W. A. CRAIG, INC.
Environmental Consulting and Contracting
6940 Tremont Road
Dixon, California 95620
Contractor and Hazardous Substances License #455752
Cal/OSHA Statewide Annual Excavation Permit #559351
(800) 522-7244
Dixon (707) 693-2929 **Napa (707) 252-3353**
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July 3, 1998 **Project No. 3628**

Rino Pacific
STID #922

Mr. Reed Rinehart
Rino Pacific, Inc.
Ukiah, California 95482

Subject: REPORT - Groundwater Monitoring , February 1998
1107 Fifth Street
Oakland, California

Dear Mr. Rinehart:

W. A. Craig, Inc. (WAC), is pleased to submit this Groundwater Monitoring Report for sampling conducted on February 13, 1998 at 1107 Fifth Street in Oakland, California. The site location is shown on **Figure 1**. This work was performed in accordance with the scope of work presented in WAC's Work Plan dated September 16, 1996.

This report includes groundwater quality and elevation data for three groundwater monitoring wells and two recovery wells at the site. The installation of the monitoring wells is presented in WAC's "Subsurface Investigation Report," dated January 17, 1997.

Scope of Work

The scope of work performed by WAC during this period included the following tasks:

- Measuring static water levels in the monitoring wells and recovery wells;
- Purging and sampling groundwater from the monitoring wells at the site;
- Analyzing groundwater samples for total petroleum hydrocarbons as diesel (TPH-d), total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE); and
- Maintenance and operation of a passive free-product recovery system.
- Summarizing the site hydrological conditions and groundwater quality product recovery results, and recommendations for further site characterization.

Groundwater Sampling

Sampling Methods

Three to four well casing volumes were purged from the monitoring wells on February 13, 1998. Field parameters including temperature, pH, conductivity, and turbidity were intermittently monitored during purging of the well. Groundwater was purged from the wells and samples were collected using disposable polyethylene bailers. Copies of the field monitoring well sampling logs are included in **Attachment A**. The samples were submitted under chain-of-custody control to McCampbell Analytical, Inc. (MAI), of Pacheco, California. The purged well-water is currently stored on-site in a sealed, DOT approved, 55-gallon steel drums.

Groundwater Elevations

WAC technical staff measured the water levels in the monitoring wells on February 13, 1998 using an electronic water level indicator. The surveyed elevations and the field water level measurements were used to calculate the groundwater surface elevations at the site. The monitoring wells were noted to release pressure when opened and required exposure to atmospheric conditions to allow water levels to stabilize. The calculated groundwater gradient and flow direction for this day was 0.094 ft/ft, southeast. Groundwater elevations for this and previous monitoring events are presented in **Table 1**. The locations of the monitoring wells and a depiction of the site groundwater elevation contours are shown in **Figure 2**.

Groundwater flow directions have ranged from southwest to southeast. The groundwater direction appears to be dependent on the groundwater elevation in monitoring well MW-3. Depth to water measurements for monitoring well MW-3 indicate a wide elevation range, from -0.37 feet to -7.99 feet above mean sea level (msl), and has consistently slow to recover. Monitoring wells MW-1 and MW-2 have displayed a much narrower range of fluctuation, -1.24 to 1.56 feet (msl) and -0.18 feet to 1.40 feet (msl), respectively.

Analytical Results

The groundwater samples were analyzed by MAI for gasoline and diesel using EPA Method 8015 (modified) and purgeable aromatic hydrocarbons (BTEX) and MTBE using EPA Method 8020. MAI is certified by the State of California to perform these analyses. The analytical laboratory results are summarized in **Table 2**. Copies of the analytical laboratory report and chain-of-custody documents are in **Attachment B**.

Diesel was detected at concentrations of 590 micrograms per liter (ug/l) in MW-1, 2200 ug/l in MW-2, and 570 ug/l in MW-3. The reported diesel concentrations increased in monitoring wells MW-1 and MW-2 from the previous sampling period in September 1997. The diesel concentration decreased in MW-3 from the previous

quarter. Diesel concentrations in monitoring wells MW-1 and MW-2 are higher than were reported for samples collected one year previously, in March 1997.

Gasoline and BTEX were not detected in the samples collected from monitoring wells MW-1 and MW-3 during this round of sampling. These results are consistent with previous monitoring results. The analytical results of samples collected from monitoring well MW-2 indicate a gasoline concentration of 6500 ug/l, which is an increase over the previously detected concentration of 3700 ug/l. Benzene was detected in the samples from monitoring well MW-2 at a concentration of 2400 ug/l, an increase since the previous reporting. Toluene, ethylbenzene, and xylene concentrations reported for MW-2 were detected at concentrations slightly lower than previously reported, and remain below California Maximum Contaminant Levels (MCLs) for drinking water.

MTBE has not been detected in the samples from monitoring well MW-1. MTBE concentrations in MW-2 increased this quarter from 470,000 ug/l to 750,000 ug/l. The MTBE concentrations found were relatively unchanged from those concentrations found during the same time period in 1997. MTBE was detected in groundwater samples from monitoring well MW-3 at a concentration of 14 ug/l, which is slightly greater than was reported for the previous quarter (12 ug/l).

Free Product Recovery

WAC personnel have intermittently monitored free product in the recovery wells. Product has been recovered from a skimmer placed in recovery well RW-W. The results of the monitoring of the recovery wells is presented in **Table 3**. The recovered product is currently stored in a 55-gallon drum in a secure area of the site. Approximately 6.3 gallons of product has been collected since the installation of the skimmer.

WAC will perform product measurements and collection, if necessary, during quarterly monitoring events. The product in recovery well RW-W has been reduced to a sheen, with blebs of product and the recovery system is not able to effectively remove this level of product. WAC will continue to monitor product thickness in the recovery wells and will resume product collection should the product recover to a thickness of 0.1 inches or greater.

Conclusions and Recommendations

The groundwater flow direction is generally southerly, but ranges from southwest to southeast. The gradient interpretation assumes hydrologic continuity in the subsurface between the three wells at the site although gradient and flow direction on this site are significantly influenced by water levels reported for monitoring well MW-3. Monitoring well MW-3 is very slow to recover after purging, indicating the water bearing soil at this location is of low permeability. Water levels have been reported to respond to tidal fluctuations, although this has not been confirmed by WAC's field observations.

Diesel concentrations in groundwater have remained relatively consistent, with no apparent decreasing trend. Gasoline, MTBE, and benzene concentrations have been relatively consistent, with generally increased concentrations in monitoring well MW-1 and MW-3, as compared to sampling performed one year ago

Professional Certification

This report has been prepared by the staff of W.A. Craig, Inc., under the professional supervision of the persons whose seals and signatures appear hereon. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analysis, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of quarterly monitoring and sampling and they are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. W.A. Craig, Inc., recognizes that the limited scope of services performed in execution of this scope of work may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of the user. There is no other warranty, either expressed or implied.

We appreciate this opportunity to be of service to you on this project. Should you have any questions regarding this report please call us at (707) 252-3353.

Sincerely,
W.A. Craig, Inc.,

W. A. Craig
Principal

Geoffery A. Fiedler, R.G.
Senior Geologist

GF:tth

Attachments:
Table 1 - Groundwater Elevations
Table 2 - Groundwater Sample Analytical Results
Table 3 - Product Recovery Summary
Figure 1 - Site Location Map
Figure 2 - Groundwater Elevation Contour Map, 2/13/98
A - Groundwater Sampling Logs
B - Laboratory Analytical Reports

cc: Larry Seto, Alameda County Department of Environmental Health

TABLE 1

Groundwater Elevations
Rino Pacific
1107 5th Street, Oakland California

Well Number	Date	Top of Casing (ft)	Depth to Water (ft)	Static Water Elevation
MW-1	10/21/96	3.84	5.08	-1.24
	11/04/96		3.02	0.82
	03/04/97		2.28	1.56
	06/12/97		4.80	-0.96
	07/14/97		2.66	1.18
	09/09/97		2.45	1.39
	09/19/97		2.60	1.24
	02/13/98		2.76	1.08
MW-2	10/21/96	4.48	4.66	-0.18
	11/04/96		4.60	-0.12
	03/04/97		3.68	0.80
	06/12/97		3.70	0.78
	07/14/97		4.16	0.32
	09/09/97		3.88	0.60
	09/19/97		4.50	-0.02
	02/13/98		3.08	1.40
MW-3	10/21/96	4.81	7.66	-2.85
	11/04/96		5.70	-0.89
	03/04/97		11.38	-6.57
	06/12/97		5.18	-0.37
	07/14/97		7.96	-3.15
	09/09/97		10.16	-5.35
	09/19/97		12.80	-7.99
	02/13/98		11.42	-6.61
RW-W	06/13/97	5.26	3.11	2.15
	07/14/97		7.96	-2.70
	09/09/97		not measured	
	09/19/97		3.84	1.42
	02/13/97		not measured	
RW-E	06/13/97	4.65	2.88	1.77
	07/14/97		3.08	1.57
	09/09/97		not measured	
	09/19/97		3.40	1.25
	02/13/97		not measured	

Notes: Monitoring wells elevations are based upon the City of Oakland Datum #16NW15
Recovery well elevations surveyed by W.A. Craig, 6/12/97.

TABLE 2

Groundwater Sample Analytical Results
1107 5th Street, Oakland, California
Analytical Results in micrograms per liter

Sample	Date	ANALYTES (ug/L)						
		Diesel	TPH-g	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-1	11/04/96	220	ND	ND	ND	ND	ND	ND
	03/05/97	230	ND	ND	ND	ND	ND	ND
	06/12/97	290	ND	ND	ND	ND	ND	ND
	09/09/97	180	ND	ND	ND	ND	ND	ND
	02/13/98	590	ND	9.4	ND	ND	ND	ND
MW-2	11/04/96	2700	910	470,000	120	23	3.5	51
	03/05/97	2300	4400	760,000	1500	51	24	100
	06/12/97	2400	3600	840,000	1200	14	12	40
	09/09/97	970	3700	470,000	570	31	19	60
	02/13/98	2200	6500	750,000	2400	31	ND	ND
MW-3	11/04/96	310	ND	1,000	ND	ND	ND	ND
	03/05/97	210	ND	13	ND	ND	ND	ND
	06/12/97	94	ND	17	ND	ND	ND	ND
	09/09/97	2300	ND	12	ND	ND	ND	ND
	02/13/98	570	ND	14	ND	ND	ND	ND
RW-W	06/12/97	51000	27000	58000	4000	360	860	7200
	09/09/97	NS	NS	NS	NS	NS	NS	NS
RW-E	06/12/97	31000	31000	32000	1900	3100	250	12000
	09/09/97	NS	NS	NS	NS	NS	NS	NS
California MCL		None Listed	None Listed	40*	1	150	680	1750

Notes:

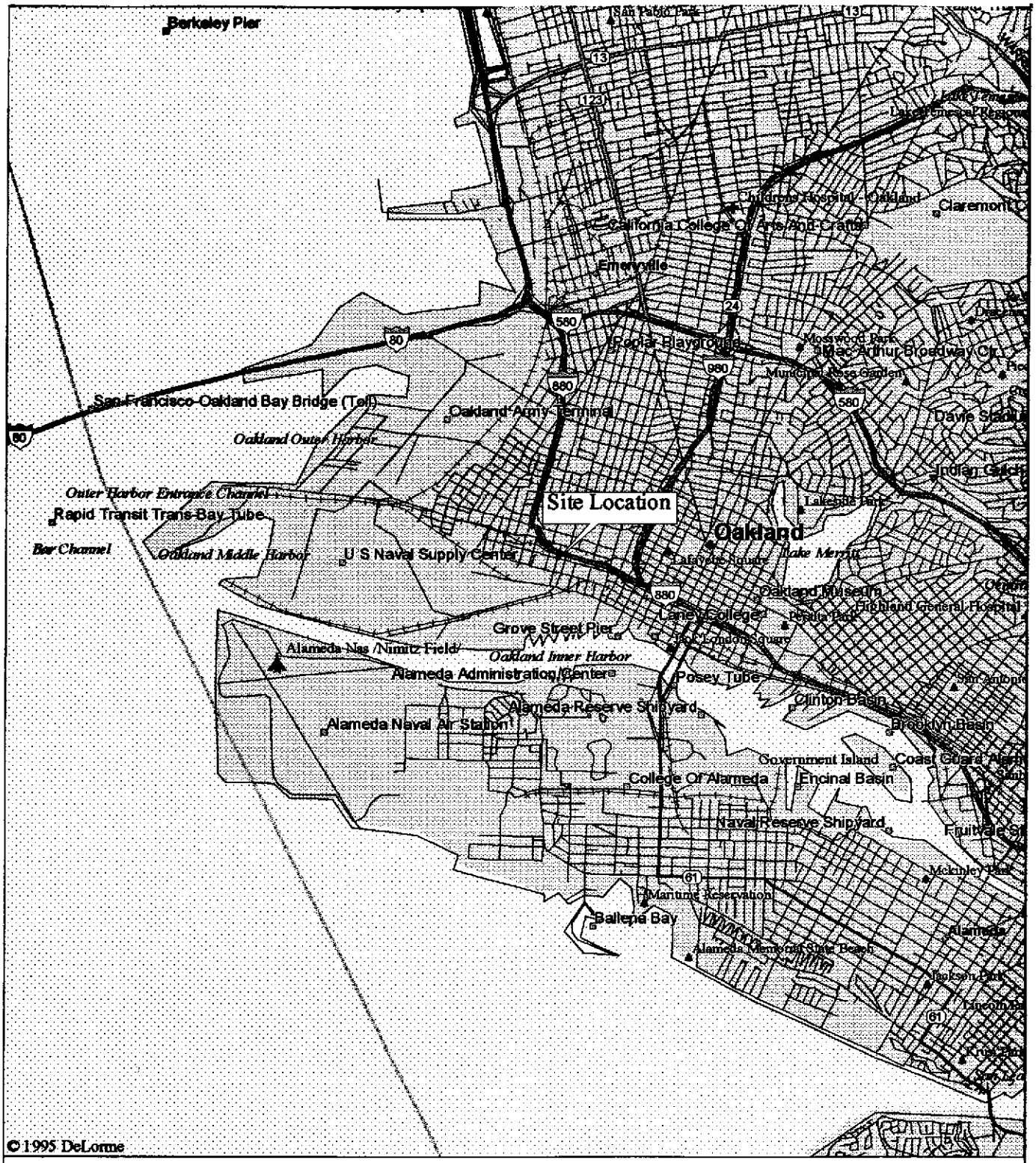
ND = Not detected at the laboratorty reported limit of detection
NS = Not Sampled
MCL = Maximum Contaminant Level, Drinking Water Standards and Health Advisories Table, EPA document dated August, 1995.
*California Water Quality Goals-Organic Consituents, Human Health and Welfare, Marshak, September 1991.

TABLE 3

Product Recovery Summary
1107 5th Street
Oakland California

Recovery Well	Date	Personnel	Product Thickness / Volume				Observations & Comments
			Product Thickness	Amount Recovered	Recovered Product (ounces)	Recovered Product (gallons)	
RW-W	03/07/97	R. Gentry	NM		0	0.0	Installed Skimmer
	03/20/97	R. Gentry	NM		0	0.0	Repaired skimmer
	04/01/97	R. Gentry	0.2 inches	full	47	0.4	
	04/25/97	G. Ratliff	0.2 inches	full	94	0.7	
	04/29/97	G. Fiedler	0.2 inches	full	141	1.1	
	04/30/97	G. Fiedler	0.2 inches	half full	164	1.3	
	05/14/97	G. Fiedler	0.2 inches	full	211	1.6	
	05/28/97	G. Fiedler	0.2 inches	full	258	2.0	
	06/11/97	G. Fiedler	0.2 inches	full	305	2.4	
	07/01/97	G. Fiedler	0.2 inches	full	352	2.8	
	07/08/97	G. Fiedler	0.2 inches	none	352	2.8	Adjusted Skimmer
	07/14/97	K. Couch	0.2 inches	full	399	3.1	Normal Skimmer Operation
	07/23/97	G. Fiedler	0.2 inches	full	446	3.5	
	09/09/97	J. Smith	0.2 inches	full	493	3.9	
	09/19/97	J. Smith	0.1inches	full	540	4.2	
	10/21/97	J. Smith	NM	3/4 full	575	4.5	
	02/04/98	W.Cerrito	NM	full	622	4.9	normal
	03/12/98	W.Cerrito	0.2 inches	full	669	5.2	emptied skimmers
	03/27/98	W.Cerrito	0.2 inches	full	716	5.6	skimmer adjusted
	04/03/98	W.Cerrito	0.1inches	half full	740	5.8	skimmer adjusted
	04/16/98	W.Cerrito	0.1inches	full	787	6.1	skimmer cleaned
	04/24/98	W.Cerrito	0.1inches	half full	810	6.3	screen cleaned
	04/30/98	W.Cerrito	NM	none	270	6.3	as above
	05/20/98	W.Cerrito	0	none	270	6.3	as above
RW-E	03/07/97	R. Gentry	No Product	None	0	0	No sheen- slight odor
	03/20/97	R. Gentry	NM	None	0	0	as above
	04/01/97	R. Gentry	None	None	0	0	as above
	04/25/97	G. Ratliff	None	None	0	0	as above
	04/29/97	G. Fiedler	None	None	0	0	as above
	04/30/97	G. Fiedler	None	None	0	0	as above
	05/14/97	G. Fiedler	None	None	0	0	Some blebs of product
	05/28/97	G. Fiedler	None	None	0	0	as above
	06/11/97	G. Fiedler	None	None	0	0	as above
	10/21/97	J. Smith	NM	none	0	0	
	02/04/98	W.Cerrito	NM	none	0	0	sheen and odor present
	03/12/98	W.Cerrito	NM	none	0	0	as above
	03/27/98	W.Cerrito	NM	none	0	0	blebs of product observed
	04/03/98	W.Cerrito	0.1	none	0	0	as above
	04/16/98	W.Cerrito	NM	none	0	0	as above
	04/24/98	W.Cerrito	0.1	none	0	0	blebs of product observed
	04/30/98	W.Cerrito	NM	none	0	0	as above
	05/20/98	W.Cerrito	NM	none	0	0	as above

Notes: NM = Not Measured



Mag 13.00
Tue Jun 30 13:00 1998

Scale 1:62,500 (at center)
1 Miles

Secondary SR, Road, Hwy Ramp

Project No: 3628

Date: July 1998

Site Location Map
Rino Pacific
1107 5th Street
Oakland, California

Figure 1

Checked by: CAF 7/13/98

W. A. CRAIG, INC.
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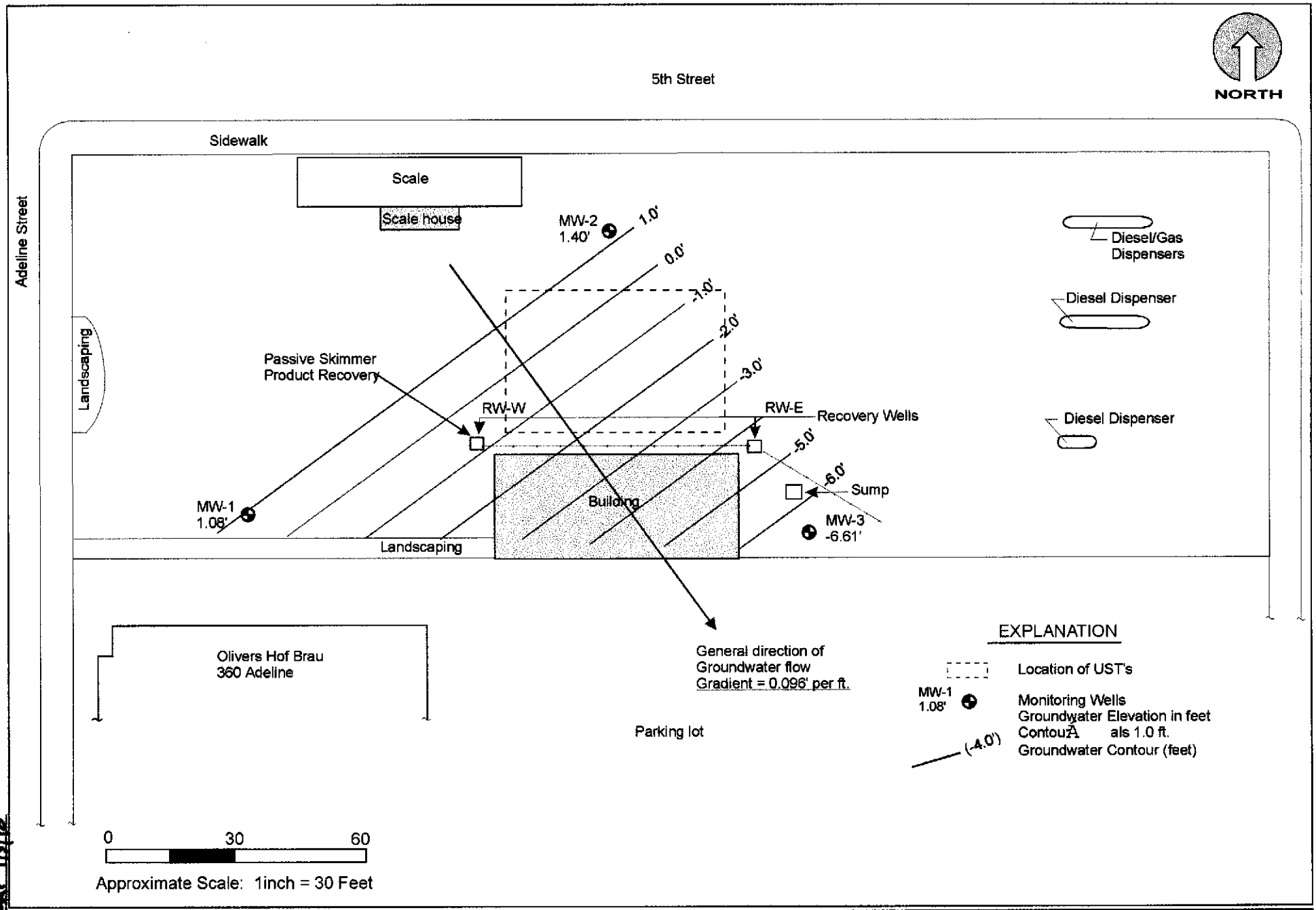

Checked by: CAC 1/1/98

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Project # 3628
February 1998

Groundwater Contour 2/13/98
Rino Pacific
1107 5th Street
Oakland, CA

Figure 2

GROUNDWATER SAMPLING
WELL DEVELOPMENT LOG

WELL NUMBER: MW-1 FIELD PERSON(S): CERRITO

DATE STARTED: 2-13-98

TIME STARTED: 12:25 JOB NUMBER: 3628

DATE COMPLETED: 2-13-98 JOB NAME: RIND PACIFIC

TIME COMPLETED: 1:00

DEPTH TO BOTTOM OR CASING LENGTH		WELL INSIDE DIAMETER
TOTAL DEPTH TO BOTTOM: 19.10 − DEPTH TO WATER: 2.76 = Δ(FT): 16.34		VOLUME FACTOR V.F. = GAL/FT: 1"=0.041, 4"=0.653, 1-1/2"=0.092, 6"=1.469, 2"=0.163, 8"=2.611, 3"=0.367, 12"=5.875
ΔH (FT): 16.34 X (V.F.): 0.163 = WELL CASING VOLUME (GAL): 2.66		
DATE(S) PURGED: 2-13-98		WELL DEWATERED [ ] YES [X] NO
PURGE METHOD: BAILER		DATE SAMPLED: 2-13-98
INITIAL DEPTH TO WATER: 4:40		TIME SAMPLED: 1:20
TOTAL VOLUME REMOVED (GAL): 7.98		SAMPLING METHOD: BAILER
CASING VOLUMES REMOVED: 3		WEATHER CONDITIONS: OVERCAST
PURGE RATE (GPM):		PURGES/SAMPLED BY: CERRITO

DEPTH TO WATER AFTER RECOVERY 2.76 (FT) = 100 % RECOVERED PRIOR TO SAMPLING

FIELD PARAMETERS:

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	TEMPERATURE	X 1000 ELECTRICAL CONDUCTIVITY	PH	TURBIDITY (NTU)
12:35	2.66	69.4	3.47	7.21	CLEAR
12:41	2.66	68.8	2.48	7.00	CLEAR
12:47	2.66	67.1	1.80	7.09	

COMMENTS: WELL UNDER PRESSURE, NO ODER OR SHEEN DETECTED

GROUNDWATER SAMPLING
WELL DEVELOPMENT LOG

WELL NUMBER: MW-2 FIELD PERSON(S): CERRITO

DATE STARTED: 2-13-98

TIME STARTED: 11:40 JOB NUMBER: 3628

DATE COMPLETED: 2-13-98 JOB NAME: RINO PACIFIC

TIME COMPLETED: 12:15

DEPTH TO BOTTOM OR CASING LENGTH							WELL INSIDE DIAMETER
TOTAL DEPTH TO BOTTOM	12.84	DEPTH TO WATER	3.08	Δ(FT)	9.76		VOLUME FACTOR V.F.= GAL/FT: 1"=0.041, 4"=0.653, 1-1/2"=0.092, 6"=1.469, 2"=0.163, 8"=2.611, 3"=0.367, 12"=5.875
H (FT)	9.76	X (V.F.)	.0163	WELL CASING VOLUME (GAL)	1.59		

ATE(S) PURGED:	2-13-98	WELL DEWATERED	[ ] YES [X] NO
RGE METHOD:	BAILER	DATE SAMPLED:	2-13-98
INITIAL DEPTH TO WATER:	3.32	TIME SAMPLED:	1:45
TOTAL VOLUME REMOVED (GAL):	4.77	SAMPLING METHOD:	BAILER
SING VOLUMES REMOVED:	3	WEATHER CONDITIONS:	OVERCAST
PURGE RATE (GPM):		PURGES/SAMPLED BY:	CERRITO

DEPTH TO WATER AFTER RECOVERY 3.08 (FT) = 100 % RECOVERED PRIOR TO SAMPLING

FIELD PARAMETERS:

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	TEMPERATURE	X 1000 ELECTRICAL CONDUCTIVITY	PH	TURBIDITY (NTU)
11:51	1.59	72.2	2.18	6.53	cloudy
11:58	1.59	70.3	2.31	6.49	cloudy
12:07	1.57	70.2	2.50	6.50	cloudy

COMMENTS: WELL UNDER EXTREM PRESSURE, LITERLY BLEW MY HAT OFF. NOTICEABLE SHEEN AND ODER DETECTED, WATER HAS YELLOWISH TINT AND FOAMS UP WHEN POURED INTO A BUCKET

GROUNDWATER SAMPLING
WELL DEVELOPMENT LOG

WELL NUMBER: MW-3 FIELD PERSON(S): CERRITO

DATE STARTED: 2-13-98

TIME STARTED: 1100 JOB NUMBER: 3628

DATE COMPLETED: 2-13-98 JOB NAME: RINO PACIFIC

TIME COMPLETED: 11:30

DEPTH TO BOTTOM OR CASING LENGTH		WELL INSIDE DIAMETER
TOTAL DEPTH TO BOTTOM: 14.72 − DEPTH TO WATER: 11.42 = Δ(FT): 3.3		VOLUME FACTOR V.F. = GAL/FT: 1"=0.041, 4"=0.653, 1-1/2"=0.092, 6"=1.469, 2"=0.163, 8"=2.611, 3"=0.367, 12"=5.875
ΔH (FT): 3.3 X (V.F.) = 0.163 = WELL CASING VOLUME (GAL): 0.53		
DATE(S) PURGED: 2-13-98		WELL DEWATERED [ ] YES [X] NO
PURGE METHOD: BAILER		DATE SAMPLED: 2-13-98
INITIAL DEPTH TO WATER:		TIME SAMPLED: 2:45
TOTAL VOLUME REMOVED (GAL):		SAMPLING METHOD: BAILER
CASING VOLUMES REMOVED: 3		WEATHER CONDITIONS: OVERCAST
PURGE RATE (GPM):		PURGES/SAMPLED BY: CERRITO
DEPTH TO WATER AFTER RECOVERY 11.38 (FT) = _____		% RECOVERED PRIOR TO SAMPLING

FIELD PARAMETERS:

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	TEMPERATURE	ELECTRICAL CONDUCTIVITY	PH	TURBIDITY (NTU)
11:16	0.53	72.0	3.28	6.64	CLEAR
11:20	0.53	70.6	2.51	6.65	Cloudy
11:24	0.53	70.1	2.43	6.65	SILTY

COMMENTS: WELL UNDER PRESSURE, NOTICEABLE SHEEN, NO ODER DETECTED, WELL SLOW TO RECOVER.

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

W. A. Craig, Inc. P.O. Box 448 Napa, CA 94559-0448	Client Project ID: #3628; Rino Pacific	Date Sampled: 02/13/98
		Date Received: 02/13/98
	Client Contact: Jeff Fiedler	Date Extracted: 02/13/98
	Client P.O:	Date Analyzed: 02/13/98

02/20/98

Dear Jeff:

Enclosed are:

1). the results of 3 samples from your **#3628; Rino Pacific** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

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

Yours truly,

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

W. A. Craig, Inc.	Client Project ID: #3628; Rino Pacific	Date Sampled: 02/13/98
P.O. Box 448		Date Received: 02/13/98
Napa, CA 94559-0448	Client Contact: Jeff Fiedler	Date Extracted: 02/13-02/18/98
	Client P.O:	Date Analyzed: 02/13-02/18/98

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

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

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
85850	MW-1	W	ND	9.4	ND	ND	ND	ND	98
85851	MW-2	W	6500,c	750,000	2400	39	ND<5	ND<20	96
85852	MW-3	W	ND	14	ND	ND	ND	ND	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

cluttered chromatogram; sample peak coelutes with surrogate peak

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

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
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Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

W. A. Craig, Inc.	Client Project ID: #3628; Rino Pacific	Date Sampled: 02/13/98
P.O. Box 448		Date Received: 02/13/98
Napa, CA 94559-0448	Client Contact: Jeff Fiedler	Date Extracted: 02/13/98
	Client P.O:	Date Analyzed: 02/13/98

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

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

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
85850	MW-1	W	590,c	99
85851	MW-2	W	2200,c	100
85852	MW-3	W	570,a/c	105
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

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

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

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

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/13/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#85705)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	96.0	98.0	100.0	96.0	98.0	2.1
Benzene	0.0	9.5	10.0	10.0	95.0	100.0	5.1
Toluene	0.0	9.8	10.3	10.0	98.0	103.0	5.0
Ethyl Benzene	0.0	9.8	10.3	10.0	98.0	103.0	5.0
Xylenes	0.0	29.7	31.3	30.0	99.0	104.3	5.2
TPH(diesel)	0	157	133	150	105	89	16.7
TRPH (oil & grease)	0	22500	20900	23700	95	88	7.4

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
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QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/18/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#85874)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	94.9	94.0	100.0	94.9	94.0	1.0
Benzene	0.0	9.8	9.6	10.0	98.0	96.0	2.1
Toluene	0.0	10.2	9.9	10.0	102.0	99.0	3.0
Ethyl Benzene	0.0	9.8	9.9	10.0	98.0	99.0	1.0
Xylenes	0.0	29.7	29.9	30.0	99.0	99.7	0.7
TPH(diesel)	0	150	150	150	100	100	0.2
TRPH (oil & grease)	0	23900	21000	23700	101	89	12.9

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

W. A. CRAIG, INC. — CHAIN-OF-CUSTODY RECORD

10495 XWAC900.doc

PROJECT NO.	PROJECT NAME
3628	RINO PACIFIC
PURCHASE ORDER NO.	SIGNATURE OF SAMPLER
	William S Cerutti

	DATE 1998	TIME	W. A. CRAIG, INC.'S SAMPLE IDENTIFICATION	MATRIX: Soil, Water, Air, Sludge, Other	ANALYSIS: TPHgasoline (8015)	BTEX (602/8020)	TPHdiesel (8015)	TPHg & BTEX	MTBE				Preserved?	REMARKS	LABORATORY I. D. NUMBER
+	2-13	1:20	MW-1	W			X	X	X				ICE		15851
+	2-13	1:45	MW-2	W			X	X	X				ICE		15851
+	2-13	2:45	MW-3	W			X	X	X				ICE		15852

ICE/T ✓ PRESERVATION ✓ VOAS | O&G | METALS | OTHER
GOOD CONDITION ✓ APPROPRIATE
HEAD SPACE ABSENT ✓ CONTAINERS ✓

RELINQUISHED BY (Signature):	DATE/TIME	RECEIVED BY (Signature):
William S Cerutti	1998 2-13 4:05	Willie Rice
RELINQUISHED BY (Signature):	DATE/TIME	RECEIVED BY (Signature):
RELINQUISHED BY (Signature):	DATE/TIME	RECEIVED BY (Signature):

LABORATORY: MAI

TURNAROUND TIME: Normal

PLEASE SEND RESULTS TO:
W. A. CRAIG, INC.
P.O. BOX 448
NAPA, CA 94559-0448
(707) 252-3353

ATTN: JEFF. F