EnviroLogic Resources, Inc.

Consulting Environmental & Water Resources Scientists

December 14 , 2005 10077.009

Oregon Department of Environmental Quality Northwest Region 2020 SW Fourth Avenue Suite 400 Portland, Oregon 97201-4987

Attention: Anna Coates

Subject: Progress Report – November 2005 Remedial Investigation/Feasibility Study/Interim Removal Action Measures Astoria Area-Wide Petroleum Site Astoria, Oregon DEQ ECSI File #2277

Dear Ms. Coates:

This letter presents the progress made by the PRP Group in November 2005 on the RI/FS and IRAM development at the Astoria Area-Wide Petroleum Site in Astoria, Oregon. This work is being conducted in response to DEQ Order No. ECSR-NWR-01-11.

#### WORK COMPLETED IN NOVEMBER 2005

Evaluation of data collected from the sub-slab soil gas sampling event and preparation of the technical memorandum describing the probe installation and results continued in November. We are evaluating potential next steps for submittal to DEQ with the technical memorandum.

Cowlitz Clean Sweep (CCS) of Astoria, Oregon, performed monthly maintenance for the product absorbent socks in nine site monitoring wells containing measurable product. These monitoring wells are located upland of Slip 2. The sock in MW-15(A) at the Delphia Oil site was removed to allow evaluation of free product during an upcoming investigation event. The socks are weighed upon removal from the monitoring well to develop an understanding about the product recovery rates. A graph showing the mass of free product removed from each well is attached to this status report. The enhanced synthetic and floating absorbent boom system installed in Slip 2 was inspected.

An evaluation of Astoria Oil Services data was prepared and submitted to DEQ on November 29, 2005, to request authorization to use that site for a dredged materials upland disposal facility.

Work on the RI Report was continued and was the focus of most of the efforts in November. Drafts of the first four sections were completed. Initial draft tables and figures for later sections were also completed. Sections related to ecological risk assessment and human health risk assessment will be written in 2006, after those tasks are completed.

# VIA Email

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A meeting of the PRP Group representatives was held on November 1. A meeting between the PRP Group representatives and DEQ representatives was held on November 10.

# WORK PLANNED FOR DECEMBER 2005 AND JANUARY 2006

Active project work tasks include the following:

- Completion of a technical memorandum describing sub-slab sampling at the Port office building;
- Product recovery via absorbent socks in monitoring wells upland of Slip 2;
- Maintenance of the absorbent boom system in Slip 2;
- Preparation of documentation of results of the field work conducted for additional characterization in the area upland of the hydrocarbon seep at Slip 2. These results will be reported to the DEQ in the RI Report;
- Acquisition of proposed building plans for the development at the former Mobil/Niemi bulk plant;
- Preparation of documentation regarding the undocumented pipelines and structures found during the Bornstein Seafoods development;
- Plans for reconstruction of three wells in Industry Street (MW-17, MW-18, and MW-29) and abandonment of three wells (MW-46, MW-47, and MW-48) at the former Chevron/McCall bulk plant will be submitted for DEQ approval;
- Preparation of the RI report;
- > Implementation of the work plan for human health risk assessment; and
- > Implementation of the work plan for ecological risk assessment.

An updated project schedule is attached to this progress report.

#### PROBLEMS ENCOUNTERED AND RESOLUTIONS

There are no problems requiring resolution in the reporting period.

Ms. Anna Coates December 14, 2005 Page 3

### **CLOSING COMMENTS**

Please call me at (503)768-5121 if you have any questions or comments regarding this progress report.

Sincerely, EnviroLogic Resources, Inc. Thomas J. Calabrese

Thomas J. Calabrese, RG, CWRE Principal/Hydrogeologist Project Manager

cc: Distribution list attached

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### ASTORIA AREA-WIDE PETROLEUM SITE Distribution List

- 1 Anna Coates, DEQ Project Manager, Site Response
- 1 Don Haagensen, Attorney for Port of Astoria
- 1 Peter Gearin, Port of Astoria
- 1 Tom Calabrese, EnviroLogic Resources, Inc., Consultant for PoA and AAW PRP Group
- 1 Max Miller, Tonkon Torp, Attorney for McCall Oil and Chemical Corporation
- 1 Ted McCall, McCall Oil and Chemical Corporation
- 1 John Edwards, Anchor Environmental, LLC, Consultant for McCall Oil and Chemical Corp
- 1 Cary E. Bechtolt, Niemi Oil Company
- 1 Jeff B. Kray, Marten Law Group, PLLC, Attorney for Niemi Oil Company
- 1 Kurt Harrington, AMEC, Inc., Consultant for Niemi Oil Company
- 1 Ed Platt, Shell Oil Company
- 1 Rick Glick, Davis Wright Tremaine, Attorney for Shell Oil Company
- 1 Leon Lahiere, Hart Crowser, Consultant for Shell Oil Company
- 1 Brian Harris, Harris Enterprises
- 1 Larry Vandermay, Flying Dutchman
- 1 David Bartz & Laura Maffei, Schwabe Williamson & Wyatt, Attorney for Flying Dutchman
- 1 Hong Huynh, Miller Nash, Attorney for Harris Enterprises
- 1 Lon Yandell, Kleinfelder, Consultant for Harris Enterprises
- 1 Richard Delphia, Delphia Oil Company
- 1 Chuck Smith, Attorney for Delphia Oil Company
- 1 Alistaire Clary, Maul Foster Alongi, Consultant for Delphia Oil Company
- 1 Darin Rouse, ChevronTexaco Products Company
- 1 Jon Robbins, Attorney for ChevronTexaco Products Company
- 1 Gerry Koschal, SAIC, Consultant for ChevronTexaco Products Company
- 1 Brian Jacobson, Qwest Communications International, Inc.
- 1 David Bledsoe, Perkins Coie LLP, Attorney for Qwest Communications International, Inc.
- 1 Anita W. Lovely, Lovely Consulting, Inc., Consultant for Exxon Mobil Corporation
- 1 Information Repository

### UPDATED SCHEDULE (12/14/05)

#### Remedial Investigation/Feasibility Study Astoria Area-Wide Petroleum Site Astoria, Oregon

ID	Task Description	Duration	Start	Finish	Complete	Predecessors
1	ASTORIA AREA-WIDE PETROLEUM STUDY		1/9/2002	12/19/2006	Complete	Fiedecessors
2		1243 days	1/9/2002	12/19/2006		
2 3	RI/FS and IRAM PROPOSAL	11 days	1/9/2002	1/21/2002	100%	
, 1		i i uays	1/3/2002	1/2 1/2002	100%	
7						
8	RI/FS and IRAM DEVELOPMENT WORK PLAN	124 days	1/9/2002	7/1/2002	100%	
9		124 duyo	1/0/2002		10070	
58						
59	PHASE 1/2 RI/FS and IRAM WORK PLAN IMPLEMENTATION	1144 days	1/9/2002	7/28/2006		
60		1144 days	1/3/2002	1/20/2000		
61	SOURCE/SOIL CHARACTERIZATION	709 days	1/9/2002	11/1/2004	100%	
62	Phase 1 Source/Soil Characterization	269 days	1/9/2002	1/27/2003	100 /8	
99	Phase 2 Soil Characterization	375 days	4/30/2002	11/1/2003		
24		375 uays	4/30/2003	11/1/2004		
124	GROUND-WATER CHARACTERIZATION	904 days	8/12/2002	3/22/2006	100%	
125	Water-Level Measurement Program		8/12/2002	9/14/2004	100 %	
57		524 days	8/27/2002	2/21/2003		
64	Beneficial Ground Water and Land Use Studies	126 days		2/5/2003		
	Monitoring-Well Installation Program	365 days	8/20/2002			
85	Quarterly Ground-Water Monitoring Program	281 days	10/8/2003	11/23/2004		
230	Hydraulic Characterization Program (NOT CURRENTLY PLANN	46 days	3/1/2004	5/4/2004		
38	Monitoring Well Maintenance	64 days	12/19/2005	3/22/2006	0%	
39	Draft Work Plan	5 days	12/19/2005	12/27/2005		000
40	PRP Group Review	5 days	12/28/2005	1/4/2006		239
41	Final Work Plan	5 days	1/5/2006	1/11/2006		240
242	Mobilization/Demobilization	1 day	1/19/2006	1/19/2006		241FS+5 days
243	Wellhead Reconstruction MW-17, 18, 29	1 day	1/20/2006	1/20/2006		242
44	Well Abandonment MW-46, 47, 48	2 days	1/23/2006	1/24/2006		243
45	IDW Management	10 days	1/25/2006	2/7/2006		244
46	Draft Reconstruction/Abandonment Documentation	15 days	2/8/2006	3/1/2006		245
247	PRP Group Review	10 days	3/2/2006	3/15/2006		246
48	Final Reconstruction/Abandonment Documention	5 days	3/16/2006	3/22/2006		247
49	Project Management	34 days	1/20/2006	3/9/2006		242
250	Submittal to DEQ	1 day	3/10/2006	3/10/2006		249
251						
252	STORM/SURFACE WATER CHARACTERIZATION	586 days	8/19/2002	12/20/2004	100%	
253	Storm Water Monitoring Plan	117 days	8/19/2002	1/31/2003		
257	Quarterly Storm Water Monitoring Program	309 days	9/23/2003	12/20/2004		
302						
303	SEDIMENT CHARACTERIZATION	100 days	6/13/2003	11/4/2003	100%	
304	Phase 1 Sediment Characterization	100 days	6/13/2003	11/4/2003		
315						
316	IRAM DEVELOPMENT	1055 days	5/13/2002	7/28/2006		
317	Indoor Air Quality IRAM Development	753 days	12/27/2002	1/4/2006		
318	Comparison of Soil Data to Screening Levels	10 days	12/27/2002	1/10/2003	100%	81
19	Indoor Air IRAM Development	667 days	4/30/2003	1/4/2006		
320	Air Quality Sampling Work Plan	299 days	4/30/2003	7/15/2004	100%	
327	Vapor Intrusion Pathway Sampling	180 days	8/20/2004	5/9/2005	100%	167
347	Sub-Slab Sampling	179 days	4/18/2005	1/4/2006	90%	
48	Draft Sub-Slab Sampling Work Plan Preparation	32 days	4/18/2005	6/1/2005	100%	
49	PRP Group Review	5 days	6/2/2005	6/8/2005	100%	348
50	Final Sub-Slab Sampling Work Plan	10 days	6/9/2005	6/22/2005	100%	
51	Submittal to DEQ	1 day	6/23/2005	6/23/2005	100%	
52	Sub-Slab Probe Installation	3 days	8/9/2005	8/11/2005		351FS+30 days
53	Soil Vapor Sampling	2 days	8/12/2005	8/15/2005	100%	
54	Laboratory Analyses	10 days	8/16/2005	8/29/2005	100%	
355 355	Data Validation	10 days	8/30/2005	9/13/2005	100%	
56	Anaytical Data Compilation	5 days	9/14/2005	9/20/2005	100%	
357	Draft Sub-Slab Sampling TM		10/19/2005	12/15/2005		
357 358	PRP Group Review	40 days	12/16/2005	12/15/2005	00%	356FS+20 days 357
58 59	Final Sub-Slab Sampling TM	5 days 5 days	12/27/2005	1/3/2005		357
60	Submittal to DEQ	1 day	1/4/2006	1/4/2006		358
61					100%	000
	HVAC Adjustments - IRAM	160 days	2/28/2005	10/13/2005	100%	
69	HYDROCARBON SEEP IRAM DEVELOPMENT	651 days	6/12/2003	1/23/2006	4000/	420
70	Bail-Down Testing	3 days	6/12/2003	6/16/2003	100%	
871	Water Quality Sampling at Seep MWs	2 days	6/17/2003	6/18/2003	100%	310
372	Product Removal	125 days	6/16/2003	12/15/2003	100%	
80	2004 A Product Removal	107 days	1/12/2004	6/10/2004	100%	
87	2004 B Product Removal	106 days	7/19/2004	12/16/2004	100%	
94	2005 Product Removal	192 days	3/30/2005	1/4/2006	90%	
05	Hydrocarbon Seep IRAM Work Plan	67 days	6/17/2003	9/22/2003	100%	
11	Hydrocarbon Seep IRAM Implementation	510 days	11/24/2003	12/12/2005		
12	IRAM Design/Build	206 days	11/24/2003	9/24/2004	100%	
21	O&M 2005 Month	192 days	3/10/2005	12/12/2005	90%	
32	Upland Data Collection	401 days	1/23/2004	8/25/2005	100%	
33	UDC Work Plan	141 days	1/23/2004	8/12/2004	100%	
38	UDC Implementation	71 days	9/13/2004	12/22/2004	100%	
44	UDC Technical Memorandum	169 days	12/23/2004	8/25/2005	100%	
49	Additional Product Characterization	229 days	2/24/2005	1/23/2006		
450	Work Plan Preparation	128 days	2/24/2005	8/25/2005	100%	
155	Field Preparation	11 days	8/26/2005	9/12/2005	100%	
455	Drilling Program	3 days	9/14/2005	9/16/2005	100%	
461	Analytical Program Laboratory Analyses	50 days 20 days	9/19/2005 9/19/2005	11/29/2005	90%	
162		211 (19/)	9/19/2005	10/14/2005		460
62 63	Data Validation	10 days	10/17/2005	10/28/2005		462

### UPDATED SCHEDULE (12/14/05)

# Remedial Investigation/Feasibility Study Astoria Area-Wide Petroleum Site Astoria, Oregon

ID		a, Oregon				
	Task Description	Duration	Start	Finish	Complete	Predecessors
464	Analytical Data Compilation	20 days	10/31/2005	11/29/2005		463
465	Reporting	229 days	2/24/2005	1/23/2006	0%	
471	Baildown Testing/Water Level Monitoring	15 days	1/3/2006	1/23/2006	0%	
472	Mobilization/Demobilization	1 day	1/3/2006	1/3/2006		170
473	Water Level Monitoring	1 day	1/4/2006	1/4/2006		472
474	Baildown Testing	1 day	1/5/2006	1/5/2006		473
475 476	Surveying Data Compilation/Data Analysis	2 days	1/6/2006	1/9/2006 1/16/2006		474 475
476	Draft Report Section	5 days 5 days	1/17/2006	1/23/2006		476
478	Project Management	14 days	1/3/2006	1/20/2006		472SS
479	TANK-BOTTOM WASTE IRAM DEVELOPMENT (McCALL BP)	915 days	5/13/2002	1/9/2006	95%	47200
480	Technology Screening	10 days	5/13/2002	5/24/2002	00/1	44
481	Detailed Evaluation of Alternatives	10 days	5/28/2002	6/10/2002		480
482	Implementation Plan Proposal	5 days	6/11/2002	6/17/2002		481
483	Review IRAM Implementation Report	5 days	1/3/2006	1/9/2006		167FS+665 days
484	FORMER MOBIL/NIEMI BULK PLANT IRAM	475 days	9/7/2004	7/28/2006		
485	IRAM Work Plan	120 days	9/7/2004	3/1/2005	100%	
492	UST Removal	48 days	9/20/2004	11/24/2004	100%	
510	IRAM Implementation	333 days	4/1/2005	7/28/2006		
511	Vapor Barrier/Extraction Design	235 days	4/1/2005	3/9/2006	0%	
512	Acquire Building Plans (dependent on Developer)	200 days	4/1/2005	1/18/2006		
513	Draft Vapor Barrier/Extraction Design	15 days	1/19/2006	2/8/2006		512
514	PRP Group Review	5 days	2/9/2006	2/15/2006		513
515	Final Vapor Barrier/Extraction Design	5 days	2/16/2006	2/23/2006		514
516	Submittal to DEQ	5 days	2/24/2006	3/2/2006		515
517 518	DEQ Approval	5 days	3/3/2006	3/9/2006	00/	516
	Vapor Barrier/Extraction Construction Mobilization/Demobilization	12 days	4/21/2006 4/21/2006	5/8/2006 4/24/2006	0%	517ES+30 dave
519 520	Drilling/SVE Well Installation	2 days 5 days	4/25/2006	4/24/2006 5/1/2006		517FS+30 days 519
520	Vapor Barrier Construction Oversight	10 days	4/25/2006	5/8/2006		519
521	Soil Management Plan	31 days	1/19/2006	3/3/2006	0%	010
523	Draft Soil Management Plan Preparation	20 days	1/19/2006	2/15/2006	0 /0	512
523	PRP Group Review	5 days	2/16/2006	2/23/2006		523
525	Final Soil Management Plan	5 days	2/24/2006	3/2/2006		524
526	Submittal to DEQ	1 day	3/3/2006	3/3/2006		525
527	IRAM Implementation Technical Memorandum	56 days	5/9/2006	7/28/2006	0%	
528	Draft IRAM Implementation TM Preparation	40 days	5/9/2006	7/6/2006		521
529	PRP Group Review	10 days	7/7/2006	7/20/2006		528
530	Final IRAM Implementation TM	5 days	7/21/2006	7/27/2006		529
531	Submittal to DEQ	1 day	7/28/2006	7/28/2006		530
532	COMMUNITY RELATIONS ACTIVITIES	680 days	4/30/2003	1/23/2006		167
533						
534	PROJECT MANAGEMENT	871 days	7/10/2002	12/31/2005		
535	Phase 1 PM	257 days	7/10/2002	7/15/2003	100%	
556	Phase 2 PM	164 days	4/30/2003	12/30/2003	100%	
579	2004 A PM	242 days	1/5/2004	12/16/2004	100%	
624	2005 PM	597 days	8/8/2003	12/31/2005	90%	
667	REMEDIAL INVESTIGATION REPORT PREPARATION	402 dava	44/40/2004	6/40/2006	659/	
668 669	RI Report Outline	402 days 300 days	11/10/2004 11/10/2004	6/19/2006 1/24/2006	65% 100%	581FS+208 days
670	RI Data Elements Compilation	90 days	2/24/2005	6/30/2005		669SS+70 days,204
671	Data Interpretation	75 days	7/5/2005	10/18/2005		670,120,276,311,204,445
672	Draft RI Report	64 days	10/19/2005	1/23/2006	50%	
673	PRP Group Review	20 days	1/24/2006	2/21/2006		672
674	Final Draft RI Report	20 days	2/22/2006	3/21/2006		673
675	DEQ Review	30 edays	3/21/2006	4/20/2006		674
676	Final RI Report	20 days	4/21/2006	5/18/2006		675
677	DEQ Approval	1 day	6/19/2006	6/19/2006		676FS+30 edays
678						
679	RISK ASSESSMENT	556 days	3/1/2004	5/15/2006		
680	HUMAN HEALTH RISK ASSESSMENT	210 days	5/19/2005	3/22/2006	60%	
681	Human Health Risk Assessment Work Plan	159 days	5/19/2005	1/9/2006		81,193,311,265
682	Scoping/Data Management	20 days	5/19/2005	6/16/2005		670FS-30 days
683	Draft HHRA Work Plan	29 days	6/17/2005	7/29/2005	100%	
684	PRP Group Review Meeting with DEQ	10 days	8/1/2005	8/12/2005	1000/	683 683SS+13 days
685	Final Draft HHRA Work Plan	2 days	7/8/2005 8/15/2005	7/11/2005 8/19/2005	100%	
		5 days 5 days	8/22/2005	8/26/2005	100%	
686				0/20/2003	100%	
686 687	PRP Group Review			10/7/2005		
686 687 688	PRP Group Review Final HHRA Work Plan	29 days	8/29/2005	10/7/2005 10/10/2005	100 /8	688
686 687 688 689	PRP Group Review Final HHRA Work Plan Submittal to DEQ		8/29/2005 10/10/2005	10/10/2005	100 /8	688 689FS+40 days
686 687 688	PRP Group Review Final HHRA Work Plan	29 days 1 day	8/29/2005 10/10/2005 12/8/2005		100 %	688 689FS+40 days
686 687 688 689 690	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments	29 days 1 day 20 days	8/29/2005 10/10/2005	10/10/2005 1/9/2006	100 %	
686 687 688 689 690 691	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments <b>Risk Assessment Report</b>	29 days 1 day 20 days <b>210 days</b>	8/29/2005 10/10/2005 12/8/2005 <b>5/19/2005</b>	10/10/2005 1/9/2006 <b>3/22/2006</b>	100 /8	689FS+40 days
686 687 688 689 690 691 692	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments <b>Risk Assessment Report</b> Draft HHRA Report	29 days 1 day 20 days <b>210 days</b> 30 days	8/29/2005 10/10/2005 12/8/2005 <b>5/19/2005</b> 1/10/2006	10/10/2005 1/9/2006 <b>3/22/2006</b> 2/21/2006	100 /8	689FS+40 days 689FS+40 days,671,690
686 687 688 689 690 691 692 693	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments <b>Risk Assessment Report</b> Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ	29 days 1 day 20 days <b>210 days</b> 30 days 10 days	8/29/2005 10/10/2005 12/8/2005 5/19/2005 1/10/2006 2/22/2006 3/8/2006 3/22/2006	10/10/2005 1/9/2006 3/22/2006 2/21/2006 3/7/2006 3/21/2006 3/22/2006		689FS+40 days 689FS+40 days,671,690 692 693 694
686 687 688 689 690 691 692 693 694	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments <b>Risk Assessment Report</b> Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management	29 days 1 day 20 days <b>210 days</b> 30 days 10 days 10 days	8/29/2005 10/10/2005 12/8/2005 5/19/2005 2/22/2006 3/8/2006 3/22/2006 5/19/2005	10/10/2005 1/9/2006 3/22/2006 2/21/2006 3/7/2006 3/21/2006 3/22/2006 9/28/2005		689FS+40 days 689FS+40 days,671,690 692 693
686 687 688 689 690 691 692 693 694 695	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments <b>Risk Assessment Report</b> Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management <b>ECOLOGICAL EVALUATION</b>	29 days 1 day 20 days <b>210 days</b> 30 days 10 days 10 days 1 day	8/29/2005 10/10/2005 12/8/2005 5/19/2005 1/10/2006 2/22/2006 3/8/2006 3/22/2006 5/19/2005 3/1/2004	10/10/2005 1/9/2006 3/22/2006 3/7/2006 3/21/2006 3/22/2006 9/28/2005 5/15/2006		689FS+40 days 689FS+40 days,671,690 692 693 694
686 687 688 690 691 692 693 694 695 696 697 698	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments <b>Risk Assessment Report</b> Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management <b>ECOLOGICAL EVALUATION</b> Level 1 Ecological Evaluation	29 days 1 day 20 days 210 days 30 days 10 days 10 days 1 day 91 days 556 days 185 days	8/29/2005 10/10/2005 12/8/2005 5/19/2005 1/10/2006 3/8/2006 3/8/2006 5/19/2005 3/1/2004 3/1/2004	10/10/2005 1/9/2006 3/22/2006 3/21/2006 3/21/2006 3/22/2006 9/28/2005 5/15/2006 11/18/2004	100%	689FS+40 days 689FS+40 days,671,690 692 693 694
686           687           688           689           690           691           692           693           694           695           696           697           698           707	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments <b>Risk Assessment Report</b> Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management <b>ECOLOGICAL EVALUATION</b> Level 1 Ecological Evaluation Ecological Risk Assessment Work Plan Development	29 days 1 day 20 days 210 days 30 days 10 days 1 day 91 days 556 days 185 days 101 days	8/29/2005 10/10/2005 12/8/2005 5/19/2005 1/10/2006 2/22/2006 3/8/2006 3/22/2006 5/19/2005 3/1/2004 3/1/2004 4/18/2005	10/10/2005 1/9/2006 3/22/2006 2/21/2006 3/7/2006 3/21/2006 9/28/2005 5/15/2006 11/18/2004 9/9/2005	100% 100%	689FS+40 days 689FS+40 days,671,690 692 693 694
686 687 688 690 691 692 693 694 695 696 697 698 707 712	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments Risk Assessment Report Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management ECOLOGICAL EVALUATION Level 1 Ecological Evaluation Ecological Risk Assessment Work Plan Development Level 2 Ecological Evaluation (REPLACED WITH ERA, below)	29 days 1 day 20 days 210 days 30 days 10 days 1 day 91 days 556 days 185 days 101 days 194 days	8/29/2005 10/10/2005 12/8/2005 5/19/2005 1/10/2006 2/22/2006 3/8/2006 3/8/2006 3/12/2005 3/1/2004 3/1/2004 3/8/2005 3/8/2004	10/10/2005 1/9/2006 3/22/2006 3/21/2006 3/21/2006 3/22/2006 9/28/2005 5/15/2006 11/18/2004 9/9/2005 12/11/2004	100% 100% 100%	689FS+40 days 689FS+40 days,671,690 692 693 694
686         687           688         689           690         691           692         693           694         695           696         697           698         707           712         721	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments Risk Assessment Report Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management ECOLOGICAL EVALUATION Level 1 Ecological Evaluation Ecological Risk Assessment Work Plan Development Level 2 Ecological Evaluation (REPLACED WITH ERA, below) Ecological Risk Assessment	29 days 1 day 20 days 210 days 30 days 10 days 10 days 1 day 91 days 556 days 105 days 101 days 194 days 130 days	8/29/2005 10/10/2005 12/8/2005 5/19/2005 1/10/2006 2/22/2006 3/8/2006 3/22/2006 5/19/2005 3/1/2004 3/1/2004 3/1/2004 3/8/2004 11/7/2005	10/10/2005 1/9/2006 2/21/2006 3/21/2006 3/21/2006 3/22/2006 9/28/2005 5/15/2006 11/18/2004 9/9/2005 12/11/2004 5/15/2006	100% 100%	689FS+40 days 689FS+40 days,671,690 692 693 694
686         687           688         689           690         691           692         693           694         695           696         697           697         707           712         721           722         722	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments Risk Assessment Report Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management ECOLOGICAL EVALUATION Level 1 Ecological Evaluation Ecological Risk Assessment Work Plan Development Level 2 Ecological Evaluation Response to Comments	29 days 1 day 20 days 210 days 30 days 10 days 10 days 1 day 91 days 556 days 185 days 101 days 194 days 130 days 20 days	8/29/2005 10/10/2005 12/8/2005 1/10/2006 2/22/2006 3/8/2006 3/12/2006 3/12/2005 3/1/2004 4/18/2005 3/8/2004 11/7/2005	10/10/2005 1/9/2006 3/22/2006 3/21/2006 3/21/2006 3/22/2006 9/28/2005 5/15/2006 11/18/2004 9/9/2005 12/11/2004 5/15/2006 1/12/2006	100% 100% 100%	689FS+40 days 689FS+40 days,671,690 692 693 694 682SS
686         687           688         689           690         691           692         693           694         695           695         696           697         698           707         712           721         2	PRP Group Review Final HHRA Work Plan Submittal to DEQ Prep Response to Comments Risk Assessment Report Draft HHRA Report PRP Group Review Final HHRA Report Submittal to DEQ Project Management ECOLOGICAL EVALUATION Level 1 Ecological Evaluation Ecological Risk Assessment Work Plan Development Level 2 Ecological Evaluation (REPLACED WITH ERA, below) Ecological Risk Assessment	29 days 1 day 20 days 210 days 30 days 10 days 10 days 1 day 91 days 556 days 105 days 101 days 194 days 130 days	8/29/2005 10/10/2005 12/8/2005 5/19/2005 1/10/2006 2/22/2006 3/8/2006 3/22/2006 5/19/2005 3/1/2004 3/1/2004 3/1/2004 3/8/2004 11/7/2005	10/10/2005 1/9/2006 2/21/2006 3/21/2006 3/21/2006 3/22/2006 9/28/2005 5/15/2006 11/18/2004 9/9/2005 12/11/2004 5/15/2006	100% 100% 100%	689FS+40 days 689FS+40 days,671,690 692 693 694

UPDATED SCHEDULE (12/14/05)								
Remedial Investigation/Feasibility Study Astoria Area-Wide Petroleum Site Astoria, Oregon								
ID	Task Description	Duration	Start	Finish	Complete Predecessors			
725	Laboratory Analyses	30 days	1/30/2006	3/13/2006	724			
726	Data Analysis	19 days	3/14/2006	4/7/2006	725			
727	Draft ERA Report	10 days	4/10/2006	4/21/2006	726			
728	PRP Group Review	10 days	4/24/2006	5/5/2006	727			
729	Final ERA Report	5 days	5/8/2006	5/12/2006	728			
730	Submittal to DEQ	1 day	5/15/2006	5/15/2006	729			
731								
732	FEASIBILITY STUDY	188 days	3/23/2006	12/19/2006	0%			
733	Feasibility Study Work Plan	77 days	3/23/2006	7/12/2006				
734	Establish Remedial Action Objectives	5 days	3/23/2006	3/29/2006	671,120,193,445,695			
735	Identify General Response Actions	10 davs	3/30/2006	4/12/2006	734			
736	Determine Preliminary Remediation Goals	5 days	4/13/2006	4/19/2006	735			
737	ID/Screen Remedial Technologies	10 days	4/24/2006	5/5/2006	736,727			
738	Draft Feasibility Study Work Plan	10 days	5/8/2006	5/19/2006	737			
739	PRP Group Review	10 days	5/22/2006	6/5/2006	738			
740	Final Feasibility Study Work Plan	5 days	6/6/2006	6/12/2006	739			
741	DEQ Review	30 edays	6/12/2006	7/12/2006	740			
742	Feasibility Study Evaluation	40 days	7/13/2006	9/7/2006				
743	Assemble/Screen Remedial Alternatives	10 days	7/13/2006	7/26/2006	741			
744	Detailed Analysis	15 days	7/27/2006	8/16/2006	743			
745	Compare Remedial Alternatives	10 days	8/17/2006	8/30/2006	744			
746	Recommend Preferred Alternative	5 days	8/31/2006	9/7/2006	745			
747	Reporting	71 days	9/8/2006	12/19/2006				
748	Draft FS Report	15 days	9/8/2006	9/28/2006	746			
749	PRP Group Review	10 days	9/29/2006	10/12/2006	748			
750	Final Draft FS Report	10 days	10/13/2006	10/26/2006	749			
751	Submittal to DEQ	1 day	10/27/2006	10/27/2006	750			
752	DEQ Review	30 edays	10/27/2006	11/26/2006	751			
753	Final FS Report	15 days	11/27/2006	12/19/2006	752			
754								

