

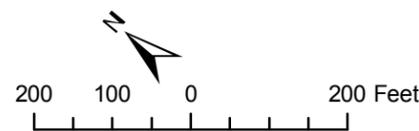
**Chemistry Legend**

Silver - Surface Water		Silver - Transition Water		Silver - Ground Water	
total_or_dissolved	Exceedance_class	total_or_dissolved	Exceedance_class	total_or_dissolved	Exceedance_class
■	D, MCLx10 ( 1 mg/l)	●	D, MCLx10 ( 1 mg/l)	▲	D, MCLx10 ( 1 mg/l)
■	T, MCLx10 ( 1 mg/l)	●	T, MCLx10 ( 1 mg/l)	▲	T, MCLx10 ( 1 mg/l)
■	D, Acute ( 0.0003579 mg/l)	●	D, Acute ( 0.0003579 mg/l)	▲	D, Acute ( 0.0003579 mg/l)
■	T, Acute ( 0.0003579 mg/l)	●	T, Acute ( 0.0003579 mg/l)	▲	T, Acute ( 0.0003579 mg/l)
■	D, Chronic ( 0.0001 mg/l)	●	D, Chronic ( 0.0001 mg/l)	▲	D, Chronic ( 0.0001 mg/l)
■	T, Chronic ( 0.0001 mg/l)	●	T, Chronic ( 0.0001 mg/l)	▲	T, Chronic ( 0.0001 mg/l)
□	D, None Exceeded	○	D, None Exceeded	△	D, None Exceeded
□	T, None Exceeded	○	T, None Exceeded	△	T, None Exceeded
■	D, Not Detected	●	D, Not Detected	▲	D, Not Detected
■	T, Not Detected	●	T, Not Detected	▲	T, Not Detected

**REVISION DRAFT**

DO NOT QUOTE OR CITE  
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**Notes:**  
1) If both Total and Dissolved values occur coincidentally at a sampling location, the dissolved value will appear on top.

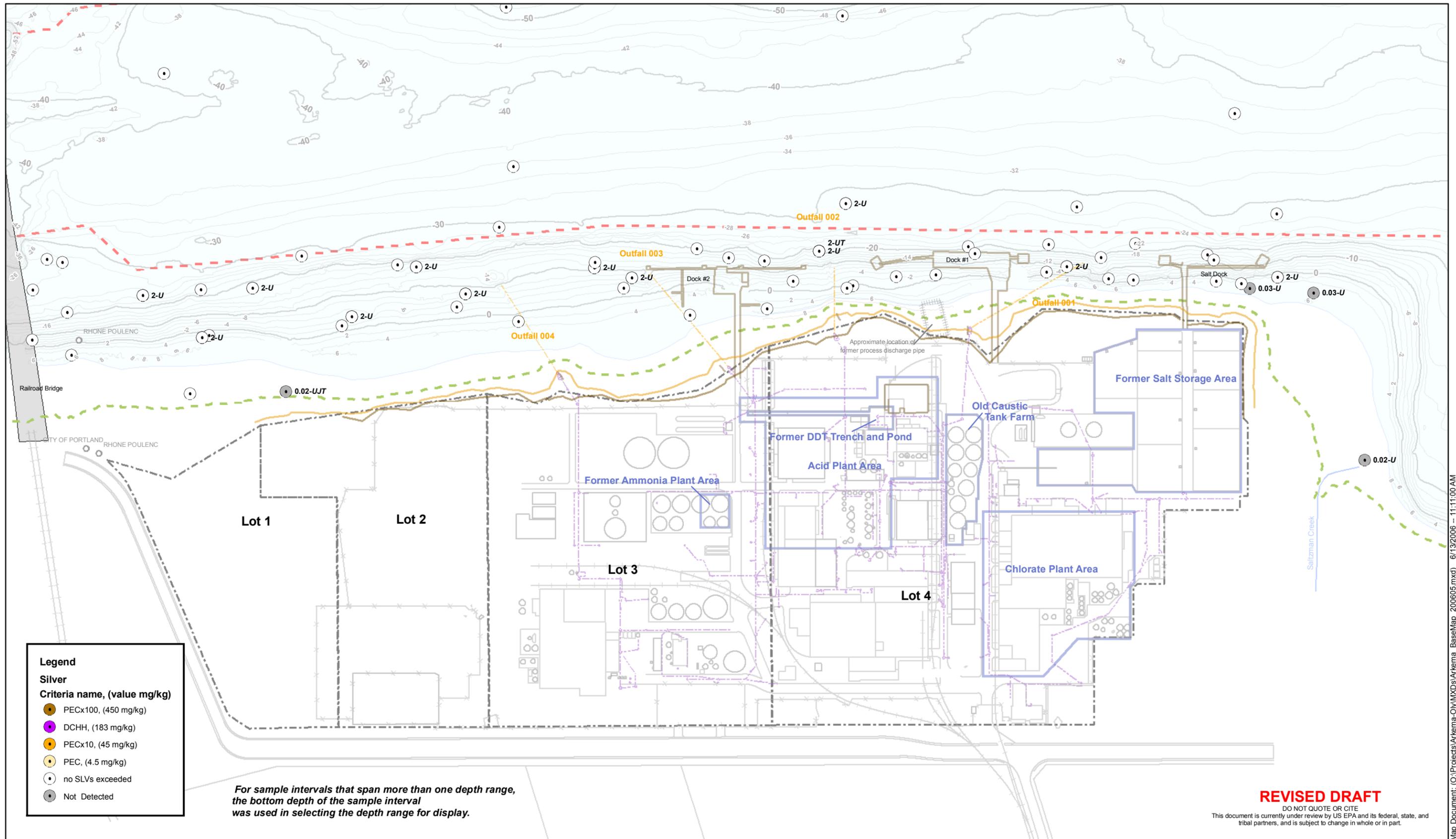


**FEATURE SOURCES:**  
**Bathymetric Information:** Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.  
**Vertical Datum:** North American Vertical Datum of 1988 (NAVD88).  
**Horizontal Datum:** North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.  
**Units:** International Feet.  
**Basemap:** Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006.

—	Ordinary High Water	—	12ft_Contour	—	Navigation Channel
—	Top of Bank	—	Property Lines	—	River
—	E-Sewer-L	—	Outfalls	—	
—	Storm Drain				

**Map-323**  
**Arkema Site**  
**Surface Water, Transition Zone Water,**  
**and Groundwater Samples**  
**Silver**

Map Document: (O:\Projects\Arkema-01\MXDs\ArkemaSW\_DotMap\_Screened\_20060622.mxd) 6/23/2006 - 6:06:12 PM



**Legend**

**Silver**

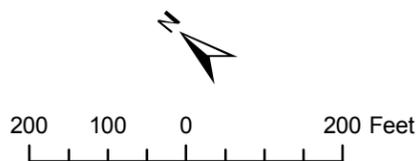
**Criteria name, (value mg/kg)**

- PECx100, (450 mg/kg)
- DCHH, (183 mg/kg)
- PECx10, (45 mg/kg)
- PEC, (4.5 mg/kg)
- no SLVs exceeded
- Not Detected

*For sample intervals that span more than one depth range, the bottom depth of the sample interval was used in selecting the depth range for display.*

**REVISED DRAFT**

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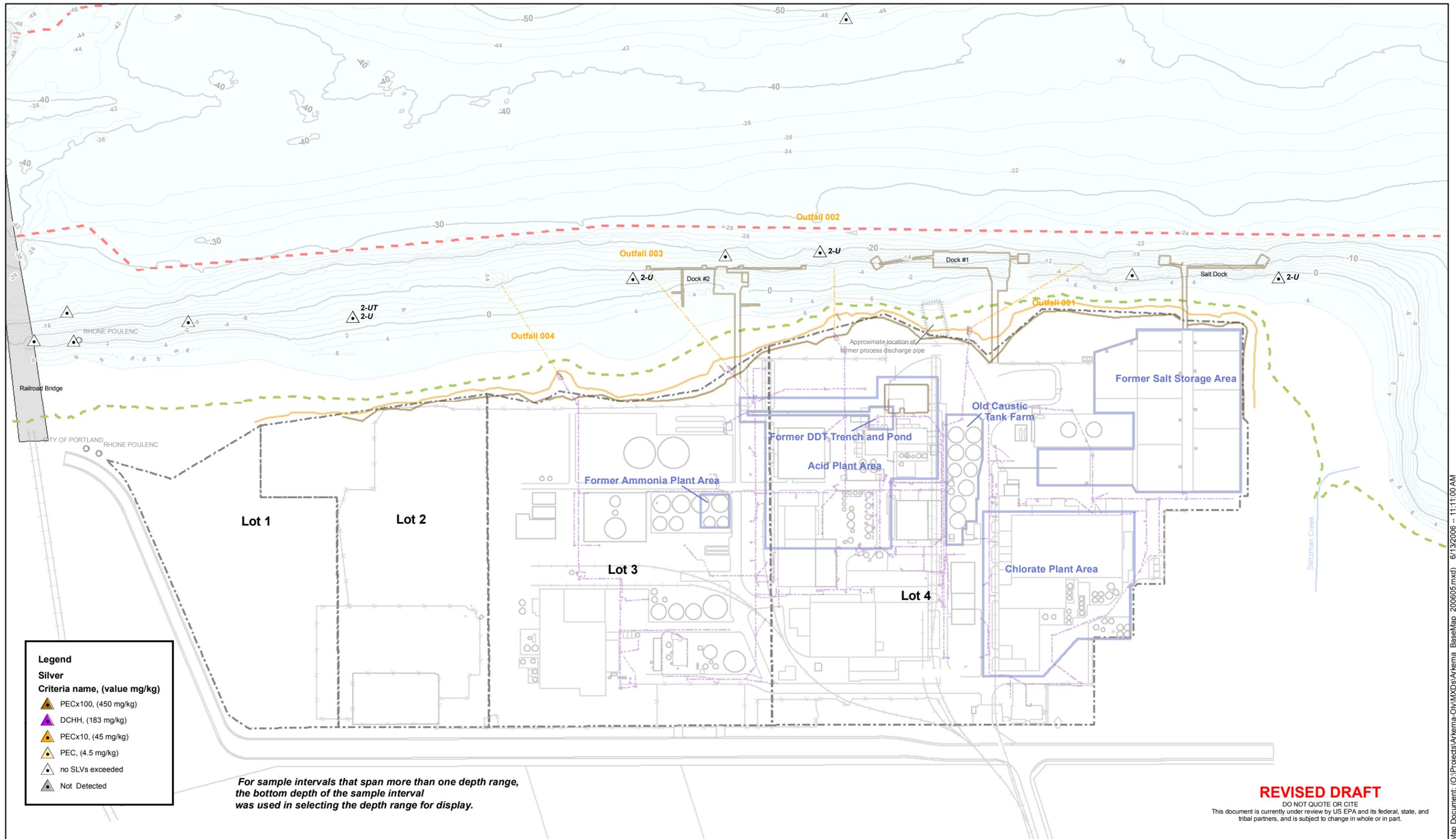


**FEATURE SOURCES:**  
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.  
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 Horizontal Datum: North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.  
 Units: International Feet.  
 Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006. Most buildings and structures on the Arkema site have been demolished or removed.  
 OHW and Top of Slope lines were created from the April 2006 DEA survey, the +12ft contour line was derived from the combined lidar/bathymetry grid.  
 Lot Lines: Created by importing pdf file from ERM, georeferencing to CAD lines (RMS error = 2.3042) and heads-up digitizing the lot lines.

— Ordinary High Water	— 12ft_Contour	— Navigation Channel
— Top of Bank	— Bridges	— River
— E-Sewer-L	— Property Lines	— Outfalls
— Storm Drain		

**Map-324**  
**Arkema Site**  
**Surface & Sub-Surface Sediment Samples**  
**Depth Range: Surface (0-1 ft)**  
**Silver**

Map Document: (O:\Projects\Arkema-01\MXDs\Arkema\_BaseMap\_200605.mxd) 6/13/2006 11:11:00 AM



**Legend**

**Silver**

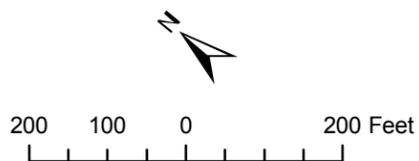
**Criteria name, (value mg/kg)**

- PECx100, (450 mg/kg)
- DCHH, (183 mg/kg)
- PECx10, (45 mg/kg)
- PEC, (4.5 mg/kg)
- no SLVs exceeded
- Not Detected

*For sample intervals that span more than one depth range, the bottom depth of the sample interval was used in selecting the depth range for display.*

**REVISED DRAFT**

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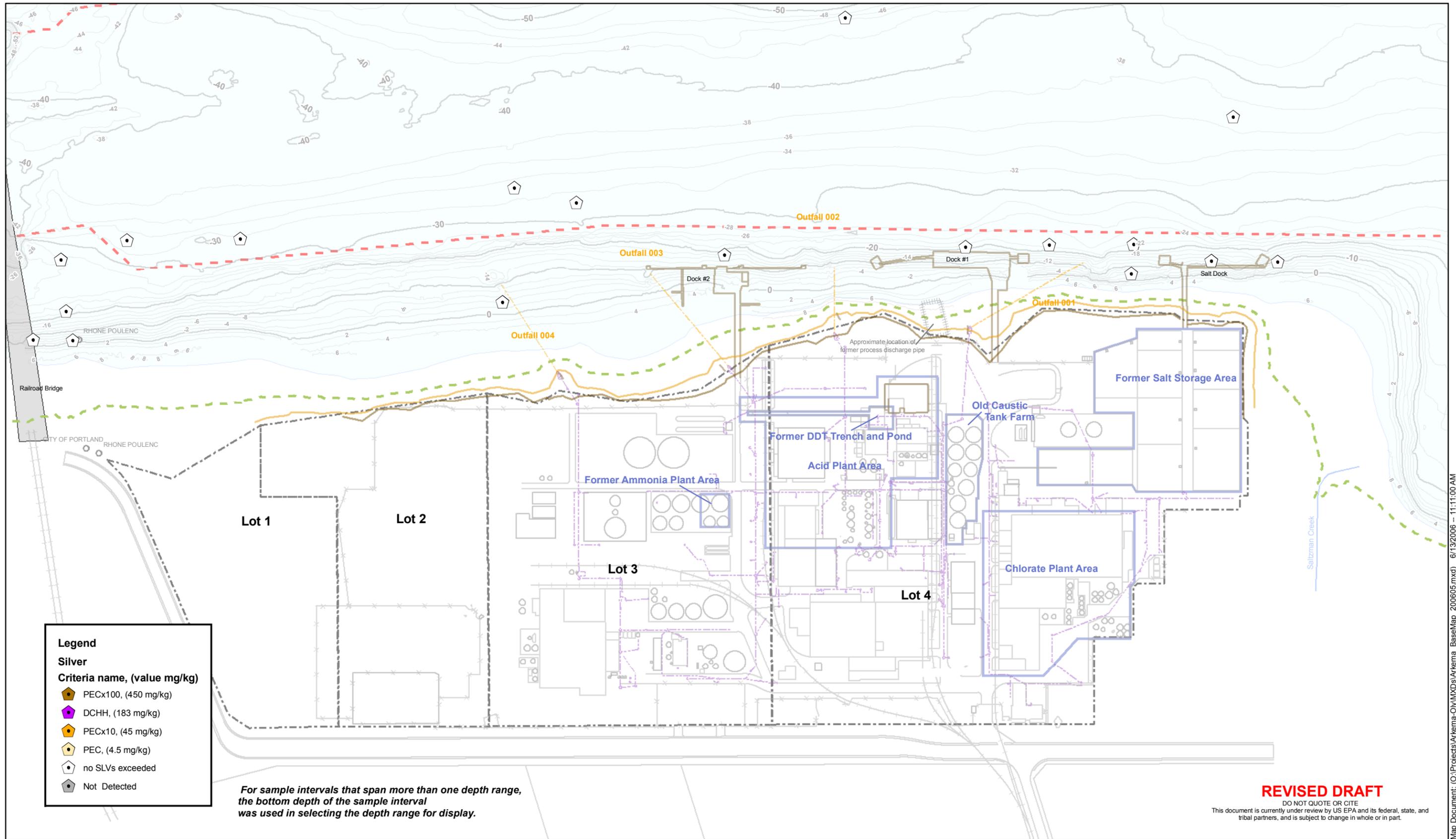


**FEATURE SOURCES:**  
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 Units: International Feet.  
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 OHW and Top of Slope lines were created from the April 2006 DEA survey, the +12ft contour line was derived from the combined lidar/bathymetry grid.  
 Lot Lines: Created by importing pdf file from ERM, georeferencing to CAD lines (RMS error = 2.3042) and heads-up digitizing the lot lines.

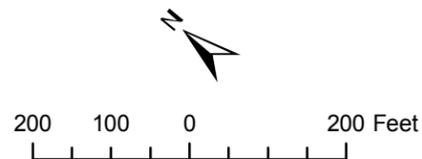
Ordinary High Water	12ft Contour	Navigation Channel
Top of Bank	Bridges	River
E-Sewer-L	Property Lines	Outfalls
Storm Drain	Property Lines	

**Map-325**  
**Arkema Site**  
**Surface & Sub-Surface Sediment Samples**  
**Depth Range: Shallow Subsurface (1-4 ft)**  
**Silver**

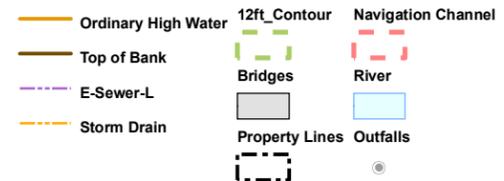
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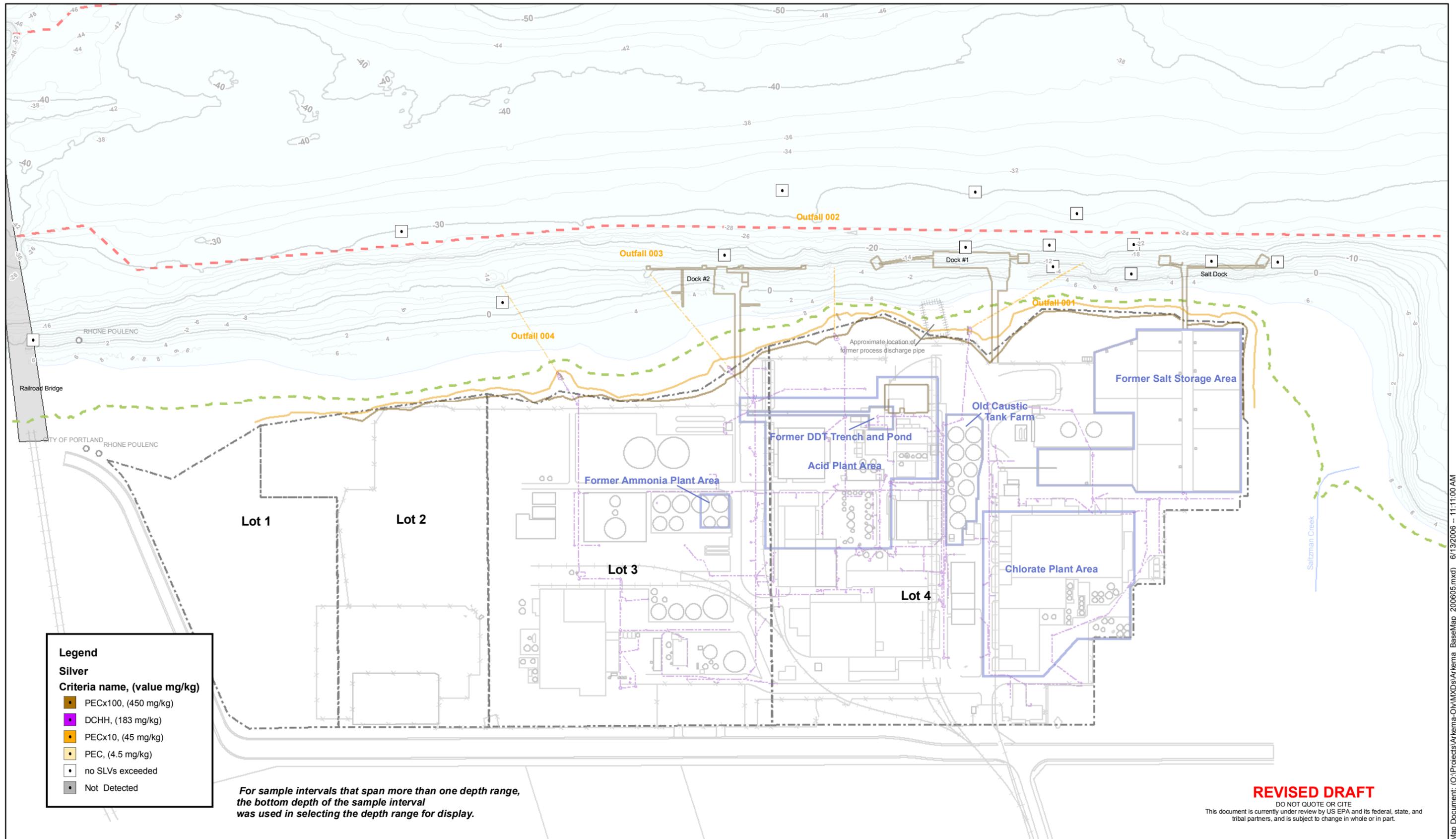
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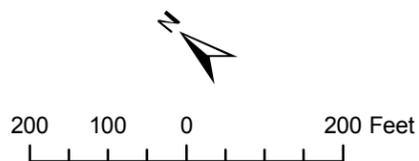
**FEATURE SOURCES:**  
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.  
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 Horizontal Datum: North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.  
 Units: International Feet.  
 Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006. Most buildings and structures on the Arkema site have been demolished or removed.  
 OHW and Top of Slope lines were created from the April 2006 DEA survey, the +12ft contour line was derived from the combined lidar/bathymetry grid.  
 Lot Lines: Created by importing pdf file from ERM, georeferencing to CAD lines (RMS error = 2.3042) and heads-up digitizing the lot lines.



**Map-326**  
**Arkema Site**  
**Surface & Sub-Surface Sediment Samples**  
**Depth Range: Intermediate Subsurface (4-8 ft)**  
**Silver**



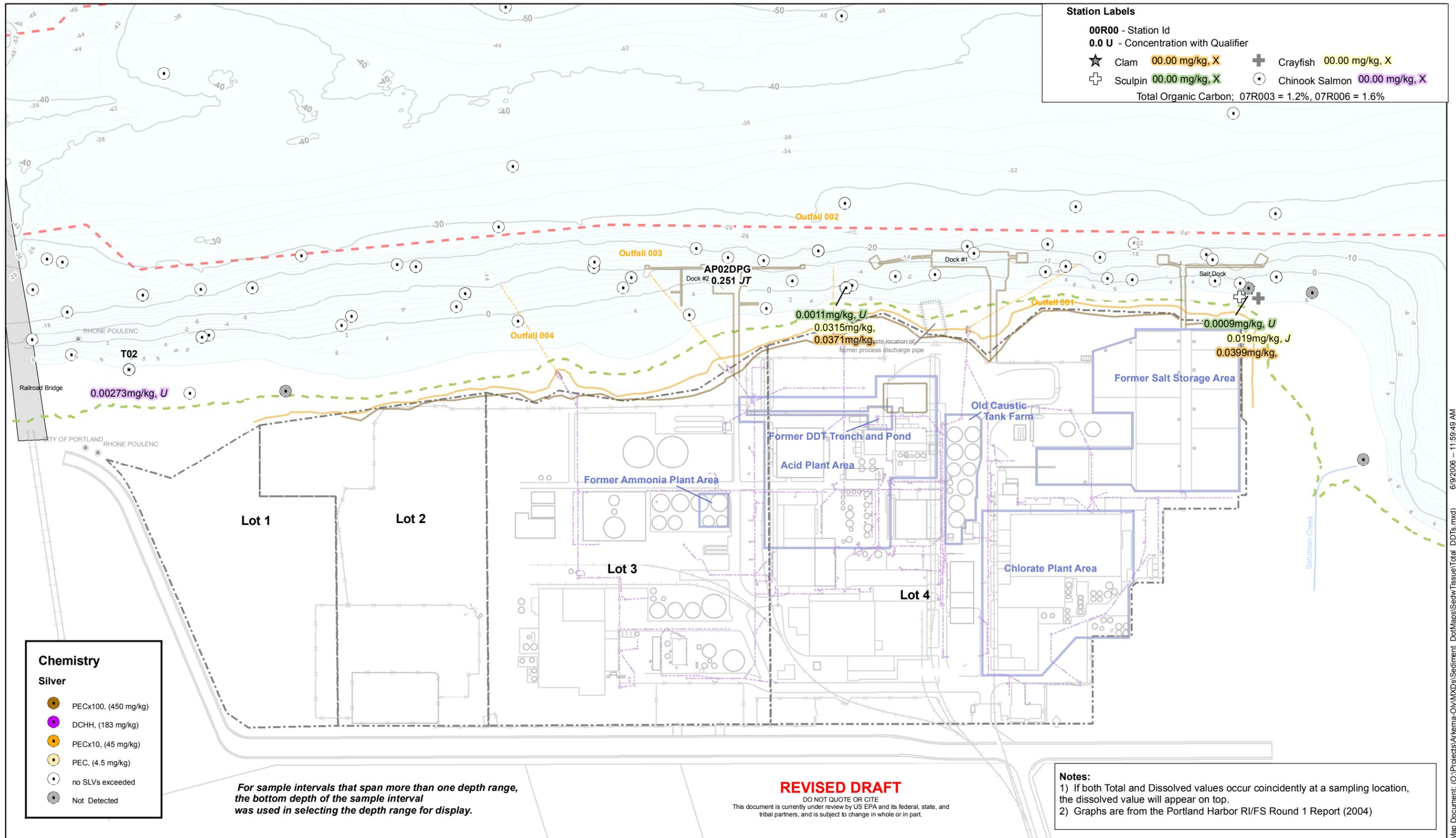
Map Document: (O:\Projects\Arkema-01\MapDocs\Arkema\_BaseMap\_200605.mxd) 6/13/2006 - 11:11:00 AM



**FEATURE SOURCES:**  
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 Units: International Feet.  
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- Ordinary High Water
- Top of Bank
- E-Sewer-L
- Storm Drain
- 12ft\_Contour
- Bridges
- Property Lines
- Navigation Channel
- River
- Outfalls

**Map-327**  
**Arkema Site**  
**Surface & Sub-Surface Sediment Samples**  
**Depth Range: Deep Subsurface (> 8 ft)**  
**Silver**



**Station Labels**

00R00 - Station Id  
 0.0 U - Concentration with Qualifier

★ Clam	00.00 mg/kg, X	+	Crayfish	00.00 mg/kg, X
⊕ Sculpin	00.00 mg/kg, X	⊙	Chinook Salmon	00.00 mg/kg, X

Total Organic Carbon: 07R003 = 1.2%, 07R006 = 1.6%

**Chemistry**

**Silver**

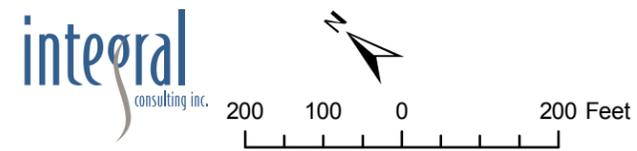
●	PECx100, (450 mg/kg)
●	DCHH, (183 mg/kg)
●	PECx10, (45 mg/kg)
●	PEC, (4.5 mg/kg)
○	no SLVs exceeded
○	Not Detected

*For sample intervals that span more than one depth range, the bottom depth of the sample interval was used in selecting the depth range for display.*

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- Notes:**
- 1) If both Total and Dissolved values occur coincidentally at a sampling location, the dissolved value will appear on top.
  - 2) Graphs are from the Portland Harbor RI/FS Round 1 Report (2004)



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 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.  
 Vertical Datum: North American Vertical Datum of 1988 (NAVD88).  
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 Units: International Feet.  
 Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006. Basemap features reflect structures that have been removed from the site.  
 OHW and Top of Slope lines were created from the April 2006 DEA survey, the +12ft contour line was derived from the combined lidar/bathymetry grid.

—	Ordinary High Water	—	12ft Contour	—	Navigation Channel
—	Top of Bank	—	Bridges	—	River
—	E-Sewer-L	—	Property Lines	—	Outfalls
—	Storm Drain	—		—	

**Map-328**  
**Arkema Site**  
**Surface & Tissue Samples**  
**Silver**  
**Depth Range: Surface (0 - 1 ft)**

Map Document: (O:\Projects\Arkema-01\MXDs\Sediment\_DotMaps\SedW\Tissue\Total\_DDTs.mxd) 6/9/2006 -- 11:59:49 AM