U.S. OIL & REFINING CO.

April 24, 2008

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Department of Ecology

Marv Coleman
Washington Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

Subject: Submittal of Independent Remedial Action Report for Cleanup of Impacted Soils Associated with the Refinery-to-Dock Pipeline Corridor Improvements

Dear Mr. Coleman,

Enclosed for your review is a copy of the Independent Remedial Action Report documenting the cleanup actions, observations and sampling results completed during the installation of four new refinery-to-dock pipelines as part of the our Crude Oil Handling Efficiency Project. This pipeline work, which was completed during the time period of October 2007 through January 2008, was accomplished within U.S. Oil's refinery-to-dock pipeline easement between Lincoln Avenue and the Port of Tacoma Road.

In addition, each of the five existing pipelines was cleaned and purged. The 8-inch fuel oil pipeline was completely removed while the other four existing pipelines were abandoned in-place. In areas where sampling and observations indicated contaminated soils beneath the old pipelines, portions of these old pipelines were subsequently removed and oily soils excavated to the extent feasible without impacting adjacent pipelines or structures as discussed in the enclosed report.

Please contact me at (253) 383-1651 if you have any questions or require additional information.

Sincerely,

U.S. OIL & REFINING CO.

Ty J. Gaub
Environmental Manager

Enclosure

Cc: AJC, KBI

F:/grp/eh&s/documents/tjg/tjg08025.doc

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INDEPENDENT REMEDIAL ACTION REPORT
CLEANUP OF IMPACTED SOILS ASSOCIATED WITH REFINERY TO DOCK PIPELINE CORRIDOR IMPROVEMENTS
U. S. OIL & REFINING CO.
TACOMA, WASHINGTON

April 17, 2008

Prepared for
U. S. Oil & Refining Co.
Tacoma, Washington

Dalton, Olmsted & Fuglevand, Inc. *Environmental Consultants*

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INDEPENDENT REMEDIAL ACTION REPORT
CLEANUP OF IMPACTED SOILS ASSOCIATED WITH REFINERY TO DOCK PIPELINE CORRIDOR IMPROVEMENTS
U. S. OIL & REFINING CO.
TACOMA, WASHINGTON

April 17, 2008

INTRODUCTION

This Independent Remedial Action Report (IRAP) documents the cleanup actions, observations, and sampling results completed during and immediately following installation of new pipelines as part of the Crude Handling Efficiency Project initiated by U. S. Oil & Refining Co. (USOR). The pipeline work was accomplished within USOR's refinery-to-dock pipeline easement between Lincoln Avenue and Port of Tacoma Road, within Port of Tacoma, Washington (see Figure 1). The work was done during the period October 2007 through January 2008.

Because of previous cleanup actions that have taken place within and adjacent to the easement, USOR requested that Dalton, Olmsted & Fuglevand, Inc. (DOF) provide sampling and environmental consulting services to document conditions along the excavation and as conditions warranted, provide confirmation sampling where impacted soils were removed. The excavation and pipeline replacement as well as associated cleanup actions were completed by USOR and their contractors, primarily Pilchuck Contractors, Inc.

Where conditions were found that required remediation, the cleanup was conducted as an independent action in accordance with the Model Toxics Control Act (MTCA), specifically WAC-173-340-515. Site remediation work was completed on January 30, 2008.

During the initial construction stages, Ty Gaub of USOR and Terry Olmsted of DOF met with Washington State Department of Ecology (Ecology) representatives Marvin Coleman and Joyce Mercuri. The purpose of the meeting was to review previous work accomplished on site and discuss the approach to sampling and remediation of contaminated soil. At the meeting, USOR discussed its intent to sample and address issues as they were observed during pipeline construction. USOR has met those objectives as documented in this report.

Description of Project

The project site is located on USOR's refinery-to-dock pipeline easement, between Port of Tacoma Road and Lincoln Avenue (see Figures 1 and 2). The easement starts at the northern edge of USOR's refinery, crosses Lincoln Avenue heading north along the

eastern edge of Northwest Wire and Rope property, turns east and follows an unoccupied City of Tacoma roadway right of way to Port of Tacoma Road, where it turns north and then east across Port of Tacoma Road, and into USOR's Marine Terminal. USOR's easement and occupancy permit area is approximately 25 feet wide.

The purpose of the pipeline construction project was to replace an existing 16-inch crude oil pipeline with a new 24-inch crude oil pipeline between new refinery crude oil tankage and USOR's Marine Terminal. In addition to the new crude oil pipeline, this project also included replacing the four remaining refinery-to-dock pipelines with two 8-inch gasoline pipelines and one 10-inch jet fuel pipeline. The existing 8-inch fuel oil line was removed and not replaced. The new 8-inch and 10-inch lines were installed within the portion of the pipeline easement from USOR's refinery to the Port of Tacoma Road right-of-way. These lines were connected to the underground pipelines that were previously replaced adjacent to the Port of Tacoma Road as part of separate project to construct a new Port of Tacoma Road crossing.

Each of the existing five pipelines was purged. The 8-inch fuel oil pipeline was completely removed while the other four existing pipelines were abandoned in-place. In areas where sampling and observations indicated contaminated soils beneath the old pipelines, portions of these old pipelines were subsequently removed and oily soils excavated to the extent feasible without impacting adjacent lines or structures, as described later in this report.

Previous Remedial Work Within and Adjacent To the Easement Area

1991 Crude Oil Pipeline Spill and Remediation. A crude oil pipeline spill occurred in January 1991 and was subsequently remediated with oversight by Ecology. The cleanup work was accomplished by USOR and its contractors under an Agreed Order No. DE 91TC-S198 . Figure 3 shows the area of the 1991 remediation relative to a portion of the refinery-to-dock pipeline corridor. The site conditions and completed remediation of the 1991 crude oil spill are documented in reports prepared for USOR by Dalton, Olmsted & Fuglevand (DOF - 1993a and 1993b).

Based on borings accomplished as part of the site characterization during cleanup of the nearby 1991 crude oil spill (DOF 1993a), the subsurface conditions in the spill area consist of a shallow (approximately 2-feet thick) sand and gravel roadway fill overlying dredged fill deposits. The dredged fill deposits consist of clean to silty fine sands that are five to ten feet in thickness. These fill deposits are saturated below depths of approximately 5 to 6 feet, depending on the time of year. The dredged fill deposits overlie a low-permeability peaty silt and clay aquitard, which ranges between eight to

eleven feet in thickness based on nearby boring locations. The peaty silt and clay deposit overlies deeper sand and silt deposits.

2005 Crude Oil Spill and Remediation. In August 2005, City of Tacoma personnel discovered a black oil stain on the ground within the fenced area along USOR's refinery-to-dock pipeline easement. The location of the stain was near where adjacent property owned by Carpinito Brothers adjoins property owned by Jones Stevedoring. A detailed investigation by USOR determined that the source of the stain was crude oil that had leaked from the 16-inch diameter crude oil pipeline into soil and subsequently migrated to the ground surface. Repairs were immediately commenced and included flushing the pipeline, replacing and testing a 9-foot long section of pipeline where the leak occurred and removal of approximately 120 barrels (bbls) of free product.

The area of excavated soil removed at that time relative to a portion of the refinery-to-dock pipeline corridor is shown on Figure 3. Approximately 240 yards of petroleum contaminated soil were excavated and transported to a lined containment cell at USOR's refinery and later sent to an approved off-site disposal facility. For structural stability reasons, the scope of USOR's soil removal efforts at that time was limited to the impacted area that was not directly under the 16-inch crude oil pipeline or any of the other four adjacent product pipelines located within the pipeline easement.

The cleanup action was completed in September 2005 and was documented in a report by DOF titled "*Independent Remedial Report, Cleanup of Impacted Soil Associated with 16-inch Crude Oil Pipeline Leak, U. S. Oil & Refining Co., Tacoma, Washington* (DOF 2006) and USOR's report titled "*Investigation Report – August 10, 2005 Crude Oil Pipeline Leak along Refinery-to-Dock Pipeline Easement*" submitted at the same time as the DOF report.

Contaminants of Concern and Cleanup Levels

The contaminants of concern (COCs) and soil cleanup levels (CULs) are listed below. COCs are based on the nature of the spilled material (crude oil). CULs are based on Method A CULs listed in Table 740-1 (WAC 173-340-900) of the Washington State Model Toxics Control Act (MTCA) amended February 12, 2001.

	Method A CULs (mg/kg)
Gasoline Range Hydrocarbons	100/30*
Diesel Range Hydrocarbons	2000
Heavy-Oil Range Hydrocarbons	2000
Benzene	0.03
Toluene	7
Ethylbenzene	6
Total Xylenes	9

Note: CUL –Cleanup Level *gasoline-range hydrocarbon cleanup level 30 mg/kg if benzene detected

Method A CULs are protective of exposure via the soil contact and drinking water exposure pathways. As discussed above, the spill site is located in a heavy industrial land use area that is served by municipal water supplies. It is highly unlikely that groundwater within the upper shallow water table zone would ever be used for drinking water purposes; therefore the proposed CULs are conservative.

Refinery-to-Dock Pipeline Corridor Excavations

Excavations were performed by contractors working for USOR including Pilchuck Contractors, Inc., and various vacuum truck companies working as subcontractors to either Pilchuck Contractors, Inc. or Guardian Industrial. All work performed by the contractors was completed in accordance with a USOR approved site health and safety plan.

Along the entire easement, clean soils were stockpiled for subsequent use as backfill. In areas where petroleum affected soils were encountered, they were excavated from the easement and transported to USOR's lined containment cell for later disposal at an approved off-site disposal facility. The total volume of petroleum-affected soils excavated along the easement was approximately 600 cubic yards. The volumes of petroleum-affected soils excavated from each of the four areas described below are summarized as follows:

Approx. Petroleum-Affected Soil Volumes (cubic yards)

Area	Volume Excavated for New Pipelines	Volume Excavated After Removal of Selected Old Pipeline Segments
1	80	20
2	150	--
3	150	110
4	90	--
Total	470	130

During excavations, water levels were depressed within the excavation using sumps as required. Pneumatic diaphragm pumps were used to dewater the excavation. The water and any floating product were initially pumped to a 500 bbl portable tank and then transferred to USOR's wastewater treatment plant for processing.

Field Screening, and Confirmation Sampling

Terry Olmsted and/or Dave Cooper, Sr. Consulting Geologists of Dalton, Olmsted & Fuglevand, Inc. (DOF) were on-site during portions of the excavation activities to field screen soils for hydrocarbon impacts and to obtain representative soil samples, prior to backfilling, for confirmation analyses. Soil was screened using odor, sheens and other visual observations.

The locations of soil confirmation samples are shown on Figures 4 and 5. A total of 35 confirmation soil samples were obtained. Samples were located on the bottom or edges of the excavation where visual observations indicated concentrations might be highest, often beneath exposed portions of the existing pipelines scheduled for abandonment or removal.

Samples for volatile organic analyses [gasoline range hydrocarbons, and benzene, toluene, ethylbenzene, and xylenes (BTEX)] were taken using Ecology sampling method 5035A. Samples for diesel and motor oil range hydrocarbon analyses were taken using previously decontaminated stainless steel spoons and placed in laboratory supplied glass containers and closures. All samples were placed in previously chilled coolers with ice or frozen "blue ice" and delivered to the laboratory on the same day or day following when they were obtained. Standard chain-of-custody procedures were followed.

The samples were analyzed for gasoline-, diesel-, and motor-oil range petroleum hydrocarbons, using Washington State method NWTPH-G and D-extended and BTEX using EPA methods 8021B-modified. Laboratory analyses were performed by Analytical Resources, Inc. (ARI) located in Tukwila, Washington. Analytical results are summarized on Table 1. Detailed laboratory data sheets are presented in Attachment A.

The analytical results are discussed for each of the areas in the following section.

Observations and Sampling Results along Pipeline Excavations

During excavations for the new lines, observations by representatives of DOF were made of the exposed soils, including visual and field screening (sheens and odors). Samples were obtained at intervals of 50 to 100 feet depending upon observations. In areas where previous contamination was known to exist, or where screening indicated oily soils, samples were taken on a more frequent basis to determine the level of residual petroleum constituents. Four areas (See Figure 2) of residual contamination were observed; a small area immediately north of the previous "concrete vault" (Area 1, Figure 4, Sheet 1); an area of sheens observed north of the "concrete vault" area and south of the right-angle

bend onto the abandoned City of Tacoma street right of way (Area 2, Figure 4, Sheet 3); the area of the August 2005 crude oil leak remediation (Area 3, Figure 4, Sheet 4); and a small area east the "pipeline expansion loop" (Area 4, Figure 4, Sheet 5).

Within the remaining portions of the line excavations, confirmation sampling corroborated field screening indicating petroleum contaminants of concern near or below laboratory reporting limits and/or Model Toxics Control Act (MTCA) Method A for Unrestricted Land Uses cleanup levels.

Each of the four areas where petroleum-affected soils were encountered is discussed further below.

Area 1. The estimated extent of this area is shown on Figure 4, Sheet 1. During the initial excavation work for the new pipelines, oily soils were observed extending from the north edge of an existing concrete vault for a distance of approximately 35 feet toward the north. The oily soils were removed beneath the area of the new pipelines, but could not be removed beneath the existing lines at that time. An initial sample (RDS-3) taken from beneath the pipelines scheduled to be abandoned and located 10 feet north of the concrete vault indicated high gasoline (1,100 mg/kg), diesel (16,000 mg/kg), and heavy-oil (16,000 mg/kg) range hydrocarbons concentrations. Field screening also indicated oily soils in the vicinity of samples RDS-4 and RDS-5. However, laboratory analysis of these soils indicated concentrations below Method A cleanup levels as shown on Figure 4, Sheet 1.

Subsequent to the new pipeline installations, the abandoned lines were removed in this area. A hydro-excavator vacuum truck was used to remove petroleum impacted soil in this area because of the close proximity to the new pipelines nearby. Although additional oily soils were removed to the extent possible, sampling and visual observation indicated that some oily soils remain, although at lower concentrations than encountered at location RDS-3. The presence of a power/telephone pole and the paved parking of the adjacent property (Jones Stevedoring) prevented further lateral expansion of the excavation. The estimated remaining area of soil exceeding CULs is shown on Figure 4, Sheet 1.

In addition, the top of the abandoned pipelines further along the Northwest Wire and Rope easement were exposed to evaluate the soil conditions. Observations and field screening corroborated the analytical results of samples previously taken in the excavation for the new lines, indicating that, with the exception of Area 1 described above, soils are well below MTCA Method A cleanup levels for petroleum hydrocarbon compounds.

Area 2. This area represents a portion of the excavation where sheens were observed on the water and oily soils were observed within the soil excavated during placement of the

new pipelines (see Figure 4, Sheet 3). Subsequent sampling in this area indicated the remaining soils are well below Method A cleanup levels for all contaminants of concern.

Area 3 (August 2005 Spill Area). The location of this area is shown on Figure 4, Sheet 4 and Figure 5. During the excavation for the new pipelines, oily soils were encountered within the area of known contamination that could not be removed during the 2005 remedial activities. The area of the excavation for the new pipelines encountered clean soils as determined by field screening and confirmed by samples S-8 thorough S-13 (taken in 2005). A detailed map of this area, including the extent of excavations and sampling for the 2005 oil spill, is shown in Figure 5, along with a cross section through the area that shows the old lines, new lines, and the excavation's lateral extent (Figure 6).

Oily soils were observed beneath the pipelines scheduled to be abandoned or removed and confirmed by Sample RDS-14 taken beneath the old lines. Subsequent to completion of the installation and backfilling of the new pipelines, the existing lines were removed from this area and soils excavated to the extent possible (approximately 8-feet in depth). Confirmation samples indicated soils remaining following the additional pipeline and soil removal were well below MTCA Method A cleanup levels, with two exceptions. In Sample RDS-31, benzene was detected at 70 ug/kg slightly above the cleanup level of 30 ug/kg. Further, an outlier sample (RDS-13) indicated a benzene level of 79 ug/kg. Given the very limited extent of this area, and given that the cleanup level of 30 ug/kg is based on drinking water standards (the shallow water in this area is not deemed to be a drinking water aquifer), in our opinion, these levels do not represent a significant risk to humans or the environment.

Area 4. This area is east of the pipeline "expansion loop" and is shown in Figure 4, Sheet 5. Visual screening indicated elevated petroleum levels within the soil. Based on confirmation sampling following the excavation for the new pipelines, the remaining soils in this area are below MTCA Method A cleanup levels.

Excavation Backfill

Following completion of excavation and construction activities, the excavations were backfilled using stock-piled clean soils from the excavation and clean pit-run sand and gravel as needed for pipeline bedding and backfill. Compaction was accomplished by systematic routing of backfilling equipment over the remediation area. Following all backfilling operations, the area was graded to the approximate pre-construction conditions.

CLOSING

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. This report is solely for the use and information of our client, unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for U. S. Oil & Refining Co. for the purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Sincerely,

Dalton, Olmsted & Fuglevand, Inc.

Terry L. Olmsted,
Sr. Consulting Engineering Geologist, LEG



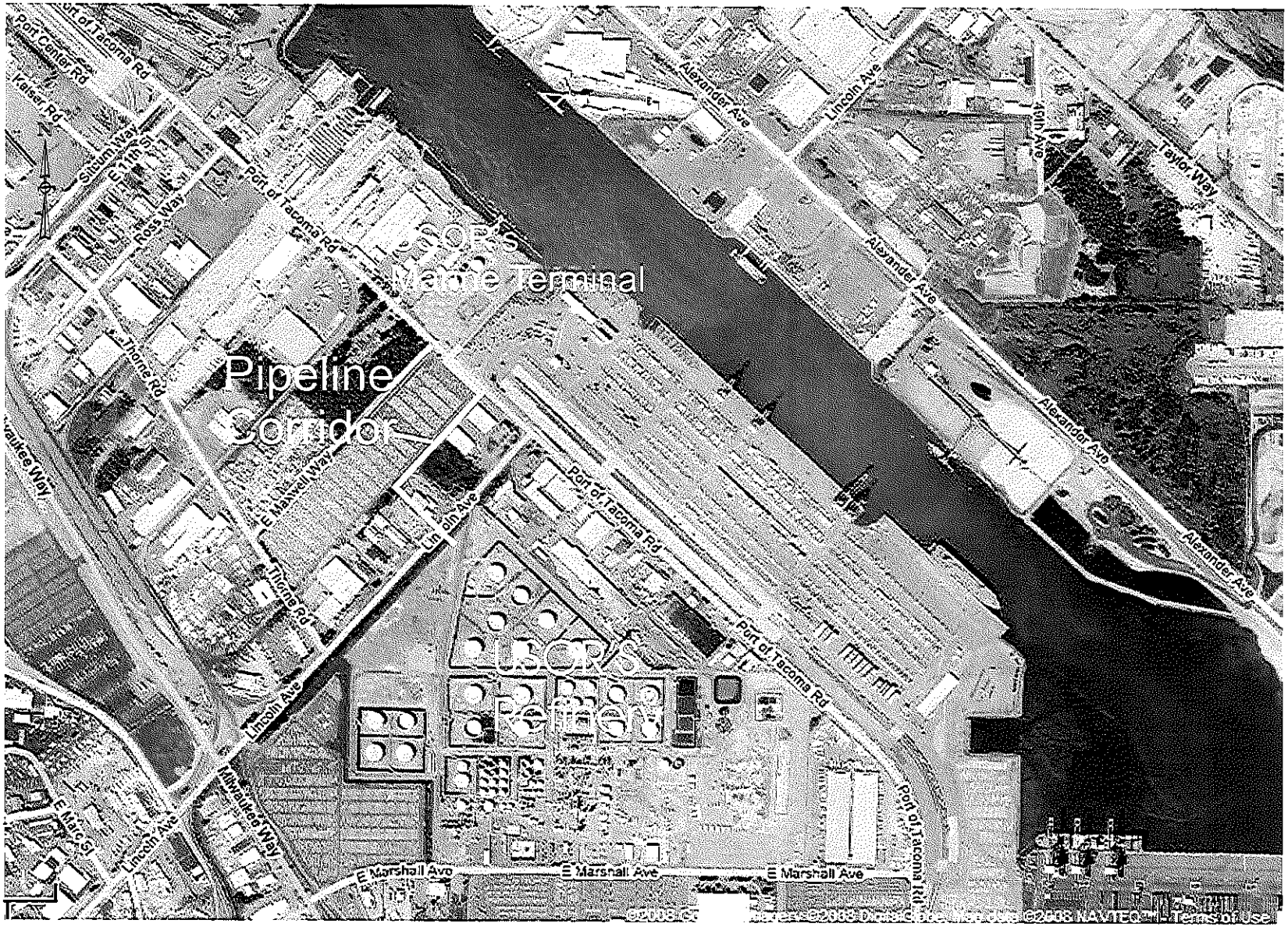
REFERENCES

Dalton, Olmsted & Fuglevand, Inc., 2003a, *Interim Phase 1 Remedial Investigation/Feasibility Report and Interim Action Plan, N. E. Portion of Cascade Timber Log Sort Yard No. 3, Port of Tacoma, Washington,* June 1993

Dalton, Olmsted & Fuglevand, Inc., 2003b, *As-Built Construction Report, Interim Remediation Action, N. E. Portion of Cascade Timber Log Sort Yard No. 3, Port of Tacoma, Washington,* November 1993

Dalton, Olmsted & Fuglevand, Inc., 2006, *Independent Remedial Report, Cleanup of Impacted Soil Associated with 16-inch Crude Oil Pipeline Leak, U. S. Oil & Refining Co., Tacoma, Washington,* February 2006

U. S. Oil & Refining Co., 2006, *Investigation Report – August 10, 2005 Crude Oil Pipeline Leak along Refinery-to-Dock Pipeline Easement*, 2006



1000 0 1000 2000

Approx. Scale in Feet

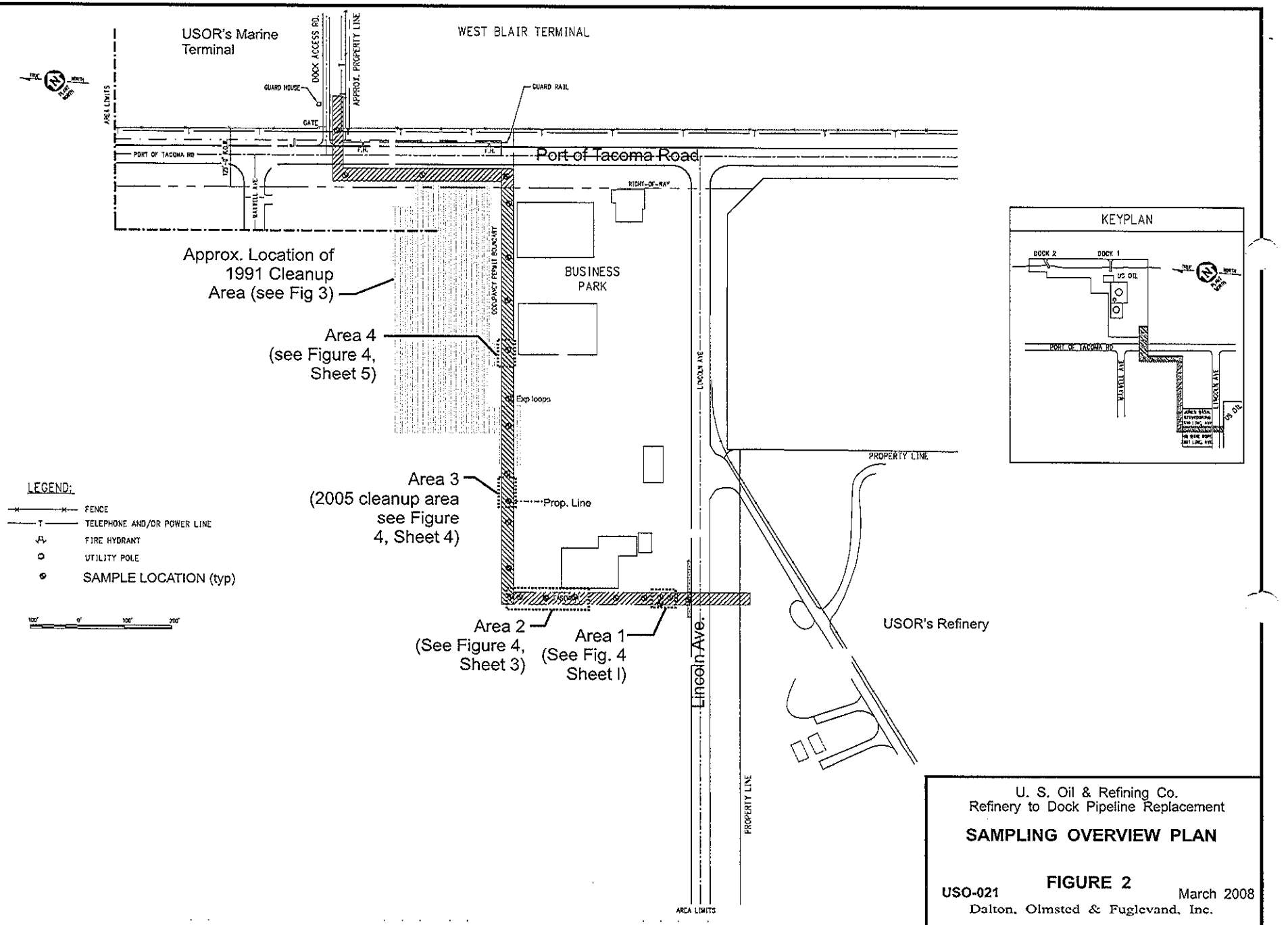
U. S. Oil & Refining Co.
Refinery to Dock Pipeline Replacement

VICINITY MAP

FIGURE 1

USO-021 March 2008

Dalton, Olmsted & Fuglevand, Inc.



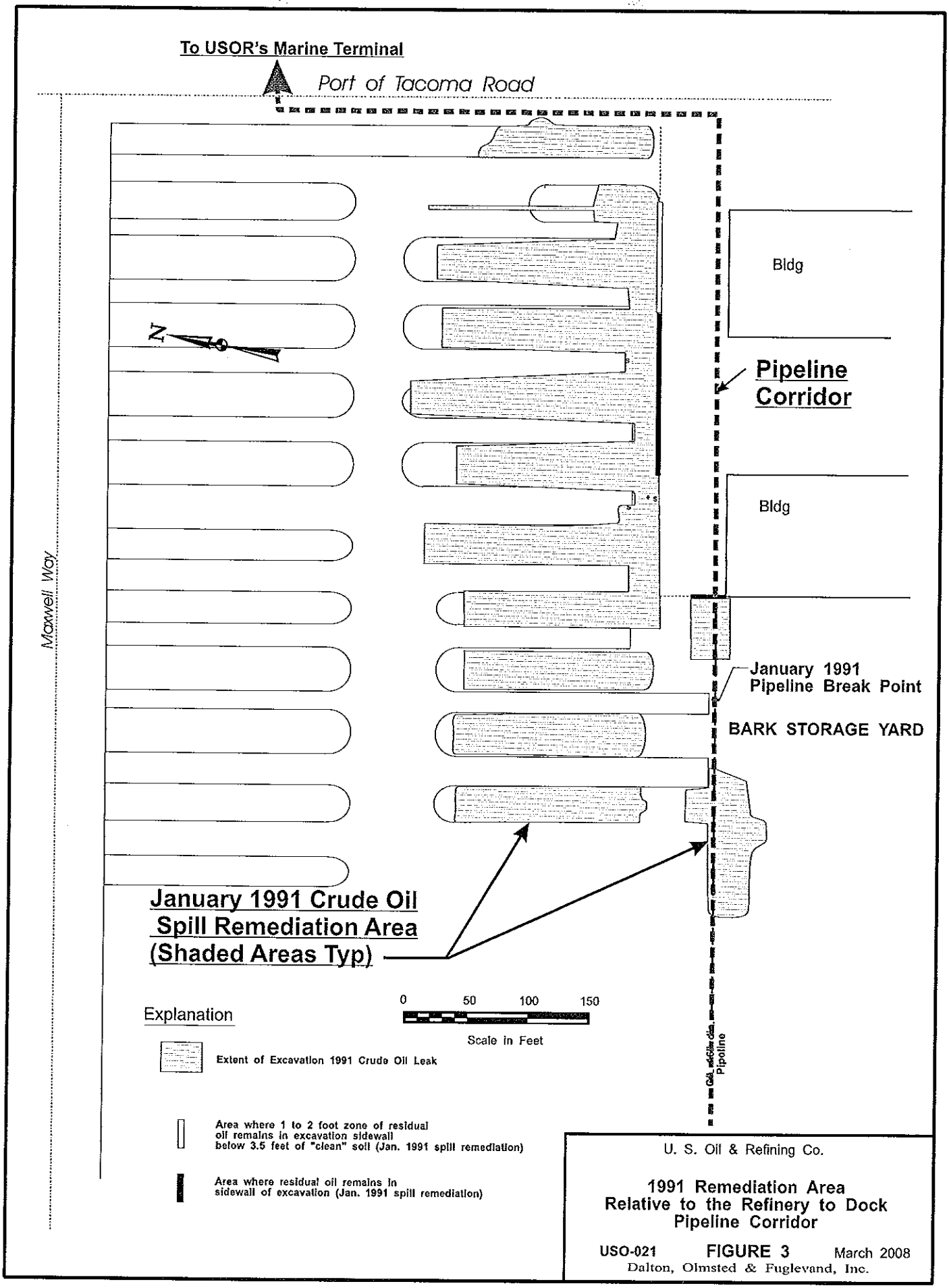
U. S. Oil & Refining Co.
Refinery to Dock Pipeline Replacement

SAMPLING OVERVIEW PLAN

FIGURE 2

USO-021 March 2008

Dalton, Olmsted & Fuglevand, Inc.

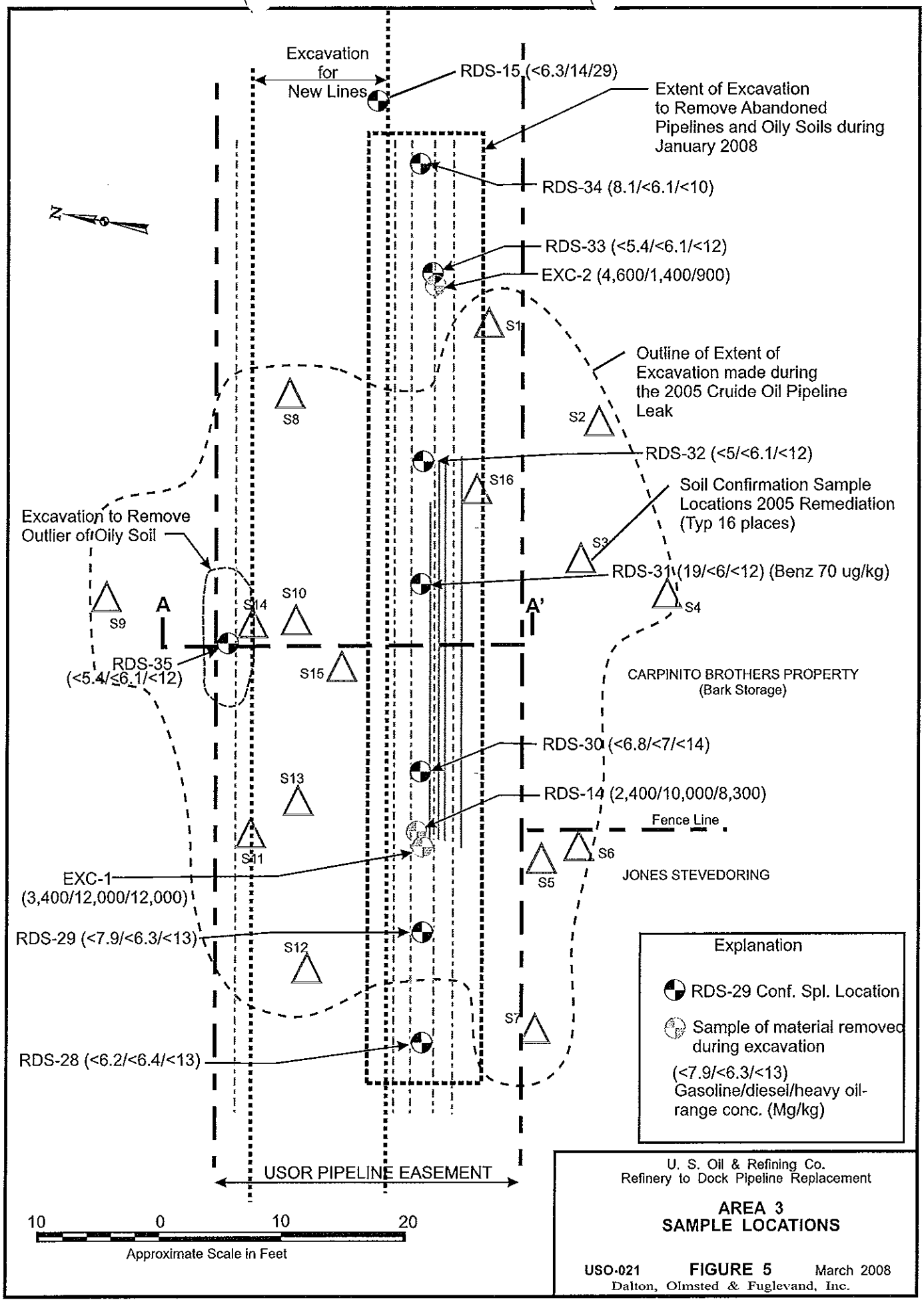


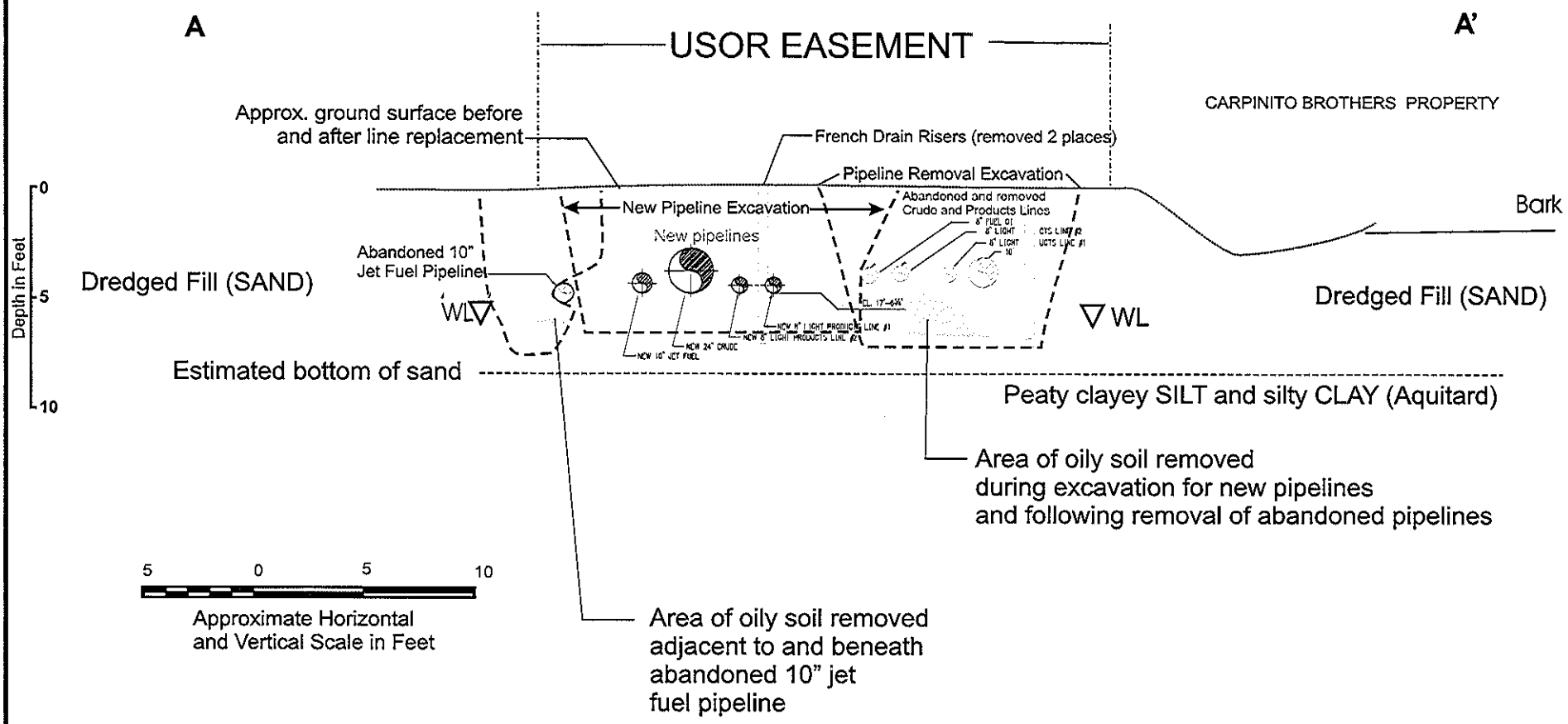
U. S. Oil & Refining Co.

1991 Remediation Area Relative to the Refinery to Dock Pipeline Corridor

USO-021 **FIGURE 3** March 2008

Dalton, Olmsted & Fuglevand, Inc.


Excavation for New Lines
RDS-15 (<6.3/14/29)
Extent of Excavation to Remove Abandoned Pipelines and Oily Soils during January 2008
RDS-34 (8.1/<6.1/<10)
RDS-33 (<5.4/<6.1/<12)
EXC-2 (4,600/1,400/900)
S1
Outline of Extent of Excavation made during the 2005 Cruide Oil Pipeline Leak
S8
S2
RDS-32 (<5/<6.1/<12)
S16
Soil Confirmation Sample Locations 2005 Remediation (Typ 16 places)
Excavation to Remove Outlier of Oily Soil
S3
RDS-31 (19/<6/<12) (Benz 70 ug/kg)
S9
A
S14
S10
A'
S4
RDS-35 (<5.4/<6.1/<12)
S15
CARPINITO BROTHERS PROPERTY (Bark Storage)
RDS-30 (<6.8/<7/<14)
S13
RDS-14 (2,400/10,000/8,300)
Fence Line
S11
S6
S5
JONES STEVEDORING
EXC-1 (3,400/12,000/12,000)
RDS-29 (<7.9/<6.3/<13)
S12
S7
RDS-28 (<6.2/<6.4/<13)
USOR PIPELINE EASEMENT
10 0 10 20
Approximate Scale in Feet
Explanation
RDS-29 Conf. Spl. Location
Sample of material removed during excavation
(<7.9/<6.3/<13) Gasoline/diesel/heavy oil-range conc. (Mg/kg)
U. S. Oil & Refining Co.
Refinery to Dock Pipeline Replacement
AREA 3
SAMPLE LOCATIONS
USO-021
FIGURE 5
March 2008
Dalton, Olmsted & Fuglevand, Inc.



Explanation

WL▽ = Water Level during excavation

Note: All locations approximate. Subsurface conditions interpreted from previous studies as referenced in text of report. Variations from the interpreted cross section and actual conditions should be anticipated

U. S. Oil & Refining Co.
Refinery to Dock Pipeline Replacement

CROSS SECTION A-A' THROUGH AREA 3 (Prev. 2005 Remediation Area)

FIGURE 6

USO-021 March 2008

Dalton, Olmsted & Fuglevand, Inc.

Table 1. Summary of Confirmation Sample Analyses

Sample Location	Date Sampled	Analytical Lab	NWTPH-G mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	Xylenes m, p-Xylene ug/kg	Xylenes o-Xylene ug/kg	NWTPH-Dx Diesel mg/kg	NWTPH-Dx Motor Oil mg/kg
RDS-1	10/14/07	ARI	<4.6	<12	<12	<12	<23	<12	**8.8**	**14**
RDS-2	10/14/07	ARI	<5.2	<13	<13	<13	<26	<13	**11**	**24**
RDS-3	10/17/07	ARI	See "Samples of soils later excavated and removed" below.							
RDS-4	10/17/07	ARI	**6.1**	<10	<10	<10	<21	<10	**370**	**170**
RDS-5	10/17/07	ARI	**16**	<12	<12	<12	<25	<12	**820**	**290**
RDS-6	10/17/07	ARI	<6.2	<16	<16	<16	<31	<16	**6.5 B**	<13
RDS-7	10/17/07	ARI	<7.2	<18	<18	<18	<36	<18	<6.6	<13
RDS-8	10/19/07	ARI	<5.6	<14	<14	<14	<28	<14	<6.6	<13
RDS-9	10/19/07	ARI	<5.4	<14	<14	<14	<27	<14	**21 B**	**22**
RDS-10	10/20/07	ARI	<5.8	<14	<14	<14	<29	<14	<6.3	<13
RDS-11	10/20/07	ARI	<4.8	<12	<12	<12	<24	<12	**7.6 B**	<13
RDS-12	10/20/07	ARI	<5.4	<13	<13	<13	<26	<13	**7.1 B**	<13
RDS-13	10/23/07	ARI	<5.4	**79**	<27	<27	<54	<27	<6.4	**21**
RDS-14	10/23/07	ARI	See "Samples of soils later excavated and removed" below.							
RDS-15	10/25/07	ARI	<6.3	<16	<16	<16	<32	<16	**14**	**29**
RDS-16	10/25/07	ARI	<5.1	<13	<13	<13	<26	<13	**8.1**	<15
RDS-17	10/30/07	ARI	<5.1	<13	<13	<13	<25	<13	<6.2	<12
RDS-18	10/30/07	ARI	<5.5	<14	<14	<14	<28	<14	**16**	**34**
RDS-19	10/30/07	ARI	<5.2	<13	<13	<13	<26	<13	<6.4	<13
RDS-20	11/4/07	ARI	<5.1	<13	<13	<13	<26	<13	**8.9**	**30**
RDS-21	11/9/07	ARI	<5.6	<14	<14	<14	<28	<14	<6.6	<13
RDS-22	11/13/07	ARI	<5.0	<13	<13	<13	<25	<13	<6.3	<13
RDS-23	11/28/07	ARI	<4.5	<11	<11	<11	<22	<11	<5.8	<12
RDS-24	11/28/07	ARI	**6.4**	<11	<11	<11	<22	<11	<6.2	<12
RDS-25	11/28/07	ARI	<4.8	<12	<12	<12	<24	<12	<6.2	<12
RDS-26	1/16/08	ARI	**160**	<14	<14	**17**	<28	**30**	**3,500**	**890**
RDS-27	1/16/08	ARI	**52**	<13	<13	<13	<25	<13	**4,100**	**1,100**
RDS-28	1/23/08	ARI	<6.2	<15	<15	<15	<31	<15	<6.4	<13
RDS-29	1/24/08	ARI	<7.9	<20	<20	<20	<40	<20	<6.3	<13
RDS-30	1/24/08	ARI	<6.8	<17	**26**	<17	<34	<17	<7.0	<14
RDS-31	1/28/08	ARI	**19**	**70**	**36**	**18**	**93**	**19**	<6.0	<12

Table 1. Summary of Confirmation Sample Analyses

Sample Location	Date Sampled	Analytical Lab	NWTPH-G mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	Xylenes m, p-Xylene ug/kg	Xylenes o-Xylene ug/kg	NWTPH-Dx Diesel mg/kg	NWTPH-Dx Motor Oil mg/kg
RDS-32	1/28/08	ARI	<5.0	110	<12	**16**	<25	<12	<6.1	<12
RDS-33	1/29/08	ARI	<5.4	<14	<14	<14	<27	<14	<6.1	<12
RDS-34	1/29/08	ARI	**8.1**	<15	<15	<15	<30	<15	<6.1	<10
RDS-35	1/30/08	ARI	<5.4	<13	<13	<13	<27	<13	<6.1	<12
Confirmation Soil Samples representing soils that exceeded MTCA Method A that were excavated and removed										
RDS-3	10/17/07	ARI	**1,100**	<120	<120	**430**	<240	**250**	**16,000**	**16,000**
RDS-14	10/23/07	ARI	**2,400**	**14,000**	**1,300**	**12,000**	**50,000**	**23,000**	**10,000**	**8,300**
Samples used as part of waste profiling										
EXC-1	1/24/08	ARI	**3,400**	**11,000**	**660J**	**9,400**	**57,000**	**24,000**	**12,000**	**12,000**
EXC-2	1/29/08	ARI	**4,600**	**15,000**	**160J**	**16,000**	**50,000**	**8,100**	**1,400**	**900**

ATTACHMENT A

ANALYTICAL LABORATORY DATA SHEETS – ANALYTICAL RESOURCES (ARI)