



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

**Department of Environmental
Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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DEC File No: 2102.38.001.02

February 17, 2026

Stephen Krause
AFCEC/CZOP
10471 20th St. Ste 348
JBER, AK 99506

Re: Decision Document: JBER-Ft. Rich DP009 OUA Bldg 986 POL Lab Dry Well USTA 2 Party
Cleanup Complete Determination

Dear Mr. Krause:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the JBER-Ft. Rich DP009 OUA Bldg 986 POL Lab Dry Well USTA 2 Party site located on Joint Base Elmendorf-Richardson (JBER), Anchorage, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for JBER-Ft. Rich DP009 OUA Bldg 986 POL Lab Dry Well USTA 2 Party maintained by DEC. This decision letter summarizes the site history, cleanup actions and levels, and site closure conditions that apply.

Site Name and Location:

JBER-Ft. Rich DP009 OUA Bldg 986
Section 3, Township 14N Range 2W Seward
Warehouse St. & Loop Rd.
Elmendorf Air Force Base, Alaska 99505

Name and Mailing Address of Contact Party:

Stephen Krause
AFCEC/CZOP
10471 20th St. Ste 348
JBER, AK 99506

DEC Site Identifiers:

File No.: 2102.38.001.02
Hazard ID.: 943

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The JBER-Ft. Rich DP009 OUA Bldg 986 POL Lab Dry Well USTA 2 Party site is a former dry well site located south of Building 986 on Fort Richardson (see enclosed Figure 1-1 and Figure 1-2). The 15 foot deep dry well was used from the 1950s to the 1990s for the disposal of drain and sink water from the adjacent petroleum oils and lubricants (POL) laboratory. Motor gas, aviation fuel, jet fuel, arctic-grade diesel, spent reagents, solvents, heavy metals including mercury, lead, silver, and barium; and numerous waste solutions were used in the POL laboratory. The dry well was connected to a pipe that led from a sink in the laboratory. The dry well was removed in 1998, along with piping and sludge waste found at the bottom of the well. Building 986 is currently in use as a POL laboratory and current use is not contributing to contamination at the site.

Contaminants of Concern

During the site characterization and cleanup activities, samples were collected from soil and analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), volatile organic compounds (VOCs), metals, pesticides, polychlorinated biphenyls (PCBs), extractable petroleum hydrocarbons, semivolatile organic hydrocarbons (SVOCs), polycyclic aromatic hydrocarbons (PAHs), and total organic carbon (TOC). Samples were also collected from groundwater and analyzed for GRO, DRO, RRO, VOCs, SVOCs, PAHs, and metals. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern (COCs) at this site:

Soil

- DRO
- GRO
- Benzene
- Toluene
- Trichloroethylene (TCE)
- Tetrachloroethene (Perchloroethylene or PCE)
- Naphthalene
- 1,2,4- Trimethylbenzene
- 1,2 -Dichloroethane
- Xylenes
- Ethylbenzene

Groundwater

- Chloroform

Cleanup Levels

Soil cleanup levels applicable to the site are the most stringent Method 2 cleanup levels for the under 40-inches of precipitation zone found in 18 AAC 75.341(c) Table B1 and 18 AAC 75.341(d), Table B2 . Groundwater cleanup levels applicable to this site are found in 18 AAC 75.345, Table C.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (µg/L)
DRO	250	1500
GRO	300	2200
Benzene	0.022	4.6
Ethylbenzene	0.13	15
Toluene	6.7	1100
Xylenes	1.5	190
TCE	0.011	2.8
PCE	0.19	41
Naphthalene	0.038	1.7
1,2,4 Trimethylbenzene	0.61	56
1,2 -Dichloroethane	0.0055	1.7
Chloroform	0.0071	2.2

mg/kg = milligrams per kilogram

µg/L = microgram per liter

Characterization and Cleanup Activities

As part of an investigation of Operable Unit A (OUA) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1992, the dry well at DP009 was sampled to determine the presence and extent of contaminants in the well. Samples taken from the sludge and water revealed that petroleum hydrocarbons, heavy metals (including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), and VOCs (1,2-dichlorobenzene, 1,4- dichlorobenzene, and 1,3,5-trimethylbenzene [TMB]) were present above applicable cleanup levels.

In 1995, as part of the OUA remedial investigation (RI), eight soil borings were advanced and five monitoring wells installed. DRO was detected at a maximum concentration of 1,800 mg/kg and GRO was detected at a maximum concentration of 650 mg/kg at the AP3619 boring at 15 feet bgs (see enclosed Figure 5-2 for well location). Multiple heavy metals were also detected in soil borings, however concentrations were all within the expected background concentrations of metals for the site except for chromium. Groundwater samples were collected from five monitoring wells (see enclosed Figure 3-2 for well locations). Chloroform was the only analyte detected in groundwater samples at concentrations exceeding 18 AAC 75.345 Table C groundwater cleanup levels at well AP-3648 with a maximum detection of 11.8 micrograms per liter (µg/L).

Following completion of the RI for DP009 in 1995, no further action was selected in the Record of Decision for OUA and the site was closed under CERCLA and transferred to the Two-Party Agreement to address remaining petroleum hydrocarbon contaminated soil. In 1998 the dry well, associated piping, and sludge waste found at the bottom of the well were removed, along with the laboratory sink and its associated subsurface piping, fixtures, and plumbing. A bioventing and soil vapor extraction (SVE) system was installed in 1998.

From 1999 through 2003, 15 soil borings were advanced to support remediation monitoring of the SVE/bioventing system. Soil samples were analyzed for GRO, DRO, and BTEX. In 2003, DRO and benzene were detected in the soil above migration to groundwater cleanup levels. The maximum concentration of DRO in soil was 746 mg/kg at CB-13 (15 feet bgs), and the maximum concentration of benzene was 0.0862 mg/kg at CB-15 (15 feet bgs) (see enclosed Figure 3-1). No impacts to groundwater were observed. In 2004 DEC approved closure of the site with institutional controls restricting site access and the SVE/bioventing system was decommissioned.

In 2013, additional site characterization activities to further delineate the nature and extent of residual contaminants in soil was warranted. The highest concentration of DRO detected in 2013 (413 mg/kg) was in the source area at boring DP009-SB02 from 15 to 20 feet bgs, adjacent to the former dry well. GRO was also detected at DP009-SB01 at a concentration of 339 mg/kg from 15 to 20 feet bgs (Figure 3-1). Benzene was detected at concentrations up to 0.46 mg/kg in subsurface soil (20 to 25 feet bgs in DP009-SB01), and 0.0561 mg/kg in surface soil (0 to 5 feet bgs in DP009-SB02). In 2013, TCE was detected at concentrations up to 0.028 mg/kg (20 to 25 feet bgs), and PCE was detected at concentrations up to 0.0397 mg/kg (15 to 20 feet bgs). TCE and PCE had not been detected before 2013 and the vertical extent of PCE and TCE in soil was successfully delineated to a maximum depth of 35 feet bgs.

In 2013 groundwater was also sampled in monitoring well AP-3648 for GRO, DRO, RRO, VOCs, extractable petroleum hydrocarbons, volatile petroleum hydrocarbons, and PAHs. None of the analytes were detected above DEC's Table C groundwater cleanup levels. Chloroform was detected at a maximum concentration of 0.52 ug/L at AP-3648, falling below DEC's Table C groundwater cleanup level of 2.2 µg/L.

In 2014 field activities consisted of installation of six soil gas probes, soil gas screening at five locations, soil gas sampling for laboratory analysis at two locations, and a building survey at Building 986. During the 2014 investigation, TCE and PCE were detected in soil gas screening samples at concentrations exceeding DEC's vapor intrusion target levels with up to 18,457 and 2,566 micrograms per cubic meter (µg/m³), respectively (DP009-SV03 located near the former dry well). PCE and TCE in soil gas were only encountered in the area surrounding the former dry well indicating that the source of contamination was the dry well.

Subslab soil gas, indoor air, and outdoor air were collected in 2018 as multiple lines of evidence to assess whether a complete vapor intrusion pathway was present at Building 986. The only analyte detected in subslab soil gas above DEC's vapor intrusion commercial soil gas target levels was naphthalene (Figure 4-5). As the facility is used as the petroleum oil and lubricants laboratory it was determined that the source of petroleum-related VOCs was from the laboratory and not from soil contamination.

In 2018 benzene exceeded DEC's migration to groundwater cleanup level in three soil samples (see enclosed Figure 3-2). DRO exceeded DEC's migration to groundwater cleanup level in two sample locations at SB06 (13-15 ft bgs) and at SB08 (23-25 ft bgs). A single naphthalene exceedance of DEC's migration to groundwater cleanup level was encountered at SB08 in subsurface soil at a depth of 23-25 ft bgs. A single 1,2-dichloroethane exceedance of DEC's migration to groundwater cleanup level was encountered at SB06 at a depth 48-50 ft bgs. There were no chromium exceedances of DEC's most stringent cleanup levels detected in 2018.

The remaining contamination has been delineated vertically and laterally and there is a vertical distance

of 70 feet between the remaining subsurface soil contamination and the groundwater interface. Residual contamination from the use of the former drywell exists below human health cleanup levels in soil across a relatively small total area (less than 0.1 acre) to a depth of 35 feet bgs. The depth to groundwater is approximately 122.5 feet bgs.

Remaining Contamination

The maximum concentrations of contaminants remaining at the site are shown in Table 2. Sample locations referred to in Table 2 are shown in the enclosed Figure 3-2.

Table 2 – Maximum Contaminant Concentrations Remaining in Soil

Contaminant	Soil (mg/kg)	Sample Location	Year Sampled	Sample Depth (feet below ground surface)
DRO	1,000	SB08	2018	23-25 ft
TCE	0.029	SB06	2018	13-15 ft
Benzene	0.17	SB06	2018	13-15 ft
Naphthalene	0.18	SB08	2018	23-25 ft
1,2 -Dichloroethane	0.034	SB06	2018	48-50 ft

mg/kg = milligrams per kilogram

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index (HI) of 1 across all exposure pathways.

Based on a review of the environmental record, DEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 3.

Table 3 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contaminants of concern have been detected in surface soil but are below human health cleanup levels.
Subsurface Soil Contact	De Minimis Exposure	Contaminants of concern have been detected in subsurface soil but are below human health cleanup levels.

Inhalation – Outdoor Air	Pathway Incomplete	Contaminants of concern have been detected in soil but are below human health inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Naphthalene was detected in soil but was determined to be from the activities taking place inside the petroleum, oil and lubricants laboratory and not from the former dry well. Contamination remaining in the soil is below inhalation levels and not expected to pose a risk to human health.
Groundwater Ingestion	De Minimis Exposure	Contaminants of concern have been detected in the groundwater but below Table C cleanup levels.
Surface Water Ingestion	Pathway Incomplete	There is no surface water located within ¼ mile of the site. The nearest surface water body is Ship Creek, located approximately 1.3 miles south of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete.	Contaminants of concern do not bioaccumulate. The site is industrial and not used for hunting, fishing, or harvesting of wild or farmed foods, and such activities are not anticipated in the future.
Exposure to Ecological Receptors	Pathway Incomplete	The site is located in an industrial area that is not a habitat for wildlife.

Notes:

1. “De Minimis Exposure” means that, in DEC’s judgment, the receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination.
2. “Pathway Incomplete” means that, in DEC’s judgment, the contamination has no potential to contact receptors.

DEC Decision

Remaining soil contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a “Cleanup Complete” designation on the Contaminated Sites Database.

DEC approval is required for movement and disposal of soil and/or groundwater subject to the Site Cleanup Rules, in accordance with 18 AAC 75.325(i). Please contact DEC for information about applicable regulations and requirements. A “site”, as defined by 18 AAC 75.990, means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.

Movement or use of contaminated material in an ecologically sensitive area or in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. Furthermore, groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. If, in the future, groundwater from this site is to be used for other purposes, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude DEC from requiring additional assessment and/or cleanup action if information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Informal Reviews and Adjudicatory Hearings

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC’s “Appeal a DEC Decision” web page <https://dec.alaska.gov/commish/review-guidance/> for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

If you have questions about this closure decision, please feel free to contact me at (907) 451-5960, or email at ginna.quesada@alaska.gov.

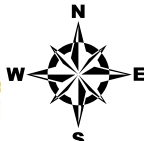
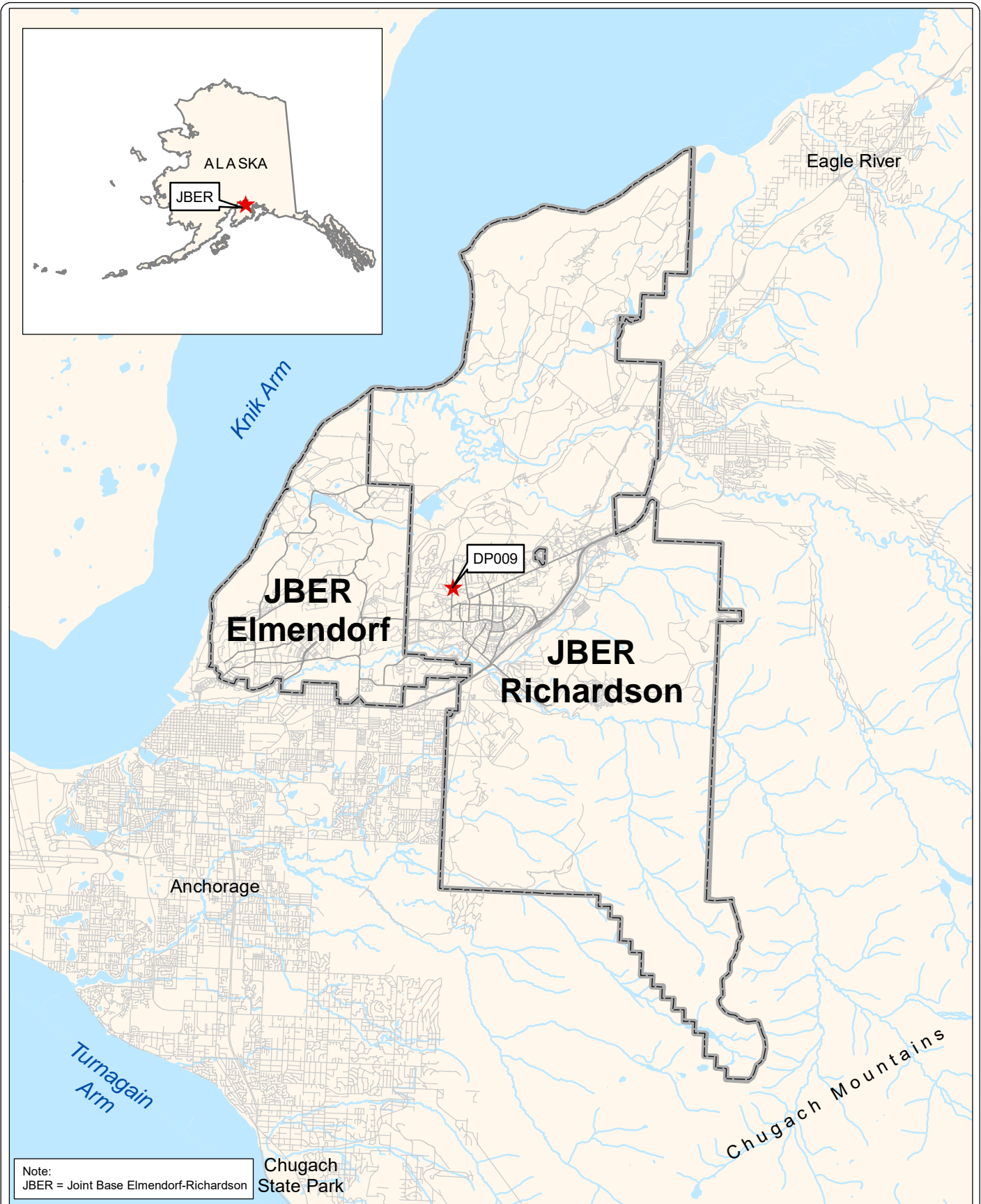
Sincerely,

Ginna Quesada
Project Manager

Enclosure: **Figure 1-1 and 1-2** (site location), **Figure 3-1** (historical sample locations), **Figure 3-2** (2018 soil sample locations), **Figure 4-5** (2018 soil gas sample locations), **Figure 5-2** (1995 soil sample locations)

cc: DEC, Division of Spill Prevention and Response, Cost Recovery Unit

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JOINT BASE ELMENDORF-RICHARDSON LOCATION MAP

DP009 – Building 986 Dry Well Supplemental Remedial Investigation Report
Joint Base Elmendorf-Richardson, Alaska

Figure
1-1

Date: 28 Jan 2019 Drawn by: AESPEJO R:\ENBG\00_Proj\AirForce\AFCEE_JBER_20001102\MapFiles\SRIR\DP09\Figure_1-2_DP09_Buildg986_SiteLocation.mxd

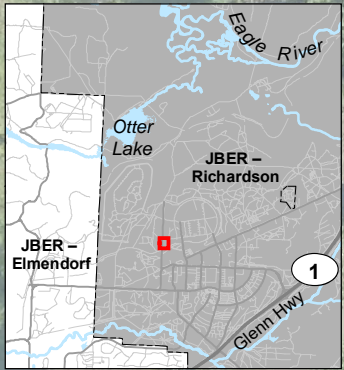
NOTES:
 1. Features digitized from Not-To-Scale elements.
 2. Coordinate System: UTM Zone 6, WGS84, meters.
 3. Previous features digitized from CH2M HILL, Mar. 2004

LEGEND

- Monitoring Well
- Decommissioned Monitoring Well
- Former Dry Well
- Fence
- Building (Facility ID)

0 25 50 100 150 Feet

Aero-Metric Image, Copyright © 2012



DP09 SITE LOCATION

Figure 1-2

DP09 – Building 986 Dry Well Supplemental Remedial Investigation Report
 Joint Base Elmendorf-Richardson, Alaska

NOTES:
 1. Features digitized from Not-To-Scale elements.
 2. Coordinate System: UTM Zone 6, WGS84, meters.
 3. Previous features digitized from CH2M HILL, Mar. 2004 (Figure 1-2) and EMCON, Jan. 1999 (Figure 2)

Regional Direction of Groundwater Flow



AP-3628

Building 986
POL Laboratory

AP-3621

DP009-SV01

DP009-SV06

DP009-SB01

DP009-SV03

DP009-SV02

AP-3619

AP-3648

CB-15

CB-13

CB-12

VE-1

CB-11

CB-14

DP009-SV04

DP009-SB02

AP-3618

DP009-SV05

VE-2

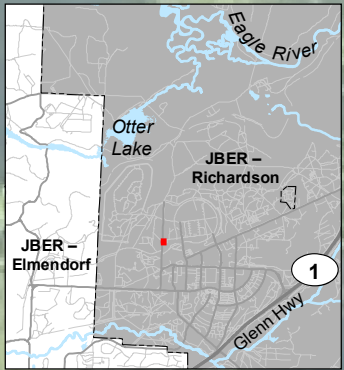
VE-3

AP-3622

LEGEND

- 1995 Historical Soil Sample Location
- ▲ 2003 Historical Soil Sample Location
- 2013 Historical Soil Sample Location
- ▼ 2014 Historical Soil Gas Sample Location
- Dry Well
- Laboratory Sink
- Monitoring Well
- ⊕ Abandoned Vapor Extraction Well
- Estimated Area of Subsurface Soil Contamination (CH2M Hill Closes Evaluation, 2004)
- Fence
- Building (Facility ID)

0 7.5 15 30 45 Feet



Aero-Metric Image, Copyright © 2012 1 inch = 25 feet



HISTORICAL DP009 SAMPLE LOCATIONS

Figure 3-1

DP009 – Building 986 Dry Well Supplemental Remedial Investigation Report
 Joint Base Elmendorf-Richardson, Alaska

Date: 30 Jul 2024 Drawn by: beatyjc \\dc1vs01\GIS\Proj\A\Airforce\AK_JBER_ORC\MapFiles\DP009\Figure_3-1_DP009_Historical_Sample_Locations.mxd

NOTES:
 1. Features digitized from Not-To-Scale elements.
 2. Coordinate System: UTM Zone 6, WGS84, meters.
 3. Previous features digitized from CH2M HILL, Mar. 2004 (Figure 1-2) and EMCON, Jan. 1999 (Figure 2)

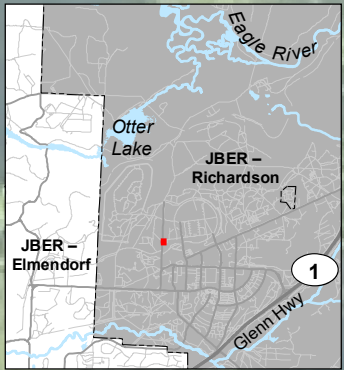
Regional Direction of Groundwater Flow



LEGEND

- 2018 Soil Sample Location
- 1995 Historical Soil Sample Location
- ▲ 2003 Historical Soil Sample Location
- 2013 Historical Soil Sample Location
- ▼ 2014 Historical Gas Sample Location
- Dry Well
- Laboratory Sink
- Monitoring Well
- ⊕ Abandoned Vapor Extraction Well
- ▭ Estimated Area of Subsurface Soil Contamination (CH2M Hill Closes Evaluation, 2004)
- Fence
- ▭ Building (Facility ID)

0 7.5 15 30 45 Feet



Aero-Metric Image, Copyright © 2012 1 inch = 25 feet



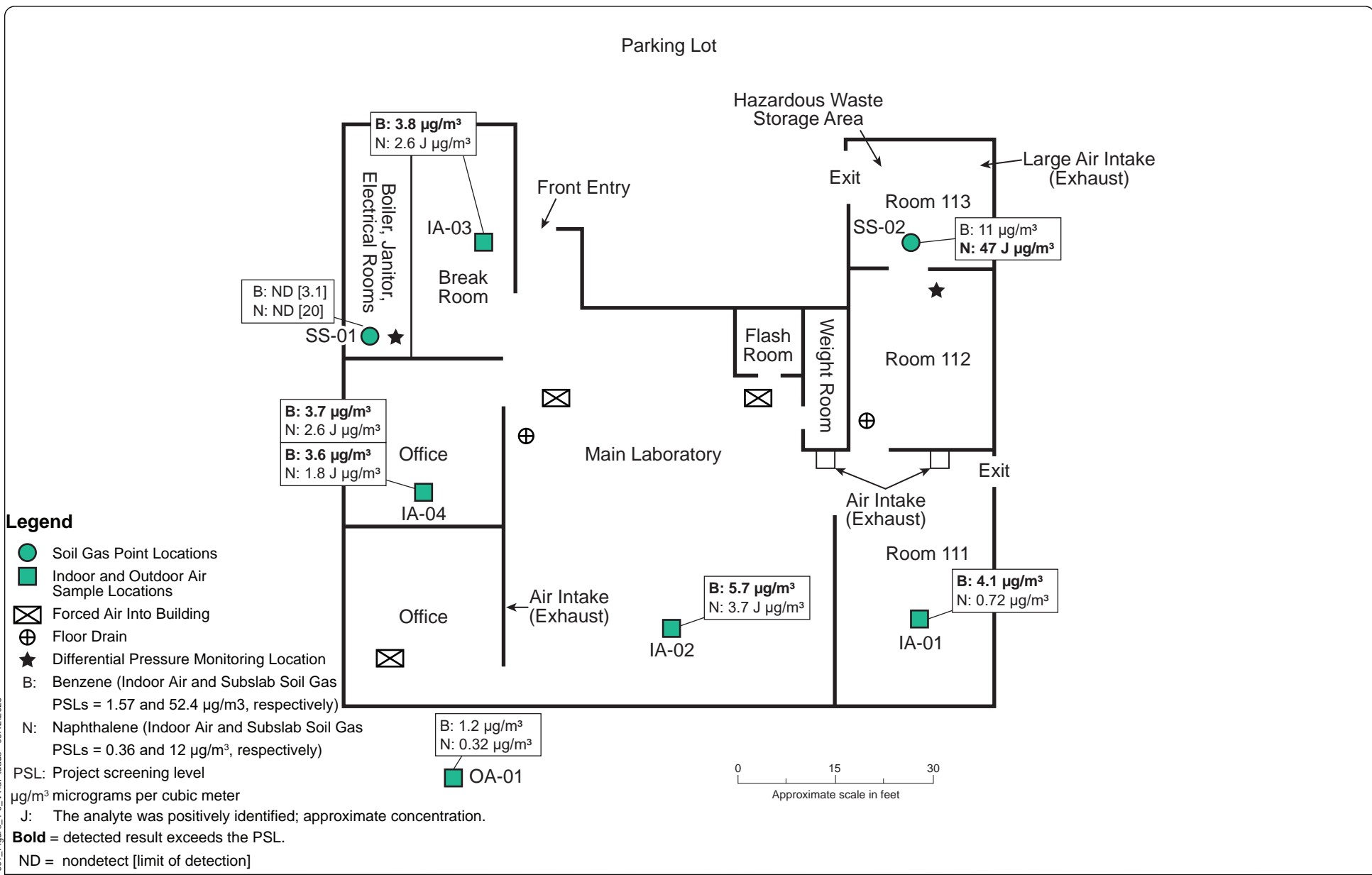
2018 SUPPLEMENTAL RI SAMPLE LOCATIONS

Figure 3-2

DP009 – Building 986 Dry Well Supplemental Remedial Investigation Report
 Joint Base Elmendorf-Richardson, Alaska

Date: 30 Jul 2024 Drawn by: beatyjc \\dc1vs01\GIS\Proj\A\Airforce\AK_JBER_ORC\MapFiles\DP009\Figure_3-2_DP009_2018_Supp_RI_Sample_Locations.mxd

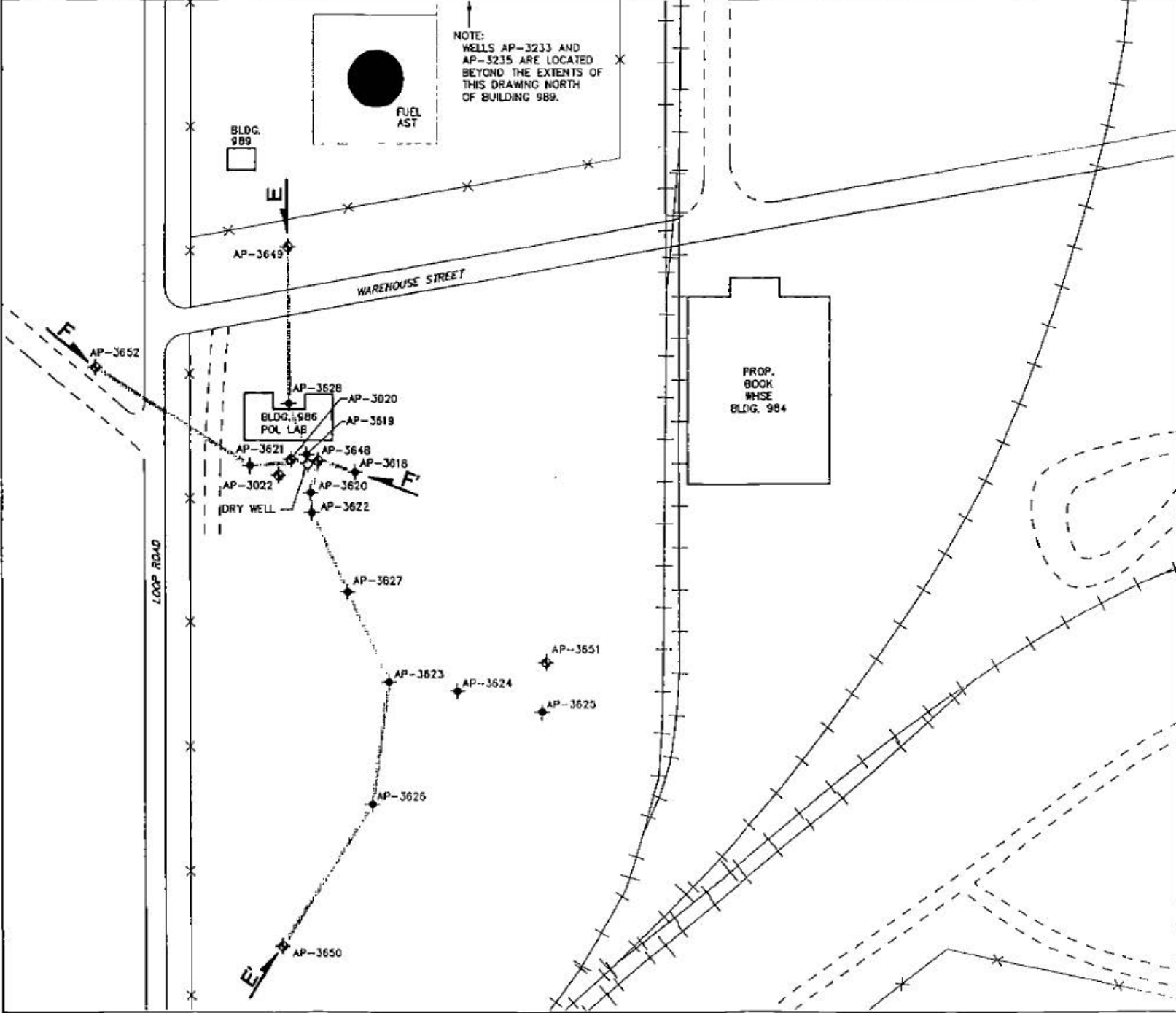
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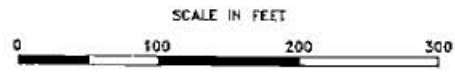
**INDOOR AIR, OUTDOOR AIR AND
SUBSLAB SOIL GAS RESULTS, NOVEMBER 2018**

Figure
4-5





- LEGEND
- ◆ MONITORING WELL LOCATION
 - DRY WELL LOCATION
 - ◆ SOIL BORING LOCATION
 - X— FENCE
 - |— RAILROAD TRACKS
 - - - DIRT ROAD
 - AST ABOVE GROUND STORAGE TANK
 - E' CROSS SECTION LOCATION AND DESIGNATION



ecology and environment, inc. ENVIRONMENTAL GROUP, INC.
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

Figure 5-2
SOIL BORING/MONITORING WELL LOCATION MAP
AND KEY TO CROSS SECTIONS E-E' AND F-F'
POL LABORATORY DRY WELL AREA
OPERABLE UNIT A
FORT RICHARDSON

ANCHORAGE	ALASKA			
SIZE	JOB. NO.	FILE NO.	DATE	PLATE
B	JT3000	JT3S008B	3-26-96	