

**FOUNDATION ENERGY INC.  
LAS ANIMAS MINERALS 1-10  
FORM 27 INITIAL REPORT**

**ATTACHMENTS**

**Tables**

- 1 Volatile Organic Compound Soil Analytical Results
- 2 Polycyclic Aromatic Hydrocarbon Soil Analytical Results
- 3 Soil Suitability and Metals Soil Analytical Results

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- 1 Site Location Map
- 2 Las Animas Minerals 1-10 - Soil Sample Analytical Map

Table 1  
Las Animas Minerals 1-10  
Volatile Organic Compound (VOC) Soil Sample Results  
Cheyenne County, Colorado

Sample ID	Date Sampled	Lab Report Number	PID Reading (ppm)		Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	Naphthalene (mg/kg)		TPH (mg/kg)	Comments
ECMC Residential Soil Screening Level Standards (mg/kg) <sup>(3)</sup>	-	-	-		1.2	490	5.8	58	30	27	2		500	
ECMC Protection of Groundwater Soil Screening Level Standards <sup>(1 &amp; 2)</sup> (mg/kg)	-	-	-		0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038		500	
HA1@2'	2/21/2024	2402393	0.0		<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038		<50	
HA2@1'	2/21/2024	2402393	7.7		<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038		<50	
HA2@5'	2/21/2024	2402393R	1.2		NA	NA	NA	NA	NA	NA	NA		NA	
HA3@1'	2/21/2024	2402393	0.2		<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038		<50	
HA4@3'	2/21/2024	2402393	0.0		<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038		<50	
HA5@3'	2/21/2024	2402393	0.0		<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038		<50	
BG1@2'	2/21/2024	2402393	0.7		<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038		<50	
BG2@3'	2/21/2024	2402393	0.0		<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038		<50	

Notes:

1). The environmental cleanup standards for soil that are applicable to this site are the Colorado Energy & Carbon Management Commission (ECMC) standards for contaminants in soil according to Table 915-1 (Post January 15, 2021) of the ECMC 900 Series Rule for E&P Waste Management.

2). If there is no pathway for communication with Groundwater, then residential soil screening levels apply for organic compounds and metals. If the Director determines that a pathway to Groundwater exists, then the protection of Groundwater soil screening levels will apply, secondary to actual measured concentrations of the contaminants of concern in Groundwater.

TPH - Total volatile (C<sub>6</sub> - C<sub>10</sub>) and extractable (C<sub>10</sub> - C<sub>36</sub>) petroleum hydrocarbons.

PID - Photoionization Detector

mg/kg= Milligrams per kilogram.

ppm - Parts per million

NA - Not Analyzed

**Bold** values indicate an exceedance of ECMC Protection of Groundwater Standards

**Bold red** values indicate an exceedance of ECMC Residential Soil Standards

Table 2  
Las Animas Minerals 1-10  
Polycyclic Aromatic Hydrocarbon (PAH) Soil Sample Results  
Cheyenne County, Colorado

Sample ID	Date Sampled	Lab Report Number	PID Reading (ppm)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a) anthracene (mg/kg)	Benzo(a) pyrene (mg/kg)	Benzo(b) fluoranthene (mg/kg)	Benzo(k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Pyrene (mg/kg)	1-methylnaphthalene (mg/kg)	2-methylnaphthalene (mg/kg)	Comments
ECMC Residential Soil Screening Level Standards (mg/kg) <sup>(3)</sup>	-	-	-	360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24	
ECMC Protection of Groundwater Soil Screening Level Standards Risk & MCL Based <sup>(1 &amp; 2)</sup> (mg/kg)	-	-	-	0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019	
HA1@2'	2/21/2024	2402393	0	<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	
HA2@1'	2/21/2024	2402393	7.7	<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	
HA2@5'	2/21/2024	2402393R	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
HA3@1'	2/21/2024	2402393	0.2	<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	
HA4@3'	2/21/2024	2402393	0.0	<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	
HA5@3'	2/21/2024	2402393	0.0	<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	
BG1@2'	2/21/2024	2402393	0.7	<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	
BG2@3'	2/21/2024	2402393	0.0	<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	

Notes:

1). The environmental cleanup standards for soil that are applicable to this site are the Colorado Energy & Carbon Management Commission (ECMC) standards for contaminants in soil according to Table 915-1 (Post January 15, 2021) of the ECMC 900 Series Rule for E&P Waste Management.

2). If there is no pathway for communication with Groundwater, then residential soil screening levels apply for organic compounds and metals. If the Director determines that a pathway to Groundwater exists, then the protection of Groundwater soil screening levels will apply, secondary to actual measured concentrations of the contaminants of concern in Groundwater.

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PID - Photoionization Detector

mg/kg= Milligrams per kilogram.

ppm - Parts per million

NA - Not Analyzed

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**Bold red** values indicate an exceedance of ECMC Residential Soil Standards

Table 3  
Las Animas Minerals 1-10  
Soil Suitability and Metals Soil Sample Results  
Cheyenne County, Colorado

Sample ID	Date Sampled	Lab Report Number	PID Reading (ppm)	pH (pH units)	Specific Conductance (EC) (mmhos/cm)	Sodium Adsorption Ratio (SAR)	Boron (mg/l)	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)	Comments
ECMC Residential Soil Screening Level Standards (mg/kg) <sup>(3)</sup>	-	-	-	6-8.3	<4 mmhos/cm	<6	2 (mg/l)	0.68	15000	71	0.3	3100	400	1500	390	390	23000	
ECMC Protection of Groundwater Soil Screening Level Standards Risk & MCL Based <sup>(1 &amp; 2)</sup> (mg/kg)	-	-	-	6-8.3	<4 mmhos/cm	<6	2	0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370	
HA1@2'	2/21/2024	2402393	0.0	8.11	0.215	0.111	<2.00	5.84	148	<0.200	<0.30*	6.91	8.87	6.02	0.315	0.0286	24.2	
HA2@1'	2/21/2024	2402393	7.7	7.82	2.28	7.42	<2.00	6.08	123	0.215	<0.30*	7.27	9.19	6.19	0.353	0.0350	24.4	
HA2@5'	2/21/2024	2402393R	1.2	-	-	2.26	-	-	-	-	-	-	-	-	-	-	-	
HA3@1'	2/21/2024	2402393	0.2	8.11	1.75	3.51	<2.00	7.40	160	0.250	<0.30*	7.66	11.6	6.94	0.455	0.0548	25.9	
HA4@3'	2/21/2024	2402393	0.0	7.71	3.02	1.19	<2.00	6.35	72.5	<0.200	<0.30*	4.96	6.61	5.17	0.338	0.0238	19.2	
HA5@3'	2/21/2024	2402393	0.0	7.78	3.170	1.52	<2.00	10.5	229	0.265	<0.30*	7.87	12.4	8.27	0.497	0.0485	27.5	
BG1@2'	2/21/2024	2402393	0.7	8.11	0.594	0.490	<2.00	7.91	202	0.327	<0.30*	8.47	13.6	7.93	0.408	0.0622	30.2	
BG2@3'	2/21/2024	2402393	0.0	7.77	3.07	2.45	<2.00	5.89	136	0.428	<0.30*	7.63	18.0	10.2	0.957	0.0750	48.2	

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\* Compound falls within ECMC Table 915-1 Footnote 9.

mg/kg= Milligrams per kilogram.

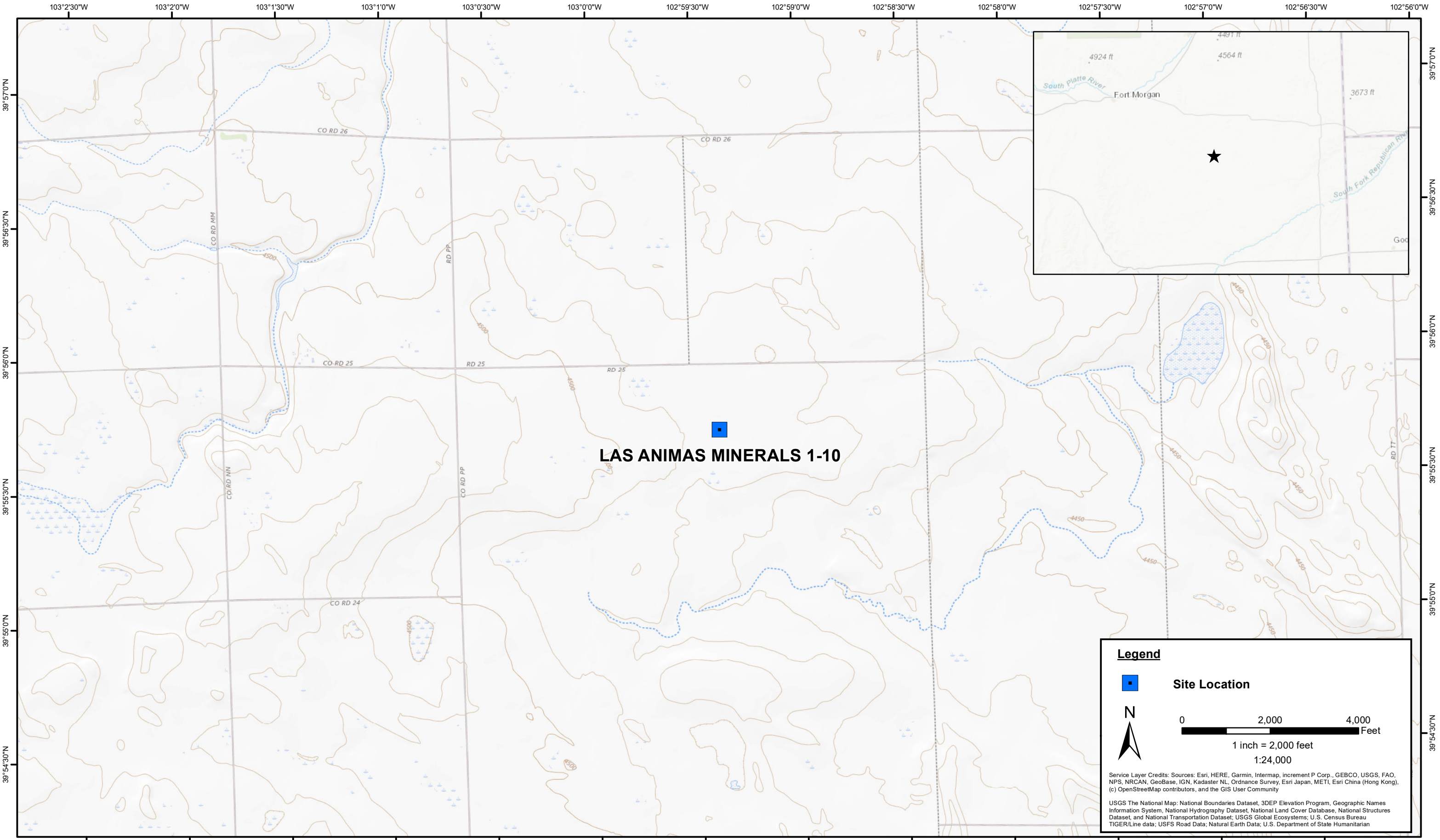
ppm - Parts per million

PID - Photoionization Detector

NA - Not Analyzed

**Bold** values indicate metals concentrations greater than the ECMC Protection of Groundwater Standard.

**Bold red** values indicate an exceedance of the ECMCResidential Soil Standard for the Site.



DATE:  
February 2024

DESIGNED BY:  
J. Watts

DRAWN BY:  
J. Clonts



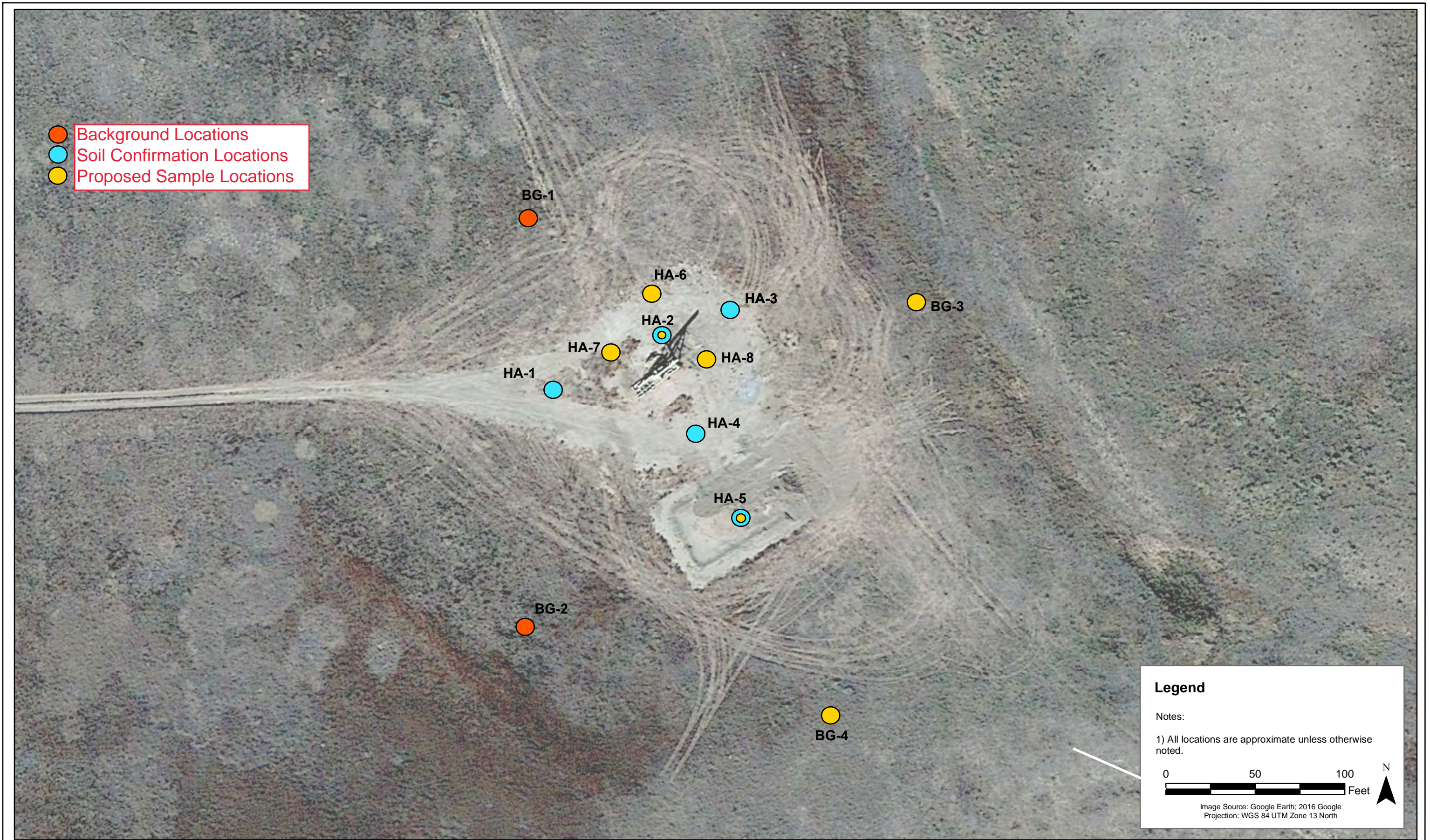
**Tasman, Inc.**  
**6855 W. 119th Ave**  
**Broomfield, CO 80020**


**Foundation Energy**  
**LAS ANIMAS MINERALS 1-10**  
SWNW, Section 33, Township 1 North, Range 50W  
Washington County, Colorado

Site Location Map

Figure  
1





DATE: June 2024	 <b>Tasman, Inc.</b> 6855 W. 119th Ave Broomfield, CO 80020	<b>Foundation Energy</b> <b>LAS ANIMAS MINERALS 1-10</b> SWNW, Section 33, Township 1 North, Range 50W Cheyenne County, Colorado	Site Overview Map with Proposed Soil Sample Locations	<b>FIGURE</b> <b>2</b>
DESIGNED BY: J. Watts				
DRAWN BY: J. Clonts				