

Attachment B

**Soil Boring Log and Well
Construction Report**



Boring Location Sketch

SOIL BORING LOG

Project Number

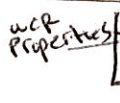
Boring Number

Sheet

MW09

1 of 3

N



Project

Location

WCR Properties 41-5

Drilling Method & Equipment

Direct Push DT6620

Drilling Contractor

DrillPro - Terrance Apolaca

Date 10/18/17

Water Level

Start 0920

Finish 0955

Logger

R. Finley

Depth Below Surface	Sample			Standard Penetration Test Results 6" / 6" / 6" / 6"	Soil Description USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery						
5					Hand auger Hydrovac Potholing to 6ft BGS				5
10					6-9 L. Bwn silty sand, ufg-fg. med dense no plastic. grading to very dense. No moisture noted at 9-10 med bwn clay sd ufg-fg. very dense low plastic, dry some red mottling color.	Sm N	0.9	7	
						SC N	0.8	10	8
						Sm N	2.1	11	11
15									15
20					10-12 L. bwn silty sand ufg-fg. med dense, No plastic. moisture @ ~10.5 ft grading back to dry				20
25					* Direct push refusal @ 12 ft. Switched to Solid stem auger 12-17.5				25
					* No odor or stain Soil noted from auger cuttings				

Total Depth(s) =

17.5

Soil Sample(s):

Ø

Rationale

PM

Additional Information:



Well Completion Detail

Street Box
Diam. =

Flushmount

Surveyed Dif.
Btwn. GS and
TOC

0ft

Grout

0.6"

3ft

10-20
sd

Bentonite

Type - hydrated
chrl

6.5

7.5

Sand Pack

10-20

Screen

10 slot

17.5

17.88

* Measuring Point is Below Ground Surface (bgs)

WELL CONSTRUCTION LOG

Project
Number

WCP Properties
41-5

Well
Number

MW09

Drilling Summary

Total Depth of Hole: 17.5

Hole Diameter: 2 1/4

Drilling Company: DrillPro

Driller: Terrance Apodaca

Rig Type: DT 6620

Bits: Direct Push

Geologist: R. Finley

Time Log

	Start		Finish	
	Date	Time	Date	Time
Drilling:	<u>10/18</u>	<u>0920</u>	<u>10/18</u>	<u>0955</u>
Well Completion:	<u>↓</u>	<u>0955</u>	<u>↓</u>	<u>1005</u>
Grouting:	<u>↓</u>	<u>1005</u>	<u>↓</u>	<u>1010</u>

Depth to Water (Below TOC)

Depth: 5.07' Date: 11/1/19 Time: 1000

Well Construction Materials

	Grout	Seals	Filter
Quantity:	<u>1 bag</u>	<u>1 bag</u>	<u>2 bgs</u>
Type:	<u>Quik</u>	<u>Bent</u>	<u>10-20</u>
	Screen		
Size:	<u>10 ft</u>	Config.: <u>Sch 40</u>	
Area/Ft.:	<u>10 slot</u>	Comp.: <u>PVC</u>	
Inside Diam.:	<u>1.049"</u>	Outside Diam.: <u>1.315"</u>	

Comments

Flushmount used
due to being in
cattle field - cattle
might destroy
stickups

Total Depth from TOC = 17.88'



Boring Location Sketch

SOIL BORING LOG

Project Number

Boring Number

Sheet

MW10

2 of 3

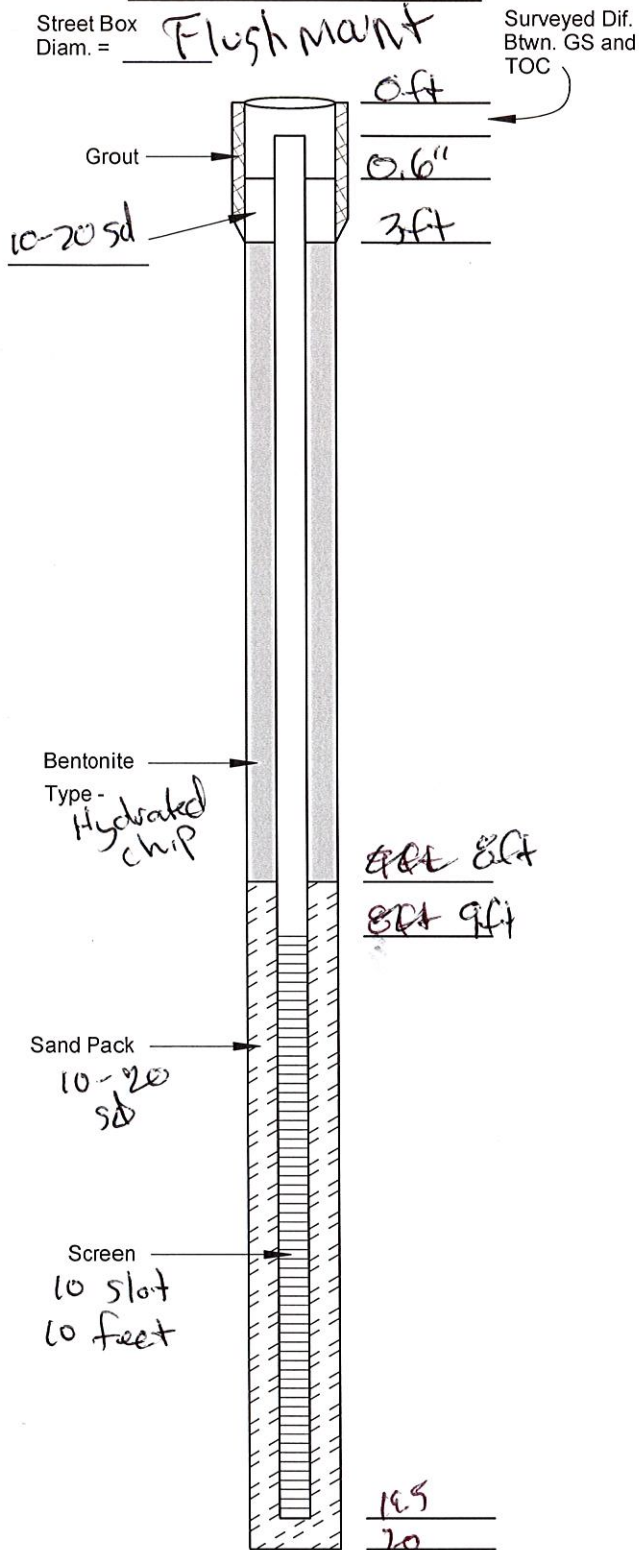
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Project _____ Location WCR Properties 41-5Drilling Method & Equipment Direct Push DT6620 Drilling Contractor Drill ProDate 10/18/19 Water Level _____ Start 1010 Finish 1035 Logger P. Finley

Depth Below Surface	Sample			Standard Penetration Test Results 6" / 6" / 6" / 6"	Soil Description USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery						
5					Hand auger pit hole to 6ft BGS				5
6					6-8 L. Brown silty sand, vfg-fg, med. dense, no plasticity. No moisture some red mottling.	SM	N	0.5	7
10					8-11 L. Brown silty sand, vfg-fg, med-very dense, no plastic. ^{some} moisture, some red mottling.	SM	N	0.5	9 10
15									15
20					* Direct push refusal @ 11ft; switched to solid stem auger				20
25					11- 15 20				25
					* no odor or stained soil noted from auger cuttings				
Total Depth(s) =				Soil Sample(s):		Rationale		Additional Information:	
20				0		PM			



Well Completion Detail



* Measuring Point is Below Ground Surface (bgs)

Total Depth from TOC = 20.02

WELL CONSTRUCTION LOG

Project wce Properties
Number 41-5

Well
Number MW10

Drilling Summary

Total Depth of Hole: ~20 ft BGS
Hole Diameter: 2 1/4"
Drilling Company: DrillPro
Driller: Terrance Apodaca
Rig Type: DT60620
Bits: Direct Push
Geologist: R. Finley

Time Log

	Start		Finish	
	Date	Time	Date	Time
Drilling:	<u>10/18</u>	<u>1016</u>	<u>10/18</u>	<u>1035</u>
Well Completion:	<u>↓</u>	<u>1035</u>	<u>↓</u>	<u>1045</u>
Grouting:	<u>↓</u>	<u>1045</u>	<u>↓</u>	<u>1055</u>

Depth to Water (Below TOC)

Depth: 7.76' Date: 11/1/19 Time: 1100

Well Construction Materials

	Grout	Seals	Filter
Quantity:	<u>16g</u>	<u>36g</u>	<u>26g</u>
Type:	<u>Quikrete</u>	<u>bent</u>	<u>10-20sd</u>

	Screen
Size:	<u>10ft</u>
Area/Ft.:	<u>10 slot</u>
Inside Diam.:	<u>1.049"</u>
Config.:	<u>Sch 40</u>
Comp.:	<u>PVC</u>
Outside Diam.:	<u>1.315"</u>

Comments



Boring Location Sketch

SOIL BORING LOG

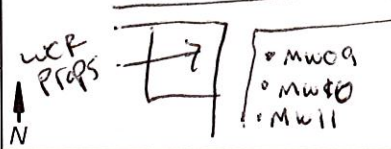
Project Number

Boring Number

Sheet

MW 11

3 of 3



* locations
collected
w/ GPS
- submeter
accuracy

Project _____ Location wcp Properties 41-5Drilling Method & Equipment Direct Push DT6620 Drilling Contractor DrillPro - T. ApodacaDate 10/18/19 Water Level _____ Start 1055 Finish 1115 Logger R. Finley

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery						
				6"/6"/6"/6"					
5					Hand Auger to 6ft BGS				
10					6-11ft L. brown silty sd vfg-fg, med dense no plastic grading to very dense. No moisture evident. No odor/stn	5m N		0.7 - 7ft 0.9 - 9ft	
15					* Direct Push refusal @ 11ft Solid stem auger to 24' * No impacts or stain noted on soil from auger				
Total Depth(s) =				Soil Sample(s):		Rationale		Additional Information:	
24				C		PM			

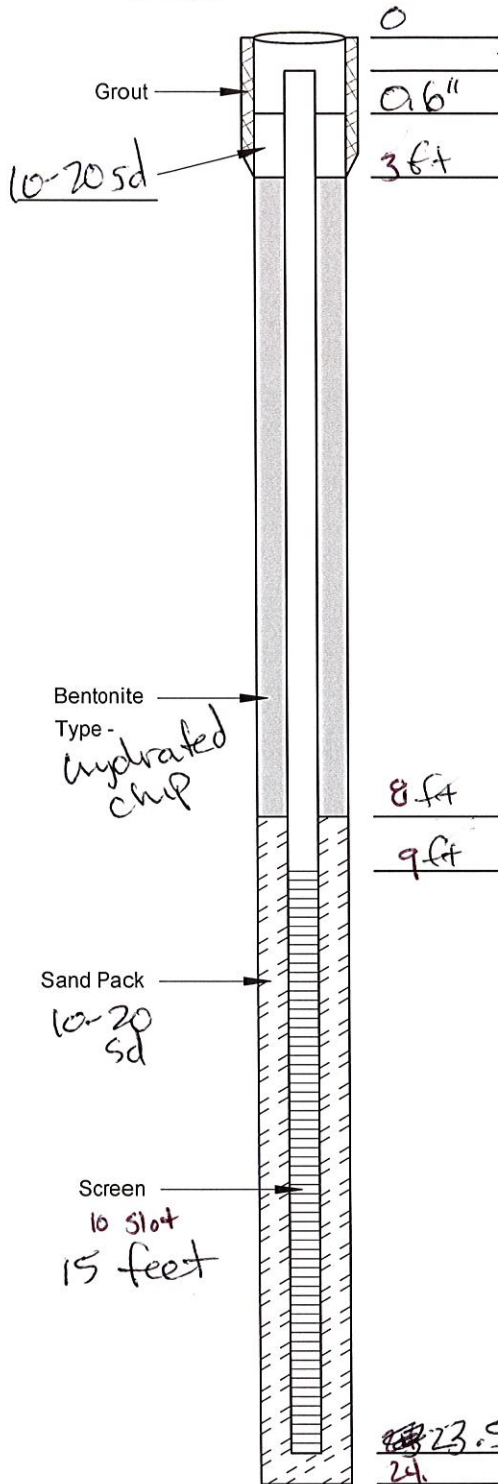


Well Completion Detail

Street Box
Diam. =

Flushmount

Surveyed Dif.
Btwn. GS and
TOC



WELL CONSTRUCTION LOG

Project
Number

WCR Properties
41-S

Well
Number

MW11

Drilling Summary

Total Depth of Hole: 24
Hole Diameter: 2 1/4"
Drilling Company: DrillPro
Driller: Terrance Apodaca
Rig Type: DT6670
Bits: Direct Push
Geologist: R. Finley

Time Log

	Start		Finish	
	Date	Time	Date	Time
Drilling:	<u>10/18/19</u>	<u>1055</u>	<u>10/18</u>	<u>1145</u>
Well Completion:	<u>↓</u>	<u>1115</u>	<u>↓</u>	<u>1130</u>
Grouting:	<u>↓</u>	<u>1130</u>	<u>↓</u>	<u>1145</u>

Depth to Water (Below TOC)

Depth: 9.38' Date: 11/1/19 Time: 1300

Well Construction Materials

	Grout	Seals	Filter
Quantity:	<u>1 bg</u>	<u>3 bg</u>	<u>4 bg</u>
Type:	<u>Qu</u>	<u>bent</u>	<u>10-20sd</u>

	Screen	
Size:	<u>15 ft</u>	Config.: <u>Sch 40</u>
Area/Ft.:	<u>10 slot</u>	Comp.: <u>PVC</u>
Inside Diam.:	<u>1.049"</u>	Outside Diam.: <u>1.315"</u>

Comments

Total Depth from TOC = 23.5