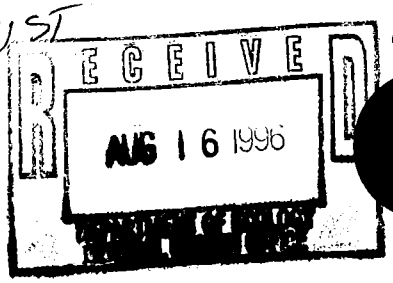
LUST / UST



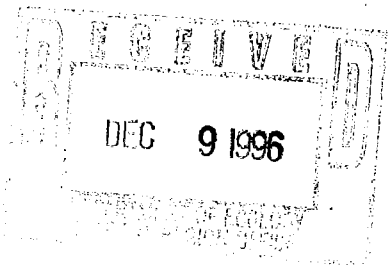
Site # 384923

C LS
384923
07246

UARR#'S
Site # 096 and 025
TANK I, 2nd & Pine Street

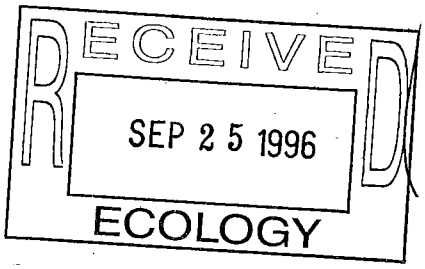
~~Pacific Coast~~
~~Nursery~~

SITE ASSESSMENT REPORT
FOR
UNION PACIFIC RAILROAD
YAKIMA, WASHINGTON
Section 19



SEPTEMBER 1990

By USPCI
5665 Flatiron Parkway
Boulder, CO 80301
(303) 938-5500



SITE ASSESSMENT REPORT
FOR
UNION PACIFIC RAILROAD
YAKIMA, WASHINGTON

SEPTEMBER 1990

By USPCI
5665 Flatiron Parkway
Boulder, CO 80301
(303) 938-5500

USPCI, INC.
Remedial Services

September 27, 1990

Ms. Susan Bergdorf
Washington Department of Ecology
801 Summitview
Yakima, WA 98902

Dear Ms. Bergdorf:

Enclosed is one copy of USPCI's site assessment for two underground storage tanks, which were previously located in Yakima, Washington. If you have any questions, please do not hesitate to call.

Sincerely,

Curt G. Hull
Program Manager
Environmental Assessments

Enclosure
cc: Alan Jensen, UPRR
Roger Fitch, UPRR
John Yellich, USPCI

5665 Flatiron Parkway
Boulder, Colorado 80301
(303) 938-5500
FAX (303) 938-5520

TABLE OF CONTENTS

LIST OF FIGURES

1.0 INTRODUCTION

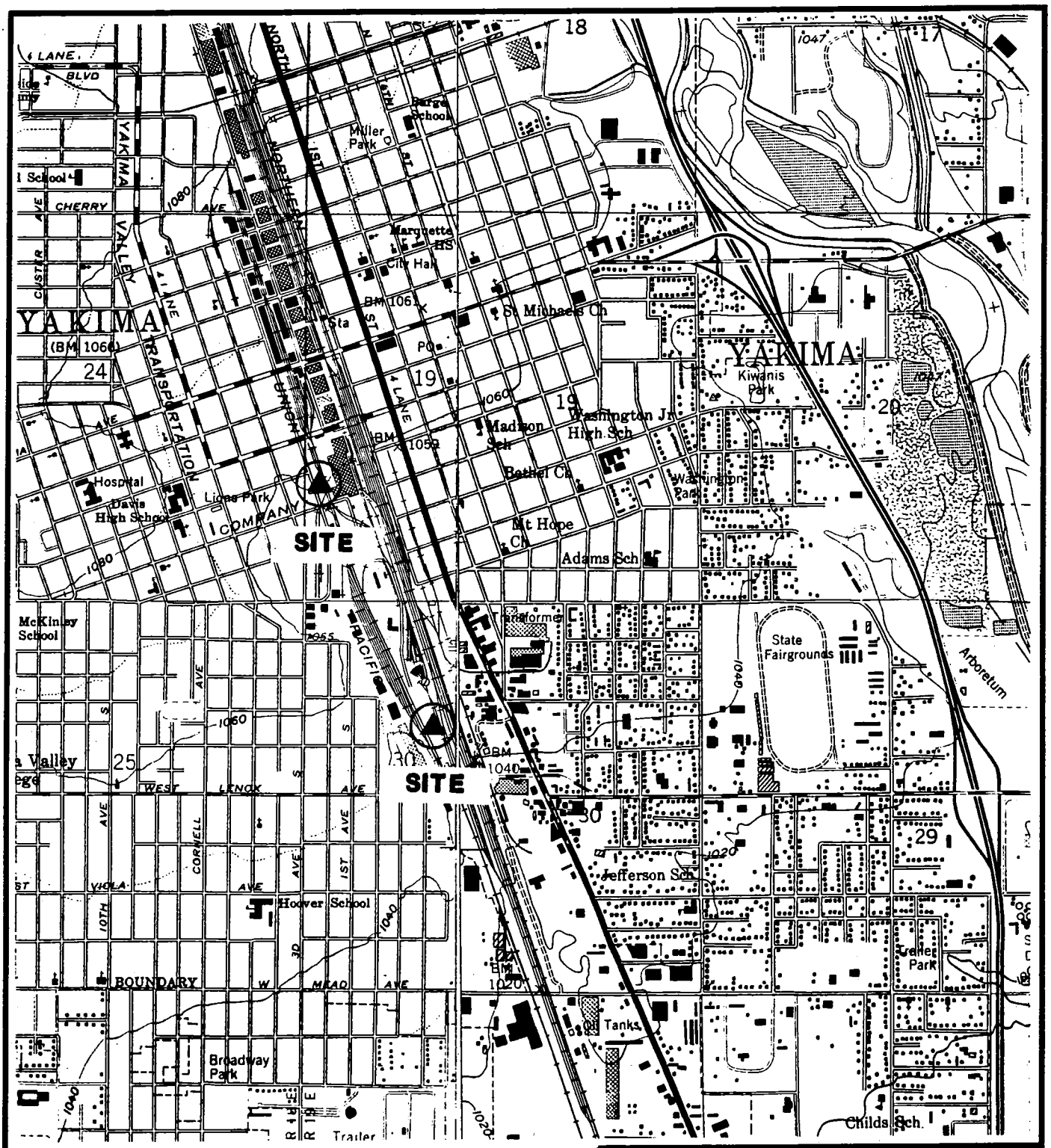
USPCI, a wholly owned subsidiary of Union Pacific Corporation, is pleased to present this initial site assessment for an underground storage tank (UST) investigation in Yakima, Yakima County, Washington. Union Pacific Railroad owned and operated the two UST's discussed in this report. One 200 gallon steel UST located at approximately 2nd and Pine street was removed on November 9, 1989, and one 19,000 gallon steel UST located approximately 800 feet north of the Nob Hill Blvd. railroad overpass was removed on November 11, 1989 (Figure 1). According to Union Pacific personnel, the 200 gallon UST was used to store gasoline, and the 19,000 gallon UST was used to store diesel fuel. Mr. Alan Jensen, Manager of Engineering Maintenance at Union Pacific, was the contact person on this project for USPCI. This assessment report will include a discussion of the UST closure activities, encompassing excavation procedures, monitoring, sample locations, sample analysis and tank disposition; a discussion of the site investigation, which will include background information, drilling, sampling and analytical results; conclusions and recommendations.

2.0 UST CLOSURE ACTIVITIES

In a letter dated September 13, 1989, USPCI informed the State of Washington, Department of Ecology (DEQ), of our intention to remove three USTs in Yakima. A copy of the notification letter is included. Five USTs were removed in Yakima during the month of November. An amended Washington State Underground Storage Tank Notification Form is included. The tanks covered by this report are designated as tanks 1 and 4 on the amended form.

On November 9, 1989, USPCI excavated and closed the 200 gallon UST by removal. Throughout the tank closure process, the atmosphere in the vicinity of the excavation was monitored with a photoionization detector (PID) to test the presence of volatile organics. This testing was performed in order to determine the need for respiratory protection during the excavation process and as a preliminary test for leakage. All readings taken with the PID during the excavating were background levels. The tank appeared to be in good condition and there was no visual evidence of the tank having leaked. The initial explosive limit of the tank atmosphere was 80%. The tank was then purged with dry ice to inert the atmosphere within it.

After the tank was removed from the excavation, three soil samples were collected from the bottom of the excavation, cooled to approximately 4 degrees centigrade and sent to Industrial Laboratories in Denver, CO, for analysis (Figure 2). Industrial Laboratories analyzed the soil samples for total petroleum hydrocarbons (TPH) using EPA method 418.1; benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA method 8020; lead using



USPCI
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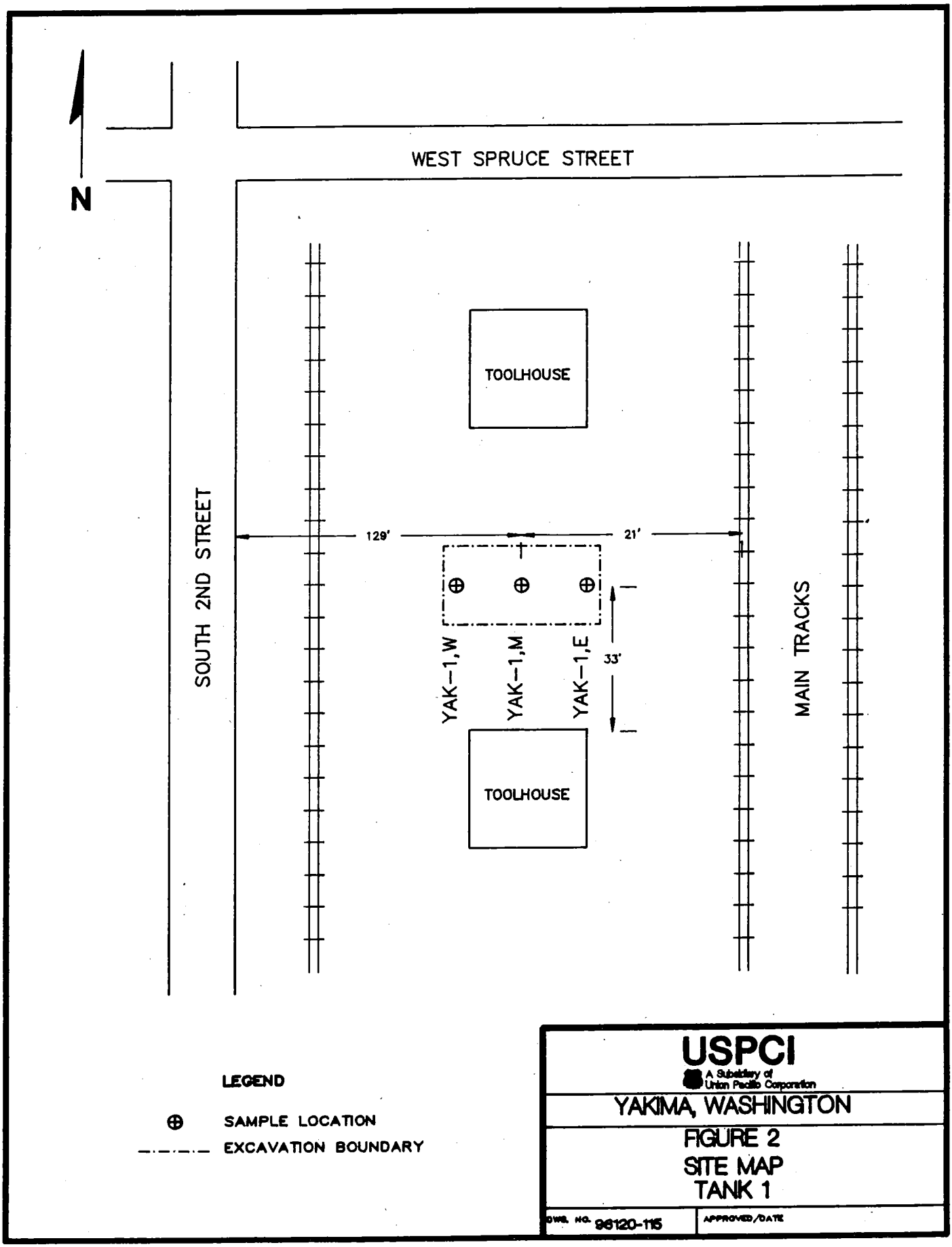
YAKIMA, WASHINGTON

FIGURE 1
SITE LOCATION MAP

SCALE: 1" = 2000'

APPROVED/DATE


N
WEST SPRUCE STREET
SOUTH 2ND STREET
TOOLHOUSE
129'
21'
YAK-1,W
YAK-1,M
YAK-1,E
33'
MAIN TRACKS
TOOLHOUSE
LEGEND
SAMPLE LOCATION
EXCAVATION BOUNDARY
USPCI
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YAKIMA, WASHINGTON
FIGURE 2
SITE MAP
TANK 1
DWG. NO. 96120-116
APPROVED/DATE

EP Toxicity; and ignitability using EPA method 1010. The tank was then loaded onto a railroad car and transported to Tanks Away in Denver, CO, for disposal. The disposal certificate is attached.

On November 11, 1989, USPCI excavated and closed the 19,000 gallon UST by removal. Throughout the tank closure process, the atmosphere in the vicinity of the excavation was monitored with a PID. All readings taken were background levels. The tank appeared to be in good condition, however, contaminated soil was observed in the bottom of the excavation. The initial explosive limit of the tank atmosphere was 0%. The tank was then purged with dry ice to inert the atmosphere within it.

After the tank was removed from the excavation, three soil samples were collected from the bottom of the excavation, cooled to approximately 4 degrees centigrade and sent to Industrial Laboratories in Denver, CO, for analysis (Figure 3). Industrial Laboratories analyzed the soil samples for the same parameters as the samples collected for the 200 gallon tank. The tank was then loaded onto a railroad car and transported to Tanks Away in Denver, CO, for disposal. The disposal certificate is attached.

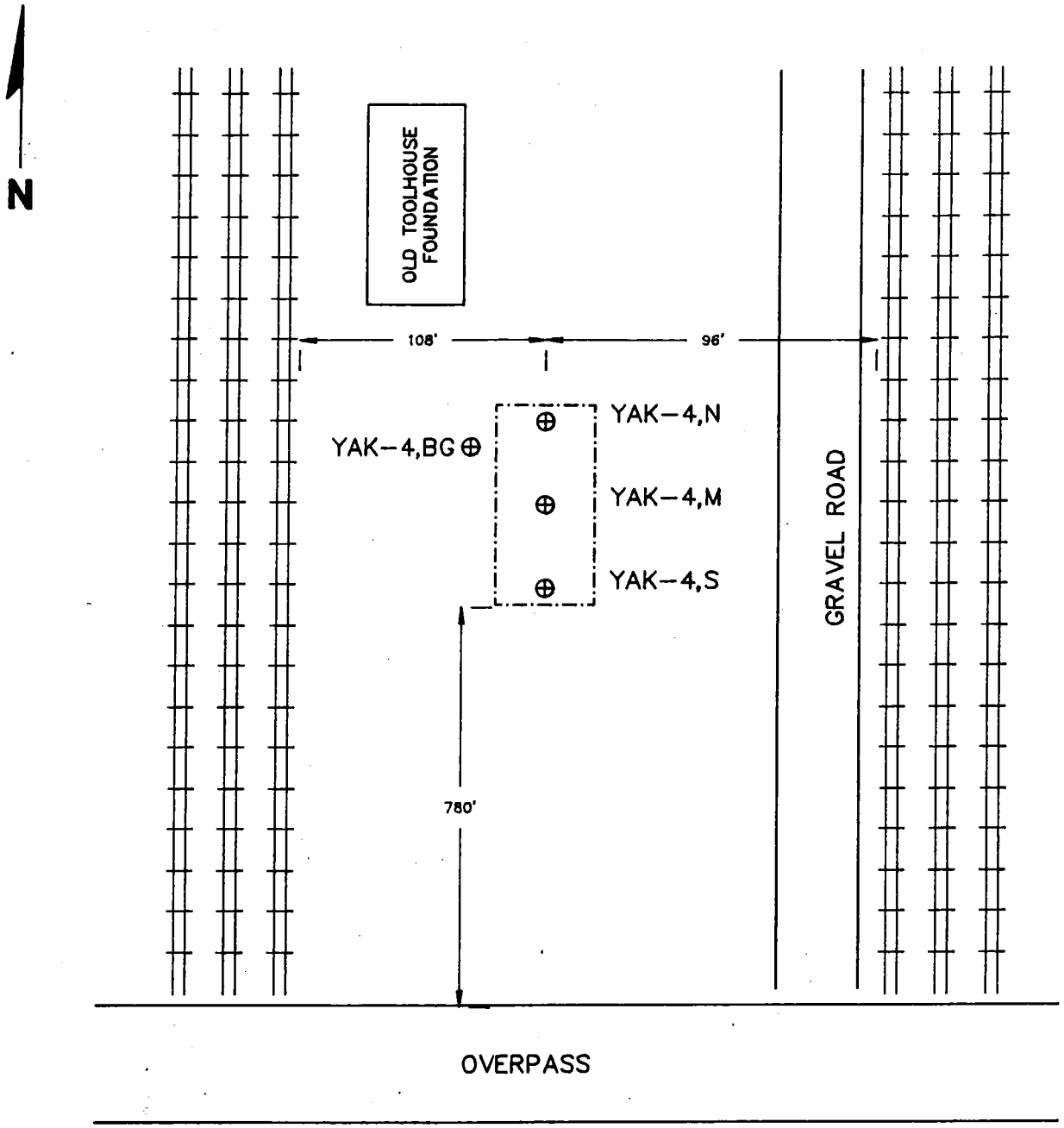
Results of the laboratory analysis for the soil samples indicated levels of TPH for the 200 gallon tank, ranging from 45 parts per million (ppm) to 580 ppm. BTEX results were all non detected at a detection limit of 10 ppm. Lead ranged from <0.01 milligrams per liter (mg/l) to 0.02 mg/l. None of the samples were ignitable to 140 degrees fahrenheit. Laboratory results for the 19,000 gallon tank indicated levels of TPH ranging from 290 ppm to 11,400 ppm. BTEX and lead results were non detected and none of the samples were ignitable to 140 degrees fahrenheit. Laboratory analysis are attached.

3.0 SITE INVESTIGATION

Background information for this project was collected by contacting the US Geological Survey (USGS) and the State of Washington DEQ.

Geology has been mapped by the USGS as alluvium deposits overlaying the Yakima basalt.

Information for existing wells within a one-half mile radius of the 19,000 gallon UST site, was requested from the DEQ. Water Well Reports were received for 17 wells, located at 12 sites within the requested area (Figure 4). Proposed use for the wells included domestic, industrial, and test well. The domestic and industrial wells were all cased to a minimum of 31 feet below ground surface, and the test wells were cased to 7 feet below ground surface.



LEGEND

⊕ SAMPLE LOCATION

-·-·-·- EXCAVATION BOUNDARY

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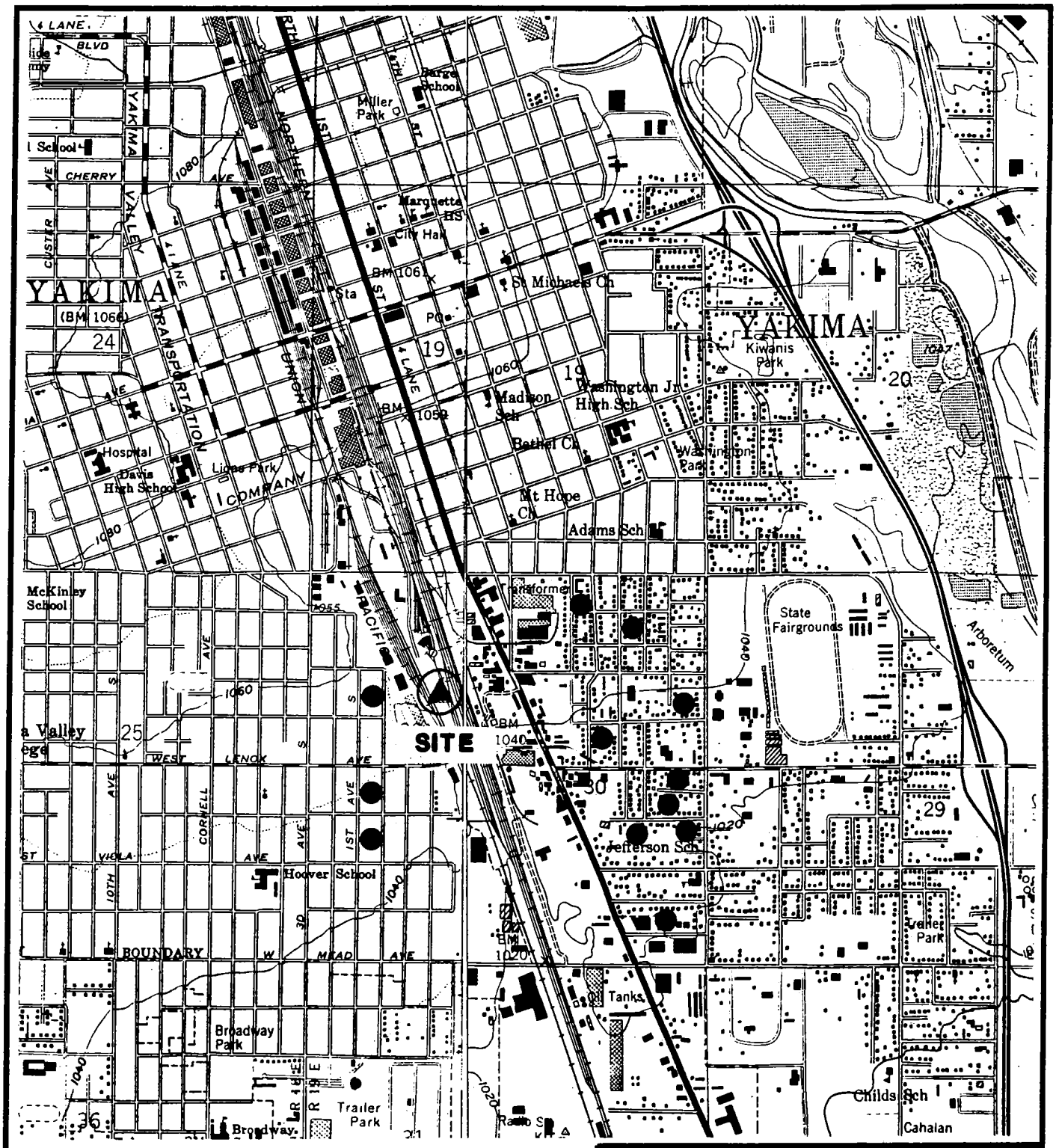
YAKIMA, WASHINGTON

FIGURE 3
SITE MAP
TANK 4

DWG. NO. 96120-114 | APPROVED/DATE


YAKIMA
(BM 1066)
SITE
Hospital
Davis High School
McKinley School
Lions Park
Miller Park
Barge School
Marquette HS
City Hall
St Michaels Ch
Madison Sch
Washington Jr High Sch
Bethel Ch
Washington Park
Mt Hope Ch
Adams Sch
Transformer
State Fairgrounds
Arboretum
Kiwanis Park
Jefferson Sch
Hoover School
Broadway Park
Trailer Park
Oil Tanks
Childs Sch
Cahalan
Valley Park
Radio Sta
BOUNDARY
WEST LENOX AVE
W MEAD AVE
YAKIMA VALLEY TRANSPORTATION COMPANY
NORTHERN PACIFIC
R 19 E
WASHINGTON
QUADRANGLE LOCATION
N
WATER WELLS FOR WHICH LOGS WERE AVAILABLE
USPCI
A Subsidiary of Union Pacific Corporation
YAKIMA, WASHINGTON
FIGURE 4
WATERWELL LOCATION MAP
SCALE: 1"=2000'
APPROVED/DATE

On April 25, 1990, USPCI drilled three monitoring wells (Figure 5) to investigate the extent of TPH contamination in the soil around the 19,000 gallon UST excavation. Monitoring well YAK-MW-1 was drilled to a depth of 25 feet below grade (BG) using an ODEX drilling system. Water was encountered at approximately 20 feet BG. Two inch PVC screen was installed from 15.0 feet to 25.0 feet BG, with solid wall two inch PVC installed from grade to 15.0 feet BG. The annular space between the PVC and the boring wall was filled with filter sand from 11.0 feet to 25.0 feet BG, bentonite pellets from 9.0 feet to 11.0 feet BG, and concrete from grade to 11.0 feet BG. A drive over was installed at grade level to protect the PVC casing, and a locking cap was installed on the top of the two inch PVC casing to secure the well from vandalism.

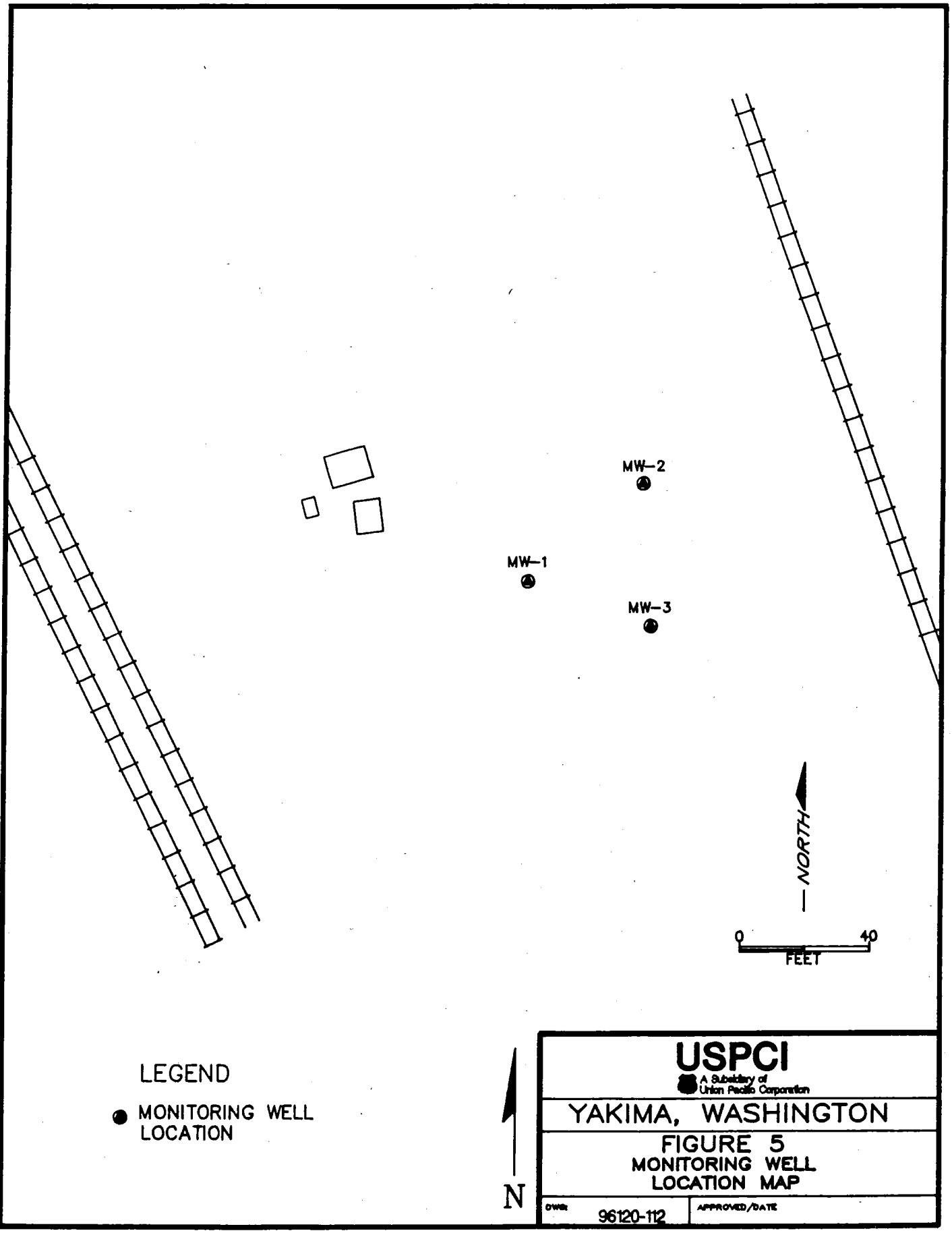
Monitoring wells YAK-MW-2 and YAK-MW-3 were drilled to a depths of 25.0 feet BG and constructed as described above. During drilling of YAK-MW-2, a slight hydrocarbon odor was observed in the cutting samples from approximately 15 feet BG.

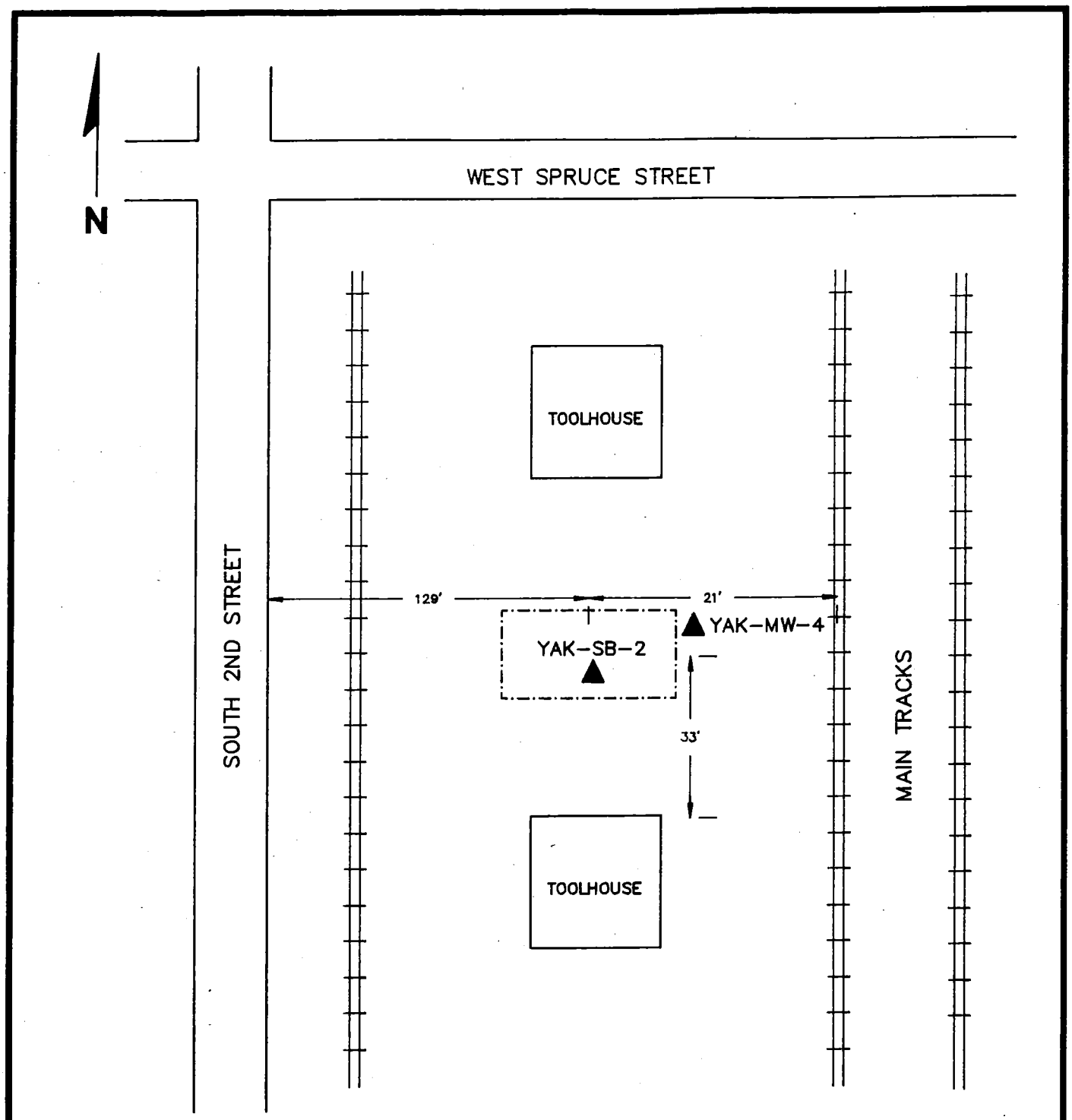
Drill cutting samples were collected from YAK-MW-1 at depths of 10 feet and 15 feet BG, from YAK-MW-2 at depths of 10 feet and 15 feet BG, and from YAK-MW-3 at depths of 7 feet and 15 feet BG. All samples were placed into glass bottles supplied by the laboratory, cooled to approximately 4 degrees centigrade, and sent to Hager Laboratories, Inc. (HLI) in Golden, CO, for analysis. Drilling and sampling equipment, other than the laboratory supplied sample bottles, were decontaminated in the field using a portable steam cleaner, prior to the drilling of the boring.

After well construction was complete, the wells were developed using a hand bailer. The bailer was decontaminated using a portable steam cleaner prior to use in each well. Once the wells were developed, water samples were collected using decontaminated bailers, placed into 40 milliliter (ml) glass vials, cooled to approximately 4 degrees centigrade, and sent to HLI for analysis.

On April 25 and 26, 1990, USPCI drilled two soil borings (Figure 6) to investigate the extent of TPH contamination in the soil around the 200 gallon UST excavation. Soil borings YAK-MW-4 and YAK-SB-2 were drilled to depths of 20 feet below grade (BG) using an ODEX drilling system. During drilling no evidence of petroleum hydrocarbon contamination were observed.

Drill cutting samples were collected from depths of 9 feet BG and 19 feet BG for both soil borings. All samples were placed into glass bottles supplied by the laboratory, cooled to approximately 4 degrees centigrade, and sent to HLI in Golden, CO, for analysis. Drilling and sampling equipment, other than the laboratory supplied sample bottles, were decontaminated in the field using a portable steam cleaner, prior to the drilling of the boring. After drilling and sampling were completed, the soil borings were filled with drill cuttings.


MW–2
MW–1
MW–3
NORTH
0
40
FEET
LEGEND
MONITORING WELL LOCATION
N
USPCI
A Subsidiary of Union Pacific Corporation
YAKIMA, WASHINGTON
FIGURE 5
MONITORING WELL LOCATION MAP
DWG
96120-112
APPROVED/DATE



USPCI
A Subsidiary of Union Pacific Corporation

YAKIMA, WASHINGTON

FIGURE 6
SOIL BORING LOCATION MAP
TANK 1

DWG. NO. 96120-116 | APPROVED/DATE

Following the completion of the site investigation, the wells were surveyed to establish the locations necessary for the state drilling permits and the elevations of the top of drive overs (TODO's).

4.0 CHEMISTRY

BTEX were analyzed by EPA method 8020 on soil samples, and EPA method 602 on water samples. TPH were analyzed by EPA method 418.1 on all soil and water samples.

Laboratory analysis indicated measurable BTEX in the soil ranging from less than 1 microgram per kilogram (ug/kg) to 15 ug/kg. TPH ranged from less than 4 ppm to 1,670 ppm in the soil samples. BTEX and TPH were non detected in the water samples at detection limits of 1 ug/l and 4 ppm, respectively. Results from the TPH and BTEX analysis for the soil samples are summarized below. Laboratory analysis are attached.

Analytical Results From Soil Samples

SAMPLE	TPH (ppm)	BENZENE (ug/kg)	TOLUENE (ug/kg)	ETHYL BENZENE (ug/kg)	XYLENES (ug/kg)
MW-1A	125	<1	<1	<1	<1
MW-1B	68	<1	<1	<1	<1
MW-2A	733	<1	<1	<1	<1
MW-2B	1,670	<1	1	4	15
MW-3A	<4	<1	<1	<1	<1
MW-3B	26	<1	<1	<1	<1
MW-4A	92	<1	<1	<1	<1
MW-4B	<4	<1	<1	<1	<1
SB-2A	1,030	<1	<1	<1	<1
SB-2B	17	<1	<1	<1	<1

5.0 HYDROGEOLOGY

On April 26, 1990, depths to groundwater were measured in the three monitoring wells. Depths ranged from 21.13 feet below TODO to 21.46 feet below TODO. No free product was observed floating on top of the groundwater.

In order to determine the direction of groundwater gradient, and possible groundwater flow, groundwater elevations were calculated for each well by subtracting the depth to water from the TODO elevation.

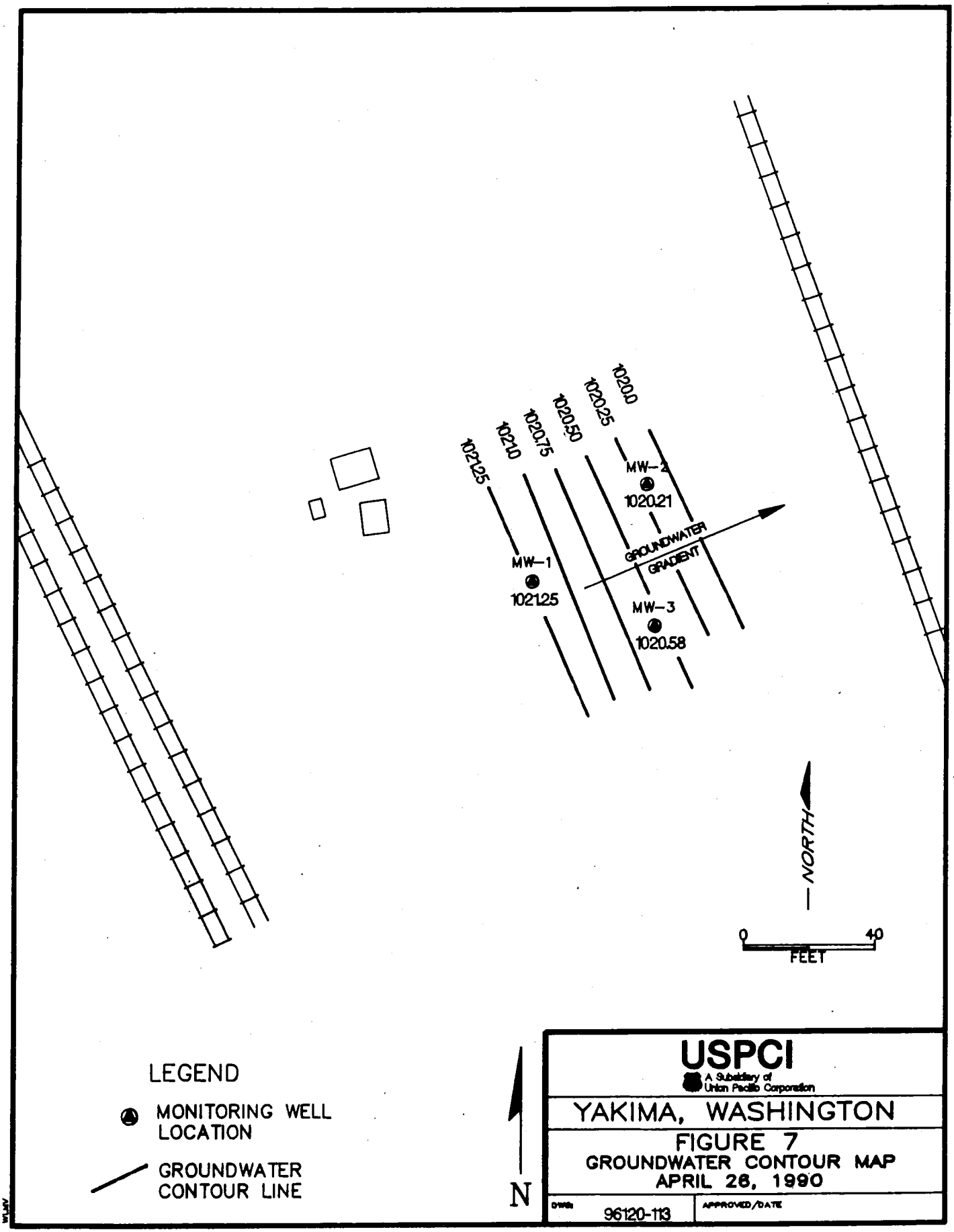
Using the calculated groundwater elevations, a groundwater contour map was created for the area around the 19,000 gallon UST excavation for April 26, 1990 (Figure 7). As shown, the groundwater gradient, is towards the east-northeast.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Elevated levels of TPH were encountered at this site during the UST excavation and the following site investigation. From visual observations it appears that the elevated readings of TPH were not caused by the UST leaking, but may have been caused by occasional spills during filling and/or dispensing of product from the tank. Additionally, laboratory analysis of collected groundwater samples indicate that the groundwater has not been impacted at this time.

Due to the elevated levels of TPH in the soil in the vicinity of the 200 gallon UST, USPCI recommends excavating the soils to a depth of approximately 10 feet below grade. During the excavating, head space analysis should be conducted on the excavated soils, with the results used as a field determination for the extent of excavating. Upon completion of the excavating, soil samples should be collected from the bottom of the excavation in order to evaluate the effectiveness of the remediation. Should the results from the TPH analysis be below 100 ppm, this site will be considered clean. If the results from the TPH analysis are above 100 ppm, additional remediation will be recommended.

With the elevated levels of TPH in the soil at the vicinity of the 19,000 gallon UST, USPCI recommends excavating the soils to a depth of approximately 19 feet below grade. Prior to excavation, groundwater samples should be collected from the monitoring wells and analyzed to confirm no deterioration of the groundwater has occurred due to the TPH in the soils. If the laboratory analysis confirm no groundwater deterioration has occurred, the monitoring wells will be removed and abandoned during the excavation process. During the excavating, head space analysis should be conducted on the excavated soils, with the results used as a field determination for the extent of excavating. Upon completion of the excavating, soil samples should be collected from the bottom of the excavation in order to evaluate the effectiveness of the remediation. Should the results from the TPH analysis be below 100 ppm, this site will be considered clean. If the results from the TPH analysis are above 100 ppm, additional remediation will be recommended. In the event that the groundwater analysis indicate elevated levels of TPH or BTEX, addition monitoring wells will need to be installed and further recommendations forwarded.


1020.0
1020.25
1020.50
1020.75
1021.0
1021.25
MW-2
1020.21
GROUNDWATER
GRADIENT
MW-1
1021.25
MW-3
1020.58
NORTH
0
40
FEET
LEGEND
MONITORING WELL LOCATION
GROUNDWATER CONTOUR LINE
N
USPCI
A Subsidiary of Union Pacific Corporation
YAKIMA, WASHINGTON
FIGURE 7
GROUNDWATER CONTOUR MAP
APRIL 26, 1990
DWG
96120-113
APPROVED/DATE

USPCI, INC.
Remedial Services

September 13, 1989

Underground Storage Tank Notification
Hazardous and Solid Waste Program
Department of Ecology, M/S PV-11
Olympia, WA 98504-8711

This letter serves as the 30 day notice of the Union Pacific Railroad's intention to remove 25 underground storage tanks in Washington. USPCI, a wholly owned subsidiary of the Union Pacific Corporation, will perform the removals and accompanying site assessments. The attached list is the tanks and their locations that will be removed. All removal and tank cleaning will be done in accordance with 40 CFR 280 and 281, 29 CFR 1910, API Bulletin No. 1604, and API Publication No. 2015.

All liquids in the tanks will be removed for reuse or recycling by either the Union Pacific Railroad or USPCI prior to tank removal.

Throughout excavation of the tank a photoionization detector along with visual inspection of the soil will be used to detect the presence of contamination. If contamination is found the Washington Department of Ecology will be notified within 24 hours. On-site gas chromatograph analysis will also be used to determine the extent of contamination. Once the on-site instruments indicate that all contaminated soils have been removed a minimum of three samples will be collected in the excavation for off-site laboratory analysis. These samples will be analyzed for Total Petroleum Hydrocarbons, and in the gasoline tank excavations EP toxicity for lead. If groundwater is encountered in the excavation a sample will be collected and analyzed for the same analytes.

The Washington Department of Ecology will be consulted to determine the proper disposal option for contaminated soil. The tanks will be cleaned and scrapped or disposed of in USPCI's industrial landfill in Utah.

5665 Flatiron Parkway
Boulder, Colorado 80301
(303) 938-5500
FAX (303) 938-5520

This is a brief description of how work will proceed in these tank removals. If you have any questions, please call me at (303)938-5569.

Sincerely,

Curtis G. Hull
Senior Geologist
Environmental Assessments

CGH:mr
Attachment
cc: J. A. Yellich, USPCI
S. Beck, USPCI
A. Jensen, UPRR
R. Fitch, UPRR

Union Pacific Railroad - UST in Washington

Location	Tank No.	Size	Contents
Cheney	1	500	Gasoline
Chester	1	500	U
Dishmen	1	500	Diesel
Garfield	1	500	Diesel
Garfield	2	500	Gas
Hooper Junction	1	500	Gas
Hooper Junction	2	250	Gas
La Cross	1	250	Gas
Matthews	1	500	Gas
Oakesdale	1	500	Gas
Page	3	250	Gas
Page	4	250	Gas
Prescott	1	500	Gas
Riparia	1	500	Gas
South Elma	1	250	Gas
Starbuck	1	500	Gas
Tekoa	1	500	Gas
Tekoa	2	500	Diesel
Thorton	1	500	Gas
Touchet	1	500	Gas
Walker	1	500	Gas
Winona	1	500	Gas
Winona	2	500	Gas
Yakima	1	10,000	Diesel
Yakima	2	1,000	Diesel

WASHINGTON STATE UNDERGROUND STORAGE TANK NOTIFICATION FORM

IMPORTANT: PLEASE READ ALL INSTRUCTIONS ON PAGES I-1 AND I-2 BEFORE ENTERING INFORMATION.

- ABOVEGROUND TANKS MUST BE REPORTED IF THE CONNECTED UNDERGROUND PIPING COMPRISES AT LEAST 10% OF THE OVERALL STORAGE SYSTEM (TANK AND PIPING)
- A SEPARATE FORM MUST BE USED FOR EACH SITE, EXCEPT FOR SITES WITH ONLY ONE TANK EACH. SEE THE GENERAL INSTRUCTIONS (PAGE I-2) FOR THE DEFINITION OF A SITE AND DETAILS ON REPORTING SITES WITH ONE TANK EACH.
- THERE IS ROOM IN SECTION VI FOR INFORMATION CONCERNING 15 TANKS. IF YOU HAVE MORE THAN 15 TANKS, PHOTOCOPY BOTH PAGES OF SECTION VI BEFORE ENTERING ANY INFORMATION. (IF YOU HAVE MORE THAN ONE SITE, EITHER OBTAIN MORE FORMS FROM THE DEPARTMENT OF ECOLOGY OR BE SURE TO ALSO PHOTOCOPY THIS PAGE.)
- PLEASE TYPE, OR PRINT IN INK. THE SIGNATURE UNDER "CERTIFICATION" (SECTION V) MUST BE SIGNED IN INK.

STATE USE ONLY

I. OWNERSHIP OF THE TANK(S)

Please enter information regarding the owner of the tank(s). If the ownership of the tank(s) is uncertain, enter information regarding the owner of the property where the tanks are located, or information regarding the former owner of the tanks. Please circle the correct letter, indicating who the information given below refers to:

A OWNERSHIP UNCERTAIN (B) CURRENT OWNER OF TANK(S) C FORMER OWNER OF TANK(S) D PROPERTY OWNER

E OWNER (PLEASE SPECIFY)

UNION PACIFIC RAILROAD
Owner Name (Corporation, Individual, Public Agency, or Other Entity)

1416 DODGE STREET
Street Address

OMAHA — NE — 68179-
City — State — ZIP Code

DOUGLAS — 402-271-2262
County — Area Code — Phone Number

Type of Owner or Facility: CIRCLE CORRECT CODE(s)

CODE	TYPE	CODE	TYPE	CODE	TYPE	CODE	TYPE
A	Service Station	G	Industrial/Manufacturing	M	City/Town	S	Port District
B	Bulk Plant	H	Private Institution	N	County	T	Utility District
C	Petroleum Distributor	I	Residence (Non-Farm)	O	State	U	Fire Dept./District
D	Convenience Store	J	Farm	P	Federal (Military)*	V	Other Special Service District (e.g. sewer, water)
E	Auto Dealer	K	Airport	Q	Federal (Non Military)*	(W)	Other
F	Other Commercial/Retail	L	Marina	R	School District		

*FEDERAL FACILITIES ONLY: Please give your GSA Facility ID Number (Building Number)

II. CONTACT PERSON AT THE TANK LOCATION

The contact person should be the individual responsible for regularly monitoring the operation of the tank(s).

R L EADES
Name (If same as Section I, mark box here ☐)

DIVISION ENGINEER — 503-249-2314
Job Title — Area Code — Phone Number

III. SITE OF THE TANK(s)

(If the same as Section I, mark box here ☐) See the General Instructions (Page I-2, 2a) for the definition of a site.

YAKIMA ROUNDHOUSE AND DEPOT
Facility Name or Company Site Identifier as applicable (IF THE FACILITY IS OPERATED BY A LESSEE OR RENTER, THE NAME OF THE CORPORATION, INDIVIDUAL, PUBLIC AGENCY, OR OTHER ENTITY WHICH OPERATES THE FACILITY SHOULD BE ENTERED HERE.)

NW¼ SECTION 30 T13N R19E
Street Address or State Road where the tanks are located (IF NO STREET ADDRESS OR STATE ROAD, PLEASE ENTER THE LONGITUDE AND LATITUDE OR TOWNSHIP, RANGE, AND QUARTER SECTION WHERE THE TANKS ARE LOCATED.)

YAKIMA — WA — -
City — State — ZIP Code

YAKIMA — -
County — Area Code — Phone Number

amended 8-23-90

IV. THE TOTAL NUMBER OF TANKS AT THIS SITE

1	Number of tanks containing petroleum, which are now in use	—
2	Number of tanks which have stored petroleum, but are not now in use	5
3	Number of tanks containing regulated chemicals, which are now in use	—
4	Number of tanks which have stored regulated chemicals, but are not now in use	—
	TOTAL NUMBER OF TANKS	5

Please mark this box if the site is located on land within an Indian reservation or on other Indian trust lands ☐

V. CERTIFICATION (Please read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents. To the best of my knowledge and belief, the submitted information is true, accurate, and complete.

L.A. SCHMID

ENVIRONMENTAL ENGINEER
Name and official title of owner or owner's authorized representative or, in cases where the ownership is unknown, the name and title of the person signing the form. (PLEASE TYPE OR PRINT IN INK.)

4-29-86 — L.A. Schmid by JGH
Date Signed — Signature (PLEASE SIGN IN INK)

FORM ECY [illegible]-88 (12/88) QX A-236

VI. INFORMATION REGARDING INDIVIDUAL TANKS (See instructions regarding individual tanks, Page 1-2)

a. Tank Identification Please list your tanks numerically (1, 2, 3, etc.) or use an established tank identification number or code. The information in the following columns should apply to the tank identified in the corresponding row of this column.	b. Tank Status Please put the correct letter for each tank in the appropriate row of the column below. A. Currently in use B. Temporarily out of use C. Permanently out of use D. Brought into use after 6/8/88	c. Age of the Tank If the year of installation of the tank is known, please enter the last 2 digits of that year in the appropriate row. If the exact year of installation is not known, please estimate as closely as possible, using the groupings shown below (choose a letter and put it in the appropriate row.) A. Less than 1 year B. 1-2 years C. 3-5 years D. 6-10 years E. 11-15 years F. 16-20 years G. 21-30 years H. More than 30 years	d. Capacity of the Tank Please put the correct letter for each tank in the appropriate row of the column below. If the exact capacity isn't known, please choose an estimate A. Under 500 gallons B. 500-999 gallons C. 1,000-4,999 gallons D. 5,000-9,999 gallons E. 10,000-19,999 gallons F. Over 20,000 gallons	e. Tank Construction Please put all the letters which apply to each tank in the appropriate row of the column below. (If "Other" (H) please enter type of material.) A. Carbon Steel B. Stainless Steel C. Steel, type unknown D. Fiberglass Reinforced Plastic E. Plastic F. Concrete G. Aluminum H. Other Material (please specify) I. Unknown Material J. Single Walled K. Double Walled L. Has secondary containment M. Has overfill protection	f. Leak Detection Please put all the letters which apply to each tank in the appropriate row of the column below. (If "Other" (M) please also enter type of detection.) A. Daily inventory B. Tightness/Leak test within past year C. In tank system D. In piping system E. Product gauge F. Electronic sensor G. Manually sampled well(s) H. Automatically sampled well(s) I. Wall or detector in secondary containment J. In-ground detector K. Between walls of double-walled tank L. Groundwater monitoring plan M. Spill Prevention Control and Countermeasure Plan N. Other (please specify) O. None	g. Cathodic Protection Please put the correct letter for each tank in the appropriate row of the column below. (If "Other" (C) please also enter the type of protection.) A. Sacrificial Anode/Galvanic Type B. Impressed Current Type C. Other Type (please specify) D. Cathodically Protected, Type Unknown E. None F. Unknown	h. Internal Protection Please put the correct letter for each tank in the appropriate row of the column below. (If "Other" (F or I) please also enter the type of protection.) A. Rubber Lining B. Alkyd Lining C. Epoxy Lining D. Phenolic Lining E. Glass Lining F. Other Lining (please specify) G. Lined, type unknown H. Unlined I. Other internal protection (please specify) J. Unknown
1	C	unk	A	A	O	F	H
2	C	G	E	A	O	F	H
3	C	G	C	A	O	F	H
4	C	unk	E	A	O	F	H
5	C	unk	A	A	O	F	H

Tank Identification Please enter the same identification used in column a.	i. External Protection of the Tank Please put the correct letter for each tank in the appropriate row of the column below (If "Other" (D or G) please also enter the type of coating and/or wrapping.) A Asphalt Coated B Fiberglass Reinforced Plastic Coated C Epoxy Coated D Other Coating (please specify) E Vinyl Wrapped F Polyethylene Wrapped G Other Wrapping (please specify) H None I Unknown	j. Piping Please enter all the letters which apply to the portion of the piping which is underground (If "Other" (D) please also enter the type of material.) A Bare Steel B Galvanized Steel C Fiberglass Reinforced Plastic D Other Material (please specify) E Coated with non-corrosive materials F Cathodically Protected G Double-walled H Within a secondary containment I Protected with interior lining J In native soil rather than backfill K In backfill rather than native soil L Not certain regarding backfill/native soil M Details of piping are unknown N None of the piping is underground	k. Type of Substance Currently or Last Stored in the Tank Please put the correct letter for each tank in the appropriate row of the column below 1 If the substance is a hazardous substance (J) rather than a petroleum product, please also enter the name of the substance or its Chemical Abstract Service (CAS) number (See "What Substances Are Covered"? on page 1 of the instructions for information regarding hazardous substances.) 2 If different substances are stored in the tank at different times, or if a mixture of substances is stored, please enter all letters which apply. A Leaded gasoline B Unleaded gasoline C Alcohol enriched gasoline D Diesel fuel E Aviation fuel F Kerosene G Nos. 1, 2, or 4 fuel oil H Nos. 5 or 6 fuel oil I Used oil/Waste oil J Hazardous substance K Other (Please specify) L Unknown M Empty	THESE ITEMS REFER ONLY TO TANKS PERMANENTLY OUT OF SERVICE. PLEASE LEAVE THE ROWS FOR THE TANKS STILL IN SERVICE BLANK. l. Date of Last Use If the exact month and year of last use isn't known, please enter an estimate (Use two digits for the month and two for the year, e.g., 08 84.)	m. Quantity Left in the Tank If the exact amount left in the tank isn't known, please enter an estimate, in gallons	n. Was the Tank Filled? Was the tank filled with an inert material, such as sand or concrete? Was it filled with water? Please put the correct letter in the appropriate row of the column below. A The tank was filled with an inert material. B The tank was filled with water. C The tank was not filled. D Unknown
1	I	M	A	UNK	0	C
2	I	M	D-M	06/74	0	C
3	I	M	D	06/85	50	C
4	I	M	D	UNK	100	C
5	I	M	A	UNK	0	C

CERTIFICATE NUMBER

3341

TANKS AWAY INC.

Charles E. Quigley
9037 Mandel St.
Federal Heights, Colo. 80221

(303) 429-0729

CERTIFICATE OF DISPOSAL

THE TANK DESCRIBED BELOW, A UNDERGROUND STORAGE TANK FOR HYDROCARBON PRODUCTS, HAS BEEN RECEIVED AT TANKS AWAY INC. SITE AND HAS BEEN HANDLED IN A SAFE MANNER AND HAS BEEN RENDERED SAFE AND HARMLESS TO HUMAN AND ANIMAL LIFE. THE PROCEDURE USED MEETS ALL STATE AND FEDERAL REQUIREMENTS APPLICABLE AT DATE OF DISPOSAL.

LOCATION THAT TANK WAS REMOVED FROM;

Union Pacific RAilRaod R.R. Car UP 98412

DESCRIPTION OF TANK:

SIZE 10 ft. by 33ft.

GALLONS 20,000

MANUFACTURE Keyes Tank and Supply

JOB PLATE 7GA

SERIAL NUMBER A 981853

CERTIFICATE OF DISPOSAL ISSUED TO U.S.P.C.I.

DATE OF ISSUE 6-26-90

DISPOSAL WORK PERFORMED BY Charles E. Quigley

CERTIFICATE NUMBER

3330

TANKS AWAY INC.

Charles E. Quigley
9037 Mandel St.
Federal Heights, Colo. 80221

(303) 429-0729

CERTIFICATE OF DISPOSAL

THE TANK DESCRIBED BELOW, A UNDERGROUND STORAGE TANK FOR HYDROCARBON PRODUCTS, HAS BEEN RECEIVED AT TANKS AWAY INC. SITE AND HAS BEEN HANDLED IN A SAFE MANNER AND HAS BEEN RENDERED SAFE AND HARMLESS TO HUMAN AND ANIMAL LIFE. THE PROCEDURE USED MEETS ALL STATE AND FEDERAL REQUIREMENTS APPLICABLE AT DATE OF DISPOSAL.

LOCATION THAT TANK WAS REMOVED FROM;

Union Pacific RAilRoad R R Car UP 914058

Yakima 1

DESCRIPTION OF TANK:

SIZE 1ft. 9in. by 9ft. Torpedo Type

GALLONS 160

MANUFACTURE N/A

JOB PLATE N/A

SERIAL NUMBER N/A

CERTIFICATE OF DISPOSAL ISSUED TO U.S.P.C.I.

DATE OF ISSUE 6-26-90

DISPOSAL WORK PERFORMED BY Charles E Quigley

industrial
LABORATORIES

THE INDUSTRIAL LABORATORIES COMPANY
Complete nsulting Chemistry Service
Bacteriol al & Analytical Testing

1450 East 62nd Avenue
P.O. Box 16207
Denver, Colorado 80216
(303) 287-9691 FAX (303) 287-0964

Analysis Report

USPCI, INC.
5665 FLATIRON PARKWAY
BOULDER, CO 80301
CURT G. HULL

Page: 1
Date Received: 11/15/89
Date Reported: 11/27/89
Lab Number: 1942
Customer P.O.: 8953450

Sample Marked: UST REMOVAL, UNION PACIFIC, YAKIMA, WA, PROJ. 89-53-450

----INTERIM REPORT----

ANALYSIS	UNITS	YAK-4.BG. 11-11-89 3:30	YAK-4.N. 11-11-89 3:30	YAK-4.M. 11-11-89 3:30	YAK-4.S. 11-11-89 3:30
P TOXICITY EXTRACTION		-	-	-	-
EAD	mg/L	ND<0.01	ND<0.01	ND<0.01	ND<0.01
ASS IDENTIFICATION IGNITABILITY		**	**	**	**

**NOT IGNITABLE TO 140 DEGREES F.

ND< MEANS NONE DETECTED LESS THAN.

industrial
LABORATORIES

THE INDUSTRIAL LABORATORIES COMPANY
Complete Consulting Chemistry Service
Bacteriology & Analytical Testing

1450 East 62nd Avenue
P.O. Box 16207
Denver, Colorado 80216
(303) 287-9691 FAX (303) 287-0964

Analysis Report

USPCI, INC.
5665 FLATIRON PARKWAY
BOULDER, CO 80301
CURT G. HULL

Page: 1
Date Received: 11/15/89
Date Reported: 12/08/89
Lab Number: 1942-5
Customer P.O.: 8953450

Sample Marked: UST REMOVAL, UNION PACIFIC, YAKIMA, WA. PROJ. 89-53-450

ANALYSIS	UNITS	YAK-4.BG. 11/11/89 3:30	YAK-4.N. 11/11/89 3:30	YAK-4.M. 11/11/89 3:30	YAK-4.S. 11/11/89 3:30
TOTAL PETROLEUM HYDROCARBONS	PPM	320	350	290	11,400
BENZENE	PPM	ND	ND	ND	ND
TOLUENE	PPM	ND	ND	ND	ND
XYLENE	PPM	ND	ND	ND	ND
ETHYLBENZENE	PPM	ND	ND	ND	ND

NDK MEANS NONE DETECTED LESS THAN.

industrial
LABORATORIES

THE INDUSTRIAL LABORATORIES COMPANY
Complete Consulting Chemistry Service
Bacteriological & Analytical Testing

1450 East 62nd Avenue
P.O. Box 16207
Denver, Colorado 80216
(303) 287-9691 FAX (303) 287-0964

Analysis Report

USPCI, INC.
5665 FLATIRON PARKWAY
BOULDER, CO 80301
CURT G. HULL

Page: 1
Date Received: 11/15/89
Date Reported: 12/08/89
Lab Number: 1942-2
Customer P.O.: 8953450

Sample Marked: UST REMOVAL, UNION PACIFIC, YAKIMA, WA. PROJ. 89-53-450

ANALYSIS	UNITS	YAK-1.BG. 11/9/89 3:14	YAK-1.E. 11/9/89 3:14	YAK-1.M. 11/9/89 3:14	YAK-1.W. 11/9/89 3:14
TOTAL PETROLEUM HYDROCARBONS	PPM	880	160	45	580
BENZENE	PPM	ND	ND	ND	ND
TOLUENE	PPM	ND	ND	ND	ND
XYLENE	PPM	ND	ND	ND	ND
ETHYLBENZENE	PPM	ND	ND	ND	ND
EP TOXICITY EXTRACTION		-	-	-	-
LEAD	mg/L	ND<0.01	ND<0.01	ND<0.01	ND<0.01
CLASS IDENTIFICATION - IGNITABILITY		**	**	**	**

**NOT IGNITABLE TO 140 DEGREES F.

ND< MEANS NONE DETECTED LESS THAN.

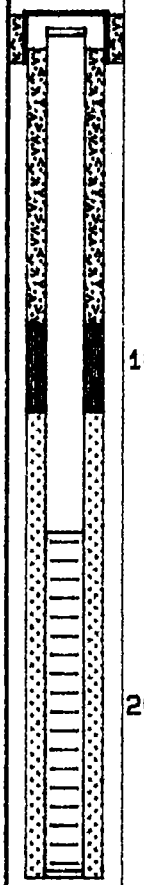
U.S
POLLUTION
CONTROL INC.
Remedial Services

LOG

BORING NO.

WELL NO. YAK-MW-1

CLIENT: UP RAILROAD			JOB NUMBER: 96120
PROJECT: YAKIMA DEPOT		LOCATION: YAKIMA WASHINGTON	
DRILLED BY: P. C. EXPLOR.	DRILLER: DAVID MOTT		METHOD: ODEX
DATE START: 4/23/90	DATE COMP: 4/23/90	SURF. EL: 1042.38 MSL	TD: 25.0' BGS
LOGGED BY: JOHN L. WHEELER	APPROVED BY:		DEPTH TO WATER: 21.13' TODO



DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	HNu	SAMPLE NUMBER	TPH ppm
0	0.0 to 25.0 SAND AND GRAVEL	GW	ND		
			ND		
10			ND	YAK-MW-1A	125
			ND		
				YAK-MW-1B	68
20					
	TOTAL DEPTH 25.0'				
30					
40					

U.S
POLLUTION
CONTROL INC.
Remedial Services

LOG

BORING NO.

WELL NO. YAK-MW-2

CLIENT: UP RAILROAD			JOB NUMBER: 98120
PROJECT: YAKIMA DEPOT		LOCATION: YAKIMA WASHINGTON	
DRILLED BY: P. C. EXPLOR.	DRILLER: DAVID MOTT		METHOD: ODEX
DATE START: 4/23/90	DATE COMP: 4/23/90	SURF. EL: 1041.67 MSL	TD: 25.0' BGS
LOGGED BY: JOHN L. WHEELER	APPROVED BY:		DEPTH TO WATER: 22.46'TODO

WELL COMP	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	HNu	SAMPLE NUMBER	TPH ppm
	0	0.0 to 25.0 SAND AND GRAVEL WELL GRADED	GW		YAK-MW-2A YAK-MW-2B	733 1670
	10					
	20					
		TOTAL DEPTH 25.0'				
	30					
	40					

U.S
POLLUTION
CONTROL INC.
Remedial Services

LOG

BORING NO.

WELL NO. YAK-MW-3

CLIENT: UP RAILROAD			JOB NUMBER: 96120
PROJECT: YAKIMA DEPOT		LOCATION: YAKIMA WASHINGTON	
DRILLED BY: P. C. EXPLOR.	DRILLER: DAVID MOTT		METHOD: ODEX
DATE START: 4/23/90	DATE COMP: 4/23/90	SURF. EL: 1041.92 MSL	TD: 25.0' BGS
LOGGED BY: JOHN L. WHEELER	APPROVED BY:		DEPTH TO WATER: 21.34' TODO

WELL COMP	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	HNu	SAMPLE NUMBER	TPH ppm
	0	0.0 to 7.0 SILTY SAND, MEDIUM GRAINED SOME GRAVEL	SP		YAK-MW-3A	<4
	10	7.0 to 25.0 GRAVELS	GP		YAK-MW-3B	26
	20	TOTAL DEPTH 25.0'				
	30					
	40					

U.S
POLLUTION
CONTROL INC.
Remedial Services

LOG

BORING NO. YAK-MW-4

WELL NO.

CLIENT: UP RAILROAD			JOB NUMBER: 96120
PROJECT: YAKIMA DEPOT		LOCATION: YAKIMA WASHINGTON	
DRILLED BY: P. C. EXPLOR.	DRILLER: DAVID MOTT		METHOD: ODEX
DATE START: 4/23/90	DATE COMP: 4/23/90	SURF. EL:	TD: 20' BGS
LOGGED BY: JOHN L. WHEELER	APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	HNu	SAMPLE NUMBER	TPH ppm
	0	0.0 to 20.0 SAND AND GRAVEL	GW		YAK-MW-4A	92
	10				YAK-MW-3B	<4
	20	TOTAL DEPTH 20.0'				
	30					
	40					

U.S
POLLUTION
CONTROL INC.
Remedial Services

LOG

BORING NO. YAK-SB-2

WELL NO.

CLIENT: UP RAILROAD			JOB NUMBER: 96120
PROJECT: YAKIMA DEPOT		LOCATION: YAKIMA WASHINGTON	
DRILLED BY: P. C. EXPLOR.	DRILLER: DAVID MOTT		METHOD: ODEX
DATE START: 4/26/90	DATE COMP: 4/26/90	SURF. EL:	TD: 20.0' BGS
LOGGED BY: JOHN L. WHEELER	APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	HNu	SAMPLE NUMBER	TPH ppm
	0	0.0 to 4.0 SAND AND GRAVEL	GW			
		4.0 to 20.0 RIVER GRAVEL, SOME SAND	GP		YAK-SB-2A	1030
	10					
					YAK-SB-2B	17
	20	TOTAL DEPTH 20.0'				
	30					
	40					

HAGER
LABORATORIES, INC.

Box 4012
Golden, Colorado 80401
(303) 278-3400 (800) 282-1835
FAX # (303) 278-2121

REPORT ON SERVICE NUMBER 47737EN
May 7, 1990

Customer Project Code: SP#928

To: Mr. John L. Wheeler
U.S. Pollution Control, Inc.
5665 Flatiron Parkway
Boulder, CO 80301

Analysis: The following samples were submitted for analysis:
Ten soil samples for EPA Method 418.1 for total petroleum hydrocarbons and EPA Method 8020 for BTEX.
Three water samples and one blank for EPA Method 602 for BTEX.
Three water samples for EPA Method 418.1 for total petroleum hydrocarbons.

Method: TOTAL PETROLEUM HYDROCARBONS
Approximately 10 grams of sample was extracted with freon 113. The extract was analyzed by infrared spectroscopy. Quantification was achieved by measuring the intensity of the carbon-hydrogen single bond absorbance in the samples to the carbon-hydrogen single bond absorbance in standards of known concentration.

BTEX IN SOILS
EPA Method 8020 for volatile aromatics in soil was used to measure BTEX. A weighted sample of soil was mixed with reagent water. An internal standard was added to the aliquot. Helium was bubbled through the water contained in a specially designed chamber. The purgable organics were swept from the water onto a sorbent trap. The trap was then heated and back flushed with helium to sweep the purgables onto a fused silica gas chromatographic column. The gas chromatographic column was then temperature programmed to separate the purgables which were detected with a Photoionization Detector (PID).

EPA 602 - VOLATILE AROMATIC ORGANICS (WATER) BY GC
An internal standard was added to a 5ml water sample. Helium was bubbled through the water contained in a specially designed chamber. The purgable organics are swept from the water onto a sorbent trap. The trap was then heated and back flushed with helium to remove the purgables onto a fused silica gas chromatographic column. The gas chromatographic column was then temperature programmed to separate the purgables which are detected by a Photoionization Detector (PID).

SN 47737EN
May 7, 1990

TABLE 1

Sample Number	Hager Reference #	Analysis	Concentration (ug/kg)	Detection Limit (ug/kg)
YAK-MW-1A	AB21266	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-MW-1B	AB21267	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-MW-2A	AB21268	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-MW-2B	AB21269	benzene	ND	1.
		toluene	1.	
		ethyl benzene	4.	
		xylene	15.	
YAK-MW-3A	AB21270	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-MW-3B	AB21271	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-MW-4A	AB21272	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.

ND indicates not detected at the specified detection limit.

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May 7, 1990

TABLE 2

Sample Number	Hager Reference #	Analysis	Concentration (ug/kg)	Detection Limit (ug/kg)
YAK-MW-4B	AB21273	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-SB-2A	AB21278	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-SB-2B	AB21279	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.

Sample Number	Hager Reference #	Analysis	Concentration (ug/L)	Detection Limit (ug/L)
YAK-MW-1	AB21274	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-MW-2	AB21275	benznee	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
YAK-MW-3	AB21276	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1.
FIELD BLANK	AB21277	benzene	ND	1.
		toluene	ND	1.
		ethyl benzene	ND	1.
		xylene	ND	1

ND indicates not detected at the specified detection limit.

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May 7, 1990

TABLE 3

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
YAK-MW-1A	AB21266	TPH	125.	
YAK-MW-1B	AB21267	TPH	68.	
YAK-MW-2A	AB21268	TPH	733.	
YAK-MW-2B	AB21269	TPH	1670.	
YAK-MW-3A	AB21270	TPH	ND	4.
YAK-MW-3B	AB21271	TPH	26.	
YAK-MW-4A	AB21272	TPH	92.	
YAK-MW-4B	AB21273	TPH	ND	4.
YAK-SB-2A	AB21278	TPH	1030.	
YAK-SB-2B	AB21279	TPH	17.	

Sample Number	Hager Reference #	Analysis	Concentration (mg/L)	Detection Limit (mg/L)
YAK-MW-1	AB21274	TPH	ND	4.
YAK-MW-2	AB21275	TPH	ND	4.
YAK-MW-3	AB21276	TPH	ND	4.

ND indicates not detected at the specified detection limit.

Results: The results are found on Tables 1-3.

Discussion: Laboratory data are filed and available upon request.

If you have any questions, please contact our Technical Services Department, at (303)278-3400 or toll free at (800)282-1835.

Submitted by: R. C. Stites

Ronald Stites
Environmental Manager

RS/lh