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Well Location Sketch:



Compliance - Engineering - Remediation

LT Environmental, Inc.

4600 W. 60th Avenue

see MW01

## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <i>MW02</i>	Project: <i>Riu #1</i>
Date: <i>1-29-19</i>	Project Number: <i>014018008</i>
Logged By: <i>Daniel Thomas</i>	Drilled By: <i>Drill Pro</i>
Elevation: <i>N/A</i>	Detector: <i>PID</i>
Drilling Method: <i>Direct Push/Geoprobe</i>	Sampling Method: <i>Continuous</i>
Gravel Pack: <i>Silica Sand</i>	Seal: <i>Bentonite</i>
Casing Type: <i>PVC</i>	Grout:
Screen Type: <i>PVC</i>	Slot: <i>0.01</i>
Diameter: <i>1"</i>	Length: <i>5'</i>
Hole Diameter: <i>2.75"</i>	Depth to Liquid: <i>-</i>
Diameter: <i>1"</i>	Length: <i>15'</i>
Total Depth: <i>20'</i>	Depth to Water: <i>14'</i>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2				Potholed to 6' bgs, not logged	
					4					
					6					
	moist	0.4	N		8	4'	4'	CL	6' - 14.5' Silty clay some vfg. - mg sand little gravels, brown, moist, low plastic, low cohesion, no stain, no odor → Saturated @ -14'	
		0.4			10			CLS	14.5' - 20' clay/claystone some silt, brown/greyish, moist, low plasticity, low cohesion, no stain, no odor - weathered w/ depth a intermittent calcification → Iron staining	
		0.3			12	4'	4'			
		0.4			14					
	Saturated	0.9			16	4'	4'			
	↓ moist	0.4			18					
	↓ Dry	0.3								
	↓	0.4				2'	4'		Finished as Flush	

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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW03 Project: Rice #1

Date: 1-29-2019 Project Number: 019018228

Logged By: Daniel Thomas Drilled By: Drill Pro

Elevation: N/A Detector: PID Drilling Method: Direct Push/Geoprobe Sampling Method: Continuous

Gravel Pack: Silica Sand Seal: Bentonite Grout:

Casing Type: PVC Diameter: 1" Length: 5' Hole Diameter: 2.75" Depth to Liquid: -

Screen Type: PVC Slot: 0.01 Diameter: 1" Length: 15' Total Depth: 20' Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2				Potholed to 6' bgs, not logged	
					4					
					6					
	Moist	0.4	N		8	4'	15'	CL	6'-7' Clay little silt, brown, moist, mod. plasticity, cohesive, no stain, no odor	
		0.3			10			CL	7'-13' Silty clay/claystone, brown/grey, low plasticity, low cohesion, moist, stain, odor	
		52.3			12	4'	4'			
		1,200			14			CLS	13'-20' Silty clay/claystone trace Vls Sand, dark brown/grey, low plastic, moist, stain ends w/ 16', low cohesion, no odor past 16'	
		883			16	4'	4'		Intermittent calcification w/ lower silt concentration w/ depth.	
	0.4	2.4	N		18					
		4.6								
		1.2							Finished as Flush	

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**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: <b>MW04</b>	Project: <b>Ric #1</b>
Date: <b>1-30-19</b>	Project Number: <b>C14218228</b>
Logged By: <b>Daniel Thomas</b>	Drilled By: <b>Drill Pro</b>
Elevation: <b>N/A</b>	Detector: <b>PID</b>
Drilling Method: <b>Direct Push/Geoprobe</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>Silica Sand</b>	Seal: <b>Bentonite</b>
Casing Type: <b>PVC</b>	GROUT: <b></b>
Screen Type: <b>PVC</b>	Diameter: <b>1"</b>
Slot: <b>0.01</b>	Length: <b>5'</b>
	Hole Diameter: <b>2.75"</b>
	Depth to Liquid: <b>-</b>
	Total Depth: <b>20'</b>
	Depth to Water: <b></b>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
					6					
					8	4' 3"		CL	6'-11' clay like silt little grey to sand, brown, moist, low plasticity, cohesive, no stain, no odor.	
					10			CLS	11'-20' clay/claystone little silt, greyish brown, moist, low plasticity, low cohesion, no stain, no odor.	
					12	4' 3"				
					14				@ 14' calcification green staining weathered w/ depth	
					16	4' 4"				
					18					
					20	4'				

Finished as Flush



**4600 W. 60th Avenue**

see mwo1

MNOS

Ria #1

1-30-79

014218228

Daniel Thomas

Drill Pro

N/A

PID

### Direct Push/Geoprobe

Continuous

## Silica Sand

## Bentonite

diameter:  
2.75"

### Depth to Liquid

PVC

**Diameter:**  
1"

**Length:**

5

Total Depth: 20

**Depth to Water:**

Slot:

0.01

Diameter:  
1 11

**Length:**

15

th: 20

Finished as Flash

Well Location Sketch:

See MW01



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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW06	Project: Rice #1
Date: 1-30-19	Project Number: C14218228
Logged By: Daniel Thomas	Drilled By: Drill Pro
Elevation: N/A	Detector: PID
Drilling Method: Direct Push/Geoprobe	Sampling Method: Continuous
Gravel Pack: Silica Sand	Seal: Bentonite
Casing Type: PVC	Grout:
Screen Type: PVC	Slot: 0.01
Diameter: 1"	Length: 5'
Hole Diameter: 2.75"	Depth to Liquid: -
Diameter: 1"	Length: 15'
Total Depth: 20'	Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
					6					
					8	4'	4'	CL	6'-9' clay with silt with Vfg-fg sand, brown/white, dry, low plasticity, low cohesion, no stain, no odor, weathered	
					10					
					12	4'	4'	CLS	9'-20' claystone, brown/gray, moist, weathered, low plasticity, cohesive, no stain, no odor.	
					14					
					16	3'	4'		iron staining	
					18	3'	4'		calcification.	
									Finished as Flush	

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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>MW07</b>	Project: <b>Riu #1</b>
Date: <b>1-30-19</b>	Project Number: <b>014218228</b>
Logged By: <b>Daniel Thomas</b>	Drilled By: <b>Drill Pro</b>
Elevation: <b>N/A</b>	Detector: <b>PID</b>
Drilling Method: <b>Direct Push/Geoprobe</b>	Sampling Method: <b>Continuous</b>

Gravel Pack: <b>Silica Sand</b>	Seal: <b>Bentonite</b>	Grout:
Casing Type: <b>PVC</b>	Diameter: <b>1"</b>	Length: <b>5'</b>
Screen Type: <b>PVC</b>	Slot: <b>0.01</b>	Diameter: <b>1"</b>
	Length: <b>15'</b>	Hole Diameter: <b>2.75"</b>
		Total Depth: <b>20'</b>
		Depth to Liquid: <b>-</b>
		Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4				Potholed to 6' bgs, not logged Nothing Observed	
					6					
	Moist	1.6	~		8	4'	4'	CL	6'-9.5' clay some silt trace Vfs-Fg Sand, brown, moist, low plasticity, cohesive, no stain, no odor.	
		0.9	~		10			CLS	9.5'-20' clay/claystone, greyish brown, moist to dry, low plasticity, low cohesion, stained @ 9.5'-10', odor @ 9'-10'	
		1.68	~		12	4'	4'			
		8.2	~		14				* @ 9.5'-10' hard/crumbly claystone	
		1.8	~		16	4'	4'		* Iron staining	
	Dry	1.0	~		18				Finished as Flush	
		0.6	~							
		0.6	~							



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MWOFB

Rite #1

1-30-19

Number: 014218228

Daniel Thomas

Drill Pro

N/A

PID

### Direct Push/Geoprobe

Continuous

## Silica Sand

## Bentonite

Costs

**Depth to Liquid:**

PVC

1"

§

2.75"

-

Screen Type:

Slot:

**Depth to Water:**

**PVC**

0.01

149

15

20

100.5'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2				Potholed to 6' bgs, not logged	
					4				Nothing Observed	
					6					
Moist ↓ Saturated ↓ Moist ↓ Dry	1.3 1.0 1.2 1.2 1.1 0.6 0.5	~ ~ ~ ~ ~ ~ ~			8	4'	4'	CL	6'-9.5' clay little silt trace Vfg-Fg Sand, li. brown, moist to Saturated, low plasticity, cohesive, no stain, no odor	
					10			CLS	9.5'-20' clay stone, grayish brown, moist to dry, low plasticity, cohesive, stain @ 9.5'-11', no odor * Iron staining * Calcification	
					12	4'	4'			
					14					
					16	4'	4'			
					18				Finished as Flush	

Finished as Flusht