



August 5, 2010

Mr. David South
Senior Engineer
Toxics Cleanup Program
Washington Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Re: Proposed Additional Data Gap Investigation Sampling Activities, Laurel Station, 1009 East Smith Road, Bellingham, Washington

Dear Mr. South:

In June 2010, Kinder Morgan Canada (Kinder Morgan) and URS Corporation (URS) performed portions of the proposed data gap investigation outlined in Section 9.0 and Appendix G (Sampling and Analysis Plan [SAP]) of the Final Supplemental Remedial Investigation/Feasibility Study (RI/FS) Work Plan for the Laurel Station facility (URS, 2010). The proposed drilling and surface water sampling in Areas 1 and 2 were not performed at that time as the ground surface was too wet to accommodate the drill rig and surface water was not present in these areas, respectively. Additionally, two of the proposed borings near the piping manifold in Study Unit 1 (SU1-B13 and SU1-B15) were not completed. Due to field-screening observations during the June 2010 drilling activities, Study Unit 1 borings SU1-B12, SU1-B14 and SU1-B16 were drilled deeper and took longer than planned due to difficult drilling conditions at depth, and therefore proposed borings SU1-B13 and SU1-B15 were not drilled due to schedule constraints of the drilling subcontractor.

The preliminary analytical data (Table A) for the soil samples collected during the June 2010 data gap investigation activities indicated that additional borings are necessary to define the lateral and vertical extent of petroleum impacts identified at borings SU1-B12 and SU1-B14 near the piping manifold (Figure A) and the lateral extent of petroleum impacts identified at boring SU3-B1 in the former relief tank containment bay (Figure B). Additionally, detailed observations and possible sampling of the sediments on the downstream side of the March 7, 1992 Spill Containment Dam appear to be warranted based on the petroleum "mousse" observed on the upstream side of the dam. This additional field work will be performed based on procedures approved in Appendix G of the Final Supplemental RI/FS Work Plan (URS, 2010); however, URS is proposing a change to the drilling technology for the deep borings SU1-B13 and SU1-B15 not completed in June 2010 as well as the proposed additional borings SU1-B21 and SU1-B22. These borings and any contingency step-out borings completed based on field observations will be done by sonic drilling techniques.

The next phase of field work is scheduled for the weeks of August 16 and 23, 2010, and will include completion of the data gap investigation sampling (drilling in Areas 1 and 2) as described in Section 9.0 and the SAP of the Final Supplemental RI/FS Work Plan (URS, 2010). The proposed additional data gap investigation field work includes soil sample collection using both Geoprobe and Sonic drilling methods, the collection of groundwater samples from onsite monitoring wells, and the possible collection of sediment samples using hand tools. These sampling activities are discussed in more detail below.

Soil Sampling

The proposed boring locations for Areas 1 and 2 are shown on Figures 34 and 35 of the Final Supplemental RI/FS Work Plan (URS, 2010). The proposed sampling depths and analytical methods for Areas 1 and 2 are outlined in Table 25 of the Final Supplemental RI/FS Work Plan (URS, 2010). The proposed additional boring locations for Study Units 1 and 3 are shown on the attached Figures A and B, respectively. The proposed sampling depths and analytical methods for the additional borings in Study Units 1 and 3 are outlined in the attached Table B. Sample collection and handling will be performed as described in the SAP.

The primary scope of work for the area near the piping manifold includes drilling borings SU1-B13 and SU1-B15 by sonic drilling methods, drilling adjacent to boring SU1-B12 (SU1-B21), and drilling step-out boring SU1-B22 to the northeast of boring SU1-B12 (Figure A). The primary scope of work for Study Unit 3 includes drilling step-out borings SU3-B8 through SU3-B10 (Figure B). If field screening (i.e., odors, sheen, elevated PID readings, etc.) identifies evidence of contamination in the primary borings, contingency step-out borings may be drilled as shown on Figures A and B following discussion with Ecology.

Groundwater Sampling

Groundwater samples will be collected from the five onsite shallow monitoring wells (SW-1 through SW-5), which are shown on Figures 5 and 30 of the Final Supplemental RI/FS Work Plan (URS, 2010). The groundwater samples will be analyzed for gasoline-range petroleum hydrocarbons by Method NWTPH-Gx, diesel and motor oil-range petroleum hydrocarbons by Method NWTPH-Dx, benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and polycyclic aromatic hydrocarbons (PAHs) by 8270D-SIM. Groundwater sampling will be conducted using disposable bailers designed to accommodate suspended solids in the water column that previously precluded the use of downhole pumps for low flow sampling. Groundwater field parameters will be monitored until stabilized readings are obtained or three well casing volumes have been purged. Groundwater elevation measurements recorded during the well monitoring will be used to confirm groundwater flow conditions at the site.

Sediment Assessment

URS will conduct detailed observations of the drainage channel on the downstream side of the March 7, 1992 Spill Containment Dam. The purpose of conducting these observations will be to clearly identify the left and right banks of the channel, and to assess whether or not the petroleum "mousse" identified on the upstream side of the dam in June 2010 is present in sediment on the downstream side of the dam. Based on the field observations, one transect of sediment samples may be collected on the downstream side of the dam.

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We trust this information meets your current requirements. Please contact us if you have any questions.

Sincerely,
URS CORPORATION



Karen L. Mixon
Project Manager

Copy: Mike Droppo – Kinder Morgan Canada
Patrick Davis – Kinder Morgan
Dale McClary – Kinder Morgan
Matt Annis – URS

References

URS, 2010. *Final Supplemental Remedial Investigation/Feasibility Study Work Plan, Laurel Station, 1009 East Smith Road, Bellingham, Washington.* May 28.

Attachments:

Table A – Selected Soil Analytical Results
Table B – Proposed Sampling Locations and Rationale
Figure A – Proposed Soil Sample Locations (Study Unit 1)
Figure B – Proposed Soil Sample Locations (Study Unit 3)

Table A
Selected Soil Analytical Results (June 2010)
Laurel Station
Bellingham, Washington

Location ID	Location Type	Sample ID	Sample Date	Depth	TPH - gasoline range mg/kg	TPH - diesel range mg/kg	TPH - lube oil range mg/kg	benzene ug/kg	toluene ug/kg	ethylbenzene ug/kg	m,p-xylene ug/kg	o-xylene ug/kg
Preliminary Cleanup Level					100/30¹	460	2,000	30	7,000	6,000	9,000²	9,000²
SU1-B12	BH	SU1-B12-6	6/7/2010	6-6 ft	5.8	6.4	12	11 U	18	11 U	23 U	20
SU1-B12	BH	SU1-B12-10	6/7/2010	10-10 ft	1200	940	1100	18	150	2300	120	1000
SU1-B12	BH	SU1-B12-15	6/7/2010	15-15 ft	8400	3700	3400	180 U	1100	16000	680	2800
SU1-B12	BH	SU1-B12-20	6/7/2010	20-20 ft	2200	1200	1100	30 U	250	4400	170	1800
SU1-B12	BH	SU1-B12-34	6/7/2010	34-34 ft	63	54	63	13 U	13 U	61	26 U	34
SU1-B12	BH	SU1-B12-45	6/7/2010	45-45 ft	350	140	140	13 U	41	570	34	240
SU1-B14	BH	SU1-B14-5	6/8/2010	5-5 ft	15	45	71	12 U	12 U	12 U	24 U	12 U
SU1-B14	BH	SU1-B14-10	6/8/2010	10-10 ft	5.6 U	5.1 U	10 U	14 U	14 U	14 U	28 U	14 U
SU1-B14	BH	SU1-B14-15	6/8/2010	15-15 ft	1500	1200	1200	26 U	240	4400	190	26 U
SU1-B14	BH	Soil Dup 1	6/8/2010	15-15 ft	1000	920	920	12 U	110	1800	85	12 U
SU1-B14	BH	SU1-B14-20	6/8/2010	20-20 ft	920	840	900	14 U	86	1600	110	430
SU1-B14	BH	SU1-B14-25	6/8/2010	25-25 ft	160	240	260	14 U	14 U	170	27 U	74
SU1-B14	BH	SU1-B14-30	6/8/2010	30-30 ft	5.6 U	5 U	10 U	14 U	14 U	14 U	28 U	14 U
SU1-B14	BH	SU1-B14-35	6/8/2010	35-35 ft	11	5.2 U	10 U	13 U	33	13 U	36	19
SU1-B14	BH	SU1-B14-40	6/8/2010	40-40 ft	6.1 U	5.1 U	10 U	15 U	15	15 U	30 U	15 U
SU1-B14	BH	SU1-B14-45	6/8/2010	45-45 ft	6.6 U	5.1 U	10 U	16 U	16 U	16 U	33 U	16 U
SU1-B16	BH	SU1-B16-5	6/8/2010	5-5 ft	5.6 U	93	59	14 U	14 U	14 U	28 U	14 U
SU1-B16	BH	SU1-B16-15	6/8/2010	15-15 ft	5.5 U	5.3 U	11 U	14 U	14 U	14 U	27 U	14 U
SU1-B16	BH	SU1-B16-20	6/8/2010	20-20 ft	6 U	5.1 U	10 U	15 U	15 U	15 U	30 U	15 U
SU1-B16	BH	SU1-B16-25	6/8/2010	25-25 ft	5.4 U	5.3 U	11 U	14 U	14 U	14 U	27 U	14 U
SU1-B16	BH	SU1-B16-30	6/8/2010	30-30 ft	5 U	5.2 U	10 U	12 U	12 U	12 U	25 U	12 U
SU1-B16	BH	SU1-B16-35	6/8/2010	35-35 ft	5.7 U	5.1 U	10 U	14 U	14 U	14 U	28 U	14 U
SU1-B20	BH	SU1-B20-29	6/7/2010	29-29 ft	7.3 U	14	19	18 U	18 U	18 U	36 U	18 U
SU1-B20	BH	SU1-B20-30	6/7/2010	30-30 ft	5.7 U	5.1 U	10 U	14 U	14 U	14 U	28 U	14 U
SU3-B1	BH	SU3-B1-2	6/14/2010	2-2 ft	12 U	5.4 U	11 U	30 U	30 U	30 U	59 U	30 U
SU3-B1	BH	SU3-B1-5	6/14/2010	5-5 ft	200	31	30	29 U	29 U	29 U	58 U	29 U
SU3-B1	BH	SU3-B1-8	6/14/2010	8-8 ft	12 U	5.8 U	12 U	29 U	29 U	29 U	59 U	29 U
SU3-B2	BH	SU3-B2-2	6/14/2010	2-2 ft	11 U	5.9 U	12 U	28 U	28 U	28 U	56 U	28 U
SU3-B2	BH	SU3-B2-5	6/14/2010	5-5 ft	12 U	5.4 U	11 U	31 U	31 U	31 U	63 U	31 U
SU3-B3	BH	SU3-B3-5	6/14/2010	5-5 ft	9.5 U	5.3 U	11 U	24 U	24 U	24 U	48 U	24 U
SU3-B3	BH	SU3-B3-10	6/14/2010	10-10 ft	11 U	5.7 U	11 U	29 U	29 U	29 U	57 U	29 U
SU3-B3	BH	SU3-B3-15	6/14/2010	15-15 ft	20	5.7 U	11 U	24 U	24 U	24 U	47 U	24 U
SU3-B4	BH	SU3-B4-2	6/14/2010	2-2 ft	9.1 U	7.6	48	23 U	23 U	23 U	45 U	23 U
SU3-B4	BH	SU3-B4-5	6/14/2010	5-5 ft	12 U	6.1 U	12 U	30 U	30 U	30 U	60 U	30 U
SU3-B5	BH	SU3-B5-2	6/14/2010	2-2 ft	11 U	5.8 U	12 U	28 U	28 U	28 U	56 U	28 U
SU3-B5	BH	SU3-B5-5	6/14/2010	5-5 ft	11 U	5.9 U	12 U	27 U	27 U	27 U	55 U	27 U
SU3-B6	BH	SU3-B6-2	6/14/2010	2-2 ft	16 U	5.8 U	12 U	39 U	39 U	39 U	78 U	39 U
SU3-B6	BH	SU3-B6-5	6/14/2010	5-5 ft	12 U	5.9 U	12 U	29 U	29 U	29 U	59 U	29 U
SU3-B7	BH	SU3-B7-5	6/14/2010	5-5 ft	28	320	380	26 U	26 U	26 U	52 U	26 U
SU3-B7	BH	SU3-B7-7	6/14/2010	7-7 ft	10 U	5.6 U	11 U	25 U	25 U	25 U	50 U	25 U

Notes

¹ gasoline mixtures without benzene/gasoline mixtures with benzene

² Preliminary Cleanup Level for Total Xylenes

Bold values indicate the Preliminary Cleanup Level was exceeded

Table B
Proposed Sampling Locations and Rationale - Additional/Changed Scope
Laurel Station
Bellingham, Washington

Area of Concern	Proposed Sample Location/Sample ID	Reference Figure	Media	Proposed Sampling Depth (feet bgs)	Analytical Parameters	Rationale
Study Unit 1	SU1-B13 and SU1-B15	Figure A	Soil	5, 10, 15, 20 and 25	NWTPH-Gx, NWTPH-Dx, BTEX, and PAHs ¹	Characterization of the lateral extent of hydrocarbon impacts exceeding the PCL at soil borings TM-B4 and TM-B16. Revised drilling method to sonic.
	SU1-B21	Figure A	Soil	45 and 50	NWTPH-Gx, NWTPH-Dx, BTEX, and PAHs ¹	Characterization of the vertical extent of hydrocarbons impacts exceeding the PCL at soil boring SU1-B12. New boring location by sonic drilling method.
	SU1-B22	Figure A	Soil	5, 10, 15, 20, 25, 30, 35, 40 and 45	NWTPH-Gx, NWTPH-Dx, BTEX, and PAHs ¹	Characterization of the lateral extent of hydrocarbons impacts exceeding the PCL at soil boring SU1-B12. New boring location by sonic drilling method.
	SW-1 through SW-5	Figures 5 and 30 (URS, 2010)	Groundwater	Screened interval of each well	NWTPH-Gx, NWTPH-Dx, BTEX, and PAHs	Assessment of the current groundwater quality and flow direction of the shallowing groundwater monitoring network.
Study Unit 3	SU3-B8 through SU3-B10	Figure B	Soil	5 and 8	NWTPH-Gx, NWTPH-Dx, BTEX, and PAHs ¹	Characterization of the lateral extent of hydrocarbon impacts exceeding the PCL at soil boring SU3-B1. New boring locations by Geoprobe drilling method.
	Downstream side of March 7, 1992 Spill Containment Dam ²	Figure 40 (URS, 2010)	Wetland sediment/soil	0 - 1	NWTPH-Gx, NWTPH-Dx, BTEX, and PAHs ¹	Assessment of petroleum "mousse" observed on the upstream side of the March 7, 1992 Spill Containment Dam.

Notes:

PCL - Preliminary Cleanup Level

NWTPH-Gx - Northwest Total Petroleum Hydrocarbons Gasoline

NWTPH-Dx - Northwest Total Petroleum Hydrocarbons Diesel extended (diesel and oil-range)

BTEX - Benzene, toluene, ethylbenzene, and xylenes

PAHs - Polycyclic aromatic hydrocarbons

bgs - below ground surface

NWTPH-HCID analyses will be performed on selected samples to assess type of TPH for comparison to PCLs as described in the Sampling and Analysis Plan (Appendix G of Final Supplemental RI/FS Work Plan)

¹ PAH analysis will be conducted where NWTPH-Dx exceeds the Preliminary Cleanup Level of 460 milligrams per kilogram

² Potential sample location; sample will be collected based on field observations

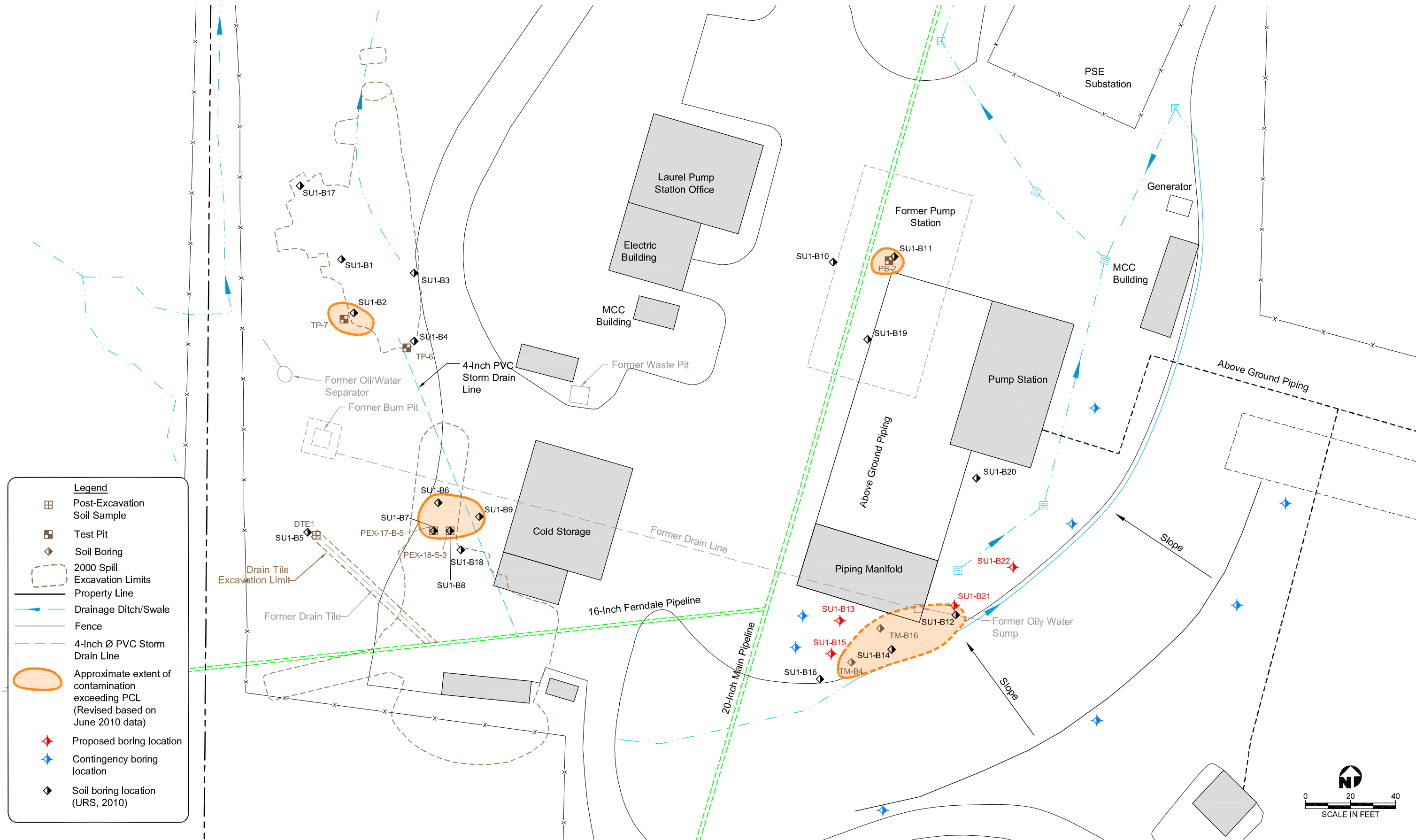
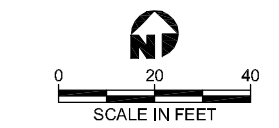


Figure A
Proposed Soil Sample Locations
(Study Unit 1)



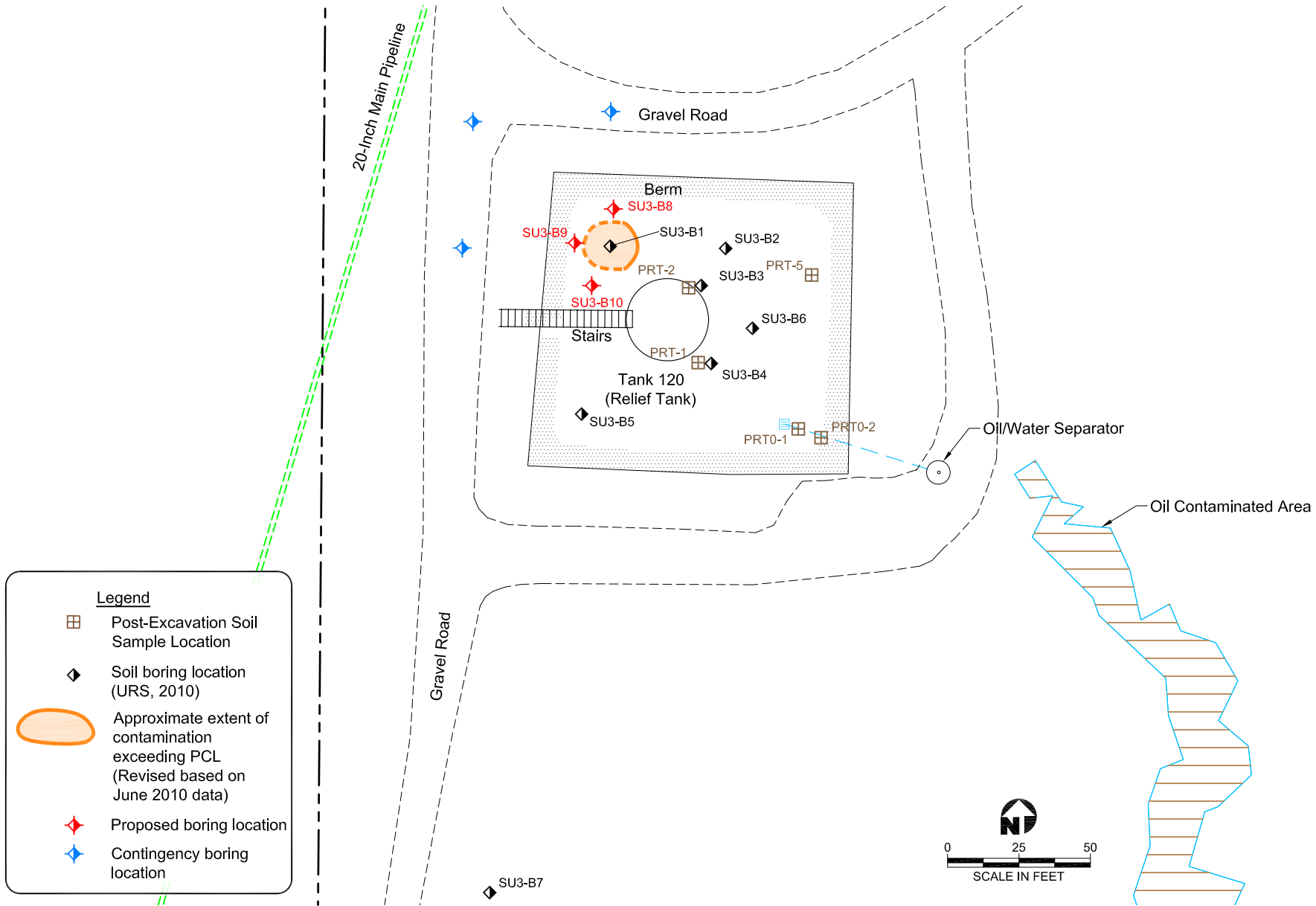


Figure B
Proposed Soil Sample Locations
(Study Unit 3)

Laurel Station
 Bellingham, Washington