

TABLE 1  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
PDC 69175  
GUS LD PAD, ADAMS COUNTY, COLORADO  
REM # 36714

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
Waste Char	5/30/2024	0.2	<0.20	<b>0.87</b>	<0.50	3.3	<b>6.4</b>	<0.50	1.3	<b>4,210</b>	<b>210</b>	<b>3000</b>	<b>1000</b>
FS-01	06/03/2024	1.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-02	06/03/2024	1.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-03	06/03/2024	1.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-04	06/03/2024	1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-05	06/03/2024	0.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-06	06/03/2024	0.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-07	06/03/2024	0.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-08	06/03/2024	0.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-09	06/03/2024	0.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
SS-01	06/03/2024	1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
SS-02	06/03/2024	1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.2	<0.200	<25.0	<100
FS-02(2)	11/25/2024	2	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<100.5	<0.50	<50	<50
FS02(3)	1/29/2025	2	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<100.5	<0.50	<50	<50
FS-01 2 FT	03/13/2025	2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00353	<125.2	<0.200	<25.0	<100
FS-07 2 FT	03/13/2025	2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00386	<125.2	<0.200	<25.0	<100
FS-08 2 FT	03/13/2025	2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00410	<125.2	<0.200	<25.0	<100

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PDC 69175  
GUS LD PAD, ADAMS COUNTY, COLORADO  
REM # 36714

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
BG-E 1 FT	03/13/2025	1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00424	<125.2	<0.200	<25.0	<100
BG-E 2 FT	03/13/2025	2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00411	<125.2	<0.200	<25.0	<100
BG-N 1 FT	03/13/2025	1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00402	<125.2	<0.200	<25.0	<100
BG-N 2 FT	03/13/2025	2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00407	<125.2	<0.200	<25.0	<100
BG-S 1 FT	03/13/2025	1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00390	<125.2	<0.200	<25.0	<100
BG-S 2 FT	03/13/2025	2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00397	<125.2	<0.200	<25.0	<100
BG-W 1 FT	03/13/2025	1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00404	<125.2	<0.200	<25.0	<100
BG-W 2 FT	03/13/2025	2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00410	<125.2	<0.200	<25.0	<100

1. Bold values exceed the ECMC Table 915-1 limit(s)

2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

3. \* Indicates laboratory minimum detection limit in excess of SSL

4. \*\* Summation of GRO+DRO+ORO must be less than 500 mg/kg

NA - Not analyzed

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.



TABLE 2  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
PDC 69175  
GUS LD PAD, ADAMS COUNTY, COLORADO  
REM # 36714

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
BG-E 1 FT	03/13/2025	1	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424	<0.00424
BG-E 2 FT	03/13/2025	2	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411	<0.00411
BG-N 1 FT	03/13/2025	1	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402
BG-N 2 FT	03/13/2025	2	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407
BG-S 1 FT	03/13/2025	1	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390	<0.00390
BG-S 2 FT	03/13/2025	2	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397
BG-W 1 FT	03/13/2025	1	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404	<0.00404
BG-W 2 FT	03/13/2025	2	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410
FS-01 2 FT	03/13/2025	2	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353	<0.00353
FS-07 2 FT	03/13/2025	2	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386
FS-08 2 FT	03/13/2025	2	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410	<0.00410

1. Bold values exceed the ECMC Table 915-1 limit(s)

2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

3. \* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

  = Source material characterization sample, excavated and transported off site for disposal.

  = Material excavated and transported off site for disposal.

**TABLE 3**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

Sample ID	Sample Date	Depth (ft)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
Waste Char	5/30/2024	0.2	8.27	<b>8.36</b>	<b>37.5</b>	<b>6.59</b>
FS-01	06/03/2024	1.5	8.09	<b>4.72</b>	<b>28.7</b>	<0.0983
FS-02	06/03/2024	1.5	8.08	<b>5.82</b>	<b>26.0</b>	<0.101
FS-03	06/03/2024	1.5	8.19	3.69	<b>12.7</b>	0.212
FS-04	06/03/2024	1	<b>8.34</b>	2.22	<b>7.91</b>	0.247
FS-05	06/03/2024	0.5	<b>8.51</b>	2.04	<b>14.7</b>	0.279
FS-06	06/03/2024	0.5	8.19	2.65	3.38	0.391
FS-07	06/03/2024	0.5	8.26	<b>4.90</b>	<b>14.0</b>	0.815
FS-08	06/03/2024	0.5	7.96	<b>11.3</b>	<b>15.0</b>	1.47
FS-09	06/03/2024	0.5	<b>8.40</b>	2.43	<b>10.5</b>	0.413
SS-01	06/03/2024	1	8.06	<b>8.65</b>	<b>22.7</b>	<b>3.71</b>
SS-02	06/03/2024	1	8.26	2.30	<b>14.6</b>	<0.0996
SS-01(2) 1 Ft	11/8/2024	1	<b>8.82</b>	0.684	2.65	<2.00
SS-01(2) 2 Ft	11/8/2024	2	<b>9.10</b>	0.634	5.26	<2.00
FS-02(2)	11/25/2024	2	8.04	1.33	4.44	<2.00
FS02(3)	1/29/2025	2	<b>8.36</b>	1.33	<b>6.52</b>	<2.00
FS-01 2 FT	03/13/2025	2	7.94	<b>6.40</b>	<b>4.84</b>	<0.0983
FS-07 2 FT	03/13/2025	2	8.09	<b>17.1</b>	<b>7.55</b>	0.401
FS-08 2 FT	03/13/2025	2	8.11	<b>13.5</b>	<b>5.86</b>	0.370
Analysis Overview (Resolved/Not Resolved/Delineated/Compliant)			<b>Resolved (BG)</b>	<b>Resolved (BG)</b>	<b>Delineated</b>	<b>Compliant</b>

**TABLE 3**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

Sample ID	Sample Date	Depth (ft)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
BG-NE-IN	8/22/2024	1	<b>9.23</b>	1.07	5.89	<2.00
BG-SE-IN	8/22/2024	1	<b>8.84</b>	1.02	<b>11.0</b>	<2.00
BG-SE-OFF	8/22/2024	1	<b>8.34</b>	0.148	0.266	<2.00
BG-S-C	8/22/2024	1	7.68	2.78	0.199	<2.00
BG-S-W	8/22/2024	1	7.16	1.04	0.220	<2.00
BG-NE-ON 2 Ft	11/8/2024	2	<b>9.19</b>	1.03	<b>7.06</b>	<2.00
BG-NW-ON 2 Ft	11/8/2024	2	<b>8.31</b>	1.65	<b>10.1</b>	<2.00
BG-NN-ON 2 Ft	11/8/2024	2	<b>9.03</b>	1.26	<b>17.4</b>	<2.00
BG-SE-ON 1 Ft	11/8/2024	1	<b>9.31</b>	2.00	<b>12.0</b>	<2.00
BG-SW-ON 1 Ft	11/8/2024	1	<b>9.39</b>	1.01	<b>8.32</b>	<2.00
BG-E 1 FT	03/13/2025	1	7.93	<b>11.7</b>	5.71	0.131
BG-E 2 FT	03/13/2025	2	8.10	<b>17.1</b>	<b>7.10</b>	0.114
BG-N 1 FT	03/13/2025	1	8.19	<b>20.0</b>	<b>8.32</b>	<0.0989
BG-N 2 FT	03/13/2025	2	8.06	<b>27.9</b>	4.22	<0.101
BG-S 1 FT	03/13/2025	1	<b>8.64</b>	<b>27.0</b>	2.76	0.264
BG-S 2 FT	03/13/2025	2	<b>8.36</b>	<b>14.6</b>	5.51	0.261
BG-W 1 FT	03/13/2025	1	8.19	<b>27.4</b>	3.79	0.121
BG-W 2 FT	03/13/2025	2	7.98	<b>30.8</b>	4.07	<0.100
Maximum Background Concentration			9.39	30.8	17.4	<2.00

1. Bold faced values exceed the ECMC Table 915-1 limit(s)

2. Blue highlighted soil analytical values indicate a regulatory exceedance

NA - Not analyzed

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.

= Boron resolved via confirmation samples at 1 Ft and 2 Ft

TABLE 4  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
PDC 69175  
GUS LD PAD, ADAMS COUNTY, COLORADO  
REM # 36714

Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
Waste Char	5/30/2024	0.2	3.28	69.2	<0.200	<0.30	3.91	4.66	3.99	<0.260	<0.0200	14.6
FS-01	06/03/2024	1.5	2.39	27.2	0.211	<0.276	10.5	10.8	9.59	<0.247	<0.0952	<35.2
FS-02	06/03/2024	1.5	4.22	22.4	0.157	<0.374	11.2	10.6	9.28	0.270	<0.0853	40.0
FS-03	06/03/2024	1.5	4.14	52.4	0.311	<0.342	11.2	11.5	13.1	<0.234	<0.0899	42.7
FS-04	06/03/2024	1	5.44	60.7	0.418	<0.368	15.5	27.6	14.1	<0.243	<0.0933	52.7
FS-05	06/03/2024	0.5	3.16	171	0.132	0.568	<9.11	7.17	7.46	<0.237	<0.0911	33.7
FS-06	06/03/2024	0.5	3.31	101	0.125	<0.296	<9.74	7.19	7.48	<0.253	<0.0974	<36.0
FS-07	06/03/2024	0.5	3.26	164	0.117	<0.265	10.7	7.16	7.54	<0.241	<0.0928	34.8
FS-08	06/03/2024	0.5	2.68	60.6	0.0901	<0.282	<8.58	5.58	6.61	<0.223	<0.0858	<31.7
FS-09	06/03/2024	0.5	2.94	149	0.101	<0.354	<9.38	6.41	7.11	<0.244	<0.0938	<34.7
SS-01	06/03/2024	1	3.81	127	0.127	<0.348	9.53	8.06	8.45	<0.243	<0.0935	35.1
SS-02	06/03/2024	1	2.79	25.3	0.173	<0.296	12.1	13.9	8.84	<0.253	<0.0974	37.1
SS-01(2) 1 Ft	11/8/2024	1	2.59	167	0.212	<0.30	5.91	6.58	4.70	<0.260	0.0486	19.8
SS-01(2) 2 Ft	11/8/2024	2	3.17	61.1	0.422	<0.30	8.30	11.3	7.85	<0.260	0.0339	27.4
FS-02(2)	11/25/2024	2	1.07	48.4	<0.200	<0.30	3.95	10.2	3.29	<0.260	0.0277	11.8
FS02(3)	1/29/2025	2	3.30	19.8	0.338	<0.30	9.59	13.3	5.68	<0.260	0.0320	21.9
FS-01 2 FT	03/13/2025	2	1.82	64.5	<0.0866	<0.309	<8.66	5.68	5.28	<0.225	<0.0866	<32.0
FS-07 2 FT	03/13/2025	2	6.03	36.5	0.259	<0.469	16.7	14.6	15.3	0.297	<0.0840	55.7
FS-08 2 FT	03/13/2025	2	4.10	42.7	0.236	<0.294	15.1	14.6	11.7	0.241	<0.0855	49.4
Analysis Overview (Resolved/Not Resolved/Delineated/Compliant)			Resolved (BG & PW)	Resolved (BG & PW)	Resolved (BG & PW)	Resolved (PW)	Compliant	Resolved (PW)	Compliant	Resolved (BG & PW)	Compliant	Compliant

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Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
BG-NE-IN	8/22/2024	1	<b>3.91</b>	<b>116</b>	<b>0.400</b>	<0.30	6.30	7.57	6.04	<0.260	0.0391	22.1
BG-SE-IN	8/22/2024	1	<b>1.92</b>	45.5	<0.200	<0.30	4.06	3.73	3.86	<0.260	0.0443	12.5
BG-SE-OFF	8/22/2024	1	<b>7.30</b>	47.1	0.240	<0.30	5.65	7.87	5.89	<0.234	0.0246	19.8
BG-S-C	8/22/2024	1	<b>4.08</b>	9.23	<0.200	<0.30	6.37	12.3	3.21	<0.260	0.0211	17.7
BG-S-W	8/22/2024	1	<b>1.08</b>	6.26	<0.200	<0.30	6.46	9.54	3.29	<0.260	0.0333	10.8
BG-NE-ON 2 Ft	11/8/2024	2	<b>6.12</b>	12.3	<0.200	<0.30	8.08	11.7	4.54	<0.260	0.0221	16.7
BG-NW-ON 2 Ft	11/8/2024	2	<b>4.68</b>	9.42	<0.200	<0.30	5.16	5.78	5.48	<0.260	<0.0200	17.0
BG-NN-ON 2 Ft	11/8/2024	2	<b>3.98</b>	62.9	<b>0.406</b>	<0.30	9.39	<b>15.0</b>	7.51	<b>0.396</b>	0.0397	28.9
BG-SE-ON 1 Ft	11/8/2024	1	<b>5.12</b>	70.4	0.362	<0.30	19.5	11.2	7.19	<b>0.274</b>	0.0356	27.3
BG-SW-ON 1 Ft	11/8/2024	1	<b>2.62</b>	61.2	<0.200	<0.30	5.54	5.05	5.07	<0.260	0.0223	16.6
BG-E 1 FT	03/13/2025	1	<b>5.30</b>	71.3	<b>0.383</b>	<0.282	17.4	<b>15.8</b>	22.3	0.233	<0.0880	54.9
BG-E 2 FT	03/13/2025	2	<b>5.63</b>	46.3	0.262	<0.360	18.3	<b>15.4</b>	16.2	<b>0.280</b>	<0.0908	57.9
BG-N 1 FT	03/13/2025	1	<b>4.62</b>	<b>163</b>	<b>0.618</b>	<0.242	17.0	<b>17.9</b>	22.1	<0.232	<0.0892	50.8
BG-N 2 FT	03/13/2025	2	<b>12.5</b>	33.5	0.229	<0.291	22.1	<b>19.5</b>	15.9	<b>0.296</b>	<0.0929	79.1
BG-S 1 FT	03/13/2025	1	<b>2.68</b>	31.6	0.205	<0.316	14.2	12.2	11.8	<b>0.299</b>	<0.0886	55.4
BG-S 2 FT	03/13/2025	2	<b>3.17</b>	<b>121</b>	0.126	<0.330	9.92	7.26	7.93	<0.254	<0.0977	<36.1
BG-W 1 FT	03/13/2025	1	<b>2.24</b>	<b>187</b>	<b>0.713</b>	<0.265	15.3	<b>16.8</b>	<b>27.3</b>	<b>0.288</b>	<0.0923	39.6
BG-W 2 FT	03/13/2025	2	<b>2.54</b>	80.0	0.196	<0.385	14.7	12.9	12.3	<0.243	<0.0935	58.6
1.25x Maximum Background Concentration			15.6	234	0.891	<0.30	27.6	24.4	34.1	0.495	0.0554	98.9

1. Bold values exceed the ECMC Table 915-1 limit(s)

2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

\* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.

**TABLE 5**  
**SUMMARY OF ARSENIC (As) CONCENTRATIONS IN EXCAVATED SOILS CALCULATION (BASED ON REPORTED SPILL VOLUME)**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

**Compare Mass of Arsenic (As) Excavated to Arsenic Released**

Arsenic Removed During Excavation	97.65 grams
Arsenic Released Due to Spill	0.000051 grams
Excess Arsenic Removed During Excavation	97.65 grams

Therefore, approximately 1,914,705 times more arsenic were removed via excavation than were released

**Calculation of Arsenic Removed During Excavation**

Avg. As Concentration in Excav. Soil Samples	Mass of Excavated Soil	Mass of As in Exc. Soil
3.45 mg/kg	28,304 kg	97.65 grams

Mass of excavated soil is: 24 cubic yards x 1.30 ton/CY = 31.2 tons = 28,304 kg

Twelve soil samples from the excavation were analyzed for arsenic; the average concentration was 3.45 mg/kg

**Calculation of Arsenic Released Due to Spill**

Produced H2O/Oil Release Volume (bbl)	Produced H2O/Oil Volume (L)	As Concentration (ug/L)	As Mass Released (mg)	As Mass Released (g)
0.53	84.26	0.600	(0.600 ug/L x 84.26 L)/1000 0.051	0.000051

Net Volume of Produced Water Released: (.53 bbl)(158.987 L/bbl) = 84.26 L

1 kg/L is weight of water

Arsenic concentration in produced fluids sample was less than the laboratory detection limit of 0.600 ug/L; therefore, use 0.600 ug/L

**TABLE 6**  
**SUMMARY OF BARIUM (Ba) CONCENTRATIONS IN EXCAVATED SOILS CALCULATION (BASED ON REPORTED SPILL VOLUME)**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

**Compare Mass of Barium (Ba) Excavated to Barium Released**

Barium Removed During Excavation	2,429.05 grams
Barium Released Due to Spill	4.120 grams
Excess Barium Removed During Excavation	2,424.93 grams

Therefore, approximately 589 times more barium were removed via excavation than were released

**Calculation of Barium Removed During Excavation**

Avg. Ba Concentration in Excav. Soil Samples	Mass of Excavated Soil	Mass of Ba in Exc. Soil
85.82 mg/kg	28,304 kg	2,429.05 grams

Mass of excavated soil is: 24 cubic yards x 1.30 ton/CY = 31.2 tons = 28,304 kg

Twelve soil samples from the excavation were analyzed for barium; the average concentration was 85.82 mg/kg

**Calculation of Barium Released Due to Spill**

Produced H2O/Oil Release Volume (bbl)	Produced H2O/Oil Volume (L)	Ba Concentration (ug/L)	Ba Mass Released (mg)	Ba Mass Released (g)
0.53	84.26	48900	(48900 ug/L x 84.26 L)/1000 4120.466	4.120

Net Volume of Produced Water Released: (.53 bbl)(158.987 L/bbl) = 84.26 L

1 kg/L is weight of water

Barium concentration in produced fluid sample was 48,900 ug/L (see lab report)

**TABLE 7**  
**SUMMARY OF Selenium (Se) CONCENTRATIONS IN EXCAVATED SOILS CALCULATION (BASED ON REPORTED SPILL VOLUME)**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

**Compare Mass of Selenium (Se) Excavated to Selenium Released**

Selenium Removed During Excavation	6.96 grams
Selenium Released Due to Spill	0.00008 grams
Excess Selenium Removed During Excavation	6.96 grams

Therefore, approximately 87,000 times more Selenium were removed via excavation than were released

**Calculation of Selenium Removed During Excavation**

Avg. Se Concentration in Excav. Soil Samples	Mass of Excavated Soil	Mass of Se in Exc. Soil
0.246 mg/kg	28,304 kg	6.96 grams

Mass of excavated soil is: 24 cubic yards x 1.30 ton/CY = 31.2 tons = 28,304 kg

Twelve soil samples from the excavation were analyzed for Selenium; the average concentration was 0.246 mg/kg

**Calculation of Selenium Released Due to Spill**

Produced H2O/Oil Release Volume (bbl)	Produced H2O/Oil Volume (L)	Se Concentration (ug/L)	Se Mass Released (mg)	Se Mass Released (g)
0.53	84.26311	1.00	(1.00 ug/L x 84.26)/1000 0.08	0.00008

Net Volume of Produced Water Released: (.53 bbl)(158.987 L/bbl) = 84.26 L

1 kg/L is weight of water

Selenium concentration in produced fluids sample was less than the laboratory detection limit of 1.00 ug/L; therefore, use 1.00 ug/L

**TABLE 8**  
**SUMMARY OF LEAD (Pb) CONCENTRATIONS IN EXCAVATED SOILS CALCULATION (BASED ON REPORTED SPILL VOLUME)**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

**Compare Mass of Lead (Pb) Excavated to Lead Released**

Lead Removed During Excavation	284.46 grams
Lead Released Due to Spill	0.00005 grams
Excess Lead Removed During Excavation	284.46 grams

Therefore, approximately 5,689,000 times more Lead were removed via excavation than were released

**Calculation of Lead Removed During Excavation**

Avg. Pb Concentration in Excav. Soil Samples	Mass of Excavated Soil	Mass of Pb in Exc. Soil
10.05 mg/kg	28,304 kg	284.46 grams

Mass of excavated soil is: 24 cubic yards x 1.30 ton/CY = 31.2 tons = 28,304 kg

Twelve soil samples from the excavation were analyzed for Lead; the average concentration was 10.05 mg/kg

**Calculation of Lead Released Due to Spill**

Produced H2O/Oil Release Volume (bbl)	Produced H2O/Oil Volume (L)	Pb Concentration (ug/L)	Pb Mass Released (mg)	Pb Mass Released (g)
0.53	84.26311	0.54	(0.540 ug/L x 84.26 L)/1000 0.05	0.00005

Net Volume of Produced Water Released: (.53 bbl)(158.987 L/bbl) = 84.26 L

1 kg/L is weight of water

Pb concentration in produced fluid sample was 0.540 ug/L (see lab report)

**TABLE 9**  
**SUMMARY OF CADMIUM (Cd) CONCENTRATIONS IN EXCAVATED SOILS CALCULATION (BASED ON REPORTED SPILL VOLUME)**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

**Compare Mass of Cadmium (Cd) Excavated to Cadmium Released**

Cadmium Removed During Excavation	5.094 grams
Cadmium Released Due to Spill	0.000036 grams
Excess Cadmium Removed During Excavation	5.094 grams

Therefore, approximately 141,127 times more Cadmium were removed via excavation than were released

**Calculation of Cadmium Removed During Excavation**

Avg. Cd Concentration in Excav. Soil Samples	Mass of Excavated Soil	Mass of Cd in Exc. Soil
0.180 mg/kg	28,304 kg	5.094 grams

Mass of excavated soil is: 24 cubic yards x 1.30 ton/CY = 31.2 tons = 28,304 kg

Twelve soil samples from the excavation were analyzed for Cadmium; the average concentration was 0.180 mg/kg

**Calculation of Cadmium Released Due to Spill**

Produced H2O/Oil Release Volume (bbl)	Produced H2O/Oil Volume (L)	Cd Concentration (ug/L)	Cd Mass Released (mg)	Cd Mass Released (g)
0.53	84.26	0.430	(0.430 ug/L x 84.26 L)/1000 0.036	0.000036

Net Volume of Produced Water Released: (.53 bbl)(158.987 L/bbl) = 84.26 L

1 kg/L is weight of water

Cadmium concentration in produced fluids sample was 0.430 ug/L

**TABLE 10**  
**SUMMARY OF HEXAVALENT CHROMIUM (Cr) CONCENTRATIONS IN EXCAVATED SOILS CALCULATION (BASED ON REPORTED SPILL VOLUME)**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

**Compare Mass of Chromium (Cr) Excavated to Chromium Released**

Chromium Removed During Excavation	9.595 grams
Chromium Released Due to Spill	0.000843 grams
Excess Chromium Removed During Excavation	9.594 grams

Therefore, approximately 11,382 times more Chromium were removed via excavation than were released

**Calculation of Chromium Removed During Excavation**

Avg. Cr Concentration in Excav. Soil Samples	Mass of Excavated Soil	Mass of Cr in Exc. Soil
0.339 mg/kg	28,304 kg	9.595 grams

Mass of excavated soil is: 24 cubic yards x 1.30 ton/CY = 31.2 tons = 28,304 kg

Twelve soil samples from the excavation were analyzed for Chromium; the average concentration was 0.339 mg/kg

**Calculation of Chromium Released Due to Spill**

Produced H2O/Oil Release Volume (bbl)	Produced H2O/Oil Volume (L)	Cr Concentration (ug/L)	Cr Mass Released (mg)	Cr Mass Released (g)
0.53	84.26	10	(10 ug/L x 84.26 L)/1000 0.843	0.000843

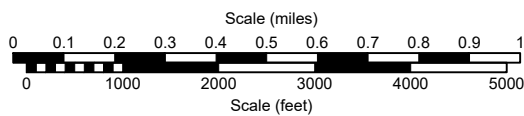
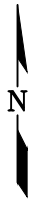
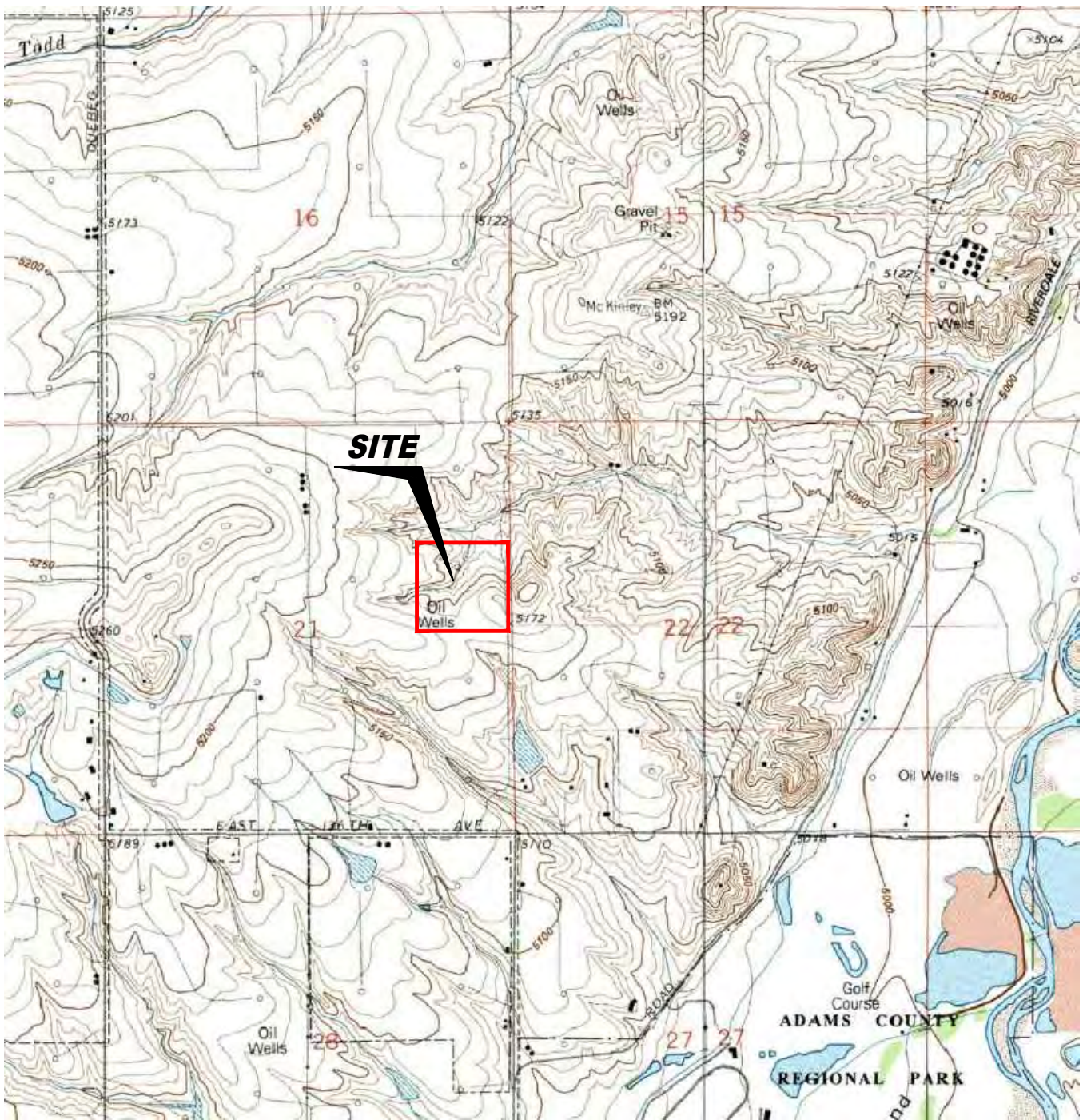
Net Volume of Produced Water Released: (.53 bbl)(158.987 L/bbl) = 84.26 L

1 kg/L is weight of water

Chromium concentration in produced fluids sample was less than the laboratory detection limit of 10 ug/L; therefore, use 10 ug/L

**TABLE 11**  
**SUMMARY OF TOTAL RECOVERABLE METALS IN PRODUCED FLUID CHEMISTRY DATA**  
**PDC 69175**  
**GUS LD PAD, ADAMS COUNTY, COLORADO**  
**REM # 36714**

Sample ID	Sample Date	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium IV (ug/L)	Copper (ug/L)	Lead (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)
PW	5/30/2024	<0.600	48900	0.43	<10	5.08	0.54	3.60	<1.00	0.165	122



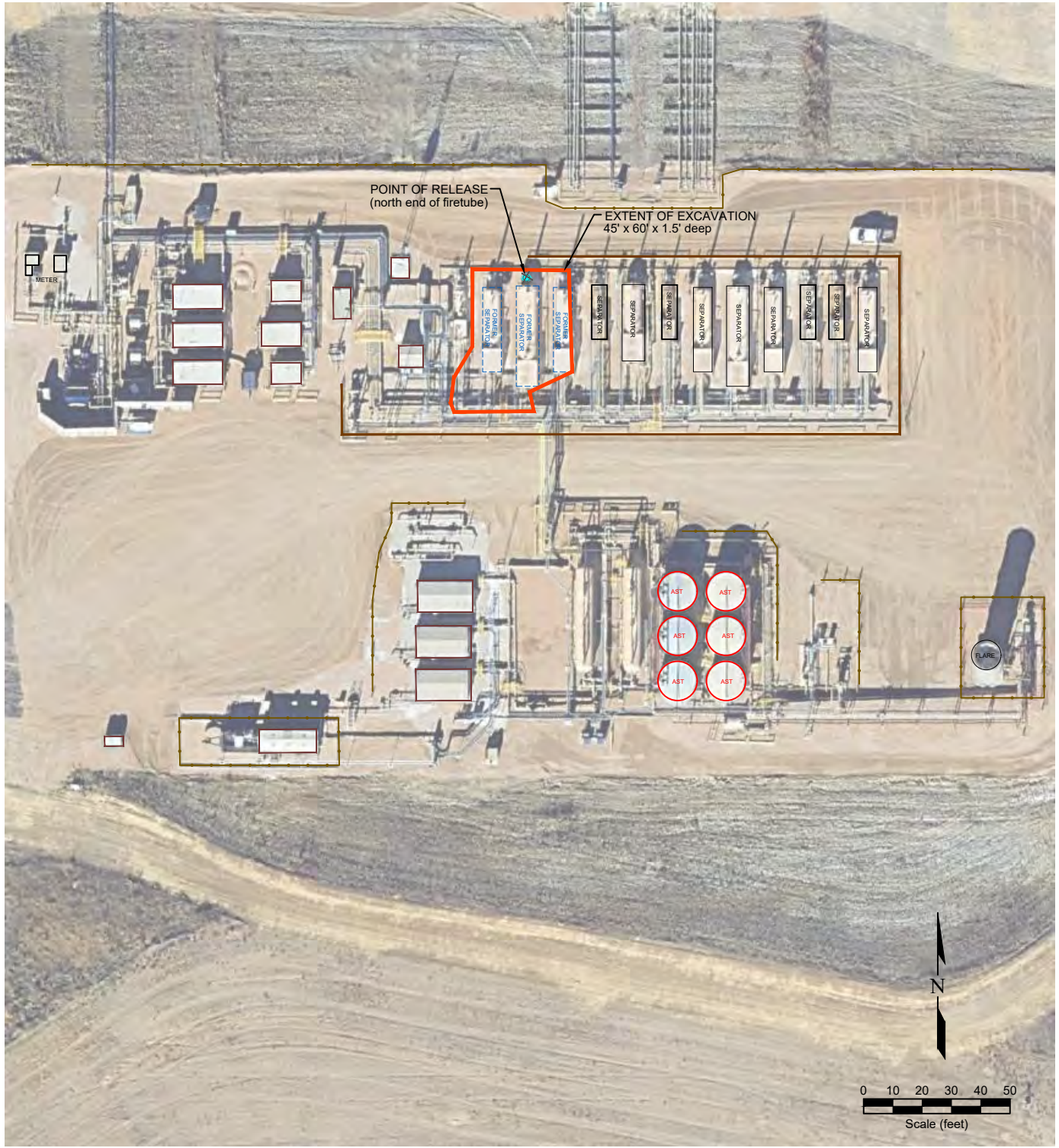
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP









**PDC Energy, Inc. ~ Gus LD Pad**  
 SENE Sec. 21, T1S, R67W, 6th PM  
 Adams County, Colorado  
 39.952212°, -104.885496°

Project # <b>C024-122</b>	API #	Facility # <b>486891</b>
Date <b>5/7/25</b>	Remediation # <b>36714</b>	Filename <b>24122T</b>





**LEGEND**

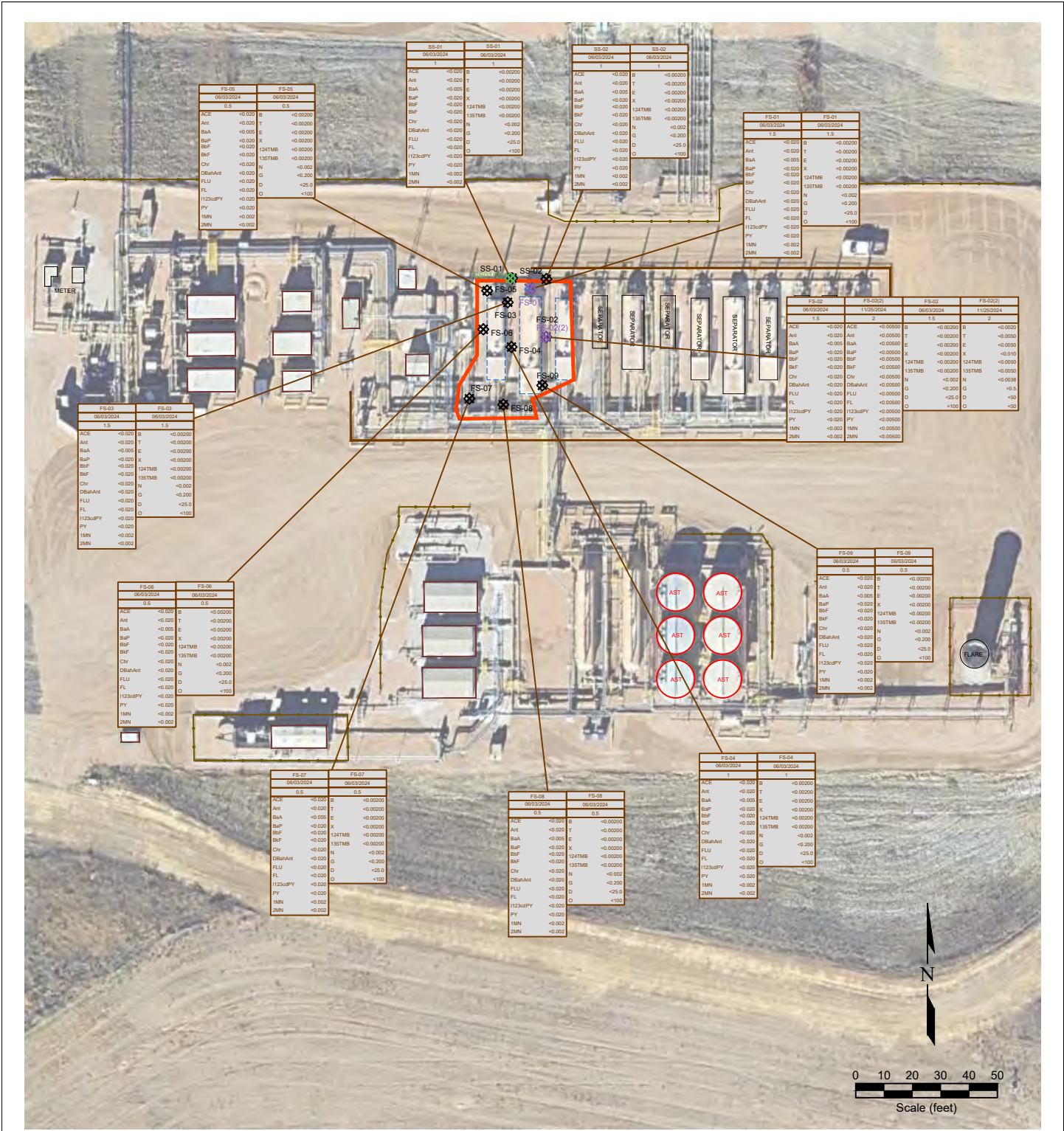
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-  ABOVE GROUND STORAGE TANK
-  FORMER FACILITY
-  BUILDING
-  EXTENT OF EXCAVATION
-  FENCE LINE
-  CONTAINMENT BERM
-  CONTAINMENT WALL

**Figure 2  
SITE MAP**

**PDC Energy, Inc. ~ Gus LD Pad**  
 SENE Sec. 21, T1S, R67W, 6th PM  
 Adams County, Colorado  
 39.952212°, -104.885496°

Project No. <b>C024-122</b>	API #	Facility # <b>486891</b>
Date <b>5/7/25</b>	Remediation # <b>36714</b>	Filename <b>24122Q</b>





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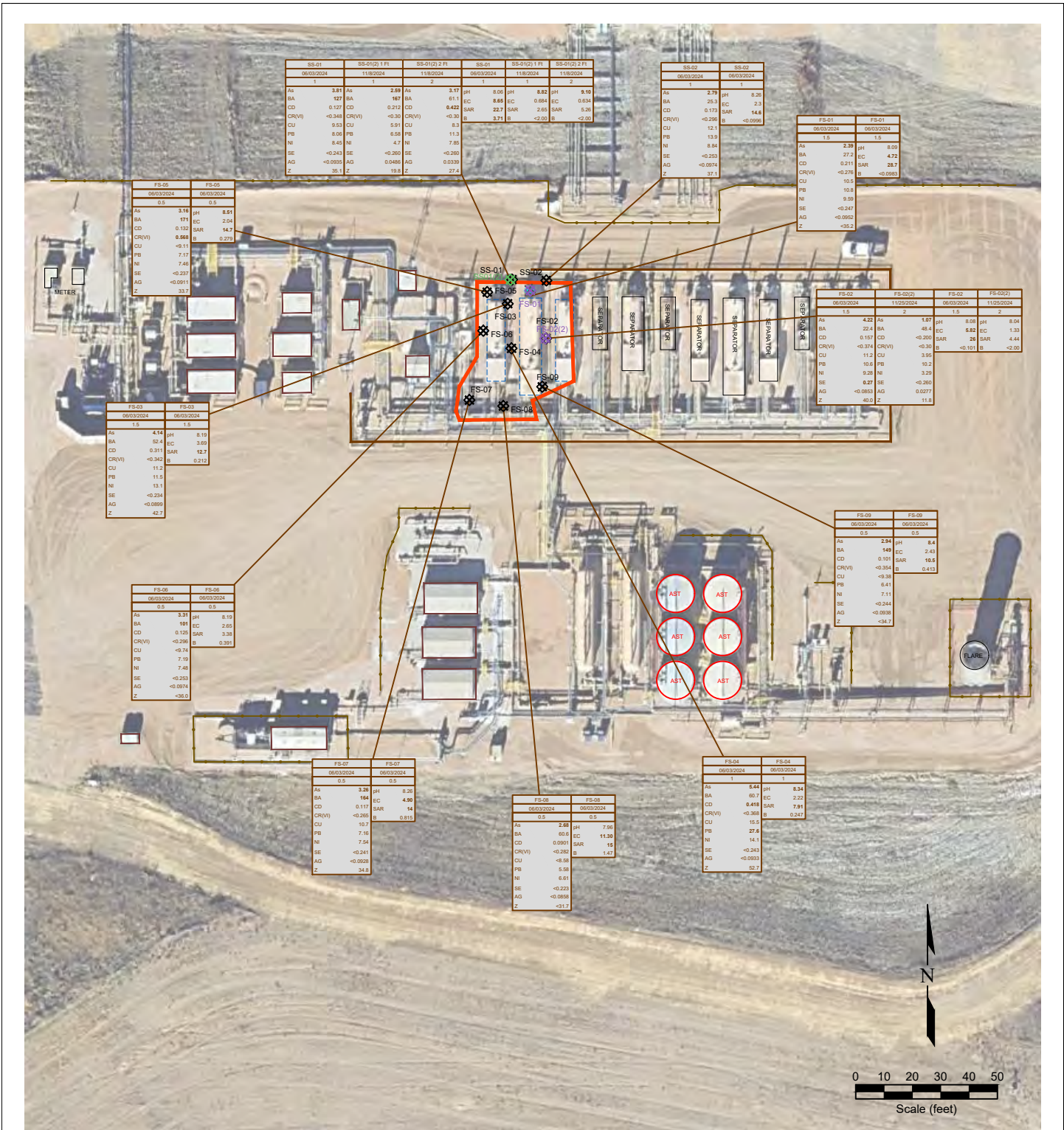
- POINT OF RELEASE
- ABOVE GROUND STORAGE TANK
- SOIL SAMPLE LOCATION
- DELINEATION SAMPLE LOCATION
- CONFIRMATION / RESAMPLE LOCATION
- FORMER FACILITY
- BUILDING
- EXTENT OF EXCAVATION
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
DATE	DATE	DATE	DATE
FLU	FLU	FLU	FLU
Ant	Ant	Ant	Ant
BaA	BaA	BaA	BaA
BaP	BaP	BaP	BaP
BbF	BbF	BbF	BbF
Chr	Chr	Chr	Chr
DBaAnt	DBaAnt	DBaAnt	DBaAnt
FLU	FLU	FLU	FLU
FLU	FLU	FLU	FLU
1123aPY	1123aPY	1123aPY	1123aPY
1MN	1MN	1MN	1MN
2MN	2MN	2MN	2MN

**Figure 3**  
**ORGANIC SOIL CHEMISTRY MAP**

**PDC Energy, Inc. ~ Gus LD Pad**  
**SENE Sec. 21, T1S, R67W, 6th PM**  
**Adams County, Colorado**  
**39.952212°, -104.885496°**

Project No. <b>C024-122</b>	API #	Facility # <b>486891</b>
Date <b>5/7/25</b>	Remediation # <b>36714</b>	Filename <b>24122Q1</b>



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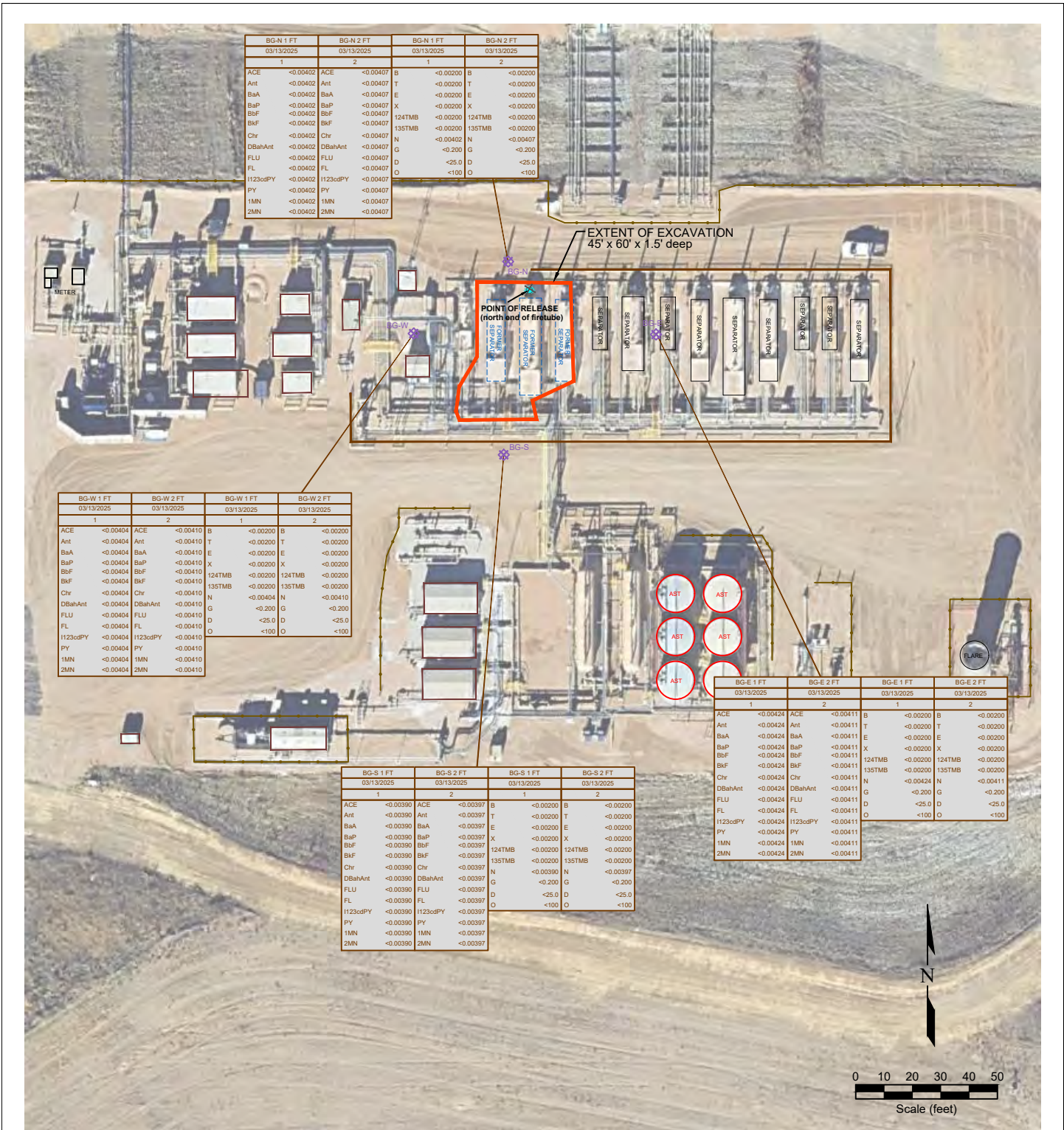
- POINT OF RELEASE
- SOIL SAMPLE LOCATION
- DELINEATION SAMPLE LOCATION
- CONFIRMATION / RESAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- BUILDING
- EXTENT OF EXCAVATION
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE DATE	SAMPLE ID	DATE SAMPLED	DEPTH (ft)	AS (mg/kg)	BA (mg/kg)	CD (mg/kg)	CR(VI) (mg/kg)	CU (mg/kg)	NI (mg/kg)	SE (mg/kg)	AG (mg/kg)	Z (mg/kg)
06/03/2024	SS-01	11/25/2024	1	3.81	127	0.127	-0.348	9.53	6.06	8.45	-0.243	-0.0935
06/03/2024	SS-01(2) 1 F1	11/25/2024	1	2.89	187	0.212	-0.30	5.91	6.58	7.46	-0.260	0.0486
06/03/2024	SS-01(2) 2 F1	11/25/2024	2	3.17	61.1	0.422	-0.30	8.3	11.3	7.85	-0.260	0.0339
06/03/2024	SS-01	06/03/2024	1	8.06	61.1	0.422	-0.30	8.3	11.3	7.85	-0.260	0.0339
06/03/2024	SS-01(2) 1 F1	11/25/2024	1	8.86	22.7	0.694	-2.00	8.19	8.84	8.94	-0.333	0.0339
06/03/2024	SS-01(2) 2 F1	11/25/2024	2	8.82	2.68	0.694	-2.00	8.19	8.84	8.94	-0.333	0.0339

**Figure 4  
METALS AND INORGANIC SOIL CHEMISTRY MAP**

**PDC Energy, Inc. ~ Gus LD Pad  
SENE Sec. 21, T1S, R67W, 6th PM  
Adams County, Colorado  
39.952212°, -104.885496°**

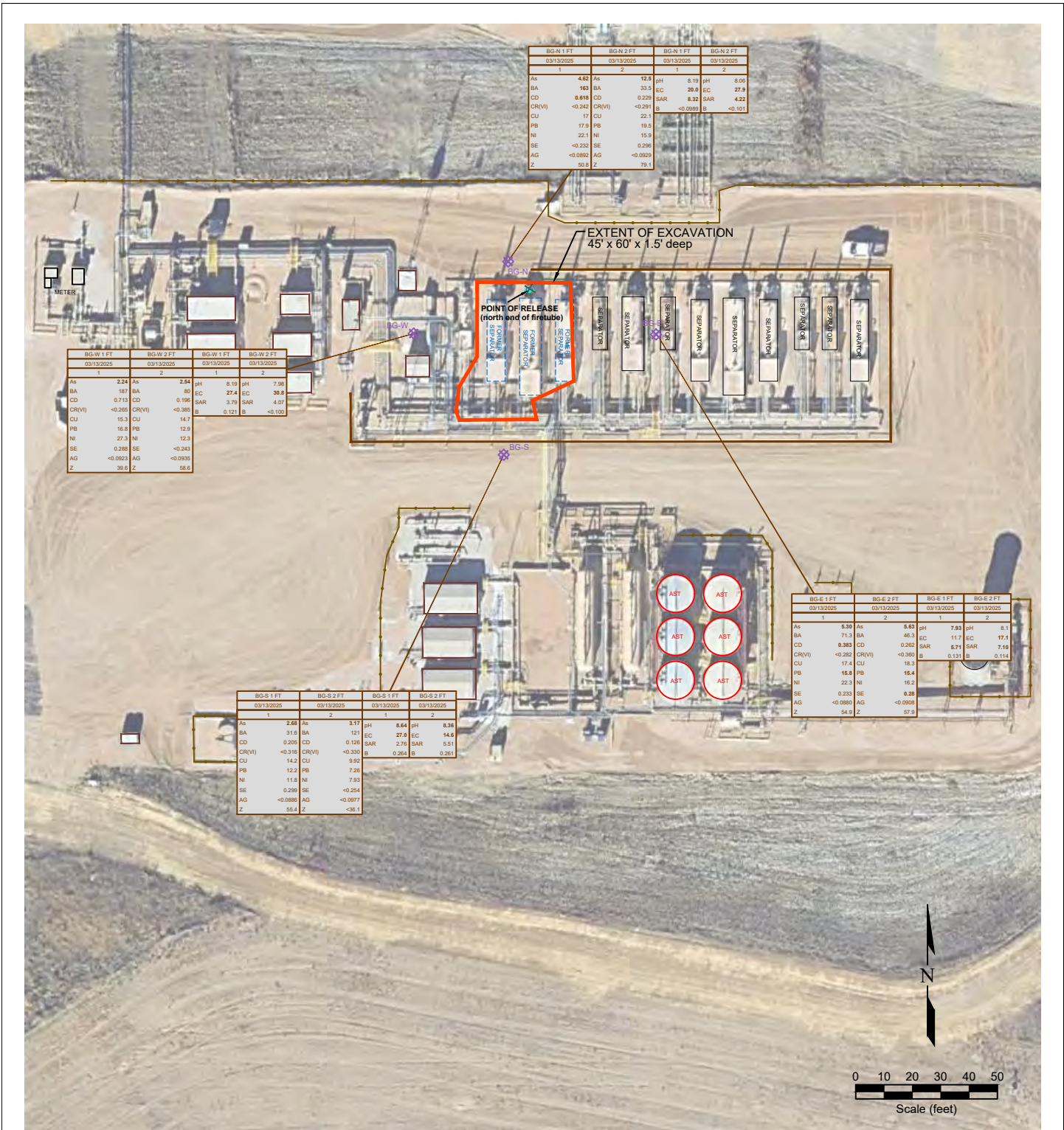
Project No. <b>C024-122</b>	API #	Facility # <b>486891</b>
Date <b>5/7/25</b>	Remediation # <b>36714</b>	Filename <b>24122Q1</b>



**Figure 5**  
**BACKGROUND SAMPLE ORGANIC SOIL CHEMISTRY MAP**

**PDC Energy, Inc. ~ Gus LD Pad**  
SENE Sec. 21, T1S, R67W, 6th PM  
Adams County, Colorado  
39.952212°N, -104.885496°W

Project No. <b>C024-122</b>	API #	Facility # <b>486891</b>
Date <b>5/7/25</b>	Remediation # <b>36714</b>	Filename <b>24122QBKG3</b>



**LEGEND**

- POINT OF RELEASE
- SOIL SAMPLE LOCATION
- DELINEATION SAMPLE LOCATION
- CONFIRMATION / RESAMPLE LOCATION
- FORMER FACILITY
- BUILDING
- EXTENT OF EXCAVATION
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE ID	DATE SAMPLED	DEPTH (ft)	CONCENTRATION	UNIT
As	<-0.01		ARSENIC (mg/kg)	mg/kg
BA	<-0.01		BARIUM (mg/kg)	mg/kg
CD	<-0.01		CADMIUM (mg/kg)	mg/kg
CR(V)	<-0.05		CHROMIUM (mg/kg)	mg/kg
CU	<-0.01		COPPER (mg/kg)	mg/kg
PB	<-0.05		LEAD (mg/kg)	mg/kg
NI	<-0.05		NICKEL (mg/kg)	mg/kg
SE	<-0.1		SELENIUM (mg/kg)	mg/kg
AG	<-0.05		SILVER (mg/kg)	mg/kg
Z	<-0.05		ZINC (mg/kg)	mg/kg

**Figure 6**  
**BACKGROUND SAMPLES METALS AND INORGANIC SOIL CHEMISTRY MAP**  
**PDC Energy, Inc. ~ Gus LD Pad**  
**SENE Sec. 21, T1S, R67W, 6th PM**  
**Adams County, Colorado**  
**39.952212°, -104.885496°**

Project No. <b>C024-122</b>	API #	Facility # <b>486891</b>
Date <b>5/7/25</b>	Remediation # <b>36714</b>	Filename <b>24122QBKG3</b>

