



June 2, 2021

Joshua Venable
900 W 7950 S
Willard, UT 84340

Subject: Water Table Monitoring located at 5590 Old Snowbasin Road in Huntsville, UT. Land serial #20-034-0003

Dear Mr. Venable:

This letter is to notify you of the results for water table monitoring that was conducted on your property. Monitoring was performed from January 12, 2021 through May 11, 2021. The peak ground water level was observed on April 21, 2021.

The high water table for the subject property was measured at 22 inches-58.5 below ground surface throughout the monitoring period. In years where the precipitation falls below season average, State rule allows for an adjusted maximum water table based on one or more of the following.

- i. Regular monitoring of the ground water table, or ground water table, perched, in an observation well for a period of one year, or for the period of the maximum groundwater table
 - (1) Previous ground water records and climatological or other information may be consulted for each site proposed for an onsite wastewater system and may be used to **adjust** the observed maximum ground water table elevation.
- ii. Direct visual observation of the maximum ground water table in a soil exploration pit for:
 - (1) evidence of crystals of salt left by the maximum ground water table; or
 - (2) chemically reduced iron in the soil, reflected by redoximorphic features, i.e. a mottled coloring.
- iii. Previous ground water records and climatological or other information may be consulted for each site proposed for an onsite wastewater system and may be used to adjust the observed maximum ground water table elevation in determining the anticipated maximum ground water table elevation.

The water table for the subject property **in the area of monitoring pipes B1N-B3S and A1W- A3S** remained below 24 inches throughout the monitoring period. Therefore, an **At-Grade Wastewater Disposal System** would be suitable for the property with respect to water table.

The water table for the subject property **in the area of monitoring pipes C1N-C3W** remained below 12 inches throughout the monitoring period. Therefore, a **Wisconsin Mound or Packed Bed Media Wastewater Disposal System** would be suitable for the property with respect to water table. A map of the monitoring sites has been included for your reference with this letter.

The Weber-Morgan Health Department does not assert that this property meets zoning, subdivision or any other development feasibility requirements.

If not already accomplished, the following requirements must be satisfied in accordance with Utah Administrative code R317-4 and Weber-Morgan Health Department Onsite Wastewater Treatment System regulation, before the Weber-Morgan Health Department is able to issue a letter of feasibility for residential development on the property:

1. Approval of onsite systems in western Weber County is made in accordance with the Ground Water Management Plan for Western Weber County, (adopted by the Weber-Morgan Board of Health 27 August 2001). The plan addresses replacement systems and density requirements.
2. Drinking water. Culinary drinking water must be provided by an approved public water system or an approved private well. Properties to be served by a public water system must provide our office with a letter from the utility company, documenting that the system is capable of provided water to the property. If a private well is to be used, the well must be permitted and approved by a member of this office.
3. Soils Evaluation and Percolation Testing. Soil exploration pits shall be made at the minimum rate of one exploration pit per lot proposed. Application and guidance for soils evaluation are available at the health department or online at webermorganhealth.org. Percolation tests may be required based on soil types and must be performed by a certified individual. A list of certified individual is available at the health department

Once feasibility has been demonstrated, and the following requirements have been satisfied, the health department will then be able to issue an Onsite Wastewater Disposal Permit:

1. System design. Alternative systems must be designed by a Certified, level 3 onsite systems professional or other qualified professional. The system must be designed in accordance with Utah State Rule, R317-4, Onsite Wastewater Systems and Weber-Morgan Health Department Rules for Individual Wastewater Systems.
2. Building plans. Plans must include the property's dimensions, topographical features, easements, a floor plan (indicating the number of bedrooms and basement, if applicable), driveways and outbuildings and lot dimensions, placement of the onsite system and the location of system replacement area (must accommodate 100% replacement of the original system).
3. Subdivision plans. The location of all exploration pits and percolation test holes shall

be clearly identified on the subdivision final plat and identified by a key number or letter designation. The results of such soil test, including stratified depths of soils and final percolation rates for each lot shall be recorded on or with the final plat.

Attached is a copy of all water table measurements and observations. Please contact this office or the undersigned at 801-399-7160 if you have questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Summer Day".

Summer Day, LEHS III, Program Manager
Environmental Health Division

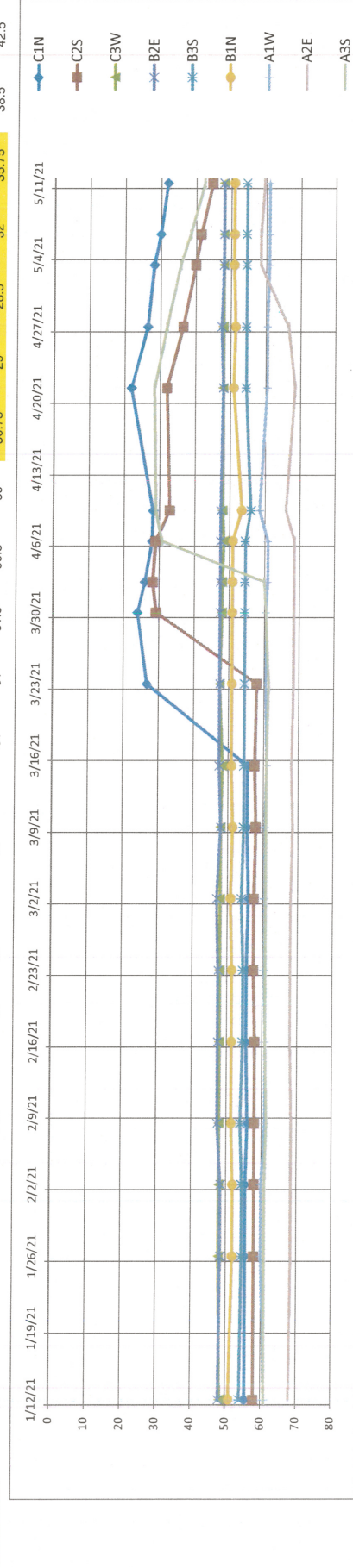
2021 WATER TABLE DATA

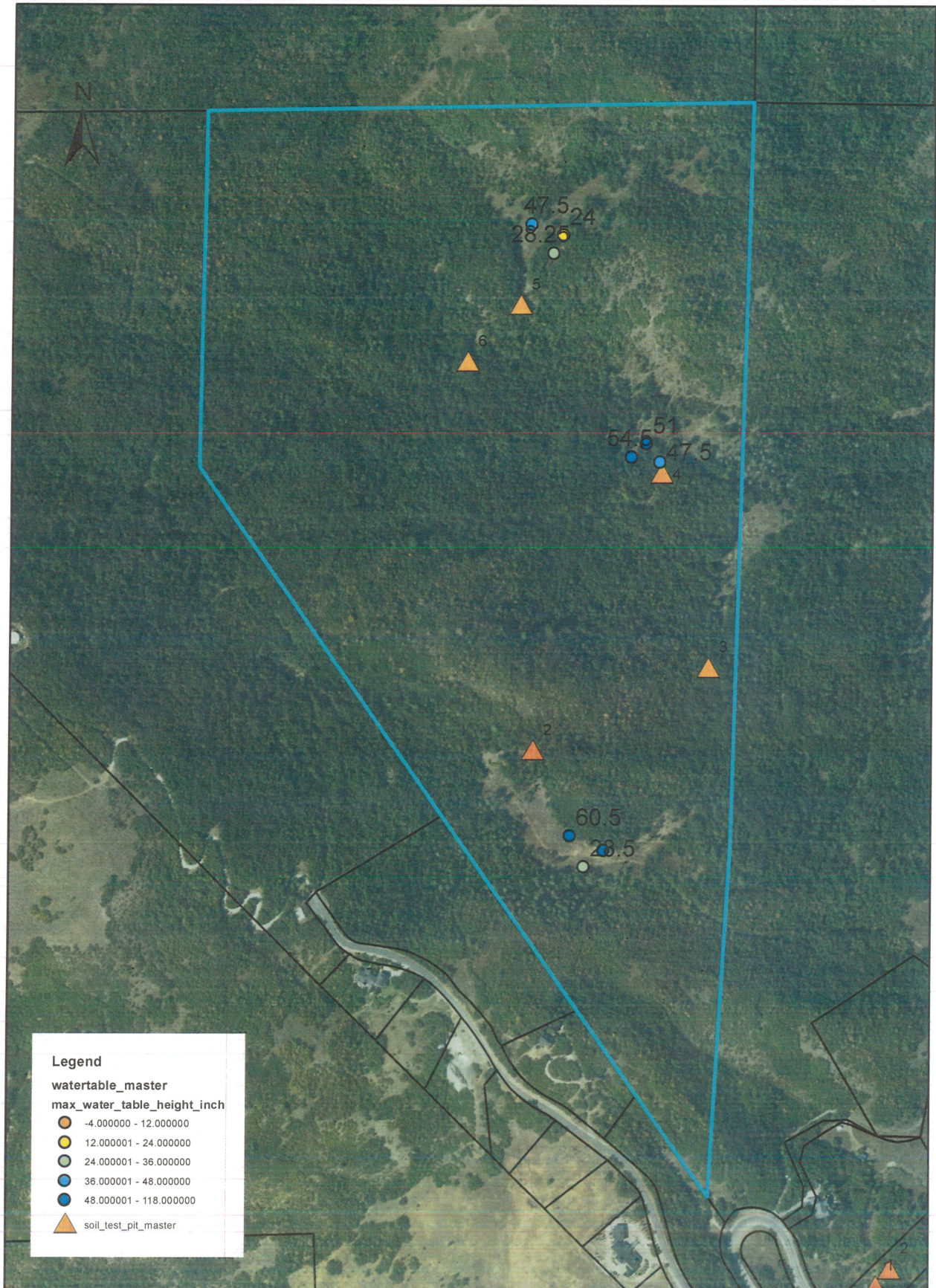
Name: Joshua Venable
 Address: 5590 Old Snowbasin Rd
 Land serial: 200340003

number of wells	9
number of sites	3
total readings	0

Table Key
exceed 36"
exceed 24"
exceed 12"

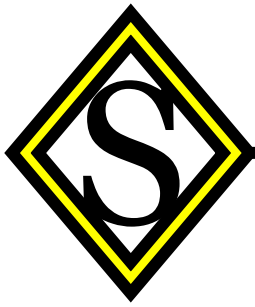
DATE	1/11/21	1/12/21	1/19/21	1/26/21	2/1/21	2/2/21	2/8/21	2/10/21	2/16/21	2/23/21	3/1/21	3/2/21	3/7/21	3/14/21	3/21/21	3/28/21	3/29/21	3/15/21	3/23/21	3/30/21	4/2/21	4/16/21	4/21/21	4/27/21	5/3/21	5/6/21	5/11/21			
WELL #	1	2	3	5	6	7	8	9	10	13	14	15	16	17	18	21	22	24	26	28	30	31	32	33	35					
CIN	55.5	55.5	55.5	55.5	55.5	55.5	56	57.5	55.5	55.5	55.5	56	57.5	55.5	55.5	26.75	24	26	28	28.25	28	28.25	22	26.5	28.25	30	32			
C2S	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	
C3W	48.5	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
B2E	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
B3S	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
BTN	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
A1W	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
A2E	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
A3S	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61





1 inch = 500 feet





Shupe Environmental Solutions Inc

Mailing Address

P. O. Box 199, Huntsville, Utah 84317

Carl R Shupe
801-814-3036
cshupe001@gmail.com

DOPL Licensed Environmental Health Scientist
DWQ Certified Onsite Wastewater Level 3
DOPL Licensed Contractor

5630685-2001
00464-OSP-3
12011279-5501

PERCOLATION TEST CERTIFICATE

Property Information

2021 Jul 23

Site Address: ~5590 Old Snow Basin Rd Huntsville

Additional:

Parcel ID: 20-034-0003_

Soil Log #: 14914 – Pit# 6

Percolation Test Hole

Location: USNG 12T UTM 431335-4566396

Test Depth: **52 inches** from existing grade

Hole Preparation: Width 10 inches Vertical Sidewall Depth 12 inches

Saturation: 2021-07-23

Residual Water Depth: 0 inches

Fast Percolation Test

	Start Time	Reference Point	End Time	End Point	Amount Dropped	Elapsed Time	Percolation MPI	Other Factors Affecting Test Results
Start	2005.9	0	2010.9	3 1/8	3 1/8	5.0	1.60	
2	2011.2	0	2016.2	2 11/16	2 11/16	5.0	1.86	
3	2016.7	0	2021.7	2 5/8	2 5/8	5.0	1.90	
4								
5								
6								

Health Official: C. Jorgensen

Witnessed: Tracking Log

Certified Onsite Professional

I am Level III certified in accordance with UAC Chapter R317-11. I certify that the above test was conducted in accordance with UAC § R317-4-14 Appendix D.


SIGNATURE OF CERTIFIED TESTER

2021 Jul 23
DATE OF SIGNATURE

Perc Hole Construction

- 1) Smear surface removed to expose soil structure (yes/no) Y
- 2) Was 2-3 inches of pea gravel added (yes/no) Y
- 3) Was a screen and gravel pack around screen used. (yes/no) N

If no in high sand or gravel then the hole construction dimension likely will not meet the percolation method standards

☒ Type 1-2 Soils

The hole shall be carefully filled with clear water to a minimum depth of 12 inches over the gravel and the time for this amount of water to seep away shall be determined. The procedure shall be repeated and if the water from the second filling of the hole at least 12 inches above the gravel seeps away in 10 minutes or less, the test may proceed immediately as follows:

- 1) The water level shall be filled to 6 inches above the gravel. In no case shall the water depth exceed 6 inches above the gravel. Was it? (yes/no) Y
- 2) The test should initially be ran using a 10 minute test. If 6 inches of water seeps away in less than 10 minutes then a shorter duration of 5 minutes may be used. What test time were used? 5
- Stabilized and or documented percolation rate for 10, 5 minute test
- 3) Six consecutive time intervals shall be recorded unless two successive water level drops do not vary by more than 1/16 of an inch. How many test intervals were ran? 3
- 4) The stabilized percolation rate is recorded when 2 consecutive test are within 1/16 of an inch of one another. Did the percolation rate stabilize? (yes/no) Y
- 5) If no stabilized rate is achieved then the smallest drop shall be used to make the calculation. What is the documented percolation rate? 1.9 MPI

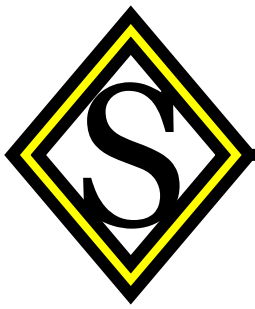
Preparation





Final Drop





Shupe Environmental Solutions Inc

Mailing Address

P. O. Box 199, Huntsville, Utah 84317

Carl R Shupe
801-814-3036
cshupe001@gmail.com

DOPL Licensed Environmental Health Scientist
DWQ Certified Onsite Wastewater Level 3
DOPL Licensed Contractor

5630685-2001
00464-OSP-3
12011279-5501

PERCOLATION TEST CERTIFICATE

Property Information

2021 Jul 27

Site Address: ~5590 Old Snow Basin Rd Huntsville

Additional:

Parcel ID: 20-034-0003_

Soil Log #: 14914 – Pit# 4

Percolation Test Hole

Location: USNG 12T UTM 431545-4566396

Test Depth: **36 inches** from existing grade

Hole Preparation: Width 10 inches Vertical Sidewall Depth 13 inches

Saturation: 2021-07-26 1800-2200 hrs

Residual Water Depth: 0 inches

	Start Time	Reference Point	End Time	End Point	Amount Dropped	Elapsed Time	Percolation MPI	Other Factors Affecting Test Results
Start	2008	0	2038	3 1/2	3 1/2	30	8.6	This hole was saturated twice due to the Snow Basin fire.
2	2041	0	2111	2 15/16	2 15/16	30	10.2	
3	2112	0	2142	2 15/16	2 15/16	30	10.2	
4								
5								
6								
7								
8								

Health Official: C. Jorgensen

Witnessed: Tracking Log

Certified Onsite Professional

I am Level III certified in accordance with UAC Chapter R317-11. I certify that the above test was conducted in accordance with UAC § R317-4-14 Appendix D.


SIGNATURE OF CERTIFIED TESTER

2021 Jul 27
DATE OF SIGNATURE

Perc Hole Construction

- 1) Smearred surface removed to expose soil structure (yes/no) Y
- 2) Was 2-3 inches of pea gravel added (yes/no) Y

- 3) Was a screen and gravel pack around screen used. (yes/no) Y
If no in high sand or gravel then the hole construction dimension likely will not meet the percolation method standards

Type 3-6 Soils (30 minute test)

- 1) Was the hole filled with 12 inches of water?(yes/no) Y
2) Was the 12 inch water level maintained for at least 4 hours? (yes/no) Y
3) Immediately after the 4 hours saturation the water in the hole should be left in and the hole shall be allowed to swell for 16-30 hours. Was it? (yes/no) Y
4) Was the soil which had sloughed removed? (yes/no) Y
5) Was the hole filled with 6 inches of clear water above the gravel after each interval? Y
6) In no case shall the depth exceed 6 inches above the gravel. Did it? (yes/no) N

Stabilized and or documented percolation rate for 30 minute test

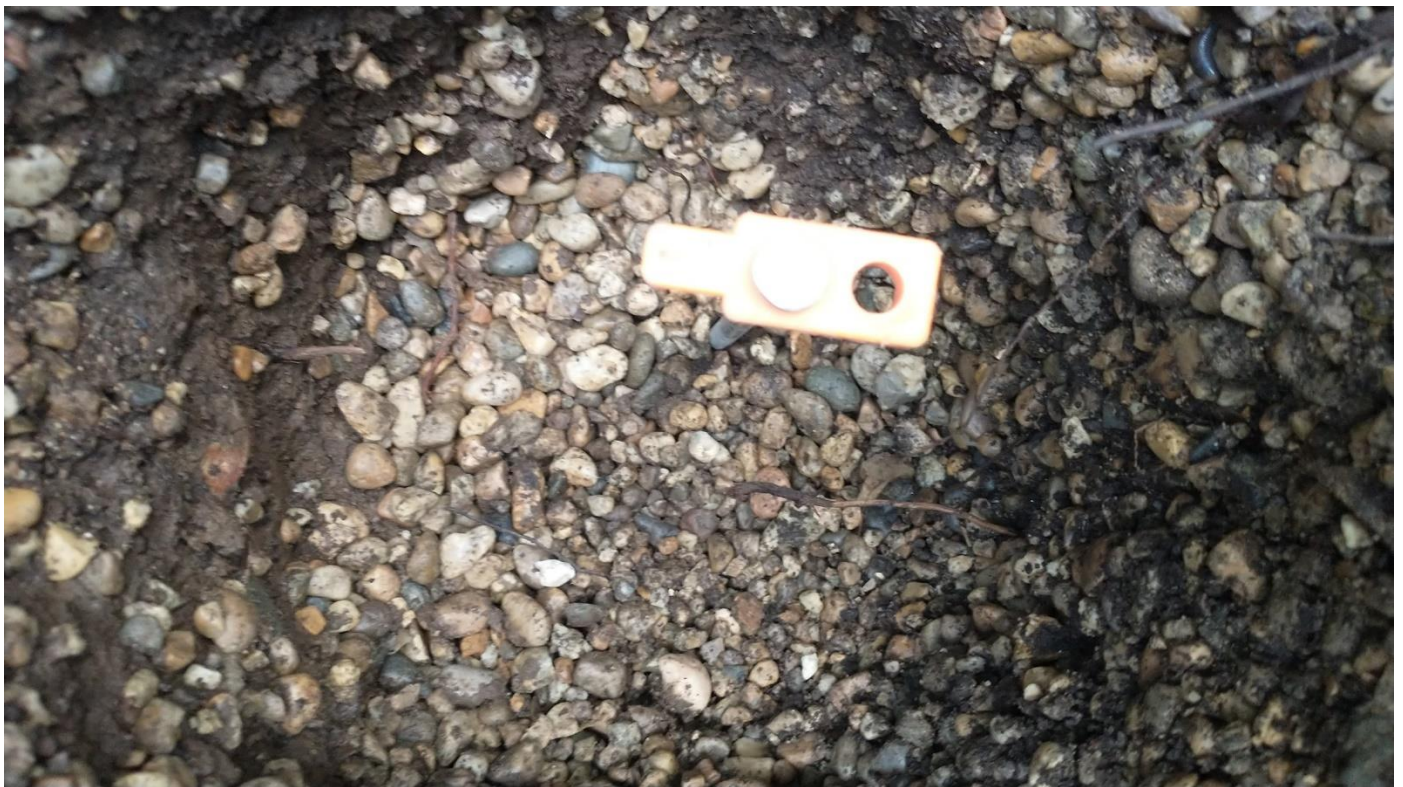
- 7) How many test intervals were ran? 3
8) The stabilized percolation rate is recorded when 2 consecutive test are within 1/16 of an inch of one another. Did the percolation rate stabilize? (yes/no) Y
9) If no stabilized rate is achieved then the smallest drop shall be used to make the calculation. What is the documented percolation rate? 10.2 MPI

Preparation





Swelling



Final Drop

