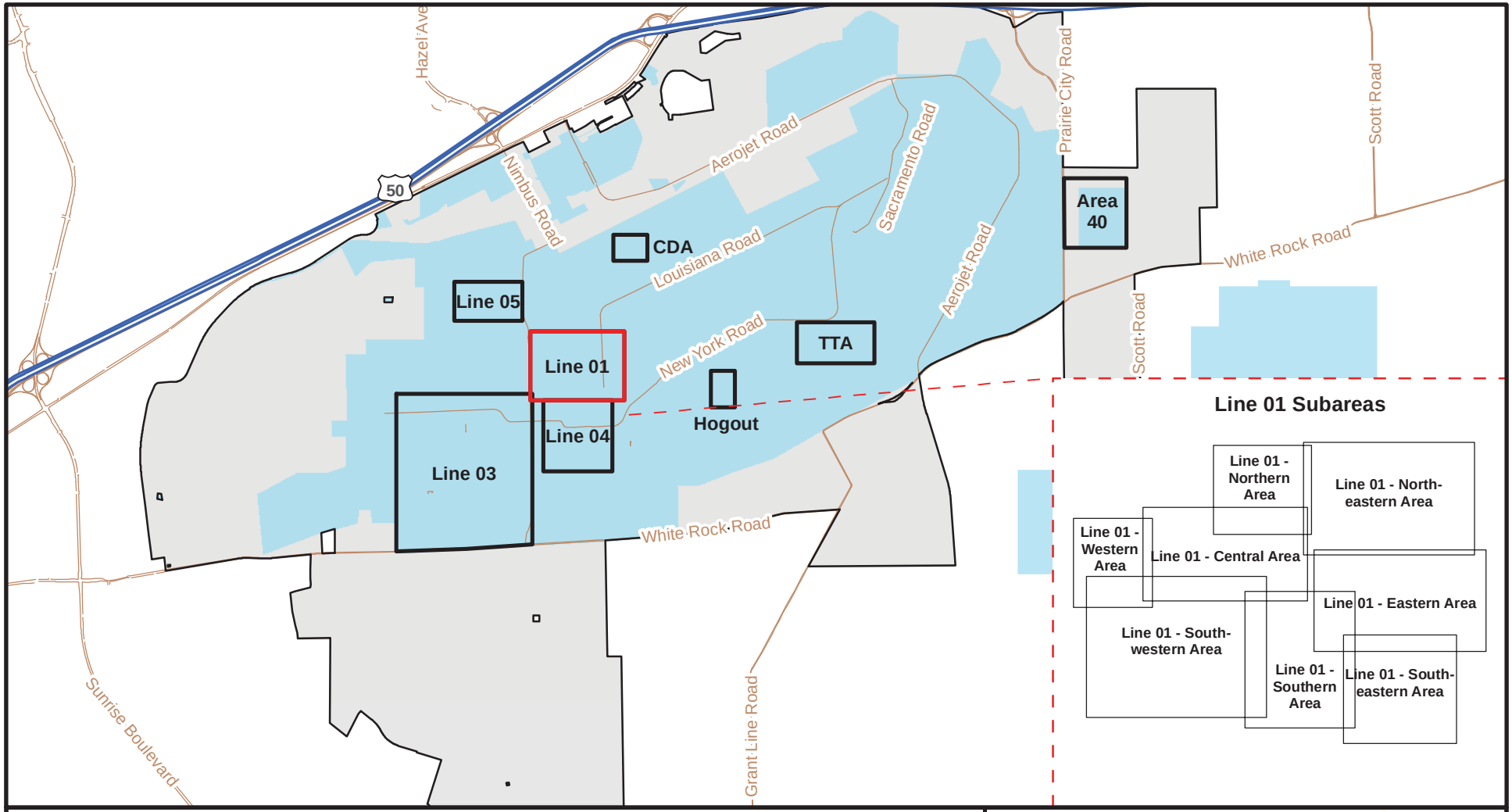


Line 01

Management Area

Aerojet Superfund Site

Aerojet Property Boundary

CDA = Central Disposal Area
TTA = Thermal Treatment Area

N

0 5,000 10,000
Feet

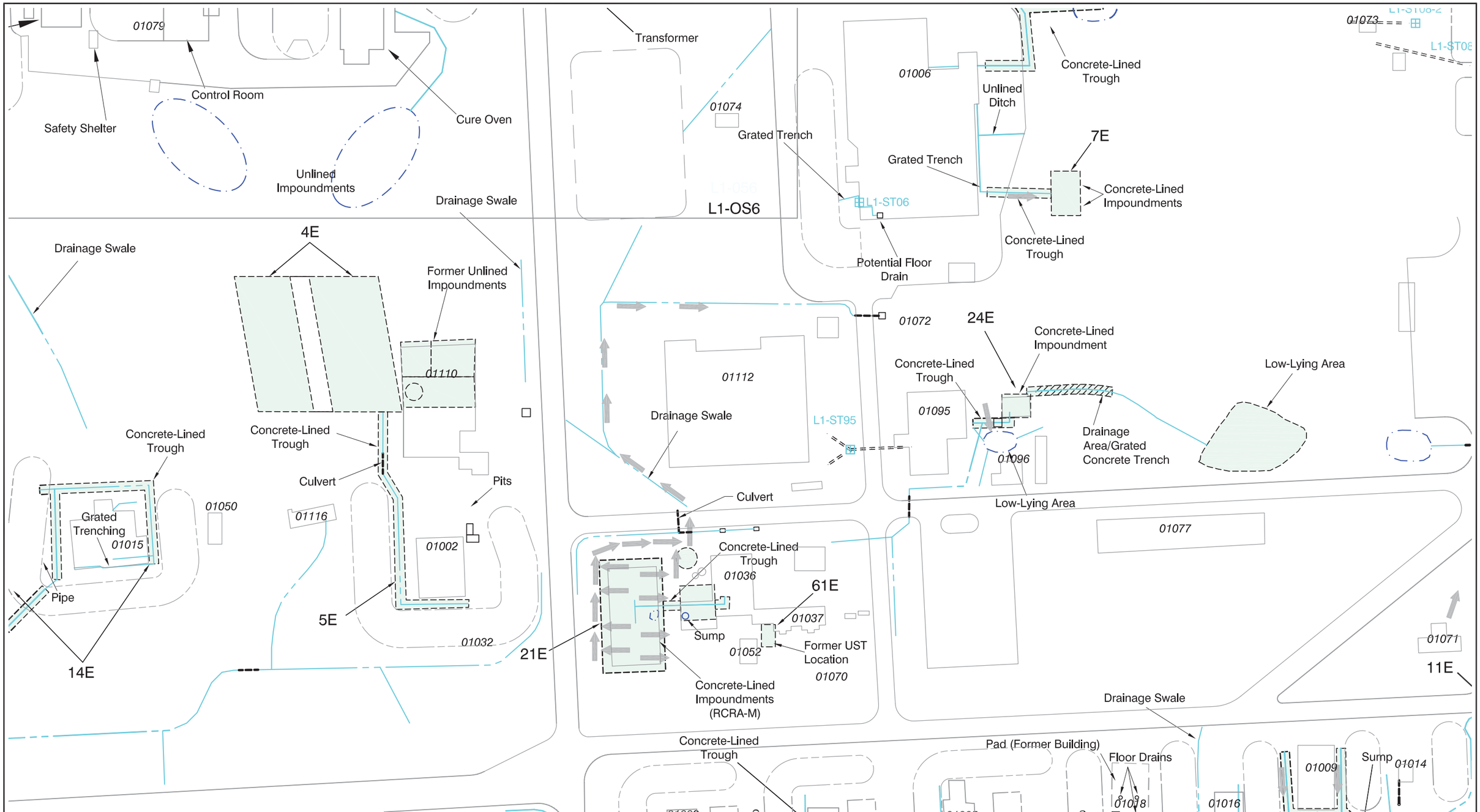
1 inch = 5,000 feet

AEROJET ROCKETDYNE

Figure 5.1-1

Location Map
Line 01
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 4/14/2014



LEGEND

- Potential Source Area
- Low-Lying Area
- Surface Drainage
- Drainage Ditch
- Culvert
- 01030 Building/Structure
- Surface Water Flow Direction
- Septic Tank and Leach Line
- Road (Unpaved Shown Dashed)
- Revetment
- Fence

N

Scale: 1" = 100'

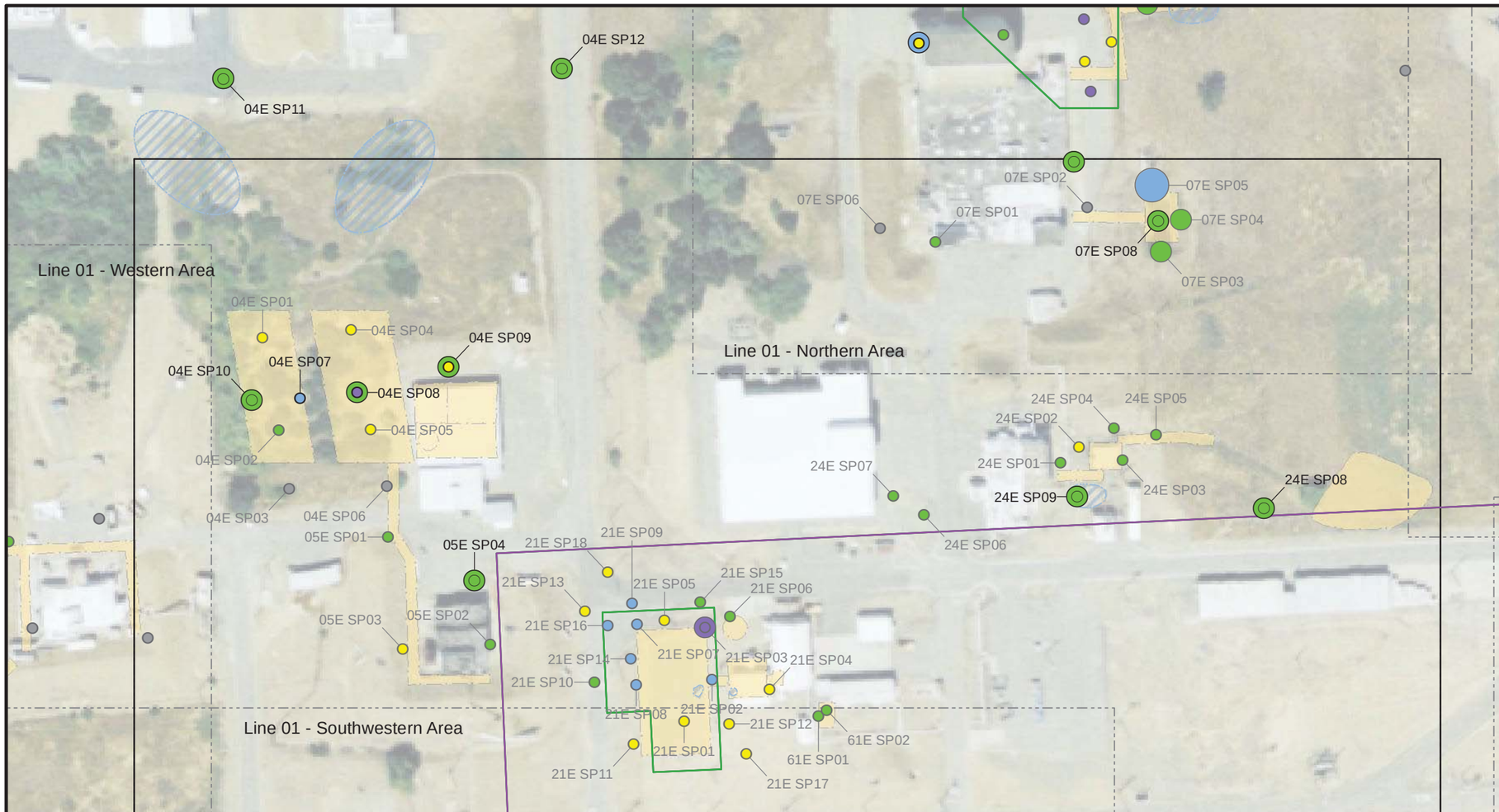
0 50 100

AEROJET ROCKETDYNE

FIGURE 5.2-1

Physical Features
Line 01 - Central Area
Island Operable Unit Remedial Investigation

7/2/14 KB SR10130617



Detections Above the iRISL (µg/m³)						Detections Above the iRISL (µg/m³)					
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs	Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs
04E SP01	1992	Trichloroethylene	6.60E+04	NS	NS	21E SP14	1992	Trichloroethylene	1.95E+06	NS	NS
04E SP04	1992	Trichloroethylene	7.30E+04	NS	NS	21E SP16	1992	Trichloroethylene	2.56E+05	NS	NS
04E SP05	1992	Trichloroethylene	6.29E+04	NS	NS	21E SP17	1992	Trichloroethylene	1.52E+05	NS	NS
04E SP07	2008	Trichloroethylene	2.20E+05	NS	NS	21E SP18	1992	Trichloroethylene	2.76E+04	NS	NS
04E SP08	2008	Trichloroethylene	4.90E+06	<iRISL	NS	24E SP02	1992	Trichloroethylene	3.52E+04	NS	NS
04E SP09	2008	Trichloroethylene	3.10E+04	<iRISL	NS						
05E SP03	1992	Trichloroethylene	2.64E+04	NS	NS						
07E SP05	1992	Trichloroethylene	NS	NS	6.55E+05						
21E SP01	1992	Trichloroethylene	2.47E+04	NS	NS						
21E SP02	1992	Trichloroethylene	1.04E+06	NS	NS						
21E SP03	1992	Trichloroethylene	8.97E+06	NS	NS						
21E SP03	1993	Trichloroethylene	NS	2.79E+06	NS						
21E SP04	1992	Trichloroethylene	3.20E+04	NS	NS						
21E SP05	1992	Trichloroethylene	2.66E+04	NS	NS						
21E SP07	1992	Trichloroethylene	2.07E+05	NS	NS						
21E SP08	1992	Trichloroethylene	8.87E+05	NS	NS						
21E SP09	1992	Trichloroethylene	2.54E+05	NS	NS						
21E SP11	1992	Trichloroethylene	3.36E+04	NS	NS						
21E SP12	1992	Trichloroethylene	1.96E+05	NS	NS						
21E SP13	1992	Trichloroethylene	1.26E+05	NS	NS						

Industrial Remedial Investigation Screening Level (iRISL) - Soil Vapor

- Not Detected
- ≤ iRISL
- > iRISL and ≤ 10x iRISL
- > 10x iRISL and ≤ 100x iRISL
- > 100x iRISL

Trichloroethylene iRISL = 2.04E+04 µg/m³

≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (middle circle) - Intermediate
>20 feet bgs (outer circle) - Deep

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m³ (>100 Times ESLs)
- HH Soil Vapor RMDB[4]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 120 240
Feet

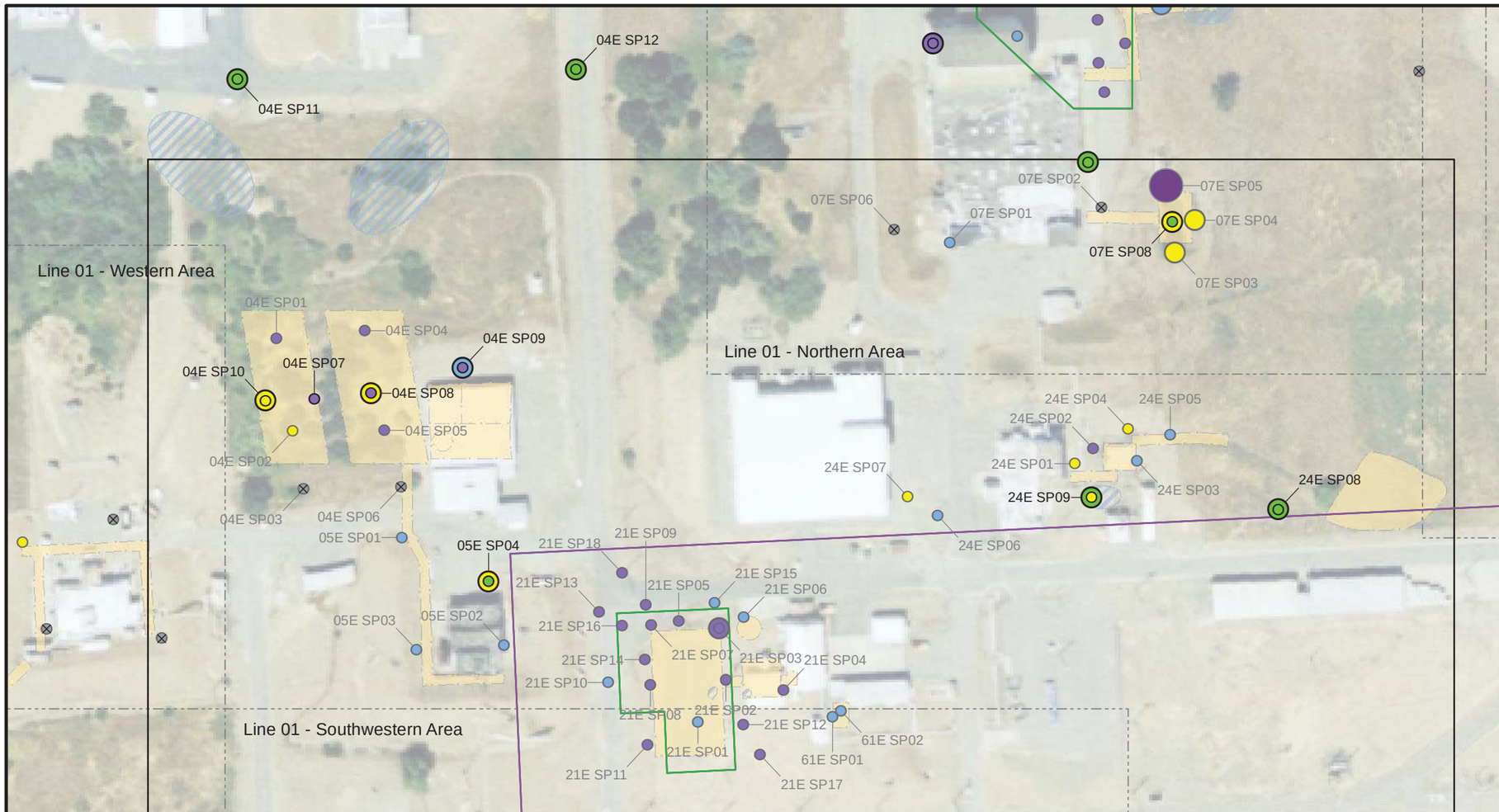
1 inch = 120 feet

AEROJET ROCKETDYNE

Figure 5.2-4

Trichloroethylene in Soil Vapor Compared to Industrial Remedial Investigation Screening Level
Line 01 - Central Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



Protection of Groundwater Screening Level (PGWSL) - Soil Vapor

- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL

Trichloroethylene PGWSL = 2.65E+02 µg/m^3

[a] Not Detected, PQL > PGWSL

[b] ≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (middle circle) - Intermediate
>20 feet bgs (outer circle) - Deep

[a] A shallow depth interval where the PQL is not greater than the PGWSL may overlap and partially obscure the symbol.
[b] **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[4]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a PGWSL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 120 240
Feet

1 inch = 120 feet

Detections Above the PGWSL (µg/m^3)

Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs
04E SP01	1992	Trichloroethylene	6.60E+04	NS	NS
04E SP02	1992	Trichloroethylene	2.04E+03	NS	NS
04E SP04	1992	Trichloroethylene	7.30E+04	NS	NS
04E SP05	1992	Trichloroethylene	6.29E+04	NS	NS
04E SP07	2008	Trichloroethylene	2.20E+05	NS	NS
04E SP08	2008	Trichloroethylene	4.90E+06	9.20E+02	NS
04E SP09	2008	Trichloroethylene	3.10E+04	1.40E+04	NS
04E SP10	2008	Trichloroethylene	2.60E+03	1.30E+03	NS
05E SP01	1992	Trichloroethylene	5.07E+03	NS	NS
05E SP02	1992	Trichloroethylene	3.44E+03	NS	NS
05E SP03	1992	Trichloroethylene	2.64E+04	NS	NS
05E SP04	2008	Trichloroethylene	<PGWSL	3.50E+02	NS
07E SP01	1992	Trichloroethylene	2.92E+03	NS	NS
07E SP03	1992	Trichloroethylene	NS	9.20E+02	NS
07E SP04	1992	Trichloroethylene	NS	2.38E+03	NS
07E SP05	1992	Trichloroethylene	NS	NS	6.55E+05
07E SP08	2008	Trichloroethylene	<PGWSL	3.10E+02	NS
21E SP01	1992	Trichloroethylene	2.47E+04	NS	NS
21E SP02	1992	Trichloroethylene	1.04E+06	NS	NS
21E SP03	1992	Trichloroethylene	8.97E+06	NS	NS

Detections Above the PGWSL (µg/m^3)

Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs
21E SP03	1993	Trichloroethylene	NS	2.79E+06	NS
21E SP04	1992	Trichloroethylene	3.20E+04	NS	NS
21E SP05	1992	Trichloroethylene	2.66E+04	NS	NS
21E SP06	1992	Trichloroethylene	7.99E+03	NS	NS
21E SP07	1992	Trichloroethylene	2.07E+05	NS	NS
21E SP08	1992	Trichloroethylene	8.87E+05	NS	NS
21E SP09	1992	Trichloroethylene	2.54E+05	NS	NS
21E SP10	1992	Trichloroethylene	9.01E+03	NS	NS
21E SP11	1992	Trichloroethylene	3.36E+04	NS	NS
21E SP12	1992	Trichloroethylene	1.96E+05	NS	NS
21E SP13	1992	Trichloroethylene	1.26E+05	NS	NS
21E SP14	1992	Trichloroethylene	1.95E+06	NS	NS
21E SP15	1992	Trichloroethylene	1.51E+04	NS	NS
21E SP16	1992	Trichloroethylene	2.56E+05	NS	NS
21E SP17	1992	Trichloroethylene	1.52E+05	NS	NS
21E SP18	1992	Trichloroethylene	2.76E+04	NS	NS
24E SP01	1992	Trichloroethylene	8.60E+02	NS	NS
24E SP02	1992	Trichloroethylene	3.52E+04	NS	NS
24E SP03	1992	Trichloroethylene	3.06E+03	NS	NS
24E SP04	1992	Trichloroethylene	5.40E+02	NS	NS

Detections Above the PGWSL (µg/m^3)

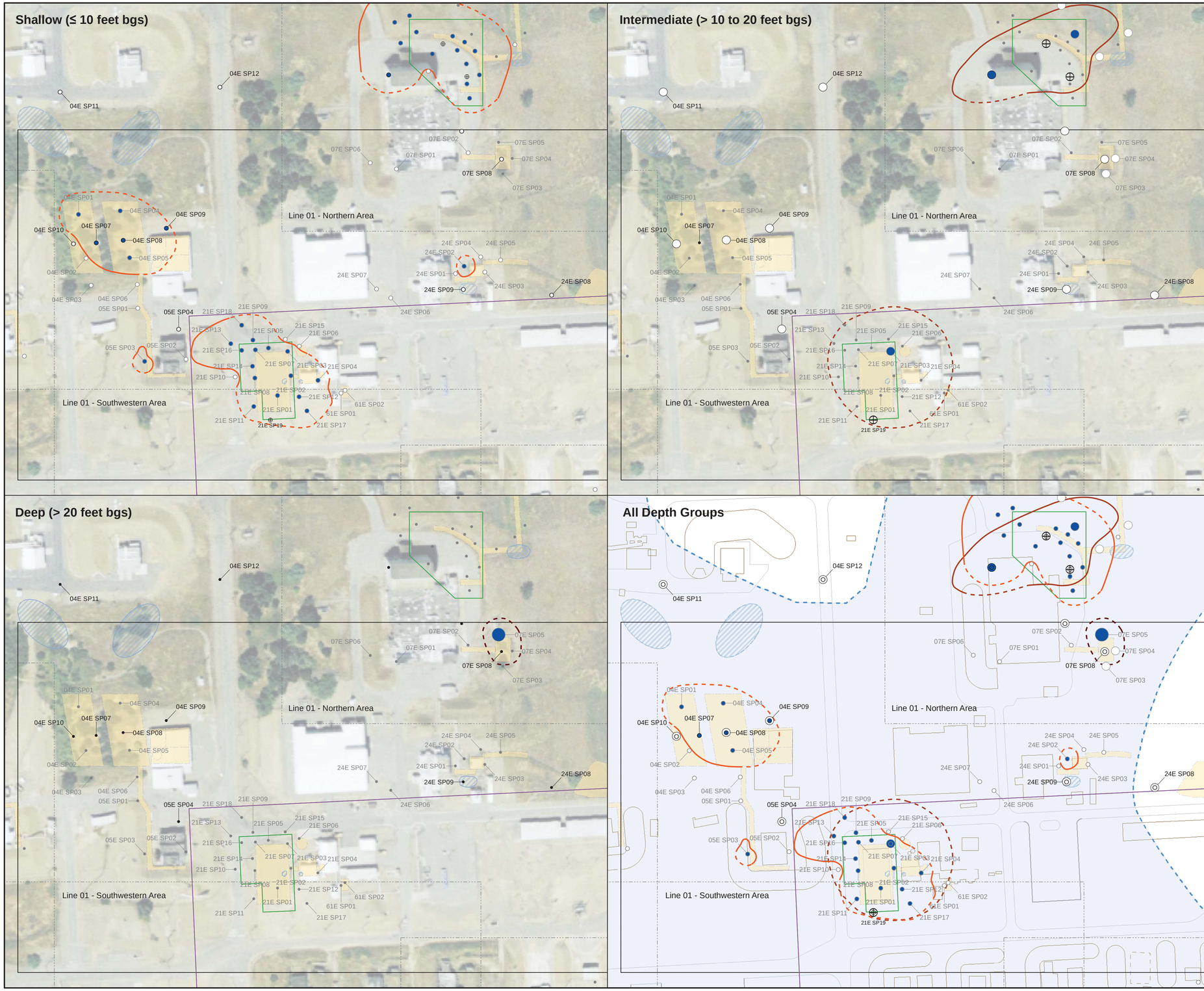
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs
24E SP05	1992	Trichloroethylene	1.43E+04	NS	NS
24E SP06	1992	Trichloroethylene	5.77E+03	NS	NS
24E SP07	1992	Trichloroethylene	5.30E+02	NS	NS
24E SP09	2008	Trichloroethylene	3.10E+02	<PGWSL	NS
61E SP01	1992	Trichloroethylene	6.24E+03	NS	NS
61E SP02	1992	Trichloroethylene	8.92E+03	NS	NS

AEROJET ROCKETDYNE

Figure 5.2-5

Trichloroethylene in Soil Vapor Compared to Protection of Groundwater Screening Level
Line 01 - Central Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



VOC Summed Industrial Weighted Screening Level Ratio (iWSLR)

- Detects to iWSLR ≤10
- Detects to iWSLR >10
- ● or ● No sample collected[3]
- ⊕ Sample cancelled due to high PID reading
- Shallow iWSLR 10 Contour
- Intermediate iWSLR 10 Contour
- Deep iWSLR 10 Contour
- Source Area
- Low Area
- Management Area Boundary
- Eco Soil Vapor RMDB[5]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[5]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)
- TCE Extent of Groundwater VOC Concentrations that Potentially Present Indoor Air Risk (>1 times Residential CHHSL plus 100-foot Buffer)

≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (middle circle) - Intermediate
>20 feet bgs (outer circle) - Deep

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

Buildings, Roads, and Other Features

- Road
- Structure/Revetment
- Removed Structure

Notes:
1) Contour lines are dashed where inferred.
2) Only locations within this region and subarea are labeled.
3) All sample locations are shown for each depth interval, even if no sample was collected at the depicted location.
4) The database contains information on individual compounds detected.
5) Aerojet and Tetra Tech EM, July 2007.
6) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

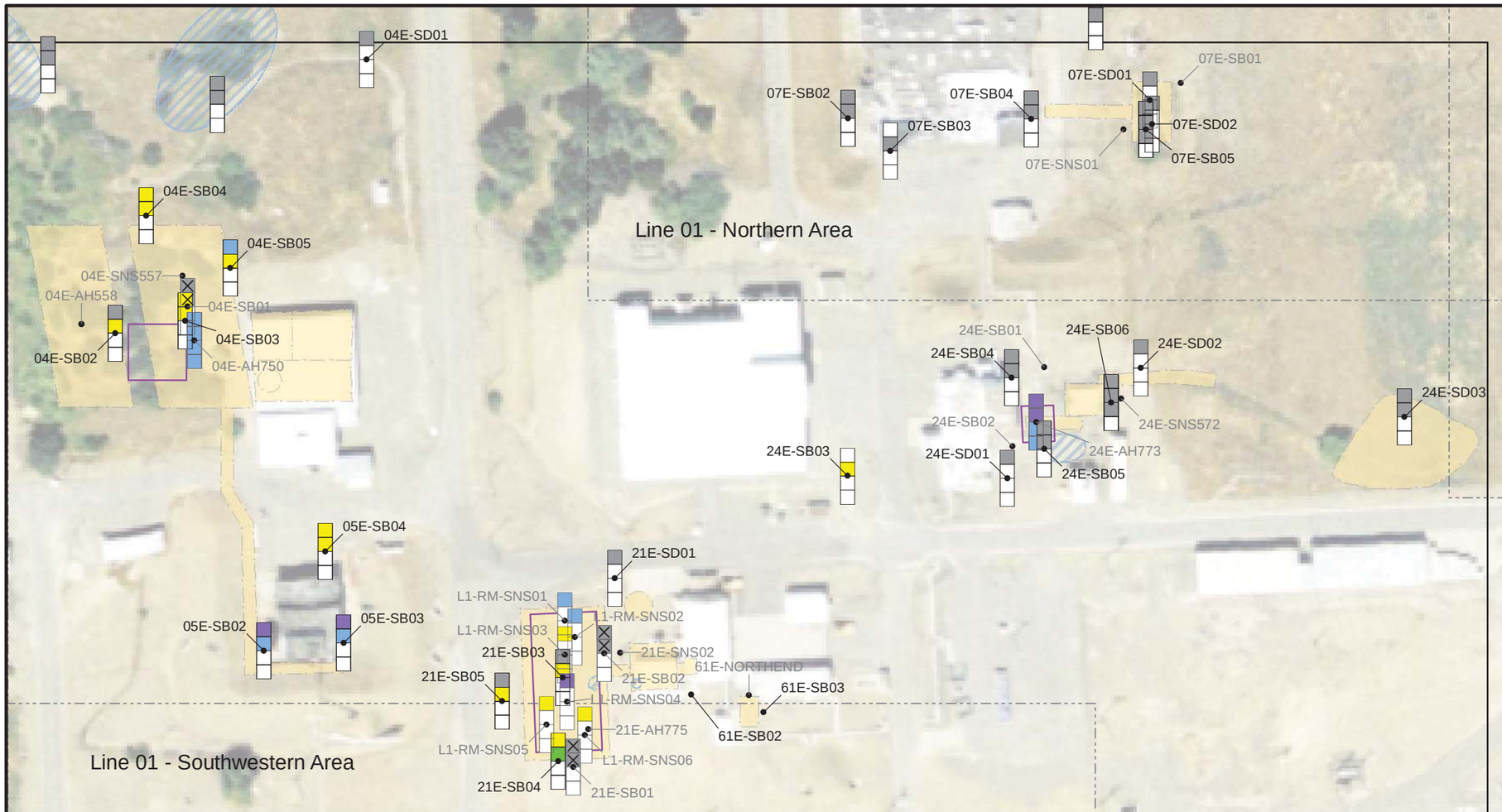
0 50 100 200 300 400 Feet

1 inch = 100 feet

AEROJET ROCKETDYNE

Figure 5.2-9
VOC Summed Industrial Weighted Screening Level Ratio for Soil Vapor
Line 01 - Central Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/7/2014



Protection of Groundwater Screening Level (PGWSL) - Soil

- Not Analyzed
- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL
- Sample Location
  - 0 to 2 feet bgs - Shallow
  - > 2 to 12 feet bgs - Intermediate
  - > 12 to 25 feet bgs - Deep
  - > 25 feet bgs - Very Deep
  - Not Detected, PQL > PGWSL

Perchlorate PGWSL (6.00E+01 µg/kg)

Note: **Bold** squares and sample locations indicate samples collected 2000 and later. Unbolded squares and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Management Area Boundary
- HH/Eco Soil RMDB[5]
  Restricted Land Use Area Based on Screening Level Ratio (>100 Times Commercial/Industrial and/or Ecological Screening Levels)

Notes:
1) Some symbols may overlap and hide other symbols beneath them.
2) Sample locations included within this subarea are denoted using a dot in the center of the polygon.
3) Sample locations lacking squares do not have any associated data for these specific analytes at any depth interval.
4) Table includes only the sample results that exceeded the screening level.
5) Aerojet and Tetra Tech EM, July 2007.
6) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 100 200
Feet

1 inch = 100 feet

Detections Above the PGWSL (µg/kg)				
Sample Location	Sample Depth	Sample Date	Compound	Concentration
04E-AH750	1	9/1/1984	Perchlorate	2.00E+03
04E-AH750	6	9/1/1984	Perchlorate	2.00E+03
04E-AH750	10.5	9/1/1984	Perchlorate	3.00E+03
04E-AH750	18	9/1/1984	Perchlorate	1.00E+03
04E-AH750	21	9/1/1984	Perchlorate	1.00E+03
04E-AH750	22.5	9/1/1984	Perchlorate	1.00E+03
04E-AH750	28.5	9/1/1984	Perchlorate	1.00E+03
04E-SB02	11	5/27/2008	Perchlorate	4.20E+02
04E-SB03	1	5/27/2008	Perchlorate	1.10E+02
04E-SB03	11	5/27/2008	Perchlorate	1.40E+02
04E-SB04	1	5/27/2008	Perchlorate	1.60E+02
04E-SB04	5	5/27/2008	Perchlorate	9.90E+01
04E-SB05	1	5/21/2008	Perchlorate	5.50E+03
04E-SB05	11	5/21/2008	Perchlorate	1.00E+02
05E-SB02	1	6/13/2008	Perchlorate	1.40E+05
05E-SB02	5	6/13/2008	Perchlorate	4.60E+03
05E-SB02	11	6/13/2008	Perchlorate	1.10E+03
05E-SB03	1	7/28/2008	Perchlorate	1.20E+04

Detections Above the PGWSL (µg/kg)				
Sample Location	Sample Depth	Sample Date	Compound	Concentration
05E-SB03	5	7/28/2008	Perchlorate	9.70E+02
05E-SB03	11	7/28/2008	Perchlorate	6.70E+02
05E-SB04	1	5/23/2008	Perchlorate	2.30E+02
05E-SB04	5	5/23/2008	Perchlorate	1.20E+02
05E-SB04	11	5/23/2008	Perchlorate	5.80E+02
21E-SB03	11	6/12/2008	Perchlorate	1.10E+02
21E-SB04	1	5/29/2008	Perchlorate	1.40E+02
21E-SB05	5	5/29/2008	Perchlorate	1.10E+02
24E-AH773	1	10/1/1984	Perchlorate	3.00E+03
24E-AH773	1.5	10/1/1984	Perchlorate	7.10E+03
24E-AH773	3	10/1/1984	Perchlorate	6.10E+03
24E-AH773	7.5	10/1/1984	Perchlorate	4.00E+03
24E-AH773	9	10/1/1984	Perchlorate	4.00E+03
24E-AH773	19.5	10/1/1984	Perchlorate	3.00E+03
24E-AH773	25.5	10/1/1984	Perchlorate	6.00E+03
24E-SB03	5	5/30/2008	Perchlorate	9.20E+01
L1-RM-SNS01	0	9/14/1998	Perchlorate	2.40E+03
L1-RM-SNS01	1	9/14/1998	Perchlorate	2.80E+02

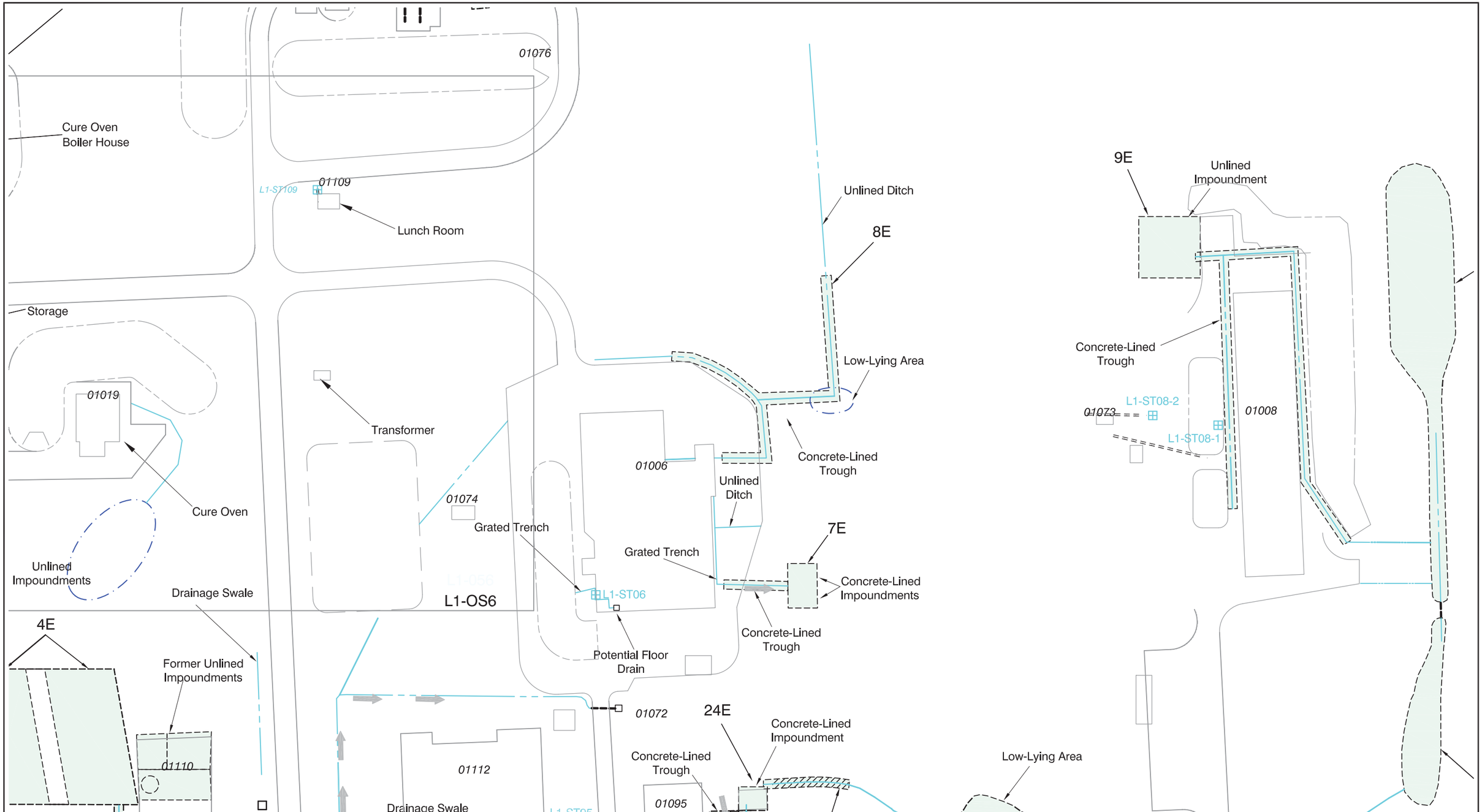
Detections Above the PGWSL (µg/kg)				
Sample Location	Sample Depth	Sample Date	Compound	Concentration
L1-RM-SNS02	0	9/14/1998	Perchlorate	8.80E+02
L1-RM-SNS02	1	9/14/1998	Perchlorate	4.20E+03
L1-RM-SNS03	0	9/14/1998	Perchlorate	7.50E+01
L1-RM-SNS03	1	9/14/1998	Perchlorate	1.20E+02
L1-RM-SNS04	0	9/14/1998	Perchlorate	6.10E+03
L1-RM-SNS04	1	9/14/1998	Perchlorate	1.60E+03
L1-RM-SNS05	0	9/14/1998	Perchlorate	2.20E+02
L1-RM-SNS05	1	9/14/1998	Perchlorate	7.30E+01
L1-RM-SNS06	0	9/14/1998	Perchlorate	7.90E+01

AEROJET ROCKETDYNE

Figure 5.2-10

Perchlorate in Soil Compared to Protection of Groundwater Screening Level Line 01 - Central Area Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



AEROJET ROCKETDYNE

FIGURE 5.3-1

Physical Features
Line 01 - Northern Area
Island Operable Unit Remedial Investigation

7/2/14 KB SR10130617

Detections Above the iRISL (µg/m^3)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
08E SP01	1992	Trichloroethylene	5.17E+04	NS
08E SP02	1992	Trichloroethylene	1.20E+05	NS
08E SP03	1992	Trichloroethylene	2.33E+06	NS
08E SP05	1992	Trichloroethylene	7.29E+06	NS
08E SP06	1992	Trichloroethylene	9.44E+06	NS
08E SP07	1992	Trichloroethylene	1.22E+05	NS
08E SP09	1992	Trichloroethylene	NS	3.54E+06
08E SP10	1992	Trichloroethylene	1.21E+06	NS
08E SP13	1992	Trichloroethylene	2.30E+06	NS
08E SP14	1992	Trichloroethylene	8.83E+04	NS
08E SP15	1992	Trichloroethylene	5.69E+04	NS
08E SP17	1992	Trichloroethylene	1.39E+07	NS
08E SP18	1993	Trichloroethylene	7.90E+05	NS
08E SP19	1993	Trichloroethylene	3.30E+06	NS
08E SP21	2008	Trichloroethylene	9.10E+04	2.90E+05

Industrial Remedial Investigation Screening Level (iRISL) - Soil Vapor

- Not Detected
- ≤ iRISL
- > iRISL and ≤ 10x iRISL
- > 10x iRISL and ≤ 100x iRISL
- > 100x iRISL

Trichloroethylene iRISL = 2.04E+04 µg/m^3

≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (outer circle) - Intermediate

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 100 200
Feet

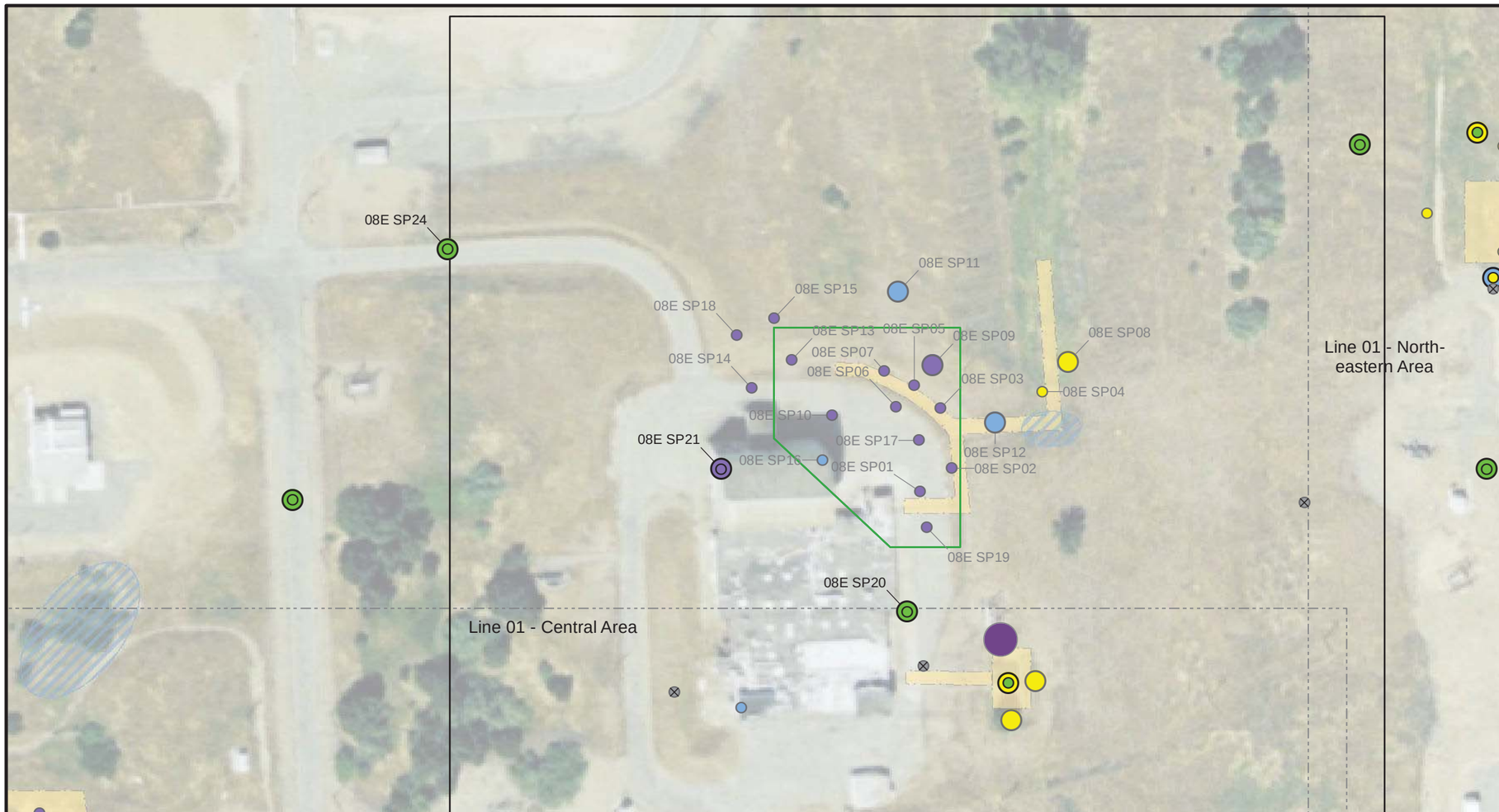
1 inch = 100 feet

AEROJET ROCKETDYNE

Figure 5.3-4

Trichloroethylene in Soil Vapor Compared to Industrial Remedial Investigation Screening Level
Line 01 - Northern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



Detections Above the PGWSL (µg/m³)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
08E SP01	1992	Trichloroethylene	5.17E+04	NS
08E SP02	1992	Trichloroethylene	1.20E+05	NS
08E SP03	1992	Trichloroethylene	2.33E+06	NS
08E SP04	1992	Trichloroethylene	7.40E+02	NS
08E SP05	1992	Trichloroethylene	7.29E+06	NS
08E SP06	1992	Trichloroethylene	9.44E+06	NS
08E SP07	1992	Trichloroethylene	1.22E+05	NS
08E SP08	1992	Trichloroethylene	NS	7.50E+02
08E SP09	1992	Trichloroethylene	NS	3.54E+06
08E SP10	1992	Trichloroethylene	1.21E+06	NS
08E SP11	1992	Trichloroethylene	NS	4.35E+03
08E SP12	1992	Trichloroethylene	NS	1.66E+04
08E SP13	1992	Trichloroethylene	2.30E+06	NS
08E SP14	1992	Trichloroethylene	8.83E+04	NS
08E SP15	1992	Trichloroethylene	5.69E+04	NS
08E SP16	1992	Trichloroethylene	1.58E+04	NS
08E SP17	1992	Trichloroethylene	1.39E+07	NS

Detections Above the PGWSL (µg/m³)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
08E SP18	1993	Trichloroethylene	7.90E+05	NS
08E SP19	1993	Trichloroethylene	3.30E+06	NS
08E SP21	2008	Trichloroethylene	9.10E+04	2.90E+05

Protection of Groundwater Screening Level (PGWSL) - Soil Vapor

- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL

Trichloroethylene PGWSL = 2.65E+02 µg/m³

[a] Not Detected, PQL > PGWSL

[b] ≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (outer circle) - Intermediate

[a] A shallow depth interval where the PQL is not greater than the PGWSL may overlap and partially obscure the symbol.
[b] **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m³ (>100 Times ESLs)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 100 200
Feet

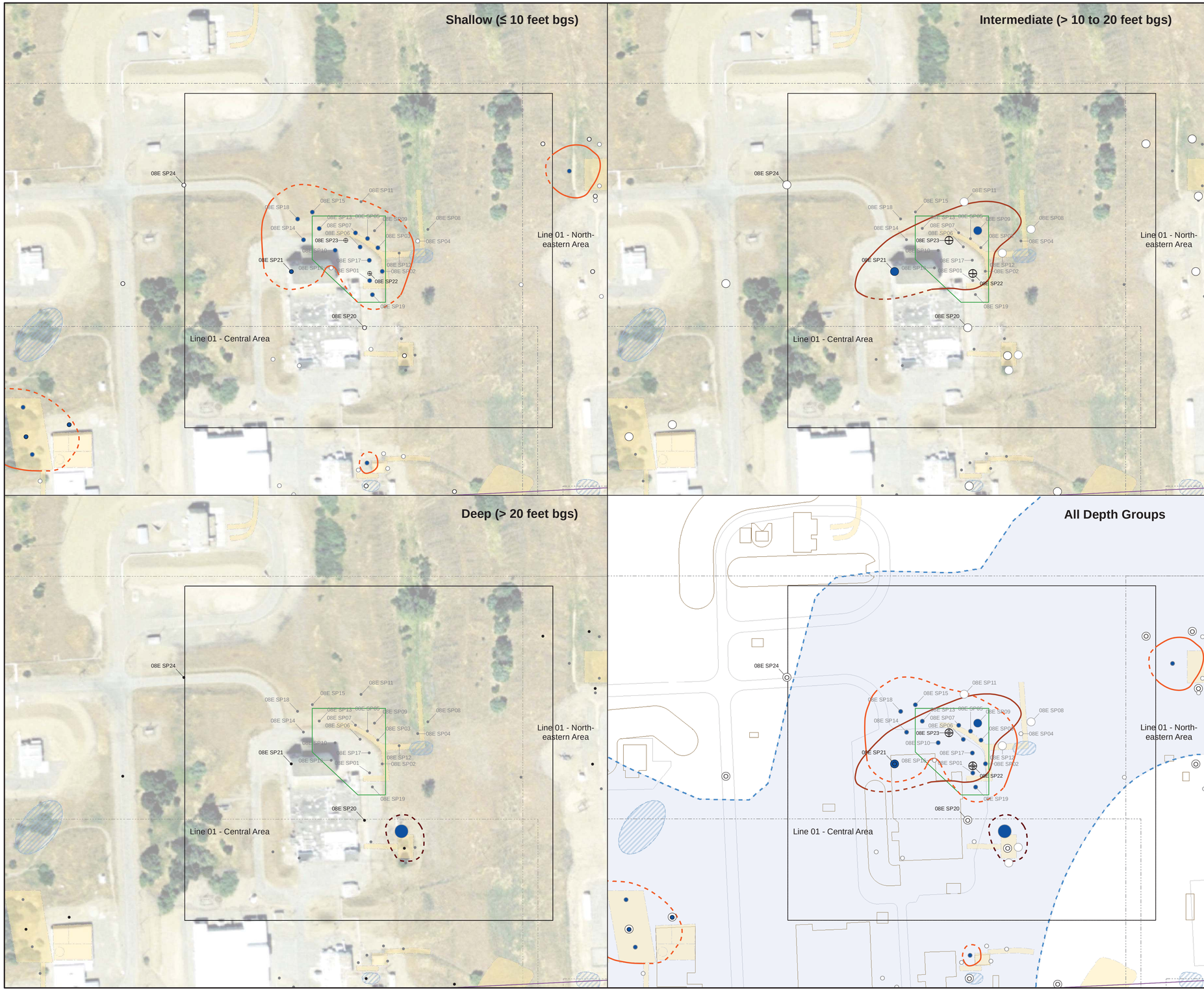
1 inch = 100 feet

AEROJET ROCKETDYNE

Figure 5.3-7

Trichloroethylene in Soil Vapor Compared to Protection of Groundwater Screening Level
Line 01 - Northern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



VOC Summed Industrial Weighted Screening Level Ratio (iWSLR)

- Detects to iWSLR ≤10
- Detects to iWSLR >10
- No sample collected[3]
- Sample cancelled due to high PID reading
- Shallow iWSLR 10 Contour
- Intermediate iWSLR 10 Contour
- Source Area
- Low Area
- Management Area Boundary
- Adjacent Management Area Boundary
- Eco Soil Vapor RMDB[5]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[5]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)
- TCE — Extent of Groundwater VOC Concentrations that Potentially Present Indoor Air Risk (>1 times Residential CHHSL plus 100-foot Buffer)

≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (middle circle) - Intermediate

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

Buildings, Roads, and Other Features

- Structure/Revetment
- Road

Notes:
1) Contour lines are dashed where inferred.
2) Only locations within this region and subarea are labeled.
3) All sample locations are shown for each depth interval, even if no sample was collected at the depicted location.
4) The database contains information on individual compounds detected.
5) Aerojet and Tetra Tech EM, July 2007.
6) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

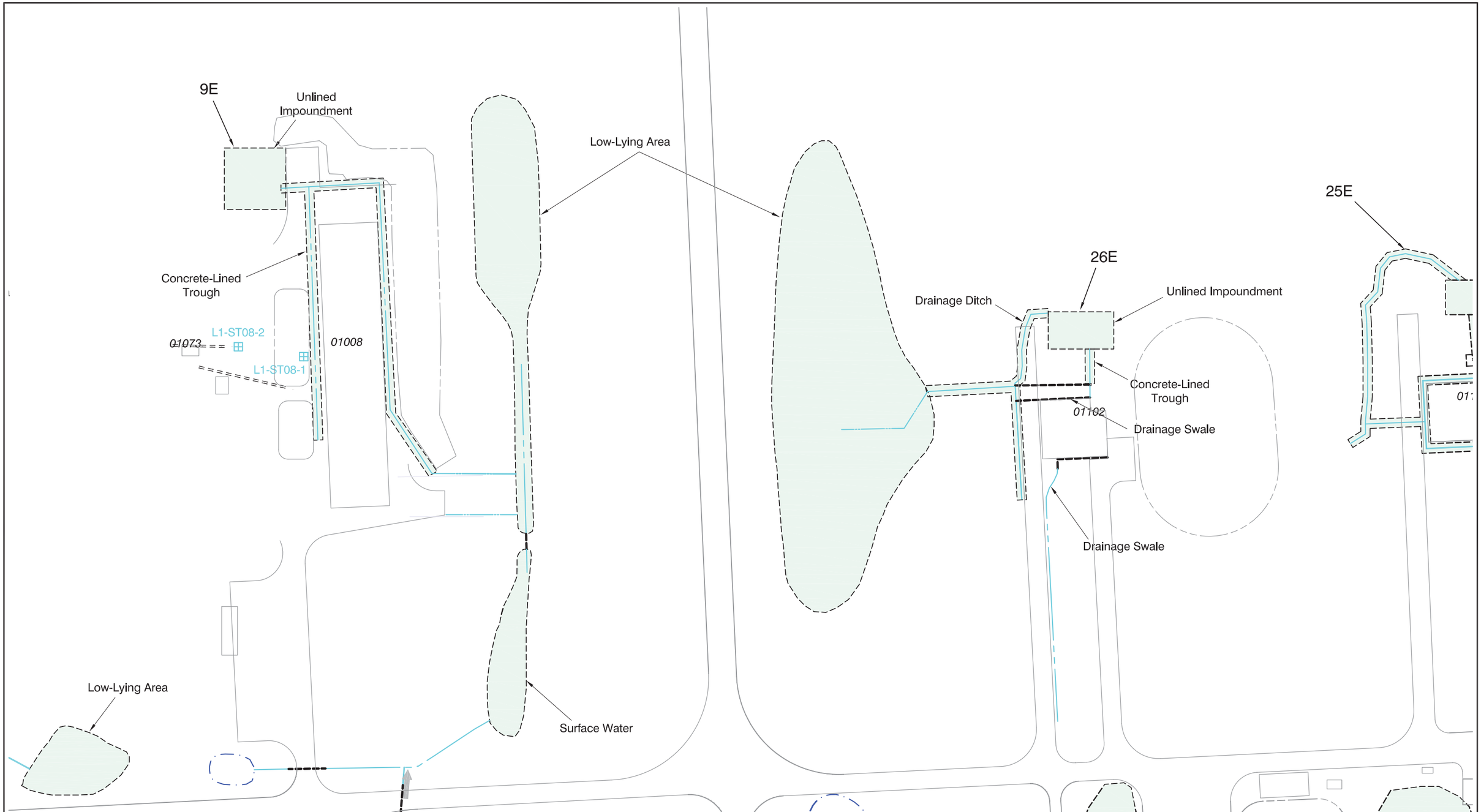
0 50 100 200 300 400 Feet

1 inch = 100 feet

AEROJET ROCKETDYNE

Figure 5.3-11
VOC Summed Industrial Weighted Screening Level Ratio for Soil Vapor
Line 01 - Northern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/7/2014

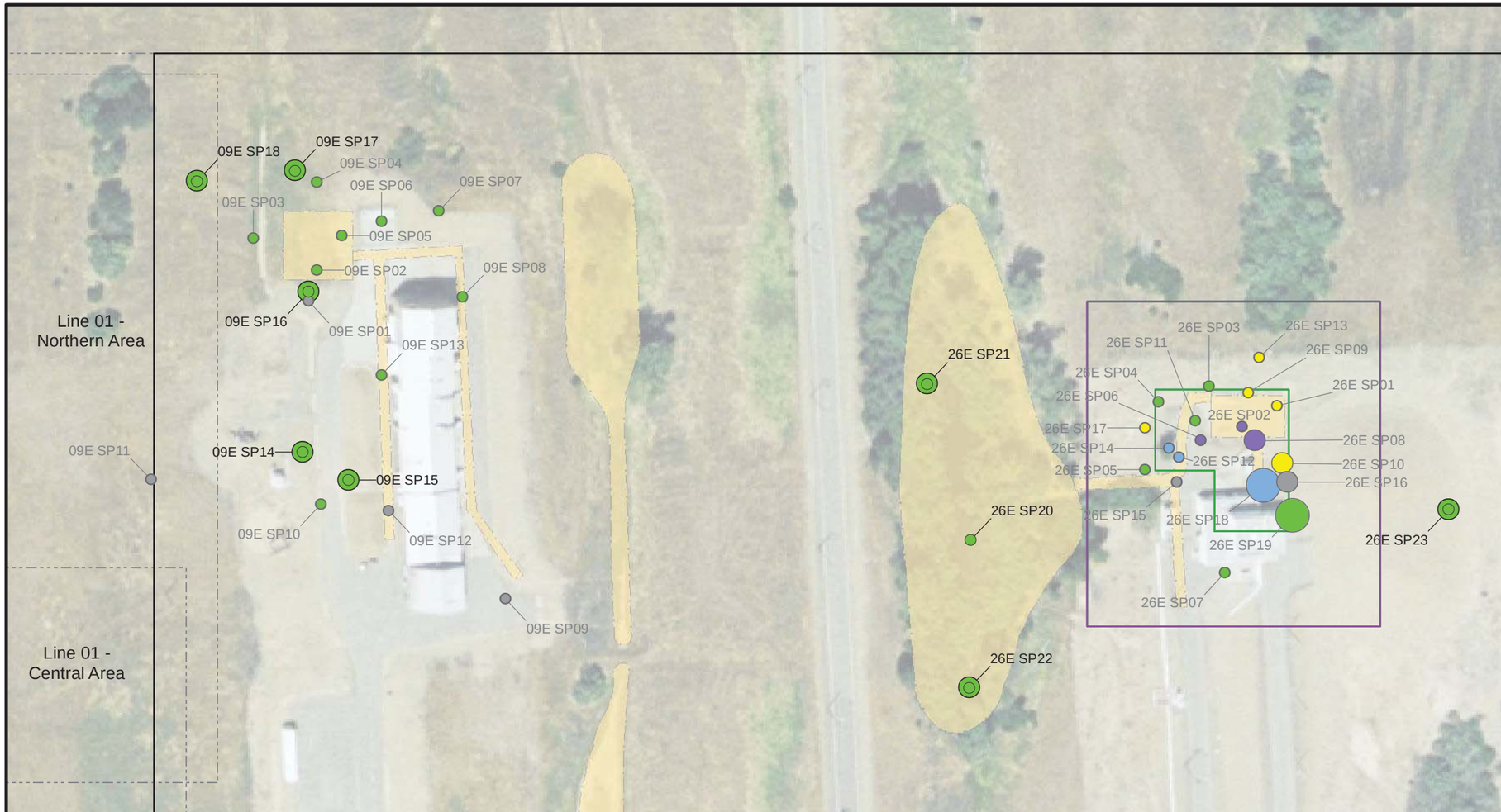


AEROJET ROCKETDYNE

FIGURE 5.4-1

Physical Features
Line 01 - Northeastern Area
Island Operable Unit Remedial Investigation

7/2/14 KB SR10130617



Detections Above the iRISL (µg/m^3)					
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs
26E SP01	1992	Trichloroethylene	4.01E+04	NS	NS
26E SP02	1992	Trichloroethylene	2.28E+07	NS	NS
26E SP06	1992	Trichloroethylene	5.97E+06	NS	NS
26E SP08	1992	Trichloroethylene	NS	1.15E+07	NS
26E SP09	1992	Trichloroethylene	7.99E+04	NS	NS
26E SP10	1992	Trichloroethylene	NS	2.21E+04	NS
26E SP12	1992	Trichloroethylene	2.11E+05	NS	NS
26E SP13	1992	Trichloroethylene	2.17E+04	NS	NS
26E SP14	1992	Trichloroethylene	2.68E+05	NS	NS
26E SP17	1992	Trichloroethylene	4.59E+04	NS	NS
26E SP18	1992	Trichloroethylene	NS	NS	1.70E+06

Industrial Remedial Investigation Screening Level (iRISL) - Soil Vapor

- Not Detected
- ≤ iRISL
- > iRISL and ≤ 10x iRISL
- > 10x iRISL and ≤ 100x iRISL
- > 100x iRISL

Trichloroethylene iRISL = 2.04E+04 µg/m^3

≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (middle circle) - Intermediate
>20 feet bgs (outer circle) - Deep

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[4]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 120 240
Feet

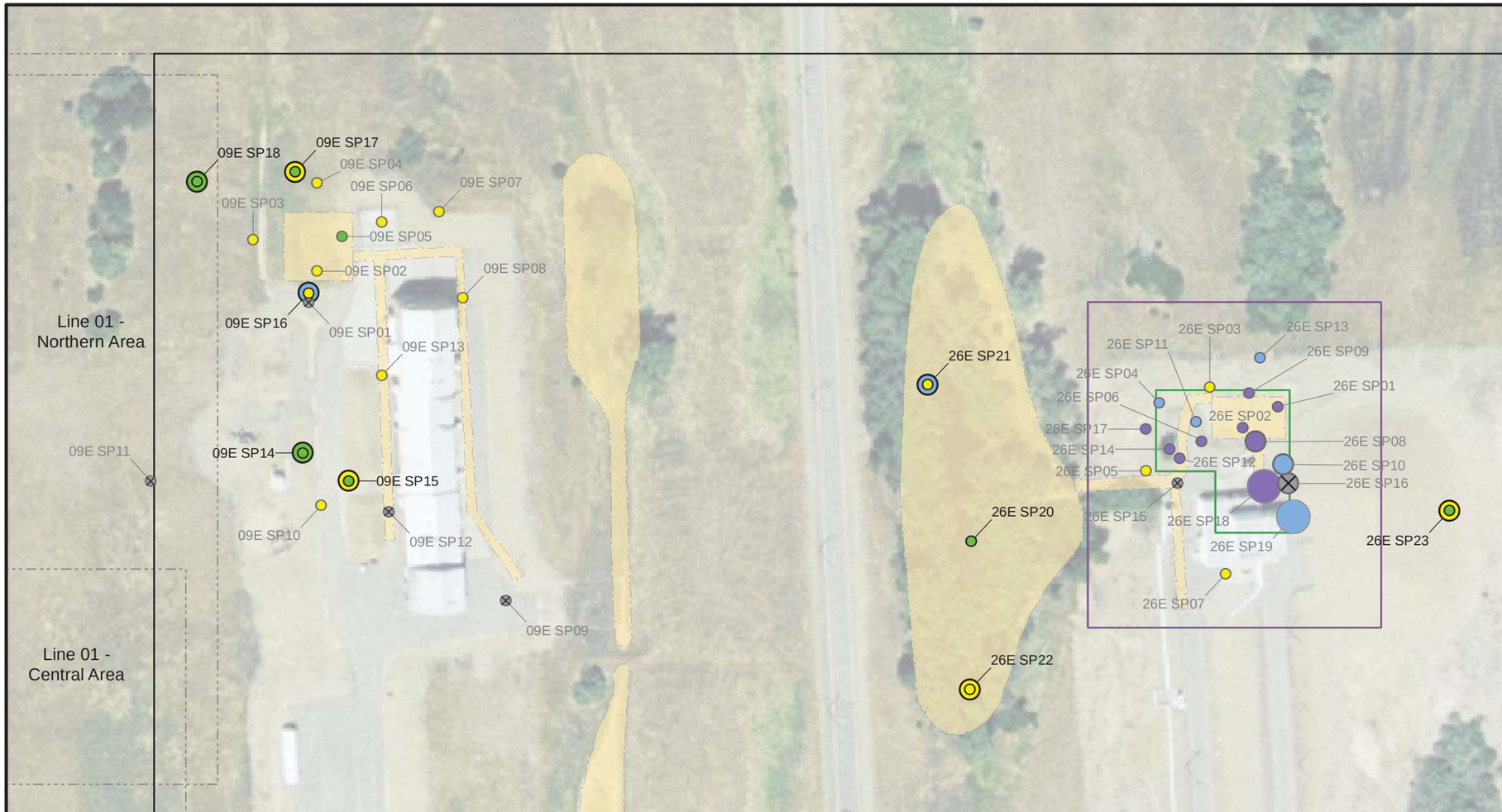
1 inch = 120 feet

AEROJET ROCKETDYNE

Figure 5.4-4

Trichloroethylene in Soil Vapor Compared to Industrial Remedial Investigation Screening Level
Line 01 - Northeastern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



Protection of Groundwater Screening Level (PGWSL) - Soil Vapor

- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL

Trichloroethylene PGWSL = 2.65E+02 µg/m^3

[a] Not Detected, PQL > PGWSL

[b] ≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (middle circle) - Intermediate
>20 feet bgs (outer circle) - Deep

[a] A shallow depth interval where the PQL is not greater than the PGWSL may overlap and partially obscure the symbol.
[b] **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[4]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 120 240
Feet

1 inch = 120 feet

Detections Above the PGWSL (µg/m^3)					
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs
09E SP02	1992	Trichloroethylene	1.71E+03	NS	NS
09E SP03	1992	Trichloroethylene	1.80E+03	NS	NS
09E SP04	1992	Trichloroethylene	1.80E+03	NS	NS
09E SP06	1992	Trichloroethylene	7.80E+02	NS	NS
09E SP07	1992	Trichloroethylene	1.13E+03	NS	NS
09E SP08	1992	Trichloroethylene	1.14E+03	NS	NS
09E SP10	1992	Trichloroethylene	8.60E+02	NS	NS
09E SP13	1992	Trichloroethylene	2.36E+03	NS	NS
09E SP15	2008	Trichloroethylene	<PGWSL	7.20E+02	NS
09E SP16	2008	Trichloroethylene	1.70E+03	4.00E+03	NS
09E SP17	2008	Trichloroethylene	<PGWSL	1.10E+03	NS
26E SP01	1992	Trichloroethylene	4.01E+04	NS	NS
26E SP02	1992	Trichloroethylene	2.28E+07	NS	NS
26E SP03	1992	Trichloroethylene	1.33E+03	NS	NS
26E SP04	1992	Trichloroethylene	1.56E+04	NS	NS
26E SP05	1992	Trichloroethylene	1.44E+03	NS	NS
26E SP06	1992	Trichloroethylene	5.97E+06	NS	NS
26E SP07	1992	Trichloroethylene	1.20E+03	NS	NS
26E SP08	1992	Trichloroethylene	NS	1.15E+07	NS
26E SP09	1992	Trichloroethylene	7.99E+04	NS	NS

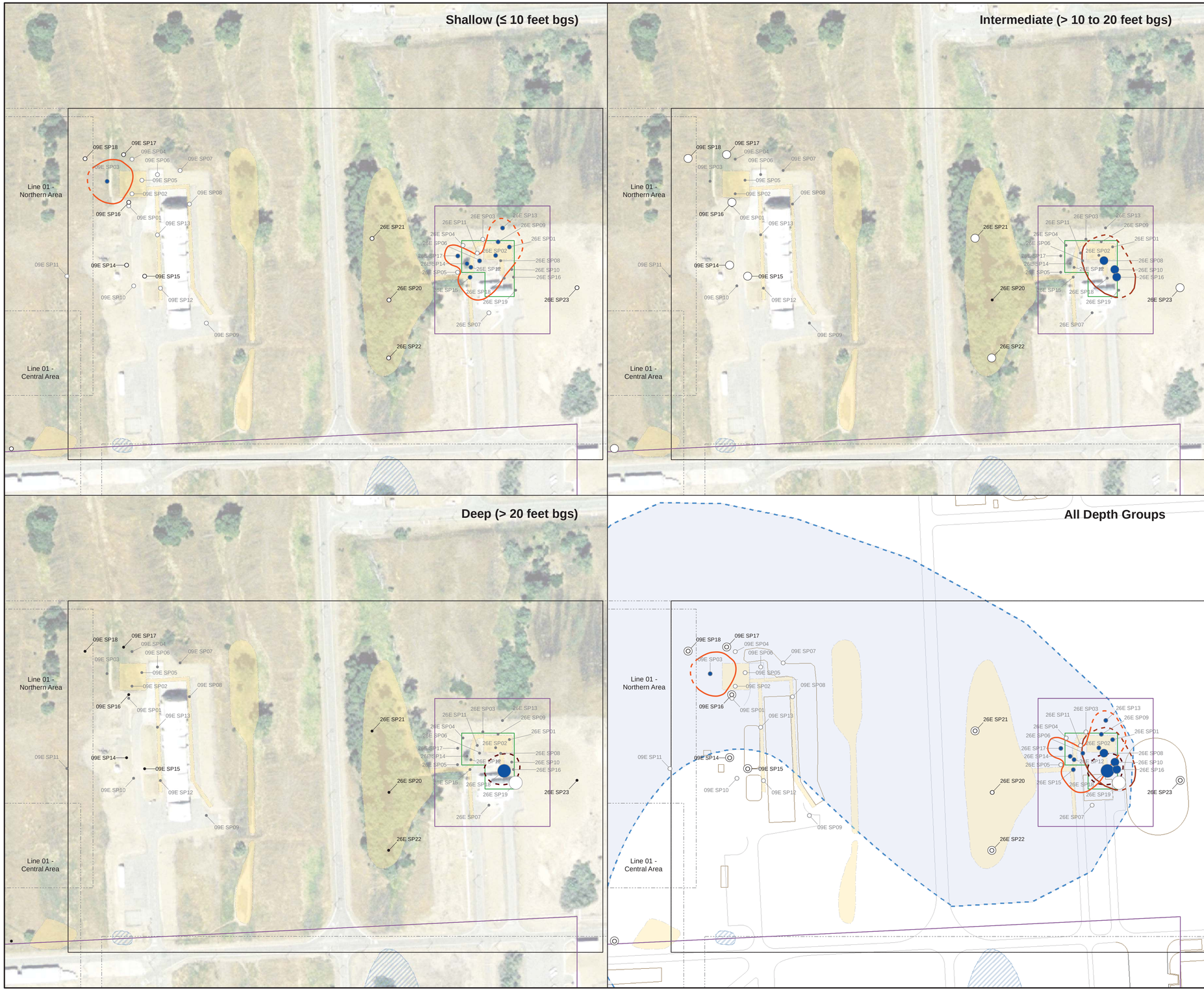
Detections Above the PGWSL (µg/m^3)					
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs	>20 feet bgs
26E SP10	1992	Trichloroethylene	NS	2.21E+04	NS
26E SP11	1992	Trichloroethylene	1.23E+04	NS	NS
26E SP12	1992	Trichloroethylene	2.11E+05	NS	NS
26E SP13	1992	Trichloroethylene	2.17E+04	NS	NS
26E SP14	1992	Trichloroethylene	2.68E+05	NS	NS
26E SP17	1992	Trichloroethylene	4.59E+04	NS	NS
26E SP18	1992	Trichloroethylene	NS	NS	1.70E+06
26E SP19	1992	Trichloroethylene	NS	NS	3.51E+03
26E SP21	2008	Trichloroethylene	2.50E+03	6.20E+03	NS
26E SP22	2008	Trichloroethylene	3.10E+02	4.40E+02	NS
26E SP23	2009	Trichloroethylene	<PGWSL	2.70E+02	NS

AEROJET ROCKETDYNE

Figure 5.4-7

Trichloroethylene in Soil Vapor Compared to Protection of Groundwater Screening Level
Line 01 - Northeastern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



VOC Summed Industrial Weighted Screening Level Ratio (iWSLR)

- Detects to iWSLR ≤10
- Detects to iWSLR >10
- ● or ● No sample collected[3]
- Shallow iWSLR 10 Contour
- Intermediate iWSLR 10 Contour
- Deep iWSLR 10 Contour
- Source Area
- Low Area
- Management Area Boundary
- Adjacent Management Area Boundary
- Eco Soil Vapor RMDB[5]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[5]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)
- TCE Extent of Groundwater VOC Concentrations that Potentially Present Indoor Air Risk (>1 times Residential CHHSL plus 100-foot Buffer)

≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (middle circle) - Intermediate
>20 feet bgs (outer circle) - Deep

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

Buildings, Roads, and Other Features

- Structure/Revetment
- Road

Notes:
1) Contour lines are dashed where inferred.
2) Only locations within this region and subarea are labeled.
3) All sample locations are shown for each depth interval, even if no sample was collected at the depicted location.
4) The database contains information on individual compounds detected.
5) Aerojet and Tetra Tech EM, July 2007.
6) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

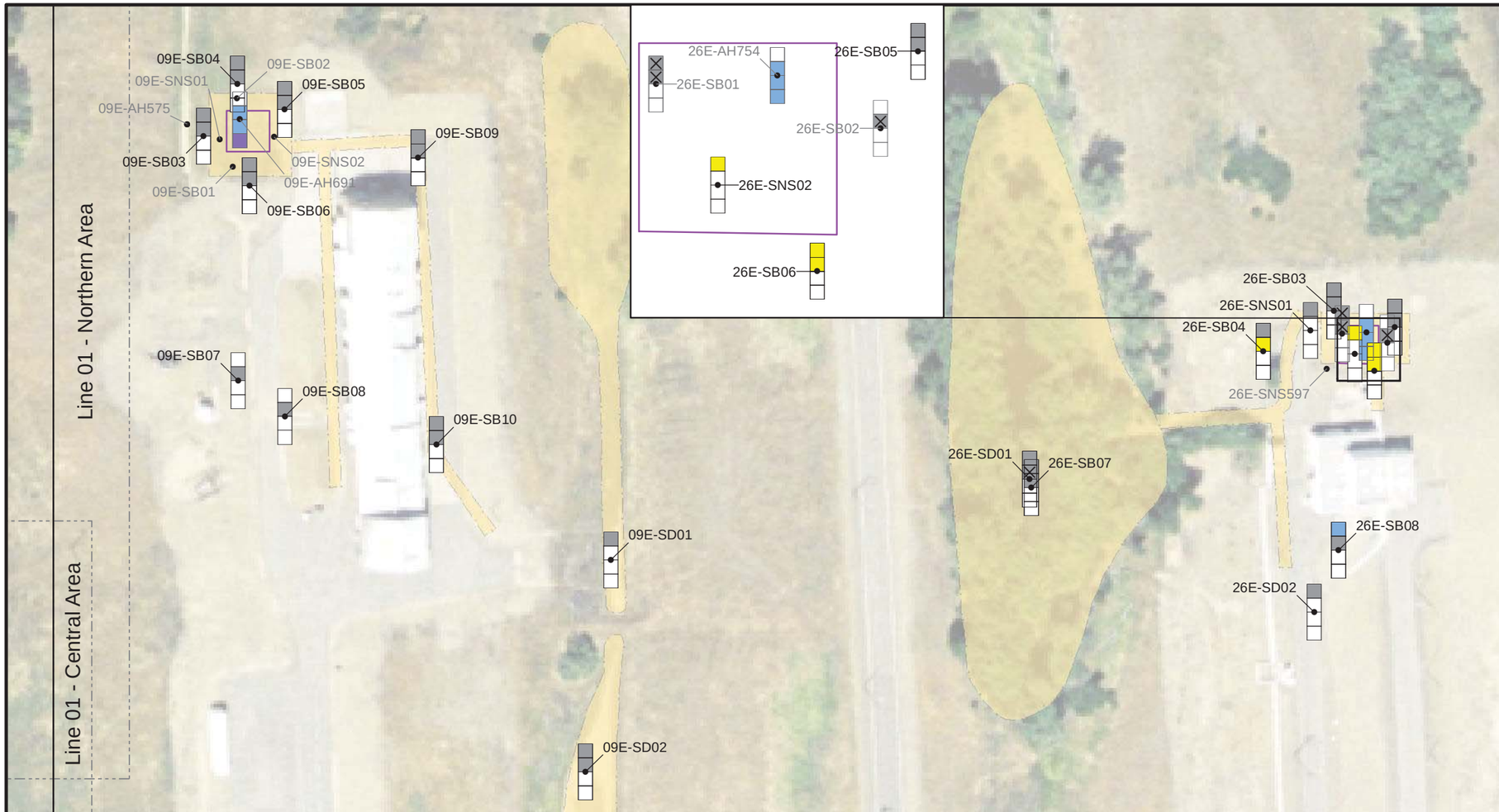
0 60 120 240 360 480 Feet

1 inch = 120 feet

AEROJET ROCKETDYNE

Figure 5.4-11
VOC Summed Industrial Weighted
Screening Level Ratio for Soil Vapor
Line 01 - Northeastern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/7/2014



Detections Above the PGWSL (µg/kg)				
Sample Location	Sample Depth	Sample Date	Compound	Concentration
09E-AH691	7.5	4/1/1984	Perchlorate	5.10E+03
09E-AH691	10.5	4/1/1984	Perchlorate	3.00E+03
09E-AH691	12	4/1/1984	Perchlorate	2.00E+03
09E-AH691	19.5	4/1/1984	Perchlorate	4.00E+03
09E-AH691	22.5	4/1/1984	Perchlorate	5.10E+03
09E-AH691	28.5	4/1/1984	Perchlorate	7.10E+03
09E-AH691	33	4/1/1984	Perchlorate	1.00E+04
09E-AH691	34.5	4/1/1984	Perchlorate	7.10E+03
26E-AH754	3	9/1/1984	Perchlorate	5.00E+03
26E-AH754	6	9/1/1984	Perchlorate	2.00E+03
26E-AH754	7.5	9/1/1984	Perchlorate	2.00E+03
26E-AH754	9	9/1/1984	Perchlorate	3.00E+03
26E-AH754	15	9/1/1984	Perchlorate	2.00E+03
26E-AH754	19.5	9/1/1984	Perchlorate	4.10E+03
26E-AH754	27	9/1/1984	Perchlorate	2.00E+03
26E-SB04	5	6/13/2008	Perchlorate	1.40E+02
26E-SB06	1	5/28/2008	Perchlorate	3.60E+02

Detections Above the PGWSL (µg/kg)				
Sample Location	Sample Depth	Sample Date	Compound	Concentration
26E-SB06	11	5/28/2008	Perchlorate	4.00E+02
26E-SB08	1	5/28/2008	Perchlorate	9.20E+02
26E-SNS02	2	6/13/2008	Perchlorate	2.30E+02

Protection of Groundwater Screening Level (PGWSL) - Soil

- Not Analyzed
- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL
- Sample Location
  - 0 to 2 feet bgs - Shallow
  - > 2 to 12 feet bgs - Intermediate
  - > 12 to 25 feet bgs - Deep
  - > 25 feet bgs - Very Deep
  - Not Detected, PQL > PGWSL

Perchlorate PGWSL (6.00E+01 µg/kg)

Note: **Bold** squares and sample locations indicate samples collected 2000 and later. Unbolded squares and sample locations indicate samples collected before 2000.

- Source Area
- Management Area Boundary
- Adjacent Management Area Boundary
- HH/Eco Soil RMDB[5]
  Restricted Land Use Area Based on Screening Level Ratio (>100 Times Commercial/Industrial and/or Ecological Screening Levels)

Notes:
1) Some symbols may overlap and hide other symbols beneath them.
2) Sample locations included within this subarea are denoted using a dot in the center of the polygon.
3) Sample locations lacking squares do not have any associated data for these specific analytes at any depth interval.
4) Table includes only the sample results that exceeded the screening level.
5) Aerojet and Tetra Tech EM, July 2007.
6) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 100 200
Feet

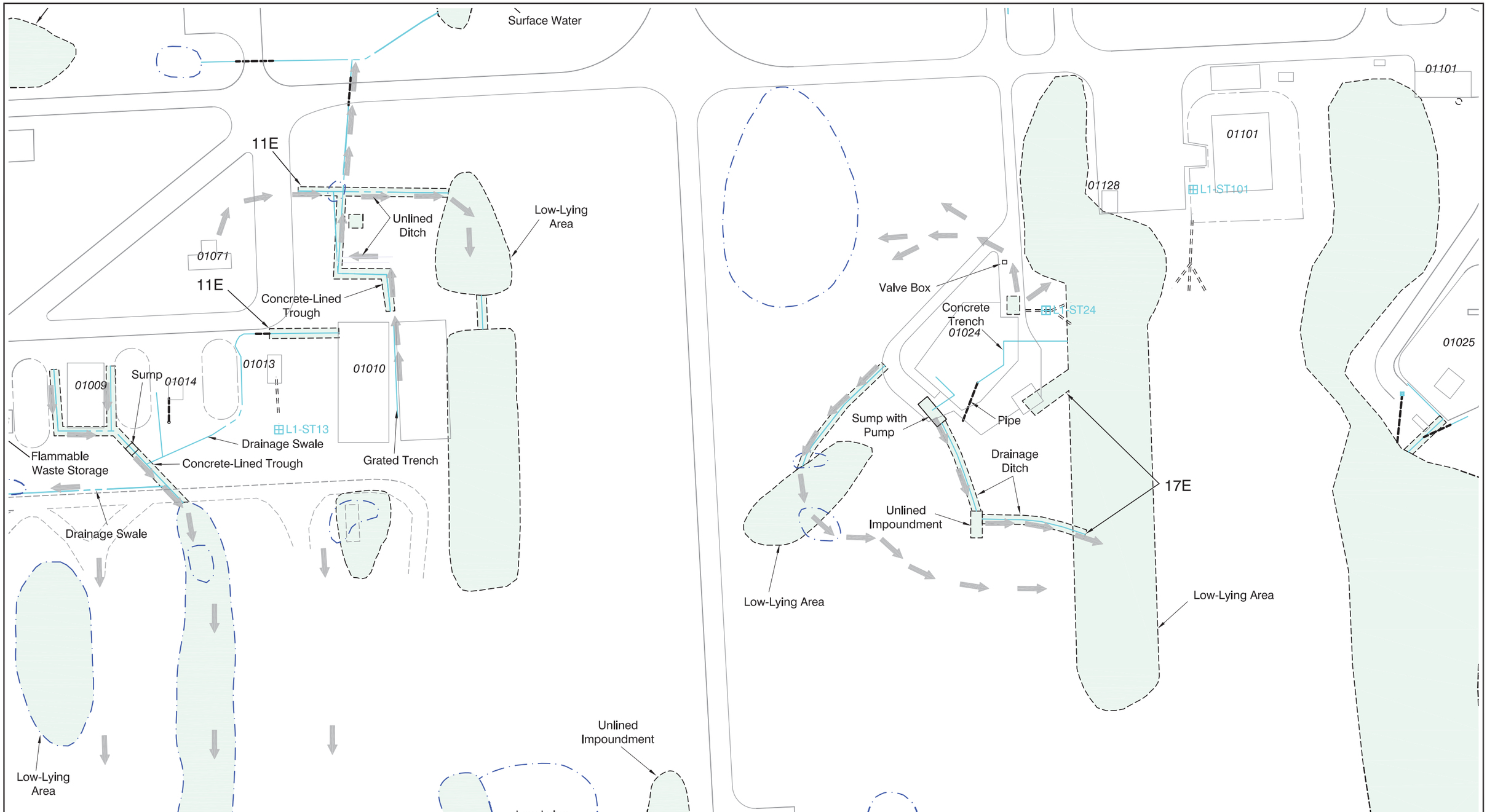
1 inch = 100 feet

AEROJET ROCKETDYNE

Figure 5.4-12

Perchlorate in Soil Compared to Protection of Groundwater Screening Level Line 01 - Northeastern Area Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



LEGEND

- Potential Source Area
- Low Area
- Surface Water Flow Direction
- Drainage Ditch
- Surface Drainage
- Culvert
- Road (Unpaved Shown Dashed)
- Revetment
- Fence
- 01030 Building/Structure
- Septic Tank and Leach Line
- Debris/Potential Burn Area

N

Scale: 1" = 100'

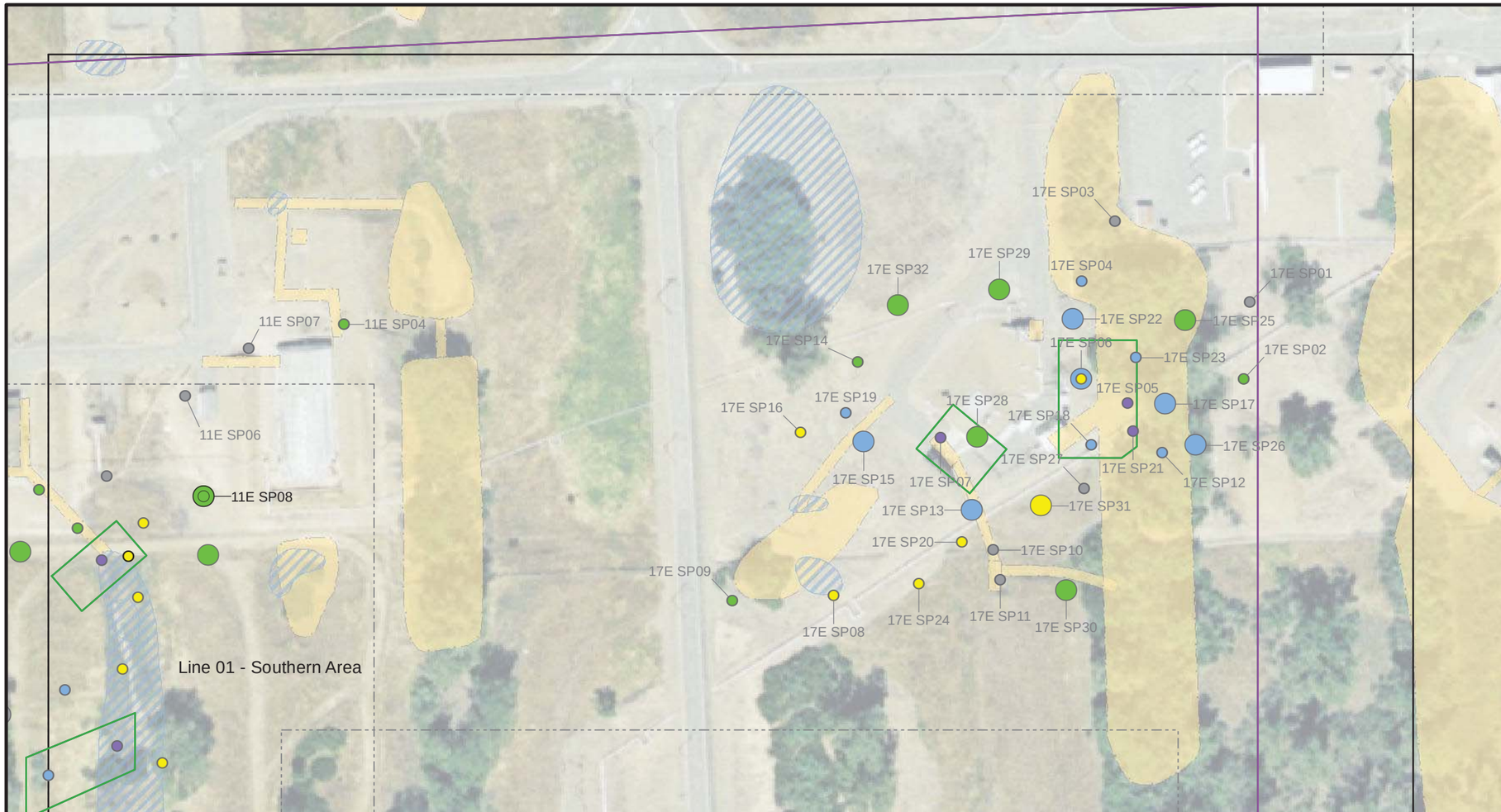
0 50 100

AEROJET ROCKETDYNE

FIGURE 5.5-1

Physical Features
Line 01 - Eastern Area
Island Operable Unit Remedial Investigation

7/2/14 KB SR10130617



Detections Above the iRISL (µg/m³)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
17E SP04	1992	Trichloroethylene	2.40E+05	NS
17E SP05	1992	Trichloroethylene	6.07E+06	NS
17E SP06	1992	Trichloroethylene	3.04E+04	1.98E+06
17E SP07	1992	Trichloroethylene	9.00E+07	NS
17E SP08	1992	Trichloroethylene	1.26E+05	NS
17E SP12	1992	Trichloroethylene	2.92E+05	NS
17E SP13	1992	Trichloroethylene	NS	3.72E+05
17E SP15	1992	Trichloroethylene	NS	6.71E+05
17E SP16	1992	Trichloroethylene	4.64E+04	NS
17E SP17	1992	Trichloroethylene	NS	2.33E+05
17E SP18	1992	Trichloroethylene	4.32E+05	NS
17E SP19	1992	Trichloroethylene	7.29E+05	NS
17E SP20	1992	Trichloroethylene	1.17E+05	NS
17E SP21	1992	Trichloroethylene	9.21E+06	NS
17E SP22	1992	Trichloroethylene	NS	2.38E+05
17E SP23	1992	Trichloroethylene	1.95E+06	NS

Detections Above the iRISL (µg/m³)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
17E SP24	1992	Trichloroethylene	5.96E+04	NS
17E SP26	1992	Trichloroethylene	NS	3.15E+05
17E SP31	1992	Trichloroethylene	NS	1.47E+05

SR10126231 Created by CB&I 10/6/2014

Industrial Remedial Investigation Screening Level (iRISL) - Soil Vapor

- Not Detected
- ≤ iRISL
- > iRISL and ≤ 10x iRISL
- > 10x iRISL and ≤ 100x iRISL
- > 100x iRISL

Trichloroethylene iRISL = 2.04E+04 µg/m^3

≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (outer circle) - Intermediate

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[4]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

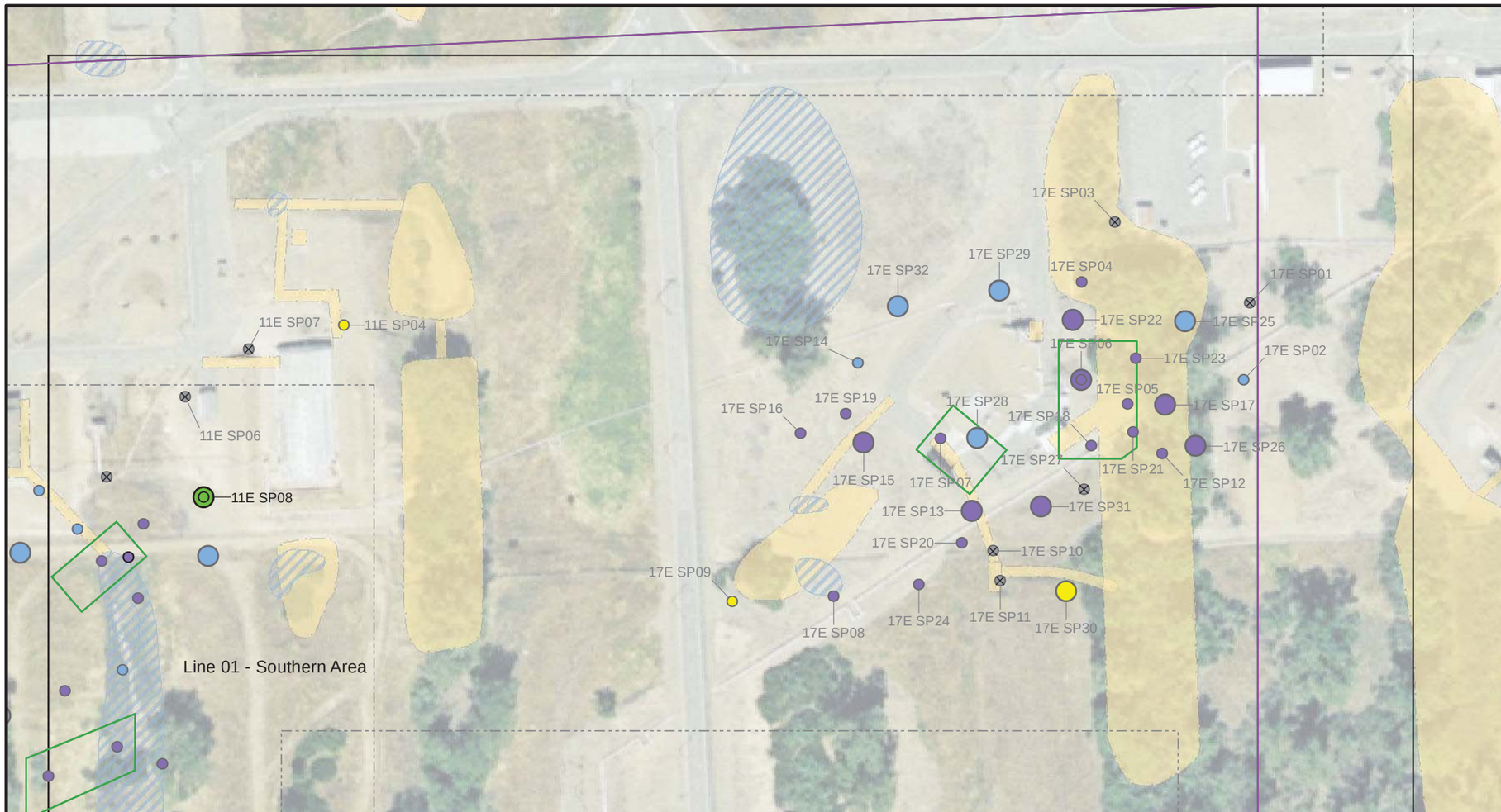
0 120 240
Feet

1 inch = 120 feet

AEROJET ROCKETDYNE

Figure 5.5-4

Trichloroethylene in Soil Vapor Compared to Industrial Remedial Investigation Screening Level
Line 01 - Eastern Area
Island Operable Unit Remedial Investigation



Detections Above the PGWSL (µg/m³)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
11E SP04	1992	Trichloroethylene	8.00E+02	NS
17E SP02	1992	Trichloroethylene	9.06E+03	NS
17E SP04	1992	Trichloroethylene	2.40E+05	NS
17E SP05	1992	Trichloroethylene	6.07E+06	NS
17E SP06	1992	Trichloroethylene	3.04E+04	1.98E+06
17E SP07	1992	Trichloroethylene	9.00E+07	NS
17E SP08	1992	Trichloroethylene	1.26E+05	NS
17E SP09	1992	Trichloroethylene	1.14E+03	NS
17E SP12	1992	Trichloroethylene	2.92E+05	NS
17E SP13	1992	Trichloroethylene	NS	3.72E+05
17E SP14	1992	Trichloroethylene	1.67E+04	NS
17E SP15	1992	Trichloroethylene	NS	6.71E+05
17E SP16	1992	Trichloroethylene	4.64E+04	NS
17E SP17	1992	Trichloroethylene	NS	2.33E+05
17E SP18	1992	Trichloroethylene	4.32E+05	NS
17E SP19	1992	Trichloroethylene	7.29E+05	NS
17E SP20	1992	Trichloroethylene	1.17E+05	NS

Detections Above the PGWSL (µg/m³)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
17E SP21	1992	Trichloroethylene	9.21E+06	NS
17E SP22	1992	Trichloroethylene	NS	2.38E+05
17E SP23	1992	Trichloroethylene	1.95E+06	NS
17E SP24	1992	Trichloroethylene	5.96E+04	NS
17E SP25	1992	Trichloroethylene	NS	3.36E+03
17E SP26	1992	Trichloroethylene	NS	3.15E+05
17E SP28	1992	Trichloroethylene	NS	7.87E+03
17E SP29	1992	Trichloroethylene	NS	1.95E+04
17E SP30	1992	Trichloroethylene	NS	1.00E+03
17E SP31	1992	Trichloroethylene	NS	1.47E+05
17E SP32	1993	Trichloroethylene	NS	1.60E+04

Protection of Groundwater Screening Level (PGWSL) - Soil Vapor

- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL

Trichloroethylene PGWSL = 2.65E+02 µg/m³

[a] Not Detected, PQL > PGWSL

[b] ≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (outer circle) - Intermediate

[a] A shallow depth interval where the PQL is not greater than the PGWSL may overlap and partially obscure the symbol.
[b] **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- Eco Soil Vapor RMDB[4]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m³ (>100 Times ESLs)
- HH Soil Vapor RMDB[4]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 120 240
Feet

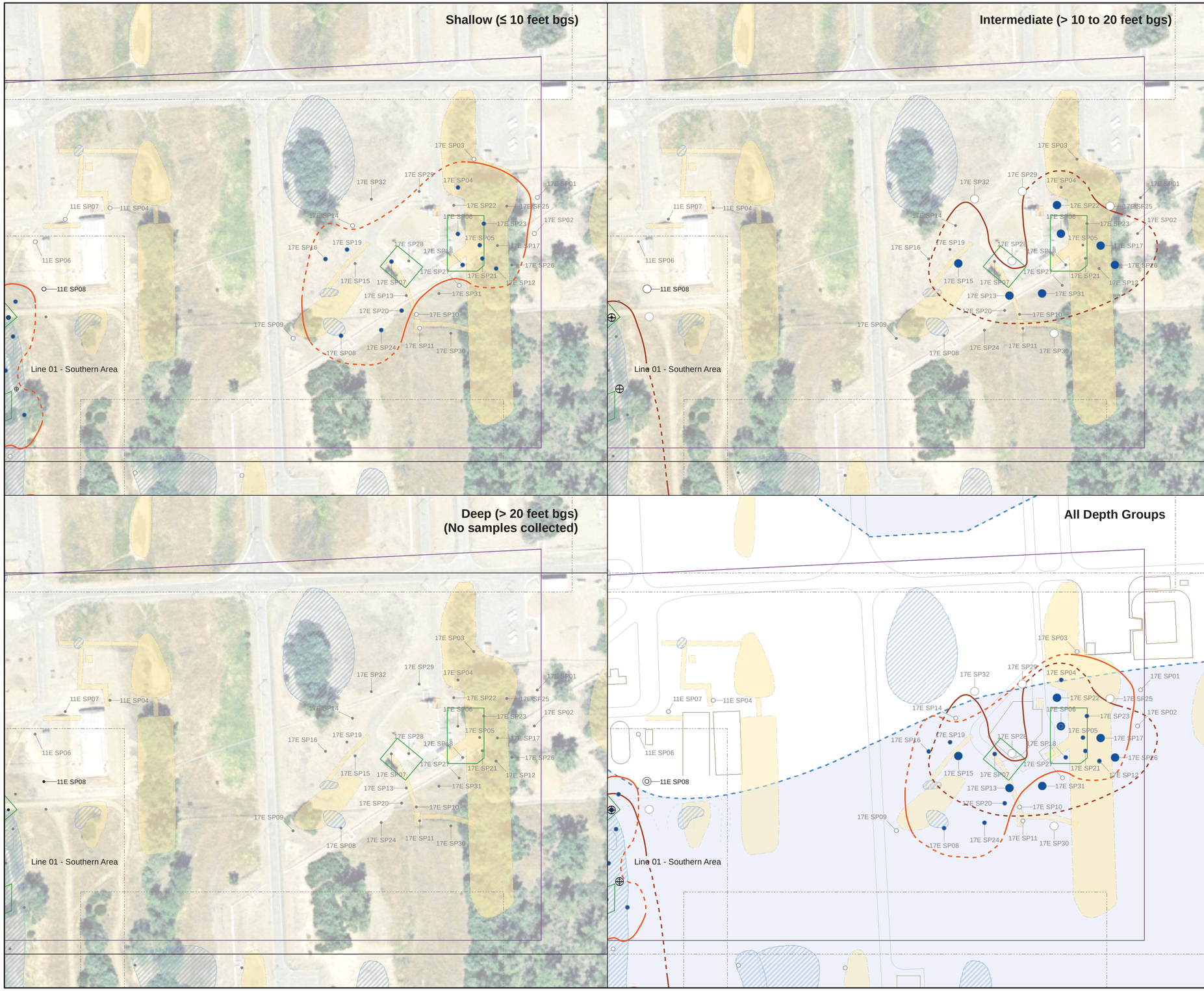
1 inch = 120 feet

AEROJET ROCKETDYNE

Figure 5.5-7

Trichloroethylene in Soil Vapor Compared to Protection of Groundwater Screening Level
Line 01 - Eastern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



VOC Summed Industrial Weighted Screening Level Ratio (iWSLR)

- Detects to iWSLR ≤10
- Detects to iWSLR >10
- ● or ● No sample collected[3]
- ⊕ Sample cancelled due to high PID reading
- Shallow iWSLR 10 Contour
- Intermediate iWSLR 10 Contour
- Source Area
- Low Area
- Management Area Boundary
- Adjacent Management Area Boundary
- Eco Soil Vapor RMDB[5]
  Potential Ecological Action Area Based on Soil Vapor TVOC >640,000 µg/m^3 (>100 Times ESLs)
- HH Soil Vapor RMDB[5]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)
- TCE Extent of Groundwater VOC Concentrations that Potentially Present Indoor Air Risk (>1 times Residential CHHSL plus 100-foot Buffer)
- ≤ 10 feet bgs (inner circle) - Shallow
  >10 to 20 feet bgs (middle circle) - Intermediate

Note: **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

Buildings, Roads, and Other Features

- Structure/Revetment
- Road

Notes:
1) Contour lines are dashed where inferred.
2) Only locations within this region and subarea are labeled.
3) All sample locations are shown for each depth interval, even if no sample was collected at the depicted location.
4) The database contains information on individual compounds detected.
5) Aerojet and Tetra Tech EM, July 2007.
6) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

0 50 100 200 300 400 Feet

1 inch = 100 feet

AEROJET ROCKETDYNE

Figure 5.5-10
VOC Summed Industrial Weighted
Screening Level Ratio for Soil Vapor
Line 01 - Eastern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/7/2014

Detections Above the PGWSL (µg/kg)				
Sample Location	Sample Depth	Sample Date	Compound	Concentration
11E-AH761	1.5	9/1/1984	Perchlorate	2.00E+03
11E-AH761	6	9/1/1984	Perchlorate	3.00E+03
11E-AH761	9	9/1/1984	Perchlorate	2.00E+03
11E-AH761	10.5	9/1/1984	Perchlorate	1.00E+03
11E-AH761	30	9/1/1984	Perchlorate	2.10E+03
17E-AH766	1.5	1/1/1984	Perchlorate	6.10E+03
17E-AH766	4.5	1/1/1984	Perchlorate	1.00E+04
17E-AH766	7.5	1/1/1984	Perchlorate	1.20E+04
17E-AH766	10.5	1/1/1984	Perchlorate	1.50E+04
17E-AH766	13.5	1/1/1984	Perchlorate	1.20E+04
17E-AH766	19.5	1/1/1984	Perchlorate	2.00E+03
17E-AH766	25.5	1/1/1984	Perchlorate	5.10E+03
17E-AH766	28.5	1/1/1984	Perchlorate	1.40E+04
17E-SB03	1	6/19/2008	Perchlorate	6.20E+01

Protection of Groundwater Screening Level (PGWSL) - Soil

- Not Analyzed
- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL
- Sample Location
  - 0 to 2 feet bgs - Shallow
  - > 2 to 12 feet bgs - Intermediate
  - > 12 to 25 feet bgs - Deep
  - > 25 feet bgs - Very Deep
  - Not Detected, PQL > PGWSL

Perchlorate PGWSL (6.00E+01 µg/kg)

Note: **Bold** squares and sample locations indicate samples collected 2000 and later. Unbolded squares and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Adjacent Management Area Boundary
- HH/Eco Soil RMDB[5]
  Restricted Land Use Area Based on Screening Level Ratio (>100 Times Commercial/Industrial and/or Ecological Screening Levels)

Notes:
1) Some symbols may overlap and hide other symbols beneath them.
2) Sample locations included within this subarea are denoted using a dot in the center of the polygon.
3) Sample locations lacking squares do not have any associated data for these specific analytes at any depth interval.
4) Table includes only the sample results that exceeded the screening level.
5) Aerojet and Tetra Tech EM, July 2007.
6) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 80 160
Feet

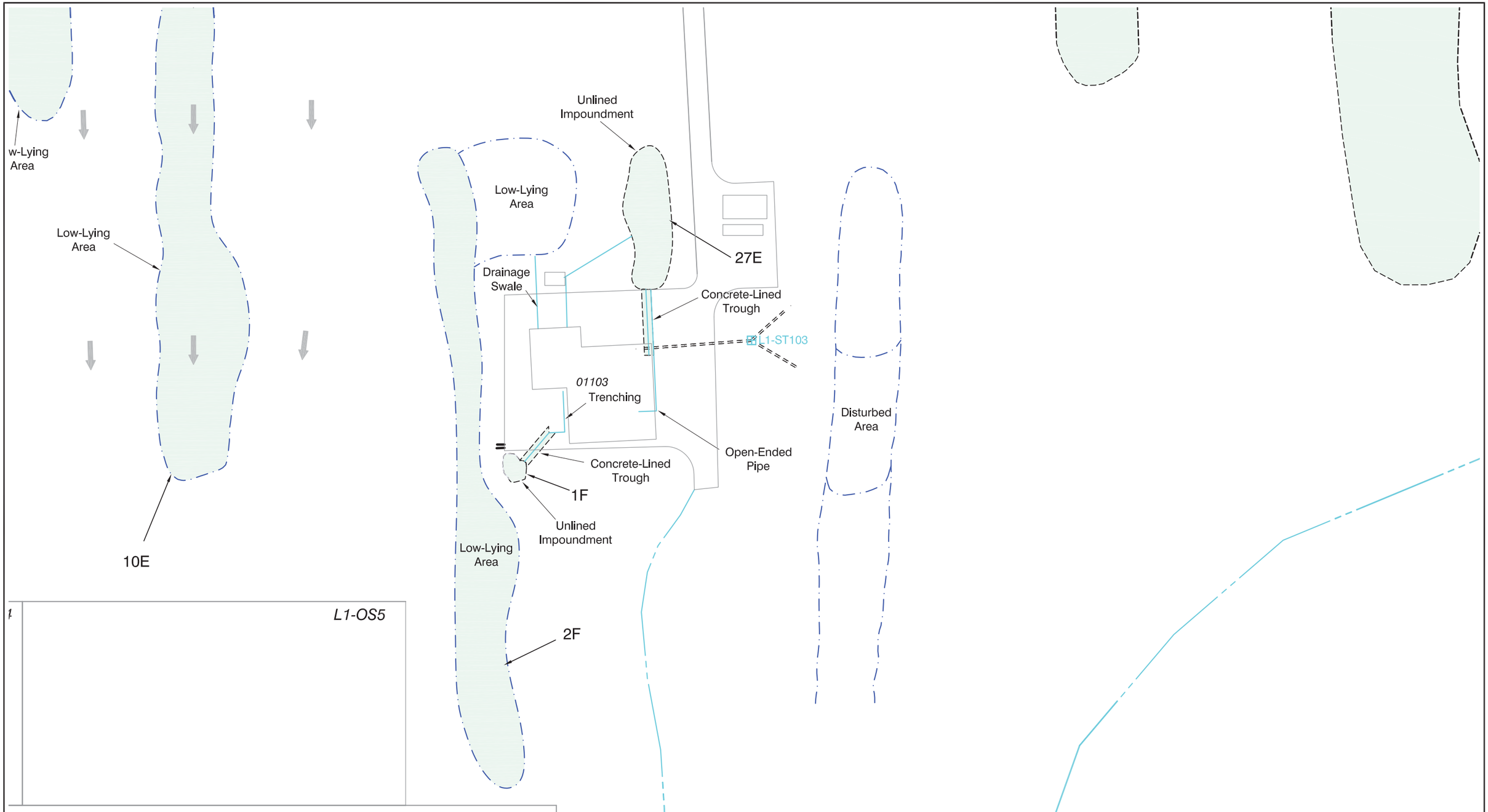
1 inch = 80 feet

AEROJET ROCKETDYNE

Figure 5.5-11

Perchlorate in Soil Compared to Protection of Groundwater Screening Level Line 01 - Eastern Area Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014



LEGEND

- Potential Source Area
- Low Area
- Surface Water Flow Direction
- Drainage Ditch
- Surface Drainage
- Culvert
- Road (Unpaved Shown Dashed)
- Revetment
- Fence
- 01030 Building/Structure
- Septic Tank and Leach Line
- Debris/Potential Burn Area

N

Scale: 1" = 100'

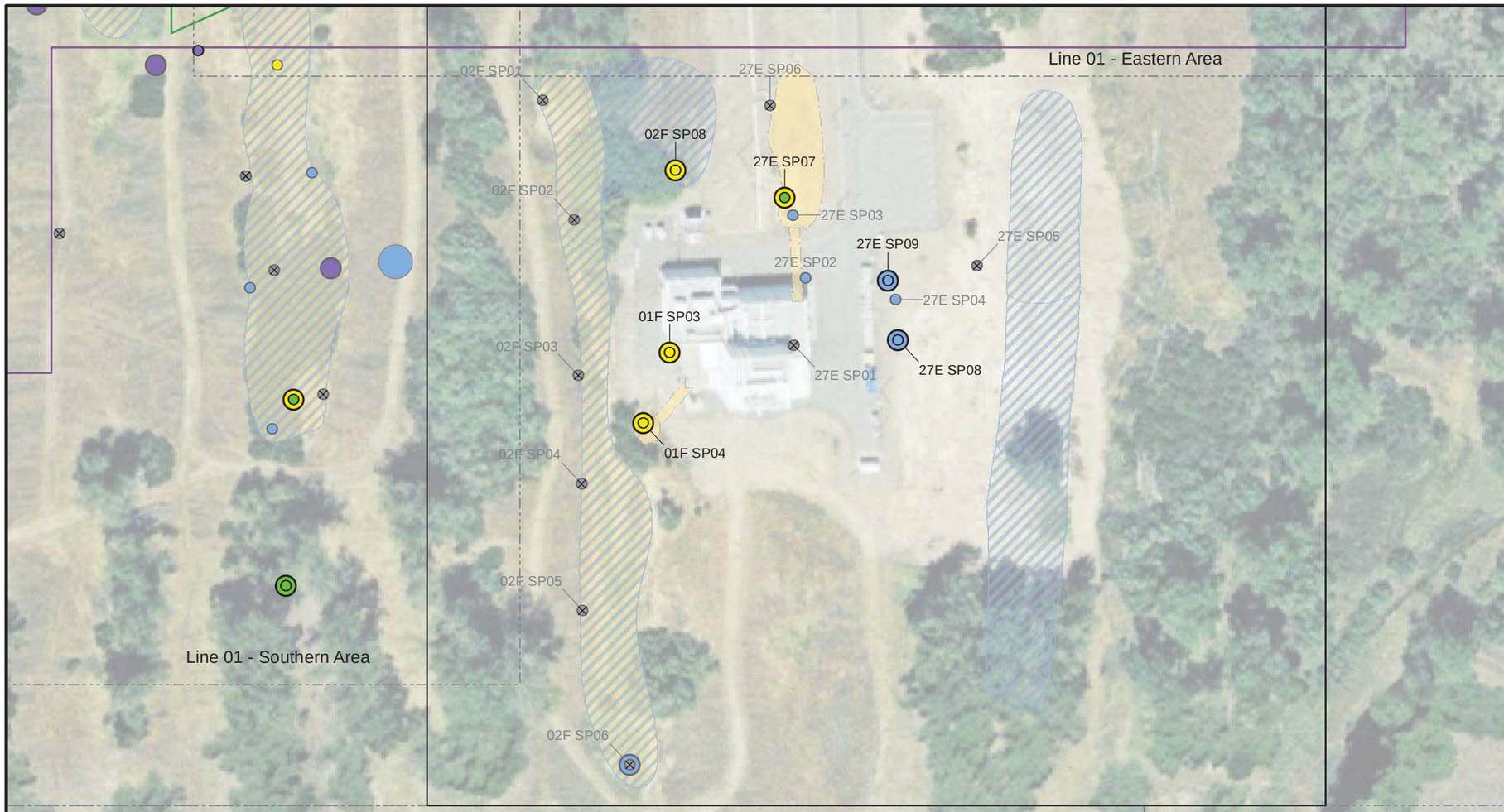
0 50 100

AEROJET ROCKETDYNE

FIGURE 5.6-1

Physical Features
Line 01 - Southeastern Area
Island Operable Unit Remedial Investigation

7/2/14 KB SR10130617



Detections Above the PGWSL (µg/m^3)				
Sample Location	Sample Year	Compound	≤10 feet bgs	>10-20 feet bgs
01F SP03	2008	Trichloroethylene	8.90E+02	1.10E+03
01F SP04	2008	Trichloroethylene	2.20E+03	1.50E+03
02F SP06	1992	Trichloroethylene	ND	8.25E+03
02F SP08	2008	Trichloroethylene	5.80E+02	5.30E+02
27E SP02	1992	Trichloroethylene	6.54E+03	NS
27E SP03	1992	Trichloroethylene	1.52E+04	NS
27E SP04	1992	Trichloroethylene	5.22E+03	NS
27E SP07	2008	Trichloroethylene	<PGWSL	8.10E+02
27E SP08	2008	Trichloroethylene	9.40E+03	1.30E+04
27E SP09	2008	Trichloroethylene	2.70E+03	3.20E+03

Protection of Groundwater Screening Level (PGWSL) - Soil Vapor

- Not Detected
- ≤ PGWSL
- > PGWSL and ≤ 10x PGWSL
- > 10x PGWSL and ≤ 100x PGWSL
- > 100x PGWSL

Trichloroethylene PGWSL = 2.65E+02 µg/m^3

[a] Not Detected, PQL > PGWSL

[b] ≤ 10 feet bgs (inner circle) - Shallow
>10 to 20 feet bgs (outer circle) - Intermediate

[a] A shallow depth interval where the PQL is not greater than the PGWSL may overlap and partially obscure the symbol.
[b] **Bold** circles and sample locations indicate samples collected 2000 and later. Unbolded circles and sample locations indicate samples collected before 2000.

- Source Area
- Low Area
- Management Area Boundary
- Adjacent Subarea Boundary
- HH Soil Vapor RMDB[4]
  Restricted Land Use Area Based on VOCs Off-Gassing from Groundwater TVOC >3,000 µg/L (>100 Times Commercial/Industrial TCE CHHSL)

Notes:
1) Only locations within this region and subarea are labeled.
2) Multiple samples may have been collected within the same depth interval for a given location, but only the maximum detection for a compound at a given depth interval and location is posted. Therefore, results above a RISL may not be posted if the concentration is lower than the maximum value.
3) Table includes only the sample results that exceeded the screening level.
4) Aerojet and Tetra Tech EM, July 2007.
5) Undefined acronyms can be found in the *Acronyms and Abbreviations* list in Section 1 of this report.

N

0 120 240
Feet

1 inch = 120 feet

AEROJET ROCKETDYNE

Figure 5.6-4

Trichloroethylene in Soil Vapor Compared to Protection of Groundwater Screening Level
Line 01 - Southeastern Area
Island Operable Unit Remedial Investigation

SR10126231 Created by CB&I 10/6/2014