

DATE: September 2023  
 DESIGNED BY: J. Whritenour  
 DRAWN BY: L. Reed



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

**Noble Energy, Inc - DJ Basin**  
**Vern Marshall 1**  
 NWSW, Section 32, Township 4 North, Range 65 West  
 Weld County, Colorado

Site Location Map

Figure 1



**FL01-A@4'**  
(09/05/2023)

PID = 0.0 ppm  
Arsenic = **0.557** mg/kg

**FL01-B@4'**  
(09/05/2023)

PID = 0.0 ppm  
Benzo(a)anthracene = **0.176** mg/kg  
1-Methylnaphthalene = **0.00875** mg/kg  
Arsenic = **0.719** mg/kg

**Legend**

- - - Flowline Location
- + Soil Sample Location – Lab Analyzed (Collected via Trimble GPS)

**Notes**

- 1) All locations are approximate unless otherwise noted.
- 2) Buried infrastructure has been spatially projected.
- 3) Analytical results below laboratory detection limits or within compliance of COGCC Table 915-1 not shown.
- 4) Concentration in exceedance of COGCC table 915-1 soil standards indicated in **RED**.

GPS – Global Positioning System  
mg/kg – Milligrams per kilogram  
ppm – parts per million  
PID – Photoionization Detector

0 ft.      50 ft.      100 ft.

Image Source: Google Earth; Google 2020

DATE:	09/20/2023
DESIGNED BY:	JW
DRAWN BY:	HM



**TASMAN**  
GEOSCIENCES

Tasman Geosciences, Inc.  
6855 W 119<sup>th</sup> Avenue  
Broomfield, CO 80020


**Noble Energy, Inc. – 100322 – DJ Basin**  
**Vern Marshall 1**  
NWSW, Section 32, Township 4 North, Range 65 West  
Weld County, Colorado

Flowline Closure & Soil  
Analytical Results Map  
(09/05/2023)

FIGURE  
2



**Legend**

 Soil Boring Location

**Notes**

All locations are approximate unless otherwise noted.

0 ft.      20 ft.      40 ft.

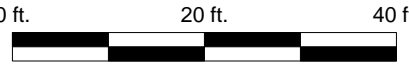




Image Source: Google Earth; Google 2020

DATE: November 4, 2024

DESIGNED BY: J. Whritenour

DRAWN BY: E. Brauer



**TASMAN**  
GEOSCIENCES

Tasman Geosciences, Inc.  
6855 W 119<sup>th</sup> Avenue  
Broomfield, CO 80020

**Noble Energy, Inc. – 100322 – DJ Basin**  
**Vern Marshall 1**  
NWSW, Section 32, Township 4 North, Range 65 West  
Weld County, Colorado

SOIL BORING  
LOCATION MAP  
(01/03/2024)

FIGURE  
3

## Attachment A

**TABLE 1**  
**SOIL SAMPLE LOCATIONS**  
**NOBLE ENERGY, INC. - 100322**  
**VERN MARSHALL 1**

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude <sup>1</sup>	Longitude	PDOP
FL01-A@4'	09/05/23	0.0	No Staining	No Odor	Lab	40.267301	-104.694078	0.9
FL01-B@4'	09/05/23	0.0	No Staining	No Odor	Lab	40.266256	-104.692391	1.0
BH01@4'	01/03/24	0.0	No Staining	No Odor	Lab	40.266256	-104.692391	NC
BH01@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266256	-104.692391	NC
BH02@4'	01/03/24	0.1	No Staining	No Odor	Lab	40.266313	-104.692391	NC
BH02@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266313	-104.692391	NC
BH03@4'	01/03/24	0.2	No Staining	No Odor	Lab	40.266253	-104.692307	NC
BH03@8'	01/03/24	0.1	No Staining	No Odor	Lab	40.266253	-104.692307	NC
BH04@4'	01/03/24	0.0	No Staining	No Odor	Lab	40.266195	-104.692391	NC
BH04@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266195	-104.692391	NC
BH05@4'	01/03/24	0.0	No Staining	No Odor	Lab	40.266255	-104.692477	NC
BH05@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266255	-104.692477	NC
BG01@4'	01/03/24	0.1	No Staining	No Odor	Lab	40.266118	-104.692563	NC
BG01@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266118	-104.692563	NC
BG02@4'	01/03/24	0.0	No Staining	No Odor	Lab	40.266279	-104.692713	NC
BG02@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266279	-104.692713	NC
BG03@4'	01/03/24	0.2	No Staining	No Odor	Lab	40.266448	-104.692358	NC
BG03@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266448	-104.692358	NC
BG04@4'	01/03/24	0.0	No Staining	No Odor	Lab	40.266303	-104.692119	NC
BG04@8'	01/03/24	0.1	No Staining	No Odor	Lab	40.266303	-104.692119	NC
BG05@4'	01/03/24	0.0	No Staining	No Odor	Lab	40.266072	-104.692206	NC
BG05@8'	01/03/24	0.0	No Staining	No Odor	Lab	40.266072	-104.692206	NC

Notes:

PID = Photoionization detector

ppm = parts per million

PDOP = Position dilution of precision

HC = Hydrocarbon

1.) Latitude and longitude coordinates will be provided in decimal degrees with an accuracy and precision of 5 decimals of a degree using the North American Datum ("NAD") of 1983



## Attachment B



## FLOWLINE ABANDONMENT FORM

<b>SITE NAME:</b> Vern Marshall 1							<b>DATE:</b> 9/5/2023	<b>REM. PROJECT #:</b>	<b>WEATHER:</b> Sunny, 70's	
<b>SITE DIRECTIONS:</b> CR 39 & CR 38, N. On CR 39 for 0.44 mi, right on access road, E. For 0.24 mi INTO							<b>CLIENT:</b> Noble			
<b>LEGALS AND LAT/LONG:</b> 40.267302 , -104.694078							<b>TASMAN PERSONNEL:</b> Dalton Hagen			
<b>SOIL TYPES:</b> Well Graded Sand - SW							<b>SURFACE GRADIENT:</b> Southwest			
SOIL SAMPLING							FACILITY INFRASTRUCTURE			
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT	Quantity		
9/5/2023 13:22	FL01-A@4'	0.0	No Staining	No Odor	Yes	Lab	Above Ground Storage Tank (AST)			
9/5/2023 13:28	FL01-B@4'	0.0	No Staining	No Odor	Yes	Lab	Buried or Partially Buried Vessel			
							Separator			
							Emission Control Device (ECD)			
							Dump Line			
							Wellhead			
							Flowline			
							Other:			
							Soil Loads Removed			
							<b>IMPACTED SOIL IDENTIFIED?</b>			
							<b>ESTIMATED VOLUME OF IMPACTS:</b>			
							Date	Number	CY	
							Total Removed	0	0	
							<b>Disposal Facility:</b>			
							Groundwater Recovery			
							<b>DATE GW ENCOUNTERED:</b>		<b>DEPTH:</b>	
							<b>GROUNDWATER IN CONTACT WITH IMPACTED SOIL?</b>			
							<b>LNAPL OR SHEEN OBSERVED ON GW?</b>			
GROUNDWATER SAMPLING							Date	BBLS		
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
							Total Removed	0		
							<b>Disposal Facility:</b>			



**Photographic Log**



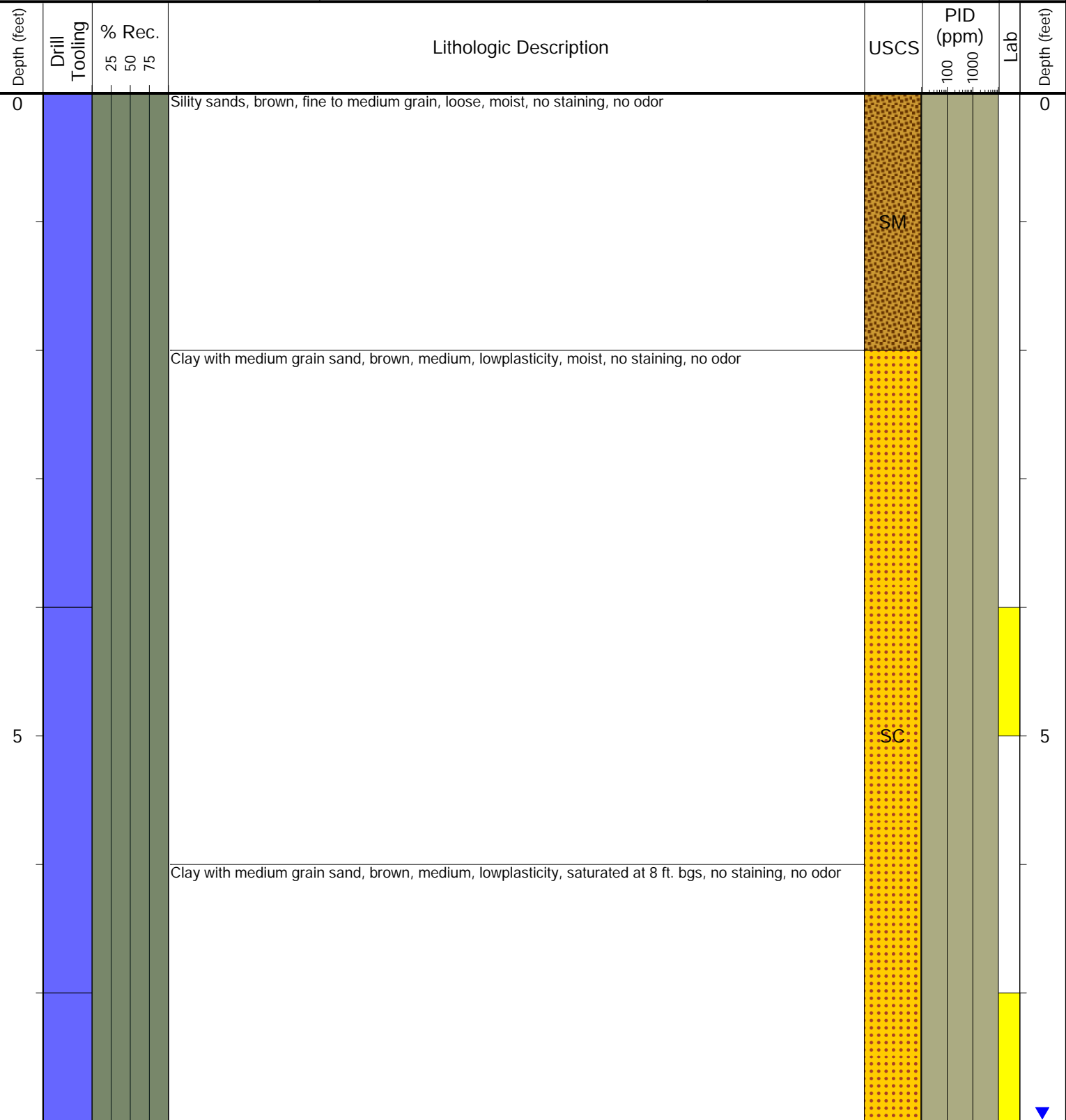
<b>Equipment ID:</b> FL01-A@4'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-B@4'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing South				<b>Notes/Conditions:</b> Facing West			

## Attachment C



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman	Vern Marshall 1
LOGGED BY: Molly Parks	
PROJECT MANAGER: Jake Whritenour	BORING / WELL ID: BH01
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Hand Auger	LOCATION: Weld County
DRILL BIT SIZE (INCHES): 3"	Latitude (NAD 83): 40.2662557311
DATE STARTED - COMPLETED: 1/3/24-1/3/24	Longitude (NAD 83): -104.692390751
TOTAL WELL DEPTH (FT. BGS): 8'	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼	ABANDONMENT METHOD: Native Material



**Drilling / Sample Method:**

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

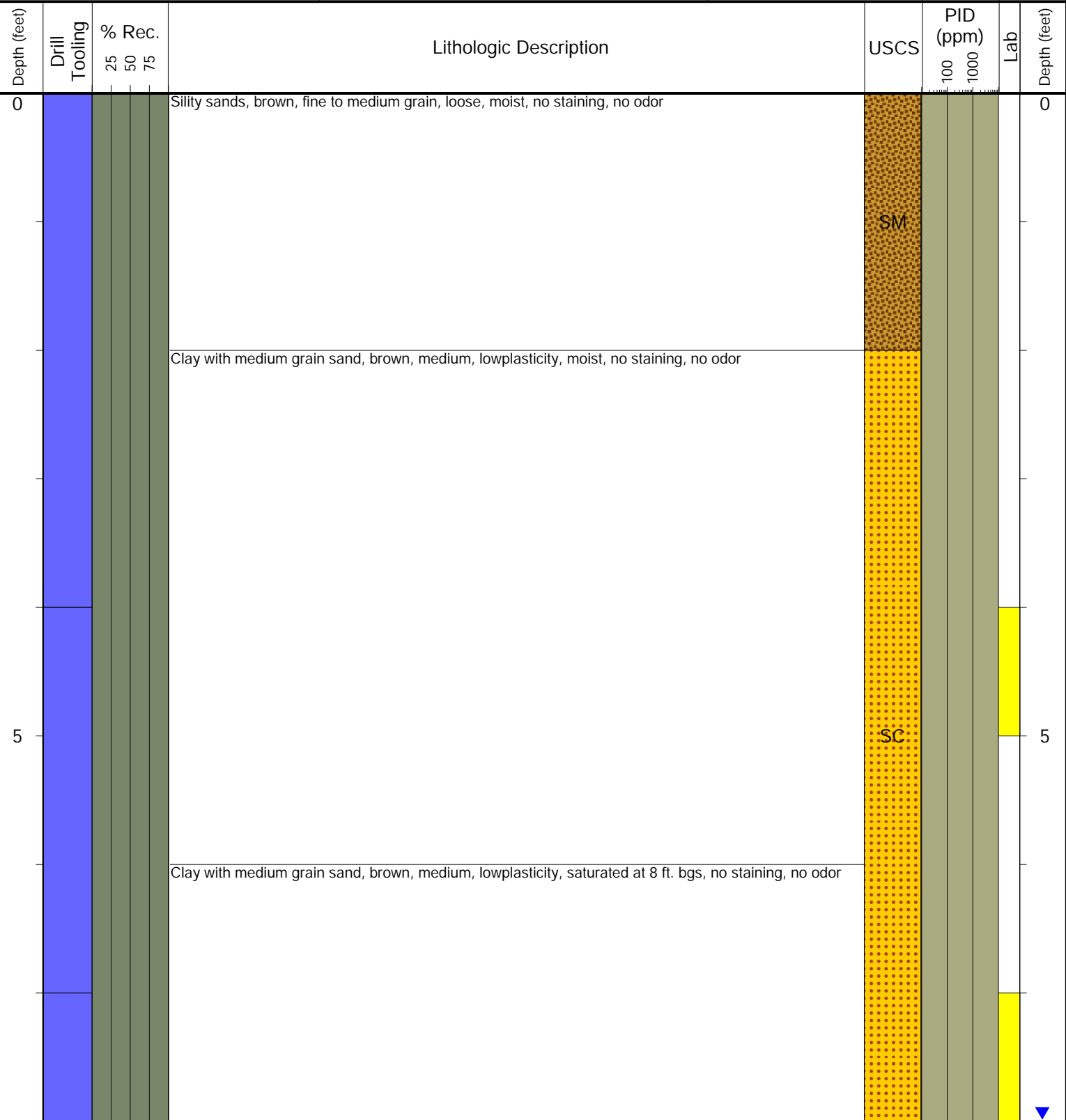
**Laboratory Sample Types:**

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman	Vern Marshall 1
LOGGED BY: Molly Parks	
PROJECT MANAGER: Jake Whritenour	BORING / WELL ID: BH02
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Hand Auger	LOCATION: Weld County
DRILL BIT SIZE (INCHES): 3"	Latitude (NAD 83): 40.2663133277
DATE STARTED - COMPLETED: 1/3/24-1/3/24	Longitude (NAD 83): -104.692390957
TOTAL WELL DEPTH (FT. BGS): 8'	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼	ABANDONMENT METHOD: Native Material



**Drilling / Sample Method:**

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

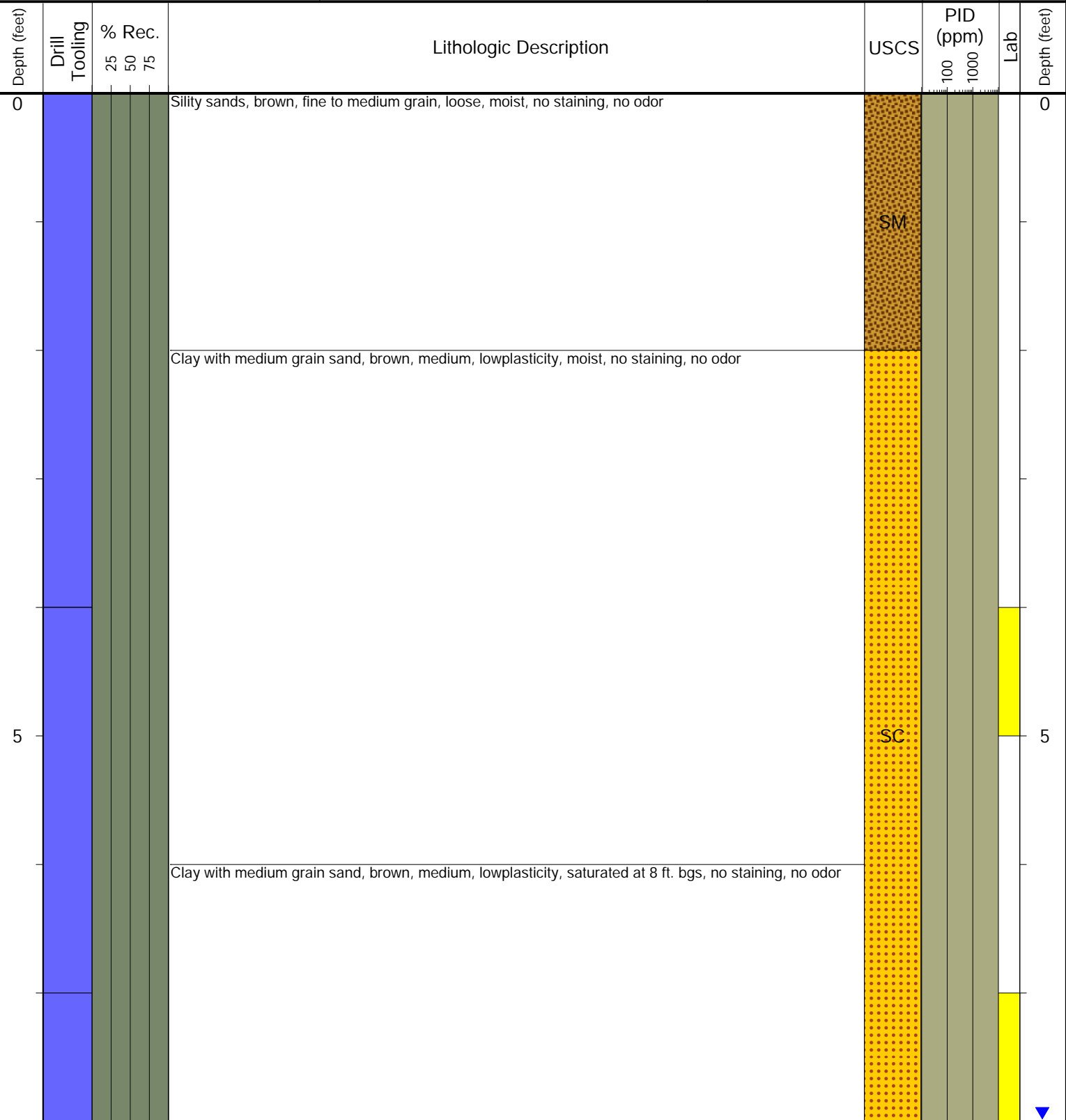
**Laboratory Sample Types:**

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman	<b>Vern Marshall 1</b>
LOGGED BY: Molly Parks	
PROJECT MANAGER: Jake Whritenour	
DRILLING CONTRACTOR: Tasman	<b>BORING / WELL ID: BH03</b>
DRILLING EQUIPMENT: Hand Auger	LOCATION: Weld County
DRILL BIT SIZE (INCHES): 3"	Latitude (NAD 83): 40.2662530048
DATE STARTED - COMPLETED: 1/3/24-1/3/24	Longitude (NAD 83): -104.692307171
TOTAL WELL DEPTH (FT. BGS): 8'	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼	ABANDONMENT METHOD: Native Material



**Drilling / Sample Method:**

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

**Laboratory Sample Types:**

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman

LOGGED BY: Molly Parks

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger

DRILL BIT SIZE (INCHES): 3"

DATE STARTED - COMPLETED: 1/3/24-1/3/24

TOTAL WELL DEPTH (FT. BGS): 8'

DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼

Vern Marshall 1

BORING / WELL ID: BH04

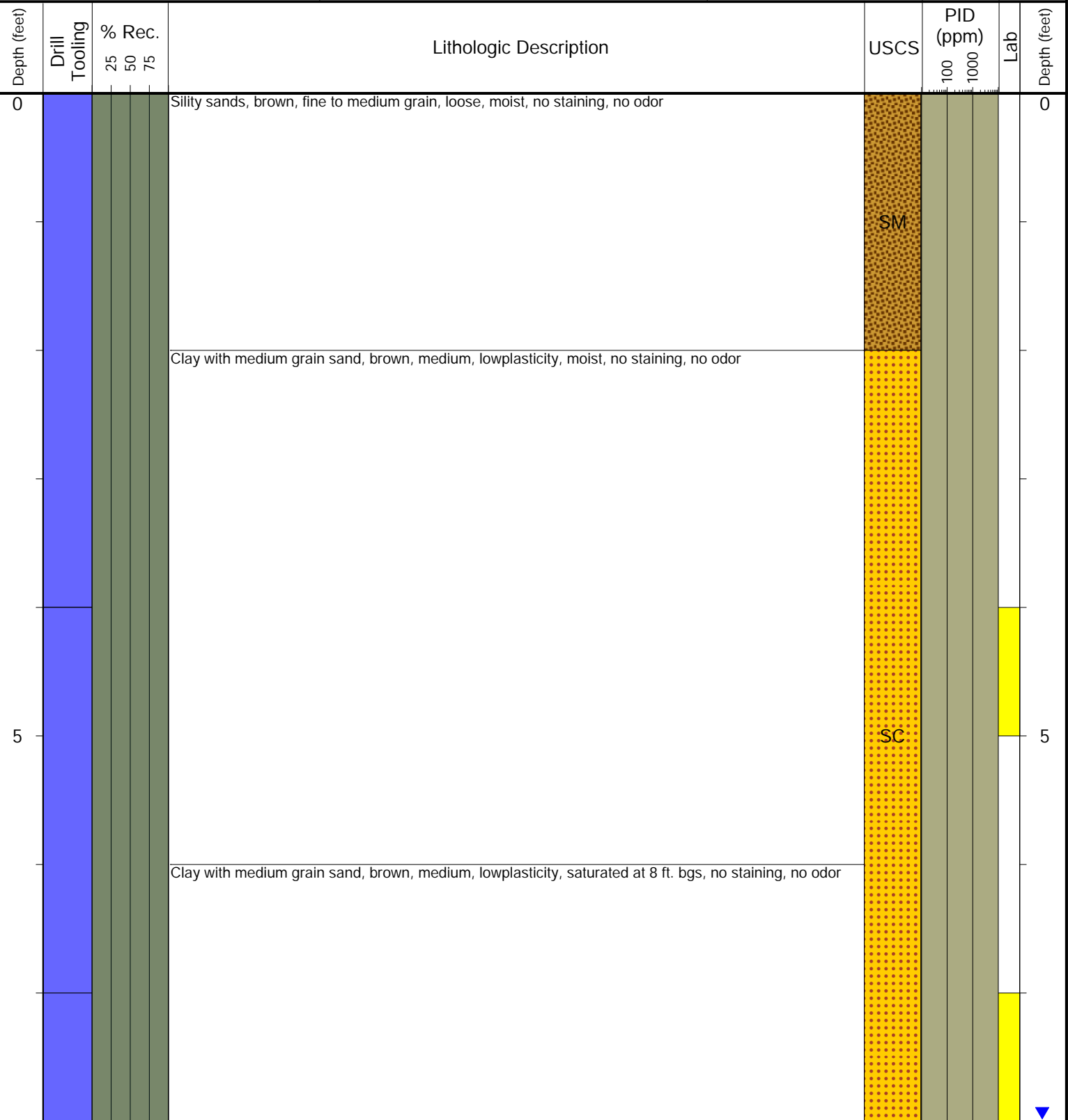
LOCATION: Weld County

Latitude (NAD 83): 40.2661952727

Longitude (NAD 83): -104.692390558

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Native Material



Drilling / Sample Method:

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

Laboratory Sample Types:

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman

LOGGED BY: Molly Parks

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger

DRILL BIT SIZE (INCHES): 3"

DATE STARTED - COMPLETED: 1/3/24-1/3/24

TOTAL WELL DEPTH (FT. BGS): 8'

DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼

Vern Marshall 1

BORING / WELL ID: BH05

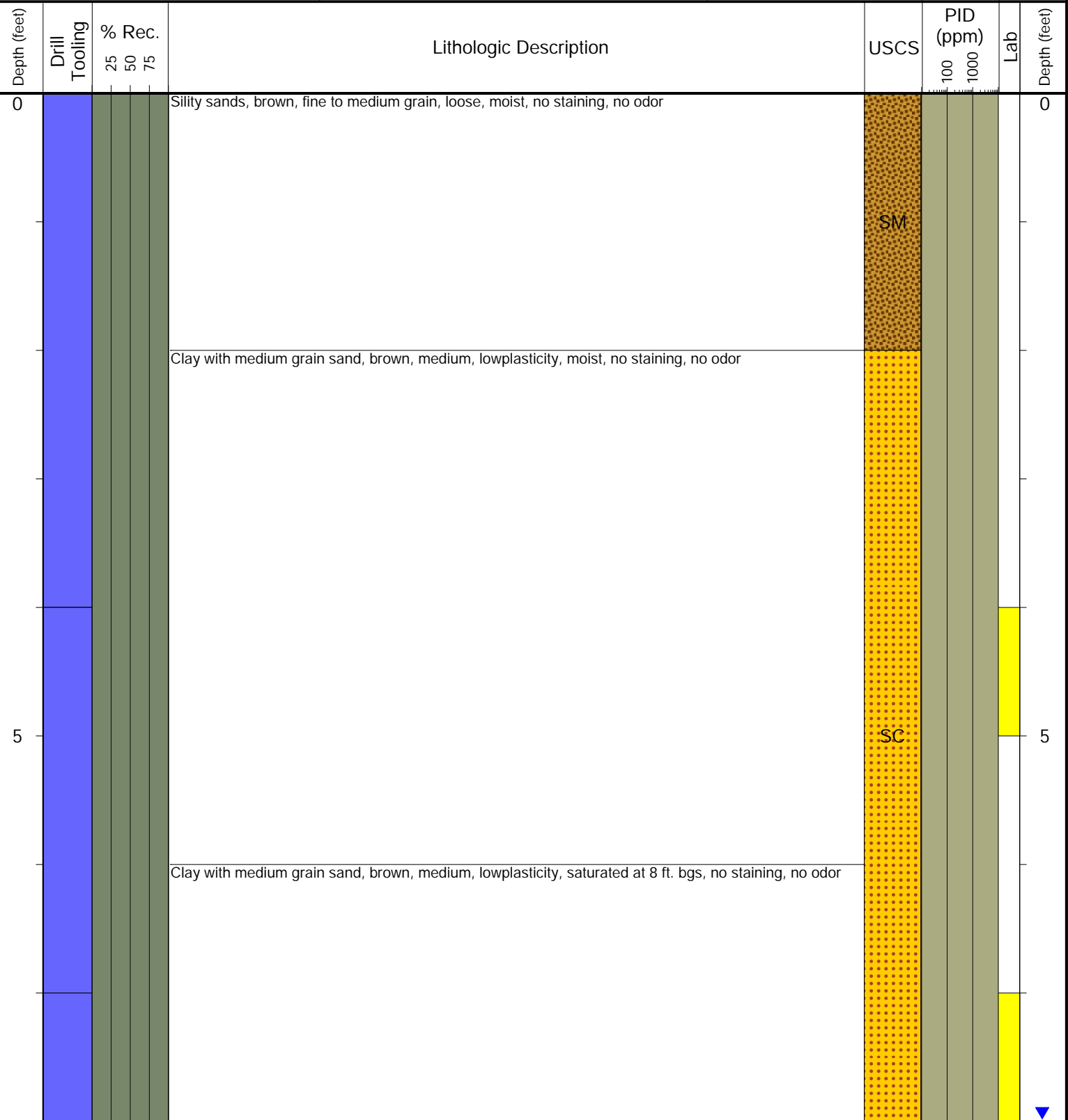
LOCATION: Weld County

Latitude (NAD 83): 40.2662548876

Longitude (NAD 83): -104.692477149

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Native Material



Drilling / Sample Method:

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

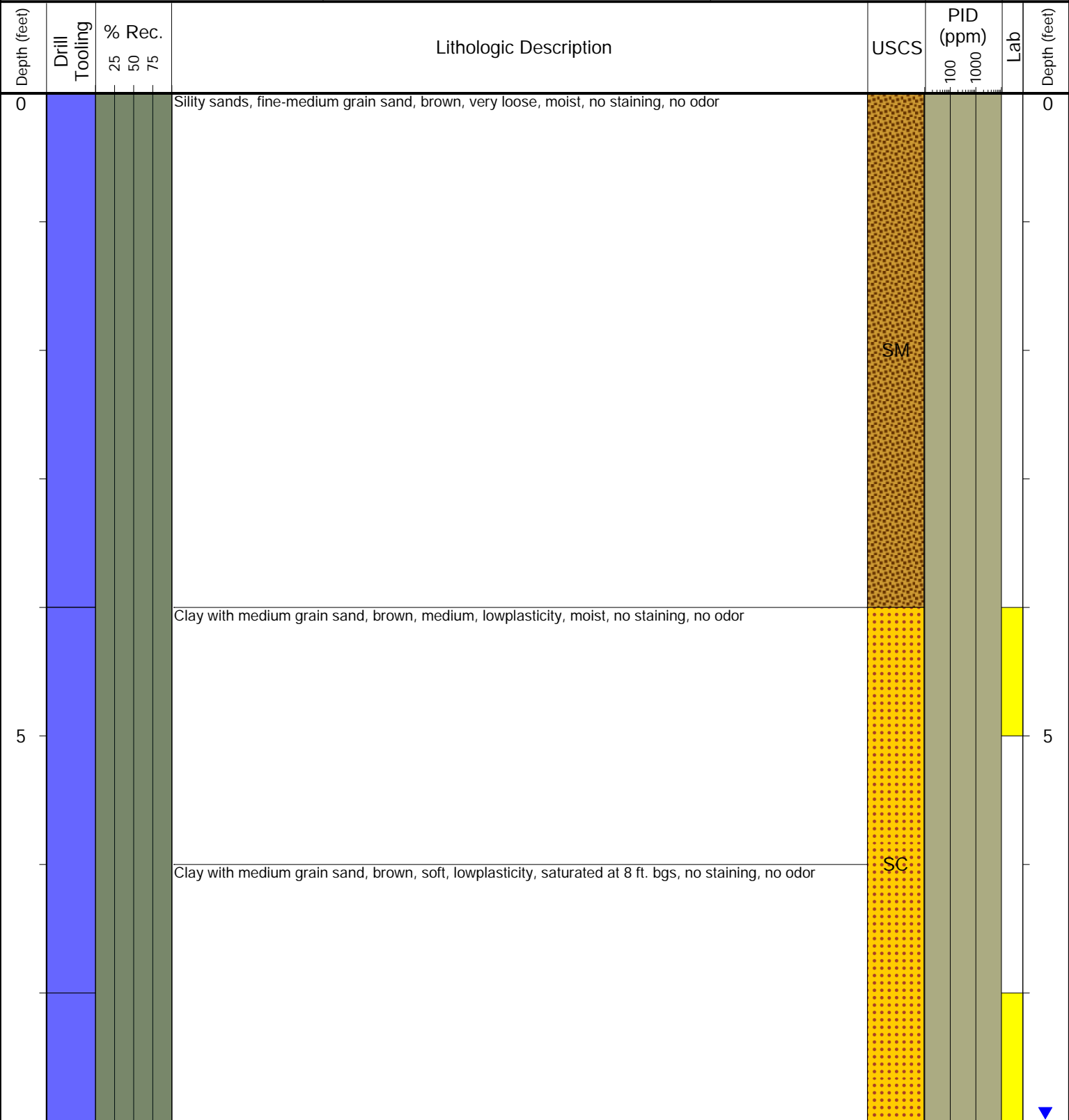
Laboratory Sample Types:

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman	Vern Marshall 1
LOGGED BY: Molly Parks	
PROJECT MANAGER: Jake Whritenour	BORING / WELL ID: BG01
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Hand Auger	LOCATION: Weld County
DRILL BIT SIZE (INCHES): 3"	Latitude (NAD 83): 40.266118
DATE STARTED - COMPLETED: 1/3/24-1/3/24	Longitude (NAD 83): -104.69256
TOTAL WELL DEPTH (FT. BGS): 8'	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼	ABANDONMENT METHOD: Native Material



**Drilling / Sample Method:**

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

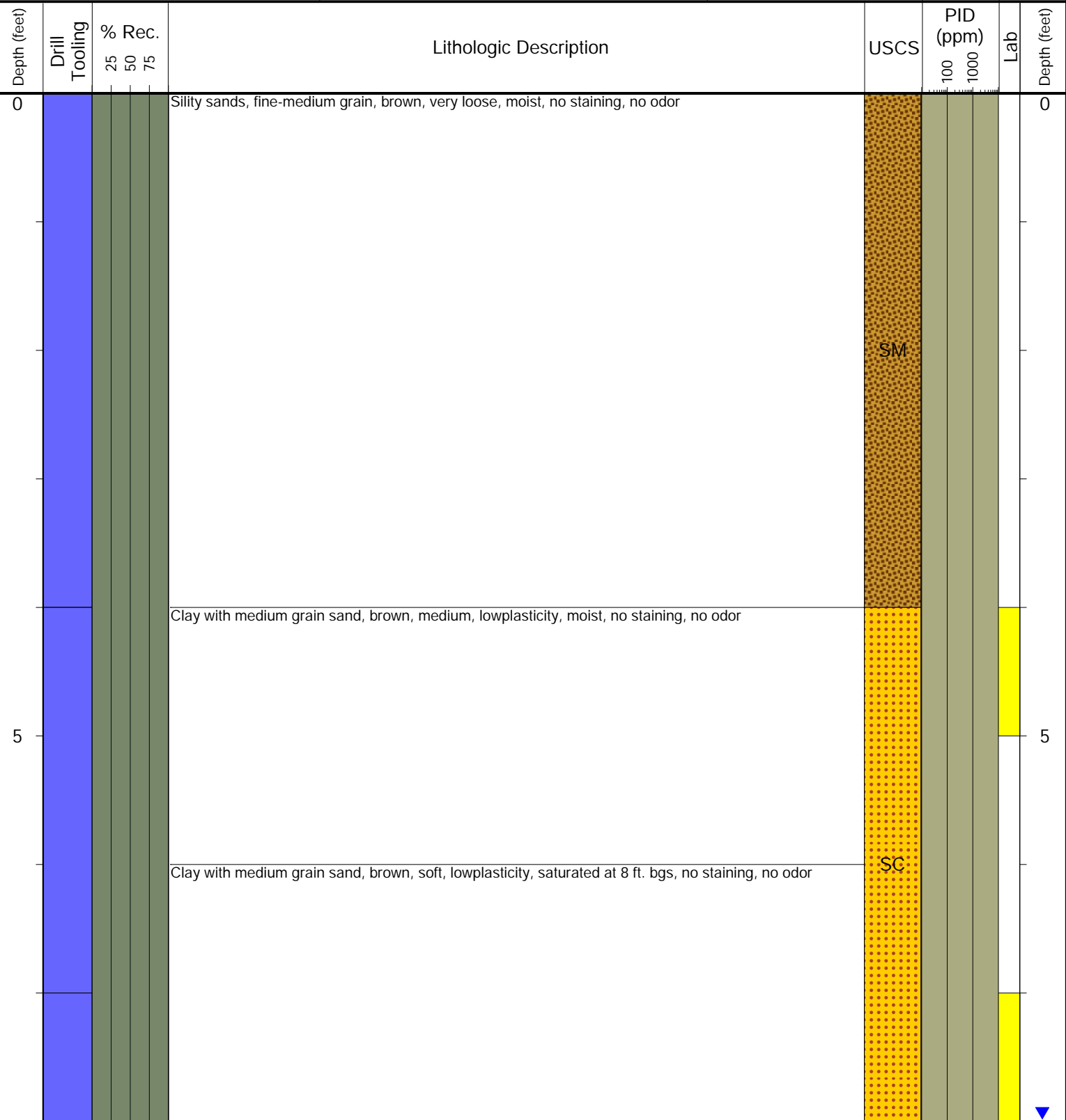
**Laboratory Sample Types:**

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman	Vern Marshall 1
LOGGED BY: Molly Parks	
PROJECT MANAGER: Jake Whritenour	BORING / WELL ID: BG02
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Hand Auger	LOCATION: Weld County
DRILL BIT SIZE (INCHES): 3"	Latitude (NAD 83): 40.266279
DATE STARTED - COMPLETED: 1/3/24-1/3/24	Longitude (NAD 83): -104.692713
TOTAL WELL DEPTH (FT. BGS): 8'	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼	ABANDONMENT METHOD: Native Material



**Drilling / Sample Method:**

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

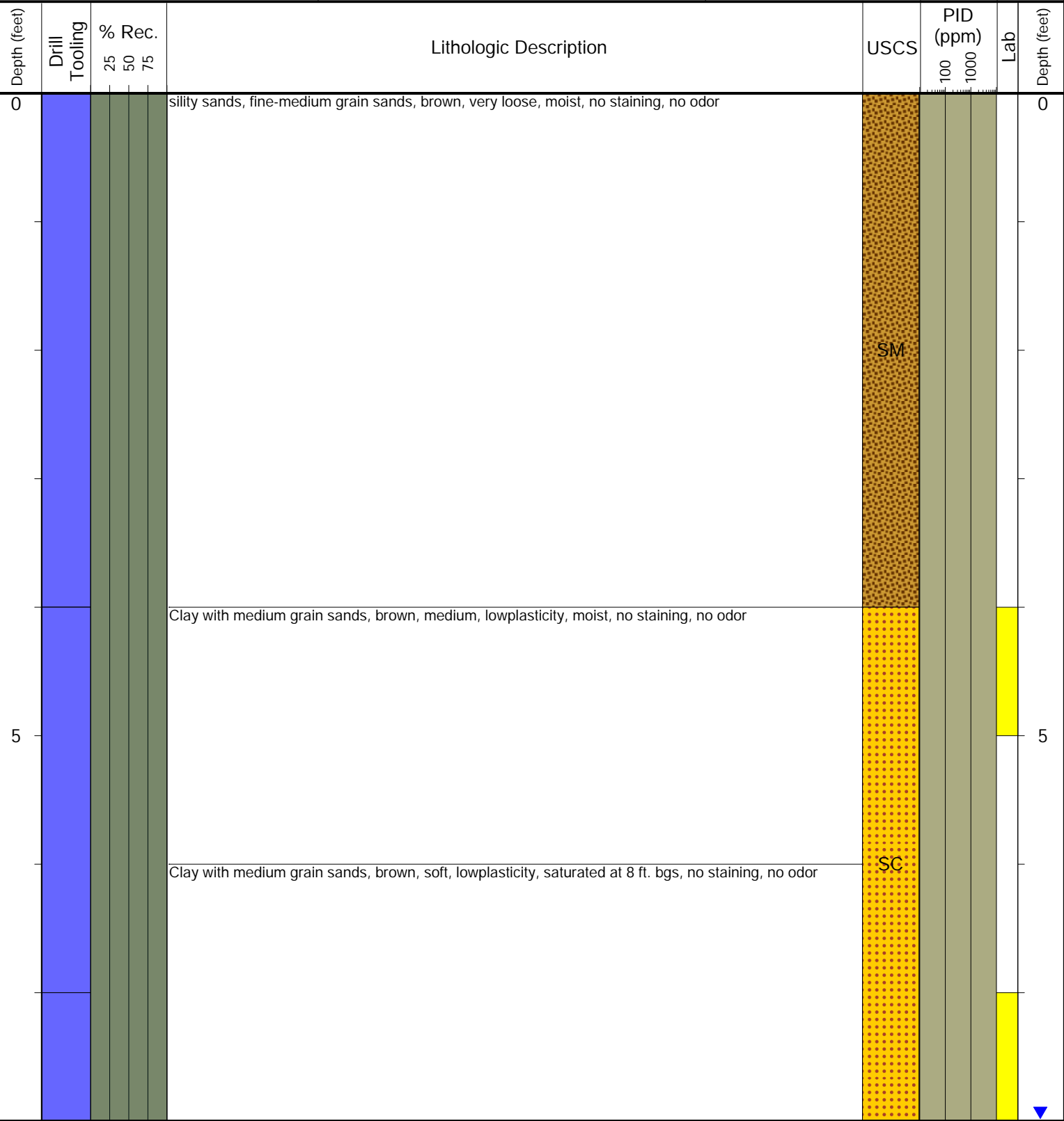
**Laboratory Sample Types:**

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
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CLIENT: Tasman	Vern Marshall 1
LOGGED BY: Molly Parks	
PROJECT MANAGER: Jake Whritenour	BORING / WELL ID: BG03
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Hand Auger	LOCATION: Weld County
DRILL BIT SIZE (INCHES): 3"	Latitude (NAD 83): 40.2664484647
DATE STARTED - COMPLETED: 1/3/24-1/3/24	Longitude (NAD 83): -104.692357655
TOTAL WELL DEPTH (FT. BGS): 8'	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼	ABANDONMENT METHOD: Native Material



**Drilling / Sample Method:**

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

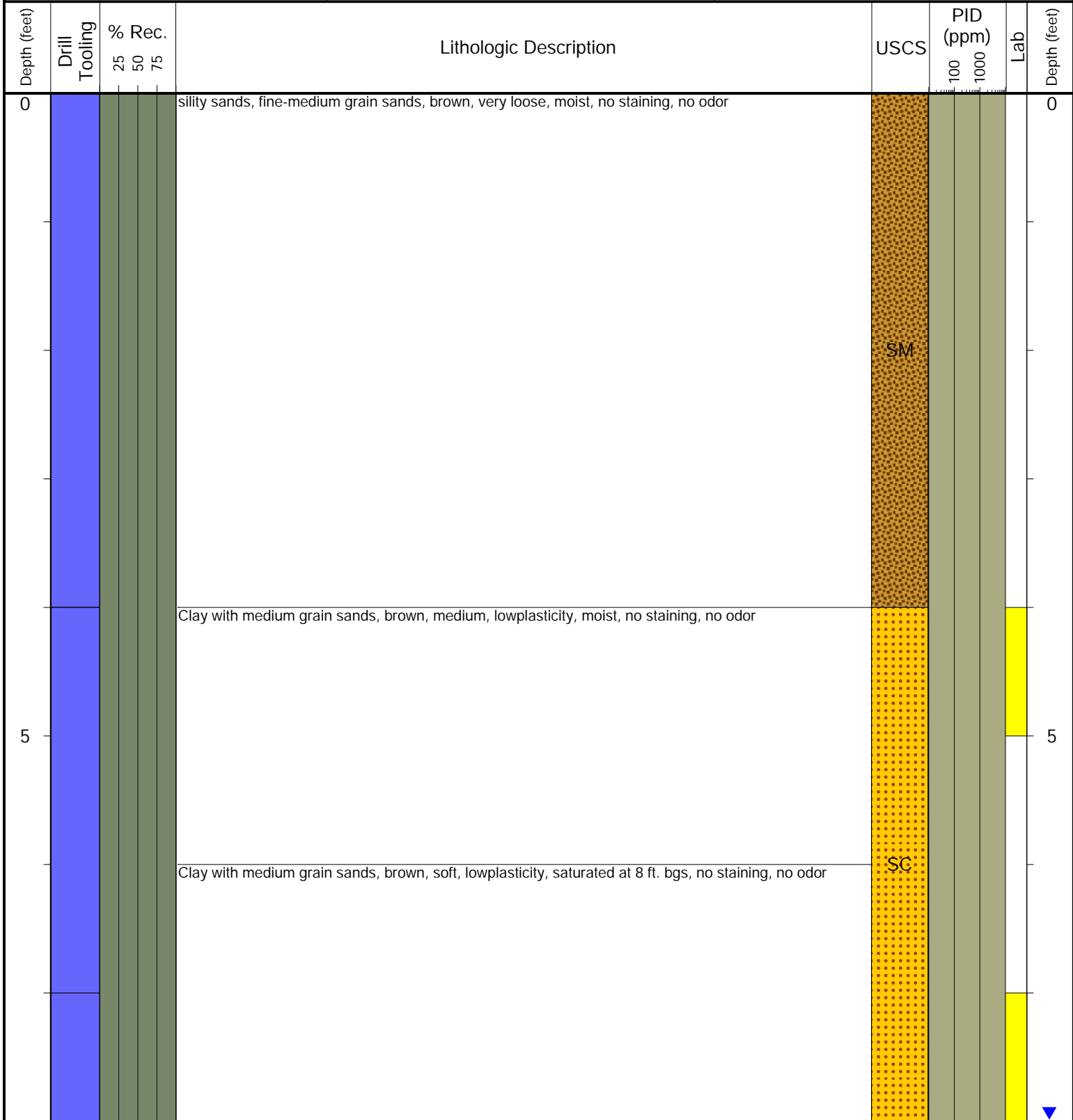
**Laboratory Sample Types:**

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman	Vern Marshall 1
LOGGED BY: Molly Parks	
PROJECT MANAGER: Jake Whritenour	BORING / WELL ID: BG04
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Hand Auger	LOCATION: Weld County
DRILL BIT SIZE (INCHES): 3"	Latitude (NAD 83): 40.266303
DATE STARTED - COMPLETED: 1/3/24-1/3/24	Longitude (NAD 83): -104.69211
TOTAL WELL DEPTH (FT. BGS): 8'	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼	ABANDONMENT METHOD: Native Material



<b>Drilling / Sample Method:</b>				<b>Laboratory Sample Types:</b>			
Macro-Core	Hand Auger	Geotechnical Lab	Analytical Chemistry Lab	Geotechnical & Analytical Chemistry Lab			
Expendable Well Tip	HydroPunch Groundwater Sampler						



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Tasman

LOGGED BY: Molly Parks

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger

DRILL BIT SIZE (INCHES): 3"

DATE STARTED - COMPLETED: 1/3/24-1/3/24

TOTAL WELL DEPTH (FT. BGS): 8'

DEPTH WATER ENCOUNTERED (FT. BGS): 8' ▼

Vern Marshall 1

BORING / WELL ID: BG05

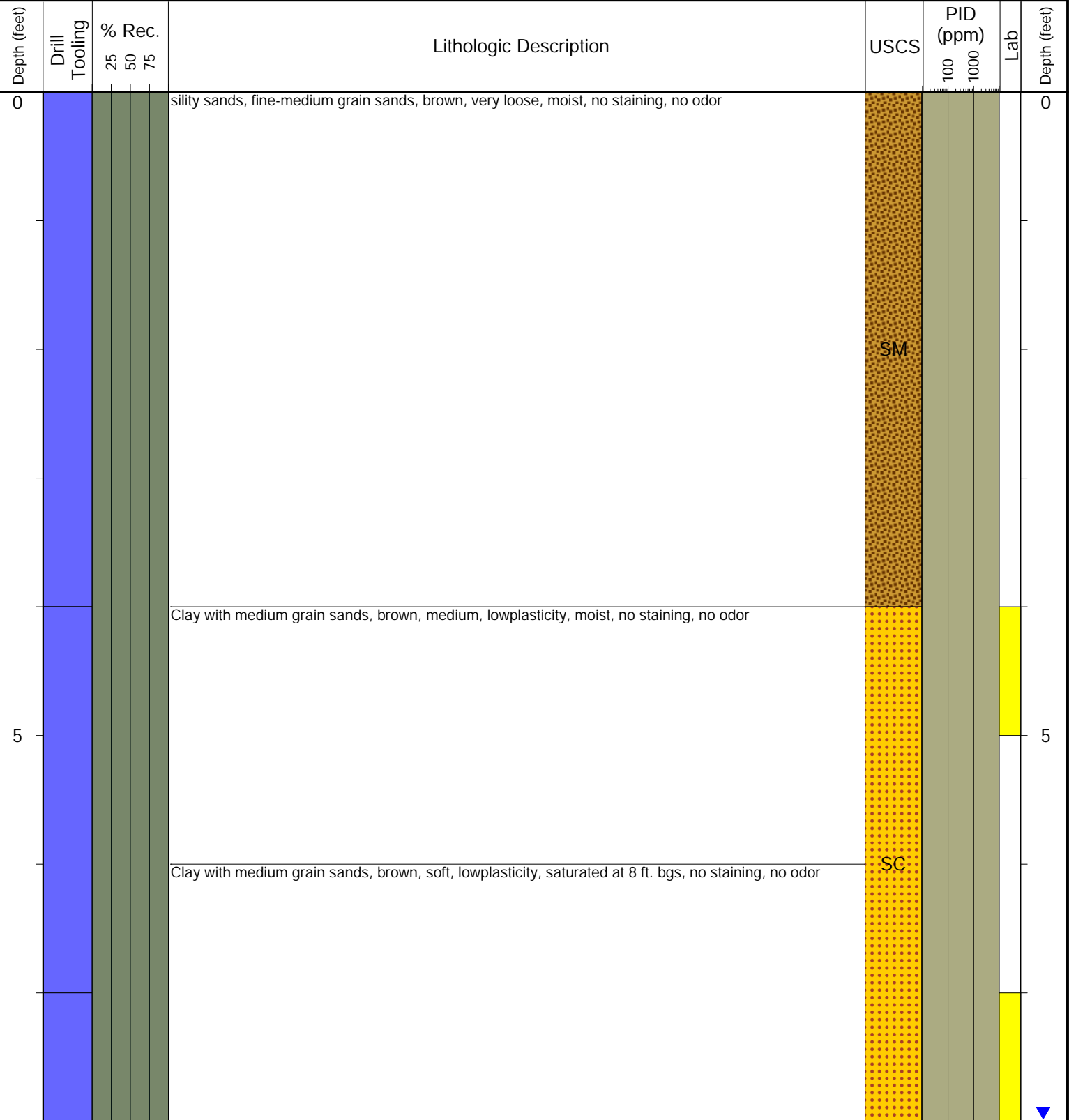
LOCATION: Weld County

Latitude (NAD 83): 40.266071

Longitude (NAD 83): -104.692206

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Native Material



Drilling / Sample Method:

- Macro-Core
- Hand Auger
- Expendable Well Tip
- HydroPunch Groundwater Sampler

Laboratory Sample Types:

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- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab