

**ADEQ**  
**Central and Camelback WQARF Site Update**  
**October 16<sup>th</sup>, 2019**

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During March 2019, analytical samples and depth-to-water measurements were collected from groundwater underlying the site. These samples were analyzed for volatile organic compounds (VOCs), including primary contaminants of concern tetrachloroethylene (PCE) and trichloroethene (TCE).

Analytical results from groundwater samples collected from wells CC-4, DW-N2, and DW-W1 exceeded the Arizona Aquifer Water Quality Standard (AWQS) of 5 micrograms per liter ( $\mu\text{g/L}$ ) for PCE, and sample results from wells CC-17, CC-18, DW-2N, and DW-W2 exceeded the AWQS of 5  $\mu\text{g/L}$  for TCE.

- **Attachment 1 (Site Map)** – Shows the location of the site and the groundwater monitor well network.
- **Attachment 2 (Summary of Detected VOCs in Site Groundwater)** – Shows concentrations of VOCs detected in groundwater samples collected from the site in March 2019.

**For questions, please contact:**

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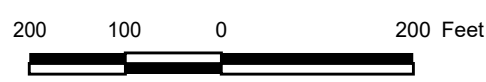

# Attachment 1

## Site Map



P:\GIS\_SanDiego\SP143\_ASRAC\_CentralCamelback\MXD\SP143\_Camelback\_WellLocations.mxd, Gordon

-  Monitor Well
-  Groundwater Dewatering Well

	
<b>Groundwater Monitoring Well Network</b> Central and Camelback WQARF Site Phoenix, AZ	
	
Phoenix	April 2019
<b>Figure 1</b>	

# Attachment 2

## Summary of Detected VOCs in Site Groundwater

			Analyte	1,2,4-Trimethylbenzene	1,2-Dichloroethane	1,3,5-Trimethylbenzene	2-butanone (MEK)	Acetone	Benzene	Butylbenzene	Chloroform	cis-1,2-Dichloroethene	Ethylbenzene	Freon 11	Isopropylbenzene	m&p-Xylenes	Methyl butyl ketone	Methyl Isobutyl Ketone (MIBK)	Methylene Chloride (DCM)	
			Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
			AWQS	NA	5.0	NA	NA	NA	5.0	NA	NA	70	700	NA	NA	NA	NA	NA	5.0	
Location	Date	Sample Identification																		
CC-1	3/4/2019	CC-01-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
CC-2	3/4/2019	CC-02-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.8	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
CC-3	3/4/2019	CC-03-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
CC-4	3/4/2019	CC-04-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
CC-5	3/4/2019	CC-05-20190304		< 0.50	< 0.50	< 0.50	< 5.0	< 10	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	< 1.0	
CC-6	3/4/2019	CC-06-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	8.9	< 0.50	< 0.50	1.3	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
CC-7	3/4/2019	CC-07-20190304		< 0.50	< 0.50	< 0.50	< 5.0	< 10	< 0.50	< 0.50	1.7	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	< 1.0	
CC-8	3/4/2019	CC-08-20190304		< 0.50	< 0.50	< 0.50	< 5.0	< 10	< 0.50	< 0.50	0.81	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	< 1.0	
CC-10	3/4/2019	CC-10-20190304		< 0.50	< 0.50	< 0.50	< 5.0	< 10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	< 1.0	
CC-11	3/5/2019	CC-11-20190305		38	< 0.50	5.9	< 5.0	< 10	< 0.50	4.0	< 0.50	< 0.50	15	< 0.50	32	< 1.0	< 5.0	< 2.5	< 1.0	
CC-12	3/4/2019	CC-12-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	5.2	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
CC-16	3/6/2019	CC-16-20190306		< 0.50	< 0.50	< 0.50	< 5.0	< 10	< 0.50	< 0.50	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	< 1.0	
CC-17	3/4/2019	CC-17-20190304		32	1.1	3.1	< 5.0	< 10	< 0.50	2.5	< 0.50	< 0.50	60	< 0.50	22	3.2	< 5.0	< 2.5	< 1.0	
CC-18	3/4/2019	CC-18-20190304		11	3.4	4.2	< 5.0	< 10	2.5	24	< 0.50	1.7	<b>1,300 D2</b>	< 0.50	78	51	< 5.0	< 2.5	< 1.0	
CC-19	3/4/2019	CC-19-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
CC-20	4/1/2019	CC-20-20190401		< 0.50	< 0.50	< 0.50	< 5.0	< 10	< 0.50	< 0.50	43	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	1.6	
CC-21	3/4/2019	CC-21-20190304		< 0.50	< 0.50	< 0.50	< 5.0	< 10	< 0.50	< 0.50	3.1	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	< 1.0	
EW-1	3/5/2019	EW-01-20190305		< 0.50 N1	< 0.50 N1	< 0.50 N1	290 N1;D2	120 N1	< 0.50 N1	< 0.50 N1	< 0.50 N1	< 0.50 N1	< 0.50 N1	< 0.50 N1	< 0.50 N1	< 1.0 N1	30 N1	2.5 N1	2.2 N1	
EW-2	3/4/2019	EW-02-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	0.91	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
EW-3	3/4/2019	EW-03-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
EW-4	3/4/2019	EW-04-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	4.5	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
MW-101	3/4/2019	MW-101-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	3.6	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
	3/4/2019	MW-101-20190304-DUP		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	4.0	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
MW-105	3/4/2019	MW-105-20190304		< 0.50	< 0.50	< 0.50	< 5.0 L5	< 10 L5;R1	< 0.50	< 0.50	1.9	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0 L5	< 2.5	< 1.0	
MWA-09	3/6/2019	MWA-09-20190306		210 D2	< 0.50	96	< 5.0	< 10	12	40	< 0.50	2.6	<b>1,700 D2</b>	< 0.50	74	31	< 5.0	< 2.5	< 1.0	
	3/6/2019	MWA-09-20190306-DUP		240 D2	1.2	96	< 5.0	< 10	12	41	< 0.50	2.5	<b>1,900 D2</b>	< 0.50	73	29	< 5.0	< 2.5	< 1.0	
MWA-10	3/6/2019	MWA-10-20190306		71	< 0.50	42	< 5.0	< 10	2.5	38	< 0.50	0.65	<b>1,400 D2</b>	< 0.50	140	47	< 5.0	< 2.5	< 1.0	
DW-N2	3/6/2019	DW-N2-20190306		3.2	3.1	1.9	< 5.0	< 10	4.2	2.8	< 0.50	1.9	130	< 0.50	5.4	7.7	< 5.0	< 2.5	< 1.0	
DW-W2	3/6/2019	DW-W2-20190306		< 0.50	1.2	< 0.50	< 5.0	< 10	< 0.50	< 0.50	< 0.50	2.7	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 2.5	< 1.0	

			Naphthalene	n-Propylbenzene	o-Xylene	p-Cymene	Propylene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	Xylenes, Total
	Analyte	Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
	AWQS		NA	NA	NA	NA	NA	NA	NA	5.0	1,000	5.0	10,000
Location	Date	Sample Identification											
CC-1	3/4/2019	CC-01-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	0.65	< 0.50	< 0.50	< 1.5
CC-2	3/4/2019	CC-02-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-3	3/4/2019	CC-03-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-4	3/4/2019	CC-04-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	<b>6.6</b>	< 0.50	< 0.50	< 1.5
CC-5	3/4/2019	CC-05-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-6	3/4/2019	CC-06-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-7	3/4/2019	CC-07-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-8	3/4/2019	CC-08-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-10	3/4/2019	CC-10-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-11	3/5/2019	CC-11-20190305	< 2.5	24	< 0.50	< 0.50	< 5.0	9.6	0.55	< 0.50	< 0.50	< 0.50	< 1.5
CC-12	3/4/2019	CC-12-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	2.1	< 0.50	< 0.50	< 1.5
CC-16	3/6/2019	CC-16-20190306	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-17	3/4/2019	CC-17-20190304	< 2.5	32	< 0.50	< 0.50	< 5.0	6.8	0.61	2.3	< 0.50	<b>7.3</b>	3.2
CC-18	3/4/2019	CC-18-20190304	< 2.5	160	< 0.50	0.77	< 5.0	10	0.71	< 0.50	0.98	<b>13</b>	51
CC-19	3/4/2019	CC-19-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-20	4/1/2019	CC-20-20190401	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
CC-21	3/4/2019	CC-21-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
EW-1	3/5/2019	EW-01-20190305	< 2.5 N1	< 0.50 N1	< 0.50 N1	< 0.50 N1	8.5 N1	< 0.50 N1	< 0.50 N1	0.63 N1	< 0.50 N1	< 0.50 N1	< 1.5 N1
EW-2	3/4/2019	EW-02-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	1.9	< 0.50	< 0.50	< 1.5
EW-3	3/4/2019	EW-03-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
EW-4	3/4/2019	EW-04-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
MW-101	3/4/2019	MW-101-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 1.5
	3/4/2019	MW-101-20190304-DUP	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	1.5	< 0.50	< 0.50	< 1.5
MW-105	3/4/2019	MW-105-20190304	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.5
MWA-09	3/6/2019	MWA-09-20190306	110	180 D2	4.4	3.7	< 5.0	12	< 0.50	< 0.50	1.4	< 0.50	35
	3/6/2019	MWA-09-20190306-DUP	99	200 D2	4.1	3.7	< 5.0	12	0.67	< 0.50	1.1	< 0.50	33
MWA-10	3/6/2019	MWA-10-20190306	130	260 D2	4.1	0.61	< 5.0	19	0.67	< 0.50	< 0.50	< 0.50	51
DW-N2	3/6/2019	DW-N2-20190306	6.2	11	0.95	< 0.50	< 5.0	0.99	< 0.50	<b>69</b>	2.4	<b>6.9</b>	8.7
DW-W2	3/6/2019	DW-W2-20190306	< 2.5	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	<b>100</b>	< 0.50	<b>9.5</b>	< 1.5

Notes:

µg/l = micrograms per liter

AWQS = Aquifer Water Quality Standard (Arizona)

NA = Not Applicable

D2 = Sample required dilution due to high concentration of analyte.

L5 = The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.

N1 = The laboratory control sample (LCS), laboratory control sample duplicate (LCSD), matrix spike (MS) and matrix spike duplicate (MSD) recovered outside control limits high for one or more analytes. There were no hits in the associated samples.

R1 = The Relative Percent Difference/Relative Standard Deviation exceeded the method acceptance limit for one analyte (acetone) which was not detected in any samples.

Concentrations exceeding the AWQS are indicated in **boldface**.

Non-detect results are indicated by "<" followed by the laboratory reporting limit.

