



6825 Silver Ponds Heights #101
Colorado Springs, CO 80908
(719) 481-4560

Were you able to receive a permit

PROFILE PIT EVALUATION
FOR
LAURIA CONSTRUCTION LLC
JOB #22-0149

6555 Cowboy Ranch View,
El Paso County,
Colorado

Sincerely,


Charles E. Milligan, P.E.



PROFILE PIT FINDINGS

Enclosed are the results of the profile pit for the septic system to be installed at **6555 Cowboy Ranch View, El Paso County, Colorado**. The location of the test pits was determined by Lauria Construction LLC. The residence will not be on a public water system. The number of bedrooms in the design for the residence is unknown. Due to the natural slope of the property, the system using Profile Pits #1 and #2 will feed to the west at approximately 4% and the system using Profile Pits #3 and #4 will feed to the west at approximately 3% in Profile Pits #3 & 4 for at least 20 feet. All applicable portions of the El Paso County Public Health Department Onsite Wastewater Treatment System Regulations (OWTS) must be complied with for the installation of the treatment system.

The inspection was performed on February 17, 2022, in accordance with Table 10-1 of the **E.P.C.P.H. OWTS Regulations**.

Soil Profile #1:

- 0 to 6"** - Topsoil - loam, organic composition.
- 6" to 47"** - USDA soil texture sandy loam, soil type 2A, structure shape granular, structure grade 1, non-cemented, LTAR 0.50, yellowish brown in color, 10 YR 5/4, soil type 2A with 5% rock.
- 47" to 8'** - USDA soil texture sandy clay loam, soil type 3, structure shape blocky, structure grade 2, non-cemented, LTAR 0.35, yellowish brown in color, 10 YR 5/4, soil type 3 with 7% rock.

Soil Profile #2:

- 0 to 6"** - Topsoil - loam, organic composition.
- 6" to 64"** - USDA soil texture sandy loam, soil type 2A, structure shape granular, structure grade 1, non-cemented, LTAR 0.50, yellowish brown in color, 10 YR 5/4, soil type 2A with 11% rock.
- 64" to 8'** - USDA soil texture sandy loam, soil type 2, structure shape granular, structure grade 2, non-cemented, LTAR 0.60, very pale brown in color, 10 YR 7/4, soil type 2 with 4% rock.

Soil Profile #3:

- 0 to 8"** - Topsoil - loam, organic composition.
- 8" to 75"** - USDA soil texture sandy loam, soil type 2A, structure shape granular, structure grade 1, non-cemented, LTAR 0.50, light yellowish brown in color, 10 YR 6/4, soil type 2A with 5% rock.
- 75" to 8'** - USDA soil texture sandy loam, soil type 2, structure shape granular, structure grade 2, non-cemented, LTAR 0.60, brownish yellow in color, 10 YR 6/6, soil type 3 with 10% rock.

Soil Profile #4:

- 0 to 6"** - Topsoil - loam, organic composition.
- 6" to 8'** - USDA soil texture sandy loam, soil type 2A, structure shape granular, structure grade 1, non-cemented, LTAR 0.50, light yellowish brown in color, 10 YR 6/4, soil type 2A with 3% rock.

Groundwater was not encountered during the inspection. Bedrock was not encountered during the inspection. No known wells were observed within 100 feet of the proposed system. **All setbacks shall conform to county regulations.**

Due to encountering USDA soil type 3, the septic system to be installed on this site need not be designed by a Colorado Licensed Engineer. A conventional septic system is approved for this site. Based on the observed conditions, we feel a design based on an LTAR of 0.35 GPD/SF (USDA soil type 3, treatment soil, treatment level 1) is reasonable. Maximum depth of the installation shall not be deeper than 4 feet below the existing grade.

If during construction of the field itself, subsurface conditions change considerably or if the location of the proposed field changes, this office shall be notified to determine whether the conditions are adequate for the system as designed or whether a new system needs to be designed.

Weather conditions at the time of the test consisted of partly cloudy skies with moderate temperatures.

PROFILE PIT LOG - Profile Pit #1

JOB#: 22-0149
 DATE EVALUATED: 17 Feb 2022
 EQUIPMENT USED: Mini-excavator

DEPTH (in ft.)	SYMBOL	SAMPLES	WATER %	SOIL TYPE
0-6"	TOPSOIL			
	Loam Organic Composition			2A
6"-47"	Sand			
	Fine-coarse Grained Moderate Density Low-moderate Moisture Content Low-moderate Clay Content Low-moderate Cohesion Low-moderate Plasticity Yellowish Brown Color 10YR 5/4			3
	USDA Soil Texture: Sandy Loam USDA Soil Type: 2A USDA Structure Shape: Granular USDA Structure Grade: 1 Cementation Class: Non-cemented Long Term Acceptance Rate (LTAR, Treatment Level 1): 0.50 Soil Type 2A w/ 5% Rock			
47"-8'	Clayey Sand			
	Fine-coarse Grained Moderate Density Moderate Moisture Content Moderate Clay Content Low-moderate Cohesion Low-moderate Plasticity Yellowish Brown Color 10YR 5/4			
	USDA Soil Texture: Sandy Clay Loam USDA Soil Type: 3 USDA Structure Shape: Blocky USDA Structure Grade: 2 Cementation Class: Non-cemented Long Term Acceptance Rate (LTAR, Treatment Level 1): 0.35 Soil Type 3 w/ 7% Rock			

LTAR to be Used for OWTS Sizing: 0.35GPD/SF (USDA Type 3, Treatment soil, Treatment Level 1)
Depth to Groundwater (Permanent or Seasonal): Not Encountered
Depth to Bedrock and Type: Not Encountered
Depth to Proposed Infiltrative Surface from Ground Surface: Unknown (Maximum 4 ft Below Existing Ground Surface)
Soil Treatment Area Slope and Direction: West @4%

Note: See El Paso County Board of Health Regulation Chapter 8: On-Site Wastewater Treatments Systems (OWTS) Regulations for Additional Information. Refer to Table 10-1 for Corresponding LTAR if Treatment Level 2, 2N, 3, or 3N will be Implemented in the Design of the OWTS. System Sizing Depends on a Number of Factors (i.e. LTAR, # of Bedrooms, Type of Soil Treatment Area (STA), Method of Transfer to the STA (Gravity, Dosed, or Pressure Dosed), and Type of Storage / Distribution Media Used in the STA)

Project: 21-0149
 Sheet: 1 of 4
 Date: 24 Feb 2022
 Scale: 1/4" = 1'
 Drawn by: mtj
 Checked by: cem

Project Name and Address
Lauria Construction LLC
 6555 Cowboy Ranch View
 Sch. No. 4300000628
 El Paso County, Colorado

GEOQUEST, LLC.
 6825 SILVER PONDS HEIGHTS
 SUITE 101
 COLORADO SPRINGS, CO
 80908
 OFFICE: (719) 481-4560
 FAX: (719) 481-9204

PROFILE PIT LOG - Profile Pit #2

JOB#: 22-0149
 DATE EVALUATED: 17 Feb 2022
 EQUIPMENT USED: Mini-excavator

0-6" TOPSOIL

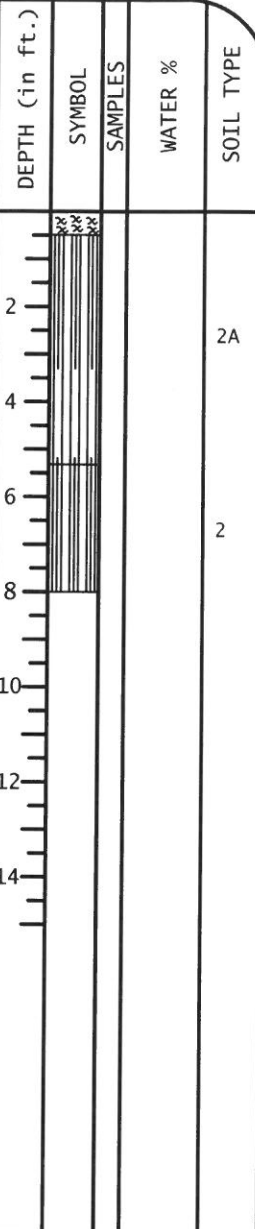
Loam
 Organic Composition

6"-64" Sand

Fine-coarse Grained	USDA Soil Texture: Sandy Loam
Moderate Density	USDA Soil Type: 2A
Low-moderate Moisture Content	USDA Structure Shape: Granular
Low-moderate Clay Content	USDA Structure Grade: 1
Low-moderate Cohesion	Cementation Class: Non-cemented
Low-moderate Plasticity	Long Term Acceptance Rate (LTAR, Treatment Level 1): 0.50
Yellowish Brown Color	Soil Type 2A w/ 11% Rock
10YR 5/4	

64"-8' Sand

Fine-coarse Grained	USDA Soil Texture: Sandy Loam
Moderate Density	USDA Soil Type: 2
Low-moderate Moisture Content	USDA Structure Shape: Granular
Low-moderate Clay Content	USDA Structure Grade: 2
Low Cohesion	Cementation Class: Non-cemented
Low Plasticity	Long Term Acceptance Rate (LTAR, Treatment Level 1): 0.60
Very Pale Brown Color	Soil Type 2 w/ 4% Rock
10YR 7/4	



LTAR to be Used for OWTS Sizing: 0.35GPD/SF (USDA Type 3, Treatment soil, Treatment Level 1)

Depth to Groundwater (Permanent or Seasonal): Not Encountered

Depth to Bedrock and Type: Not Encountered

Depth to Proposed Infiltrative Surface from Ground Surface: Unknown (Maximum 4 ft Below Existing Ground Surface)

Soil Treatment Area Slope and Direction: West @4%

Note: See El Paso County Board of Health Regulation Chapter 8: On-Site Wastewater Treatments Systems (OWTS) Regulations for Additional Information. Refer to Table 10-1 for Corresponding LTAR if Treatment Level 2, 2N, 3, or 3N will be Implemented in the Design of the OWTS. System Sizing Depends on a Number of Factors (i.e. LTAR, # of Bedrooms, Type of Soil Treatment Area (STA), Method of Transfer to the STA (Gravity, Dosed, or Pressure Dosed), and Type of Storage / Distribution Media Used in the STA)

Project: 21-0149
 Sheet: 2 of 4
 Date: 24 Feb 2022
 Scale: 1/4" = 1'
 Drawn by: mtj
 Checked by: cem

Project Name and Address

Lauria Construction LLC

6555 Cowboy Ranch View
 Sch. No. 4300000628
 El Paso County, Colorado

GEOQUEST, LLC.

6825 SILVER PONDS HEIGHTS
 SUITE 101
 COLORADO SPRINGS, CO
 80908

OFFICE: (719) 481-4560
 FAX: (719) 481-9204

PROFILE PIT LOG - Profile Pit #3

JOB#: 22-0149
 DATE EVALUATED: 17 Feb 2022
 EQUIPMENT USED: Mini-excavator

		DEPTH (in ft.)	SYMBOL	SAMPLES	WATER %	SOIL TYPE
0-8"	TOPSOIL Loam Organic Composition	0-2				
8"-75"	Sand Fine-coarse Grained Moderate Density Low Moisture Content Low-moderate Clay Content Low-moderate Cohesion Low-moderate Plasticity Light Yellowish Brown Color 10YR 6/4 USDA Soil Texture: Sandy Loam USDA Soil Type: 2A USDA Structure Shape: Granular USDA Structure Grade: 1 Cementation Class: Non-cemented Long Term Acceptance Rate (LTAR, Treatment Level 1): 0.50 Soil Type 2A w/ 5% Rock	2-8				2A 2
75"-8'	Sand Fine-coarse Grained Moderate Density Low-moderate Moisture Content Low-moderate Clay Content Low Cohesion Low Plasticity Brownish Yellow Color 10YR 6/6 USDA Soil Texture: Sandy Loam USDA Soil Type: 2 USDA Structure Shape: Granular USDA Structure Grade: 2 Cementation Class: Non-cemented Long Term Acceptance Rate (LTAR, Treatment Level 1): 0.60 Soil Type 3 w/ 10% Rock	8-14				

LTAR to be Used for OWTS Sizing: 0.50GPD/SF (USDA Type 2A, Treatment soil, Treatment Level 1)
Depth to Groundwater (Permanent or Seasonal): Not Encountered
Depth to Bedrock and Type: Not Encountered
Depth to Proposed Infiltrative Surface from Ground Surface: Unknown (Maximum 4 ft Below Existing Ground Surface)
Soil Treatment Area Slope and Direction: West @3%

Note: See El Paso County Board of Health Regulation Chapter 8: On-Site Wastewater Treatments Systems (OWTS) Regulations for Additional Information. Refer to Table 10-1 for Corresponding LTAR if Treatment Level 2, 2N, 3, or 3N will be Implemented in the Design of the OWTS. System Sizing Depends on a Number of Factors (i.e. LTAR, # of Bedrooms, Type of Soil Treatment Area (STA), Method of Transfer to the STA (Gravity, Dosed, or Pressure Dosed), and Type of Storage / Distribution Media Used in the STA)

Project: 21-0149
 Sheet: 3 of 4
 Date: 24 Feb 2022
 Scale: 1/4" = 1'
 Drawn by: mtj
 Checked by: cem

Project Name and Address
Lauria Construction LLC
 6555 Cowboy Ranch View
 Sch. No. 4300000628
 El Paso County, Colorado

GEOQUEST, LLC.
 6825 SILVER PONDS HEIGHTS
 SUITE 101
 COLORADO SPRINGS, CO
 80908
 OFFICE: (719) 481-4560
 FAX: (719) 481-9204

PROFILE PIT LOG - Profile Pit #4

JOB#: 22-0149
 DATE EVALUATED: 17 Feb 2022
 EQUIPMENT USED: Mini-excavator

	DEPTH (in ft.)	SYMBOL	SAMPLES	WATER %	SOIL TYPE
<p>0-6" TOPSOIL Loam Organic Composition</p> <p>6"-8' Sand Fine-coarse Grained Moderate Density Low-moderate Moisture Content Low-moderate Clay Content Low-moderate Cohesion Low-moderate Plasticity Light Yellowish Brown Color 10YR 6/4</p> <p>USDA Soil Texture: Sandy Loam USDA Soil Type: 2A USDA Structure Shape: Granular USDA Structure Grade: 1 Cementation Class: Non-cemented Long Term Acceptance Rate (LTAR, Treatment Level 1): 0.50 Soil Type 2A w/ 3% Rock</p>					2A

LTAR to be Used for OWTS Sizing: 0.50GPD/SF (USDA Type 2A, Treatment soil, Treatment Level 1)
Depth to Groundwater (Permanent or Seasonal): Not Encountered
Depth to Bedrock and Type: Not Encountered
Depth to Proposed Infiltrative Surface from Ground Surface: Unknown (Maximum 4 ft Below Existing Ground Surface)
Soil Treatment Area Slope and Direction: West @3%

Note: See El Paso County Board of Health Regulation Chapter 8: On-Site Wastewater Treatments Systems (OWTS) Regulations for Additional Information. Refer to Table 10-1 for Corresponding LTAR if Treatment Level 2, 2N, 3, or 3N will be Implemented in the Design of the OWTS. System Sizing Depends on a Number of Factors (i.e. LTAR, # of Bedrooms, Type of Soil Treatment Area (STA), Method of Transfer to the STA (Gravity, Dosed, or Pressure Dosed), and Type of Storage / Distribution Media Used in the STA)

Project: 21-0149	<p>Project Name and Address</p> <p>Lauria Construction LLC</p> <p>6555 Cowboy Ranch View Sch. No. 4300000628 El Paso County, Colorado</p>
Sheet: 4 of 4	
Date: 24 Feb 2022	
Scale: 1/4" = 1'	
Drawn by: mtj	
Checked by: cem	

GEOQUEST, LLC.

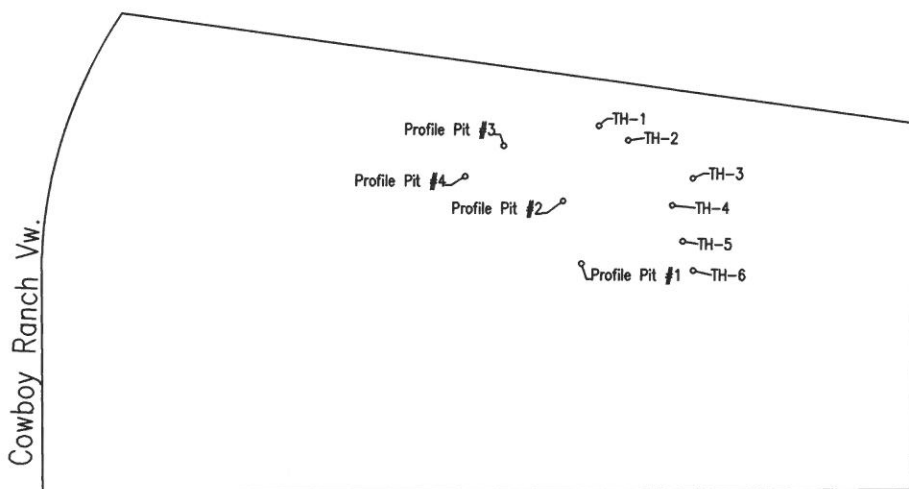
6825 SILVER PONDS HEIGHTS
 SUITE 101
 COLORADO SPRINGS, CO
 80908

OFFICE: (719) 481-4560
 FAX: (719) 481-9204

GEOQUEST LLC

SITE MAP

6555 Cowboy Ranch Vw.
El Paso County
Colorado
Job #22-0149



Location from Southeast Lot Corner to Profile Pit #1:

N. 56' W. - 826'

Location from Profile Pit #1 to Profile Pit #2:

N. 16' W. - 133'

Location from Profile Pit #2 to Profile Pit #3:

N. 47' W. - 166'

Location from Profile Pit #1 to Profile Pit #2:

S. 51' W. - 100'

GPS Coordinates:

Pit 1; N. 38° 55' 36.00" W. 104° 29' 58.84"

Pit 2; N. 38° 55' 37.25" W. 104° 29' 59.32"

Pit 3; N. 38° 55' 38.36" W. 104° 30' 00.87"

Pit 4; N. 38° 55' 37.74" W. 104° 30' 01.86"



0 100 200 300 400

GRAPHIC SCALE IN FEET

SCALE: 1" = 400'