

December 5, 2019 Project No. 19744-10A

Mr. Wayne Dollarhide **DIAMOND VALLEY PARTNERS, LLC**41197 Golden Gate Circle, Suite 201

Murrieta, CA 92562

Subject: Infiltration System Design Interpretive Report, Proposed Diamond Valley Storage, Assessor's Parcel Numbers 466-050-019, -020, & -021, Winchester Area, Riverside County, California

In accordance with your request, CW Soils is pleased to present this infiltration system interpretive report for the proposed Diamond Valley Storage facility, Assessor's Parcel Numbers 466-050-019, -020, & -021, located in the Winchester area of Riverside County, California. The purpose of our feasibility study was to determine the onsite infiltration rates and physical characteristics of the subsurface soils within the vicinity of the proposed infiltration systems. We have provided guidelines for the design of onsite infiltration systems. This interpretive report is intended to provide onsite infiltration rates for the existing soils.

#### SITE DESCRIPTION

The subject property consists of undeveloped land with relatively flat to hilly terrain. Topographic relief at the subject property is low to moderate.

## PROPOSED DEVELOPMENT

Based on information provided by you, the proposed improvements will consist of several buildings with associated interior driveways, utilities, and on-site infiltration areas.

#### SUBSURFACE EXPLORATION AND INFILTRATION TESTING

## SUBSURFACE EXPLORATION

Subsurface exploration at the site consisted of five exploratory excavations to a maximum depth of 15 feet, conducted on May 8, 2006 to evaluate the subsurface earth materials. The exploratory holes were excavated and logged, see Appendix A. The approximate locations of the exploratory excavations are shown on the attached Infiltration Location Map, Plate 1.

## **INFILTRATION TESTING**

Aardvark Permeameter testing was utilized to conduct in-situ infiltration tests within the proposed basin on December 5, 2019 to evaluate the infiltration rates in order to estimate the amount of storm water runoff that can infiltrate into the proposed systems. The testing utilizes the constant head method with extremely accurate (0.2 ml resolution) hydraulic conductivity testing under saturated conditions, for the determination of reliable in-situ infiltration rates. Automated readings are taken at 1 minute intervals until the rate becomes constant and saturated hydraulic conductivity for the particular soil has been reached. This is reflected by the flattening of the curve generated by sample test data as shown on the Water Consumption Rate graph (Plot of Water Consumption Rate vs. Time) in Appendix B. Steady Flow Rate is achieved when the Water Consumption Rate changes less than +/-5% for 3 consecutive readings.

The Aardvark Permeameter was utilized in replacement of the Guelph Permeameter as recommended by Soil Moisture Equipment Corporation, due to the higher reliability, accuracy, and ease of use. The Aardvark Permeameter is the latest version of the Guelph Permeameter.



The infiltration tests were conducted in a 3 inch diameter test hole, at depths of 2 to 3 feet deep. The approximate locations of the infiltration test holes are indicated on the attached Infiltration Location Map, Plate 1. Infiltration test holes were located by property boundary measurement on the site plan and/or by using geographic features. The test holes were filled with water and allowed to stand for an extended period of time.

Relatively shallow Aardvark Permeameter testing (P-1 & P-2) was conducted using the guidelines of the product instruction manuals. Stabilized infiltration test readings are summarized in the following table and more detailed test data recorded in the field can be found in Appendix

B. The test results are anticipated to be representative of the soils found in the vicinity of the test locations.

## INFILTRATION TEST SUMMARY

TEST NUMBER	TEST HOLE HOLE DIAMETER (in) HOLE DEPTH (in) INFILTRATION RATE (in/hr)		SOIL DESCRIPTION	
P-1	3	3	0.29	Silty SAND
P-2	3	2	0.9	Silty SAND

#### **FINDINGS**

#### **SOILS**

A general description of the soils observed on site is provided below:

• Quaternary Old Alluvial Deposits (map symbol Qoa): Quaternary old alluvial deposits were encountered to a maximum depth of 13 feet. These alluvial deposits consist predominately of yellowish brown to dark brown, silty sand and sandy silt.

## **GROUNDWATER**

Groundwater was not observed during exploration of TP-2 excavated to a maximum depth of 15 feet on May 8, 2006.

## CONCLUSIONS AND RECOMMENDATIONS

## **GENERAL**

The shallow in-situ soils within the subject property were determined to have somewhat consistent infiltration properties in the areas tested. As a result, the recommended infiltration design rate is 0.6 in/hr.

## PLAN REVIEW AND CONSTRUCTION SERVICES

This report has been prepared for the exclusive use of **DIAMOND VALLEY PARTNERS, LLC** and their authorized representative. It is unlikely to contain sufficient information for other parties or other uses. CW Soils should be provided the opportunity to review the final design plans and specifications prior to construction, in order to verify that the recommendations have been properly incorporated into the project plans and specifications. If CW Soils is not accorded the opportunity to review the project plans and specifications, we are not responsibility for misinterpretation of our recommendations.

We recommend that CW Soils be retained to provide soils engineering and engineering geologic services during the grading and foundation excavation phases of work, in order to allow for design changes in the event that the subsurface conditions differ from those anticipated prior to construction.

CW Soils should review any changes in the project and modify the conclusions and recommendations of this report in writing. This report along with the drawings contained within are intended for design input purposes only and are not intended to act as construction drawings or specifications. In the event that conditions during grading or construction operations appear to differ from those indicated in this report, our office should be notified immediately, as appropriate revisions may be required.

#### REPORT LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable soils engineers and geologists, practicing at the time and location this report was prepared. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

Soils vary in type, strength, and other engineering properties between points of observation and exploration. Groundwater and moisture conditions can also vary due to natural processes or the works of man on this or adjacent properties. As a result, we do not and cannot have complete knowledge of the subsurface conditions beneath the proposed project. No practical study can completely eliminate uncertainty with regard to the anticipated geologic and soils engineering conditions in connection with a proposed project. The conclusions and recommendations within this report are based upon the findings at the points of observation and are subject to confirmation by CW Soils based on the conditions revealed during grading and construction operations.

This report was prepared with the understanding that it is the responsibility of the owner, to ensure that the conclusions and recommendations contained herein are brought to the attention of the other project consultants and are incorporated into the plans and specifications. The owners' contractor should implement the recommendations in this report and notify the owner as well as our office if they consider any of the recommendations presented herein to be unsafe or unsuitable.

CW Soils appreciates the opportunity to offer our services on this project. If we can be of further assistance, please do not hesitate to contact the undersigned at your convenience.

Respectfully submitted,

**CW Soils** 

Chad E. Welke, PG, CEG, PE

Principal Geologist/Engineer

Distribution: (4) Addressee

Attachments: Appendix A – Exploration

Appendix B – Infiltration Test Results

Plate 1 – Infiltration Location Map (Rear of Text)

# **APPENDIX A**EXPLORATION

# **KEY TO LOGS**

		DE	FINITIO	ON OF T	ERMS	
	PRIMARY DIVISION	S	SYMI	BOLS	SEC	ONDARY DIVISIONS
	GRAVELS	CLEAN		GW	Well graded gravels, grav	el-sand mixtures, little or no fines.
SOILS F OF O. 200	MORE THAN HALF OF COARSE	GRAVELS (LESS THAN\ 5% FINES)		GP	Poorly graded gravels or	gravel-sand mixtures, little or no fines.
N S	FRACTION IS			GM	Silty gravels, gravel-sand	-silt mixtures, non-plastic fines.
E GRAINED S THAN HALF MATERIAL GER THAN NO SIEVE SIZE	LARGER THAN NO. 4 SIEVE	GRAVEL WITH FINES		GC	Clayey gravels, gravel-sa	nd-clay mixtures, plastic fines.
GRAI THAN IATER ER TH EVE S	SANDS	CLEAN		SW -	Well graded sands, grave	lly sands, little or no fines.
COARSE GRAINED SOIL, MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	MORE THAN HALF OF COARSE	SANDS (LESS THAN 5% FINES)		SP	Poorly graded sands or gr	avelly sands, little or no fines.
N N IS	FRACTION IS			SM	Silty sands, sand-silt mixtures, non-plastic fines.	
O	SMALLER THAN NO. 4 SIEVE	SANDS WITH FINES		SC	Clayey sands, sand-clay i	12 (2)
E OF	SII TS AN	D CLAYS		ML	clayey silts with slight pl	
TINE GRAINED SOILS AORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SEVE SIZE	LIQUID	LIMIT IS	1 1	CL	Inorganic clays or low to lean clays.	medium plasticity, gravelly clays, sandy clays,
AINED HAN H. ERIAL IALLEH 10. 200 SIZE	LESS IF	IAN 50%	,	OL	Organic silts and organic silty clays of low plasticity.	
FINE GRAINED SC MORE THAN HAL: MATERIAL IS SMALLER THAN NO. 200 SIE SIZE	AA 2T II2	D CLAYS		MH	silts.	s or diatomaceous fine sandy or silty soils, elastic
A M REG		LIMIT IS		CH	Inorganic clays of high plasticity, fat clays.	
FINE MORE N THAJ	GREATER THAN 50%			ОН	Organic clays of medium to high plasticity, organic silts.	
Н	GHLY ORGANIC S	OILS		Pt	Peat and other highly org	ganic soils
		× == == == == == == == == == == == == ==	GRA	IN SIZE	ES	
SILTS AND CL	A CONTRACTOR OF THE PARTY OF TH	SAND DIUM COARSE	GRA FINE	VEL COARSE	COBBLES	BOULDERS

RELATIVE DENSITY

U.S. STANDARD SERIES SIEVE

	SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/FOOT*
	VERY LOOSE	0-4
1	LOOSE	4 – 10
	MEDIUM DENSE	10 – 30
	DENSE	30-60
	VERY DENSE	OVER 50

## CONSISTENCY

CLEAR SQUARE SIEVE OPENINGS

CLAYS AND	STRENGTH**	BLOWS/FOOT*
PLASTIC SILTS	W 1.44	\$
VERY SOFT	0 – 1/4	0-2
SOFT	1/4 - 1/2	2-4
FIRM	1/2 - 1	4 – 8
STIFF	1 – 2	8 – 16
<b>VERY STIFF</b>	2 – 4	16 - 32
HARD	OVER 4	OVER 32

- \* NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30-INCES TO DRIVE A 2-INCH O.D. (1-3/8-INCH I.D.) SPLIT SPOON (ASTM D-1586).
- \*\*UNCONFINED COMPRESSIVE STRENGTH IN TONS/SQ. FT. AS DETERMINED BY LABORATORY TESTING OR APPROXIMATED BY THE STANDARD PENETRATION TEST (ASTM D-1586), POCKET PENETROMETER, TORVANE, OR VISUAL OBSERVATION TYPES OF SAMPLES:

X	- RING SAMPLE	<b>T</b> - STANDARD PENETRATION TEST
DR	ILLING NOTES:	

- BULK SAMPLE

1. SAMPLING AND BLOW COUNTS

RING SAMPLER - NUMBER OF BLOWS PER FOOT OF A 140 POUND HAMMER FALLING 30 INCHES.

STANDARD PENETRATION TEST - NUMBER OF BLOWS PER FOOT

2. NR = NO RECOVERY

LOGGED BY: <u>JPF</u>	METHOD OF EXCAVATION: CASE 580 SUPERM EXTENDA BACKHOE W/24" BUCKET ELEVATION:	DATE OBSERVED: 05/08/06  LOCATION: SEE GEOTECHNICAL MAP
CLASSIFICATION BLOWS/FOOT UNDISTURBED SAMPLE BULK SAMPLE CONTENT(%) INPLACE DRY DENSITY (PCF)	TEST PIT NO. 1  DESCRIPTION	SOIL TEST
V	OLDER ALLUVIUM  SANDY SILT (ML): DARK YELLOWISH BROWN, SANDY IN PART, MOIST, MINOR PINPOINT PORES IN TOP 2-FT  GRANITIC BEDROCK  YELLOWISH BROWN, GRANULAR, FRIABLE, DENSE, BECOMING VERY DENSE WITH DEPTH,	MAXIMUM DENSITY/OPTIMUM MOISTURE (MAX), REMOLDED DIRECT SHEAR (DS), SIEVE ANALYSIS (SA), EXPANSION INDEX (EI), SAND EQUIVALENT (SE), R-VALUE TEST, CORROSIVITY SUITE (COR)
5	MODERATE EXCAVATION, BECOMING DIFFICULT AT 9.0-FT.  TOTAL DEPTH = 9.5' NO GROUNDWATER	
JOB NO: 1037602.00	LOG OF TEST PIT	FIGURE: T-1

LOGGED BY: JPF	METHOD OF EXCAVATION: CASE 580 SUPERM EXTENDA BACKHOE W/24" BUCKET ELEVATION:	DATE OBSERVED: 05/08/06  LOCATION: SEE GEOTECHNICAL MAP	
CLASSIFICATION BLOWS/FOOT UNDISTURBED SAMPLE BULK SAMPLE MOISTURE CONTENT(%) INPLACE DRY DENSITY (PCF)	TEST PIT NO. 2 DESCRIPTION	SOIL TEST	
<del></del>	OLDER ALLUVIUM		
	SILT (ML): OLIVE BROWN, MOIST, MINOR PINPOINT PORES IN TOP 2-3 FT		
5	SANDY SILT (ML): DARK BROWN, MOIST, MEDIUM DENSE, SANDY IN PART, MINOR		
10	CALCAREOUS VEINLETS	្រឹង	
+++++-		11	
15	GRANITIC BEDROCK YELLOWISH BROWN, GRANULAR, DENSE, FRIABLE, BECOMING VERY DENSE @ 15.0-FT		
20 25 25 30 35	TOTAL DEPTH = 15.0' NO GROUNDWATER		
JOB NO: 1037602.00	LOG OF TEST PIT	FIGURE: T-2	

	METHOD OF EXCAVATION: CASE 580 SUPERM EXTENDA BACKHOE W/24" BUCKET ELEVATION:	DATE OBSERVED: 05/08/06  LOCATION: SEE GEOTECHNICAL MAP
CLASSIFICATION BLOWS/FOOT UNDISTURBED SAMPLE BULK SAMPLE MOISTURE CONTENT(%) INPLACE DRY DENSITY (PCF)	TEST PIT NO. 3  DESCRIPTION	SOIL TEST
7 1 1 1 1	OLDER ALLUVIUM  SILTY SAND (SM): YELLOWISH BROWN, FINE TO MEDIUM GRAINED, MINOR COARSE, DRY, LOOSE, NUMEROUS PINPOINT PORES	
	GRANITIC BEDROCK  YELLOWISH BROWN, COARSE GRAINED, FRIABLE TO FRIABLE UNDER PRESSURE, VERY  DENSE, BECOMING DIFFICULT EXCAVATION @ 7.0'  TOTAL DEPTH = 7.0'  NO GROUNDWATER	MAX, DS, SA, EI, SE, COR
30 35 40		
OB NO: 1037602.00	LOG OF TEST PIT	FIGURE: T-3

N F G W G > G		DATE OBSERVED: 05/08/06 LOCATION: SEE GEOTECHNICAL MAP	
CLASSIFICATION BLOWS/FOOT UNDISTURBED SAMPLE BULK SAMPLE MOISTURE CONTENT(%) INPLACE DENSITY PCEY	TEST PIT NO. 4 DESCRIPTION	SOIL TEST	
NOON OWN STANDARD STA	DESCRIPTION  OLDER ALLUVIUM  SANDY SILT (ML): OLIVE BROWN, DRY, SNADY IN PART, OCCASIONAL ANGULAR ROCK FRAGMENTS TO 4" IN DIAMETER, NUMEROUS PINPOINT PORES  GRANITIC BEDROCK YELLOWISH BROWN, COARSE GRAINED, DENSE, FRIABLE, BECOMING DENSER WITH DEPTH  TOTAL DEPTH = 7.0' NO GROUNDWATER		
5	LOG OF TEST PIT		

LOG	LOGGED BY: <u>JPF</u> ME			<u>PF</u>		METHOD OF EXCAVATION: CASE 580 SUPERM EXTENDA BACKHOE W/24" BUCKET ELEVATION:	DATE OBSERVED: 05/08/06 LOCATION: SEE GEOTECHNICAL MAP		
DEPTH (FEET)	BLOWS/FOOT	BLOWSFOOI	UNDISTURBED	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	TEST PIT NO. 5  DESCRIPTION  SOIL TEST		
55							OLDER ALLUVIUM  SILT (ML): DARK BROWN, LOOSE AND DRY IN TOP 1-2 FT, NUMEROUS PINPOINT PORES AND FINE ROOTS  SILT (ML): DARK BROWN, SLIGHTLY MOIST, DENSE, DIFFICULT EXCAVATION, ABUNDANT CALCAREOUS VEINLETS  TOTAL DEPTH = 5.0' NO GROUNDWATER		
JOB	3 NO	0:	103	760	2.00	E	LOG OF TEST PIT	FIGURE: T-5	

# APPENDIX B INFILTRATION TEST RESULTS



Location: 19744

Site: P1

Time interval between readings: 1 minute

- Steady Flow Rate Condition -

Steady Flow Rate achieved when Water Consumption Rate changes less than

+/- 5 % for 3 consecutive readings

Ksat Method: Glover Solution

Steady Flow Rate:

130.475 ml/min 130.706 ml/min

Temp. Adj. FR: Percolation Rate:

Latitude:

0.385 min/cm

Ksat:

0.29 Inches / hour

Notes:

3.1 inches Hole Diameter

68 ° F Water Temperature

35.8 inches Hole Depth

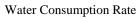
26 inches Water Height in Hole

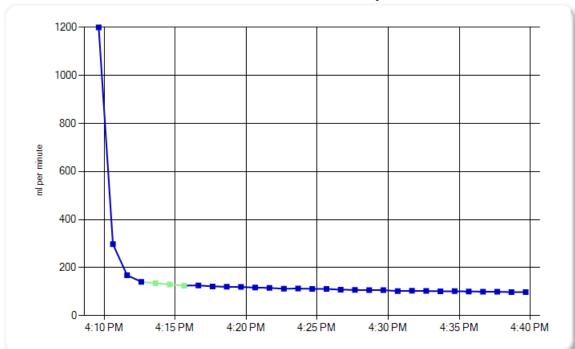
- Site GPS Position -									
	Degrees	Minutes	Seconds						
Longitude:	0	0	0	East					

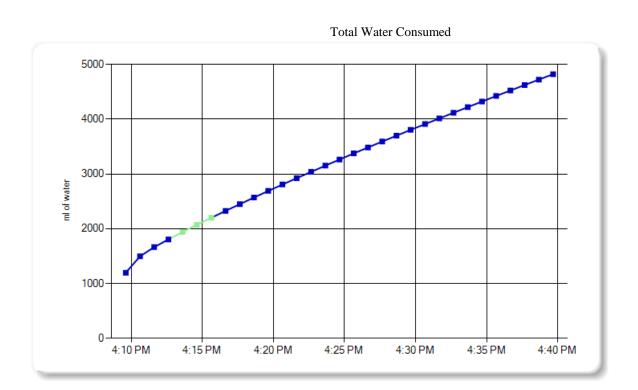
North

Soil Texture-Structure Category:

Water Table Depth







<u>Time</u>	Reservoir Water Level	Elapsed Time Interval	Interval Water Consumed	Total Water Consumed	Water Consumption Rate	Ignore Reading
4:08:37 PM	8543.2 ml					
4:09:37 PM	7343.8 ml	1 minute	1199.4 ml	1199.4 ml	1199.400 ml/min	
4:10:37 PM	7045.4 ml	1 minute	298.4 ml	1497.8 ml	298.400 ml/min	
4:11:37 PM	6877.0 ml	1 minute	168.4 ml	1666.2 ml	168.400 ml/min	
4:12:37 PM	6735.6 ml	1 minute	141.4 ml	1807.6 ml	141.400 ml/min	
4:13:37 PM	6600.2 ml	1 minute	135.4 ml	1943.0 ml	135.400 ml/min	
4:14:37 PM	6469.6 ml	1 minute	130.6 ml	2073.6 ml	130.600 ml/min	
4:15:38 PM	6342.0 ml	1 minute	127.6 ml	2201.2 ml	125.508 ml/min	
4:16:38 PM	6215.6 ml	1 minute	126.4 ml	2327.6 ml	126.400 ml/min	
4:17:38 PM	6093.4 ml	1 minute	122.2 ml	2449.8 ml	122.200 ml/min	
4:18:38 PM	5972.4 ml	1 minute	121.0 ml	2570.8 ml	121.000 ml/min	
4:19:38 PM	5852.6 ml	1 minute	119.8 ml	2690.6 ml	119.800 ml/min	
4:20:38 PM	5735.2 ml	1 minute	117.4 ml	2808.0 ml	117.400 ml/min	
4:21:38 PM	5619.2 ml	1 minute	116.0 ml	2924.0 ml	116.000 ml/min	
4:22:39 PM	5504.8 ml	1 minute	114.4 ml	3038.4 ml	112.525 ml/min	
4:23:39 PM	5391.2 ml	1 minute	113.6 ml	3152.0 ml	113.600 ml/min	
4:24:39 PM	5279.2 ml	1 minute	112.0 ml	3264.0 ml	112.000 ml/min	
4:25:39 PM	5167.6 ml	1 minute	111.6 ml	3375.6 ml	111.600 ml/min	
4:26:39 PM	5058.8 ml	1 minute	108.8 ml	3484.4 ml	108.800 ml/min	
4:27:39 PM	4951.2 ml	1 minute	107.6 ml	3592.0 ml	107.600 ml/min	
4:28:39 PM	4844.4 ml	1 minute	106.8 ml	3698.8 ml	106.800 ml/min	
4:29:39 PM	4737.8 ml	1 minute	106.6 ml	3805.4 ml	106.600 ml/min	
4:30:40 PM	4633.2 ml	1 minute	104.6 ml	3910.0 ml	102.885 ml/min	
4:31:40 PM	4529.0 ml	1 minute	104.2 ml	4014.2 ml	104.200 ml/min	
4:32:40 PM	4425.8 ml	1 minute	103.2 ml	4117.4 ml	103.200 ml/min	
4:33:40 PM	4323.6 ml	1 minute	102.2 ml	4219.6 ml	102.200 ml/min	
4:34:40 PM	4221.2 ml	1 minute	102.4 ml	4322.0 ml	102.400 ml/min	
4:35:40 PM	4120.2 ml	1 minute	101.0 ml	4423.0 ml	101.000 ml/min	
4:36:40 PM	4019.8 ml	1 minute	100.4 ml	4523.4 ml	100.400 ml/min	
4:37:40 PM	3919.6 ml	1 minute	100.2 ml	4623.6 ml	100.200 ml/min	
4:38:40 PM	3821.2 ml	1 minute	98.4 ml	4722.0 ml	98.400 ml/min	
4:39:40 PM	3723.0 ml	1 minute	98.2 ml	4820.2 ml	98.200 ml/min	



Location: 19744

Site: P2

Time interval between readings: 1 minute

- Steady Flow Rate Condition -

Steady Flow Rate achieved when Water Consumption Rate changes less than

+/- 5 % for 3 consecutive readings

Ksat Method: Glover Solution

Steady Flow Rate: Temp. Adj. FR:

136.000 ml/min 136.132 ml/min

Percolation Rate:

0.369 min/cm

Ksat:

at: 0.9 Inches / hour

Notes:

3.1 inches Hole Diameter

60.1 ° F Water Temperature

24 inches Hole Depth

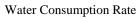
13 inches Water Height in Hole

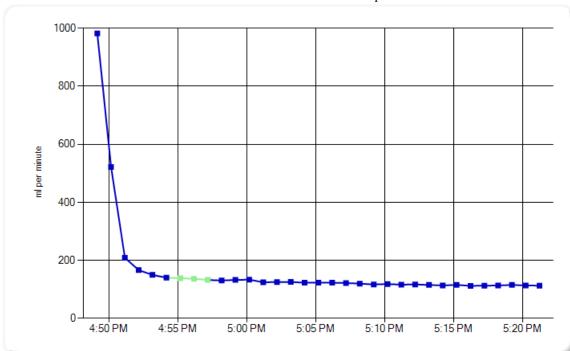
Site	GPS	Position	1

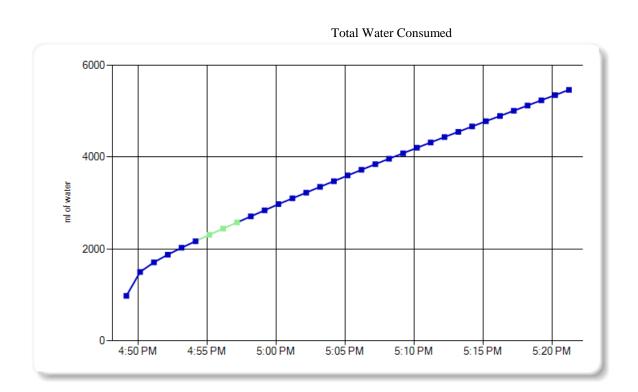
DegreesMinutesSecondsLongitude:000Latitude:000
North

Soil Texture-Structure Category:

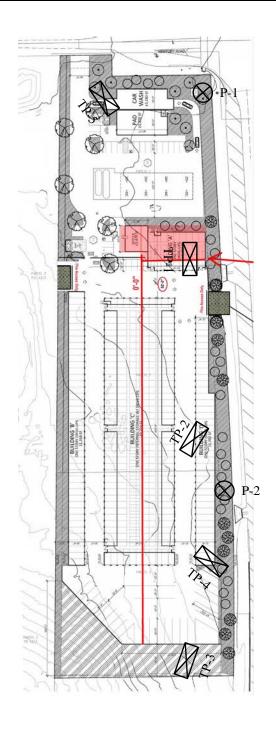
Water Table Depth

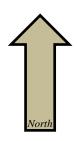






<u>Time</u>	Reservoir Water Level	Elapsed Time Interval	Interval Water Consumed	Total Water Consumed	Water Consumption Rate	Ignore Reading
4:48:10 PM	8448.6 ml					
4:49:10 PM	7466.2 ml	1 minute	982.4 ml	982.4 ml	982.400 ml/min	
4:50:10 PM	6944.2 ml	1 minute	522.0 ml	1504.4 ml	522.000 ml/min	
4:51:10 PM	6735.2 ml	1 minute	209.0 ml	1713.4 ml	209.000 ml/min	
4:52:10 PM	6568.4 ml	1 minute	166.8 ml	1880.2 ml	166.800 ml/min	
4:53:10 PM	6418.4 ml	1 minute	150.0 ml	2030.2 ml	150.000 ml/min	
4:54:11 PM	6275.6 ml	1 minute	142.8 ml	2173.0 ml	140.459 ml/min	
4:55:11 PM	6136.8 ml	1 minute	138.8 ml	2311.8 ml	138.800 ml/min	
4:56:11 PM	6000.2 ml	1 minute	136.6 ml	2448.4 ml	136.600 ml/min	
4:57:11 PM	5867.6 ml	1 minute	132.6 ml	2581.0 ml	132.600 ml/min	
4:58:11 PM	5736.8 ml	1 minute	130.8 ml	2711.8 ml	130.800 ml/min	
4:59:11 PM	5604.0 ml	1 minute	132.8 ml	2844.6 ml	132.800 ml/min	
5:00:11 PM	5470.2 ml	1 minute	133.8 ml	2978.4 ml	133.800 ml/min	
5:01:12 PM	5343.4 ml	1 minute	126.8 ml	3105.2 ml	124.721 ml/min	
5:02:12 PM	5218.0 ml	1 minute	125.4 ml	3230.6 ml	125.400 ml/min	
5:03:12 PM	5092.2 ml	1 minute	125.8 ml	3356.4 ml	125.800 ml/min	
5:04:12 PM	4969.0 ml	1 minute	123.2 ml	3479.6 ml	123.200 ml/min	
5:05:12 PM	4845.6 ml	1 minute	123.4 ml	3603.0 ml	123.400 ml/min	
5:06:12 PM	4722.6 ml	1 minute	123.0 ml	3726.0 ml	123.000 ml/min	
5:07:12 PM	4600.4 ml	1 minute	122.2 ml	3848.2 ml	122.200 ml/min	
5:08:12 PM	4480.4 ml	1 minute	120.0 ml	3968.2 ml	120.000 ml/min	
5:09:13 PM	4361.4 ml	1 minute	119.0 ml	4087.2 ml	117.049 ml/min	
5:10:13 PM	4242.8 ml	1 minute	118.6 ml	4205.8 ml	118.600 ml/min	
5:11:13 PM	4126.4 ml	1 minute	116.4 ml	4322.2 ml	116.400 ml/min	
5:12:13 PM	4009.2 ml	1 minute	117.2 ml	4439.4 ml	117.200 ml/min	
5:13:13 PM	3893.8 ml	1 minute	115.4 ml	4554.8 ml	115.400 ml/min	
5:14:13 PM	3780.0 ml	1 minute	113.8 ml	4668.6 ml	113.800 ml/min	
5:15:13 PM	3664.2 ml	1 minute	115.8 ml	4784.4 ml	115.800 ml/min	
5:16:14 PM	3550.0 ml	1 minute	114.2 ml	4898.6 ml	112.328 ml/min	
5:17:14 PM	3436.8 ml	1 minute	113.2 ml	5011.8 ml	113.200 ml/min	
5:18:14 PM	3323.4 ml	1 minute	113.4 ml	5125.2 ml	113.400 ml/min	
5:19:14 PM	3207.8 ml	1 minute	115.6 ml	5240.8 ml	115.600 ml/min	
5:20:14 PM	3094.2 ml	1 minute	113.6 ml	5354.4 ml	113.600 ml/min	
5:21:14 PM	2981.0 ml	1 minute	113.2 ml	5467.6 ml	113.200 ml/min	





# **Symbols**



TP-5

LEGEND

Locations are Approximate

- Infiltration Test

- Exploratory Test Pit (THE Soils, 2006)

Proposed Diamond Valley Storage

19744-10A

INFILTRATION LOCATION MAP

1" = 150 ' 2019 PLATE 1