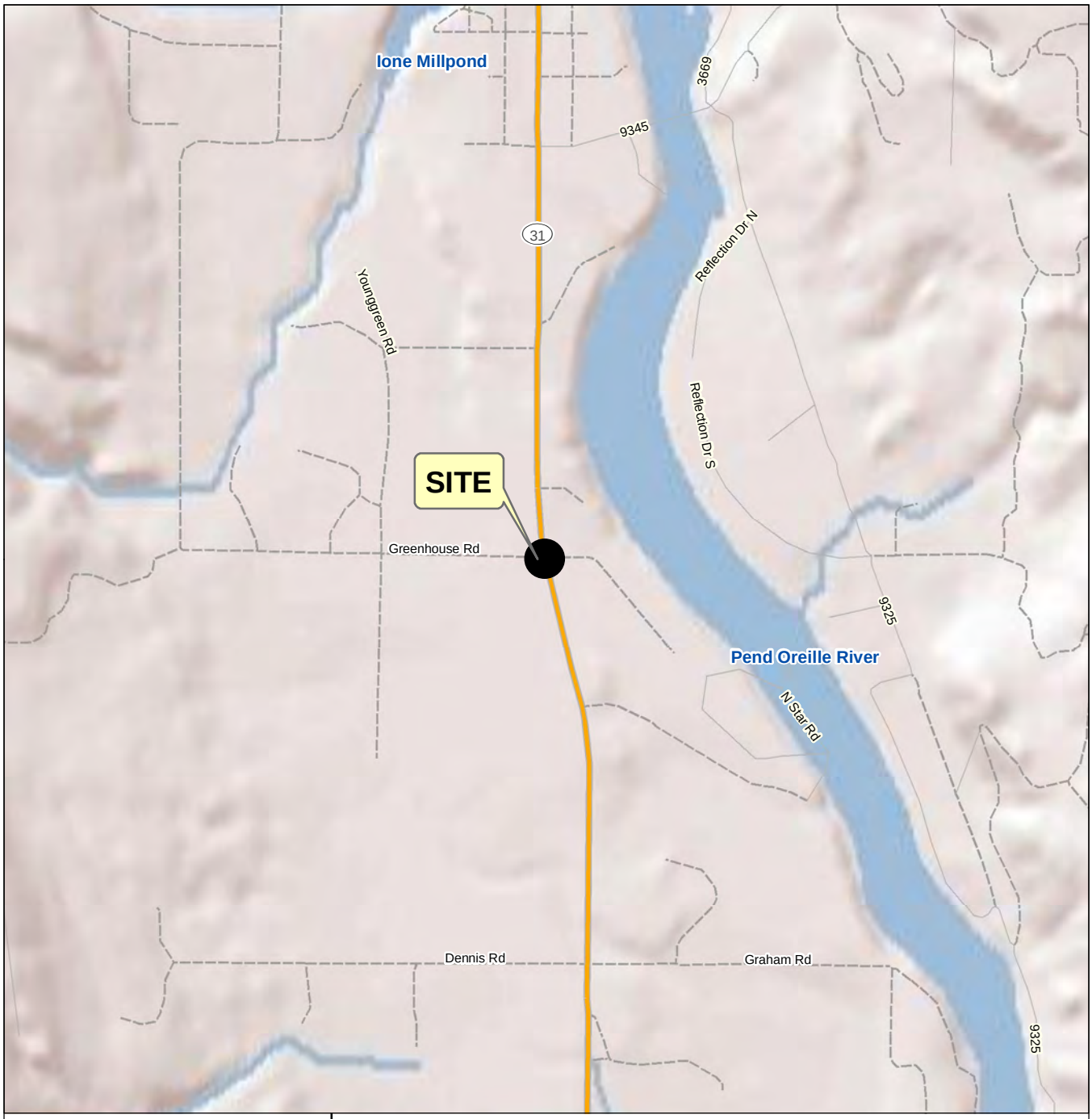
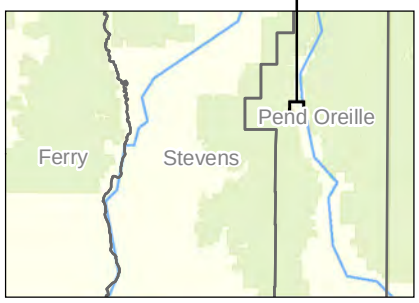
FIGURES

GeoEngineers





N
W E
S

2,000 0 2,000
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
Data Sources: ESRI Data & Maps, Street Maps 2008.
Projection: NAD 1983, UTM Zone 11 North.

Vicinity Map

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 1

Office: SPO Path:W:\Spokane\Projects\0\0504058\GIS\0504058O2_VM_F1.mxd Map Revised: 4/5/2012 CRC

Legend

- Approximate Location of Existing Water Well
- Property Boundary
- Estimated Extent of Plume of Petroleum - Contaminated Groundwater

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.
Parcel boundaries digitized from Pend Oreille County GIS,
https://gis.pendoreilleco.org/pocgisweb/map.html

N W E S

250 0 250
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Site Plan

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 2

Map Revised: December 17, 2012

Path: W:\Spokane\Projects\0\0504058\GIS\0504058_SitePlan_PropertyBoundary.mxd

OfficeLocation: SPO

Legend

- DP-1 — Approximate Location of Direct-Push Boring
- B-1 — Approximate Location of Exploration
- MW-1 — Approximate Location of Monitoring Well
- (W) — Approximate Location of Existing Water Well

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.

N W E S

250 0 250
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Exploration Locations

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 3

Map Revised: December 17, 2012

Path: W:\Spokane\Projects\00504058\GIS\0504058802_RIFS_ExplorationLocations.mxd

OfficeLocation: SPO

Legend

- DP-1 — Approximate Location of Direct-Push Boring
- MW-1 — Approximate Location of Monitoring Well
- B-5 — Approximate Location of Exploration
- SVE-1 — Approximate Location of 4" SVE Extracation Well
- MP-1 — Approximate Location of 2" Monitoring Point
- AS-1 — Approximate Location of Air Sparge Pilot Well
- W — Existing Water Well

N W E S

30 0 30
Feet

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.
ESRI Data & Maps, Street Maps 2008

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Airport Kwik Stop Detail Exploration Locations

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 4

Map Revised: December 20, 2012
Path:W:\Spokane\Projects\0\050405802\GIS\050405802_RIFS_KwikStopExplorationLocations.mxd
OfficeLocation: SPO

Legend

DP-1 — Approximate Location of Direct-Push Boring

B-4 — Approximate Location of Hollow-Stem Auger Boring

MW-2 — Monitoring Well Number and Approximate Location

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.

N W E S

25 0 25
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

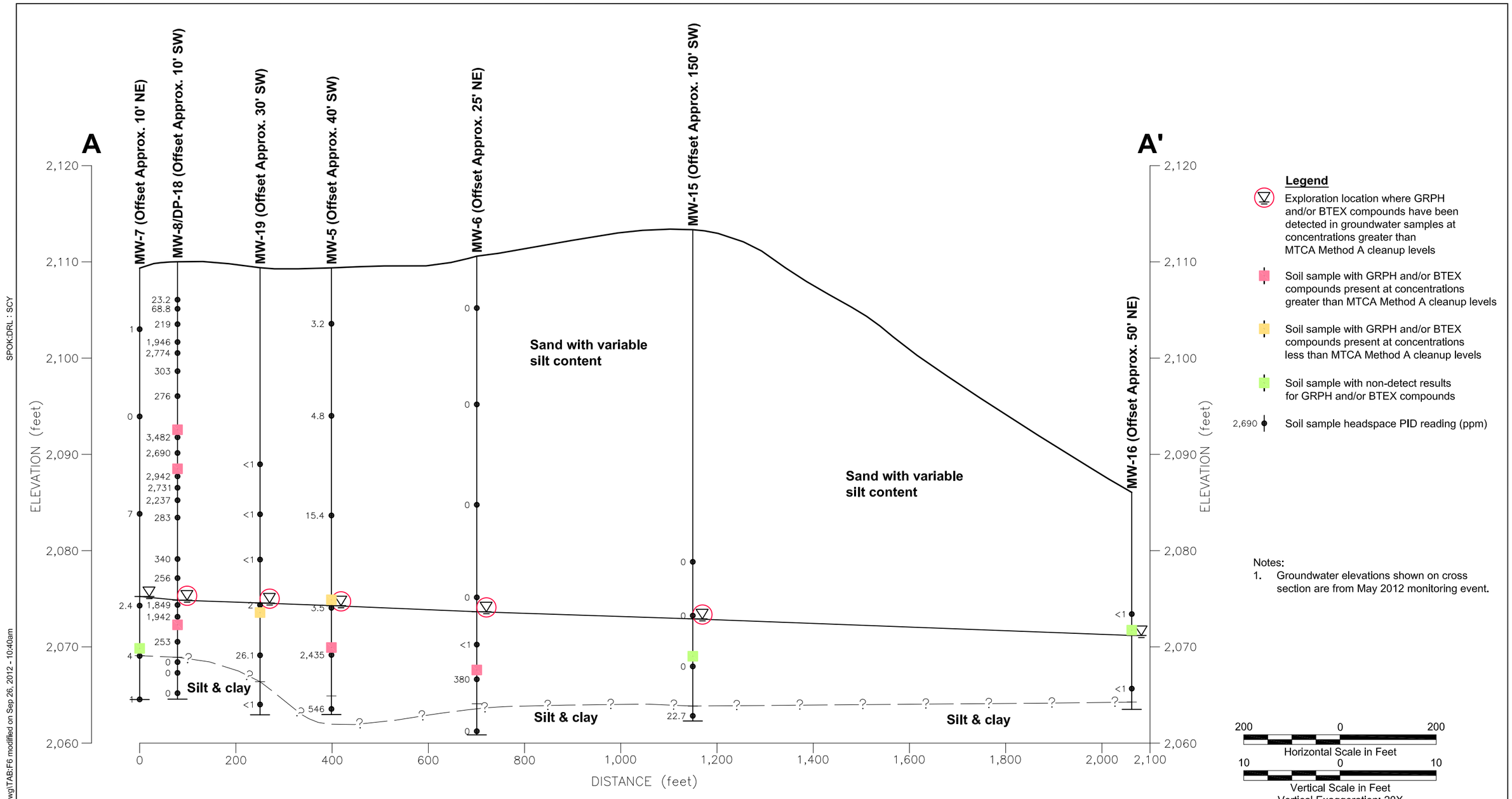
Ione Airport Detail Exploration Locations

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 5

Map Revised: December 12, 2012
Path: W:\Spokane\Projects\0\0504058\GIS\0504058\02_RIFS_AirportExplorationLocations.mxd
OfficeLocation: SPO



Legend

- Exploration location where GRPH and/or BTEX compounds have been detected in groundwater samples at concentrations greater than MTCA Method A cleanup levels
- Soil sample with GRPH and/or BTEX compounds present at concentrations greater than MTCA Method A cleanup levels
- Soil sample with GRPH and/or BTEX compounds present at concentrations less than MTCA Method A cleanup levels
- Soil sample with non-detect results for GRPH and/or BTEX compounds
- 2,690 Soil sample headspace PID reading (ppm)

Notes:
1. Groundwater elevations shown on cross section are from May 2012 monitoring event.

200 0 200
Horizontal Scale in Feet
10 0 10
Vertical Scale in Feet
Vertical Exaggeration: 20X

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

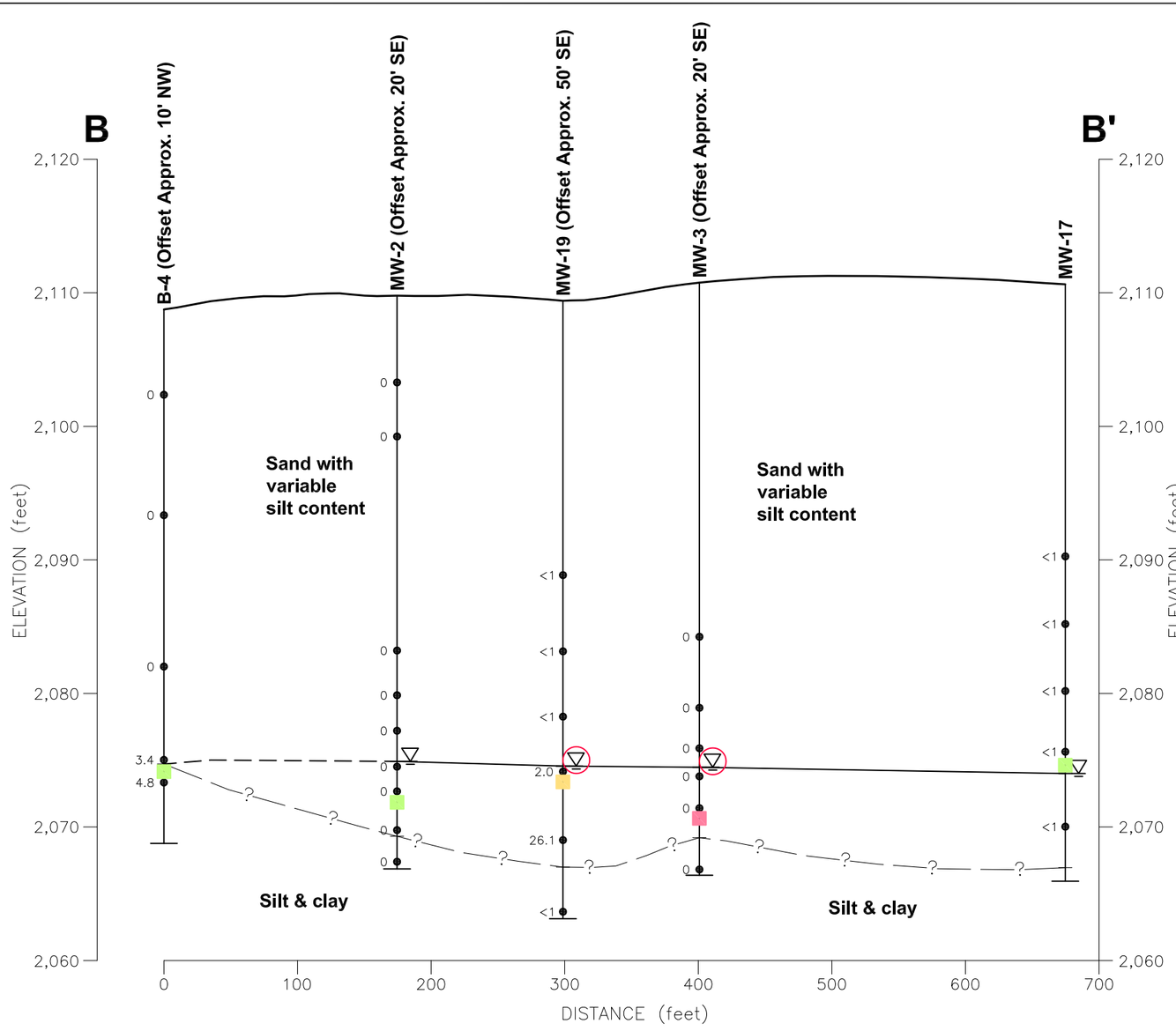
Cross Section A-A'

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 6

SPOK:DRL : SCY
P:\0105040058\02\CAD\0504058025802_F6 TO F9.dwg\TAB:F6 modified on Sep 26, 2012 - 10:40am



Legend

Exploration location where GRPH and/or BTEX compounds have been detected in groundwater samples at concentrations greater than MTCA Method A cleanup levels

Soil sample with GRPH and/or BTEX compounds present at concentrations greater than MTCA Method A cleanup levels

Soil sample with GRPH and/or BTEX compounds present at concentrations less than MTCA Method A cleanup levels

Soil sample with non-detect results for GRPH and/or BTEX compounds

4.8 Soil sample headspace PID reading (ppm)

Notes:
1. Groundwater elevations shown on cross section are from May 2012 monitoring event.
2. Groundwater elevation data for boring B-4 not available.

100 0 100
Horizontal Scale in Feet
10 0 10
Vertical Scale in Feet
Vertical Exaggeration: 10X

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

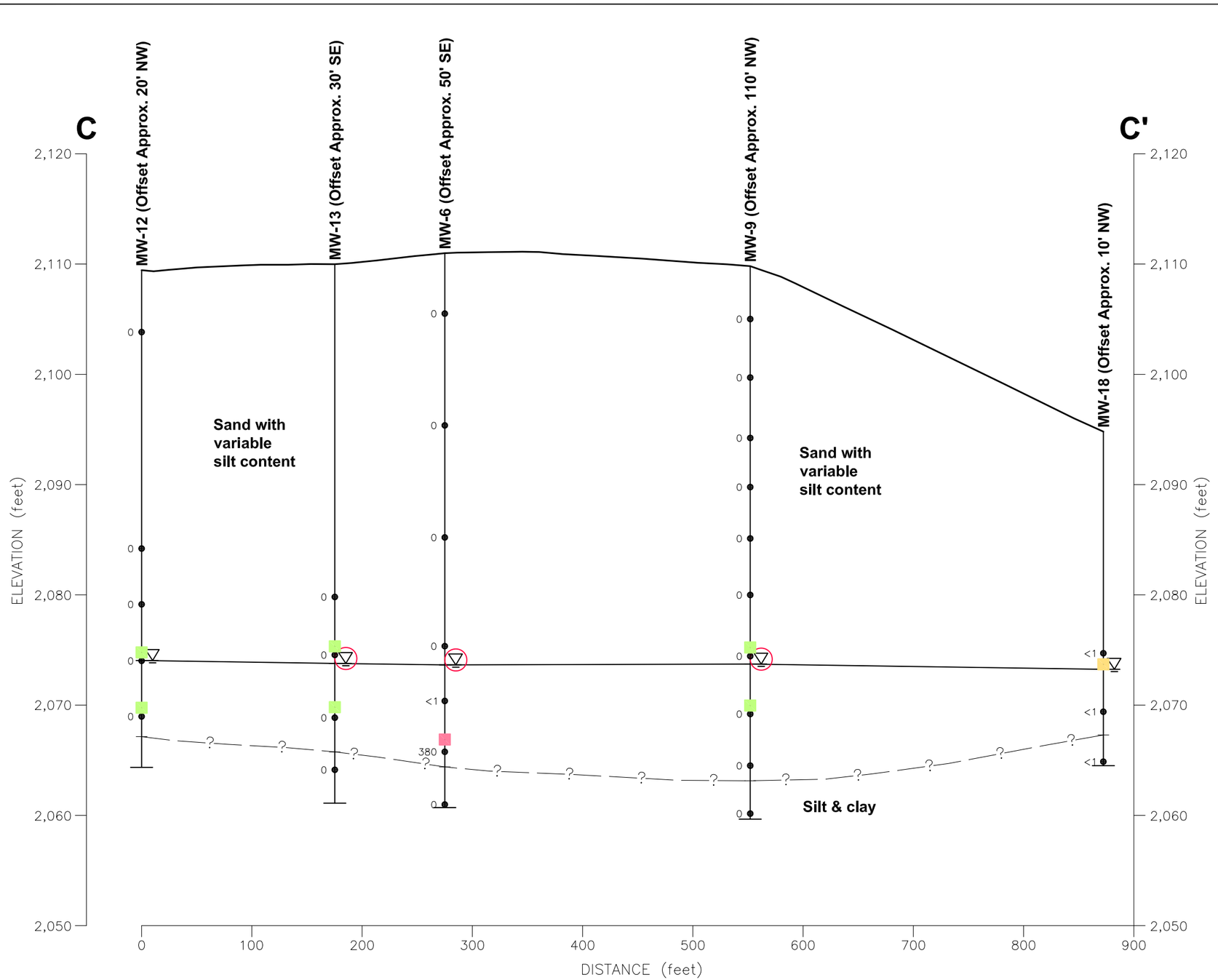
Cross Section B-B'

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 7

SPOK:DRL : SCY
P:\0105040582\02\CAD\050405802_F6 TO F9.dwg\TAB:F7 modified on Sep 26, 2012 - 10:44am



Legend

Exploration location where GRPH and/or BTEX compounds have been detected in groundwater samples at concentrations greater than MTCA Method A cleanup levels

Soil sample with GRPH and/or BTEX compounds present at concentrations greater than MTCA Method A cleanup levels

Soil sample with GRPH and/or BTEX compounds present at concentrations less than MTCA Method A cleanup levels

Soil sample with non-detect results for GRPH and/or BTEX compounds

380 Soil sample headspace PID reading (ppm)

Notes:
1. Groundwater elevations shown on cross section are from May 2012 monitoring event.

100 0 100
Horizontal Scale in Feet
10 0 10
Vertical Scale in Feet
Vertical Exaggeration: 10X

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

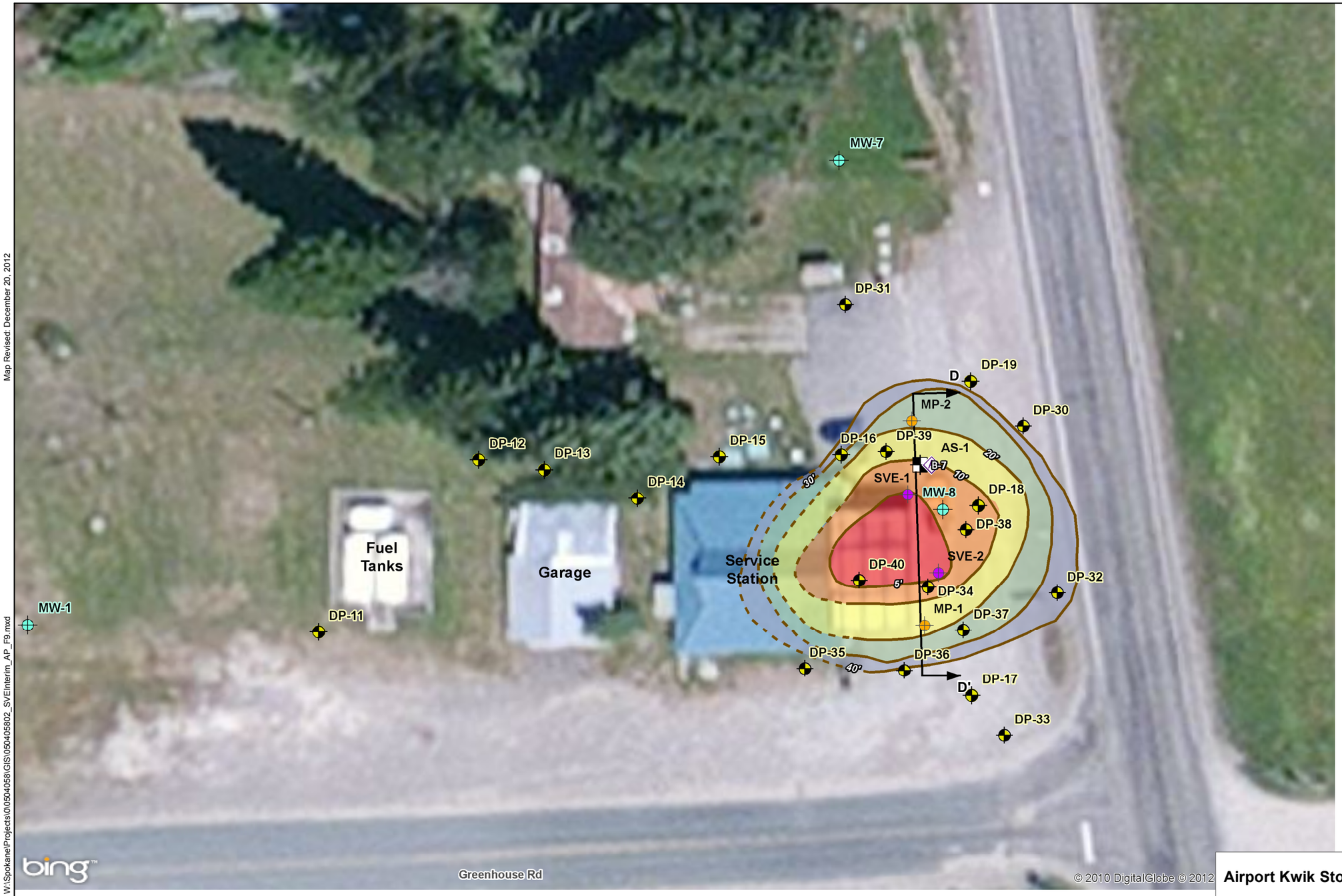
Cross Section C-C'

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 8

SPOK:DRL : SCY
P:\0105040582\02\CAD\0504058O2_F6 TO F9.dwgTTAB:F8 modified on Sep 26, 2012 - 10:46am



Legend

- DP-1 — Approximate Location of Direct-Push Boring
- MW-1 — Approximate Location of Monitoring Well
- SVE-1 — Approximate Location of 4" SVE Extraction Well
- MP-1 — Approximate Location of 2" Monitoring Point
- AS-1 — Approximate Location of Air Sparge Pilot Well
- 20' — Contamination Contours (10 ft depth bgs)
- Extrapolated Contamination Contours

Depth to Top of Contamination

- 0 - 5' bgs
- 5 - 10' bgs
- 10' - 20' bgs
- 20' - 30' bgs
- 30' - 40' bgs

N W E S

30 0 30
Feet

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.
ESRI Data & Maps, Street Maps 2008

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Airport Kwik Stop Vadose Zone Contamination

Airport Kwik Stop Site
Ione, Washington

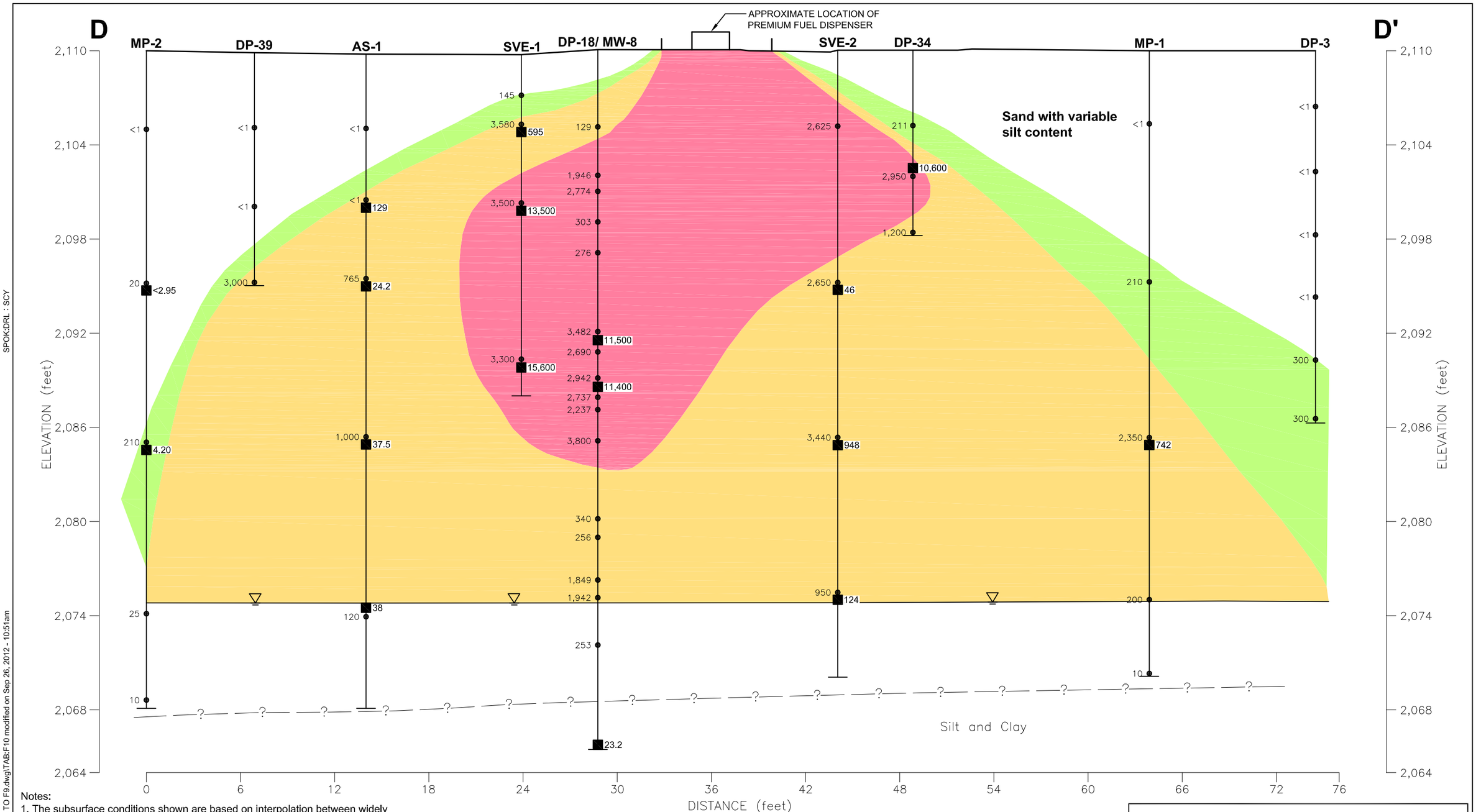
GeoEngineers

Figure 9

Map Revised: December 20, 2012

Path: W:\Spokane\Projects\00504058\GIS\050405802_SVEInterim_AP_F9.mxd

OfficeLocation: SPO



Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Legend

595 GRPH concentration (mg/kg) from laboratory analytical testing

1,000 Headspace vapor concentration (ppm) from PID

Estimated zone of GRPH present at concentrations less than 100 mg/kg

Estimated zone of GRPH present at concentrations greater than 100 mg/kg

Estimated zone of GRPH present at concentrations greater than 10,000 mg/kg

6 0 6
Horizontal Scale in Feet

6 0 6
Vertical Scale in Feet
Vertical Exaggeration: 1X

Cross Section D-D'

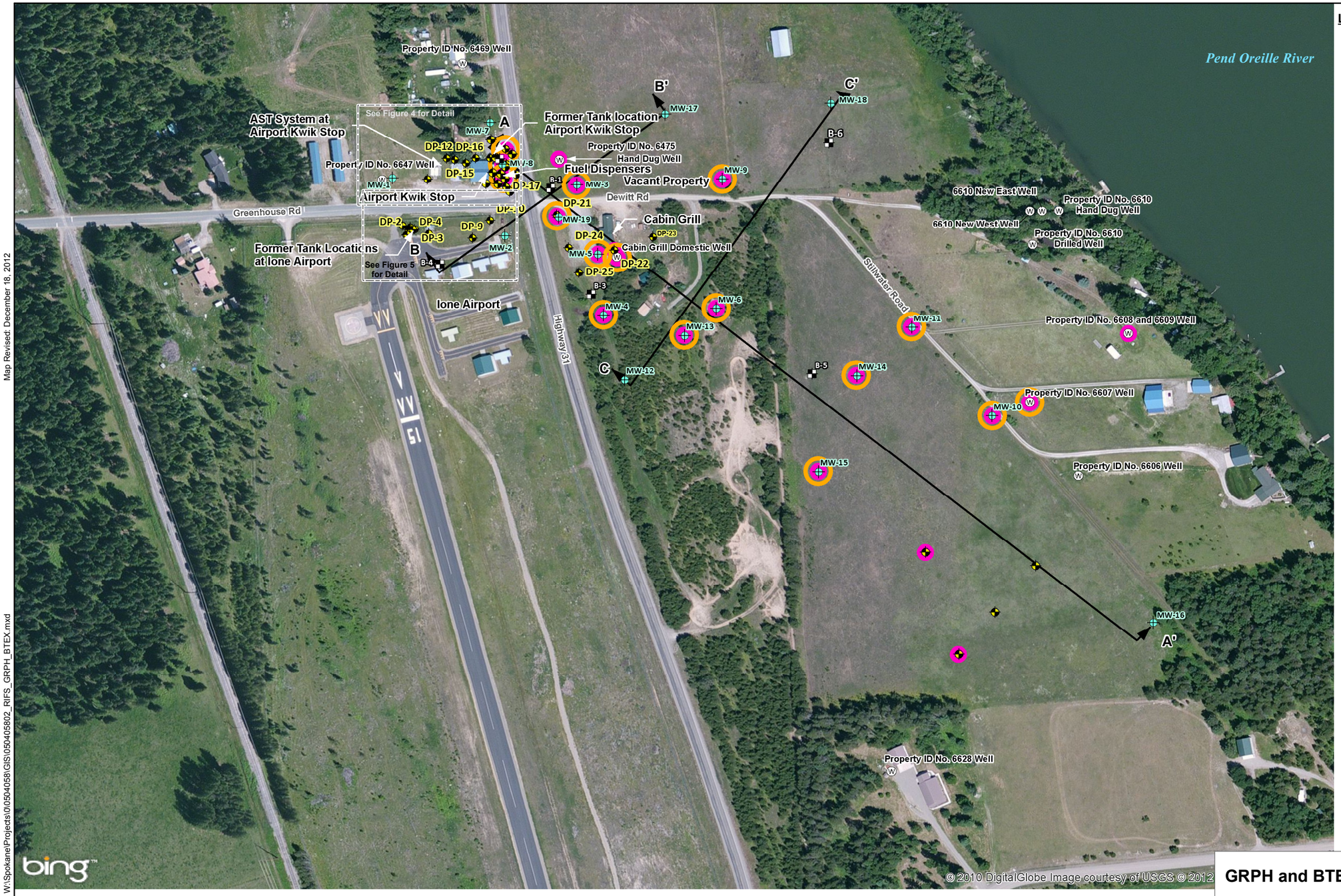
Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 10

P:\0105040581\02\CAD\0504058O2_F6 TO F9.dwg\TAB:F10 modified on Sep 26, 2012 - 10:51am

SPOK:DRL : SCY



Legend

- DP-1 — Approximate Location of Direct-Push Boring
- B-1 — Approximate Location of Exploration
- MW-1 — Approximate Location of Monitoring Well
- W — Approximate Location of Existing Water Well
- BTEX Detected in at Least One Groundwater or Water Sample at Concentration Greater Than MTCA Method A Cleanup Level
- GRPH Detected in at Least One Groundwater or Water Sample at Concentration Greater Than MTCA Method A Clean Up Level

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.

250 0 250
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

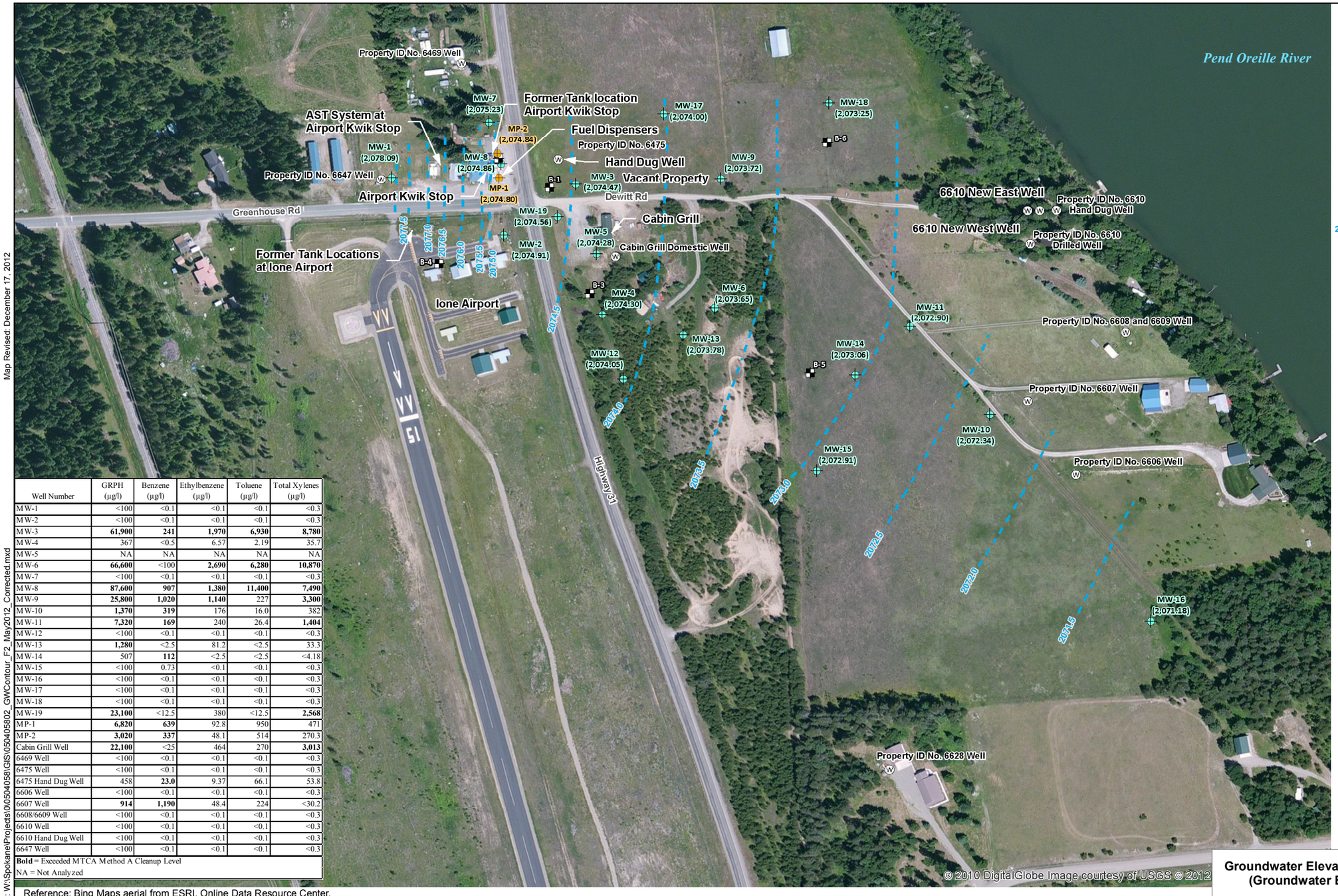
GRPH and BTEX in Groundwater Samples

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 11

Map Revised: December 18, 2012
Path: W:\Spokane\Projects\0050405802\GIS\0504058_RIFS_GRPH_BTEX.mxd
OfficeLocation: SPO



Legend

- DP-1 — Approximate Location of Direct-Push Boring
- B-1 — Approximate Location of Exploration
- MW-1 — Approximate Location of Monitoring Well
- Ⓦ — Approximate Location of Existing Water Well
- MP-1 — Approximate Location of 2" Monitoring Point
- 2071.5 — Approximate Groundwater Elevation Contour (0.5-Foot Interval)

N W E S

250 0 250
Feet

Well Number	GRPH (µg/l)	Benzene (µg/l)	Ethylbenzene (µg/l)	Toluene (µg/l)	Total Xylenes (µg/l)
MW-1	<100	<0.1	<0.1	<0.1	<0.3
MW-2	<100	<0.1	<0.1	<0.1	<0.3
MW-3	**61,900**	**241**	**1,970**	**6,930**	**8,780**
MW-4	367	<0.5	6.57	2.19	35.7
MW-5	NA	NA	NA	NA	NA
MW-6	**66,600**	<100	**2,690**	**6,280**	**10,870**
MW-7	<100	<0.1	<0.1	<0.1	<0.3
MW-8	**87,600**	**907**	**1,380**	**11,400**	**7,490**
MW-9	**25,800**	**1,020**	**1,140**	227	**3,300**
MW-10	**1,370**	**319**	176	16.0	382
MW-11	**7,320**	**169**	240	26.4	**1,404**
MW-12	<100	<0.1	<0.1	<0.1	<0.3
MW-13	**1,280**	<2.5	81.2	<2.5	33.3
MW-14	507	**112**	<2.5	<2.5	<4.18
MW-15	<100	0.73	<0.1	<0.1	<0.3
MW-16	<100	<0.1	<0.1	<0.1	<0.3
MW-17	<100	<0.1	<0.1	<0.1	<0.3
MW-18	<100	<0.1	<0.1	<0.1	<0.3
MW-19	**23,100**	<12.5	380	<12.5	**2,568**
MP-1	**6,820**	**639**	92.8	950	471
MP-2	**3,020**	**337**	48.1	514	270.3
Cabin Grill Well	**22,100**	<25	464	270	**3,013**
6469 Well	<100	<0.1	<0.1	<0.1	<0.3
6475 Well	<100	<0.1	<0.1	<0.1	<0.3
6475 Hand Dug Well	458	**23.0**	9.37	66.1	53.8
6606 Well	<100	<0.1	<0.1	<0.1	<0.3
6607 Well	**914**	**1,190**	48.4	224	<30.2
6608/6609 Well	<100	<0.1	<0.1	<0.1	<0.3
6610 Well	<100	<0.1	<0.1	<0.1	<0.3
6610 Hand Dug Well	<100	<0.1	<0.1	<0.1	<0.3
6647 Well	<100	<0.1	<0.1	<0.1	<0.3

Bold = Exceeded MTCA Method A Cleanup Level
NA = Not Analyzed

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.
ESRI Data & Maps, Street Maps 2008
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Elevations are referenced in NAVD 88.
4. The equivalent (true) groundwater elevation at MW-5 as showing calculated to account for the presence of the free product using the following equation: GW = SG X T + IE; where GW = equivalent groundwater elevation SG = specific gravity of free product (0.75) for gasoline; T = thickness of product measured in well using oil/water interface probe; IE =elevation of water/product interface measured in the well.
5. NA=Not Analyzed

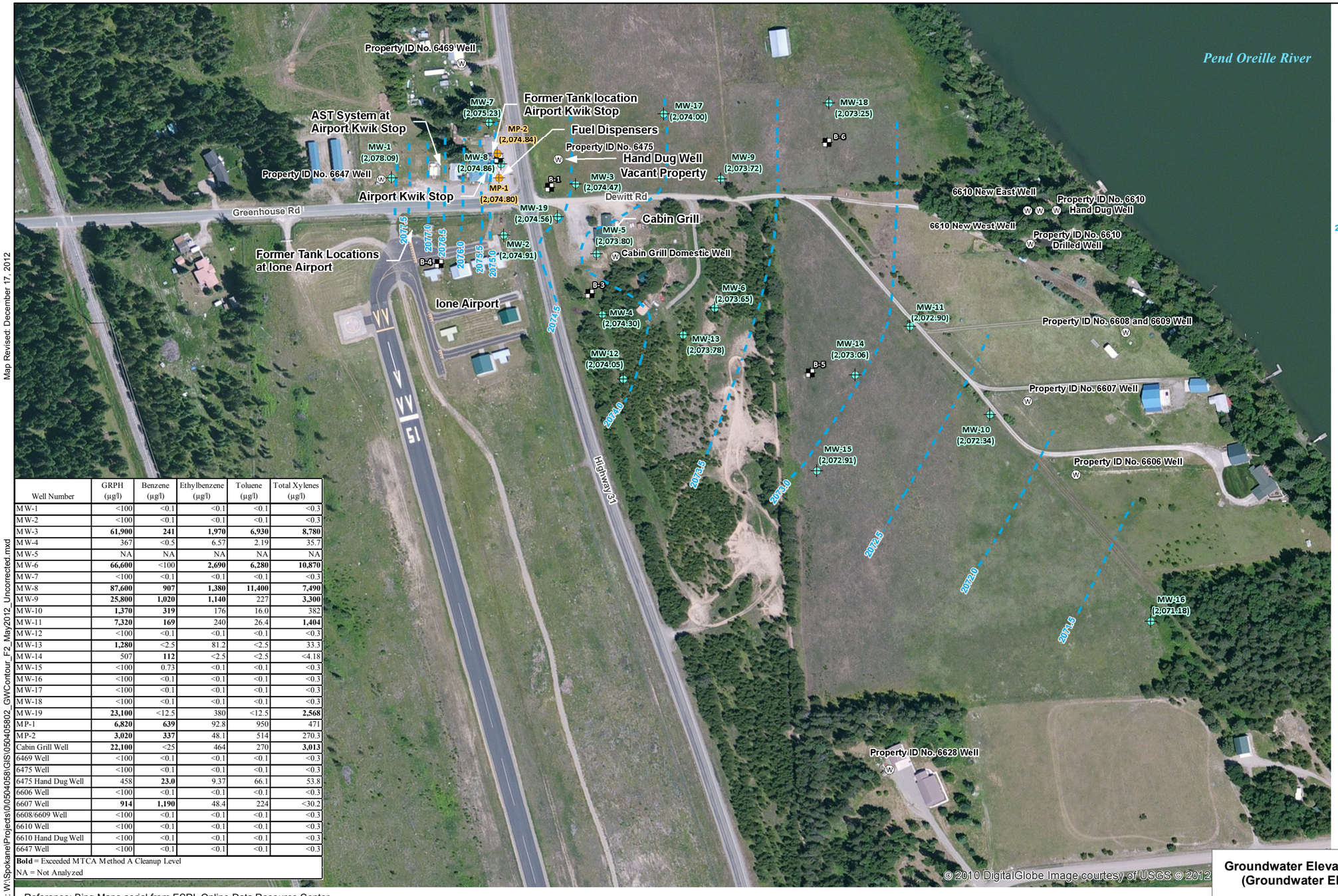
Groundwater Elevations and Flow Direction – May 2012 (Groundwater Elevations Corrected for LNAPL)

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 12

Map Revised: December 17, 2012
Path: W:\Spokane\Projects\0\05405805\GIS\05405805_GWContour_F2_May2012_Corrected.mxd
OfficeLocation: SPO



Well Number	GRPH (µg/l)	Benzene (µg/l)	Ethylbenzene (µg/l)	Toluene (µg/l)	Total Xylenes (µg/l)
MW-1	<100	<0.1	<0.1	<0.1	<0.3
MW-2	<100	<0.1	<0.1	<0.1	<0.3
MW-3	**61,900**	**241**	**1,970**	**6,930**	**8,780**
MW-4	367	<0.5	6.57	2.19	35.7
MW-5	NA	NA	NA	NA	NA
MW-6	**66,600**	<100	**2,690**	**6,280**	**10,870**
MW-7	<100	<0.1	<0.1	<0.1	<0.3
MW-8	**87,600**	**907**	**1,380**	**11,400**	**7,490**
MW-9	**25,800**	**1,020**	**1,140**	227	**3,300**
MW-10	**1,370**	**319**	176	16.0	382
MW-11	**7,320**	**169**	240	26.4	**1,404**
MW-12	<100	<0.1	<0.1	<0.1	<0.3
MW-13	**1,280**	<2.5	81.2	<2.5	33.3
MW-14	507	**112**	<2.5	<2.5	<4.18
MW-15	<100	0.73	<0.1	<0.1	<0.3
MW-16	<100	<0.1	<0.1	<0.1	<0.3
MW-17	<100	<0.1	<0.1	<0.1	<0.3
MW-18	<100	<0.1	<0.1	<0.1	<0.3
MW-19	**23,100**	<12.5	380	<12.5	**2,568**
MP-1	**6,820**	**639**	92.8	950	471
MP-2	**3,020**	**337**	48.1	514	270.3
Cabin Grill Well	**22,100**	<25	464	270	**3,013**
6469 Well	<100	<0.1	<0.1	<0.1	<0.3
6475 Well	<100	<0.1	<0.1	<0.1	<0.3
6475 Hand Dug Well	458	**23.0**	9.37	66.1	53.8
6606 Well	<100	<0.1	<0.1	<0.1	<0.3
6607 Well	**914**	**1,190**	48.4	224	<30.2
6608/6609 Well	<100	<0.1	<0.1	<0.1	<0.3
6610 Well	<100	<0.1	<0.1	<0.1	<0.3
6610 Hand Dug Well	<100	<0.1	<0.1	<0.1	<0.3
6647 Well	<100	<0.1	<0.1	<0.1	<0.3

Bold = Exceeded MTCA Method A Cleanup Level
NA = Not Analyzed

Legend

- DP-1 — Approximate Location of Direct-Push Boring
- B-1 — Approximate Location of Exploration
- MW-1 — Approximate Location of Monitoring Well
- Approximate Location of Existing Water Well
- MP-1 — Approximate Location of 2" Monitoring Point
- 2071.5 — Approximate Groundwater Elevation Contour (0.5-Foot Interval)

N W E S

200 0 200
Feet

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.
ESRI Data & Maps, Street Maps 2008

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Elevations are referenced in NAVD 88.
4. The uncorrected groundwater elevation at MW-5 was 2073.80; 0.64 feet of LNAPL was measured on top of groundwater using an oil-water interface probe.
5. NA=Not Analyzed

Groundwater Elevations and Flow Direction – May 2012
(Groundwater Elevations Uncorrected for LNAPL)

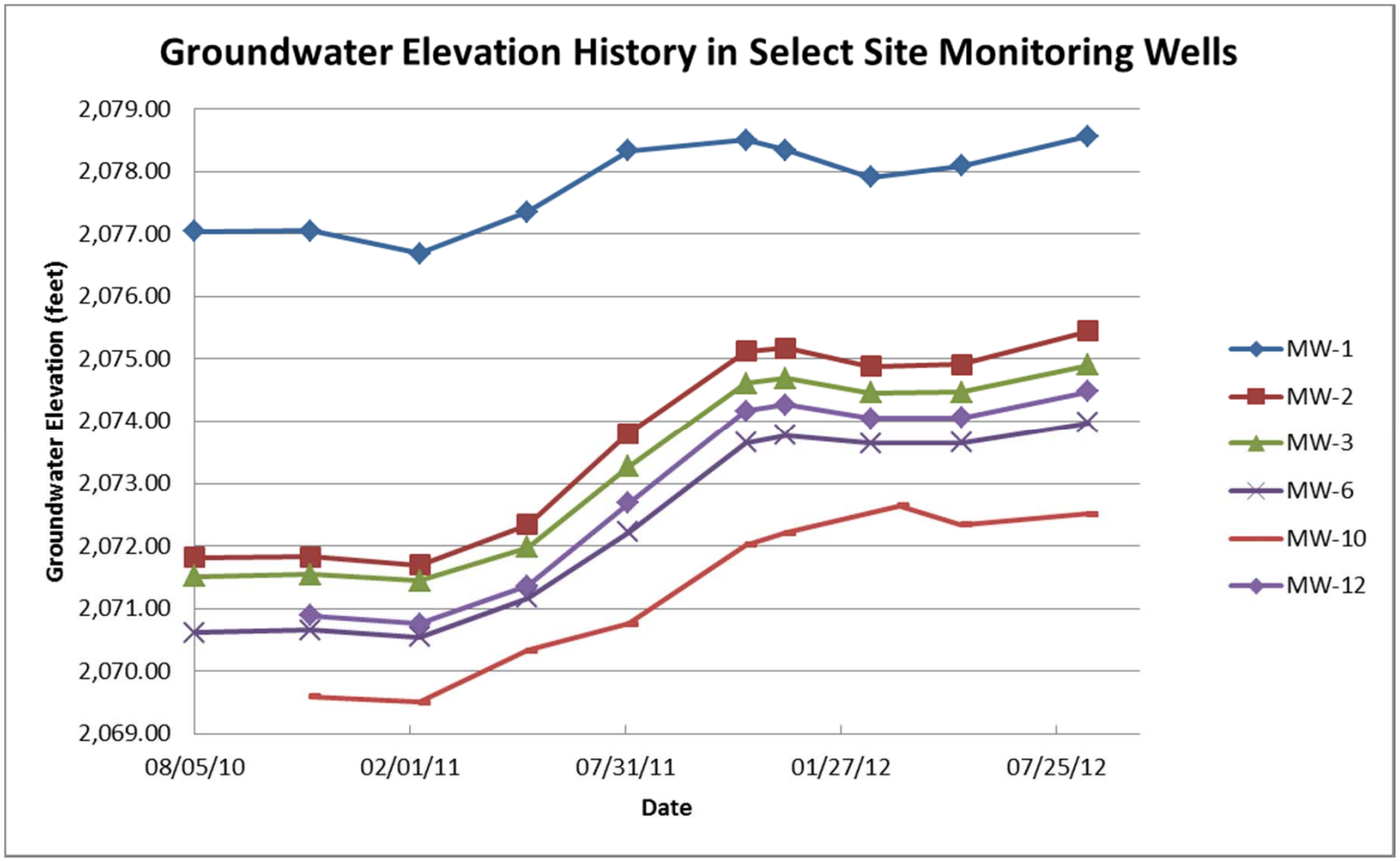
Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 13

Map Revised: December 17, 2012
Path: W:\Spokane\Projects\0\050405\GIS\050405802_GWContour_F2_May2012_Uncorrected.mxd
OfficeLocation: SPO

File No. 0504-058-02



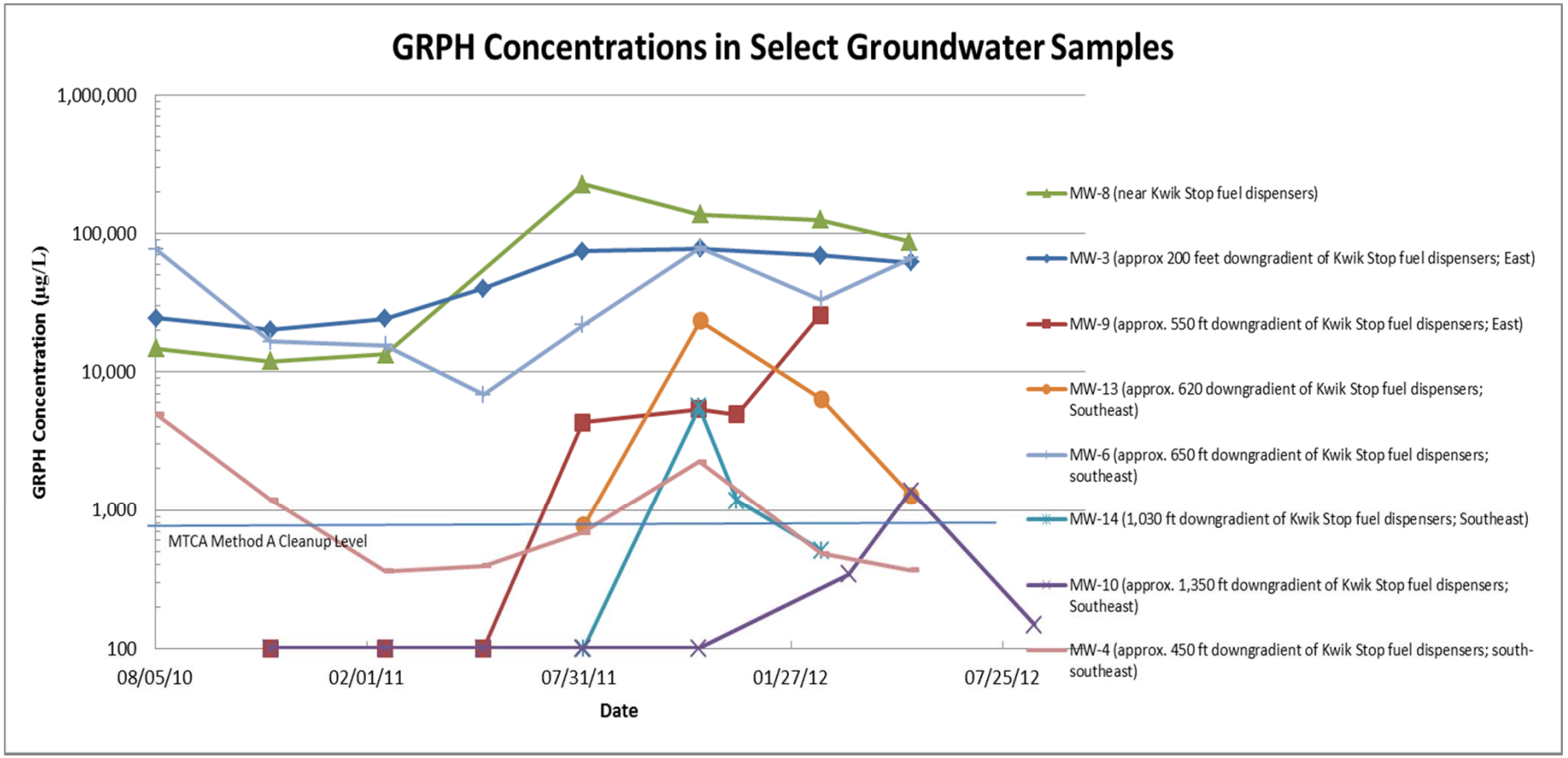
Groundwater Elevation History in Select Site Monitoring Wells

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 14

File No. 0504-058-02



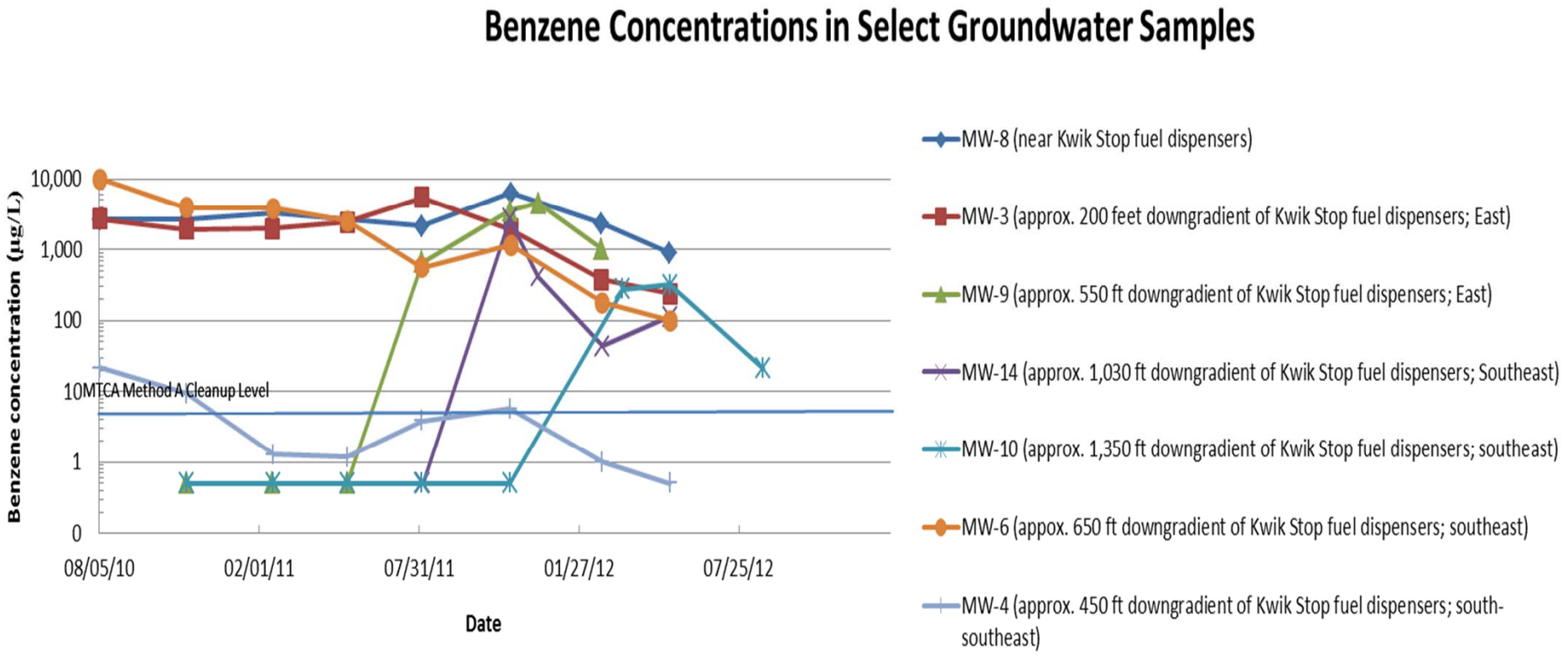
GRPH Concentrations in Select Groundwater Samples

Airport Kwik Stop Site
Ione, Washington

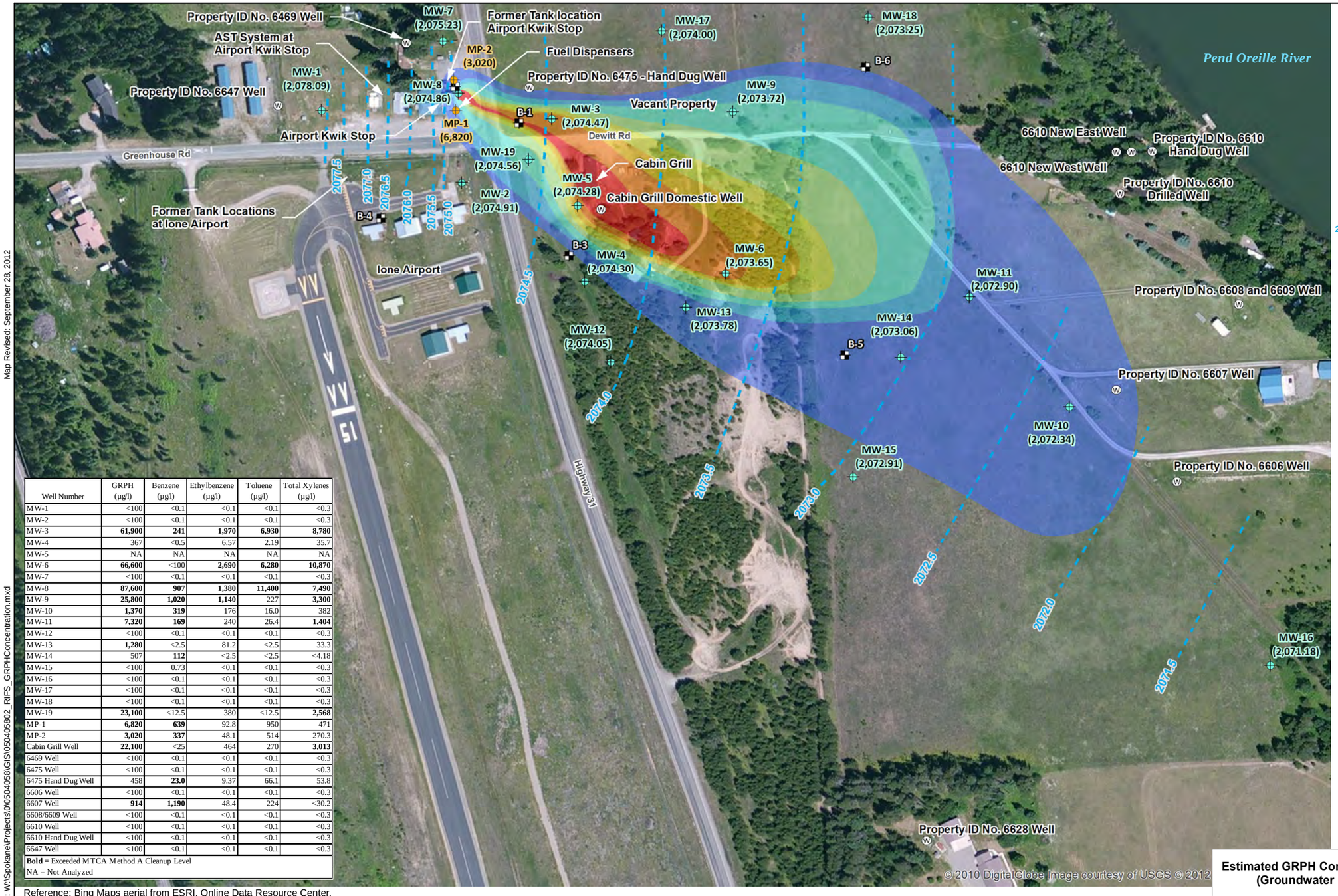
GeoEngineers

Figure 15

File No. 0504-058-02



Benzene Concentrations in Select Groundwater Samples	
Airport Kwik Stop Site Ione, Washington	
GeoEngineers	Figure 16



Well Number	GRPH (µg/l)	Benzene (µg/l)	Ethylbenzene (µg/l)	Toluene (µg/l)	Total Xylenes (µg/l)
MW-1	<100	<0.1	<0.1	<0.1	<0.3
MW-2	<100	<0.1	<0.1	<0.1	<0.3
MW-3	**61,900**	**241**	**1,970**	**6,930**	**8,780**
MW-4	367	<0.5	6.57	2.19	35.7
MW-5	NA	NA	NA	NA	NA
MW-6	**66,600**	<100	**2,690**	**6,280**	**10,870**
MW-7	<100	<0.1	<0.1	<0.1	<0.3
MW-8	**87,600**	**907**	**1,380**	**11,400**	**7,490**
MW-9	**25,800**	**1,020**	**1,140**	227	**3,300**
MW-10	**1,370**	**319**	176	16.0	382
MW-11	**7,320**	**169**	240	26.4	**1,404**
MW-12	<100	<0.1	<0.1	<0.1	<0.3
MW-13	**1,280**	<2.5	81.2	<2.5	33.3
MW-14	507	**112**	<2.5	<2.5	<4.18
MW-15	<100	0.73	<0.1	<0.1	<0.3
MW-16	<100	<0.1	<0.1	<0.1	<0.3
MW-17	<100	<0.1	<0.1	<0.1	<0.3
MW-18	<100	<0.1	<0.1	<0.1	<0.3
MW-19	**23,100**	<12.5	380	<12.5	**2,568**
MP-1	**6,820**	**639**	92.8	950	471
MP-2	**3,020**	**337**	48.1	514	270.3
Cabin Grill Well	**22,100**	<25	464	270	**3,013**
6469 Well	<100	<0.1	<0.1	<0.1	<0.3
6475 Well	<100	<0.1	<0.1	<0.1	<0.3
6475 Hand Dug Well	458	**23.0**	9.37	66.1	53.8
6606 Well	<100	<0.1	<0.1	<0.1	<0.3
6607 Well	**914**	**1,190**	48.4	224	<30.2
6608/6609 Well	<100	<0.1	<0.1	<0.1	<0.3
6610 Well	<100	<0.1	<0.1	<0.1	<0.3
6610 Hand Dug Well	<100	<0.1	<0.1	<0.1	<0.3
6647 Well	<100	<0.1	<0.1	<0.1	<0.3

Bold = Exceeded MTCA Method A Cleanup Level
NA = Not Analyzed

Legend

- DP-1 — Approximate Location of Direct-Push Boring
- B-1 — Approximate Location of Exploration
- MW-1 — Approximate Location of Monitoring Well
- W — Approximate Location of Existing Water Well
- MP-1 — Approximate Location of 2" Monitoring Point
- 2071.5 — Approximate Groundwater Elevation Contour (0.5-Foot Interval)

Estimated GRPH Concentration in Groundwater (µg/L)

- 800 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- < 70,000

N W E S

200 0 200
Feet

Reference: Bing Maps aerial from ESRI, Online Data Resource Center.
ESRI Data & Maps, Street Maps 2008
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Elevations are referenced in NAVD 88.
4. The equivalent (true) groundwater elevation at MW-5 as showing calculated to account for the presence of the free product using the following equation: GW = SG X T + IE; where GW = equivalent groundwater elevation SG = specific gravity of free product (0.75) for gasoline; T = thickness of product measured in well using oil/water interface probe; IE =elevation of water/product interface measured in the well.
5. NA=Not Analyzed

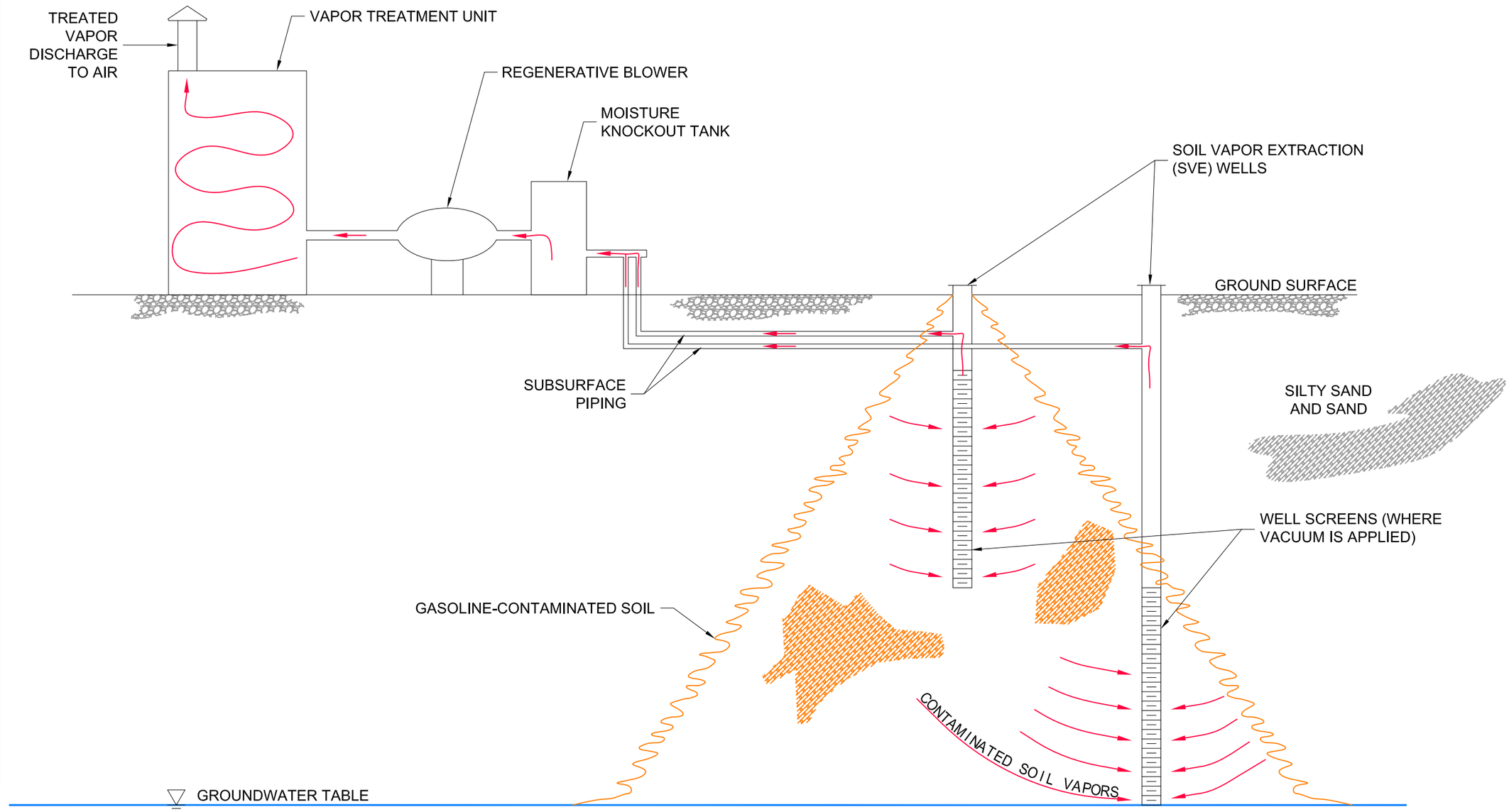
Estimated GRPH Concentration in Groundwater – May 2012
(Groundwater Elevations Corrected for LNAPL)

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 17

Map Revised: September 28, 2012
Path: W:\Spokane\Projects\0\05040581\GIS\05040581_RIFS_GRPHConcentration.mxd
OfficeLocation: SPO



NOT TO SCALE

Notes

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: GeoEngineers employee sketch.

Typical Soil Vapor Extraction System

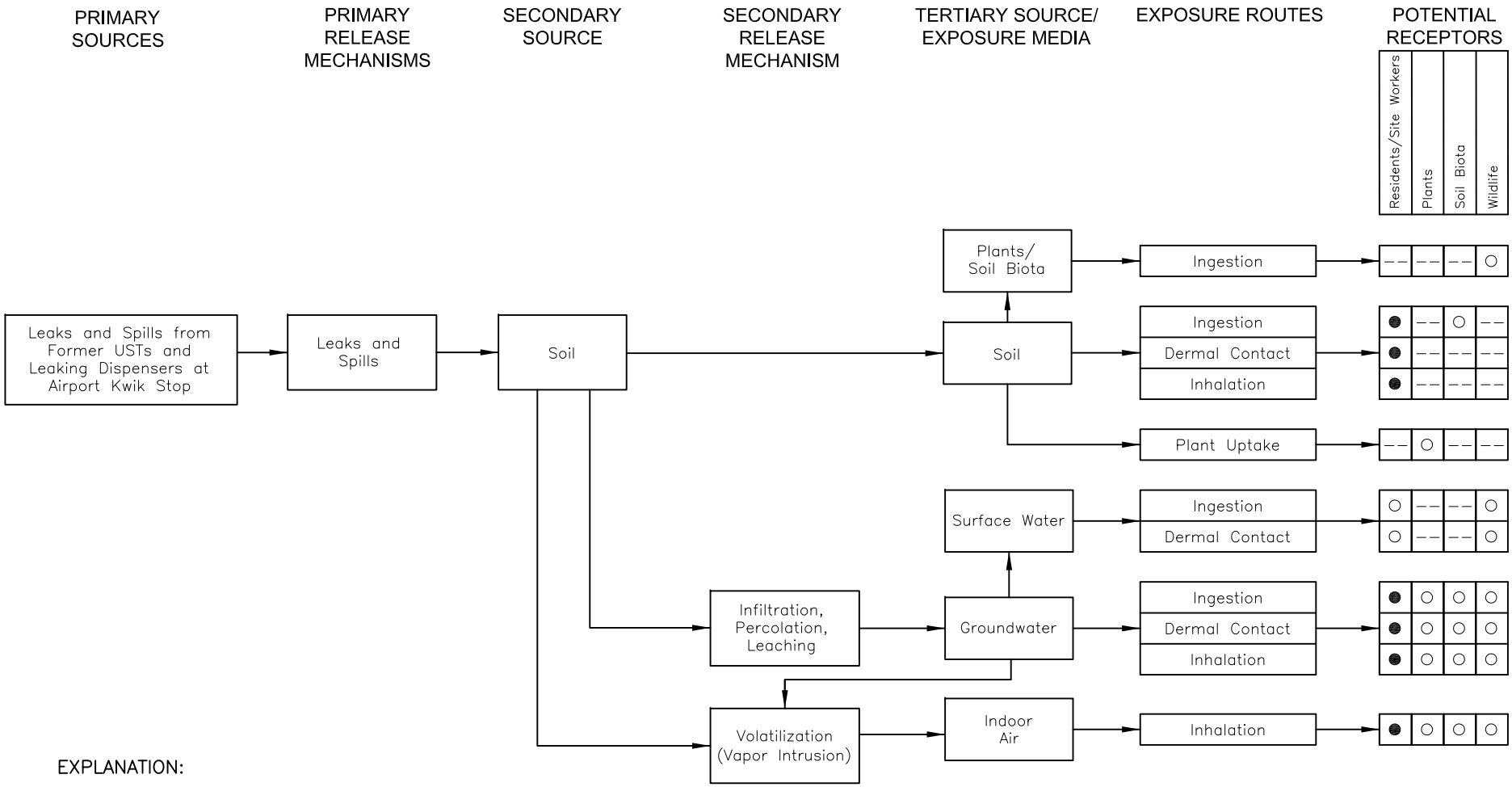
Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 18

BDW : MGF

P:\0\0504058\02\CAD\0504058-02 SOIL VAPOR EXTRACTION.dwg\TAB:Layout1 modified on Sep 26, 2012 - 11:04am



Notes:
1. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Conceptual Site Model - Flowchart

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 19

JCL : TJM
P:\0\05040058\02\CAD\05040058-02 Fig 5 CSM Boxes.dwg|TAB:Fig 5 modified on Sep 26, 2012 - 11:08am

INGESTION OF GROUNDWATER

INHALATION OF VAPORS

DIRECT CONTACT WITH SOIL

INHALATION OF VAPORS

DRINKING WATER WELLS

CABIN GRILL

FUEL DISPENSERS

AIRPORT KWIK STOP

SAND

FORMER USTs

PEND OREILLE RIVER

WATER TABLE

PRODUCT (LNAPL)

DISSOLVED CONTAMINANT PLUME

GROUNDWATER FLOW DIRECTION

SILT AND CLAY

NOT TO SCALE

LEGEND

VOLATILIZATION OF VAPORS

UNDEFINED EXTENT OF CONTAMINANT

SOIL CONTACT (DASHED WHERE INFERRED)

Notes

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing created from previous GeoEngineers figure.

Conceptual Site Model - Graphical

Airport Kwik Stop Site
Ione, Washington

GeoEngineers

Figure 20

BDW : TJM

P:\0\05040058\02\CAD\05040058-02 Fig 5 CSM Cartoon.dwg\TAB:Figure 6 modified on Sep 26, 2012 - 11:25am