044	70.3	6.60
volume	12:55	5.00	748	70.2	6.65
8.40	13:00	8.40	well	Dry	
			@ 6 gal.		

COMMENTS: color, turbidity, recharge, sheen

clear / heavy / 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: 13:05

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-11			---	---	---
Calc. purge	14:10	0.50	342	67.4	6.05
volume	14:15	5.50	325	64.8	6.07
10.70	14:20	10.75	323	64.5	6.08

COMMENTS: color, turbidity, recharge, sheen

clear / heavy / 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: 14:25

PURGING DATA

Job No.: NC-4 **Location:** 409 S. Fortuna Blvd **Date:** 8/22/05 **Tech:** JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-11P2			---	---	---
Calc. purge volume		Well	Dry		
		no	Sample		

COMMENTS: color, turbidity, recharge, sheen

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

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-16			---	---	---
Calc. purge volume	15:30	0.25	295	66.2	6.14
	15:35	1.75	235	64.3	5.91
3.09	15:40	3.10	226	63.7	5.82

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: 15:45

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

COMMENTS: color, turbidity, recharge, sheen

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at:

KIFF Analytical LLC

Report Number : 45464
Date : 8/26/2005

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

Subject : 9 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 : 45464
Date : 8/26/2005

Subject : 9 Soil Samples
Project Name : Cash Oil Fortuna
Project Number : NC-4

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with samples MW-9@10', MW-10@5', MW-10@20', MW-9@5' for the analytes Benzene, Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45464

Date : 8/26/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-10@5'** Matrix : Soil Lab Number : 45464-01

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/23/2005
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	8/23/2005
4-Bromofluorobenzene (Surr)	97.6		% Recovery	EPA 8260B	8/23/2005

Sample : **MW-10@15'** Matrix : Soil Lab Number : 45464-03

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/20/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/20/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/20/2005
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/20/2005
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/20/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/20/2005
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	8/20/2005
4-Bromofluorobenzene (Surr)	98.0		% Recovery	EPA 8260B	8/20/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45464

Date : 8/26/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-10@20'** Matrix : Soil Lab Number : 45464-04

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/23/2005
Methyl-t-butyl ether (MTBE)	**0.024**	0.0050	mg/Kg	EPA 8260B	8/23/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/23/2005
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	8/23/2005
4-Bromofluorobenzene (Surr)	97.8		% Recovery	EPA 8260B	8/23/2005

Sample : **MW-9@5'** Matrix : Soil Lab Number : 45464-05

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Ethylbenzene	**0.0056**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Total Xylenes	**0.0057**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Methyl-t-butyl ether (MTBE)	**0.14**	0.0050	mg/Kg	EPA 8260B	8/24/2005
TPH as Gasoline	**64**	5.0	mg/Kg	EPA 8260B	8/22/2005
Toluene - d8 (Surr)	97.9		% Recovery	EPA 8260B	8/24/2005
4-Bromofluorobenzene (Surr)	98.6		% Recovery	EPA 8260B	8/24/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45464

Date : 8/26/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-9@10'** Matrix : Soil Lab Number : 45464-06

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.041**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Total Xylenes	**0.015**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Methyl-t-butyl ether (MTBE)	**0.040**	0.0050	mg/Kg	EPA 8260B	8/22/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/22/2005
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	8/22/2005
4-Bromofluorobenzene (Surr)	98.1		% Recovery	EPA 8260B	8/22/2005

Sample : **MW-9@15'** Matrix : Soil Lab Number : 45464-07

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/24/2005
Methyl-t-butyl ether (MTBE)	**0.15**	0.0050	mg/Kg	EPA 8260B	8/24/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/24/2005
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	8/24/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	8/24/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45464

Date : 8/26/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-9@20'** Matrix : Soil Lab Number : 45464-08

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Methyl-t-butyl ether (MTBE)	**0.090**	0.0050	mg/Kg	EPA 8260B	8/22/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/22/2005
Toluene - d8 (Surr)	98.3		% Recovery	EPA 8260B	8/22/2005
4-Bromofluorobenzene (Surr)	96.5		% Recovery	EPA 8260B	8/22/2005

Sample : **MW-11@15'** Matrix : Soil Lab Number : 45464-11

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Methyl-t-butyl ether (MTBE)	**0.0081**	0.0050	mg/Kg	EPA 8260B	8/22/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/22/2005
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	8/22/2005
4-Bromofluorobenzene (Surr)	97.8		% Recovery	EPA 8260B	8/22/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45464

Date : 8/26/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-11@20'** Matrix : Soil Lab Number : 45464-12

Sample Date :8/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	8/22/2005
Methyl-t-butyl ether (MTBE)	**0.052**	0.0050	mg/Kg	EPA 8260B	8/22/2005
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	8/22/2005
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	8/22/2005
4-Bromofluorobenzene (Surr)	98.3		% Recovery	EPA 8260B	8/22/2005

Approved By: Joel Kiff

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

Report Number : 45464

Date : 8/26/2005

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	8/22/2005
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	8/22/2005
Toluene - d8 (Surr)	97.7		%	EPA 8260B	8/22/2005
4-Bromofluorobenzene (Surr)	99.2		%	EPA 8260B	8/22/2005
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/20/2005
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/20/2005
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/20/2005
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/20/2005
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/20/2005
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	8/20/2005
Toluene - d8 (Surr)	100		%	EPA 8260B	8/20/2005
4-Bromofluorobenzene (Surr)	99.4		%	EPA 8260B	8/20/2005
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/22/2005
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	8/22/2005
Toluene - d8 (Surr)	99.7		%	EPA 8260B	8/22/2005
4-Bromofluorobenzene (Surr)	97.9		%	EPA 8260B	8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/24/2005
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/24/2005
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/24/2005
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/24/2005
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/24/2005
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	8/24/2005
Toluene - d8 (Surr)	99.0		%	EPA 8260B	8/24/2005
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	8/24/2005

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 45464

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 8/26/2005

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	45476-02	<0.0050	0.0398	0.0402	0.0378	0.0362	mg/Kg	EPA 8260B	8/22/05	94.8	89.8	5.39	70-130	25
Toluene	45476-02	<0.0050	0.0398	0.0402	0.0360	0.0342	mg/Kg	EPA 8260B	8/22/05	90.5	84.9	6.29	70-130	25
Tert-Butanol	45476-02	<0.0050	0.199	0.201	0.188	0.191	mg/Kg	EPA 8260B	8/22/05	94.5	94.8	0.329	70-130	25
Methyl-t-Butyl Ether	45476-02	<0.0050	0.0398	0.0402	0.0373	0.0371	mg/Kg	EPA 8260B	8/22/05	93.7	92.2	1.56	70-130	25
Benzene	45464-03	<0.0050	0.0399	0.0402	0.0335	0.0360	mg/Kg	EPA 8260B	8/20/05	83.9	89.7	6.62	70-130	25
Toluene	45464-03	<0.0050	0.0399	0.0402	0.0331	0.0354	mg/Kg	EPA 8260B	8/20/05	82.9	88.1	6.09	70-130	25
Tert-Butanol	45464-03	<0.0050	0.200	0.201	0.170	0.170	mg/Kg	EPA 8260B	8/20/05	85.3	84.5	0.961	70-130	25
Methyl-t-Butyl Ether	45464-03	<0.0050	0.0399	0.0402	0.0345	0.0324	mg/Kg	EPA 8260B	8/20/05	86.4	80.7	6.87	70-130	25
Benzene	45464-06	0.041	0.0398	0.0396	0.0791	0.0679	mg/Kg	EPA 8260B	8/22/05	95.0	67.1	34.4	70-130	25
Toluene	45464-06	<0.0050	0.0398	0.0396	0.0313	0.0324	mg/Kg	EPA 8260B	8/22/05	78.6	81.7	3.87	70-130	25
Tert-Butanol	45464-06	0.0059	0.199	0.198	0.149	0.154	mg/Kg	EPA 8260B	8/22/05	72.0	74.6	3.59	70-130	25
Methyl-t-Butyl Ether	45464-06	0.040	0.0398	0.0396	0.0756	0.0639	mg/Kg	EPA 8260B	8/22/05	88.5	59.4	39.2	70-130	25
Benzene	45492-02	<0.0050	0.0395	0.0398	0.0353	0.0347	mg/Kg	EPA 8260B	8/24/05	89.3	87.2	2.38	70-130	25
Toluene	45492-02	<0.0050	0.0395	0.0398	0.0347	0.0342	mg/Kg	EPA 8260B	8/24/05	87.8	85.7	2.31	70-130	25
Tert-Butanol	45492-02	<0.0050	0.198	0.199	0.156	0.153	mg/Kg	EPA 8260B	8/24/05	78.8	76.8	2.58	70-130	25
Methyl-t-Butyl Ether	45492-02	<0.0050	0.0395	0.0398	0.0341	0.0336	mg/Kg	EPA 8260B	8/24/05	86.2	84.4	2.06	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 45464

QC Report : Laboratory Control Sample (LCS)

Date : 8/26/2005

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	0.0398	mg/Kg	EPA 8260B	8/22/05	96.7	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	8/22/05	94.1	70-130
Tert-Butanol	0.199	mg/Kg	EPA 8260B	8/22/05	94.1	70-130
Methyl-t-Butyl Ether	0.0398	mg/Kg	EPA 8260B	8/22/05	90.6	70-130
Benzene	0.0388	mg/Kg	EPA 8260B	8/20/05	91.8	70-130
Toluene	0.0388	mg/Kg	EPA 8260B	8/20/05	90.0	70-130
Tert-Butanol	0.194	mg/Kg	EPA 8260B	8/20/05	88.9	70-130
Methyl-t-Butyl Ether	0.0388	mg/Kg	EPA 8260B	8/20/05	87.8	70-130
Benzene	0.0399	mg/Kg	EPA 8260B	8/22/05	91.5	70-130
Toluene	0.0399	mg/Kg	EPA 8260B	8/22/05	89.5	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	8/22/05	84.2	70-130
Methyl-t-Butyl Ether	0.0399	mg/Kg	EPA 8260B	8/22/05	90.4	70-130
Benzene	0.0402	mg/Kg	EPA 8260B	8/24/05	93.4	70-130
Toluene	0.0402	mg/Kg	EPA 8260B	8/24/05	91.9	70-130
Tert-Butanol	0.201	mg/Kg	EPA 8260B	8/24/05	90.9	70-130
Methyl-t-Butyl Ether	0.0402	mg/Kg	EPA 8260B	8/24/05	91.7	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: 530.297.4808

Lab No. 45464 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

Recommended but not mandatory to complete this section:
Sampling Company Log Code:

Phone No.: (707) 441-1934
FAX No.: (707) 441-1949

Global ID: T0 6 0 2 3 0 0 4 5 2

Project Number: NC-4
P.O. No:

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

Project Name: Cash 8:1 Fortuna

Sampler Signature: James Lindemann

Project Address: 409 S. Fortuna Blvd. Fortuna CA

Analysis Request

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: SLEEVE	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	TAT: 12 hr/24 hr/48 hr/72 hr/1 wk	For Lab Use Only
MW-10 @ 5'	8/17/05	9:10		X			X			X					X									X	-01
MW-10 @ 10'		9:50													Hold										-02
MW-10 @ 15'		10:00													X									X	-03
MW-10 @ 20'		10:05													X									X	-04
MW-9 @ 5'		11:45													X									X	-05
MW-9 @ 10'		11:50													X									X	-06
MW-9 @ 15'		12:00													X									X	-07
MW-9 @ 20'		12:05													X									X	-08
MW-11 @ 5'		13:45													Hold										-09
MW-11 @ 10'		13:50													Hold										-10

Relinquished by:	Date	Time	Received by:
James Lindemann	8/18/05		Fed Ex
Relinquished by: James Lindemann	08/19/05	1039	Received by Laboratory: Kiff Analytical LLC

Remarks:

Sample Receipt
Temp °C 2.0 Therm. ID# IR-1
Initial BFH Date 021905
Time 1039 Coolant present: Y / N

Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fh9

KIFF ANALYTICAL LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 45464 Page 2 of 2

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Scott Ferriman

California EDF Report? [X] Yes [ ] No

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

Recommended but not mandatory to complete this section:
Sampling Company Log Code: - - -

Phone No.: (707) 441-1934
FAX No.: (707) 441-1949

Global ID: T-0-6-0-2-3-0-0-4-5-2

Project Number: NC-4
P.O. No:

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

Project Name: Cash Oil Fortuna

Sampler Signature: Jamie Lindemann

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

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: SLEEVE	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	TAT: 12 hr/24 hr/48 hr/72 hr/1 wk	For Lab Use Only
MW-11 @ 15'	8/17/05	14:00		X			X			X					X									X	-11
MW-11 @ 20'	8/17/05	14:05		X			X			X					X									X	-12

Relinquished by:	Date	Time	Received by:
Jamie Lindemann	8/18/05		Fed Ex
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	081905 ~~081805~~ BFH	1039	Kiff Analytical LLC

Remarks:

Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fh9

KIFF Analytical LLC

Report Number : 45558
Date : 8/31/2005

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

Subject : 9 Water 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

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

KIFF Analytical LLC

Report Number : 45558
Date : 8/31/2005

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

Sample : **MW-1** Matrix : Water Lab Number : 45558-01
Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**6.3**	0.50	ug/L	EPA 8260B	8/30/2005
Toluene	**0.87**	0.50	ug/L	EPA 8260B	8/30/2005
Ethylbenzene	**6.8**	0.50	ug/L	EPA 8260B	8/30/2005
Total Xylenes	**1.0**	0.50	ug/L	EPA 8260B	8/30/2005
Methyl-t-butyl ether (MTBE)	**130**	0.50	ug/L	EPA 8260B	8/30/2005
TPH as Gasoline	**2600**	50	ug/L	EPA 8260B	8/30/2005
Toluene - d8 (Surr)	93.0		% Recovery	EPA 8260B	8/30/2005
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	8/30/2005

Sample : **MW-4** Matrix : Water Lab Number : 45558-02
Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Methyl-t-butyl ether (MTBE)	**29**	0.50	ug/L	EPA 8260B	8/30/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	8/30/2005
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	8/30/2005
4-Bromofluorobenzene (Surr)	98.5		% Recovery	EPA 8260B	8/30/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45558

Date : 8/31/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-7** Matrix : Water Lab Number : 45558-03

Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Methyl-t-butyl ether (MTBE)	**2.7**	0.50	ug/L	EPA 8260B	8/27/2005
TPH as Gasoline	**530**	50	ug/L	EPA 8260B	8/27/2005
Toluene - d8 (Surr)	96.7		% Recovery	EPA 8260B	8/27/2005
4-Bromofluorobenzene (Surr)	99.7		% Recovery	EPA 8260B	8/27/2005

Sample : **MW-8** Matrix : Water Lab Number : 45558-04

Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2005
Methyl-t-butyl ether (MTBE)	**10**	0.50	ug/L	EPA 8260B	8/27/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	8/27/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	8/27/2005
4-Bromofluorobenzene (Surr)	99.4		% Recovery	EPA 8260B	8/27/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45558

Date : 8/31/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-9B** Matrix : Water Lab Number : 45558-05

Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1.6**	1.0	ug/L	EPA 8260B	8/30/2005
Toluene	**< 1.0**	1.0	ug/L	EPA 8260B	8/30/2005
Ethylbenzene	**< 1.0**	1.0	ug/L	EPA 8260B	8/30/2005
Total Xylenes	**1.0**	1.0	ug/L	EPA 8260B	8/30/2005
Methyl-t-butyl ether (MTBE)	**860**	2.5	ug/L	EPA 8260B	8/30/2005
TPH as Gasoline	**220**	100	ug/L	EPA 8260B	8/30/2005
Toluene - d8 (Surr)	96.9		% Recovery	EPA 8260B	8/30/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	8/30/2005

Sample : **MW-10B** Matrix : Water Lab Number : 45558-06

Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Methyl-t-butyl ether (MTBE)	**5.3**	0.50	ug/L	EPA 8260B	8/29/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	8/29/2005
Toluene - d8 (Surr)	96.0		% Recovery	EPA 8260B	8/29/2005
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	8/29/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45558

Date : 8/31/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-10A** Matrix : Water Lab Number : 45558-07

Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	8/29/2005
Toluene - d8 (Surr)	97.0		% Recovery	EPA 8260B	8/29/2005
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	8/29/2005

Sample : **MW-11B** Matrix : Water Lab Number : 45558-08

Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	8/29/2005
Methyl-t-butyl ether (MTBE)	**160**	0.50	ug/L	EPA 8260B	8/29/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	8/29/2005
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	8/29/2005
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	8/29/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45558

Date : 8/31/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **MW-16** Matrix : Water Lab Number : 45558-09

Sample Date :8/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	8/30/2005
Methyl-t-butyl ether (MTBE)	**57**	0.50	ug/L	EPA 8260B	8/30/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	8/30/2005
Toluene - d8 (Surr)	97.4		% Recovery	EPA 8260B	8/30/2005
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	8/30/2005

Approved By: Joel Kiff

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

Report Number : 45558

Date : 8/31/2005

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	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/27/2005
Toluene - d8 (Surr)	96.5		%	EPA 8260B	8/27/2005
4-Bromofluorobenzene (Surr)	99.7		%	EPA 8260B	8/27/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/29/2005
Toluene - d8 (Surr)	96.7		%	EPA 8260B	8/29/2005
4-Bromofluorobenzene (Surr)	99.8		%	EPA 8260B	8/29/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/30/2005
Toluene - d8 (Surr)	96.1		%	EPA 8260B	8/30/2005
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	8/30/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/27/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/27/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	8/27/2005
4-Bromofluorobenzene (Surr)	99.9		%	EPA 8260B	8/27/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/30/2005
Toluene - d8 (Surr)	98.8		%	EPA 8260B	8/30/2005
4-Bromofluorobenzene (Surr)	99.3		%	EPA 8260B	8/30/2005

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 45558

Date : 8/31/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

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	45558-03	<0.50	40.0	40.0	40.2	39.2	ug/L	EPA 8260B	8/27/05	100	98.0	2.62	70-130	25
Toluene	45558-03	<0.50	40.0	40.0	38.1	37.0	ug/L	EPA 8260B	8/27/05	95.4	92.6	2.96	70-130	25
Tert-Butanol	45558-03	<5.0	200	200	194	194	ug/L	EPA 8260B	8/27/05	96.9	97.2	0.224	70-130	25
Methyl-t-Butyl Ether	45558-03	2.7	40.0	40.0	40.5	39.8	ug/L	EPA 8260B	8/27/05	94.5	92.8	1.75	70-130	25
Benzene	45606-09	37	40.0	40.0	70.5	69.0	ug/L	EPA 8260B	8/29/05	83.1	79.3	4.63	70-130	25
Toluene	45606-09	<0.50	40.0	40.0	37.7	36.7	ug/L	EPA 8260B	8/29/05	94.3	91.9	2.61	70-130	25
Tert-Butanol	45606-09	<5.0	200	200	196	195	ug/L	EPA 8260B	8/29/05	97.9	97.5	0.408	70-130	25
Methyl-t-Butyl Ether	45606-09	<0.50	40.0	40.0	37.3	37.3	ug/L	EPA 8260B	8/29/05	93.2	93.4	0.190	70-130	25
Benzene	45621-06	<0.50	40.0	40.0	39.3	39.2	ug/L	EPA 8260B	8/30/05	98.2	98.0	0.281	70-130	25
Toluene	45621-06	<0.50	40.0	40.0	37.4	37.1	ug/L	EPA 8260B	8/30/05	93.4	92.9	0.594	70-130	25
Tert-Butanol	45621-06	<5.0	200	200	194	194	ug/L	EPA 8260B	8/30/05	96.8	96.9	0.0784	70-130	25
Methyl-t-Butyl Ether	45621-06	<0.50	40.0	40.0	37.2	36.7	ug/L	EPA 8260B	8/30/05	93.0	91.8	1.22	70-130	25
Benzene	45558-04	<0.50	40.0	40.0	39.7	38.2	ug/L	EPA 8260B	8/27/05	99.2	95.5	3.81	70-130	25
Toluene	45558-04	<0.50	40.0	40.0	39.0	37.5	ug/L	EPA 8260B	8/27/05	97.5	93.9	3.83	70-130	25
Tert-Butanol	45558-04	<5.0	200	200	197	196	ug/L	EPA 8260B	8/27/05	98.3	98.3	0.0585	70-130	25
Methyl-t-Butyl Ether	45558-04	10	40.0	40.0	48.3	48.3	ug/L	EPA 8260B	8/27/05	94.7	94.8	0.0809	70-130	25
Benzene	45606-07	<0.50	40.0	40.0	38.5	37.5	ug/L	EPA 8260B	8/30/05	96.2	93.6	2.69	70-130	25
Toluene	45606-07	<0.50	40.0	40.0	37.6	36.7	ug/L	EPA 8260B	8/30/05	94.0	91.8	2.44	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 45558

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 8/31/2005

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
Tert-Butanol	45606-07	<5.0	200	200	196	196	ug/L	EPA 8260B	8/30/05	97.8	97.8	0.0193	70-130	25
Methyl-t-Butyl Ether	45606-07	<0.50	40.0	40.0	35.5	35.2	ug/L	EPA 8260B	8/30/05	88.9	87.9	1.09	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 45558

QC Report : Laboratory Control Sample (LCS)

Date : 8/31/2005

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	40.0	ug/L	EPA 8260B	8/27/05	104	70-130
Toluene	40.0	ug/L	EPA 8260B	8/27/05	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/27/05	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/27/05	97.0	70-130
Benzene	40.0	ug/L	EPA 8260B	8/29/05	100	70-130
Toluene	40.0	ug/L	EPA 8260B	8/29/05	96.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/29/05	96.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/29/05	91.4	70-130
Benzene	40.0	ug/L	EPA 8260B	8/30/05	101	70-130
Toluene	40.0	ug/L	EPA 8260B	8/30/05	98.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/30/05	98.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/30/05	91.1	70-130
Benzene	40.0	ug/L	EPA 8260B	8/27/05	99.9	70-130
Toluene	40.0	ug/L	EPA 8260B	8/27/05	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/27/05	97.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/27/05	97.3	70-130
Benzene	40.0	ug/L	EPA 8260B	8/30/05	98.4	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 45558

QC Report : Laboratory Control Sample (LCS)

Date : 8/31/2005

Project Name : **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	8/30/05	98.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/30/05	99.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/30/05	90.2	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: 530.297.4808

Lab No. 45558 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

Recommended but not mandatory to complete this section:
Sampling Company Log Code: - - -

Phone No.: (707) 441-1934
FAX No.: (707) 441-1949

Global ID: T·0·6·0·2·3·0·0·4·5·2

Project Number: NC-4
P.O. No:

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

Project Name: Cash Oil Fortuna

Sampler Signature: Dawn Lindsman

Project Address: 409 S. Fortuna Blvd. Fortuna CA

	Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: SLEEVE	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	TAT: 12 hr/24 hr/48 hr/72 hr/1 wk	For Lab Use Only	
✓	MW-1	8/22/05	17:05	3		X		X		X						X									X		01
	MW-4		16:25																								02
✓	MW-7		16:45																								03
✓	MW-8		16:05																								04
✓	MW-9B		15:00																								05
✓	MW-10B		13:40																								06
✓	MW-10A		13:05																								07
✓	MW-11B		14:25																								08
	MW-16		15:45																								09

Relinquished by:	Date	Time	Received by:
Dawn Lindsman	8/23/05		Fed Ex
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	082405	1040	Thomas J. Ahern KIFF ANALYTICAL

Remarks:
Sample Receipt
Temp °C 3.4 Therm. ID# IR-1
Initial JTA Date 082405
Time 1040 Coolant present: Y / N

Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fh9

KIFF Analytical LLC

Report Number : 45656
Date : 9/6/2005

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

Subject : 3 Water 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 : 45656

Date : 9/6/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **HP-10** Matrix : Water Lab Number : 45656-01

Sample Date :8/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	9/2/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	9/2/2005
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	9/2/2005

Sample : **HP-11** Matrix : Water Lab Number : 45656-02

Sample Date :8/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	9/2/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	9/2/2005
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	9/2/2005

Approved By: Joel Kiff

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

KIFF Analytical LLC

Report Number : 45656

Date : 9/6/2005

Project Name : **Cash Oil Fortuna**

Project Number : **NC-4**

Sample : **HP-9** Matrix : Water Lab Number : 45656-03

Sample Date :8/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	9/2/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	9/2/2005
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	9/2/2005
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	9/2/2005

Approved By: Joel Kiff

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

Report Number : 45656

Date : 9/6/2005

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	< 0.50	0.50	ug/L	EPA 8260B	9/1/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/1/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/1/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/1/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/1/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/1/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	9/1/2005
4-Bromofluorobenzene (Surr)	111		%	EPA 8260B	9/1/2005

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 : 45656

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 9/6/2005

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	45676-06	<0.50	40.0	40.0	41.2	41.8	ug/L	EPA 8260B	9/1/05	103	104	1.52	70-130	25
Toluene	45676-06	<0.50	40.0	40.0	40.1	40.6	ug/L	EPA 8260B	9/1/05	100	102	1.27	70-130	25
Tert-Butanol	45676-06	<5.0	200	200	188	190	ug/L	EPA 8260B	9/1/05	94.2	95.0	0.890	70-130	25
Methyl-t-Butyl Ether	45676-06	0.51	40.0	40.0	34.8	36.0	ug/L	EPA 8260B	9/1/05	85.8	88.6	3.22	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 45656

Date : 9/6/2005

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	40.0	ug/L	EPA 8260B	9/1/05	99.4	70-130
Toluene	40.0	ug/L	EPA 8260B	9/1/05	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/1/05	90.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/1/05	81.2	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: 530.297.4808

Lab No. 45656 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

Recommended but not mandatory to complete this section:
Sampling Company Log Code: - - -

Phone No.: (707) 441-1934
FAX No.: (707) 441-1949

Global ID: T·0·6·0·2·3·0·0·4·5·2

Project Number: NC-4
P.O. No:

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

Project Name: 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	Container: SLEEVE	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	TAT 12 hr/24 hr/48 hr/72 hr/1 wk	For Lab Use Only
HP-10	8/29/05	9:50	4		X		X		X						X									X	-01
HP-11	↓	10:25	↓		↓		↓		↓						↓									↓	-02
HP-9	↓	11:05	↓		↓		↓		↓						↓									↓	-03

Relinquished by:	Date	Time	Received by:
James Lindemann	8/29/05		Fed Ex
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 083005	Time 1155	Received by Laboratory: Kiff Analytical

Remarks:
Sample Receipt
Temp °C 5°C Therm. ID# 1R-1
Initial GHB Date 083005
Time 1155 Coolant present: (Y) N

Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fh9