



## RELEASE ASSESSMENT

Location:

**Blue 3-65 33-32-31  
39.746223, -104.657348  
Adams County, Colorado**

January 24, 2024  
Ensolum Project No. 09C2407007

Prepared for:

**Civitas, LLC  
650 Southgate Drive | Windsor, CO | 80550  
Attn: Mr. Costin McQueen**

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## **Appendix A**

### Figures

Figure 1: Topographic Map

Figure 2: Aerial Site Location Map

Figure 3: Soil Sample Location Map

## **Appendix B**

### Tables

Table 1: Photoionization Detector Reading Summary

Table 2: Soil Analytical Results Summary – VOCs

Table 3: Soil Analytical Results Summary – PAHs

Table 4: Soil Analytical Results Summary – Metals

Table 5: Soil Analytical Results Summary – Soil Reclamation

## **Appendix C: Photo Log**

## **Appendix D: Laboratory Analytical Reports & Chain-of-Custody Documentation**

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## APPENDIX A

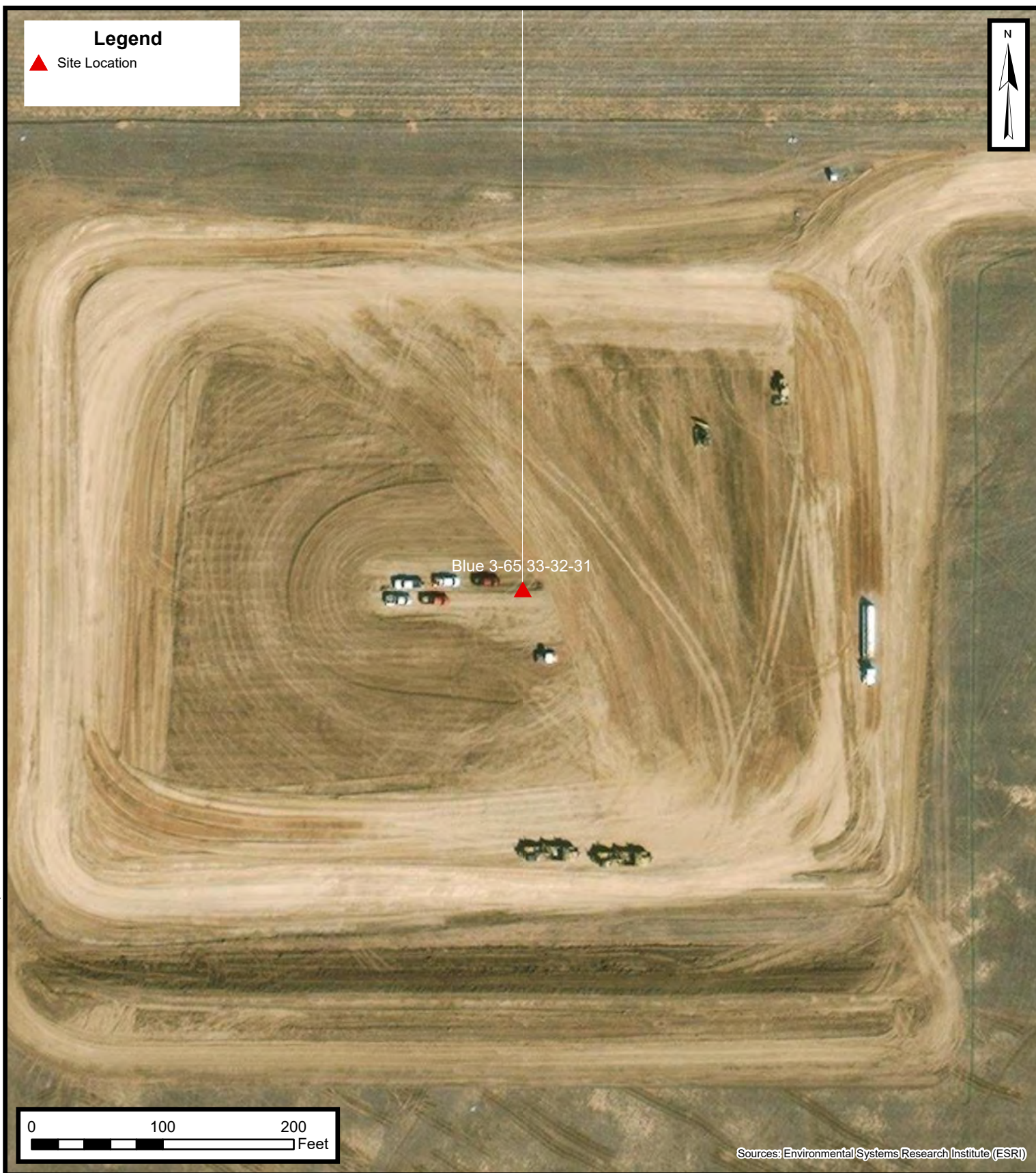
### Figures

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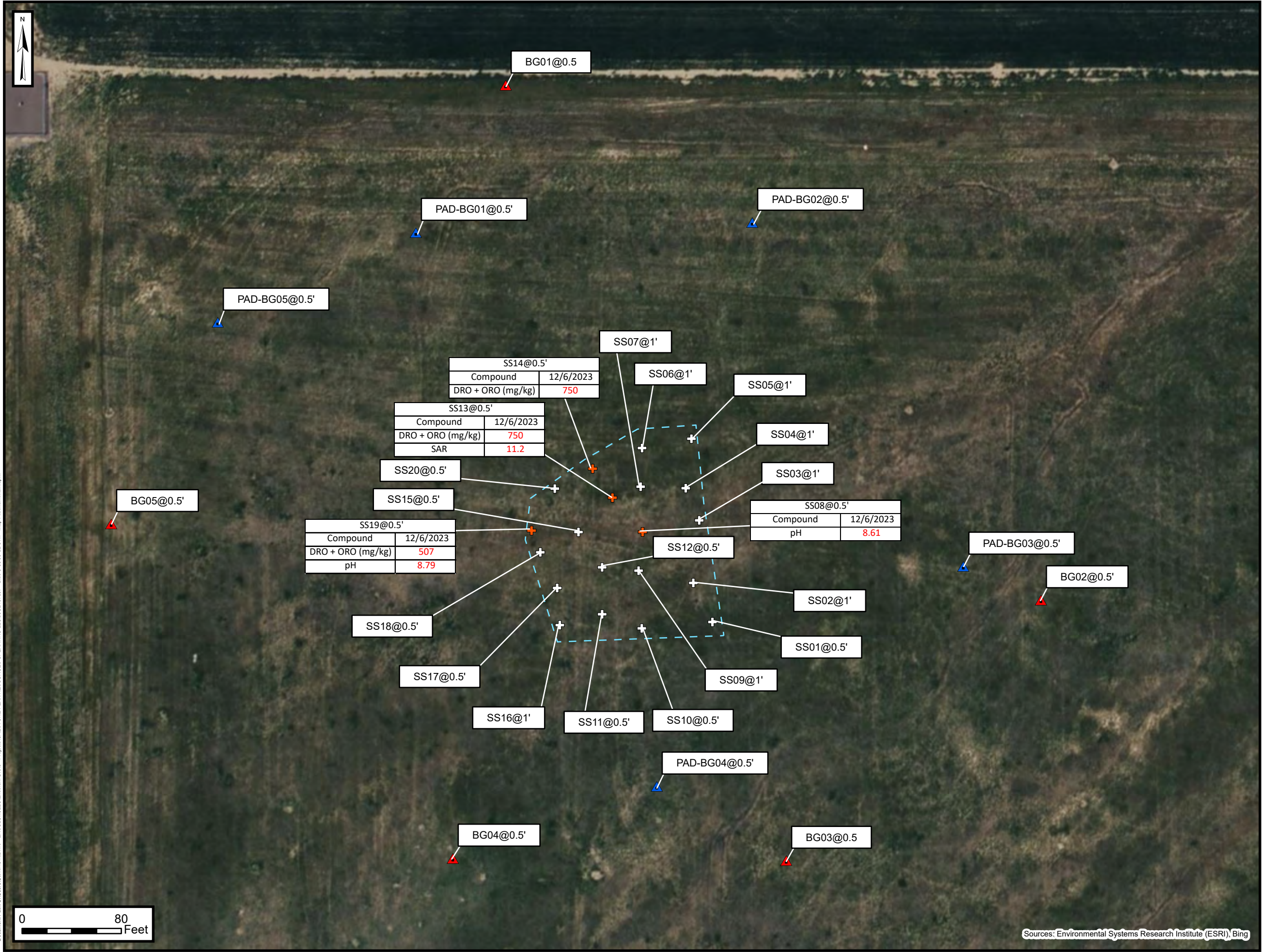


**Aerial Site Location Map**

Blue 3-65 33-32-31  
CRESTONE PEAK RESOURCES OPERATING LLC  
QTRQTR NWSW SEC 34 TWP 3S RNG 65W MERIDIAN 6  
555 17TH STREET SUITE 3700, Denver, Colorado, 80202  
Project Number: 09C2407007

**FIGURE**  
**2**





Legend

- Soil Sample Location - Below ECMC Table 915-1 Soil Standards
- Soil Sample Location - Exceeded ECMC Table 915-1 Soil Standards
- Off Pad Background Soil Sample
- On Pad Background Soil Sample
- Release Extent

ECMC Table 915-1	
Compound	Date
pH	6-8.3
SAR	<6
DRO + ORO (mg/kg)	500

Notes:  
All locations are approximate unless otherwise noted.  
All samples collected via Trimble GPS  
GPS = Global Positioning System  
ECMC – Colorado Energy & Carbon Management Commission  
mg/kg - Milligrams per kilogram  
BOLD = Analytical result is in exceedance of ECMC Table 915-1 Protection of Groundwater Soil Screening Level Concentrations

Soil Sample Location Map

CRESTONE PEAK RESOURCES OPERATING LLC  
Blue 3-65 33-32-31

555 17TH STREET SUITE 3700, Denver, Colorado, 80202  
39.746223, -104.657348

FIGURE

3

Project Number: 09C2407007





## APPENDIX B

### Tables

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Table 1 - PID Reading Summary

Site Name: Blue 3-65 33-32-31						Date: 11/16/2023, 12/6/2023, 1/5/2024					
Site Directions: E. 26th Ave. then south on access rd, Adams County, Colorado						Name: Maxwell Buffy					
Lat/Long: 39.746223, -104.657348						Weather: 59 Degrees and Sunny, 12/6/2023- 50 Degrees Partly Cloudy, 1/5/2024- 40 Degrees and Clear					
Soil Types: Road Base (RB), Sand, Clay						Surrounding Land Use: Non - Crop Land					
Soil Sample ID	Date	Time	Depth (feet bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Soil Type	Latitude	Longitude	Photos (Y/N)	Submitted For Lab Analysis (Y/N)
SS01@0.5'	11/16/2023	10:30	0.5	1.6	No Stain	Odor	RB	39.74601025	-104.657131	Y	Y
SS02@0.5'	11/16/2023	10:42	0.5	0.8	No Stain	No Odor	RB	39.74609696	-104.657186	Y	Y
SS03@0.5'	11/16/2023	10:53	0.5	4.0	No Stain	Odor	RB	39.74623542	-104.657168	Y	Y
SS04@0.5'	11/16/2023	11:05	0.5	0.7	No Stain	No Odor	RB	39.7463067	-104.657206	Y	Y
SS05@0.5'	11/16/2023	11:15	0.5	0.5	No Stain	No Odor	RB	39.74641624	-104.657189	Y	Y
SS06@0.5'	11/16/2023	11:26	0.5	0.4	No Stain	No Odor	RB	39.74639604	-104.657331	Y	Y
SS07@0.5'	11/16/2023	11:37	0.5	0.3	No Stain	No Odor	RB	39.74631049	-104.657336	Y	Y
SS08@0.5'	11/16/2023	11:47	0.5	0.3	No Stain	No Odor	RB	39.74621026	-104.657331	Y	Y
SS09@0.5'	11/16/2023	12:00	0.5	0.1	No Stain	No Odor	RB	39.74612453	-104.657342	Y	Y
SS10@0.5'	11/16/2023	12:10	0.5	1.7	No Stain	Odor	RB	39.74599677	-104.657334	Y	Y
SS11@0.5'	11/16/2023	12:20	0.5	2.3	No Stain	No Odor	RB	39.74602832	-104.657447	Y	Y
SS12@0.5'	11/16/2023	12:30	0.5	0.6	No Stain	No Odor	RB	39.74613224	-104.657447	Y	Y
SS13@0.5'	11/16/2023	12:41	0.5	0.3	No Stain	No Odor	RB	39.74628639	-104.657417	Y	Y
SS14@0.5'	11/16/2023	12:52	0.5	0.2	No Stain	No Odor	RB	39.74635073	-104.657473	Y	Y
SS15@0.5'	11/16/2023	13:10	0.5	2.1	No Stain	Odor	RB	39.74621056	-104.657514	Y	Y
SS16@0.5'	11/16/2023	13:21	0.5	1.5	No Stain	No Odor	RB	39.74600462	-104.657569	Y	Y
SS17@0.5'	11/16/2023	13:33	0.5	0.3	No Stain	No Odor	RB	39.74608695	-104.657576	Y	Y
SS18@0.5'	11/16/2023	13:43	0.5	0.2	No Stain	No Odor	RB	39.74616605	-104.657624	Y	Y
SS19@0.5'	11/16/2023	13:54	0.5	0.1	No Stain	No Odor	RB	39.7462142	-104.657649	Y	Y
SS20@0.5'	11/16/2023	14:08	0.5	0.6	No Stain	No Odor	RB	39.74630692	-104.657582	Y	Y
BG01@0.5'	11/16/2023	14:20	0.5	0.4	No Stain	No Odor	Sand	39.74720067	-104.657718	Y	Y
BG02@0.5'	11/16/2023	14:32	0.5	0.0	No Stain	No Odor	Clay/Sand	39.74605609	-104.656189	Y	Y
BG03@0.5'	11/16/2023	14:40	0.5	0.3	No Stain	No Odor	Clay/Sand	39.74548138	-104.656922	Y	Y
BG04@0.5'	11/16/2023	14:50	0.5	0.3	No Stain	No Odor	Sand	39.74548893	-104.657878	Y	Y
BG05@0.5'	11/16/2023	14:58	0.5	0.2	No Stain	No Odor	Clay/Sand	39.74623264	-104.658855	Y	Y
SS02@1'	12/6/2023	11:02	1	0.1	No Stain	No Odor	Clay	39.74609696	-104.657186	Y	Y
SS03@0.5'	12/6/2023	11:06	0.5	0.0	No Stain	No Odor	RB	39.74623542	-104.657168	Y	Y
SS04@1'	12/6/2023	11:13	1	0.0	No Stain	No Odor	Clay	39.7463067	-104.657206	Y	Y
SS05@1'	12/6/2023	11:20	1	0.0	No Stain	No Odor	Clay	39.74641624	-104.657189	Y	Y
SS06@1'	12/6/2023	11:24	1	0.2	No Stain	No Odor	Clay	39.74639604	-104.657331	Y	Y
SS07@1'	12/6/2023	11:31	1	0.1	No Stain	No Odor	Clay/Sand	39.74631049	-104.657336	Y	Y
SS08@0.5'	12/6/2023	12:32	0.5	0.1	No Stain	No Odor	RB	39.74621026	-104.657331	Y	Y
SS09@1'	12/6/2023	12:28	1	0.0	No Stain	No Odor	Clay	39.74612453	-104.657342	Y	Y
SS12@1'	12/6/2023	12:14	1	0.1	No Stain	No Odor	Clay/Sand	39.74613224	-104.657447	Y	Y
SS13@0.5'	12/6/2023	11:36	0.5	0.0	No Stain	No Odor	RB	39.74628639	-104.657417	Y	Y
SS15@0.5'	12/6/2023	12:08	0.5	0.2	No Stain	No Odor	RB	39.74621056	-104.657514	Y	Y
SS16@1'	12/6/2023	12:18	1	0.0	No Stain	No Odor	Clay/Sand	39.74600462	-104.657569	Y	Y
SS18@0.5'	12/6/2023	12:01	0.5	0.1	No Stain	No Odor	RB	39.74616605	-104.657624	Y	Y
SS19@0.5'	12/6/2023	11:55	0.5	0.0	No Stain	No Odor	Pea Gravel	39.7462142	-104.657649	Y	Y
SS20@1'	12/6/2023	11:44	1	0.0	No Stain	No Odor	Clay	39.74630692	-104.657582	Y	Y
PAD-BG01@0.5'	1/5/2024	8:55	0.5	0.1	No Stain	No Odor	RB	39.74687504	-104.657978	Y	Y
PAD-BG02@0.5'	1/5/2024	8:46	0.5	0.0	No Stain	No Odor	RB	39.74689432	-104.657013	Y	Y
PAD-BG03@0.5'	1/5/2024	9:16	0.5	0.0	No Stain	No Odor	RB	39.74613118	-104.656411	Y	Y
PAD-BG04@0.5'	1/5/2024	9:25	0.5	0.0	No Stain	No Odor	RB	39.74564683	-104.657293	Y	Y
PAD-BG05@0.5'	1/5/2024	9:05	0.5	0.0	No Stain	No Odor	RB	39.74667779	-104.658547	Y	Y



**TABLE 2**  
**SOIL ANALYTICAL RESULTS - VOCs**  
 Location: Blue 3-65 33-32-31  
 Operator: Crestone Peak Resources Operating  
 Adams County, Colorado  
 Ensolum Project No. 09C2407007

Soil Sample Location	Date	Depth (feet bgs)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Naphtalene (mg/Kg)	TPH-GRO (mg/Kg)	TPH-DRO (mg/Kg)	TPH-ORO (mg/Kg)	1,2,4-TMB (mg/Kg)	1,3,5-TMB (mg/Kg)
ECMC Organic Compounds in Soils (1)			0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
ECMC Organic Compounds in Soils (2)			1.2	490	5.8	58	2	500			30	27
Soil Samples												
SS01 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SS02 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SS03 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	110	55	<0.0050	<0.0050
SS04 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SS05 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SS06 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SS07 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SS08 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	160	<50	<0.0050	<0.0050
SS09 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SS10 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	120	<50	<0.0050	<0.0050
SS11 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	76	<50	<0.0050	<0.0050
SS12 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	120	<50	<0.0050	<0.0050
SS13 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	410	340	<0.0050	<0.0050
SS14 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	450	300	<0.0050	<0.0050
SS15 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	820	51	<0.0050	<0.0050
SS16 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	220	<50	<0.0050	<0.0050
SS17 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	220	<50	<0.0050	<0.0050
SS18 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	140	<50	<0.0050	<0.0050
SS19 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	430	77	<0.0050	<0.0050
SS20 @0.5'	11/16/2023	0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	160	<50	<0.0050	<0.0050
SS15(A)@0.5'	12/6/2023	0.5	-	-	-	-	-	<0.50	150	<50	-	-

**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 and Carbon Management Commission

(<) = 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

**TABLE 3**  
**SOIL ANALYTICAL RESULTS - PAHs**

Location: Blue 3-65 33-32-31  
Operator: Crestone Peak Resources Operating  
Adams County, Colorado  
Ensolum Project No. 09C2407007

Soil Sample Location	Date	Depth (feet bgs)	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 (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 (2)			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
SS01@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00515	<0.00500
SS02@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS03@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00821	0.00813	0.0261
SS04@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS05@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS06@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS07@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS08@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00759
SS09@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS10@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS11@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS12@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS13@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00810	0.0146
SS14@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00604
SS15@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00684
SS16@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS17@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS18@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS19@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00560
SS20@0.5'	11/16/2023	0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00526	<0.00500

**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 and Carbon Management Commission

(<) = 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 = Dibenzo(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 4**  
**SOIL ANALYTICAL RESULTS - Metals**  
 Location: Blue 3-65 33-32-31  
 Operator: Crestone Peak Resources Operating  
 Adams County, Colorado  
 Ensolum Project No. 09C2407007

Soil Sample Location	Date	Depth (feet bgs)	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)
<b>ECMC Organic Compounds in Soils (1)</b>			<b>0.29</b>	<b>82</b>	<b>0.38</b>	<b>0.00067</b>	<b>46</b>	<b>14</b>	<b>26</b>	<b>0.26</b>	<b>0.8</b>	<b>370</b>
<b>ECMC Organic Compounds in Soils (2)</b>			<b>0.68</b>	<b>15,000</b>	<b>71</b>	<b>0.3</b>	<b>3,100</b>	<b>400</b>	<b>1,500</b>	<b>390</b>	<b>390</b>	<b>23,000</b>
<b>SS01 @0.5'</b>	11/16/2023	0.5	*0.317	102	<0.200	<0.30	5.98	3.11	1.30	0.270	<0.0200	11.6
<b>SS02 @0.5'</b>	11/16/2023	0.5	*0.776	81.8	<0.200	<0.30	7.37	4.92	2.59	<0.260	0.0279	13.4
<b>SS03 @0.5'</b>	11/16/2023	0.5	*0.888	255	<0.200	<0.30	8.36	3.84	3.55	<0.260	0.0336	17.2
<b>SS04 @0.5'</b>	11/16/2023	0.5	*0.83	76.7	<0.200	<0.30	2.65	4.57	2.48	<0.260	0.0303	8.23
<b>SS05 @0.5'</b>	11/16/2023	0.5	*0.946	142	<0.200	<0.30	4.90	7.45	3.31	<0.260	0.0486	11.2
<b>SS06 @0.5'</b>	11/16/2023	0.5	*1.05	78.8	<0.200	<0.30	3.86	5.30	3.06	<0.260	0.0267	10.6
<b>SS07 @0.5'</b>	11/16/2023	0.5	*0.736	26.8	<0.200	<0.30	2.12	2.48	2.16	<0.260	<0.0200	6.91
<b>SS08 @0.5'</b>	11/16/2023	0.5	0.805	232	<0.200	<0.30	5.80	3.50	2.56	0.361	0.0238	12.5
<b>SS09 @0.5'</b>	11/16/2023	0.5	*0.611	48.7	<0.200	<0.30	7.83	3.68	2.40	<0.260	<0.0200	12.5
<b>SS10 @0.5'</b>	11/16/2023	0.5	*0.387	105	<0.200	<0.30	8.65	2.77	2.42	<0.260	<0.0200	12.9
<b>SS11 @0.5'</b>	11/16/2023	0.5	*0.388	71.4	<0.200	<0.30	7.88	2.52	1.54	<0.260	<0.0200	11.2
<b>SS12 @0.5'</b>	11/16/2023	0.5	*0.878	335	<0.200	<0.30	4.84	4.87	2.95	<0.260	0.0316	13.2
<b>SS13 @0.5'</b>	11/16/2023	0.5	*0.793	215	<0.200	<0.30	6.38	4.58	2.50	<0.260	0.0293	12.2
<b>SS14 @0.5'</b>	11/16/2023	0.5	*0.433	156	<0.200	<0.30	11.5	4.05	2.39	<0.260	0.0315	13.6
<b>SS15 @0.5'</b>	11/16/2023	0.5	*0.497	249	<0.200	<0.30	23.6	3.12	2.02	<0.260	0.0374	11.7
<b>SS16 @0.5'</b>	11/16/2023	0.5	*0.399	243	<0.200	<0.30	6.12	4.03	1.65	0.354	0.0305	8.81
<b>SS17 @0.5'</b>	11/16/2023	0.5	*0.541	160	<0.200	<0.30	9.29	3.03	2.13	<0.260	0.0221	12.3
<b>SS18 @0.5'</b>	11/16/2023	0.5	*0.763	310	<0.200	<0.30	6.44	5.39	2.69	<0.260	0.0307	12.8
<b>SS19 @0.5'</b>	11/16/2023	0.5	*0.996	277	<0.200	<0.30	4.38	3.83	2.58	<0.260	0.0202	11.4
<b>SS20 @0.5'</b>	11/16/2023	0.5	0.557	250	<0.200	<0.30	12.4	4.79	2.14	0.280	0.0420	12.7
<b>SS02 @1'</b>	12/6/2023	1	*1.13	-	-	-	-	-	-	-	-	-
<b>SS03(A) @0.5'</b>	12/6/2023	0.5	*0.843	-	-	-	-	-	-	-	-	-
<b>SS04 @1'</b>	12/6/2023	1	*1.26	-	-	-	-	-	-	-	-	-
<b>SS05 @1'</b>	12/6/2023	1	*1.05	-	-	-	-	-	-	-	-	-
<b>SS06 @1'</b>	12/6/2023	1	*0.975	-	-	-	-	-	-	-	-	-
<b>SS07 @1'</b>	12/6/2023	1	*1.14	-	-	-	-	-	-	-	-	-
<b>SS08(A) @0.5'</b>	12/6/2023	0.5	*0.791	-	-	-	-	-	-	-	-	-
<b>SS09 @1'</b>	12/6/2023	1	-	-	-	-	-	-	-	-	-	-
<b>SS13(A) @0.5'</b>	12/6/2023	0.5	*0.748	-	-	-	-	-	-	-	-	-
<b>SS15(A) @0.5'</b>	12/6/2023	0.5	-	-	-	-	-	-	-	-	-	-
<b>SS16 @1'</b>	12/6/2023	1	-	-	-	-	-	-	-	-	-	-
<b>SS18(A) @0.5'</b>	12/6/2023	0.5	*0.944	-	-	-	-	-	-	-	-	-
<b>SS19(A) @0.5'</b>	12/6/2023	0.5	*0.847	-	-	-	-	-	-	-	-	-
<b>SS20 @1'</b>	12/6/2023	1	-	-	-	-	-	-	-	-	-	-
<b>BACKGROUNDS</b>												
<b>BG01 @0.5'</b>	11/16/2023	0.5	1.04	-	-	-	-	-	-	-	-	-
<b>BG02 @0.5'</b>	11/16/2023	0.5	1.23	-	-	-	-	-	-	-	-	-
<b>BG03 @0.5'</b>	11/16/2023	0.5	1.24	-	-	-	-	-	-	-	-	-
<b>BG04 @0.5'</b>	11/16/2023	0.5	1.10	-	-	-	-	-	-	-	-	-
<b>BG05 @0.5'</b>	11/16/2023	0.5	1.17	-	-	-	-	-	-	-	-	-
<b>Highest background concentration x1.25</b>			<b>1.55</b>	-	-	-	-	-	-	-	-	-

**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)

ECMC = Colorado Energy and Carbon Management Commission

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

mg/kg = milligrams per kilogram

**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

RSSL Standards Approved.

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

\* Result exceeded the ECMC Table 915-1 standard, but was within site-specific 1.25x background multiplier levels

**TABLE 5**  
**SOIL ANALYTICAL RESULTS - Soil Reclamation**  
 Location: Blue 3-65 33-32-31  
 Operator: Crestone Peak Resources Operating  
 Adams County, Colorado  
 Ensolum Project No. 09C2407007

Soil Sample Location	Date	Depth (feet bgs)	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
<b>ECMC Organic Compounds in Soils (1)</b>			<b>6 - 8.3</b>	<b>&lt;6</b>	<b>&lt;4</b>	<b>2</b>
SS01@0.5'	11/16/2023	0.5	8.22	2.12	1.40	<2.00
SS02@0.5'	11/16/2023	0.5	8.31	1.93	0.830	<2.00
SS03@0.5'	11/16/2023	0.5	9.26	11.0	2.95	<2.00
SS04@0.5'	11/16/2023	0.5	8.50	2.95	1.43	<2.00
SS05@0.5'	11/16/2023	0.5	8.41	2.63	0.994	<2.00
SS06@0.5'	11/16/2023	0.5	9.40	2.78	1.01	<2.00
SS07@0.5'	11/16/2023	0.5	8.34	4.86	0.761	<2.00
SS08@0.5'	11/16/2023	0.5	8.53	11.7	4.62	<2.00
SS09@0.5'	11/16/2023	0.5	8.43	1.28	0.645	<2.00
SS10@0.5'	11/16/2023	0.5	8.28	1.86	1.34	<2.00
SS11@0.5'	11/16/2023	0.5	8.17	3.07	2.11	<2.00
SS12@0.5'	11/16/2023	0.5	8.28	3.29	1.46	<2.00
SS13@0.5'	11/16/2023	0.5	8.22	10.7	2.72	<2.00
SS14@0.5'	11/16/2023	0.5	8.04	2.03	2.33	<2.00
SS15@0.5'	11/16/2023	0.5	8.08	3.09	3.93	<2.00
SS16@0.5'	11/16/2023	0.5	8.17	1.65	4.08	<2.00
SS17@0.5'	11/16/2023	0.5	8.14	1.75	3.56	<2.00
SS18@0.5'	11/16/2023	0.5	8.19	5.23	3.88	<2.00
SS19@0.5'	11/16/2023	0.5	8.31	4.17	2.83	<2.00
SS20@0.5'	11/16/2023	0.5	8.21	2.07	5.09	<2.00
SS02@1'	12/6/2023	1	*8.40	-	-	-
SS03(A)@0.5'	12/6/2023	0.5	8.26	4.92	-	-
SS04@1'	12/6/2023	1	*8.49	-	-	-
SS05@1'	12/6/2023	1	*8.43	-	-	-
SS06@1'	12/6/2023	1	8.30	-	-	-
SS07@1'	12/6/2023	1	*8.54	-	-	-
SS08(A)@0.5'	12/6/2023	0.5	<b>8.61</b>	5.46	0.929	-
SS09@1'	12/6/2023	1	*8.31	-	-	-
SS13(A)@0.5'	12/6/2023	0.5	-	<b>11.2</b>	-	-
SS15(A)@0.5'	12/6/2023	0.5	-	-	-	-
SS16@1'	12/6/2023	1	-	-	0.948	-
SS18(A)@0.5'	12/6/2023	0.5	-	-	-	-
SS19(A)@0.5'	12/6/2023	0.5	<b>8.79</b>	-	-	-
SS20@1'	12/6/2023	1	-	-	0.671	-
<b>BACKGROUNDS</b>						
BG01@0.5'	11/16/2023	0.5	5.82	0.0528	0.170	-
BG02@0.5'	11/16/2023	0.5	6.48	0.449	0.136	-
BG03@0.5'	11/16/2023	0.5	6.70	0.411	0.110	-
BG04@0.5'	11/16/2023	0.5	7.38	0.516	0.231	-
BG05@0.5'	11/16/2023	0.5	6.36	0.669	0.224	-
PAD-BG01@0.5'	1/5/2024	0.5	8.08	1.68	-	-
PAD-BG02@0.5'	1/5/2024	0.5	7.88	1.43	-	-
PAD-BG03@0.5'	1/5/2024	0.5	8.36	2.14	-	-
PAD-BG04@0.5'	1/5/2024	0.5	8.59	3.47	-	-
PAD-BG05@0.5'	1/5/2024	0.5	8.54	3.41	-	-
<b>Highest on pad background concentration</b>			<b>8.59</b>	<b>3.47</b>	-	-
<b>Highest off pad background concentration</b>			<b>7.38</b>	<b>0.669</b>	-	-

**Notes:**

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

ECMC = Colorado Energy and 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

**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



## APPENDIX C

### Photo Log

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**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 1: Site Overview Facing East*



*Photo 2: Site Overview Facing North*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 3: Site Overview Facing South*



*Photo 4: Site Overview Facing West*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 5: SS01@0.5'/Soil Sample 01*



*Photo 6: SS02@0.5'/Soil Sample 02*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 7: SS03@0.5'/Soil Sample 03*



*Photo 8: SS04@0.5'/Soil Sample 04*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 9: SS05@0.5'/Soil Sample 05*



*Photo 10: SS06@0.5'/Soil Sample 06*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 11: SS07@0.5'/Soil Sample 07*



*Photo 12: SS08@0.5'/Soil Sample 08*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 13: SS09@0.5'/Soil Sample 09*



*Photo 14: SS10@0.5'/Soil Sample 10*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 15: SS11@0.5'/Soil Sample 11*



*Photo 16: SS12@0.5'/Soil Sample 12*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 17: SS13@0.5'/Soil Sample 13*



*Photo 18: SS14@0.5'/Soil Sample 14*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 19: SS15@0.5'/Soil Sample 15*



*Photo 20: SS16@0.5'/Soil Sample 16*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 21: SS17@0.5'/Soil Sample 17*



*Photo 22: SS18@0.5'/Soil Sample 18*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 23: SS19@0.5'/Soil Sample 19*



*Photo 24: SS20@0.5'/Soil Sample 20*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 25: BG01@0.5'/Background Sample 01*



*Photo 26: BG02@0.5'/Background Sample 02*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 27: BG03@0.5'/Background Sample 03*



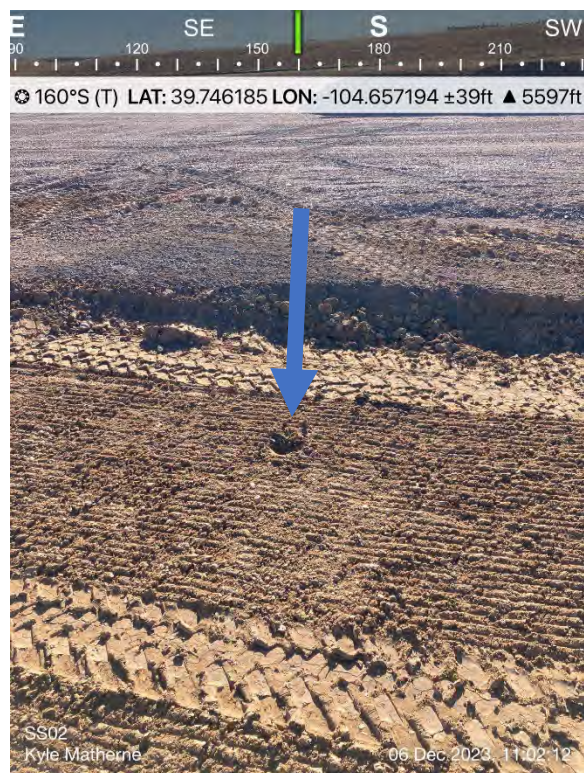
*Photo 28: BG04@0.5'/Background Sample 04*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 29: BG05@0.5'/Background Sample 05*



*Photo 30: SS02@1'/Resample 01*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



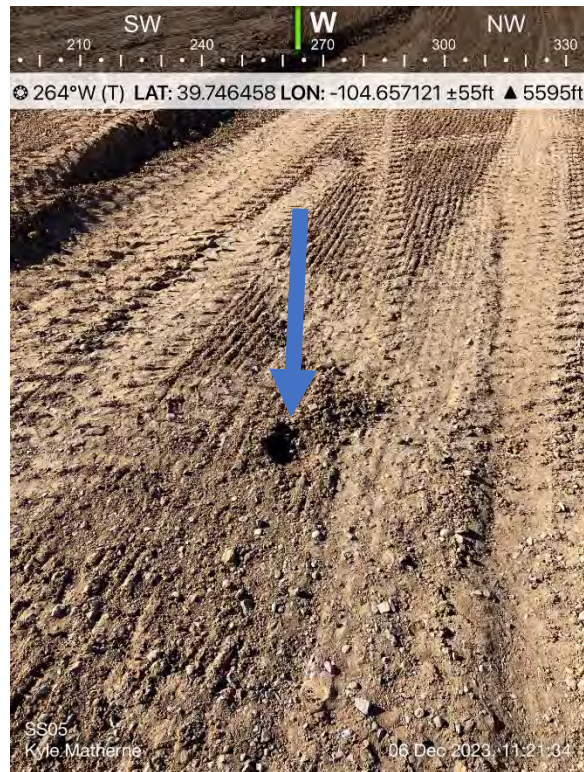
*Photo 31: SS03@0.5'/Resample 02*



*Photo 32: SS04@1'/Resample 03*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 33: SS05@1'/Resample 04*



*Photo 34: SS06@1'/Resample 05*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



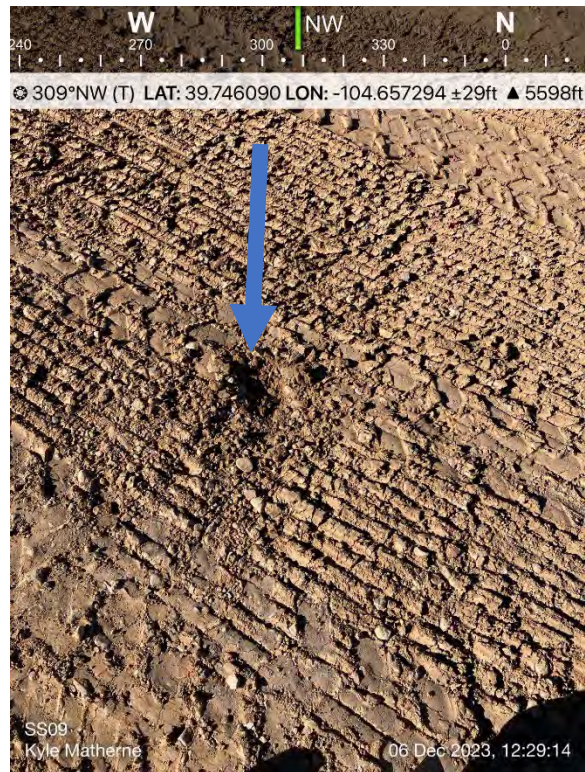
*Photo 35: SS07@1'/Resample 06*



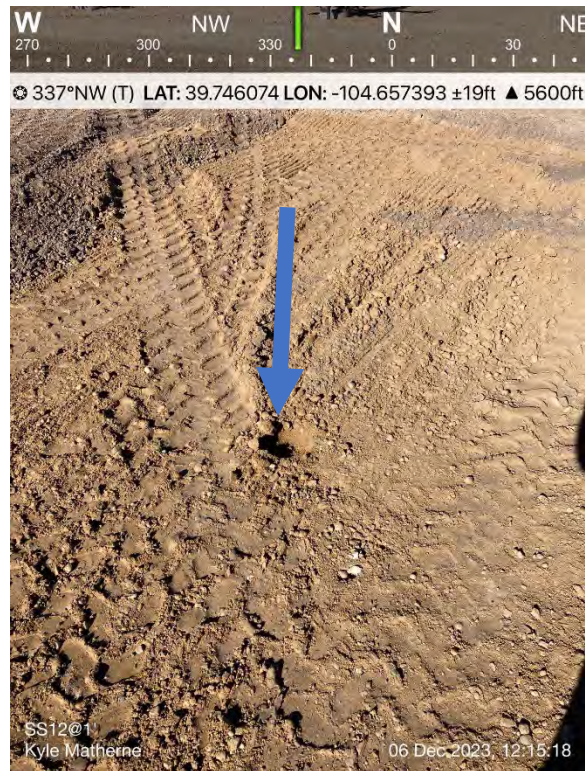
*Photo 36: SS08@0.5'/Resample 07*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 37: SS09@1'/Resample 08*



*Photo 38: SS12@1'/Resample 09*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 39: SS13@0.5'/Resample 10*



*Photo 40: SS15@0.5'/Resample 11*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 41: SS16@1'/Resample 12*



*Photo 42: SS18@0.5'/Resample 13*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 43: SS19@0.5'/Resample 14*



*Photo 44: SS20@1'/Resample 15*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 45: PAD-BG01@0.5'/Pad Background*



*Photo 46: PAD-BG02@0.5'/Pad Background*



**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 47: PAD-BG03@0.5'/Pad Background*



*Photo 48: PAD-BG04@0.5'/Pad Background*

**Photo Log**  
**Blue 3-65 33-32-31**  
**Adams County, Colorado**  
**Crestone Peak Resources Operating LLC, (Civitas Resources)**



*Photo 49: PAD-BG05@0.5'/Pad Background*



## APPENDIX D

### Laboratory Analytical Reports & Chain-of-Custody Documentation

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# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 27, 2023

Tanna Lyon

Ensolum, LLC

11049 W. 44th Ave, Ste 100

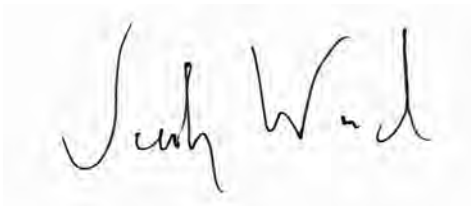
Wheat Ridge, CO 80033

RE: Civitas - Blue 3-65 33-32-31

Work Order #2311348

Enclosed are the results of analyses for samples received by Summit Scientific on 11/16/23 16:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President





Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@0.5'	2311348-01	Soil	11/16/23 00:00	11/16/23 16:25
SS02@0.5'	2311348-02	Soil	11/16/23 00:00	11/16/23 16:25
SS03@0.5'	2311348-03	Soil	11/16/23 00:00	11/16/23 16:25
SS04@0.5'	2311348-04	Soil	11/16/23 00:00	11/16/23 16:25
SS05@0.5'	2311348-05	Soil	11/16/23 00:00	11/16/23 16:25
SS06@0.5'	2311348-06	Soil	11/16/23 00:00	11/16/23 16:25
SS07@0.5'	2311348-07	Soil	11/16/23 00:00	11/16/23 16:25
SS08@0.5'	2311348-08	Soil	11/16/23 00:00	11/16/23 16:25
SS09@0.5'	2311348-09	Soil	11/16/23 00:00	11/16/23 16:25
SS10@0.5'	2311348-10	Soil	11/16/23 00:00	11/16/23 16:25
SS11@0.5'	2311348-11	Soil	11/16/23 00:00	11/16/23 16:25
SS12@0.5'	2311348-12	Soil	11/16/23 00:00	11/16/23 16:25
SS13@0.5'	2311348-13	Soil	11/16/23 00:00	11/16/23 16:25
SS14@0.5'	2311348-14	Soil	11/16/23 00:00	11/16/23 16:25
SS15@0.5'	2311348-15	Soil	11/16/23 00:00	11/16/23 16:25
SS16@0.5'	2311348-16	Soil	11/16/23 00:00	11/16/23 16:25
SS17@0.5'	2311348-17	Soil	11/16/23 00:00	11/16/23 16:25
SS18@0.5'	2311348-18	Soil	11/16/23 00:00	11/16/23 16:25
SS19@0.5'	2311348-19	Soil	11/16/23 00:00	11/16/23 16:25
SS20@0.5'	2311348-20	Soil	11/16/23 00:00	11/16/23 16:25

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 1 of 2
2311348-1	

Client: <u>Gensolum</u>	Send Data To: Project Manager: <u>Tanna Lyon</u>	Send Invoice To: Company: <u>Civitas Resources</u>
Address: <u>11049 W. 44th Ave Ste 160</u>	E-Mail: <u>tlion@gensolum.com / bsulzberger@-</u>	Project Name/Location: <u>Blue 3-65 33-32-31</u>
City/State/Zip: <u>Wheat Ridge, CO, 80033</u>	<u>gensolum.com / cmcqueen@civitasresources.com</u>	AFE#: <u>P1671 PD</u>
Phone: <u>720-363-6416</u>	Project Name: <u>Blue 3-65 33-32-31</u>	PO/Billing Codes: <u>M/M: 8520-162</u>
Sampler Name: <u>Max Bully</u>	Project Number: <u>09C2407007</u>	Contact: <u>Cosin McQueen</u>

				Preservative				Matrix				Analysis Requested				Special Instructions			
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other							
1	SS01 @ 0.5'	11/16/23		3			X			X			X						
2	SS02 @ 0.5'																		
3	SS03 @ 0.5'																		
4	SS04 @ 0.5'																		
5	SS05 @ 0.5'																		
6	SS06 @ 0.5'																		
7	SS07 @ 0.5'																		
8	SS08 @ 0.5'																		
9	SS09 @ 0.5'																		
10	SS10 @ 0.5'																		
11	SS11 @ 0.5'																		
12	SS12 @ 0.5'																		
13	SS13 @ 0.5'																		
14	SS14 @ 0.5'																		
15	SS15 @ 0.5'																		

Relinquished by: <u>Max Bully</u>	Date/Time: <u>11/16/23 16:25</u>	Received by: <u>J. W. L.</u>	Date/Time: <u>11/16/23 16:25</u>	TAT Business Days	Field DO	Notes: Don't send reports on Fridays
				Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day <input type="checkbox"/>	Field ORP	
				2 Days <input type="checkbox"/>	Field pH	
				3 Days <input type="checkbox"/>	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard <input type="checkbox"/>	Field Turb.	
Temperature Upon Receipt: <u>11.3</u>	Corrected Temperature	IR gun #: <u>2</u>	HNO3 lot #:			



# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 2 of 2
2311348.2	

Client: Ensolum		Send Data To:		Send Invoice To:	
Address: 11049 W. 44th Ave. Ste. 100		Project Manager: Tanna Lyon		Company: Civitas Resources	
City/State/Zip: Wheat Ridge, CO, 80033		E-Mail: tlyon@ensolum.com / bsulzberger@ensolum.com / cmcqueen@civitasresources.com		Project Name/Location: Blue 3-65 33-32-31	
Phone: 720-363-6416		Project Name: Blue 3-65 33-32-31		AFE#: P1671 PD	
Sampler Name: Max Buffy		Project Number: 0902407007		PO/Billing Codes: M/M: 8520.162	
				Contact: Costin McQueen	

					Preservative				Matrix				Analysis Requested							Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other _____	Water	Soil	Air-Canister #	Other _____	Full List 915-1								
1	SS 16 @ 0.5'	11/16/23		3			X			X			X								
2	SS 17 @ 0.5'	↓		↓			↓			↓			↓								
3	SS 18 @ 0.5'																				
4	SS 19 @ 0.5'																				
5	SS 20 @ 0.5'	↓		↓			↓			↓			↓								
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: Max Buffy	Date/Time: 11/16/23 16:25	Received by: J. H. V. L.	Date/Time: 11/16/23 16:25	TAT Business Days	Field DO	Notes: Don't send reports on Friday's
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day <input type="checkbox"/>	Field ORP	
				2 Days <input type="checkbox"/>	Field pH	
				3 Days <input type="checkbox"/>	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard <input type="checkbox"/>	Field Turb.	
Temperature Upon Receipt: 11.3	Corrected Temperature	IR gun #: 2	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2311348Client: Ensolym Client Project ID: Blue 3-65 33-32-31Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 11.3Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on fire
If custody seals are present, are they intact? <sup>(1)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Same day
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No Sample times
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

J. W. L.  
Custodian Printed Name

11/16/23 16:25  
Date/Time





Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS01@0.5'**  
**2311348-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0366	91.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0436	109 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0404	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.4	82.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS01@0.5'**  
**2311348-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00515</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0179	53.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0172	51.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/17/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS01@0.5'**  
**2311348-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.317	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	102	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.98	0.400	"	"	"	"	"	"
Lead	3.11	0.200	"	"	"	"	"	"
Nickel	1.30	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	11.6	0.400	"	"	"	"	"	"
Selenium	0.270	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	111	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	41.1	0.0500	"	"	"	"	"	"	
Sodium	103	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.12	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS01@0.5'**  
**2311348-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.5		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.40	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.22		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS02@0.5'**  
**2311348-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0384	95.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0402	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.9	87.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS02@0.5'**  
**2311348-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0221	66.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0210	63.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS02@0.5'**  
**2311348-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.776	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	81.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	7.37	0.400	"	"	"	"	"	"
Lead	4.92	0.200	"	"	"	"	"	"
Nickel	2.59	0.400	"	"	"	"	"	"
Silver	0.0279	0.0200	"	"	"	"	"	"
Zinc	13.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	57.1	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	28.3	0.0500	"	"	"	"	"	"	
Sodium	71.3	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.93	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS02@0.5'**  
**2311348-02 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	78.9		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.830	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.31		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS03@0.5'**  
**2311348-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0383	95.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0425	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	110	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	55	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.9	86.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS03@0.5'**  
**2311348-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.0261</b>	0.00500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.00821</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00813</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0225	67.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0207	62.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS03@0.5'**  
**2311348-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.888	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	255	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	8.36	0.400	"	"	"	"	"	"
Lead	3.84	0.200	"	"	"	"	"	"
Nickel	3.55	0.400	"	"	"	"	"	"
Silver	0.0336	0.0200	"	"	"	"	"	"
Zinc	17.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	139	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	5.98	0.0500	"	"	"	"	"	"	
Sodium	487	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	11.0	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS03@0.5'**  
**2311348-03 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.1		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.95	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.26		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS04@0.5'**  
**2311348-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0370	92.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0424	106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.7	85.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS04@0.5'**  
**2311348-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0221	66.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0241	72.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS04@0.5'**  
**2311348-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.830	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	76.7	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.65	0.400	"	"	"	"	"	"
Lead	4.57	0.200	"	"	"	"	"	"
Nickel	2.48	0.400	"	"	"	"	"	"
Silver	0.0303	0.0200	"	"	"	"	"	"
Zinc	8.23	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	80.8	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	37.8	0.0500	"	"	"	"	"	"	
Sodium	128	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.95	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS04@0.5'**  
**2311348-04 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.1		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.43	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.50		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS05@0.5'**  
**2311348-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0408	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0430	107 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.8	86.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS05@0.5'**  
**2311348-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0258	77.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0265	79.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS05@0.5'**  
**2311348-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.946	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	142	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.90	0.400	"	"	"	"	"	"
Lead	7.45	0.200	"	"	"	"	"	"
Nickel	3.31	0.400	"	"	"	"	"	"
Silver	0.0486	0.0200	"	"	"	"	"	"
Zinc	11.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	55.8	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	28.8	0.0500	"	"	"	"	"	"	
Sodium	97.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.63	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS05@0.5'**  
**2311348-05 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.8		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.994	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.41		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS06@0.5'**  
**2311348-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0380	95.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0436	109 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.4	82.9 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS06@0.5'**  
**2311348-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0272	81.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0264	79.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS06@0.5'**  
**2311348-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.05	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	78.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.86	0.400	"	"	"	"	"	"
Lead	5.30	0.200	"	"	"	"	"	"
Nickel	3.06	0.400	"	"	"	"	"	"
Silver	0.0267	0.0200	"	"	"	"	"	"
Zinc	10.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	65.6	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	29.7	0.0500	"	"	"	"	"	"	
Sodium	108	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.78	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS06@0.5'**  
**2311348-06 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	79.3		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.01	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.40		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS07@0.5'**  
**2311348-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0372	92.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0415	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.7	85.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS07@0.5'**  
**2311348-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0188	56.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0193	57.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS07@0.5'**  
**2311348-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.736	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	26.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.12	0.400	"	"	"	"	"	"
Lead	2.48	0.200	"	"	"	"	"	"
Nickel	2.16	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	6.91	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	35.3	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	3.01	0.0500	"	"	"	"	"	"	
Sodium	112	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.86	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS07@0.5'**  
**2311348-07 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.2		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.761	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.34		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS08@0.5'**  
**2311348-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0264	66.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0441	110 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0355	88.6 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	160	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.5	84.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS08@0.5'**  
**2311348-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.00759</b>	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0214	64.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0252	75.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS08@0.5'**  
**2311348-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.805	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	232	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.80	0.400	"	"	"	"	"	"
Lead	3.50	0.200	"	"	"	"	"	"
Nickel	2.56	0.400	"	"	"	"	"	"
Silver	0.0238	0.0200	"	"	"	"	"	"
Zinc	12.5	0.400	"	"	"	"	"	"
Selenium	0.361	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	176	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	23.5	0.0500	"	"	"	"	"	"	
Sodium	621	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	11.7	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Number: 09C2407007  
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**Reported:**  
11/27/23 14:02

**SS08@0.5'**  
**2311348-08 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	99.1	%	1	BGK0650	11/17/23	11/17/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.62	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.53		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS09@0.5'**  
**2311348-09 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0364	91.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0407	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.2	81.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS09@0.5'**  
**2311348-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0231	69.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0261	78.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS09@0.5'**  
**2311348-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.611	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	48.7	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	7.83	0.400	"	"	"	"	"	"
Lead	3.68	0.200	"	"	"	"	"	"
Nickel	2.40	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	43.9	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	19.6	0.0500	"	"	"	"	"	"	
Sodium	40.5	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.28	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS09@0.5'**  
**2311348-09 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>90.9</b>		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.645</b>	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.43</b>		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS10@0.5'**  
**2311348-10 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0423	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0426	106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	120	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.3	98.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: 09C2407007  
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**Reported:**  
11/27/23 14:02

**SS10@0.5'**  
**2311348-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/17/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0246	73.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0261	78.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
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Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS10@0.5'**  
**2311348-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.387	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	105	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	8.65	0.400	"	"	"	"	"	"
Lead	2.77	0.200	"	"	"	"	"	"
Nickel	2.42	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	93.6	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	32.5	0.0500	"	"	"	"	"	"	
Sodium	82.1	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.86	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS10@0.5'**  
**2311348-10 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.6		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.34	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.28		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS11@0.5'**  
**2311348-11 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0400	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0420	105 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	76	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.6	85.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS11@0.5'**  
**2311348-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0233	70.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0245	73.6 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS11@0.5'**  
**2311348-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.388	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	71.4	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	7.88	0.400	"	"	"	"	"	"
Lead	2.52	0.200	"	"	"	"	"	"
Nickel	1.54	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	11.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	124	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	46.3	0.0500	"	"	"	"	"	"	
Sodium	158	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.07	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS11@0.5'**  
**2311348-11 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.6		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.11	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS12@0.5'**  
**2311348-12 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0360	89.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0423	106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	120	50	mg/kg	1	BGK0631	11/16/23	11/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.6	84.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS12@0.5'**  
**2311348-12 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0163	48.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0176	52.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS12@0.5'**  
**2311348-12 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.878	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	335	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.84	0.400	"	"	"	"	"	"
Lead	4.87	0.200	"	"	"	"	"	"
Nickel	2.95	0.400	"	"	"	"	"	"
Silver	0.0316	0.0200	"	"	"	"	"	"
Zinc	13.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	93.6	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	10.8	0.0500	"	"	"	"	"	"	
Sodium	126	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.29	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS12@0.5'**  
**2311348-12 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.7		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.46	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.28		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
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Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS13@0.5'**  
**2311348-13 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0374	93.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0403	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	410	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	340	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.6	84.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS13@0.5'**  
**2311348-13 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.0146</b>	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00810</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0259	77.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0188	56.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS13@0.5'**  
**2311348-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.793	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	215	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	6.38	0.400	"	"	"	"	"	"
Lead	4.58	0.200	"	"	"	"	"	"
Nickel	2.50	0.400	"	"	"	"	"	"
Silver	0.0293	0.0200	"	"	"	"	"	"
Zinc	12.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	76.7	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	11.6	0.0500	"	"	"	"	"	"	
Sodium	382	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	10.7	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS13@0.5'**  
**2311348-13 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.2		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.72	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.22		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS14@0.5'**  
**2311348-14 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0410	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0424	106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	450	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	300	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.1	121 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS14@0.5'**  
**2311348-14 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.00604</b>	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0188	56.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0184	55.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS14@0.5'**  
**2311348-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.433	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	156	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	11.5	0.400	"	"	"	"	"	"
Lead	4.05	0.200	"	"	"	"	"	"
Nickel	2.39	0.400	"	"	"	"	"	"
Silver	0.0315	0.0200	"	"	"	"	"	"
Zinc	13.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	190	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	62.6	0.0500	"	"	"	"	"	"	
Sodium	126	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.03	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS14@0.5'**  
**2311348-14 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.6		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.33	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.04		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS15@0.5'**  
**2311348-15 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0304	76.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0434	108 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0428	107 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	<b>820</b>	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	<b>51</b>	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.6	101 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS15@0.5'**  
**2311348-15 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.00684</b>	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0248	74.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0245	73.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS15@0.5'**  
**2311348-15 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.497	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	249	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	23.6	0.400	"	"	"	"	"	"
Lead	3.12	0.200	"	"	"	"	"	"
Nickel	2.02	0.400	"	"	"	"	"	"
Silver	0.0374	0.0200	"	"	"	"	"	"
Zinc	11.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	284	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	65.9	0.0500	"	"	"	"	"	"	
Sodium	222	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.09	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS15@0.5'**  
**2311348-15 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.4		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.93	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.08		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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Wheat Ridge CO, 80033

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Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS16@0.5'**  
**2311348-16 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/16/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0357	89.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0443	111 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0428	107 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	220	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.4	83.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS16@0.5'**  
**2311348-16 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0147	44.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0159	47.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS16@0.5'**  
**2311348-16 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.399	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	243	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	6.12	0.400	"	"	"	"	"	"
Lead	4.03	0.200	"	"	"	"	"	"
Nickel	1.65	0.400	"	"	"	"	"	"
Silver	0.0305	0.0200	"	"	"	"	"	"
Zinc	8.81	0.400	"	"	"	"	"	"
Selenium	0.354	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	345	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	119	0.0500	"	"	"	"	"	"	
Sodium	139	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.65	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS16@0.5'**  
**2311348-16 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	96.9	%	1	BGK0650	11/17/23	11/17/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.08	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS17@0.5'**  
**2311348-17 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/17/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0339	84.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	220	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.4	98.9 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS17@0.5'**  
**2311348-17 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0192	57.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0201	60.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS17@0.5'**  
**2311348-17 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.541	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	160	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	9.29	0.400	"	"	"	"	"	"
Lead	3.03	0.200	"	"	"	"	"	"
Nickel	2.13	0.400	"	"	"	"	"	"
Silver	0.0221	0.0200	"	"	"	"	"	"
Zinc	12.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	286	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	109	0.0500	"	"	"	"	"	"	
Sodium	137	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.75	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS17@0.5'**  
**2311348-17 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	97.5		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.56	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.14		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS18@0.5'**  
**2311348-18 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/17/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0337	84.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0450	112 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	99.9 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	140	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.8	86.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS18@0.5'**  
**2311348-18 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0222	66.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0239	71.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS18@0.5'**  
**2311348-18 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.763	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	310	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	6.44	0.400	"	"	"	"	"	"
Lead	5.39	0.200	"	"	"	"	"	"
Nickel	2.69	0.400	"	"	"	"	"	"
Silver	0.0307	0.0200	"	"	"	"	"	"
Zinc	12.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	229	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	33.1	0.0500	"	"	"	"	"	"	
Sodium	320	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.23	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS18@0.5'**  
**2311348-18 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.9		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.88	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.19		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS19@0.5'**  
**2311348-19 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/17/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0237	59.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0569	142 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0299	74.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	430	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	77	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.4	83.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS19@0.5'**  
**2311348-19 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.00560</b>	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0213	63.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0229	68.8 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS19@0.5'**  
**2311348-19 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.996	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	277	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.38	0.400	"	"	"	"	"	"
Lead	3.83	0.200	"	"	"	"	"	"
Nickel	2.58	0.400	"	"	"	"	"	"
Silver	0.0202	0.0200	"	"	"	"	"	"
Zinc	11.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	203	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	23.0	0.0500	"	"	"	"	"	"	
Sodium	235	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.17	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS19@0.5'**  
**2311348-19 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	99.1		%	1	BGK0650	11/17/23	11/17/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.83	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.31		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS20@0.5'**  
**2311348-20 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGK0629	11/16/23	11/17/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0357	89.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0413	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	160	50	mg/kg	1	BGK0631	11/16/23	11/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.6	84.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS20@0.5'**  
**2311348-20 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0645	11/17/23	11/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00526</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0178	53.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0206	61.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0651	11/17/23	11/18/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS20@0.5'**  
**2311348-20 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.557	0.200	mg/kg dry	1	BGK0745	11/20/23	11/21/23	EPA 6020B
Barium	250	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	12.4	0.400	"	"	"	"	"	"
Lead	4.79	0.200	"	"	"	"	"	"
Nickel	2.14	0.400	"	"	"	"	"	"
Silver	0.0420	0.0200	"	"	"	"	"	"
Zinc	12.7	0.400	"	"	"	"	"	"
Selenium	0.280	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0659	11/17/23	11/17/23	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	559	0.0500	mg/L dry	1	BGK0634	11/16/23	11/17/23	EPA 6020B	
Magnesium	97.1	0.0500	"	"	"	"	"	"	
Sodium	202	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.07	0.00100	units	1	BGK0704	11/18/23	11/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 11/16/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**SS20@0.5'**  
**2311348-20 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	98.1	%	1	BGK0650	11/17/23	11/17/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.09	0.0100	mmhos/cm	1	BGK0636	11/17/23	11/19/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.21		pH Units	1	BGK0635	11/17/23	11/19/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch BGK0629 - EPA 5030 Soil MS

##### Blank (BGK0629-BLK1)

Prepared: 11/16/23 Analyzed: 11/17/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0358		"	0.0400		89.5	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0418		"	0.0400		105	50-150			

##### LCS (BGK0629-BS1)

Prepared: 11/16/23 Analyzed: 11/17/23

Benzene	0.0930	0.0020	mg/kg	0.100		93.0	70-130			
Toluene	0.118	0.0050	"	0.100		118	70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130			
m,p-Xylene	0.212	0.010	"	0.200		106	70-130			
o-Xylene	0.106	0.0050	"	0.100		106	70-130			
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130			
1,3,5-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130			
Naphthalene	0.0950	0.0038	"	0.100		95.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0328		"	0.0400		82.1	50-150			
Surrogate: Toluene-d8	0.0429		"	0.0400		107	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	50-150			

##### Matrix Spike (BGK0629-MS1)

Source: 2311348-01

Prepared: 11/16/23 Analyzed: 11/17/23

Benzene	0.0854	0.0020	mg/kg	0.100	ND	85.4	70-130			
Toluene	0.105	0.0050	"	0.100	ND	105	70-130			
Ethylbenzene	0.0858	0.0050	"	0.100	ND	85.8	70-130			
m,p-Xylene	0.148	0.010	"	0.200	ND	74.1	70-130			
o-Xylene	0.0843	0.0050	"	0.100	ND	84.3	70-130			
1,2,4-Trimethylbenzene	0.0532	0.0050	"	0.100	ND	53.2	70-130			QM-07
1,3,5-Trimethylbenzene	0.0736	0.0050	"	0.100	ND	73.6	70-130			
Naphthalene	0.0691	0.0038	"	0.100	ND	69.1	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0344		"	0.0400		86.1	50-150			
Surrogate: Toluene-d8	0.0433		"	0.0400		108	50-150			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	50-150			

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch BGK0629 - EPA 5030 Soil MS

Matrix Spike Dup (BGK0629-MSD1)	Source: 2311348-01			Prepared: 11/16/23 Analyzed: 11/17/23						
Benzene	0.0767	0.0020	mg/kg	0.100	ND	76.7	70-130	10.7	30	
Toluene	0.0901	0.0050	"	0.100	ND	90.1	70-130	15.0	30	
Ethylbenzene	0.0710	0.0050	"	0.100	ND	71.0	70-130	18.8	30	
m,p-Xylene	0.106	0.010	"	0.200	ND	53.1	70-130	33.1	30	QM-07
o-Xylene	0.0718	0.0050	"	0.100	ND	71.8	70-130	15.9	30	
1,2,4-Trimethylbenzene	0.0302	0.0050	"	0.100	ND	30.2	70-130	55.3	30	QM-07
1,3,5-Trimethylbenzene	0.0546	0.0050	"	0.100	ND	54.6	70-130	29.7	30	QM-07
Naphthalene	0.0535	0.0038	"	0.100	ND	53.5	70-130	25.6	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0317		"	0.0400		79.4	50-150			
Surrogate: Toluene-d8	0.0433		"	0.0400		108	50-150			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.6	50-150			

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0631 - EPA 3550A**

**Blank (BGK0631-BLK1)**

Prepared: 11/16/23 Analyzed: 11/17/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	10.1		"	12.5		80.9	30-150			

**LCS (BGK0631-BS1)**

Prepared: 11/16/23 Analyzed: 11/17/23

C10-C28 (DRO)	638	50	mg/kg	500		128	70-130			
Surrogate: o-Terphenyl	9.23		"	12.5		73.9	30-150			

**Matrix Spike (BGK0631-MS1)**

Source: 2311348-01

Prepared: 11/16/23 Analyzed: 11/17/23

C10-C28 (DRO)	692	50	mg/kg	500	27.4	133	70-130			QM-07
Surrogate: o-Terphenyl	10.8		"	12.5		86.3	30-150			

**Matrix Spike Dup (BGK0631-MSD1)**

Source: 2311348-01

Prepared: 11/16/23 Analyzed: 11/17/23

C10-C28 (DRO)	738	50	mg/kg	500	27.4	142	70-130	6.37	20	QM-07
Surrogate: o-Terphenyl	7.31		"	12.5		58.5	30-150			

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

Reporting				Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch BGK0645 - EPA 5030 Soil MS

##### Blank (BGK0645-BLK1)

Prepared & Analyzed: 11/17/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0313		"	0.0333		93.9	40-150			
Surrogate: Fluoranthene-d10	0.0298		"	0.0333		89.3	40-150			

##### LCS (BGK0645-BS1)

Prepared & Analyzed: 11/17/23

Acenaphthene	0.0288	0.00500	mg/kg	0.0333		86.3	31-137			
Anthracene	0.0300	0.00500	"	0.0333		90.0	30-120			
Benzo (a) anthracene	0.0289	0.00500	"	0.0333		86.7	30-120			
Benzo (a) pyrene	0.0289	0.00500	"	0.0333		86.6	30-120			
Benzo (b) fluoranthene	0.0290	0.00500	"	0.0333		87.0	30-120			
Benzo (k) fluoranthene	0.0290	0.00500	"	0.0333		86.9	30-120			
Chrysene	0.0302	0.00500	"	0.0333		90.7	30-120			
Dibenz (a,h) anthracene	0.0268	0.00500	"	0.0333		80.4	30-120			
Fluoranthene	0.0300	0.00500	"	0.0333		90.0	30-120			
Fluorene	0.0290	0.00500	"	0.0333		86.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0181	0.00500	"	0.0333		54.3	30-120			
Pyrene	0.0309	0.00500	"	0.0333		92.6	35-142			
1-Methylnaphthalene	0.0288	0.00500	"	0.0333		86.5	35-142			
2-Methylnaphthalene	0.0288	0.00500	"	0.0333		86.5	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0290		"	0.0333		86.9	40-150			
Surrogate: Fluoranthene-d10	0.0289		"	0.0333		86.8	40-150			

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Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0645 - EPA 5030 Soil MS**

**Matrix Spike (BGK0645-MS1)**

Source: 2311348-01

Prepared & Analyzed: 11/17/23

Acenaphthene	0.0225	0.00500	mg/kg	0.0333	ND	67.4	31-137		
Anthracene	0.0218	0.00500	"	0.0333	ND	65.3	30-120		
Benzo (a) anthracene	0.0219	0.00500	"	0.0333	ND	65.8	30-120		
Benzo (a) pyrene	0.0198	0.00500	"	0.0333	ND	59.3	30-120		
Benzo (b) fluoranthene	0.0195	0.00500	"	0.0333	ND	58.4	30-120		
Benzo (k) fluoranthene	0.0203	0.00500	"	0.0333	ND	60.9	30-120		
Chrysene	0.0220	0.00500	"	0.0333	ND	66.0	30-120		
Dibenz (a,h) anthracene	0.0177	0.00500	"	0.0333	ND	53.0	30-120		
Fluoranthene	0.0226	0.00500	"	0.0333	ND	67.8	30-120		
Fluorene	0.0245	0.00500	"	0.0333	ND	73.5	30-120		
Indeno (1,2,3-cd) pyrene	0.0237	0.00500	"	0.0333	ND	71.2	30-120		
Pyrene	0.0219	0.00500	"	0.0333	ND	65.7	35-142		
1-Methylnaphthalene	0.0209	0.00500	"	0.0333	ND	62.6	15-130		
2-Methylnaphthalene	0.0216	0.00500	"	0.0333	0.00515	49.4	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0201		"	0.0333		60.4	40-150		
Surrogate: Fluoranthene-d10	0.0219		"	0.0333		65.7	40-150		

**Matrix Spike Dup (BGK0645-MSD1)**

Source: 2311348-01

Prepared & Analyzed: 11/17/23

Acenaphthene	0.0218	0.00500	mg/kg	0.0333	ND	65.4	31-137	3.09	30	
Anthracene	0.0219	0.00500	"	0.0333	ND	65.8	30-120	0.851	30	
Benzo (a) anthracene	0.0221	0.00500	"	0.0333	ND	66.3	30-120	0.790	30	
Benzo (a) pyrene	0.0192	0.00500	"	0.0333	ND	57.7	30-120	2.77	30	
Benzo (b) fluoranthene	0.0186	0.00500	"	0.0333	ND	55.8	30-120	4.68	30	
Benzo (k) fluoranthene	0.0197	0.00500	"	0.0333	ND	59.0	30-120	3.05	30	
Chrysene	0.0220	0.00500	"	0.0333	ND	66.1	30-120	0.0788	30	
Dibenz (a,h) anthracene	0.0169	0.00500	"	0.0333	ND	50.7	30-120	4.42	30	
Fluoranthene	0.0231	0.00500	"	0.0333	ND	69.2	30-120	1.95	30	
Fluorene	0.0221	0.00500	"	0.0333	ND	66.2	30-120	10.4	30	
Indeno (1,2,3-cd) pyrene	0.0135	0.00500	"	0.0333	ND	40.6	30-120	54.6	30	QR-02
Pyrene	0.0210	0.00500	"	0.0333	ND	63.0	35-142	4.27	30	
1-Methylnaphthalene	0.0209	0.00500	"	0.0333	ND	62.7	15-130	0.219	50	
2-Methylnaphthalene	0.0212	0.00500	"	0.0333	0.00515	48.3	15-130	1.81	50	
Surrogate: 2-Methylnaphthalene-d10	0.0204		"	0.0333		61.1	40-150			
Surrogate: Fluoranthene-d10	0.0226		"	0.0333		67.9	40-150			

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0651 - EPA 3050B**

**Blank (BGK0651-BLK1)**

Prepared & Analyzed: 11/17/23

Boron ND 2.00 mg/L

**LCS (BGK0651-BS1)**

Prepared & Analyzed: 11/17/23

Boron 5.06 2.00 mg/L 5.00 101 80-120

**Duplicate (BGK0651-DUP1)**

Source: 2311348-01

Prepared & Analyzed: 11/17/23

Boron 0.0793 2.00 mg/L 0.0889 11.4 20

**Matrix Spike (BGK0651-MS1)**

Source: 2311348-01

Prepared & Analyzed: 11/17/23

Boron 5.13 2.00 mg/L 5.00 0.0889 101 75-125

**Matrix Spike Dup (BGK0651-MSD1)**

Source: 2311348-01

Prepared & Analyzed: 11/17/23

Boron 5.11 2.00 mg/L 5.00 0.0889 100 75-125 0.442 25

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0745 - EPA 3050B**

**Blank (BGK0745-BLK1)**

Prepared: 11/20/23 Analyzed: 11/21/23

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

**LCS (BGK0745-BS1)**

Prepared: 11/20/23 Analyzed: 11/21/23

Arsenic	37.7	0.200	mg/kg wet	40.0	94.2	80-120
Barium	34.9	0.400	"	40.0	87.3	80-120
Cadmium	1.73	0.200	"	2.00	86.6	80-120
Copper	39.2	0.400	"	40.0	98.0	80-120
Lead	17.6	0.200	"	20.0	88.2	80-120
Nickel	38.0	0.400	"	40.0	94.9	80-120
Silver	1.74	0.0200	"	2.00	86.8	80-120
Zinc	37.5	0.400	"	40.0	93.8	80-120
Selenium	4.17	0.260	"	4.00	104	80-120

**Duplicate (BGK0745-DUP1)**

Source: 2311348-01

Prepared: 11/20/23 Analyzed: 11/21/23

Arsenic	0.368	0.200	mg/kg dry	0.317	14.8	20	
Barium	123	0.400	"	102	18.8	20	
Cadmium	0.0506	0.200	"	0.0520	2.87	20	
Copper	7.10	0.400	"	5.98	17.1	20	
Lead	3.34	0.200	"	3.11	7.40	20	
Nickel	1.44	0.400	"	1.30	10.2	20	
Silver	0.0240	0.0200	"	0.0113	72.2	20	QR-01
Zinc	9.41	0.400	"	11.6	20.5	20	QR-04
Selenium	0.241	0.260	"	0.270	11.1	20	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0745 - EPA 3050B**

Matrix Spike (BGK0745-MS1)		Source: 2311348-01			Prepared: 11/20/23 Analyzed: 11/21/23					
Arsenic	8.84	0.200	mg/kg dry	49.1	0.317	17.4	75-125			QM-07
Barium	166	0.400	"	49.1	102	131	75-125			QM-07
Cadmium	1.95	0.200	"	2.45	0.0520	77.4	75-125			
Copper	15.9	0.400	"	49.1	5.98	20.3	75-125			QM-07
Lead	19.2	0.200	"	24.5	3.11	65.5	75-125			QM-07
Nickel	9.85	0.400	"	49.1	1.30	17.4	75-125			QM-07
Silver	1.93	0.0200	"	2.45	0.0113	78.0	75-125			
Zinc	18.9	0.400	"	49.1	11.6	14.9	75-125			QM-07
Selenium	5.08	0.260	"	4.91	0.270	97.9	75-125			

Matrix Spike Dup (BGK0745-MSD1)		Source: 2311348-01			Prepared: 11/20/23 Analyzed: 11/21/23					
Arsenic	9.10	0.200	mg/kg dry	49.1	0.317	17.9	75-125	2.92	25	QM-07
Barium	158	0.400	"	49.1	102	114	75-125	5.27	25	
Cadmium	1.84	0.200	"	2.45	0.0520	72.8	75-125	6.03	25	QM-07
Copper	16.3	0.400	"	49.1	5.98	21.0	75-125	2.27	25	QM-07
Lead	18.2	0.200	"	24.5	3.11	61.6	75-125	5.06	25	QM-07
Nickel	10.0	0.400	"	49.1	1.30	17.8	75-125	2.00	25	QM-07
Silver	1.81	0.0200	"	2.45	0.0113	73.5	75-125	5.98	25	QM-07
Zinc	19.4	0.400	"	49.1	11.6	16.0	75-125	2.69	25	QM-07
Selenium	5.10	0.260	"	4.91	0.270	98.4	75-125	0.473	25	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0659 - 3060A Mod**

**Blank (BGK0659-BLK1)**

Prepared & Analyzed: 11/17/23

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BGK0659-BS1)**

Prepared & Analyzed: 11/17/23

Chromium, Hexavalent 27.2 0.30 mg/kg wet 25.0 109 80-120

**Duplicate (BGK0659-DUP1)**

**Source: 2311348-01**

Prepared & Analyzed: 11/17/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BGK0659-MS1)**

**Source: 2311348-01**

Prepared & Analyzed: 11/17/23

Chromium, Hexavalent 29.1 0.30 mg/kg dry 30.7 ND 95.0 75-125

**Matrix Spike Dup (BGK0659-MSD1)**

**Source: 2311348-01**

Prepared & Analyzed: 11/17/23

Chromium, Hexavalent 29.4 0.30 mg/kg dry 30.7 ND 96.0 75-125 1.05 20

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0634 - General Preparation**

**Blank (BGK0634-BLK1)**

Prepared: 11/16/23 Analyzed: 11/17/23

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

**LCS (BGK0634-BS1)**

Prepared: 11/16/23 Analyzed: 11/17/23

Calcium	5.76	0.0500	mg/L wet	5.00	115	70-130
Magnesium	5.24	0.0500	"	5.00	105	70-130
Sodium	5.31	0.0500	"	5.00	106	70-130

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0650 - General Preparation**

Duplicate (BGK0650-DUP1)		Source: 2311348-01			Prepared & Analyzed: 11/17/23					
% Solids	78.7		%		81.5		3.52		20	

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0636 - General Preparation**

**Blank (BGK0636-BLK1)**

Prepared: 11/17/23 Analyzed: 11/19/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGK0636-BS1)**

Prepared: 11/17/23 Analyzed: 11/19/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

**Duplicate (BGK0636-DUP1)**

**Source: 2311348-01**

Prepared: 11/17/23 Analyzed: 11/19/23

Specific Conductance (EC) 1.40 0.0100 mmhos/cm 1.40 0.00 20

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGK0635 - General Preparation**

**LCS (BGK0635-BS1)**

Prepared: 11/17/23 Analyzed: 11/19/23

pH	9.09	pH Units	9.18	99.0	95-105
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**Duplicate (BGK0635-DUP1)**

**Source: 2311348-01**

Prepared: 11/17/23 Analyzed: 11/19/23

pH	8.22	pH Units	8.22	0.00	20
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Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
11/27/23 14:02

### Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 11, 2023

Tanna Lyon

Ensolum, LLC

11049 W. 44th Ave, Ste 100

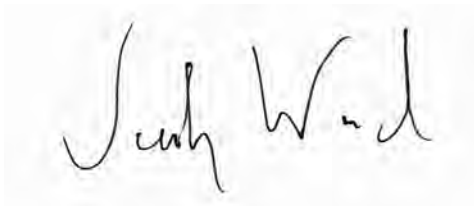
Wheat Ridge, CO 80033

RE: Civitas - Blue 3-65 33-32-31

Work Order #2311349

Enclosed are the results of analyses for samples received by Summit Scientific on 11/16/23 16:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG01@0.5'	2311349-01	Soil	11/16/23 00:00	11/16/23 16:25
BG02@0.5'	2311349-02	Soil	11/16/23 00:00	11/16/23 16:25
BG03@0.5'	2311349-03	Soil	11/16/23 00:00	11/16/23 16:25
BG04@0.5'	2311349-04	Soil	11/16/23 00:00	11/16/23 16:25
BG05@0.5'	2311349-05	Soil	11/16/23 00:00	11/16/23 16:25

Summit Scientific

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# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 1 of 1
2311349	

Client: <u>Ensolum</u>		Send Data To:		Send Invoice To:	
Address: <u>11044 W. 44th Ave. Ste 160</u>		Project Manager: <u>Tanna Lyon</u>		Company: <u>Civitas Resources</u>	
City/State/Zip: <u>Wheat Ridge, CO, 80033</u>		E-Mail: <u>tlyon@ensolum.com / bsulzberger@ensolum.com / cmcqueen@civitasresources.com</u>		Project Name/Location: <u>Blue 3-65 33-32-31</u>	
Phone: <u>720-363-6416</u>		Project Name: <u>Blue 3-65 33-32-31</u>		AFE#: <u>P1671 PD</u>	
Sampler Name: <u>Max Bufty</u>		Project Number: <u>09C2407007</u>		PO/Billing Codes: <u>M/m: 8520.162</u>	
				Contact: <u>Costin McQueen</u>	

		Preservative				Matrix				Analysis Requested				Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Full List 9/15-1		
1	BG01 @ 0.5'	11/16/23		3			X			X				on Hold ↓	
2	BG02 @ 0.5'	↓		↓			X			X					
3	BG03 @ 0.5'	↓		↓			X			X					
4	BG04 @ 0.5'	↓		↓			X			X					
5	BG05 @ 0.5'	↓		↓			X			X					
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

Relinquished by: <u>Maxwell Bufty</u>	Date/Time: <u>11/16/23 16:25</u>	Received by: <u>Josh W. d</u>	Date/Time: <u>11/16/23 16:25</u>	TAT Business Days	Field DO	Notes: Don't send reports on Fri days
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day <input type="checkbox"/>	Field ORP	
				2 Days <input type="checkbox"/>	Field pH	
				3 Days <input type="checkbox"/>	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard <input type="checkbox"/>	Field Turb.	
Temperature Upon Receipt: <u>13.0</u>	Corrected Temperature: _____	IR gun #: <u>2</u>	HNO3 lot #: _____			

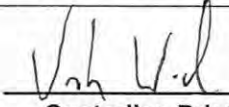
S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2311349

Client: EnSol/m Client Project ID: Ble 3-65 33-32-31Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 13.0 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on fire
If custody seals are present, are they intact? <sup>(1)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day (on hold)
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no sample times
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				
<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.				

  
 Custodian Printed Name

 11/16/23 16:25  
 Date/Time



Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG01@0.5'**  
**2311349-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: 11/16/23 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.04	0.200	mg/kg dry	1	BGL0028	12/01/23	12/02/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	71.8	0.0500	mg/L dry	1	BGL0132	12/04/23	12/06/23	EPA 6020B	
Magnesium	25.0	0.0500	"	"	"	"	"	"	
Sodium	2.04	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/16/23 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0528	0.00100	units	1	BGL0334	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 11/16/23 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.5		%	1	BGL0015	12/01/23	12/01/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: 11/16/23 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.170	0.0100	mmhos/cm	1	BGL0137	12/05/23	12/06/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG01@0.5'**  
**2311349-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>5.82</b>			pH Units	1	BGL0139	12/05/23	12/06/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG02@0.5'**  
**2311349-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.23	0.200	mg/kg dry	1	BGL0028	12/01/23	12/02/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	127	0.0500	mg/L dry	1	BGL0132	12/04/23	12/06/23	EPA 6020B	
Magnesium	81.1	0.0500	"	"	"	"	"	"	
Sodium	26.3	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.449	0.00100	units	1	BGL0334	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.2		%	1	BGL0015	12/01/23	12/01/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.136	0.0100	mmhos/cm	1	BGL0137	12/05/23	12/06/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG02@0.5'**  
**2311349-02 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>6.48</b>			pH Units	1	BGL0139	12/05/23	12/06/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG03@0.5'**  
**2311349-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.24	0.200	mg/kg dry	1	BGL0028	12/01/23	12/02/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	187	0.0500	mg/L dry	1	BGL0132	12/04/23	12/06/23	EPA 6020B	
Magnesium	123	0.0500	"	"	"	"	"	"	
Sodium	29.5	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.411	0.00100	units	1	BGL0334	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.4		%	1	BGL0015	12/01/23	12/01/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.110	0.0100	mmhos/cm	1	BGL0137	12/05/23	12/06/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Summit Scientific

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG03@0.5'**  
**2311349-03 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>6.70</b>			pH Units	1	BGL0139	12/05/23	12/06/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG04@0.5'**  
**2311349-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.10	0.200	mg/kg dry	1	BGL0028	12/01/23	12/02/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.9	0.0500	mg/L dry	1	BGL0132	12/04/23	12/06/23	EPA 6020B	
Magnesium	11.8	0.0500	"	"	"	"	"	"	
Sodium	12.9	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.516	0.00100	units	1	BGL0334	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.1		%	1	BGL0015	12/01/23	12/01/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.231	0.0100	mmhos/cm	1	BGL0137	12/05/23	12/06/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG04@0.5'**  
**2311349-04 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>7.38</b>			pH Units	1	BGL0139	12/05/23	12/06/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG05@0.5'**  
**2311349-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.17	0.200	mg/kg dry	1	BGL0028	12/01/23	12/02/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	111	0.0500	mg/L dry	1	BGL0132	12/04/23	12/06/23	EPA 6020B	
Magnesium	80.9	0.0500	"	"	"	"	"	"	
Sodium	38.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.669	0.00100	units	1	BGL0334	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.7		%	1	BGL0015	12/01/23	12/01/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.224	0.0100	mmhos/cm	1	BGL0137	12/05/23	12/06/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**BG05@0.5'**  
**2311349-05 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **11/16/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>6.36</b>			pH Units	1	BGL0139	12/05/23	12/06/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

### Total Metals by EPA 6020B - Quality Control

#### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch BGL0028 - EPA 3050B

##### Blank (BGL0028-BLK1)

Prepared: 12/01/23 Analyzed: 12/02/23

Arsenic ND 0.200 mg/kg wet

##### LCS (BGL0028-BS1)

Prepared: 12/01/23 Analyzed: 12/02/23

Arsenic 44.0 0.200 mg/kg wet 40.0 110 80-120

##### Duplicate (BGL0028-DUP1)

Source: 2310194-07

Prepared: 12/01/23 Analyzed: 12/02/23

Arsenic 0.492 0.200 mg/kg dry 0.498 1.14 20

##### Matrix Spike (BGL0028-MS1)

Source: 2310194-07

Prepared: 12/01/23 Analyzed: 12/02/23

Arsenic 22.0 0.200 mg/kg dry 40.2 0.498 53.6 75-125 QM-07

##### Matrix Spike Dup (BGL0028-MSD1)

Source: 2310194-07

Prepared: 12/01/23 Analyzed: 12/02/23

Arsenic 22.0 0.200 mg/kg dry 40.2 0.498 53.5 75-125 0.0146 25 QM-07

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0132 - General Preparation**

**Blank (BGL0132-BLK1)**

Prepared: 12/04/23 Analyzed: 12/06/23

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

**LCS (BGL0132-BS1)**

Prepared: 12/04/23 Analyzed: 12/06/23

Calcium	5.20	0.0500	mg/L wet	5.00	104	70-130
Magnesium	5.77	0.0500	"	5.00	115	70-130
Sodium	5.66	0.0500	"	5.00	113	70-130

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0015 - General Preparation**

Duplicate (BGL0015-DUP1)		Source: 2311228-01			Prepared & Analyzed: 12/01/23					
% Solids	91.7		%		91.8		0.137		20	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0137 - General Preparation**

**Blank (BGL0137-BLK1)**

Prepared: 12/05/23 Analyzed: 12/06/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGL0137-BS1)**

Prepared: 12/05/23 Analyzed: 12/06/23

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 102 95-105

**Duplicate (BGL0137-DUP1)**

**Source: 2311349-01**

Prepared: 12/05/23 Analyzed: 12/06/23

Specific Conductance (EC) 0.170 0.0100 mmhos/cm 0.170 0.00 20

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

**Batch BGL0139 - General Preparation**

**LCS (BGL0139-BS1)**

Prepared: 12/05/23 Analyzed: 12/06/23

pH	9.14	pH Units	9.18	99.6	95-105
----	------	----------	------	------	--------

**Duplicate (BGL0139-DUP1)**

**Source: 2311349-01**

Prepared: 12/05/23 Analyzed: 12/06/23

pH	5.82	pH Units	5.82	0.00	20
----	------	----------	------	------	----

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
12/11/23 10:07

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 12, 2023

Brian Sulzberger

Ensolum, LLC

11049 W. 44th Ave, Ste 100

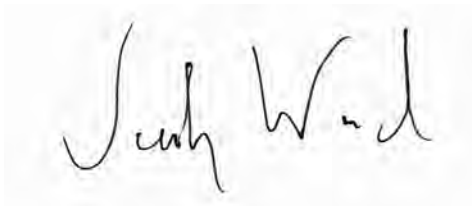
Wheat Ridge, CO 80033

RE: Civitas - Blue 3-65 33-32-31 Pad

Work Order #2312093

Enclosed are the results of analyses for samples received by Summit Scientific on 12/06/23 15:02. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President





Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS02@1'	2312093-01	Soil	12/06/23 11:02	12/06/23 15:02
SS03(A)@0.5'	2312093-02	Soil	12/06/23 11:06	12/06/23 15:02
SS04@1'	2312093-03	Soil	12/06/23 11:13	12/06/23 15:02
SS05@1'	2312093-04	Soil	12/06/23 11:20	12/06/23 15:02
SS06@1'	2312093-05	Soil	12/06/23 11:24	12/06/23 15:02
SS07@1'	2312093-06	Soil	12/06/23 11:31	12/06/23 15:02
SS08(A)@0.5'	2312093-07	Soil	12/06/23 12:32	12/06/23 15:02
SS09@1'	2312093-08	Soil	12/06/23 12:28	12/06/23 15:02
SS13(A)@0.5'	2312093-10	Soil	12/06/23 11:36	12/06/23 15:02
SS15(A)@0.5'	2312093-11	Soil	12/06/23 12:08	12/06/23 15:02
SS16@1'	2312093-12	Soil	12/06/23 12:18	12/06/23 15:02
SS18(A)@0.5'	2312093-13	Soil	12/06/23 12:01	12/06/23 15:02
SS19(A)@0.5'	2312093-14	Soil	12/06/23 11:55	12/06/23 15:02
SS20@1'	2312093-15	Soil	12/06/23 11:44	12/06/23 15:02

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# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 1 of 1
2312093	

Client: <i>Ensolum</i>		Send Data To:		Send Invoice To:	
Address:		Project Manager: <i>Brian Sulzeberger</i>		Company: <i>Civitas</i>	
City/State/Zip:		E-Mail: <i>Bsulzeberger@ensolum.com</i>		Project Name/Location: <i>Blue 3-65 33-32-31 Pod</i>	
Phone:		Project Name: <i>Blue 3-65 33-32-31 Pod</i>		AFE#: <i>P1671PD</i>	
Sampler Name: <i>Kyle Matherne</i>		Project Number: <i>09C2407007</i>		PO/Billing Codes: <i>AF M/M 8520,162</i>	
				Contact: <i>Costin McQueen</i>	

					Preservative				Matrix				Analysis Requested								Special Instructions					
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Arsenic	pH	SAR	EC	TPH									
1	SS02 @ 1'	12/6/23	1102	2			X			X			X	X												* No results sent on Friday's
2	SS03 (A) @ 0.5'		1106	1									X	X	X											
3	SS04 @ 1'		1113										X	X												
4	<del>SS05 (A) @</del> SS05 @ 1'		1120										X	X												
5	SS06 @ 1'		1124										X	X												
6	SS07 @ 1'		1131										X	X												
7	SS08 (A) @ 0.5'		1232										X	X	X	X										
8	SS09 @ 1'		1228											X												
9	<del>SS10</del> SS12 @ 1'		1214										X													
10	SS13 (A) @ 0.5'		1136	↓									X		X											
11	SS15 (A) @ 0.5'		1208	3																						
12	SS16 @ 1'		1218	2																						
13	SS18 (A) @ 0.5'		1201	1									X													
14	SS19 (A) @ 0.5'		1155	↓									X	X												
15	SS20 @ 1'	↓	1144	↓			↓										X									

Relinquished by: <i>Kyle Matherne</i>	Date/Time: <i>12/6/23 15:01</i>	Received by: <i>John Wal</i>	Date/Time: <i>12/6/23 15:02</i>	TAT Business Days	Field DO	Notes:
				Same Day	X	Field EC
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day		Field ORP
				2 Days		Field pH
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days		Field Temp.
				Standard		Field Turb.
Temperature Upon Receipt: <i>3.6</i>	Corrected Temperature	IR gun #: <i>2</i>	HNO3 lot #:			

S<sub>2</sub>

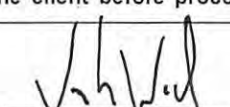
## Sample Receipt Checklist

S2 Work Order# 2312093Client: Civitas Ensolm Client Project ID: Blue 3-65 33-32-31 PndShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 3.6 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on file
If custody seals are present, are they intact? <sup>(1)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				
<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.				

  
 Custodian Printed Name

12/6/23 15:02  
 Date/Time



Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS02@1'**  
**2312093-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: 12/06/23 11:02									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.13	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 12/06/23 11:02									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.8		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: 12/06/23 11:02									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.40		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

Summit Scientific

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS03(A)@0.5'**  
**2312093-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>0.843</b>	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>197</b>	0.0500	mg/L dry	1	BGL0245	12/06/23	12/09/23	EPA 6020B	
Magnesium	<b>23.4</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>274</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	<b>4.92</b>	0.00100	units	1	BGL0425	12/12/23	12/12/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>89.9</b>		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	<b>8.26</b>		pH Units	1	BGL0251	12/07/23	12/08/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS04@1'**  
**2312093-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 11:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.26	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 11:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.6		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 11:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.49		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS05@1'**  
**2312093-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.05	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.43		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS06@1'**  
**2312093-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>0.975</b>	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>94.4</b>		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.30</b>		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS07@1'**  
**2312093-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 11:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.14	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 11:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.5		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 11:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.54		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS08(A)@0.5'**  
**2312093-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.791	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	34.4	0.0500	mg/L dry	1	BGL0245	12/06/23	12/09/23	EPA 6020B	
Magnesium	4.05	0.0500	"	"	"	"	"	"	
Sodium	127	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	5.46	0.00100	units	1	BGL0425	12/12/23	12/12/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	99.1		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	0.929	0.0100	mmhos/cm	1	BGL0249	12/07/23	12/08/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS08(A)@0.5'**  
**2312093-07 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.61</b>			pH Units	1	BGL0251	12/07/23	12/08/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

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Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS09@1'**  
**2312093-08 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 12:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.31</b>			pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS13(A)@0.5'**  
**2312093-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.748	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	51.6	0.0500	mg/L dry	1	BGL0245	12/06/23	12/09/23	EPA 6020B	
Magnesium	7.81	0.0500	"	"	"	"	"	"	
Sodium	327	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	11.2	0.00100	units	1	BGL0425	12/12/23	12/12/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	98.3		%	1	BGL0320	12/08/23	12/08/23	Calculation	

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Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS15(A)@0.5'**  
**2312093-11 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Hydrocarbons	ND	0.50	mg/kg	1	BGL0240	12/06/23	12/06/23	EPA 8260B	

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0449	112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0376	94.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.2 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>150</b>	50	mg/kg	1	BGL0241	"	12/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.3	82.1 %	30-150		"	"	"	"	

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Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS16@1'**  
**2312093-12 (Soil)**

**Summit Scientific**

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **12/06/23 12:18**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>0.948</b>	0.0100		mmhos/cm	1	BGL0281	12/07/23	12/07/23	EPA 120.1	

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS18(A)@0.5'**  
**2312093-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 12:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	<b>0.944</b>	0.200		mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 12:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	<b>97.8</b>			%	1	BGL0320	12/08/23	12/08/23	Calculation	

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Wheat Ridge CO, 80033

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Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS19(A)@0.5'**  
**2312093-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **12/06/23 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>0.847</b>	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/06/23 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>99.7</b>		%	1	BGL0320	12/08/23	12/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **12/06/23 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.79</b>		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**SS20@1'**  
**2312093-15 (Soil)**

**Summit Scientific**

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **12/06/23 11:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>0.671</b>	0.0100		mmhos/cm	1	BGL0281	12/07/23	12/07/23	EPA 120.1	

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch BGL0240 - EPA 5030 Soil MS

##### Blank (BGL0240-BLK1)

Prepared: 12/06/23 Analyzed: 12/07/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
m,p-Xylene	ND	0.010	"							
o-Xylene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0455		"	0.0400		114	50-150			
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	50-150			

##### LCS (BGL0240-BS1)

Prepared: 12/06/23 Analyzed: 12/07/23

Benzene	0.0802	0.0020	mg/kg	0.100		80.2	70-130			
Toluene	0.0760	0.0050	"	0.100		76.0	70-130			
Ethylbenzene	0.0989	0.0050	"	0.100		98.9	70-130			
m,p-Xylene	0.194	0.010	"	0.200		97.2	70-130			
o-Xylene	0.0936	0.0050	"	0.100		93.6	70-130			
1,2,4-Trimethylbenzene	0.0927	0.0050	"	0.100		92.7	70-130			
1,3,5-Trimethylbenzene	0.0936	0.0050	"	0.100		93.6	70-130			
Naphthalene	0.0930	0.0038	"	0.100		93.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0433		"	0.0400		108	50-150			
Surrogate: Toluene-d8	0.0377		"	0.0400		94.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		97.9	50-150			

##### Matrix Spike (BGL0240-MS1)

Source: 2312093-11

Prepared: 12/06/23 Analyzed: 12/07/23

Benzene	0.0982	0.0020	mg/kg	0.100	ND	98.2	70-130			
Toluene	0.0860	0.0050	"	0.100	ND	86.0	70-130			
Ethylbenzene	0.0893	0.0050	"	0.100	ND	89.3	70-130			
m,p-Xylene	0.194	0.010	"	0.200	ND	97.1	70-130			
o-Xylene	0.0857	0.0050	"	0.100	ND	85.7	70-130			
1,2,4-Trimethylbenzene	0.0908	0.0050	"	0.100	ND	90.8	70-130			
Naphthalene	0.0863	0.0038	"	0.100	ND	86.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0461		"	0.0400		115	50-150			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.7	50-150			

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Wheat Ridge CO, 80033

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Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0240 - EPA 5030 Soil MS**

Matrix Spike Dup (BGL0240-MSD1)	Source: 2312093-11			Prepared: 12/06/23 Analyzed: 12/07/23						
Benzene	0.0933	0.0020	mg/kg	0.100	ND	93.3	70-130	5.17	30	
Toluene	0.0974	0.0050	"	0.100	ND	97.4	70-130	12.5	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	11.8	30	
m,p-Xylene	0.183	0.010	"	0.200	ND	91.5	70-130	5.98	30	
o-Xylene	0.0992	0.0050	"	0.100	ND	99.2	70-130	14.6	30	
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	11.7	30	
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130	15.3	30	
Naphthalene	0.0966	0.0038	"	0.100	ND	96.6	70-130	11.2	30	
Surrogate: 1,2-Dichloroethane-d4	0.0455		"	0.0400		114	50-150			
Surrogate: Toluene-d8	0.0376		"	0.0400		93.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.2	50-150			

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0241 - EPA 3550A**

**Blank (BGL0241-BLK1)**

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	12.7		"	12.5		102	30-150			

**LCS (BGL0241-BS1)**

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	429	50	mg/kg	500		85.8	70-130			
Surrogate: o-Terphenyl	9.23		"	12.5		73.9	30-150			

**Matrix Spike (BGL0241-MS1)**

Source: 2312093-11

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	436	50	mg/kg	500	152	56.8	70-130			QM-07
Surrogate: o-Terphenyl	5.56		"	12.5		44.4	30-150			

**Matrix Spike Dup (BGL0241-MSD1)**

Source: 2312093-11

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	350	50	mg/kg	500	152	39.7	70-130	21.9	20	QM-07
Surrogate: o-Terphenyl	5.34		"	12.5		42.7	30-150			

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Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0294 - EPA 3050B**

**Blank (BGL0294-BLK1)**

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic ND 0.200 mg/kg wet

**LCS (BGL0294-BS1)**

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 42.4 0.200 mg/kg wet 40.0 106 80-120

**Duplicate (BGL0294-DUP1)**

**Source: 2312012-01**

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 0.965 0.200 mg/kg dry 0.966 0.0911 20

**Matrix Spike (BGL0294-MS1)**

**Source: 2312012-01**

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 16.8 0.200 mg/kg dry 44.0 0.966 36.1 75-125 QM-07

**Matrix Spike Dup (BGL0294-MSD1)**

**Source: 2312012-01**

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 17.4 0.200 mg/kg dry 44.0 0.966 37.4 75-125 3.41 25 QM-07

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11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

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Project Number: 09C2407007

Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0245 - General Preparation**

**Blank (BGL0245-BLK1)**

Prepared: 12/06/23 Analyzed: 12/09/23

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

**LCS (BGL0245-BS1)**

Prepared: 12/06/23 Analyzed: 12/09/23

Calcium	5.84	0.0500	mg/L wet	5.00	117	70-130
Magnesium	5.25	0.0500	"	5.00	105	70-130
Sodium	4.89	0.0500	"	5.00	97.7	70-130

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Project: Civitas - Blue 3-65 33-32-31 Pad

Project Number: 09C2407007

Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0320 - General Preparation**

Duplicate (BGL0320-DUP1)		Source: 2311618-02		Prepared & Analyzed: 12/08/23						
% Solids	84.6		%		85.2			0.684	20	

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Project: Civitas - Blue 3-65 33-32-31 Pad  
Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0249 - General Preparation**

**Blank (BGL0249-BLK1)**

Prepared: 12/07/23 Analyzed: 12/08/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGL0249-BS1)**

Prepared: 12/07/23 Analyzed: 12/08/23

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

**Duplicate (BGL0249-DUP1)**

**Source: 2312033-02**

Prepared: 12/07/23 Analyzed: 12/08/23

Specific Conductance (EC) 1.03 0.0100 mmhos/cm 1.02 0.587 20

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad

Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0251 - General Preparation**

<b>LCS (BGL0251-BS1)</b>					Prepared: 12/07/23 Analyzed: 12/08/23					
pH	9.12		pH Units	9.18		99.3	95-105			
<b>Duplicate (BGL0251-DUP1)</b>					Source: 2312033-02 Prepared: 12/07/23 Analyzed: 12/08/23					
pH	8.40		pH Units		8.40			0.00	20	

**Batch BGL0279 - General Preparation**

<b>LCS (BGL0279-BS1)</b>					Prepared & Analyzed: 12/07/23					
pH	9.12		pH Units	9.18		99.3	95-105			
<b>Duplicate (BGL0279-DUP1)</b>					Source: 2312093-01 Prepared & Analyzed: 12/07/23					
pH	8.37		pH Units		8.40			0.358	20	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad

Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013 - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BGL0281 - General Preparation**

**Blank (BGL0281-BLK1)**

Prepared & Analyzed: 12/07/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGL0281-BS1)**

Prepared & Analyzed: 12/07/23

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

**Duplicate (BGL0281-DUP1)**

**Source: 2310563-09RE2**

Prepared & Analyzed: 12/07/23

Specific Conductance (EC) 4.16 0.0100 mmhos/cm 5.22 22.5 20 I-04

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad

Project Number: 09C2407007  
Project Manager: Brian Sulzberger

**Reported:**  
12/12/23 15:53

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
I-04	Sample was analyzed out of recommended holding time per clients request.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 11, 2024

Tanna Lyon

Ensolum, LLC

11049 W. 44th Ave, Ste 100

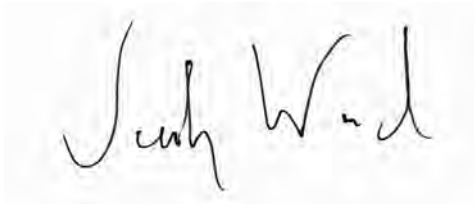
Wheat Ridge, CO 80033

RE: Civitas - Blue 3-65 33-32-31

Work Order #2401095

Enclosed are the results of analyses for samples received by Summit Scientific on 01/05/24 13:12. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Pad-BG01@0.5'	2401095-01	Soil	01/05/24 08:55	01/05/24 13:12
Pad-BG02@0.5'	2401095-02	Soil	01/05/24 08:46	01/05/24 13:12
Pad-BG03@0.5'	2401095-03	Soil	01/05/24 09:16	01/05/24 13:12
Pad-BG04@0.5'	2401095-04	Soil	01/05/24 09:25	01/05/24 13:12
Pad-BG05@0.5'	2401095-05	Soil	01/05/24 09:05	01/05/24 13:12

Summit Scientific

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# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 1 of 1
2401095	

Client: <u>Ensolum</u>		Send Data To:		Send Invoice To:	
Address: <u>11049 W. 44th Ave. Ste. 100</u>		Project Manager: <u>Tanna Lyon</u>		Company: <u>Civitas Resources</u>	
City/State/Zip: <u>Wheat Ridge, CO, 80033</u>		E-Mail: <u>tlyon@ensolum.com / bsulzberger@ensolum.com / cmcqueen@civitasresources.com</u>		Project Name/Location: <u>Blue 3-65 33-32-31</u>	
Phone: <u>720-363-6416</u>		Project Name: <u>Blue 3-65 33-32-31</u>		AFE#: <u>PI671PD</u>	
Sampler Name: <u>Maxwell Bully</u>		Project Number: <u>0902407007</u>		PO/Billing Codes: <u>8520-162</u>	
				Contact: <u>Costin McQueen</u>	

					Preservative				Matrix			Analysis Requested								Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	pH	SAR							
1	Pad - BG01 @ 0.5'	1/5/24	8:55	3			X			X			X	X							
2	Pad - BG02 @ 0.5'		8:55																		
3	Pad - BG03 @ 0.5'		9:16																		
4	Pad - BG04 @ 0.5'		9:25																		
5	Pad - BG05 @ 0.5'	✓	9:05	✓									✓	✓							
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: <u>Maxwell Bully</u>	Date/Time: <u>1/5/24 13:08</u>	Received by: <u>[Signature]</u>	Date/Time: <u>1/5/24 13:12</u>	TAT Business Days	Field DO	Notes:
				Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day <input type="checkbox"/>	Field ORP	
				2 Days <input type="checkbox"/>	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days <input type="checkbox"/>	Field Temp.	
				Standard <input type="checkbox"/>	Field Turb.	
Temperature Upon Receipt: <u>38</u>	Corrected Temperature	IR gun #: <u>2</u>	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2401095Client: Ensolum Client Project ID: Blue 3-65 33-32-31Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 38 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On ice
If custody seals are present, are they intact? <sup>(1)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Same Day
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no time stamps
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.



Custodian Printed Name

1/5/24 13:12

Date/Time



Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Pad-BG01@0.5'**  
**2401095-01 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **01/05/24 08:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	83.0	0.0500	mg/L dry	1	BHA0218	01/05/24	01/09/24	EPA 6020B	
Magnesium	20.6	0.0500	"	"	"	"	"	"	
Sodium	66.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/05/24 08:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	1.68	0.00100	units	1	BHA0338	01/09/24	01/09/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **01/05/24 08:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	96.9		%	1	BHA0229	01/08/24	01/08/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **01/05/24 08:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.08		pH Units	1	BHA0261	01/08/24	01/08/24	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Pad-BG02@0.5'**  
**2401095-02 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **01/05/24 08:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	127	0.0500	mg/L dry	1	BHA0218	01/05/24	01/09/24	EPA 6020B	
Magnesium	38.8	0.0500	"	"	"	"	"	"	
Sodium	72.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/05/24 08:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	1.43	0.00100	units	1	BHA0338	01/09/24	01/09/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **01/05/24 08:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	95.8		%	1	BHA0229	01/08/24	01/08/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **01/05/24 08:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.88		pH Units	1	BHA0261	01/08/24	01/08/24	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Pad-BG03@0.5'**  
**2401095-03 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **01/05/24 09:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	33.8	0.0500	mg/L dry	1	BHA0218	01/05/24	01/09/24	EPA 6020B	
Magnesium	6.65	0.0500	"	"	"	"	"	"	
Sodium	52.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/05/24 09:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	2.14	0.00100	units	1	BHA0338	01/09/24	01/09/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **01/05/24 09:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	94.2		%	1	BHA0229	01/08/24	01/08/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **01/05/24 09:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.36		pH Units	1	BHA0261	01/08/24	01/08/24	EPA 9045D	

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Pad-BG04@0.5'**  
**2401095-04 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **01/05/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	19.6	0.0500	mg/L dry	1	BHA0218	01/05/24	01/09/24	EPA 6020B	
Magnesium	7.29	0.0500	"	"	"	"	"	"	
Sodium	70.8	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/05/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	3.47	0.00100	units	1	BHA0338	01/09/24	01/09/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **01/05/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	91.3		%	1	BHA0229	01/08/24	01/08/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **01/05/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.59		pH Units	1	BHA0261	01/08/24	01/08/24	EPA 9045D	

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31  
Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Pad-BG05@0.5'**  
**2401095-05 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **01/05/24 09:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>29.2</b>	0.0500	mg/L dry	1	BHA0218	01/05/24	01/09/24	EPA 6020B	
Magnesium	<b>8.07</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>80.7</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/05/24 09:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	<b>3.41</b>	0.00100	units	1	BHA0338	01/09/24	01/09/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **01/05/24 09:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>95.0</b>		%	1	BHA0229	01/08/24	01/08/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **01/05/24 09:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	<b>8.54</b>		pH Units	1	BHA0261	01/08/24	01/08/24	EPA 9045D	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	

**Batch BHA0218 - General Preparation**

**Blank (BHA0218-BLK1)**

Prepared: 01/05/24 Analyzed: 01/09/24

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

**LCS (BHA0218-BS1)**

Prepared: 01/05/24 Analyzed: 01/09/24

Calcium	5.10	0.0500	mg/L wet	5.00	102	70-130
Magnesium	4.86	0.0500	"	5.00	97.2	70-130
Sodium	4.71	0.0500	"	5.00	94.2	70-130

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BHA0229 - General Preparation**

Duplicate (BHA0229-DUP1)		Source: 2312472-01			Prepared & Analyzed: 01/08/24					
% Solids	85.8		%		85.6		0.284		20	

Summit Scientific

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Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BHA0261 - General Preparation**

**LCS (BHA0261-BS1)**

Prepared & Analyzed: 01/08/24

pH	9.17	pH Units	9.18	99.9	95-105
----	------	----------	------	------	--------

**Duplicate (BHA0261-DUP1)**

**Source: 2312534-01**

Prepared & Analyzed: 01/08/24

pH	6.41	pH Units	6.39	0.312	20
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Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Ensolum, LLC  
11049 W. 44th Ave, Ste 100  
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31

Project Number: 09C2407007  
Project Manager: Tanna Lyon

**Reported:**  
01/11/24 09:06

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference