

EXXON COMPANY, U.S.A.

10655 N.E. 4TH STREET, SUITE 418 • BELLEVUE, WASHINGTON 98004 • (206) 455-8466

MARKETING DEPARTMENT
ENVIRONMENTAL ENGINEERING

January 9, 1993

Mr. Ben Amoah-Forson
Washington Department of Ecology
3190 160th Avenue, S.E.
Bellevue, WA 98008-5452

Subject: Semi-Annual groundwater sampling report at;
Exxon 72832
19005 Bothell Way NE
Bothell, Washington

Dear Mr. Forson

Enclosed is a copy of the status report for the above referenced site.

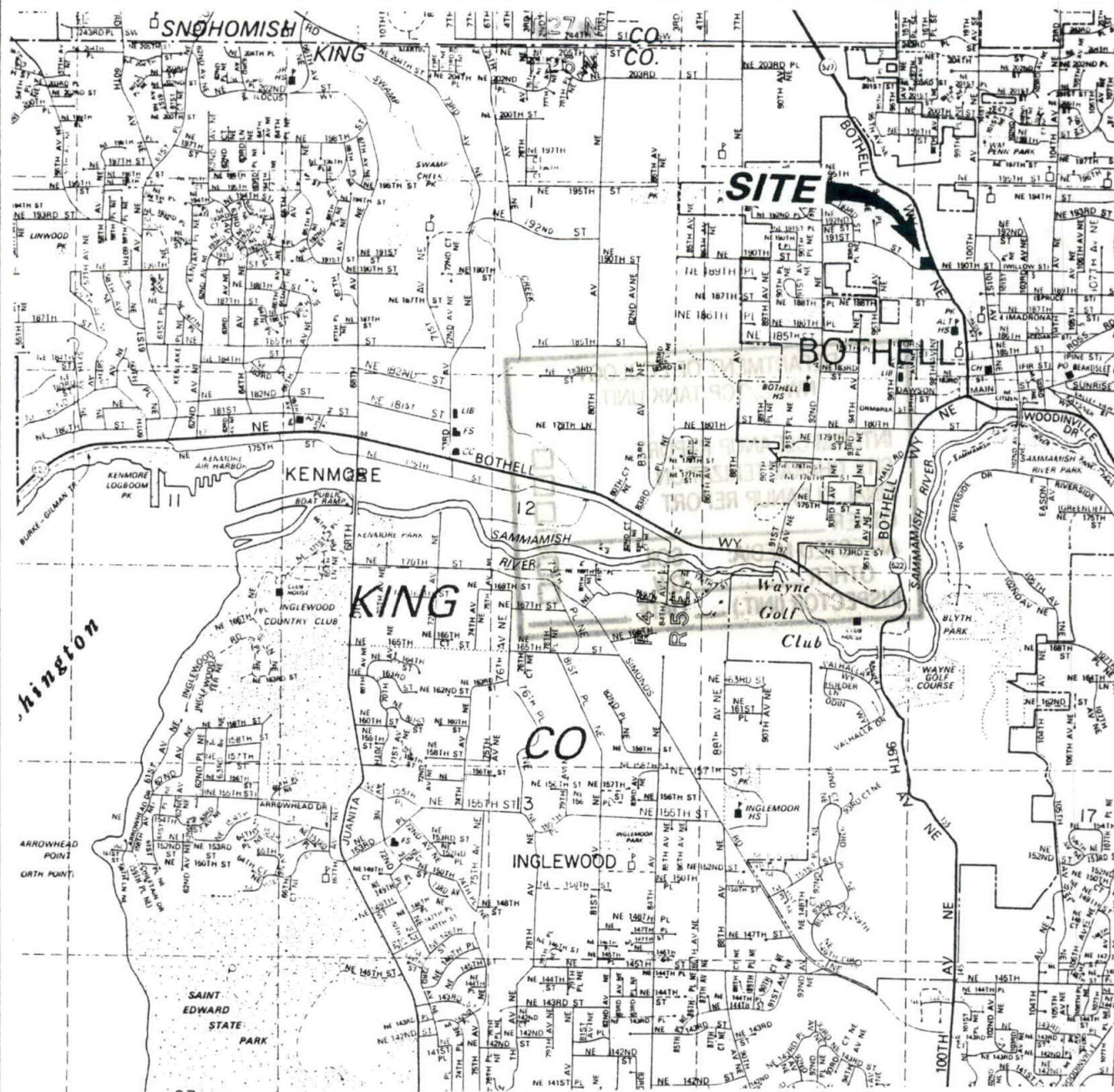
If you have any questions, please call me at (206) 453-1267.

Sincerely



Dennis Bock

C: w/o encl:
E.E. Villasenor
Tim Peter w/ RZA
w/ encl:
Paulene Reith w/BP Oil
Gary Reuf



RZA-AGRA

ENGINEERING & ENVIRONMENTAL SERVICES

11335 N.E. 122nd Way
Suite 100
Kirkland, Washington
98034-6918

W.O. W-7163-1
DESIGN JK
DRAWN MJF
DATE JUN 1992
SCALE N.T.S.

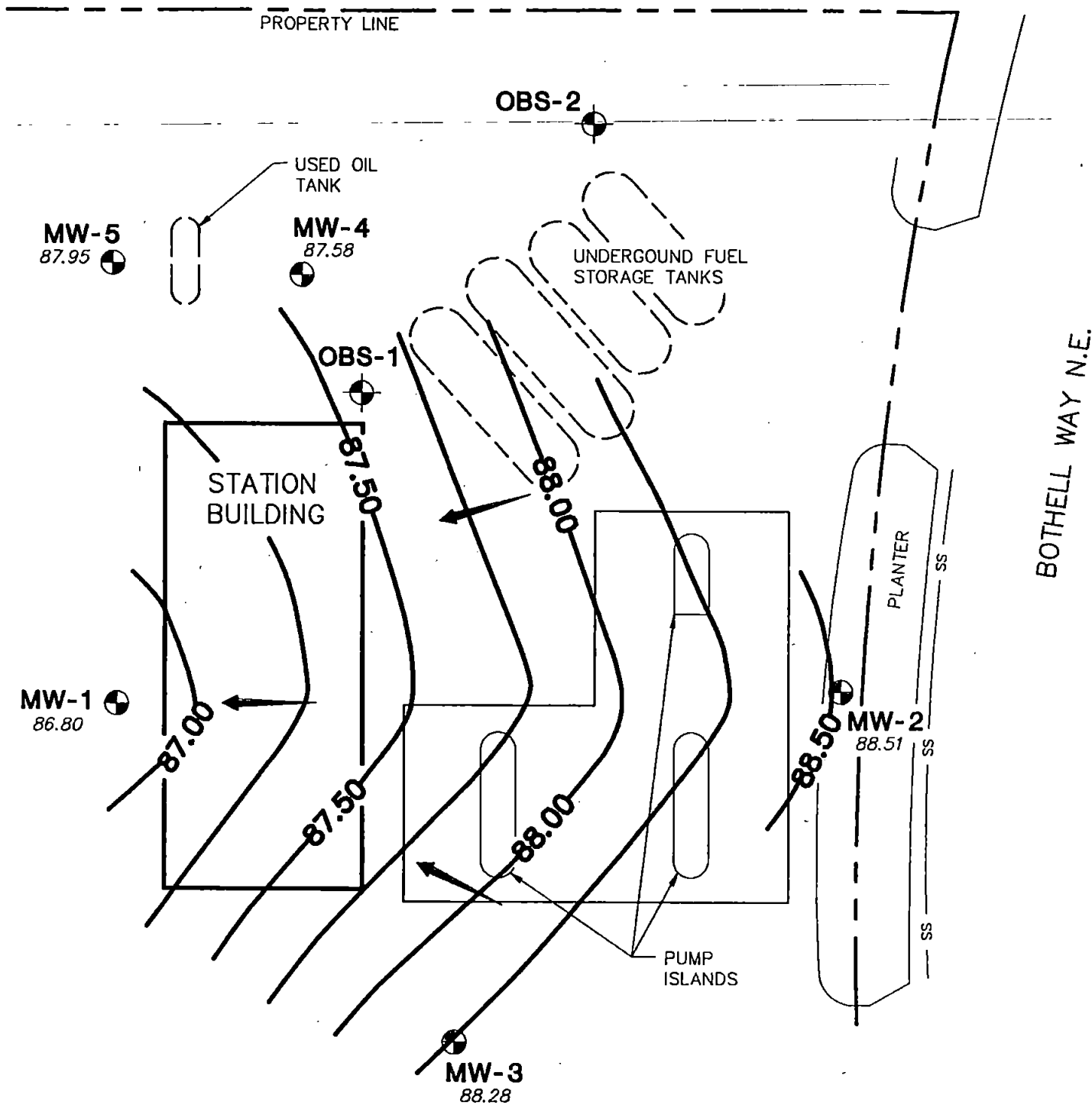
EXXON SERVICE STATION No. 72832
BOTHELL, WASHINGTON

LOCATION MAP

FIGURE 1

NO S.R. Needed.
CU

DEPARTMENT OF ECOLOGY NWRG/TCP TANK UNIT	
INTERIM CLEANUP REPORT	☒
SITE CHARACTERIZATION	☐
FINAL CLEANUP REPORT	☐
OTHER _____	☐
AFFECTED MEDIA: SOIL	☒
OTHER _____ GW	☒
INSPECTOR (INIT.) <u>BAT</u>	DATE <u>1-26-93</u>



LEGEND

MW-5



MONITORING WELL NUMBER AND LOCATION

OBS-2



OBSERVATION WELL NUMBER AND LOCATION

88.51

SPOT GROUNDWATER SURFACE ELEVATION IN FEET

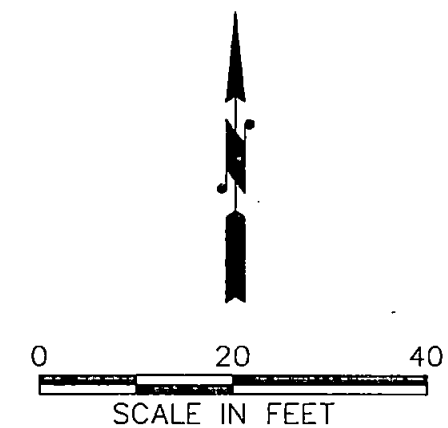
— 88.50 —

INFERRED GROUNDWATER SURFACE ELEVATION
CONTOUR IN FEET



INFERRED DIRECTION OF GROUNDWATER MIGRATION

— SS — STORM SEWER LINE



RZA AGRA, INC.

Engineering & Environmental Services

11335 N.E. 122nd Way
Suite 100
Kirkland, Washington 98034-6918

W.O. W-7163-1

DESIGN JK

DRAWN MJF

DATE DEC 1992

SCALE 1"=20'

EXXON SERVICE STATION No. 72832
BOTHELL, WASHINGTON

GROUNDWATER SURFACE ELEVATION
CONTOUR MAP FOR 9 DECEMBER 1992

FIGURE 2

DRAWING NO. \7A\W-7163-1\GW-12-92.DWG

TABLE 1: FLUID LEVEL DATA
EXXON SERVICE STATION NO. 72832
BOTHELL, WASHINGTON
RZA JOB NO. W-7163-1

MW-1 DATUM ELEVATION: 99.12			MW-2 DATUM ELEVATION: 98.81		MW-3 DATUM ELEVATION: 97.32		MW-4 DATUM ELEVATION: 99.80	
DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DEPTH TO WATER	WATER LEVEL ELEVATION	DEPTH TO WATER	WATER LEVEL ELEVATION	DEPTH TO WATER	WATER LEVEL ELEVATION
02/03/92	11.31	87.81	9.17	89.64	7.98	89.34	11.63	88.17
06/11/92	12.43	86.69	9.80	89.01	8.84	88.48	12.18	87.62
12/09/92	12.32	86.80	10.30	88.51	9.04	88.28	12.22	87.58
MW-5 DATUM ELEVATION: 99.65			OBS-1 DATUM ELEVATION: 100.01					
DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DEPTH TO WATER	WATER LEVEL ELEVATION				
02/03/92	10.76	88.89	11.48	88.53				
06/11/92	11.84	87.81	11.54	88.47				
12/09/92	11.70	87.95	---	---				

NOTES: DATUM ELEVATIONS ARE APPROXIMATE
AND ARE BASED UPON AN ASSUMED
BENCHMARK OF 100 FEET.
ALL FLUID LEVEL MEASUREMENTS ARE MEASURED IN FEET.

TABLE 2: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
EXXON SERVICE STATION NO. 72832
BOTHELL, WASHINGTON
RZA JOB NO. W-7163-1

MW-1										
DATE SAMPLED	EPA METHOD 8020				TOTAL Pb			DISSOLVED Pb		
	TPH WTPH-D (PPM)	TPH WTPH-G (PPM)	TPH 8015 MOD. (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	EPA 7421 (PPB)	EPA 7421 (PPB)	TURBIDITY (NTU)
10/06/90	---	---	<10	<1.0	<1.0	<1.0	<1.0	---	---	---
02/10/91	---	---	<10	<1.0	<1.0	<1.0	<1.0	---	---	---
05/18/91	---	---	<10	<1.0	<1.0	<1.0	<1.0	---	---	---
08/16/91	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	---	1.7	180
12/12/91	<0.050	<0.050	---	<0.5	0.8	<0.5	0.5	6	4	*61
06/11/92	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	3	<3	*150
12/09/92	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	12	<3	300
MW-2										
DATE SAMPLED	EPA METHOD 8020				TOTAL Pb			DISSOLVED Pb		
	TPH WTPH-D (PPM)	TPH WTPH-G (PPM)	TPH 8015 MOD. (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	EPA 7421 (PPB)	EPA 7421 (PPB)	TURBIDITY (NTU)
10/06/90	---	---	<10	207	3	<1.0	191	---	---	---
02/10/91	---	---	6.8	30	<1.0	2	10	---	---	---
05/18/91	---	---	5.3	21	<1.0	<1.0	2	---	---	---
08/16/91	1.3	0.47	---	23	<0.50	<0.50	3.3	---	4.8	150
12/12/91	1.8	0.6	---	33	1.1	5.2	16	<3	<3	*130
06/11/92	1.5	0.54	---	34	0.9	4.8	15	<3	<3	*60
12/09/92	1.0	0.74	---	56	2.1	13	61	4	<3	27
MW-3										
DATE SAMPLED	EPA METHOD 8020				TOTAL Pb			DISSOLVED Pb		
	TPH WTPH-D (PPM)	TPH WTPH-G (PPM)	TPH 8015 MOD. (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	EPA 7421 (PPB)	EPA 7421 (PPB)	TURBIDITY (NTU)
10/06/90	---	---	<10	<1.0	<1.0	<1.0	<1.0	---	---	---
02/10/91	---	---	<10	<1.0	<1.0	<1.0	<1.0	---	---	---
05/18/91	---	---	<10	<1.0	<1.0	<1.0	<1.0	---	---	---
08/16/91	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	---	1.4	240
12/12/91	0.088	<0.050	---	<0.5	<0.5	<0.5	<0.5	3	<3	*610
06/11/92	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	<3	<3	*440
12/09/92	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	4	<3	230
MW-4										
DATE SAMPLED	EPA METHOD 8020				TOTAL Pb			DISSOLVED Pb		
	TPH WTPH-D (PPM)	TPH WTPH-G (PPM)	TPH 8015 MOD. (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	EPA 7421 (PPB)	EPA 7421 (PPB)	TURBIDITY (NTU)
10/03/91	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	<3	<3	16
12/12/91	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	<3	<3	*22
06/11/92	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	<3	<3	*14
12/09/92	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	4	<3	10
MW-5										
DATE SAMPLED	EPA METHOD 8020				TOTAL Pb			DISSOLVED Pb		
	TPH WTPH-D (PPM)	TPH WTPH-G (PPM)	TPH WTPH 418.1 (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	EPA 7421 (PPB)	EPA 7421 (PPB)	TURBIDITY (NTU)
02/03/92	<0.050	<0.050	---	<0.5	<0.5	<0.5	<0.5	<3	---	---
06/11/92	<0.050	0.077	<1.0	<0.5	<0.5	<0.5	<0.5	<3	<3	*39
12/09/92	<0.050	<0.050	<0.50	<0.5	<0.5	<0.5	<0.5	4	<3	260
OBS-1										
DATE SAMPLED	EPA METHOD 8020				TOTAL Pb			DISSOLVED Pb		
	TPH WTPH-D (PPM)	TPH WTPH-G (PPM)	TPH 8015 MOD. (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	EPA 7421 (PPB)	EPA 7421 (PPB)	TURBIDITY (NTU)
05/18/91	---	---	40	2	<1.0	<1.0	6	---	---	---
08/16/91	2.2	0.52	---	10	0.78	0.87	13	---	14	8.7

NOTES:

TPH: Total Petroleum Hydrocarbons
PPM: Parts Per Million
PPB: Parts Per Billion
--- Not Tested by this Method

* Laboratory has Exceeded Holding Time for Analysis
NTU: Nephelometer Turbidity Units
BTEX: Benzene, Toluene, Ethylbenzene, Xylenes.

December 21, 1992

Mr. Jeff Kaspar
RZA-AGRA
11335 NE 122nd Way, Suite 100
Kirkland, WA 98034 -

RE: PACE Project No. 421210.503
Client Reference: Exxon 7-2832 (EE)

Dear Mr. Kaspar:

Enclosed is the report of laboratory analyses for samples received December 10, 1992.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol E. Reid

for Carol Reid
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

RZA-AGRA
11335 NE 122nd Way, Suite 100
Kirkland, WA 98034

December 21, 1992
PACE Project Number: 421210503

Attn: Mr. Jeff Kaspar

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:	70 0261929
Date Collected:	12/09/92
Date Received:	12/10/92
Client Sample ID:	MW-1
Parameter	Units MDL DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Lead (EPA Method 7421, Graphite Furnace)	mg/L	0.003	0.012	12/14/92
Turbidity	NTU	10	300	12/10/92

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):		-	12/15/92
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND 12/15/92
PURGEABLE AROMATICS (BTXE BY EPA 8020M):		-	12/15/92
Benzene	ug/L	0.5	ND 12/15/92
Toluene	ug/L	0.5	ND 12/15/92
Ethylbenzene	ug/L	0.5	ND 12/15/92
Xylenes, Total	ug/L	0.5	ND 12/15/92

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	ND	12/16/92
Date Extracted			12/12/92	

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0261937
12/09/92
12/10/92
MW-2

Units	MDL	DATE ANALYZED
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Lead (EPA Method 7421, Graphite Furnace)	mg/L	0.003	0.004	12/14/92
Turbidity	NTU	5.0	27	12/10/92

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):				12/15/92
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	740	12/15/92
PURGEABLE AROMATICS (BTXE BY EPA 8020M):				12/15/92
Benzene	ug/L	0.5	56	12/15/92
Toluene	ug/L	0.5	2.1	12/15/92
Ethylbenzene	ug/L	0.5	13	12/15/92
Xylenes, Total	ug/L	0.5	61	12/15/92

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	1.0	12/16/92
Date Extracted			12/12/92	

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:	70 0261945
Date Collected:	12/09/92
Date Received:	12/10/92
Client Sample ID:	MW-3
<u>Parameter</u>	<u>Units</u> <u>MDL</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Lead (EPA Method 7421, Graphite Furnace)	mg/L	0.003	0.004	12/14/92
Turbidity	NTU	10	230	12/10/92

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/15/92
-----------------------------------	--	--	---	----------

Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/15/92
--	------	----	----	----------

PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/15/92
--	--	--	---	----------

Benzene	ug/L	0.5	ND	12/15/92
---------	------	-----	----	----------

Toluene	ug/L	0.5	ND	12/15/92
---------	------	-----	----	----------

Ethylbenzene	ug/L	0.5	ND	12/15/92
--------------	------	-----	----	----------

Xylenes, Total	ug/L	0.5	ND	12/15/92
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EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	0.052	12/16/92
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Date Extracted			12/12/92	
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REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
Page 4

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0261953
12/09/92
12/10/92
MW-4

Units MDL DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Lead (EPA Method 7421, Graphite Furnace)	mg/L	0.003	ND	12/14/92
Turbidity	NTU	1.0	10	12/10/92

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/15/92
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/15/92
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/15/92
Benzene	ug/L	0.5	ND	12/15/92
Toluene	ug/L	0.5	ND	12/15/92
Ethylbenzene	ug/L	0.5	ND	12/15/92
Xylenes, Total	ug/L	0.5	ND	12/15/92

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	ND	12/16/92
Date Extracted			12/12/92	

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number: 70 0261961
Date Collected: 12/09/92
Date Received: 12/10/92
Client Sample ID: MW-5

Parameter	Units	MDL		DATE ANALYZED
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Lead (EPA Method 7421, Graphite Furnace)	mg/L	0.003	0.004	12/14/92
Turbidity	NTU	10	260	12/10/92

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT): 12/15/92

Purgeable Fuels, as Gasoline (EPA 8015M) ug/L 50 ND 12/15/92

PURGEABLE AROMATICS (BTXE BY EPA 8020M): 12/15/92

Benzene ug/L 0.5 ND 12/15/92

Toluene ug/L 0.5 ND 12/15/92

Ethylbenzene ug/L 0.5 ND 12/15/92

Xylenes, Total ug/L 0.5 ND 12/15/92

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel mg/L 0.050 ND 12/16/92

Date Extracted 12/12/92

TOTAL PETRO HYDROCARBONS (IR, EPA 418.1)

Total Petroleum Hydrocarbons, by IR mg/L 0.50 ND 12/17/92

Date Extracted 12/16/92

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:	70 0261970
Date Collected:	12/09/92
Date Received:	12/10/92
Client Sample ID:	Trip Blank
<u>Parameter</u>	<u>Units</u> <u>MDL</u> <u>DATE ANALYZED</u>

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):				
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	-	12/15/92
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			ND	12/15/92
Benzene	ug/L	0.5	-	12/15/92
Toluene	ug/L	0.5	ND	12/15/92
Ethylbenzene	ug/L	0.5	ND	12/15/92
Xylenes, Total	ug/L	0.5	ND	12/15/92

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:

70 0261988

Date Collected:

12/09/92

Date Received:

12/10/92

Client Sample ID:

WB-1

Parameter

Units

MDL

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Flash Point, Closed Cup

Degrees C 25

49

12/15/92

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
Page 8

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:

70 0263131

Date Collected:

12/09/92

Date Received:

12/10/92

Client Sample ID:

MW-1

Parameter

Units

MDL

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Dissolved Lead (EPA Method 7421)

mg/L

0.003

ND

12/15/92

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:

70 0263140

Date Collected:

12/09/92

Date Received:

12/10/92

Client Sample ID:

MW-2

Parameter

Units

MDL

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Dissolved Lead (EPA Method 7421)

mg/L

0.003

ND

12/15/92

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:

70 0263158

Date Collected:

12/09/92

Date Received:

12/10/92

Client Sample ID:

MW-3

Parameter

Units

MDL

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Dissolved Lead (EPA Method 7421)

mg/L

0.003

ND

12/15/92

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
Page 11

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number:

70 0263166

Date Collected:

12/09/92

Date Received:

12/10/92

Client Sample ID:

MW-4

Parameter

Units

MDL

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Dissolved Lead (EPA Method 7421)

mg/L

0.003

ND

12/15/92

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
Page 12

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PACE Sample Number: 70 0263174
Date Collected: 12/09/92
Date Received: 12/10/92
Client Sample ID: MW-5

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Dissolved Lead (EPA Method 7421)	mg/L	0.003	ND	12/15/92
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These data have been reviewed and are approved for release.

Darrell Cain

Darrell C. Cain
Regional Director

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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FOOTNOTES
for pages 1 through 12

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
Page 14

QUALITY CONTROL DATA

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

Flash Point, Closed Cup

Batch: 70 17542
Samples: 70 0261988

SAMPLE DUPLICATE:

Parameter	Units	MDL	700261988	Duplicate of	
Flash Point, Closed Cup	Degrees C	25	WB-1 49	70 0261988 49	RPD 0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Flash Point, Closed Cup	Degrees C	25	30	100%	100%	0%

REPORT OF LABORATORY ANALYSIS

Mr. Jeff Kaspar
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QUALITY CONTROL DATA

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

Lead (EPA Method 7421, Furnace AAS)

Batch: 70 17524

Samples: 70 0261929, 70 0261937, 70 0261945, 70 0261953, 70 0261961

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	ND
Lead (EPA Method 7421, Furnace AAS)	mg/L	0.001	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	0.050	99%	94%	5%
Lead (EPA Method 7421, Furnace AAS)	mg/L	0.001	0.020	94%	97%	3%

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QUALITY CONTROL DATA

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

Lead (EPA Method 7421, Graphite Furnace)

Batch: 70 17592

Samples: 70 0263131, 70 0263140, 70 0263158, 70 0263166, 70 0263174

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Lead (EPA Method 7421, Graphite Furnace)	mg/L	0.003	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dup1 Recv	RPD
Lead (EPA Method 7421, Graphite Furnace)	mg/L	0.003	0.020	81%	93%	13%

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

Turbidity

Batch: 70 17485

Samples: 70 0261929, 70 0261937, 70 0261945, 70 0261953, 70 0261961

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method	700261791	Duplicate of 70 0261791	RPD
Turbidity	NTU	1.0	ND	30	30	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Dupl Recv	Recv	RPD
Turbidity	NTU	1.0	20	100%	100%	0%

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QUALITY CONTROL DATA

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

EXTRACTABLE FUELS EPA 3510/8015

Batch: 70 17604

Samples: 70 0261929, 70 0261937, 70 0261945, 70 0261953, 70 0261961

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Extractable Fuels, as Diesel	mg/L	0.050	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Extractable Fuels, as Diesel	mg/L	0.050	1.00	76%	91%	17%

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QUALITY CONTROL DATA

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

PURGEABLE FUELS AND AROMATICS

Batch: 70 17585
Samples: 70 0261929, 70 0261937, 70 0261945, 70 0261953, 70 0261961
70 0261970

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	379	92%	95%	3%
Benzene	ug/L	0.5	40.0	107%	104%	2%
Toluene	ug/L	0.5	40.0	106%	103%	2%
Ethylbenzene	ug/L	0.5	40.0	105%	101%	3%
Xylenes, Total	ug/L	0.5	80.0	105%	102%	2%

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QUALITY CONTROL DATA

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

TOTAL PETRO HYDROCARBONS (IR, EPA 418.1)

Batch: 70 17627
Samples: 70 0261961

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Total Petroleum Hydrocarbons, by IR	mg/L	0.50	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Total Petroleum Hydrocarbons, by IR	mg/L	0.50	1.60	86%	91%	5%

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FOOTNOTES
for pages 14 through 20

December 21, 1992
PACE Project Number: 421210503

Client Reference: Exxon 7-2832 (EE)

MDL Method Detection Limit
ND Not detected at or above the MDL.
RPD Relative Percent Difference

Huntington Beach, CA, 5702 Bolsa Avenue, 92649
(714) 892-2565

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Site Location: Boothell, WA

Consultant Work Release #: 96118223

Laboratory Work Release #:

EXXON RAS #:

Sampler's Signature:

Shipment Date:

ANALYSIS REQUIRED

Sample Condition as Received
Temperature °C: 2.0
Cooler #: C15-089
Inbound Seal Yes No
Outbound Seal ☒ Yes No

COMMENTS

[illegible]

Additional Comments:

Dissolved lead samples have been pre-
filtered and preserved as well.

VIA BAE

Goldenrod - Consultant Field Staff

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