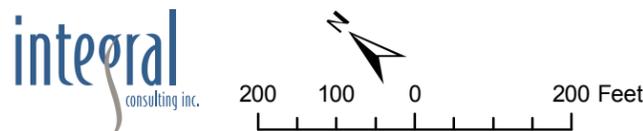
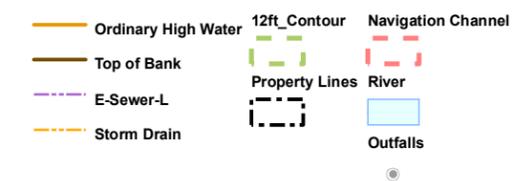


Map Document: (O:\Projects\Arkema-01\MXDs\ArkemaSW_DotMap_Screened_20060622.mxd) 6/23/2006 - 6:06:12 PM



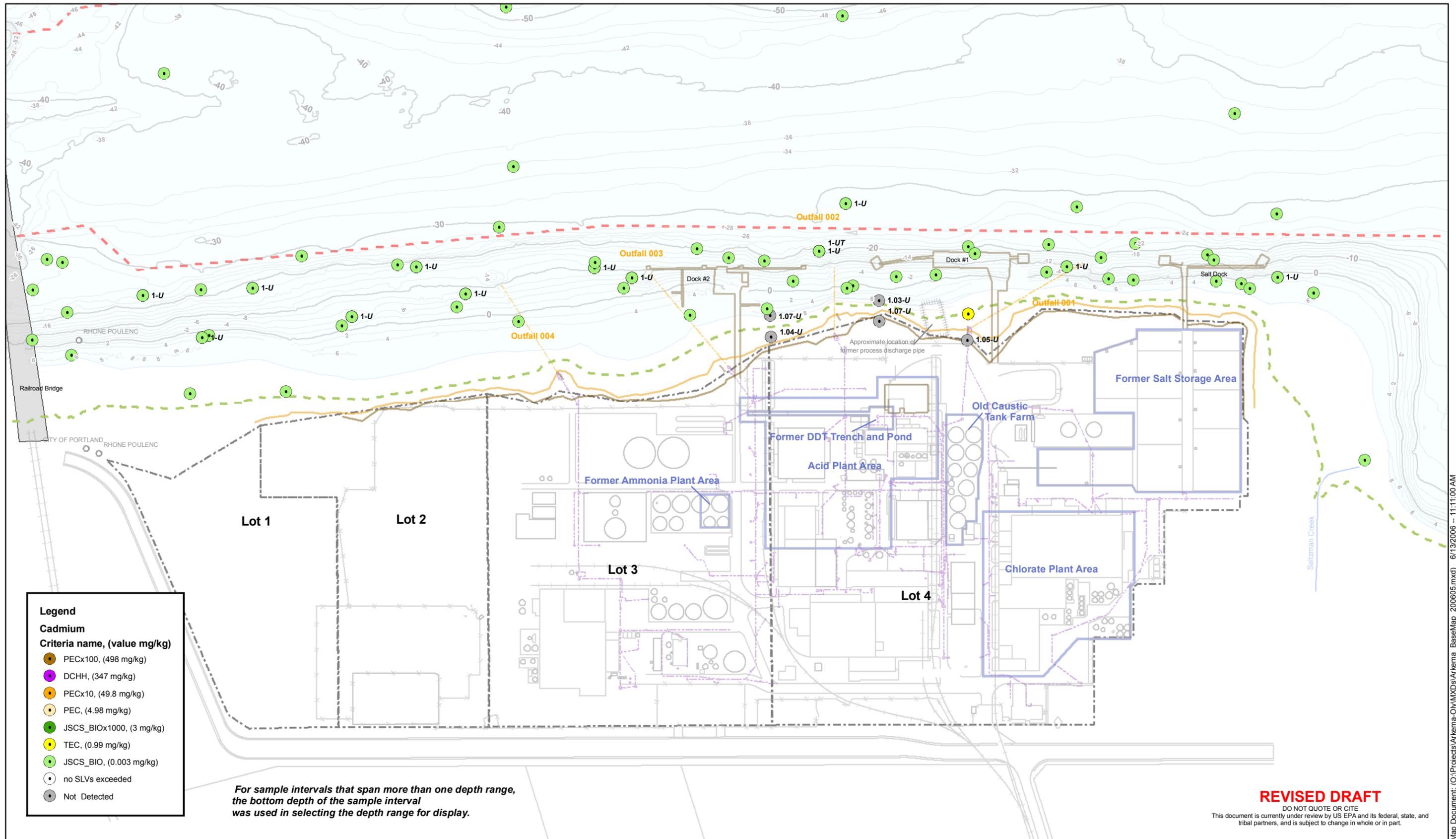
FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004.
 Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum 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.



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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.

Map-288
Arkema Site
Surface Water, Transition Zone Water,
and Groundwater Samples
Cadmium



Legend

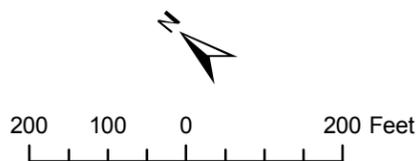
Cadmium

Criteria name, (value mg/kg)

- PECx100, (498 mg/kg)
- DCHH, (347 mg/kg)
- PECx10, (49.8 mg/kg)
- PEC, (4.98 mg/kg)
- JSCS_BIOx1000, (3 mg/kg)
- TEC, (0.99 mg/kg)
- JSCS_BIO, (0.003 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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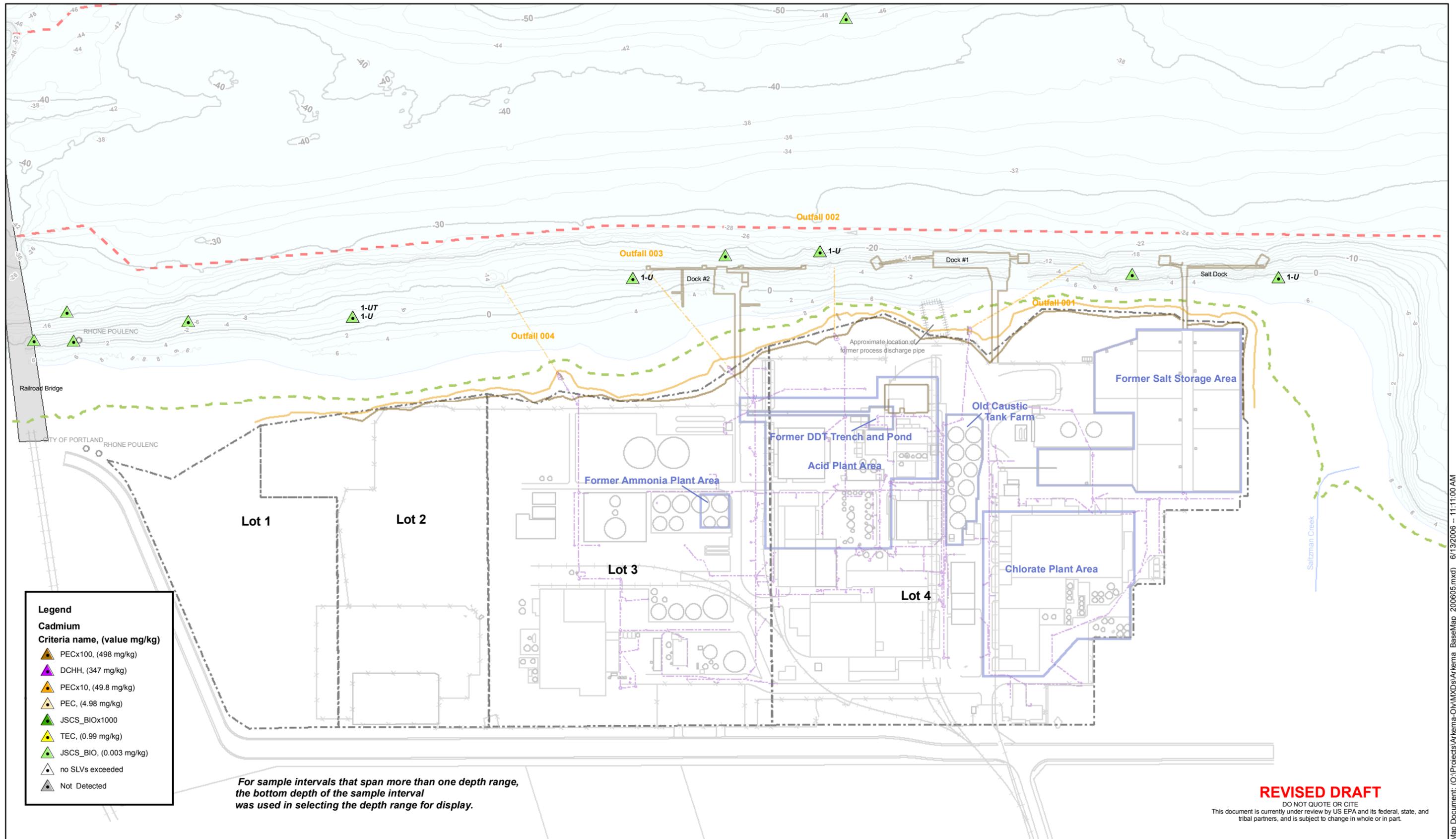


FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum 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. 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-289
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Surface (0-1 ft)
Cadmium

Map Document: (O:\Projects\Arkema-01\MXDs\Arkema_BaseMap_200605.mxd) 6/13/2006 11:11:00 AM



Legend

Cadmium

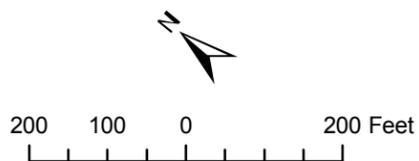
Criteria name, (value mg/kg)

- ▲ PECx100, (498 mg/kg)
- ▲ DCHH, (347 mg/kg)
- ▲ PECx10, (49.8 mg/kg)
- ▲ PEC, (4.98 mg/kg)
- ▲ JSCS_BIOx1000
- ▲ TEC, (0.99 mg/kg)
- ▲ JSCS_BIO, (0.003 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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This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or in part.

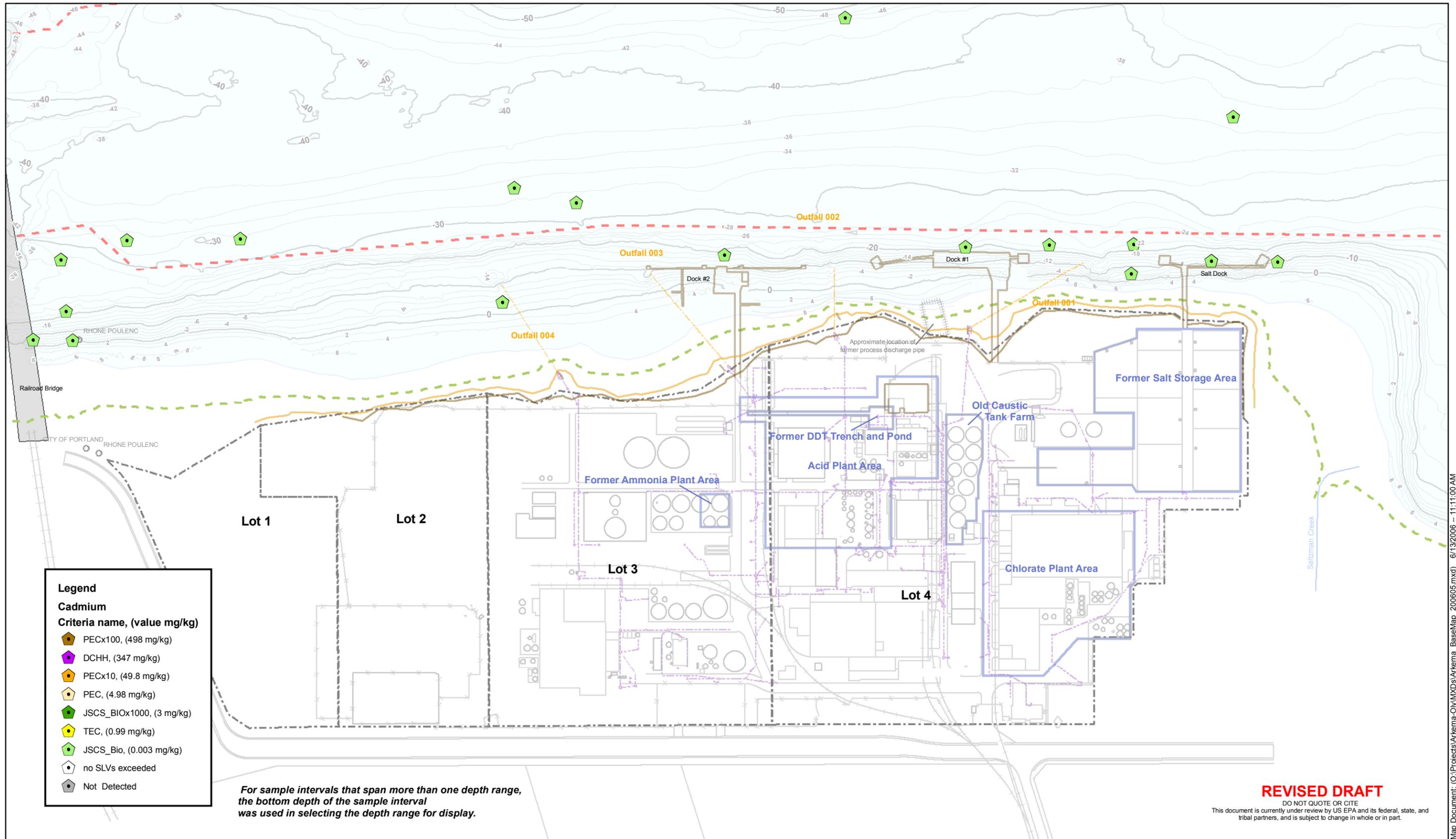


FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum 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. 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-290
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Shallow Subsurface (1-4 ft)
Cadmium

Map Document: (O:\Projects\Arkema-01\MapDocs\Arkema_BaseMap_200605.mxd) 6/13/2006 11:11:00 AM



Legend

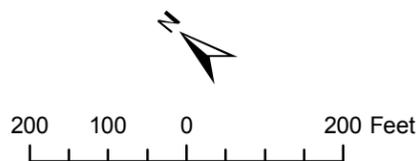
Cadmium

Criteria name, (value mg/kg)

- ◆ PECx100, (498 mg/kg)
- ◆ DCHH, (347 mg/kg)
- ◆ PECx10, (49.8 mg/kg)
- ◆ PEC, (4.98 mg/kg)
- ◆ JSCS_BIOx1000, (3 mg/kg)
- ◆ TEC, (0.99 mg/kg)
- ◆ JSCS_Bio, (0.003 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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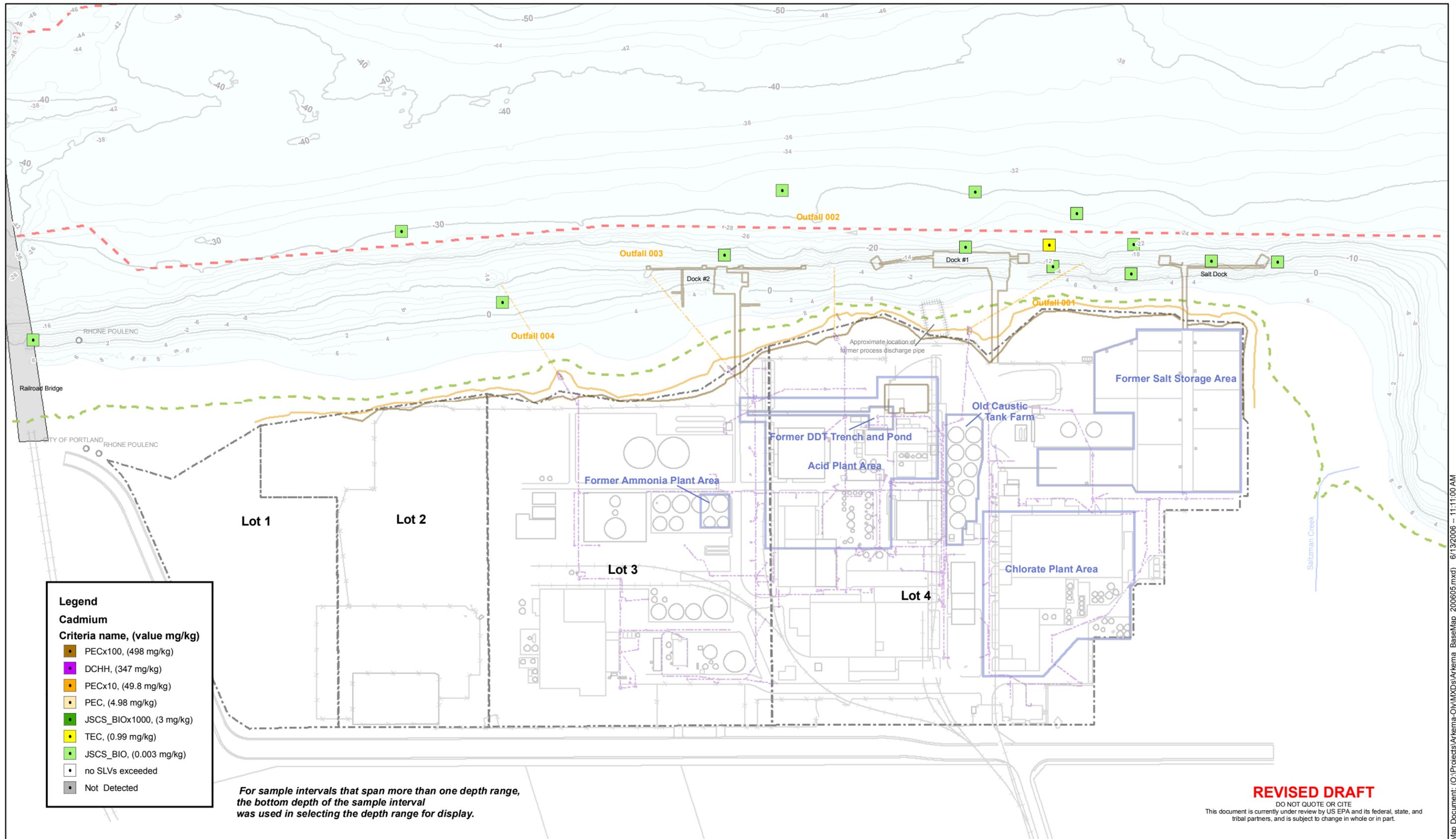


FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum 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. 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	- - - Property Lines	● Outfalls

Map-291
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Intermediate Subsurface (4-8 ft)
Cadmium

Map Document: (O:\Projects\Arkema-01\MXDs\Arkema_BaseMap_200605.mxd) 6/13/2006 -- 11:11:00 AM



Legend

Cadmium

Criteria name, (value mg/kg)

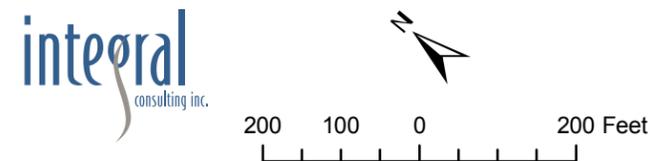
- PECx100, (498 mg/kg)
- DCHH, (347 mg/kg)
- PECx10, (49.8 mg/kg)
- PEC, (4.98 mg/kg)
- JSCS_BIOx1000, (3 mg/kg)
- TEC, (0.99 mg/kg)
- JSCS_BIO, (0.003 mg/kg)
- no SLVs exceeded
- Not Detected

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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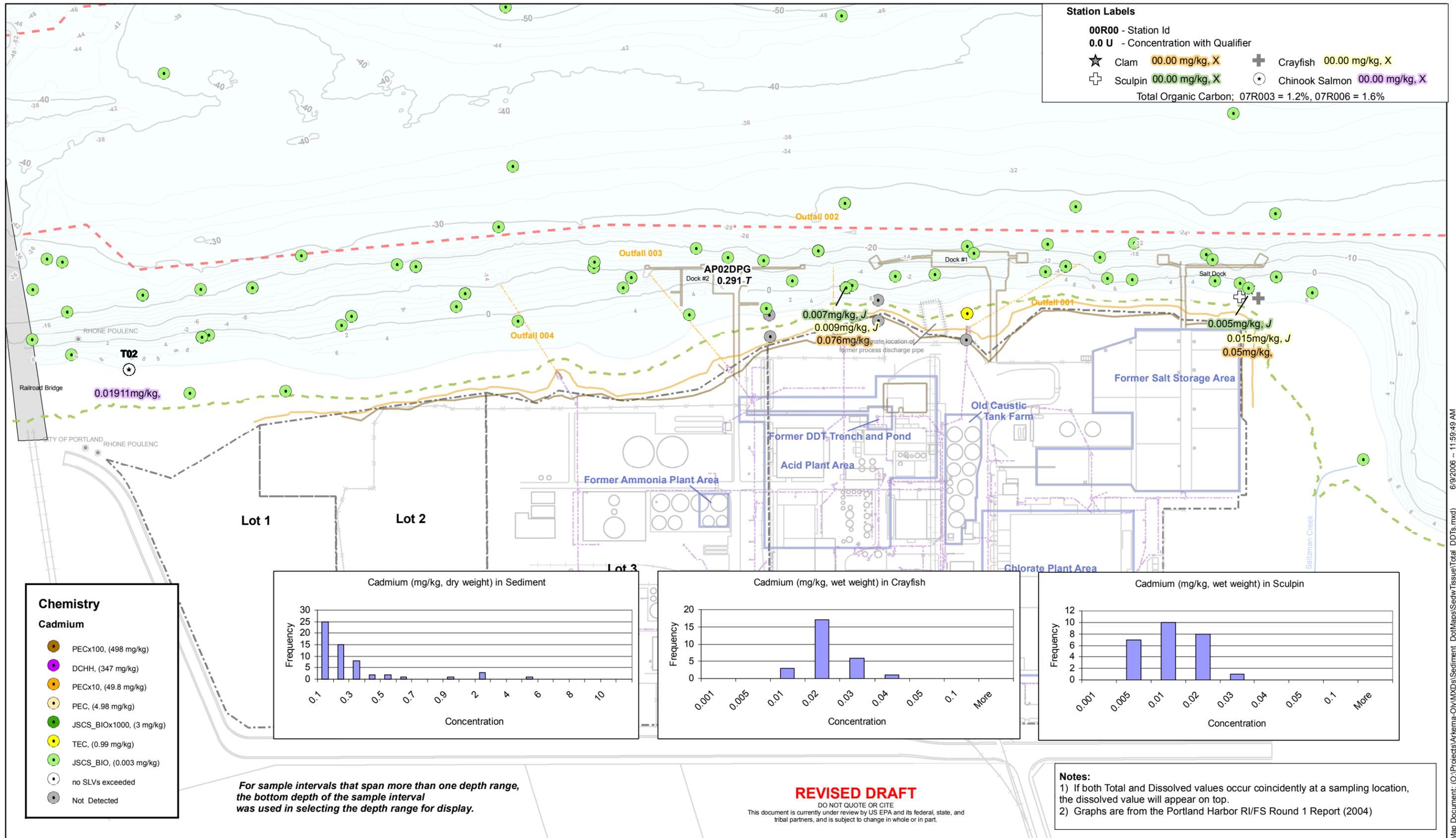
FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum 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. 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-292
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Deep Subsurface (> 8 ft)
Cadmium

Map Document: (O:\Projects\Arkema-01\MapDocs\Arkema_BaseMap_200605.mxd) 6/13/2006 11:11:00 AM



Station Labels

00R00 - Station Id
 0.0 U - Concentration with Qualifier

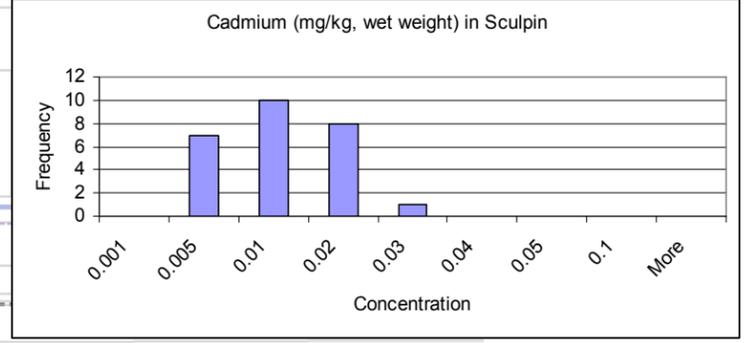
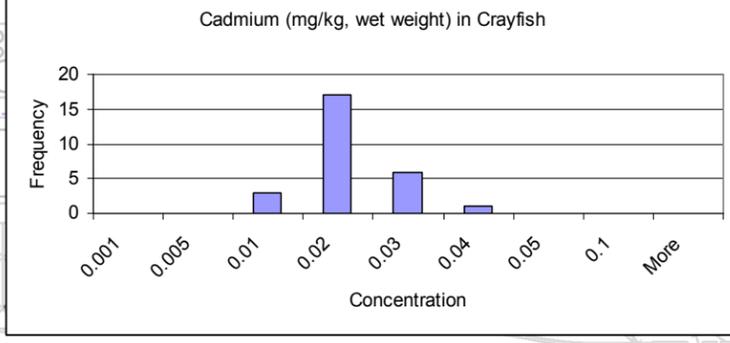
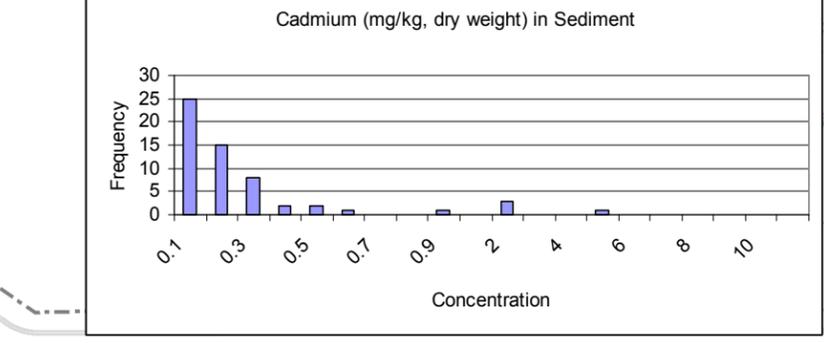
★ Clam	00.00 mg/kg, X	+	Crayfish	00.00 mg/kg, X	
⊕	Sculpin	00.00 mg/kg, X	⊙	Chinook Salmon	00.00 mg/kg, X

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

Chemistry

Cadmium

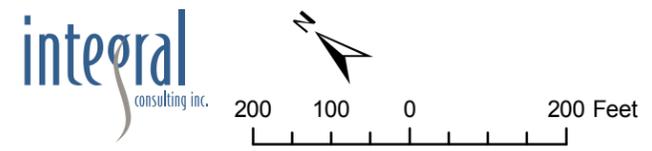
●	PECx100, (498 mg/kg)
●	DCHH, (347 mg/kg)
●	PECx10, (49.8 mg/kg)
●	PEC, (4.98 mg/kg)
●	JSCS_BIOx1000, (3 mg/kg)
●	TEC, (0.99 mg/kg)
●	JSCS_BIO, (0.003 mg/kg)
○	no SLVs exceeded
○	Not Detected



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)



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. 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-293
Arkema Site
Surface Sediment & Tissue Samples
Cadmium
Depth Range: Surface (0 - 1 ft)

Map Document: (O:\Projects\Arkema-O\MapDocs\Sediment_Tissue\DotMaps\SedW\TissueTotal_DDTs.mxd) 6/9/2006 - 11:59:49 AM