

Form 27 Data Package

Amoco 44-17
Remediation #: 38361



Prepared for:
Extraction Oil & Gas - 10459

January 2026

N2S2SE Sec 17 1S 65W

Facility ID: 320283
API #: 001-08859

Corrective Action Plan

1.0 INTRODUCTION

This Corrective Action Plan (CAP) has been prepared by Stantec Consulting Services Inc. (Stantec) to document the decommissioning of Amoco 44-17 (Site). The activities described in this CAP were completed in accordance with the Colorado Energy & Carbon Management Commission (ECMC) Site Investigation and Remediation Workplan Form 27 for Remediation #38361.

2.0 BACKGROUND ANALYSIS

Stantec conducted a Background Analysis at the Site to establish background conditions of the soil. This was done to provide evidence that any levels of soil suitability for reclamation standards and/or metals that are outside the acceptable limits in ECMC Table 915-1 are not related to the historic operations at the Site and will not adversely affect agronomic properties of the soil during final reclamation.

A total of ten background soil samples were collected in the vicinity of the Site on February 4, 2025. The background soil samples were collected from depths ranging from 3 feet below ground surface (' bgs) to 6' bgs. The soil type found in that depth range is clay.

Laboratory results for the background samples were received on February 20, 2025. Laboratory analytical results for the background soil samples indicated levels of EC, SAR, pH, boron, arsenic, barium, lead, and selenium exist in the native soil outside the applicable ECMC Table 915-1 standards.

A total of 10 confirmation / verification soil samples (discussed in **Section 3.0**) were collected throughout the Site on February 4, 2025. The confirmation soil samples were collected from depths ranging from 0' bgs to 6' bgs. The soil type found in that depth range was primarily clay.

See the attached **Decommissioning Form** for a list of soil samples and their associated soil types and depths. See the attached **Table 3** for the analytical results of the background soil samples. See the attached **Figure 2** for the locations of the background soil samples. A **Photographic Log** of background soil samples is also attached.

3.0 INITIAL SAMPLING EVENT

Civitas decommissioned one wellhead, one flowline, one separator, one set of dumplines, one aboveground storage tank (AST), and one produced water vessel (PWV) at the Site. Following the decommissioning of Site infrastructure, Stantec collected the initial round of confirmation soil samples on February 4, 2025. Soil samples were sent to Origins / Enthalpy for analysis of the constituents in ECMC Table 915-1. Evidence of a spill was observed at the wellhead, separator, and PWV in the field during the sampling event. A Spill was reported on February 5, 2025.

Laboratory results were received on February 20, 2025. Laboratory results indicated organic concentrations above applicable ECMC Table 915-1 standards at the separator and PWV.

Laboratory results also indicated that inorganic levels outside applicable ECMC Table 915-1 standards exist at the wellhead, separator, and PWV after comparing them to background samples. Verification sampling has been initiated only at the wellhead. Verification samples have not been initiated at the separator or PWV due to the need for excavations in those areas.

The attached **Decommissioning Form** lists the infrastructure removed. See the attached **Table 2** for the analytical results of the confirmation soil samples. The attached **Figure 2** depicts the locations of the soil samples from the initial sampling event. A **Photographic Log** of the soil samples and field screening locations is also attached.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The soil type throughout the Site is comprised primarily of clay from depths of 0' bgs to 6' bgs. The native background soil type in the vicinity of the Site is comprised primarily of clay from depths of 3' bgs to 6' bgs.

One wellhead, one flowline, one separator, one set of dumplines, one AST, and one PWV were decommissioned at the Site. Evidence of a Spill was observed at the wellhead, separator, and PWV during field screening. A Spill was reported to the ECMC on February 5, 2025. Hydrocarbon impacts at the separator and PWV were confirmed with lab results on February 20, 2025. Excavations are planned at the separator and PWV. Verification sampling is planned at the wellhead to verify that the pH and lead levels are accurate.

Decommissioning Form

Photographic Log

Photographic Log

Site Name: Amoco 44-17 (Rem# 38361)

Photographer: C. Pursell / Stantec Consulting Services Inc.

Date: February 4, 2025



Photo #1 View of the wellhead floor sample location

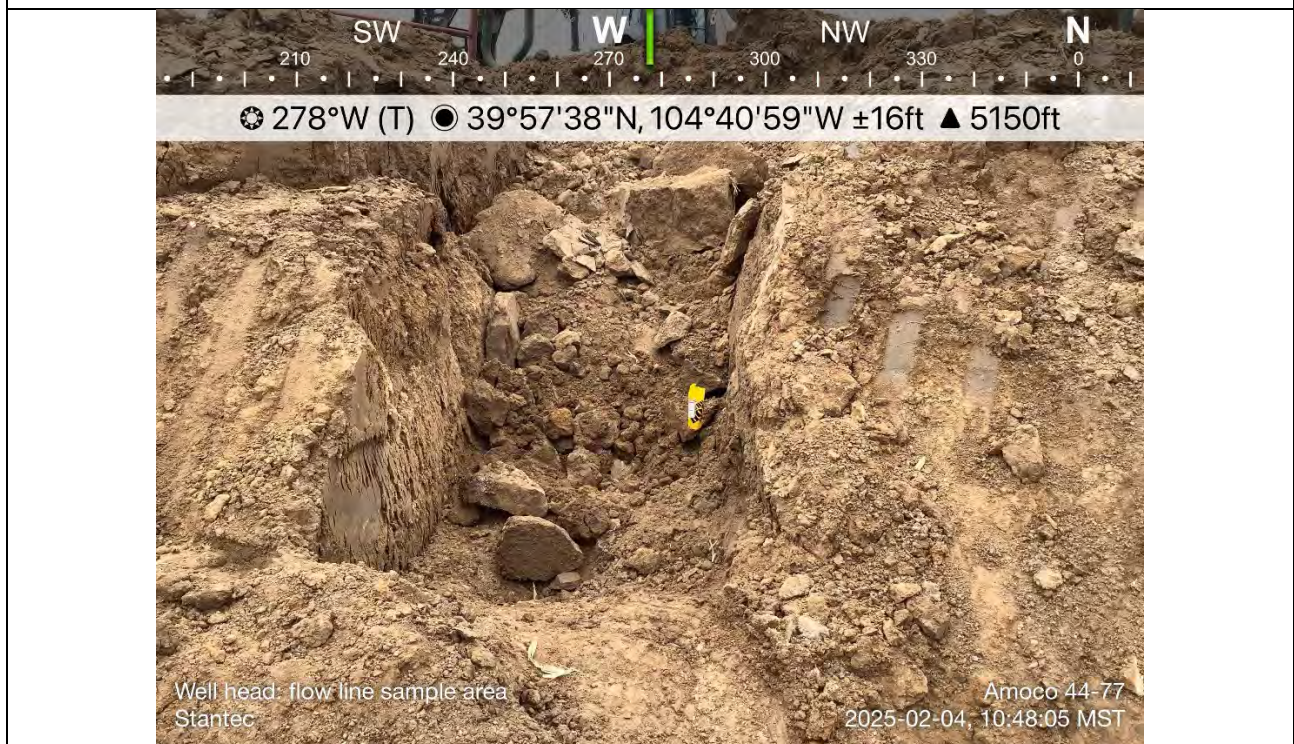


Photo #2 View of the flowline at wellhead sample location

Photographic Log

Site Name: Amoco 44-17 (Rem# 38361)

Photographer: C. Pursell / Stantec Consulting Services Inc.

Date: February 4, 2025



Photo #3 View of the flowline @ separator sample location



Photo #4 View of the AST sample area

Photographic Log

Site Name: Amoco 44-17 (Rem# 38361)

Photographer: C. Pursell / Stantec Consulting Services Inc.

Date: February 4, 2025

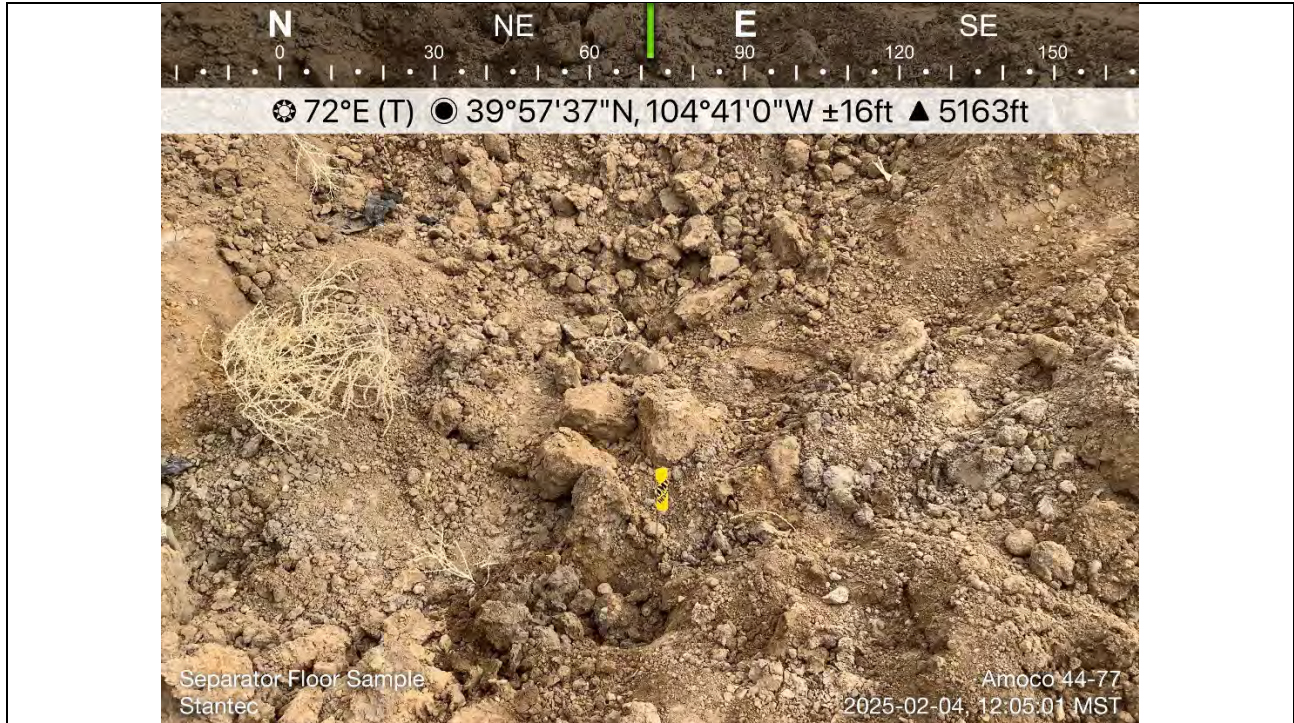


Photo #5 View of the separator sample



Photo #6 View of the produced water vessel sample locations

Photographic Log

Site Name: Amoco 44-17 (Rem# 38361)

Photographer: C. Pursell / Stantec Consulting Services Inc.

Date: February 4, 2025



Photo #7 View of the produced water vessel sample locations



Photo #8 View of the background (BG) 01 sampling location

Photographic Log

Site Name: Amoco 44-17 (Rem# 38361)

Photographer: C. Pursell / Stantec Consulting Services Inc.

Date: February 4, 2025



Photo #9 View of the BG02 sampling location



Photo #10 View of the BG03 sampling location

Photographic Log

Site Name: Amoco 44-17 (Rem# 38361)

Photographer: C. Pursell / Stantec Consulting Services Inc.

Date: February 4, 2025

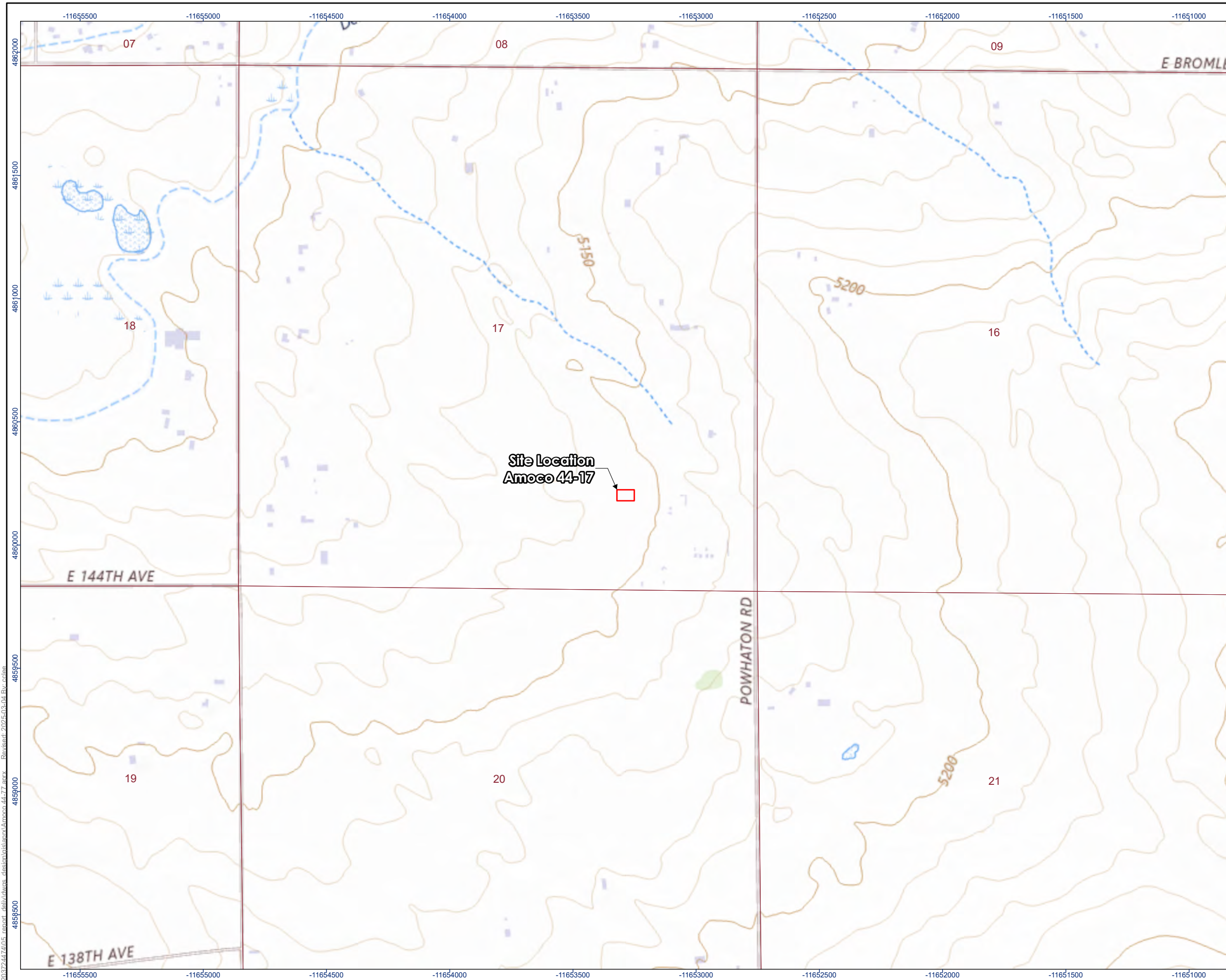


Photo #11 View of the BG04 sampling location

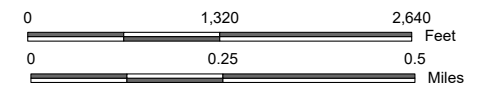


Photo #12 View of the BG05 sampling location

Figures



- Site Location
- PLSS Section



(At original document size of 11x17) 1:15,840

Notes
 1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
 2. Background: World Terrain Base. Sources: Esri, USGS, NOAA
 USGSTopo: USGS The National Map; National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information. Data refreshed February, 2025.
 World Terrain Reference: Sources: Esri, Garmin, USGS, NPS



Project Location
 SEC 17-T1S-R65W
 ADAMS COUNTY, COLORADO

Drawn by CCL on 2025-03-04
 Reviewed by CR 2025-03-04
 203724474

Client/Project
 EXTRACTION OIL & GAS INC - 10459
 Amoco 44-17
 Remediation #38361

Figure No.

1

Title

SITE LOCATION MAP

L:\2023\724474\05_report_dell\dwg\design\stapan\Amoco_44-17.dwg Revised: 2025-03-04 Bv.cclae

Tables

Table 2
Soil Sample Analytical Results
Extraction Oil & Gas, Inc.
SITE NAME: Amoco 44-17
Remediation Project # 38361

Constituent of Concern	ECMC Table 915-1 RSSL's	ECMC Table 915-1 GWSSL's	Results									
			WH-B01 @ 6'	WH-FL01 @ 3'	SEP-FL01 @ 3'	SEP-B01 @ 6'	PWV-B01 @ 6'	PWV-N @ 3'	PWV-S @ 3'	PWV-E @ 3'	PWV-W @ 3'	AST-B01 @ 0'
Sample Name			WH-B01 @ 6'	WH-FL01 @ 3'	SEP-FL01 @ 3'	SEP-B01 @ 6'	PWV-B01 @ 6'	PWV-N @ 3'	PWV-S @ 3'	PWV-E @ 3'	PWV-W @ 3'	AST-B01 @ 0'
Date			2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025
PID (ppm)			5.8	0.6	247.2	556.7	626.5	71.5	1.8	23.8	48.3	1.2
Depth (feet)			6	3	3	6	6	3	3	3	3	0
TPH (mg/kg)												
TPH - GRO	--		0.551	<0.200	19.5	18.8	1,200	3.67	<0.200	1.09	0.225	<0.200
TPH - DRO	--		45.1	<25.0	530	405	1,480	168	<25.0	105	<25.0	<25.0
TPH - ORO	--		<100	<100	346	301	867	201	<100	166	<100	<100
TPH - Total	500		45.651	<125.200	895.5	724.8	3,547	372.67	<125.200	272.09	0.225	<125.200
Soil Suitability for Reclamation												
EC (mmhos/cm)	4		0.892	1.38	1.02	0.718	0.720	0.640	0.274	1.18	1.18	0.146
SAR (ratio)	6		0.728	2.64	14.3	5.93	22.4	4.17	0.143	8.77	7.06	3.78
pH (units)	6-8.3		8.57	8.20	7.96	8.44	8.27	8.38	8.24	8.37	8.36	7.05
boron (mg/L)	2		0.384	0.312	2.76	0.606	1.94	0.826	0.220	1.06	1.09	<1.01
Organic Compounds in Soils (mg/kg)												
benzene	1.2	0.0026	<0.00200	<0.00200	<0.00200	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
toluene	490	0.69	<0.00200	<0.00200	<0.00200	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
ethylbenzene	5.8	0.78	<0.00200	<0.00200	<0.00200	<0.00200	2.66	0.00238	<0.00200	<0.00200	<0.00200	<0.00200
total xylenes	58	9.9	<0.00200	<0.00200	<0.00200	<0.00200	27.8	0.0730	<0.00200	<0.00200	<0.00200	<0.00200
1,2,4-trimethylbenzene	30	0.0081	<0.00200	<0.00200	0.00452	0.0131	28.0	0.0747	<0.00200	0.0134	0.0108	<0.00200
1,3,5-trimethylbenzene	27	0.0087	<0.00200	<0.00200	0.0950	0.120	8.27	0.0506	<0.00200	0.0113	<0.00200	<0.00200
naphthalene	2	0.0038	<0.00125	<0.00121	0.109	<0.00369	3.15	0.0432	<0.00376	0.00950	0.00456	<0.00389
acenaphthene	360	0.55	<0.00125	<0.00121	0.0121	<0.00369	0.0867	0.00376	<0.00376	<0.00352	<0.00380	<0.00389
anthracene	1800	5.8	<0.00125	<0.00121	<0.00377	<0.00369	<0.00127	<0.00376	<0.00376	<0.00352	<0.00380	<0.00389
benz(a)anthracene	1.1	0.011	<0.00125	<0.00121	<0.00377	<0.00369	<0.00127	0.00489	<0.00376	<0.00352	<0.00380	<0.00389
benzo(a)pyrene	0.11	0.24	<0.00125	<0.00121	<0.00377	0.00258	<0.00127	0.00602	<0.00376	<0.00352	<0.00380	<0.00389
benzo(b)fluoranthene	1.1	0.3	<0.00125	<0.00121	0.00415	0.00664	0.0326	0.0102	<0.00376	0.00246	<0.00380	<0.00389
benzo(k)fluoranthene	11	2.9	<0.00125	<0.00121	<0.00377	0.6060	<0.00127	0.00376	<0.00376	<0.00352	<0.00380	<0.00389
chrysene	110	9	<0.00125	<0.00121	<0.00377	<0.00369	<0.00127	0.0169	<0.00376	0.00598	<0.00380	<0.00389
dibenzo(a,h)anthracene	0.11	0.096	<0.00125	<0.00121	<0.00377	0.00221	<0.00127	0.00263	<0.00376	<0.00352	<0.00380	<0.00389
fluoranthene	240	8.9	<0.00125	<0.00121	0.00678	0.00553	0.0437	0.0199	<0.00376	0.00352	0.00304	<0.00389
fluorene	240	0.54	<0.00125	<0.00121	0.139	0.0232	0.683	0.0263	<0.00376	0.00809	0.00228	<0.00389
indeno(1,2,3-cd)pyrene	1.1	0.98	<0.00125	<0.00121	<0.00377	<0.00369	<0.00127	0.00451	<0.00376	<0.00352	<0.00380	<0.00389
pyrene	180	1.3	<0.00125	<0.00121	0.0106	0.00996	0.0691	0.0169	<0.00376	0.00352	0.00342	<0.00389
1-methylnaphthalene	18	0.006	<0.00125	<0.00121	0.878	<0.00369	5.46	0.142	<0.00376	0.0433	0.0114	<0.00389
2-methylnaphthalene	24	0.019	0.00227	<0.00121	1.23	<0.00369	10.1	0.198	<0.00376	0.0510	0.0182	<0.00389

Metals in Soils (mg/kg)												
arsenic	0.68	0.29	3.83	4.68	3.81	3.69	4.02	4.71	3.11	4.57	3.53	3.97
barium	15000	82	109	107	88.6	89.9	94.4	111	83.2	135	96.7	101
cadmium	71	0.38	0.341	0.171	0.147	0.130	0.146	0.169	0.114	0.219	0.145	0.147
chromium (VI)	0.3	0.00067	<0.139	<0.114	<0.0988	<0.107	<0.113	<0.111	<0.0908	<0.148	<0.144	<0.133
copper	3100	46	23.1	11.6	<9.31	<9.35	9.19	12.8	<9.55	11.0	<9.95	10.3
lead	400	14	56.3	12.1	8.53	7.14	9.11	11.8	9.75	9.71	10.5	13.6
nickel	1500	26	9.46	12.7	8.95	8.38	8.88	12.5	6.85	12.0	8.62	10.8
selenium	390	0.26	<0.256	<0.254	<0.242	<0.243	<0.235	<0.245	<0.248	<0.230	<0.259	<0.258
silver	390	0.8	0.139	<0.0976	<0.0931	<0.0935	<0.0905	<0.0943	<0.0955	<0.0884	<0.0995	<0.0994
zinc	23000	370	130	53.4	36.2	<34.6	36.9	48.0	<35.3	44.5	37.2	47.2

Notes

ECMC	Colorado Energy and Carbon Management Commission
RSSL	Residential Soil Screening Level
GWSSL	Protection of Groundwater Soil Screening Level
--	not applicable
ppm	parts per million
TPH	total petroleum hydrocarbons
mg/kg	milligrams per kilogram
GRO	gasoline range organics
DRO	diesel range organics
ORO	oil range organics
EC	electrical conductivity
mmhos/cm	millimhos per centimeter
SAR	sodium adsorption ratio
mg/L	milligrams per liter
<	less than laboratory reporting limit
bold	result exceeds the applicable standard
bold	result exceeds the applicable standard
	reported detection limit is higher than standard

Table 3
Background Soil Sample Analytical Results
Extraction Oil & Gas, Inc.
SITE NAME: Amoco 44-17
Remediation Project # 38361

Constituent of Concern	ECMC Table 915-1 RSSL's	ECMC Table 915-1 GWSSL's	Results									
			BG01 @ 3'	BG01 @ 6'	BG02 @ 3'	BG02 @ 6'	BG03 @ 3'	BG03 @ 6'	BG04 @ 3'	BG04 @ 6'	BG05 @ 3'	BG05 @ 6'
Sample Name			BG01 @ 3'	BG01 @ 6'	BG02 @ 3'	BG02 @ 6'	BG03 @ 3'	BG03 @ 6'	BG04 @ 3'	BG04 @ 6'	BG05 @ 3'	BG05 @ 6'
Date			2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025	2/4/2025
PID (ppm)			29.5	3.1	11.8	1.5	6.8	1.5	2.2	1.2	2.3	1.2
Depth (feet)			3	6	3	6	3	6	3	6	3	6
Soil Suitability for Reclamation												
EC (mmhos/cm)	4		1.08	3.63	2.76	3.74	5.66	2.38	1.67	3.87	3.41	4.55
SAR (ratio)	6		2.88	5.97	5.23	4.24	6.42	7.66	8.46	10.2	8.13	8.43
pH (units)	6-8.3		8.23	8.20	8.27	8.06	8.09	8.36	8.47	8.34	8.24	8.20
boron (mg/L)	2		0.197	1.24	0.960	0.251	3.04	6.36	3.68	5.74	1.50	3.33
Metals in Soils (mg/kg)												
arsenic	0.68	0.29	4.03	7.38	6.49	4.11	4.42	8.47	5.86	5.05	4.34	4.57
barium	15000	82	164	164	163	102	116	697	262	197	100	119
cadmium	71	0.38	0.215	0.159	0.377	0.182	0.137	0.185	0.144	0.183	0.103	<0.0990
chromium (VI)	0.3	0.00067	<0.114	<0.129	<0.127	<0.173	<0.138	<0.125	<0.119	<0.145	<0.165	<0.132
copper	3100	46	12.6	15.7	12.0	9.55	11.0	20.6	13.8	ND	10.6	10.6
lead	400	14	12.3	12.9	11.7	10.2	9.33	16.4	12.4	8.06	8.98	9.21
nickel	1500	26	11.3	17.3	13.2	8.43	11.0	23.2	14.3	10.1	10.3	13.7
selenium	390	0.26	<0.247	<0.246	0.773	<0.240	<0.244	<0.254	<0.249	<0.243	<0.243	<0.257
silver	390	0.8	<0.0948	<0.0946	<0.0921	<0.0922	<0.0939	<0.0976	<0.0958	<0.0936	<0.0933	<0.0990
zinc	23000	370	57.8	67.3	66.2	40.0	43.5	75.8	44.1	34.9	41.1	41.7

Notes

- ECMC Colorado Energy and Carbon Management Commission
- RSSL Residential Soil Screening Level
- GWSSL Protection of Groundwater Soil Screening Level
- ppm parts per million
- mg/kg milligrams per kilogram
- EC electrical conductivity
- mmhos/cm millimhos per centimeter
- SAR sodium adsorption ratio
- mg/L milligrams per liter
- < less than laboratory reporting limit
- result exceeds the applicable standard
- result exceeds the applicable standard
- reported detection limit is higher than standard