TELEPHONE (805) 327-8567

OILWELL RESEARCH, INC.
HORNKOHL LABORATORIES DIVISION
CHEMICAL AND TESTING ENGINEERS
714 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301

SFUND RECORDS CTR
2360370

March 3, 1983

ATTN: Sue Luft
Getty Refining & Marketing Company
P.O. Box 1476
Bakersfield, CA 93302

Dear Sue:

Enclosed are the Groundwater informational sheets and the Chain of Custody documents. These materials should fit right in after the last page of our analytical report.

If you have any questions, please call.

Very truly yours,

Eric T. Almberg
Technical Director

EA/j

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OILWELL RESEARCH, INC.
HORNKOHL LABORATORIES DIVISION
CHEMICAL AND TESTING ENGINEERS
714 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301

Submitted by *GETTY REFINING & MARKETING COMPANY*
P. O. Box 1476
Bakersfield, CA 93302

Attn: Sue Luft

Date *February 24, 1983*

Laboratory No. *2A 3518*

Sample *Ground Water*

Received *Jan. 5, 1983*

Marked
1 - Well D1
2 - Well D2
3 - Well D3
4 - Well U1

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GROUND WATER ANALYSIS

GETTY REFINING AND MARKETING COMPANY

Sample Point: Well D1
Sample Date : Feb. 5, 1983

Laboratory No. 2A 3518-1
Collector's Sample No.: H-22-1

Constituent	Concentration		Constituent	Concentration	
Chloride, Cl	7.8	mg/l	Selenium, Se	** 0.005	mg/l
Sulfate, SO_4	10	mg/l	Silver, Ag	** 0.001	mg/l
pH (average)*	7.10		Phenols	** 0.01	mg/l
Specific Conductance (average)*	186	Micromhos/cm @ 25°C	Total Organic Carbon (average)*	10	mg/l
Fluoride, F	0.16	mg/l	Coliform	** 2.2	MPN
Nitrate, NO_3	7.2	mg/l	Total Organic Halogens (average)*	**10	ug/l
Turbidity	6.2	NTU	Endrin	** 0.0001	mg/l
Iron, Fe	0.37	mg/l	Lindane	** 0.0001	mg/l
Manganese, Mn	0.01	mg/l	Methoxychlor	** 0.0001	mg/l
Sodium, Na	20	mg/l	Toxaphene	** 0.0005	mg/l
Arsenic, As	** 0.005	mg/l	2, 4-D	** 0.0002	mg/l
Barium, Ba	** 0.2	mg/l	2, 4, 5-TP (Silvex)	** 0.0001	mg/l
Cadmium, Cd	** 0.001	mg/l	Total Alpha	** 2	pCi/l
Chromium, Cr	** 0.01	mg/l	Total Beta	5 ± 1	pCi/l
Lead, Pb	0.01	mg/l	Total Radium	** 2	pCi/l
Mercury, Hg	** 0.002	mg/l			

* The following are the individual measurements reported above as the average value:

pH	Specific Conductance	Total Organic Carbon	Total Organic Halogens
6.85	186	9	** 10
7.15	186	10	** 10
7.20	186	11	** 10
7.25	186	9	** 10

** Indicates Less Than.

Respectfully submitted,

HORNKOHL LABORATORIES

Eric T. Almberg
Technical Director

/jr

GROUND WATER ANALYSIS

GETTY REFINING AND MARKETING COMPANY

Sample Point: Well D2
Sample Date : February 5, 1983

Laboratory No. 2A 3518-2
Collector's Sample No.: H-22-2

Constituent	Concentration	
Chloride, Cl	100	mg/l
Sulfate, SO_4	68	mg/l
pH (average)*	7.80	
Specific Conductance (average)*	1,010 Micromhos/cm @ 25°C	
Fluoride, F	1.24	mg/l
Nitrate, NO_3	1.4	mg/l
Turbidity	9.9	NTU
Iron, Fe	0.99	mg/l
Manganese, Mn	0.62	mg/l
Sodium, Na	120	mg/l
Arsenic, As	0.099	mg/l
Barium, Ba	0.2	mg/l
Cadmium, Cd	0.001	mg/l
Chromium, Cr	** 0.01	mg/l
Lead, Pb	0.015	mg/l
Mercury, Hg	** 0.002	mg/l

Constituent	Concentration	
Selenium, Se	** 0.005	mg/l
Silver, Ag	** 0.001	mg/l
Phenols	0.030	mg/l
Total Organic Carbon (average)*	48	mg/l
Coliform	** 2.2	MPN
Total Organic Halogens (average)*	20	ug/l
Endrin	** 0.0001	mg/l
Lindane	** 0.0001	mg/l
Methoxychlor	** 0.0001	mg/l
Toxaphene	** 0.0005	mg/l
2, 4-D	** 0.0002	mg/l
2, 4, 5-TP (Silvex)	** 0.0001	mg/l
Total Alpha	** 4	pCi/l
Total Beta	9 ± 1	pCi/l
Total Radium	** 2	pCi/l

* The following are the individual measurements reported above as the average value:

pH	Specific Conductance	Total Organic Carbon	Total Organic Halogens
7.75	1,020	49	** 10
7.85	1,000	46	** 10
7.80	1,010	49	50
7.80	1,010	46	30

** Indicates Less Than.

Respectfully submitted,

HORNKOHL LABORATORIES

Eric T. Almberg
Technical Director

/jr

GROUND WATER ANALYSIS

GETTY REFINING AND MARKETING COMPANY

Sample Point: Well D3
Sample Date : February 5, 1983

Laboratory No. 2A 3518-3
Collector's Sample No.: H-22-3

Constituent	Concentration	
Chloride, Cl	70	mg/l
Sulfate, SO_4	43	mg/l
pH (average)*	7.00	
Specific Conductance (average)*	445	Micromhos/cm @ 25°C
Fluoride, F	0.20	mg/l
Nitrate, NO_3	8.6	mg/l
Turbidity	4.1	NTU
Iron, Fe	0.38	mg/l
Manganese, Mn	0.01	mg/l
Sodium, Na	41	mg/l
Arsenic, As	0.006	mg/l
Barium, Ba	0.7	mg/l
Cadmium, Cd	0.001	mg/l
Chromium, Cr	** 0.01	mg/l
Lead, Pb	0.01	mg/l
Mercury, Hg	** 0.002	mg/l

Constituent	Concentration	
Selenium, Se	** 0.005	mg/l
Silver, Ag	** 0.001	mg/l
Phenols	0.035	mg/l
Total Organic Carbon (average)*	41	mg/l
Coliform	2.2	MPN
Total Organic Halogens (average)*	10	ug/l
Endrin	** 0.0001	mg/l
Lindane	** 0.0001	mg/l
Methoxychlor	** 0.0001	mg/l
Toxaphene	** 0.0005	mg/l
2, 4-D	** 0.0002	mg/l
2, 4, 5-TP (Silvex)	** 0.0001	mg/l
Total Alpha	** 2	pCi/l
Total Beta	7 ± 2	pCi/l
Total Radium	** 2	pCi/l

* The following are the individual measurements reported above as the average value:

pH	Specific Conductance	Total Organic Carbon	Total Organic Halogens
7.05	445	43	10
7.05	445	44	20
7.05	445	37	** 10
6.95	445	38	** 10

** Indicates Less Than.

Respectfully submitted,

HORNKOHL LABORATORIES

Eric T. Almberg
Technical Director

/jr

GROUND WATER ANALYSIS

GETTY REFINING AND MARKETING COMPANY

Sample Point: Well U1
Sample Date : February 5, 1983

Laboratory No. 2A 3518-4
Collector's Sample No.: H-22-4

Constituent	Concentration		Constituent	Concentration	
Chloride, Cl	170	mg/l	Selenium, Se	** 0.005	mg/l
Sulfate, SO_4	** 5	mg/l	Silver, Ag	** 0.001	mg/l
pH (average)*	7.15		Phenols	0.087	mg/l
Specific Conductance (average)*	1,141	Micromhos/cm @ 25°C	Total Organic Carbon (average)*	101	mg/l
Fluoride, F	0.48	mg/l	Coliform	** 2.2	MPN
Nitrate, NO_3	0.72	mg/l	Total Organic Halogens (average)*	60	ug/l
Turbidity	45.9	NTU	Endrin	** 0.0001	mg/l
Iron, Fe	6.4	mg/l	Lindane	** 0.0001	mg/l
Manganese, Mn	3.2	mg/l	Methoxychlor	** 0.0001	mg/l
Sodium, Na	180	mg/l	Toxaphene	** 0.0005	mg/l
Arsenic, As	0.23	mg/l	2, 4-D	** 0.0002	mg/l
Barium, Ba	0.5	mg/l	2, 4, 5-TP (Silvex)	** 0.0001	mg/l
Cadmium, Cd	** 0.001	mg/l	Total Alpha	** 2	pCi/l
Chromium, Cr	** 0.01	mg/l	Total Beta	6 ± 2	pCi/l
Lead, Pb	0.03	mg/l	Total Radium	** 2	pCi/l
Mercury, Hg	** 0.002	mg/l			

* The following are the individual measurements reported above as the average value:

pH	Specific Conductance	Total Organic Carbon	Total Organic Halogens
7.15	1,140	118	50
7.20	1,141	107	40
7.15	1,136	92	70
7.15	1,148	86	60

** Indicates Less Than.

Respectfully submitted,

HORNKOHL LABORATORIES

Eric T. Almberg
Technical Director

/jr

SUMMARY OF GROUND WATER SURFACE ELEVATIONS

AND TEMPERATURE DATA

Well No.	Temperature	Ground Water Surface Elevation (ft.)
D1	67.5	26.5
D2	70	26
D3	67	26.5
U1	71	27.5

Respectfully submitted,

Eric T. Almberg
Technical Director

/jr

Getty.

CAD 98 081 6177

(8/86)

Getty Refining: (Fruitvale Oilfields)
proceeding with groundwater
contamination assessment in conjunction
with CVRWQCB - Scott Smith 445-5116
Past sampling results indicate high levels of
the following contaminates:

Arsenic; .32 Well U-1, .22 Well D-2 mg/l
Lead; U-1 .038
Total Organic Carbon - high - possible indication of cont.
Phenols; U1 .013 - not particularly hazardous
mostly odor nuisance

Traces of Ethyl Benzene found also

Getty.

1.) No ponds - had ponds at one time - closed down
2.) Hazardous wastes are not disposed of at the facility
3.) 2 injection wells
4.) Has an "Extremely Hazardous Waste" permit

On site injection wells → * all wastes designated as non-hazardous by DOHS
1.) cooling tower blowdown
2.) boiler plant brine
3.) desalter water
4.) stripped sour-water tank drainages

12/7/81 - facility proposes groundwater monitoring wells one upgradient well U1
three downgradient wells D1, D2, D3
Sample results are on file - 1/8/83

Haz. Waste Streams
1.) Empty Chemical drums
2.) Heat exchanger cleaning sludges
3.) Oil + water separator sludge
4.) Dissolved air Float
5.) Tank Bottom Sediments
6.) Oil spill cleanup waste
7 Asbestos from old insulation
8.) Electrical equip containing PCBS
9.) Drummed Oily waste