

Sprague 6-4-9 & 32-9

SWNE Sec. 9-T2N-R67W

API #: 123-22638 (6-4-9), 123-19765 (32-9)

Facility IDs: 469222 (6-4-9), 469239 (32-9)

Remediation Project #: 37985

Form 19 Data Package

May through December 2025

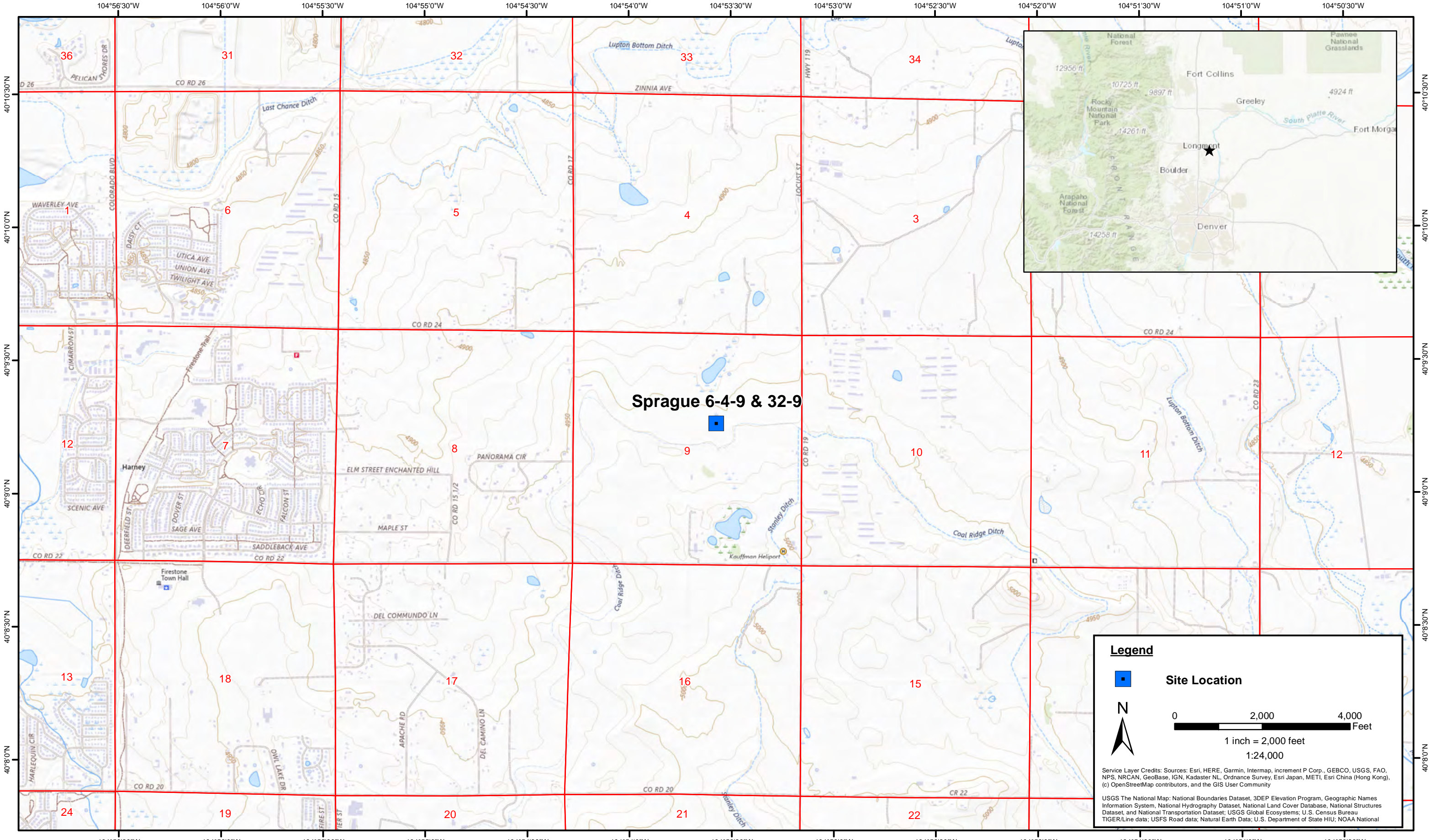
Prepared by Tasman, Inc.



On behalf of Crestone Peak Resources Operating, LLC



FIGURES



DATE:	June 2025
DESIGNED BY:	S. Vogt
DRAWN BY:	J. Woffinden

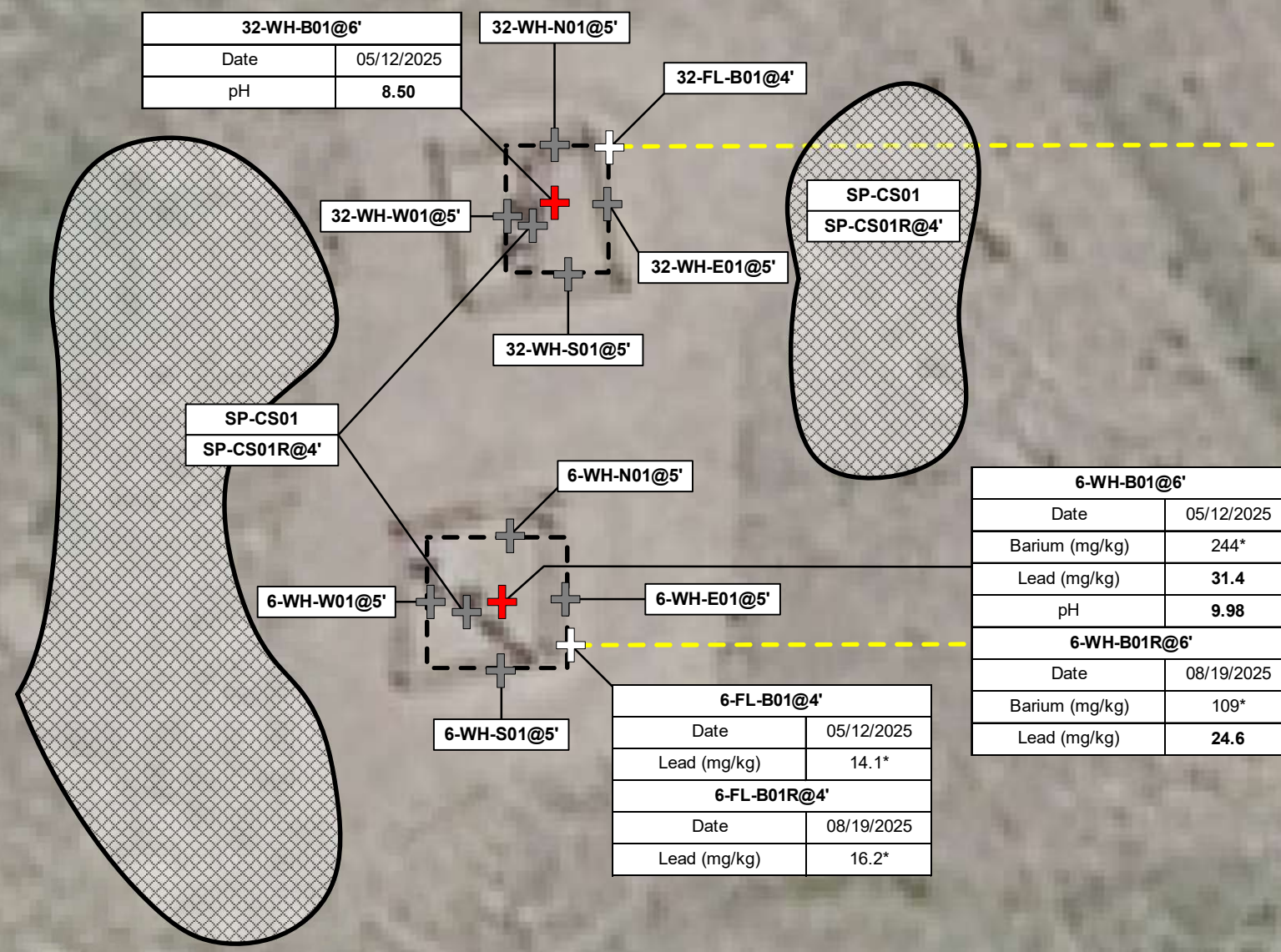


Tasman, Inc.
4725 Independence St.
Wheat Ridge, CO 80033

Crestone Peak Resources Operating, LLC
Sprague 6-4-9 & 32-9
 SWNE Sec. 9-T2N-R67W
 Weld County, Colorado

Site Location Map

Figure
1



Legend

- ⊕ Soil sample location – Field Screened (Collected via Trimble GPS)
- ⊕ Soil sample location – Below ECMC Table 915-1 Soil Standards (Collected via Trimble GPS)
- ⊕ Soil sample location – Exceeded ECMC Table 915-1 Soil Standards (Collected via Trimble GPS)
- ⊖ Excavation extent
- ▨ Stockpile location – Below ECMC Table 915-1 Soil Standards (Collected via Trimble GPS)
- Flowline Location

ECMC Table 915-1 Soil Standards	
Barium (mg/kg)	82 / 15,000
Lead (mg/kg)	14 / 400
pH	6 - 8.3

Notes

Crestone Peak Resources Operating, LLC site infrastructure has been removed.

All locations are approximate unless otherwise noted.

GPS = Global Positioning System

ECMC = Colorado Energy & Carbon Management Commission

BOLD = Analytical result is in exceedance of ECMC Table 915-1 Protection of Groundwater Soil Screening Level Concentrations or Soil Suitability for Reclamation Parameters

BOLD = Analytical result is in exceedance of ECMC Table 915-1 Residential Soil Screening Level Concentrations

mg/kg = milligrams per kilogram

* Result exceeded the ECMC Table 915-1 standard, but was within site-specific background concentrations or confirmation/resample result was below the ECMC Table 915-1 standard or within site-specific background concentrations

0 ft. 10 ft. 20 ft.

Image Source: Google Earth

DATE: January 6, 2025

DESIGNED BY: S. Vogt

DRAWN BY: A. Tullos







Tasman, Inc.
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Crestone Peak Resources Operating, LLC
Sprague 6-4-9 & 32-9
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Weld County, Colorado

Wellhead Soil Sample Location Map
(05/12/2025 & 08/19/2025)

Figure 2

Legend

-  Soil sample location – Below ECMC Table 915-1 Soil Standards (Collected via Trimble GPS)
-  Excavation extent
-  Stockpile location – Below ECMC Table 915-1 Soil Standards (Collected via Trimble GPS)
-  Flowline Location

Notes

Crestone Peak Resources Operating, LLC site infrastructure has been removed.

All locations are approximate unless otherwise noted.

GPS = Global Positioning System

ECMC = Colorado Energy & Carbon Management Commission


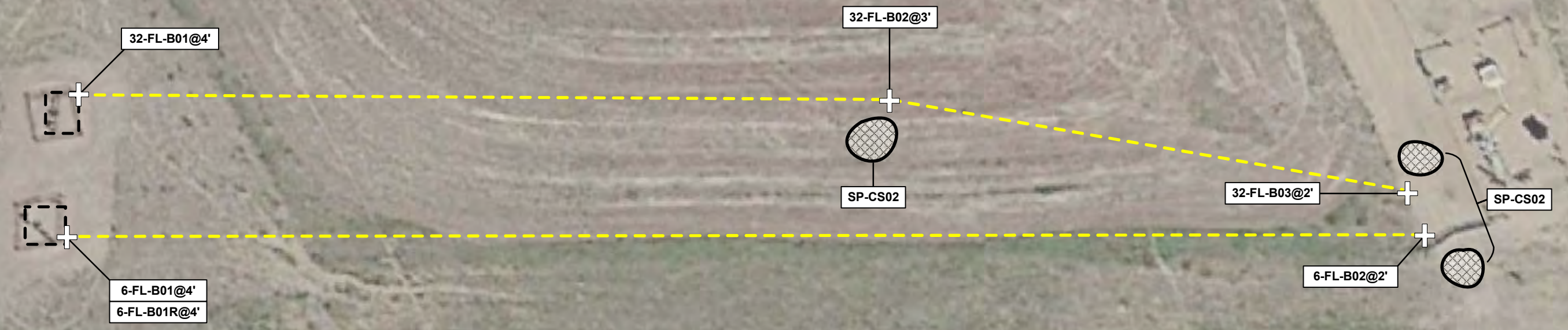
0 ft. 25 ft. 50 ft. 

Image Source: Google Earth



DATE:	January 7, 2025
DESIGNED BY:	S. Vogt
DRAWN BY:	A. Tullos

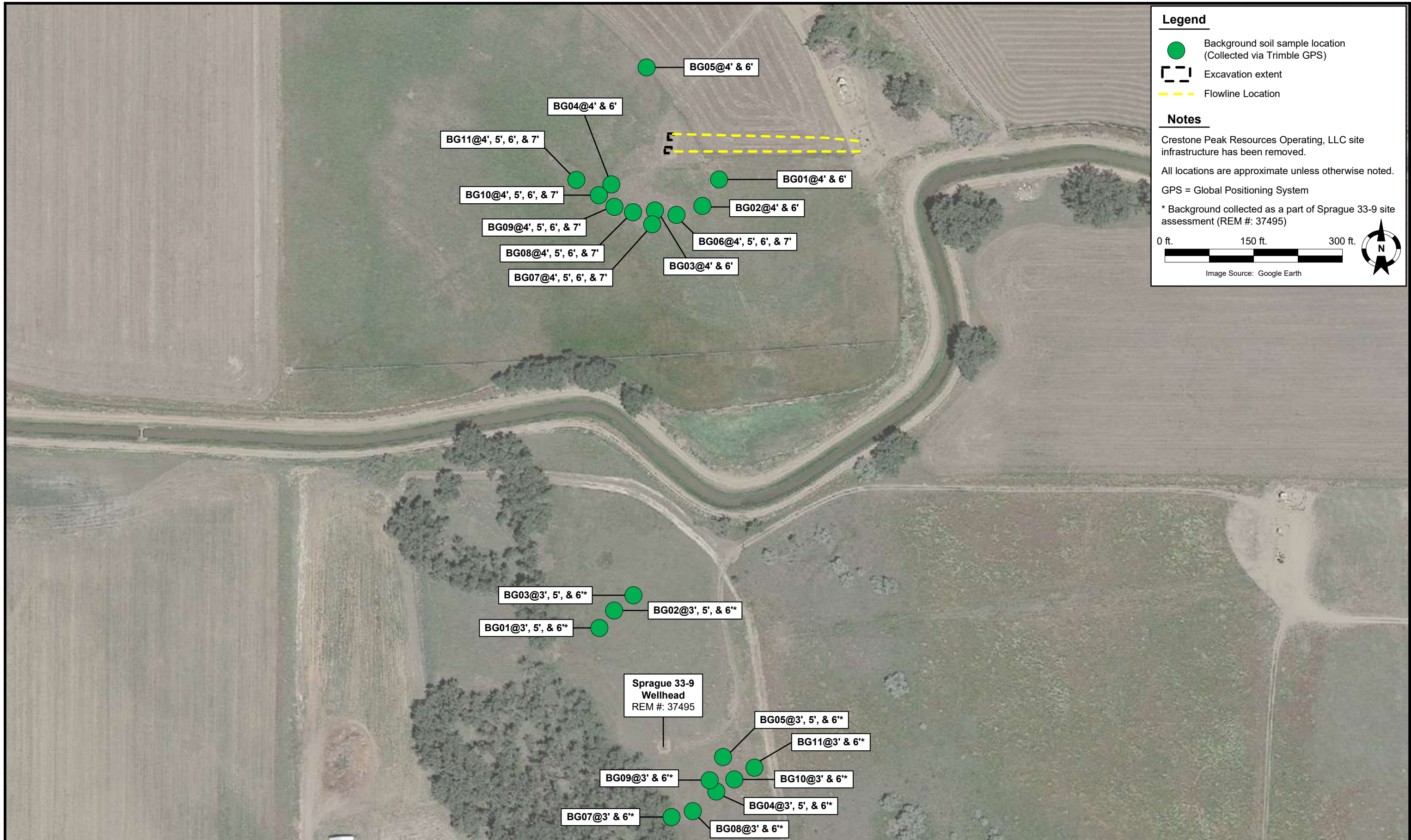


Tasman, Inc.
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Crestone Peak Resources Operating, LLC
 Sprague 6-4-9 & 32-9
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 Weld County, Colorado

Flowline Soil Sample
 Location Map
 (05/12/2025 & 08/19/2025)

Figure
 3



Legend

- Background soil sample location (Collected via Trimble GPS)
- Excavation extent
- Flowline Location

Notes

Crestone Peak Resources Operating, LLC site infrastructure has been removed.

All locations are approximate unless otherwise noted.

GPS = Global Positioning System

* Background collected as a part of Sprague 33-9 site assessment (REM #: 37495)

0 ft. 150 ft. 300 ft.

Image Source: Google Earth

DATE:	January 6, 2025
DESIGNED BY:	S. Vogt
DRAWN BY:	A. Tullos

Tasman, Inc.
 4725 Independence St.
 Wheat Ridge, CO 80033

Crestone Peak Resources Operating, LLC
Sprague 6-4-9 & 32-9
 SWNE Sec. 9-T2N-R67W
 Weld County, Colorado

Background Soil Sample
 Location Map
 (06/27/2025 – 12/17/2025)

Figure
 4

TABLES

TABLE 1
SPRAGUE 6-4-9 & 32-9
SOIL SAMPLE LOCATIONS
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
32-WH-B01@6'	6'	05/12/2025	1.6	40.154347	-104.892913	1.1	Y
32-WH-N01@5'	5'	05/12/2025	2.8	40.154356	-104.892912	1.1	N
32-WH-S01@5'	5'	05/12/2025	2.1	40.154335	-104.892910	1.1	N
32-WH-E01@5'	5'	05/12/2025	1.1	40.154347	-104.892899	1.2	N
32-WH-W01@5'	5'	05/12/2025	0.9	40.154345	-104.892923	1.2	N
32-FL-B01@4'	4'	05/12/2025	5.8	40.154357	-104.892899	1.1	Y
6-WH-B01@6'	6'	05/12/2025	7.9	40.154275	-104.892925	1.1	Y
6-WH-N01@5'	5'	05/12/2025	3.8	40.154287	-104.892923	1.1	N
6-WH-S01@5'	5'	05/12/2025	1.3	40.154265	-104.892924	1.2	N
6-WH-E01@5'	5'	05/12/2025	1.8	40.154276	-104.892911	1.1	N
6-WH-W01@5'	5'	05/12/2025	0.7	40.154275	-104.892941	1.2	N
6-FL-B01@4'	4'	05/12/2025	0.3	40.154269	-104.892907	1.1	Y
SP-CS01	-	05/12/2025	6.5	40.154320	-104.892843	-	Y
32-FL-B02@3'	3'	05/12/2025	4.3	40.154352	-104.892244	0.8	Y
32-FL-B03@2'	2'	05/12/2025	0.9	40.154297	-104.891832	0.9	Y
6-FL-B02@2'	2'	05/12/2025	1.1	40.154269	-104.891815	0.9	Y
SP-CS02	-	05/12/2025	0.4	40.154279	-104.891791	-	Y
6-WH-B01R@6'	6'	08/19/2025	0.2	40.154271	-104.892927	0.8	Y
6-FL-B01R@4'	4'	08/19/2025	0.6	40.154266	-104.892908	0.8	Y
SP-CS01R@4'	4'	08/19/2025	1.4	40.154272	-104.892933	0.8	N
BACKGROUND							
BG01@3'*	3'	06/27/2025	1.8	40.152070	-104.893340	1.0	Y
BG01@5'*	5'	06/27/2025	1.2	40.152070	-104.893340	1.0	Y
BG01@6'*	6'	06/27/2025	0.9	40.152070	-104.893340	1.0	Y
BG02@3'*	3'	06/27/2025	0.7	40.152152	-104.893260	0.9	Y
BG02@5'*	5'	06/27/2025	0.1	40.152152	-104.893260	0.9	Y
BG02@6'*	6'	06/27/2025	0.0	40.152152	-104.893260	0.9	Y
BG03@3'*	3'	06/27/2025	0.0	40.152206	-104.893141	0.8	Y
BG03@5'*	5'	06/27/2025	0.2	40.152206	-104.893141	0.8	Y
BG03@6'*	6'	06/27/2025	1.2	40.152206	-104.893141	0.8	Y
BG04@3'*	3'	06/27/2025	0.2	40.151354	-104.892684	0.9	Y
BG04@5'*	5'	06/27/2025	1.0	40.151354	-104.892684	0.9	Y
BG04@6'*	6'	06/27/2025	0.0	40.151354	-104.892684	0.9	Y
BG05@3'*	3'	06/27/2025	0.5	40.151454	-104.892610	0.8	Y
BG05@5'*	5'	06/27/2025	0.0	40.151454	-104.892610	0.8	Y
BG05@6'*	6'	06/27/2025	0.6	40.151454	-104.892610	0.8	Y
BG01@4'	4'	08/19/2025	0.0	40.154148	-104.892634	1.2	Y
BG01@6'	6'	08/19/2025	0.0	40.154148	-104.892634	1.2	Y

TABLE 1
SPRAGUE 6-4-9 & 32-9
SOIL SAMPLE LOCATIONS
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
BG02@4'	4'	08/19/2025	0.1	40.154029	-104.892747	1.0	Y
BG02@6'	6'	08/19/2025	0.0	40.154029	-104.892747	1.0	Y
BG03@4'	4'	08/19/2025	0.0	40.153956	-104.893000	1.0	Y
BG03@6'	6'	08/19/2025	0.2	40.153956	-104.893000	1.0	Y
BG04@4'	4'	08/19/2025	0.0	40.154112	-104.893265	0.9	Y
BG04@6'	6'	08/19/2025	0.0	40.154112	-104.893265	0.9	Y
BG05@4'	4'	08/19/2025	0.1	40.154682	-104.893061	0.8	Y
BG05@6'	6'	08/19/2025	0.1	40.154682	-104.893061	0.8	Y
BG07@3'*	3'	08/20/2025	0.0	40.151196	-104.892898	1.0	Y
BG07@6'*	6'	08/20/2025	3.4	40.151196	-104.892898	1.0	Y
BG08@3'*	3'	08/20/2025	0.3	40.151223	-104.892788	1.1	Y
BG08@6'*	6'	08/20/2025	0.1	40.151223	-104.892788	1.1	Y
BG09@3'*	3'	08/20/2025	1.3	40.151335	-104.892663	0.9	Y
BG09@6'*	6'	08/20/2025	0.6	40.151335	-104.892663	0.9	Y
BG10@3'*	3'	08/20/2025	0.9	40.151372	-104.892550	1.0	Y
BG10@6'*	6'	08/20/2025	2.2	40.151372	-104.892550	1.0	Y
BG11@3'*	3'	08/20/2025	2.0	40.151411	-104.892438	0.8	Y
BG11@6'*	6'	08/20/2025	0.0	40.151411	-104.892438	0.8	Y
BG06@4'	4'	12/17/2025	1.3	40.153990	-104.892894	1	Y
BG06@5'	5'	12/17/2025	2.1	40.153990	-104.892894	1	Y
BG06@6'	6'	12/17/2025	0.7	40.153990	-104.892894	1	Y
BG06@7'	7'	12/17/2025	0.3	40.153990	-104.892894	1	Y
BG07@4'	4'	12/17/2025	0.3	40.153993	-104.893009	1	Y
BG07@5'	5'	12/17/2025	0.7	40.153993	-104.893009	1	Y
BG07@6'	6'	12/17/2025	0.7	40.153993	-104.893009	1	Y
BG07@7'	7'	12/17/2025	0.5	40.153993	-104.893009	1	Y
BG08@4'	4'	12/17/2025	1.7	40.154004	-104.893123	1	Y
BG08@5'	5'	12/17/2025	1.1	40.154004	-104.893123	1	Y
BG08@6'	6'	12/17/2025	0.9	40.154004	-104.893123	1	Y
BG08@7'	7'	12/17/2025	1.3	40.154004	-104.893123	1	Y
BG09@4'	4'	12/17/2025	1.1	40.154032	-104.893241	1.1	Y
BG09@5'	5'	12/17/2025	1.2	40.154032	-104.893241	1.1	Y
BG09@6'	6'	12/17/2025	0.9	40.154032	-104.893241	1.1	Y
BG09@7'	7'	12/17/2025	0.9	40.154032	-104.893241	1.1	Y
BG10@4'	4'	12/17/2025	0.1	40.154085	-104.893351	1	Y
BG10@5'	5'	12/17/2025	0.3	40.154085	-104.893351	1	Y
BG10@6'	6'	12/17/2025	0.1	40.154085	-104.893351	1	Y
BG10@7'	7'	12/17/2025	0.5	40.154085	-104.893351	1	Y

TABLE 1
SPRAGUE 6-4-9 & 32-9
SOIL SAMPLE LOCATIONS
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
BG11@4'	4'	12/17/2025	0.2	40.154143	-104.893470	0.9	Y
BG11@5'	5'	12/17/2025	0.1	40.154143	-104.893470	0.9	Y
BG11@6'	6'	12/17/2025	0.7	40.154143	-104.893470	0.9	Y
BG11@7'	7'	12/17/2025	0.5	40.154143	-104.893470	0.9	Y

Notes:

PID = Photoionization Detector

ppm = parts per million

GPS = Global Positioning System

PDOP = Position Dilution of Precision

* Background collected as a part of Sprague 33-9 site assessment (REM #: 37495)

- = Not applicable



TABLE 2
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - VOCs
CRESTONE PEAK RESOURCES OPERATING, LLC

Soil Sample Location	Depth	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
ECMC Organic Compounds in Soils - GSSL ⁽¹⁾			0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
ECMC Organic Compounds in Soils - RSSL ⁽²⁾			1.2	490	5.8	58	2	500			30	27
32-WH-B01@6'	6'	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	8.05	12.3	<0.00500	<0.00500
32-FL-B01@4'	4'	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	3.54	<4.00	<0.00500	<0.00500
6-WH-B01@6'	6'	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	3.11	8.17	<0.00500	<0.00500
6-FL-B01@4'	4'	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	5.84	10.0	<0.00500	<0.00500
SP-CS01	-	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	15.9	17.4	<0.00500	<0.00500
32-FL-B02@3'	3'	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	<4.00	2.23	<0.00500	<0.00500
32-FL-B03@2'	2'	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	<8.00	6.01	<0.00500	<0.00500
6-FL-B02@2'	2'	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	<8.00	4.96	<0.00500	<0.00500
SP-CS02	-	05/12/2025	<0.00200	<0.0100	<0.0100	<0.100	<0.00300	<0.100	<4.00	0.882	<0.00500	<0.00500

Notes:

VOCs = Volatile Organic Compounds

(1) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

ECMC = Colorado Energy & Carbon Management Commission

GSSL = Protection of Groundwater Soil Screening Level

RSSL = Residential Soil Screening Level

(<) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

TVPH - GRO = Total Volatile Petroleum Hydrocarbons - Gasoline Range Organics

TEPH - DRO = Total Extractable Petroleum Hydrocarbons - Diesel Range Organics

TEPH - ORO = Total Extractable Petroleum Hydrocarbons - Oil Range Organics

1,2,4 - TMB = 1,2,4 - Trimethylbenzene

1,3,5 - TMB = 1,3,5 - Trimethylbenzene

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

- = Not applicable



TABLE 3
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - PAHs
CRESTONE PEAK RESOURCES OPERATING, LLC

Soil Sample Location	Depth	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
ECMC Organic Compounds in Soils - GSSL ⁽¹⁾			0.55	5.8	0.011	0.3	2.9	0.24	9	0.96	8.9	0.54	0.98	0.006	0.019	1.3
ECMC Organic Compounds in Soils - RSSL ⁽²⁾			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
32-WH-B01@6'	6'	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330
32-FL-B01@4'	4'	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330
6-WH-B01@6'	6'	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	0.00341	<0.0120	<0.0330
6-FL-B01@4'	4'	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330
SP-CS01	-	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330
32-FL-B02@3'	3'	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330
32-FL-B03@2'	2'	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330
6-FL-B02@2'	2'	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330
SP-CS02	-	05/12/2025	<0.0330	<0.0330	<0.00600	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.0330	<0.00300	<0.0120	<0.0330

Notes:

PAHs = Polycyclic Aromatic Hydrocarbons

(1) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

ECMC = Colorado Energy & Carbon Management Commission

GSSL = Protection of Groundwater Soil Screening Level

RSSL = Residential Soil Screening Level

(<) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

Benzo(a)A = Benzo(a)Anthracene

Benzo(b)F = Benzo(b)Fluoranthene

Benzo(k)F = Benzo(k)Fluoranthene

Benzo(a)P = Benzo(a)Pyrene

D (a,h) A = Dibenz(a,h)Anthracene

1,2,3-CD = Indeno(1,2,3-cd)Pyrene

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

TABLE 3
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - PAHs
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
ECMC Organic Compounds in Soils - GSSL ⁽¹⁾			0.55	5.8	0.011	0.3	2.9	0.24	9	0.96	8.9	0.54	0.98	0.006	0.019	1.3
ECMC Organic Compounds in Soils - RSSL ⁽²⁾			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180

- = Not applicable

TABLE 4
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - METALS
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	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)	Confirmation/Resample for Sample Location(s) ⁽³⁾
ECMC Metals in Soils - GSSL ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370	-
ECMC Metals in Soils - RSSL ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000	-
32-WH-B01@6'	6'	05/12/2025	0.810*	34.0	<0.200	<0.300	<10.0	<10.0	<10.0	<0.200	<0.500	<50.0	-
32-FL-B01@4'	4'	05/12/2025	1.10*	35.9	<0.200	<0.300	<10.0	<10.0	<10.0	<0.200	<0.500	<50.0	-
6-WH-B01@6'	6'	05/12/2025	1.12*	244*	<0.200	0.363*	<10.0	31.4	<10.0	<0.200	<0.500	<50.0	-
6-FL-B01@4'	4'	05/12/2025	1.05*	105*	<0.200	<0.300	<10.0	14.1*	<10.0	<0.200	<0.500	<50.0	-
SP-CS01	-	05/12/2025	1.03*	79.7	<0.200	0.317*	<10.0	11.3	<10.0	<0.200	<0.500	<50.0	-
32-FL-B02@3'	3'	05/12/2025	1.36*	38.6	<0.200	<0.300	<10.0	<10.0	<10.0	<0.200	<0.500	<50.0	-
32-FL-B03@2'	2'	05/12/2025	1.66*	41.5	<0.200	<0.300	<10.0	<10.0	<10.0	<0.200	<0.500	<50.0	-
6-FL-B02@2'	2'	05/12/2025	1.18*	29.4	<0.200	<0.300	<10.0	<10.0	<10.0	<0.200	<0.500	<50.0	-
SP-CS02	-	05/12/2025	1.38*	31.0	<0.200	<0.300	<10.0	<10.0	<10.0	<0.200	<0.500	<50.0	-
6-WH-B01R@6'	6'	08/19/2025	-	109*	-	-	-	24.6	-	-	-	-	6-WH-B01@6'
6-FL-B01R@4'	4'	08/19/2025	-	-	-	-	-	16.2*	-	-	-	-	6-FL-B01@4'
BACKGROUND													-
BG01@3'***	3'	06/27/2025	1.41	43.8	<0.100	<0.200	<10.0	<10.0	<10.0	0.136	<0.500	<50.0	-
BG02@3'***	3'	06/27/2025	1.41	41.0	<0.100	<0.200	<10.0	<10.0	<10.0	0.176	<0.500	<50.0	-
BG03@3'***	3'	06/27/2025	2.07	67.8	<0.100	0.351	<10.0	<10.0	<10.0	0.149	<0.500	<50.0	-
BG04@3'***	3'	06/27/2025	1.50	51.0	<0.100	0.328	<10.0	<10.0	<10.0	0.121	<0.500	<50.0	-
BG05@3'***	3'	06/27/2025	2.52	70.7	0.117	0.437	<10.0	<10.0	10.0	0.339	<0.500	<50.0	-
BG01@4'	4'	08/19/2025	1.39	39.2	<0.100	-	<10.0	<10.0	<10.0	0.163	<0.500	<50.0	-
BG02@4'	4'	08/19/2025	1.33	38.9	<0.100	-	<10.0	<10.0	<10.0	0.131	<0.500	<50.0	-
BG03@4'	4'	08/19/2025	1.53	49.4	<0.100	-	<10.0	<10.0	<10.0	0.184	<0.500	<50.0	-
BG04@4'	4'	08/19/2025	1.95	71.6	<0.100	-	<10.0	<10.0	<10.0	0.176	<0.500	<50.0	-
BG05@4'	4'	08/19/2025	1.39	38.6	<0.100	-	<10.0	<10.0	<10.0	0.149	<0.500	<50.0	-
BG07@3'***	3'	08/20/2025	2.61	70.2	<0.100	<0.200	<10.0	<10.0	<10.0	0.360	<0.500	<50.0	-

TABLE 4
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - METALS
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	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)	Confirmation/Resample for Sample Location(s) ⁽³⁾
ECMC Metals in Soils - GSSL ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370	-
ECMC Metals in Soils - RSSL ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000	-
BG08@3***	3'	08/20/2025	4.56	58.2	<0.100	<0.200	<10.0	<10.0	<10.0	0.243	<0.500	<50.0	-
BG09@3***	3'	08/20/2025	1.76	48.7	<0.100	<0.200	<10.0	<10.0	<10.0	0.270	<0.500	<50.0	-
BG10@3***	3'	08/20/2025	1.85	51.3	<0.100	<0.200	<10.0	<10.0	<10.0	0.294	<0.500	<50.0	-
BG11@3***	3'	08/20/2025	2.50	93.1	<0.100	0.243	<10.0	<10.0	<10.0	0.333	<0.500	<50.0	-
BG06@4'	4'	12/17/2025	2.21	71.4	<0.124	<0.223	<12.4	<12.4	<12.4	0.346	<0.619	<61.9	-
BG07@4'	4'	12/17/2025	2.47	76.2	0.123	0.225	<11.5	<11.5	<11.5	0.390	<0.574	<57.4	-
BG08@4'	4'	12/17/2025	2.12	69.9	<0.125	<0.225	<12.5	<12.5	<12.5	0.302	<0.623	<62.3	-
BG09@4'	4'	12/17/2025	2.40	73.2	<0.111	<0.223	<11.1	<11.1	<11.1	0.438	<0.557	<55.7	-
BG10@4'	4'	12/17/2025	1.68	50.7	<0.107	<0.210	<10.7	<10.7	<10.7	0.188	<0.536	<53.6	-
BG11@4'	4'	12/17/2025	1.98	57.8	<0.117	<0.230	<11.7	<11.7	<11.7	0.850	<0.586	<58.6	-
BG01@5***	5'	06/27/2025	1.36	41.4	<0.100	<0.200	<10.0	<10.0	<10.0	0.126	<0.500	<50.0	-
BG02@5***	5'	06/27/2025	1.31	48.2	<0.100	<0.200	<10.0	<10.0	<10.0	0.145	<0.500	<50.0	-
BG03@5***	5'	06/27/2025	1.27	42.7	<0.100	<0.200	<10.0	<10.0	<10.0	0.144	<0.500	<50.0	-
BG04@5***	5'	06/27/2025	1.60	53.6	<0.100	0.256	<10.0	<10.0	<10.0	0.136	<0.500	<50.0	-
BG05@5***	5'	06/27/2025	1.67	49.1	<0.100	0.355	<10.0	<10.0	<10.0	0.212	<0.500	<50.0	-
BG06@5'	5'	12/17/2025	3.28	93.5	0.120	<0.237	<11.9	<11.9	13.3	0.547	<0.593	<59.3	-
BG07@5'	5'	12/17/2025	2.06	66.3	<0.128	<0.235	<12.8	<12.8	<12.8	0.312	<0.639	<63.9	-
BG08@5'	5'	12/17/2025	1.45	41.2	<0.114	<0.224	<11.4	<11.4	<11.4	0.324	<0.570	<57.0	-
BG09@5'	5'	12/17/2025	1.77	48.4	<0.116	<0.227	<11.6	<11.6	<11.6	0.150	<0.578	<57.8	-
BG10@5'	5'	12/17/2025	1.77	38.7	<0.106	<0.212	<10.6	<10.6	<10.6	0.816	<0.529	<52.9	-
BG11@5'	5'	12/17/2025	2.21	61.5	<0.112	<0.220	<11.2	<11.2	<11.2	0.828	<0.561	<56.1	-
BG01@6***	6'	06/27/2025	2.08	52.8	<0.100	<0.200	<10.0	<10.0	<10.0	0.126	<0.500	<50.0	-
BG02@6***	6'	06/27/2025	1.66	43.0	<0.100	<0.200	<10.0	<10.0	<10.0	0.106	<0.500	<50.0	-

TABLE 4
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - METALS
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	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)	Confirmation/Resample for Sample Location(s) ⁽³⁾
ECMC Metals in Soils - GSSL ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370	-
ECMC Metals in Soils - RSSL ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000	-
BG03@6 ^{***}	6'	06/27/2025	1.43	49.7	<0.100	<0.200	<10.0	<10.0	<10.0	0.101	<0.500	<50.0	-
BG04@6 ^{***}	6'	06/27/2025	4.11	87.3	0.152	0.276	10.4	15.4	11.3	0.460	<0.500	82.4	-
BG05@6 ^{***}	6'	06/27/2025	1.38	36.5	<0.100	<0.200	<10.0	<10.0	<10.0	0.115	<0.500	<50.0	-
BG01@6'	6'	08/19/2025	1.84	54.4	<0.100	-	<10.0	<10.0	<10.0	0.200	<0.500	<50.0	-
BG02@6'	6'	08/19/2025	1.27	42.3	<0.100	-	<10.0	<10.0	<10.0	0.137	<0.500	<50.0	-
BG03@6'	6'	08/19/2025	2.89	74.8	<0.100	-	<10.0	<10.0	<10.0	0.189	<0.500	<50.0	-
BG04@6'	6'	08/19/2025	1.50	43.5	<0.100	-	<10.0	<10.0	<10.0	0.122	<0.500	<50.0	-
BG05@6'	6'	08/19/2025	1.31	49.5	<0.100	-	<10.0	<10.0	<10.0	0.134	<0.500	<50.0	-
BG07@6 ^{***}	6'	08/20/2025	1.76	46.4	<0.100	<0.200	<10.0	<10.0	<10.0	0.216	<0.500	<50.0	-
BG08@6 ^{***}	6'	08/20/2025	1.43	33.6	<0.100	<0.200	<10.0	<10.0	<10.0	0.190	<0.500	<50.0	-
BG09@6 ^{***}	6'	08/20/2025	1.80	56.4	<0.100	<0.200	<10.0	<10.0	<10.0	0.288	<0.500	<50.0	-
BG10@6 ^{***}	6'	08/20/2025	1.65	33.0	<0.100	<0.200	<10.0	<10.0	<10.0	0.271	<0.500	<50.0	-
BG11@6 ^{***}	6'	08/20/2025	1.57	37.6	<0.100	<0.200	<10.0	<10.0	<10.0	0.212	<0.500	<50.0	-
BG06@6'	6'	12/17/2025	1.56	50.9	<0.119	<0.239	<11.9	<11.9	<11.9	0.325	<0.597	<59.7	-
BG07@6'	6'	12/17/2025	2.10	53.7	<0.127	<0.249	<12.7	<12.7	<12.7	0.374	<0.634	<63.4	-
BG08@6'	6'	12/17/2025	1.53	39.2	<0.117	<0.234	<11.7	<11.7	<11.7	0.282	<0.584	<58.4	-
BG09@6'	6'	12/17/2025	1.92	49.4	<0.117	<0.229	<11.7	<11.7	<11.7	0.159	<0.584	<58.4	-
BG10@6'	6'	12/17/2025	1.85	34.0	0.268	<0.219	<11.0	<11.0	<11.0	0.933	<0.548	<54.8	-
BG11@6'	6'	12/17/2025	1.97	57.0	<0.111	<0.223	<11.1	<11.1	<11.1	0.834	<0.557	<55.7	-
BG06@7'	7'	12/17/2025	1.11	31.2	<0.134	<0.253	<13.4	<13.4	<13.4	0.240	<0.672	<67.2	-
BG07@7'	7'	12/17/2025	1.55	37.0	<0.130	<0.245	<13.0	<13.0	<13.0	0.207	<0.649	<64.9	-
BG08@7'	7'	12/17/2025	1.68	35.5	<0.122	<0.245	<12.2	<12.2	<12.2	0.322	<0.612	<61.2	-
BG09@7'	7'	12/17/2025	1.73	71.8	<0.115	<0.230	<11.5	<11.5	<11.5	<0.115	<0.576	<57.6	-



TABLE 4
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - METALS
CRESTONE PEAK RESOURCES OPERATING, LLC

Soil Sample Location	Depth	Date	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)	Confirmation/Resample for Sample Location(s) ⁽³⁾
ECMC Metals in Soils - GSSL ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370	-
ECMC Metals in Soils - RSSL ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000	-
BG10@7'	7'	12/17/2025	2.01	39.9	<0.131	<0.247	<13.1	<13.1	<13.1	0.767	<0.654	<65.4	-
BG11@7'	7'	12/17/2025	2.26	56.6	<0.124	<0.235	<12.4	<12.4	<12.4	0.954	<0.622	<62.2	-
Highest Background @ 3 - 7' x1.25 (SM/SP)			5.70	117	0.335	0.546	13.0	19.3	16.6	1.19	-	103	-

Notes:

(1) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

(3) List sample location that exceeded ECMC Table 915-1 Standards that the confirmation/resample sample represents. Sample location resampled to confirm heterogeneous lithology or lab variability.

Samples collected on 08/19/2025 were not analyzed for Hexavalent Chromium. See the case narrative on lab reports L1891011.

ECMC = Colorado Energy & Carbon Management Commission

GSSL = Protection of Groundwater Soil Screening Level

RSSL = Residential Soil Screening Level

(<) = Analytical result is less than the indicated laboratory detection limit

Chromium (VI) = Hexavalent Chromium

mg/kg = milligrams per kilogram

SM = Silty sand

SP = Poorly graded sand

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations

Highest background concentration x1.25

Italics = Laboratory detection limit exceeds the ECMC Table 915-1 Standard

* Result exceeded the ECMC Table 915-1 standard, but was within site-specific background concentrations or confirmation/resample result was below the ECMC Table 915-1 standard or within site-specific background concentrations

** Background collected as a part of Sprague 33-9 site assessment (REM #: 37495)

- = Not applicable or constituent not analyzed

TABLE 5
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - SOIL RECLAMATION
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Soil Suitability for Reclamation⁽¹⁾			6 - 8.3	< 6	< 4	2
32-WH-B01@6'	6'	05/12/2025	8.50	0.243	0.156	<0.200
32-FL-B01@4'	4'	05/12/2025	7.02	1.16	0.207	<0.200
6-WH-B01@6'	6'	05/12/2025	9.98	2.08	0.470	<0.200
6-FL-B01@4'	4'	05/12/2025	8.16	2.96	0.327	<0.200
SP-CS01	-	05/12/2025	7.79	1.05	0.246	<0.200
32-FL-B02@3'	3'	05/12/2025	8.26	1.27	0.848	0.382
32-FL-B03@2'	2'	05/12/2025	6.60	1.00	0.239	<0.200
6-FL-B02@2'	2'	05/12/2025	7.10	0.614	0.180	<0.200
SP-CS02	-	05/12/2025	7.79	0.665	0.200	<0.200
BACKGROUND						
BG01@3'***	3'	06/27/2025	7.44	4.97	0.0709	<0.100
BG02@3'***	3'	06/27/2025	7.09	0.577	0.0852	<0.100
BG03@3'***	3'	06/27/2025	7.21	0.506	0.136	<0.100
BG04@3'***	3'	06/27/2025	7.54	0.496	0.144	<0.100
BG05@3'***	3'	06/27/2025	7.61	0.791	0.443	<0.100
BG07@3'***	3'	08/20/2025	7.50	3.90	1.030	<0.100
BG08@3'***	3'	08/20/2025	7.76	1.80	0.694	<0.100
BG09@3'***	3'	08/20/2025	7.73	0.618	0.276	<0.100
BG10@3'***	3'	08/20/2025	7.73	1.91	0.392	<0.100
BG11@3'***	3'	08/20/2025	7.48	1.14	0.224	<0.100
BG01@4'	4'	08/19/2025	7.32	0.457	0.211	0.0272
BG02@4'	4'	08/19/2025	7.43	0.575	0.265	0.0205
BG03@4'	4'	08/19/2025	8.10	2.65	0.479	0.0312
BG04@4'	4'	08/19/2025	7.41	1.72	0.275	0.0201
BG05@4'	4'	08/19/2025	7.43	1.03	0.172	<0.100
BG06@4'	4'	12/17/2025	7.82	1.78	0.255	0.0308
BG07@4'	4'	12/17/2025	7.87	1.68	0.269	<0.100
BG08@4'	4'	12/17/2025	8.37	2.09	0.299	0.0255
BG09@4'	4'	12/17/2025	7.56	2.42	0.293	<0.100
BG10@4'	4'	12/17/2025	8.44	1.85	0.218	0.0223
BG11@4'	4'	12/17/2025	7.69	2.50	0.499	0.0202
BG01@5'***	5'	06/27/2025	7.44	6.90	0.0935	<0.100

TABLE 5
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - SOIL RECLAMATION
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Soil Suitability for Reclamation⁽¹⁾			6 - 8.3	< 6	< 4	2
BG02@5'***	5'	06/27/2025	6.99	0.482	0.0917	<0.100
BG03@5'***	5'	06/27/2025	7.24	0.525	0.0848	<0.100
BG04@5'***	5'	06/27/2025	7.70	0.861	0.216	<0.100
BG05@5'***	5'	06/27/2025	7.59	0.489	0.548	<0.100
BG06@5'	5'	12/17/2025	8.13	2.41	0.260	<0.100
BG07@5'	5'	12/17/2025	8.08	2.65	0.420	<0.100
BG08@5'	5'	12/17/2025	8.14	1.69	0.237	<0.100
BG09@5'	5'	12/17/2025	8.17	1.76	0.179	<0.100
BG10@5'	5'	12/17/2025	8.30	1.66	0.172	<0.100
BG11@5'	5'	12/17/2025	6.95	2.09	0.446	<0.100
BG01@6'***	6'	06/27/2025	7.77	0.500	0.437	<0.100
BG02@6'***	6'	06/27/2025	7.57	0.460	0.303	<0.100
BG03@6'***	6'	06/27/2025	7.19	0.506	0.0933	<0.100
BG04@6'***	6'	06/27/2025	7.65	0.840	1.840	<0.100
BG05@6'***	6'	06/27/2025	7.72	0.491	0.321	<0.100
BG01@6'	6'	08/19/2025	7.82	1.61	0.323	0.0424
BG02@6'	6'	08/19/2025	7.98	1.86	0.365	0.0394
BG03@6'	6'	08/19/2025	7.80	2.73	0.472	0.0380
BG04@6'	6'	08/19/2025	7.73	2.21	0.333	0.0222
BG05@6'	6'	08/19/2025	7.38	1.28	0.177	<0.100
BG07@6'***	6'	08/20/2025	7.73	7.59	1.490	<0.100
BG08@6'***	6'	08/20/2025	8.24	4.04	0.600	<0.100
BG09@6'***	6'	08/20/2025	7.65	1.07	0.330	<0.100
BG10@6'***	6'	08/20/2025	7.51	1.32	0.259	<0.100
BG11@6'***	6'	08/20/2025	7.40	1.43	0.581	<0.100
BG06@6'	6'	12/17/2025	8.13	1.68	0.206	<0.100
BG07@6'	6'	12/17/2025	8.19	2.15	0.271	<0.100
BG08@6'	6'	12/17/2025	7.90	1.09	0.274	<0.100
BG09@6'	6'	12/17/2025	7.94	0.930	0.200	<0.100
BG10@6'	6'	12/17/2025	7.87	1.36	0.322	<0.100
BG11@6'	6'	12/17/2025	7.55	1.37	0.541	0.0219
BG06@7'	7'	12/17/2025	8.21	1.16	0.154	<0.100

TABLE 5
SPRAGUE 6-4-9 & 32-9
SOIL ANALYTICAL DATA - SOIL RECLAMATION
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Soil Suitability for Reclamation⁽¹⁾			6 - 8.3	< 6	< 4	2
BG07@7'	7'	12/17/2025	8.13	1.24	0.177	<0.100
BG08@7'	7'	12/17/2025	8.08	0.802	0.157	<0.100
BG09@7'	7'	12/17/2025	8.01	0.654	0.145	<0.100
BG10@7'	7'	12/17/2025	8.25	0.837	0.179	<0.100
BG11@7'	7'	12/17/2025	7.88	1.33	0.356	<0.100
Highest Background @ 2 - 6' (SM/SP)			8.44	7.59	1.840	0.0424

Notes:

(1) Standards for soil are taken from ECMC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)

ECMC = Colorado Energy & Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

pH = Potential of Hydrogen

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

SM = Silty sand

SP = Poorly graded sand

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Soil Suitability for Reclamation Concentrations

Highest background concentration

* Result exceeded the ECMC Table 915-1 standard, but was within site-specific background concentrations

** Background collected as a part of Sprague 33-9 site assessment (REM #: 37495)

- = Not applicable

**ATTACHMENT A
PHOTO LOG**



WELLHEAD ABANDONMENT

Photographic Log

Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Soil Sample and Screening Locations - Moisture from Plug and Abandonment Activities			Notes/Conditions: Soil Sample and Screening Locations - Moisture from Plug and Abandonment Activities		



FLOWLINE ABANDONMENT

Photographic Log

<p>NE 30 60 90 120 SE 150 S 180 111°E (T) 40°9'15"N, 104°53'32"W ±16ft ▲ 4954ft</p> <p>X 32-FL-B02@3' 12 May 2025, 11:08:22</p>			<p>S 150 180 210 SW 240 W 270 NW 300 330 236°SW (T) 40°9'15"N, 104°53'30"W ±16ft ▲ 4952ft</p> <p>X 32-FL-B03@2' 12 May 2025, 11:06:18</p>		
<p>Equipment ID: Equipment Type:</p>			<p>Equipment ID: Equipment Type:</p>		
<p>Material: Volume:</p>		<p>Contents:</p>	<p>Material: Volume:</p>		<p>Contents:</p>
<p>Notes/Conditions: Soil Sample Location</p>			<p>Notes/Conditions: Soil Sample Location</p>		



Photographic Log

<p>⊙ 221°SW (T) ● 40°9'15"N, 104°53'30"W ±16ft ▲ 4953ft</p>			<p>⊙ 296°NW (T) ● 40°9'14"N, 104°53'33"W ±16ft ▲ 4958ft</p>		
Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Soil Sample Location			Notes/Conditions: Background soil sampling location		



Photographic Log

<p>☉ 333°NW (T) ● 40°9'14"N, 104°53'33"W ±16ft ▲ 4958ft</p>			<p>☉ 356°N (T) ● 40°9'14"N, 104°53'34"W ±16ft ▲ 4958ft</p>		
<p style="text-align: right;">19 Aug 2025 14:55:29</p>			<p style="text-align: right;">19 Aug 2025 14:57:44</p>		
Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Background soil sampling location			Notes/Conditions: Background soil sampling location		



Photographic Log

<p>⊗ 332°NW (T) ● 40°9'14"N, 104°53'35"W ±16ft ▲ 4956ft</p>			<p>⊗ 301°NW (T) ● 40°9'14"N, 104°53'35"W ±16ft ▲ 4955ft</p>		
<p>19 Aug 2025, 15:00:03</p>			<p>19 Aug 2025, 15:03:05</p>		
Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Background soil sampling location			Notes/Conditions: Background soil sampling location		



Photographic Log

204°SW (T) ● 40°9'15"N, 104°53'34"W ±16ft ▲ 4951ft			342°N (T) ● 40°9'15"N, 104°53'34"W ±16ft ▲ 4951ft		
19 Aug 2025, 09:47:15			19 Aug 2025, 09:47:20		
Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Resampling locations			Notes/Conditions: Resampling location		



Photographic Log



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Background lithology			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample location			



Photographic Log

272°W (T) ● 40°9'14"N, 104°53'34"W ±16ft ▲ 4953ft			272°W (T) ● 40°9'14"N, 104°53'35"W ±16ft ▲ 4952ft		
BG07@4',5',6',7' X <small>17 Dec 2025, 10:23:13</small>			BG08@4',5',6',7' X <small>17 Dec 2025, 10:23:04</small>		
Equipment ID:			Equipment Type:		
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Soil sample location			Notes/Conditions: Soil sample location		



Photographic Log

277°W (T) ● 40°9'14"N, 104°53'35"W ±16ft ▲ 4950ft			269°W (T) ● 40°9'14"N, 104°53'35"W ±16ft ▲ 4949ft				
BG09@4',5',6',7' X			BG10@4',5',6',7' X				
17 Dec 2025, 10:22:50			17 Dec 2025, 10:22:37				
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: Soil sample location				Notes/Conditions: Soil sample location			



Photographic Log

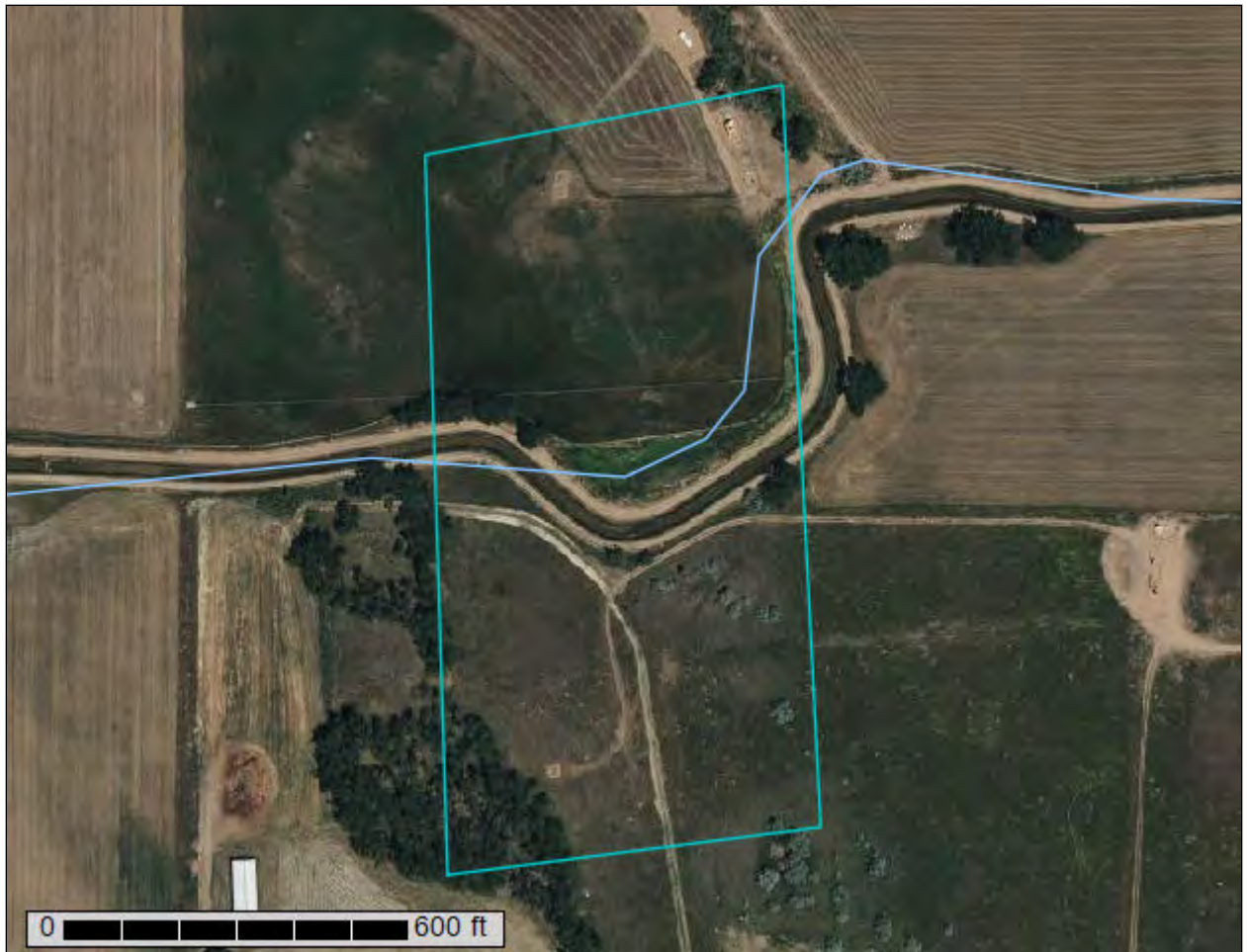


Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample location			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Background soil sample lithology			

**ATTACHMENT B
USDA SOIL SURVEY**

Custom Soil Resource Report for Weld County, Colorado, Southern Part



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map


The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)



















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Weld County, Colorado, Southern Part
 Survey Area Data: Version 24, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 8, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
35	Loup-Boel loamy sands, 0 to 3 percent slopes	1.8	9.9%
69	Valent sand, 0 to 3 percent slopes	2.4	12.8%
72	Vona loamy sand, 0 to 3 percent slopes	14.4	77.3%
Totals for Area of Interest		18.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

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landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Weld County, Colorado, Southern Part

35—Loup-Boel loamy sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 362f
Elevation: 4,550 to 4,750 feet
Mean annual precipitation: 11 to 15 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Loup and similar soils: 55 percent
Boel and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Loup

Setting

Landform: Swales, drainageways, streams
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium

Typical profile

H1 - 0 to 16 inches: loamy sand
H2 - 16 to 40 inches: loamy sand
H3 - 40 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: A/D
Ecological site: R067BY029CO - Sandy Meadow
Hydric soil rating: Yes

Description of Boel

Setting

Landform: Drainageways, streams, swales
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear
Parent material: Stratified sandy alluvium

Typical profile

H1 - 0 to 14 inches: loamy sand
H2 - 14 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: A
Ecological site: R067BY029CO - Sandy Meadow
Hydric soil rating: No

Minor Components

Osgood

Percent of map unit: 5 percent
Hydric soil rating: No

Valent

Percent of map unit: 5 percent
Hydric soil rating: No

69—Valent sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tczd
Elevation: 3,000 to 5,210 feet
Mean annual precipitation: 13 to 20 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 130 to 166 days
Farmland classification: Farmland of local importance

Map Unit Composition

Valent and similar soils: 85 percent
Minor components: 15 percent

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Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Valent

Setting

Landform: Interdunes
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Noncalcareous eolian sands

Typical profile

A - 0 to 5 inches: sand
AC - 5 to 12 inches: sand
C1 - 12 to 30 inches: sand
C2 - 30 to 80 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 39.96 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Nonsaline (0.1 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R067BY015CO - Deep Sand
Hydric soil rating: No

Minor Components

Dailey

Percent of map unit: 5 percent
Landform: Interdunes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R067BY015CO - Deep Sand
Hydric soil rating: No

Julesburg

Percent of map unit: 5 percent
Landform: Interdunes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear

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Across-slope shape: Linear
Ecological site: R067BY024CO - Sandy Plains
Hydric soil rating: No

Vona

Percent of map unit: 5 percent
Landform: Interdunes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R067BY024CO - Sandy Plains
Hydric soil rating: No

72—Vona loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 363r
Elevation: 4,600 to 5,200 feet
Mean annual precipitation: 13 to 15 inches
Mean annual air temperature: 48 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Farmland of local importance

Map Unit Composition

Vona and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vona

Setting

Landform: Terraces, plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 6 inches: loamy sand
H2 - 6 to 28 inches: fine sandy loam
H3 - 28 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

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Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Ecological site: R067BY024CO - Sandy Plains

Hydric soil rating: No

Minor Components

Remmit

Percent of map unit: 10 percent

Hydric soil rating: No

Valent

Percent of map unit: 5 percent

Hydric soil rating: No

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