



Advanced Environmental Concepts, Inc.

1751 Pulaski Hwy Havre De Grace, MD 21078 (410)939-5550

**Quarter 1, 2019 Monitoring Well
Sampling Report
and Well Receptor Survey**

Site Location:

Winfield BP
1631 West Liberty Road
Sykesville, MD

MDE Case # 2006-0466CL
Facility I.D. No. 6338

Prepared For:

**Mr. Tim Watkins
Tevis Oil Inc.
P.O. Box 26
Westminster, MD 21158**

April 10, 2019

SIGNATURE SHEET

Prepared by:

Name: Greg Beal

Company: Advanced Environmental Concepts, Inc.

Address: 1751-1 Pulaski Hwy

City/State/Zip: Havre de Grace, Maryland 21078

Telephone: (410) 939-5550

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1.0 Introduction

This Monitoring Well Sampling Report has been prepared to satisfy the requirements set forth by the Maryland Department of the Environment (MDE) for the Winfield BP located at 1631 West Liberty Rd. Sykesville, MD; referred to herein as the "site".

2.0 Groundwater Monitoring

Groundwater monitoring activities for the first quarter of 2019 included the gauging and sampling of the complete monitoring well network as well as the sampling of the domestic supply water well.

2.1 Monitoring Well Gauging & Sampling

On 3/22/19, AEC personnel arrived on site to gauge and sample site monitoring wells (MWs).

Prior to sampling, each well was gauged for presence/absence of LPH as well as depth to groundwater with an electronic oil/water interface meter. LPH was not detected in any of the site wells. After gauging, each well was purged a total of three well volumes of water. Purged groundwater was treated with activated carbon prior to being discharged to the ground. After purging, groundwater was allowed to recover to a minimum of 90% pre purge levels prior to sample collection. Groundwater samples were collected using pre-packaged, single use, disposable bailers and placed in laboratory supplied VOA's and then placed in a cooler with ice and chain of custody record for delivery to the laboratory.

All groundwater samples were delivered on ice with a chain of custody record, trip blank and temperature blank to AECs laboratory to be analyzed by EPA Method 8260 for volatile organic compounds (VOCs).

2.2 Domestic Supply Well Sampling

On 3/22/19, AEC personnel collected quarterly samples from the supply well servicing the store. All samples were collected by an MDE certified drinking water sampler and placed in a cooler with ice, chain of custody record, trip blank and temperature blank for delivery to AECs laboratory to be analyzed by EPA Method 524 for volatile organic compounds (VOCs).

3.0 Results of Groundwater Sampling

3.1 Groundwater Elevation & Flow Direction

Relative groundwater elevation, calculated using depth to groundwater measurements collected from the shallow monitoring wells during the 3/22/19 sampling event, ranged from 64.30 feet in MW-2 (highest) to 60.81 feet in MW-4 (lowest). Based on the survey data and the depth to groundwater measurements collected, the groundwater elevation contours for the shallow wells depict groundwater flow to be primarily to the west.

Relative groundwater elevation, calculated using depth to groundwater measurements collected from the deep monitoring wells during the 3/22/2019 sampling event, ranged from 64.51 feet in MW-6D (highest) to 60.90 feet in MW-9D (lowest). Groundwater elevation contours for the deep wells depict groundwater flow to be primarily to the west.

3.2 Monitoring Well Sampling Results

Method detectable concentrations of VOCs were not observed in the groundwater samples collected from the sites monitoring well network.

A Quick Reference Historical Groundwater Sampling Summary Table which summarizes current and historical groundwater sampling analytical results can be found in Attachment B.

A full Report of Analysis and Chain of Custody Record can be found in Attachment C.

3.2.1 Concentration Statistical Trend Evaluation

Included in Attachment B is the charting of MTBE data for MW-4, MW-5s, MW-7d and P1. Linear (red) and Polynomial (black) trend lines for charted for MTBE data are depicted on the MW charts to include the polynomial regression equation.

Also provided is the Man-Kendall XLSTAT data Time Series Analysis Report for the aforementioned wells.

3.3 Domestic Supply Well Sampling Results

3.3.1 Site Well

Method detectable concentrations of VOCs (.77ug/L MtBE) were observed in the drinking water sample collected from the drinking water well during the March 2019 sampling event.

A table summarizing the results of the recent sampling as well as all historical sampling can be found in Appendix B.

4.0 Receptor Survey

AEC, Inc. completed the following tasks in order to satisfy MDE OCP requirements:

- Survey the area within 1,000 ft of the subject property for the presence of domestic supply wells (DSWs).
- File a Public Information Act PIA Request to MDE for all DSW data within 1,000 ft of the subject site
- Make a formal request to the Carroll County Health Department (CCHD) for information on DSWs within 1,000ft of the subject property
- Prepared a table of findings which includes the DSWs identified during the field survey, the DSW information provided by MDE and the CCHD and listed the residences which no DSW information was available.

An abbreviated table of Receptor Survey findings and all associated requested maps are provided in Attachment D. A complete table of the findings PIA data is available upon request.

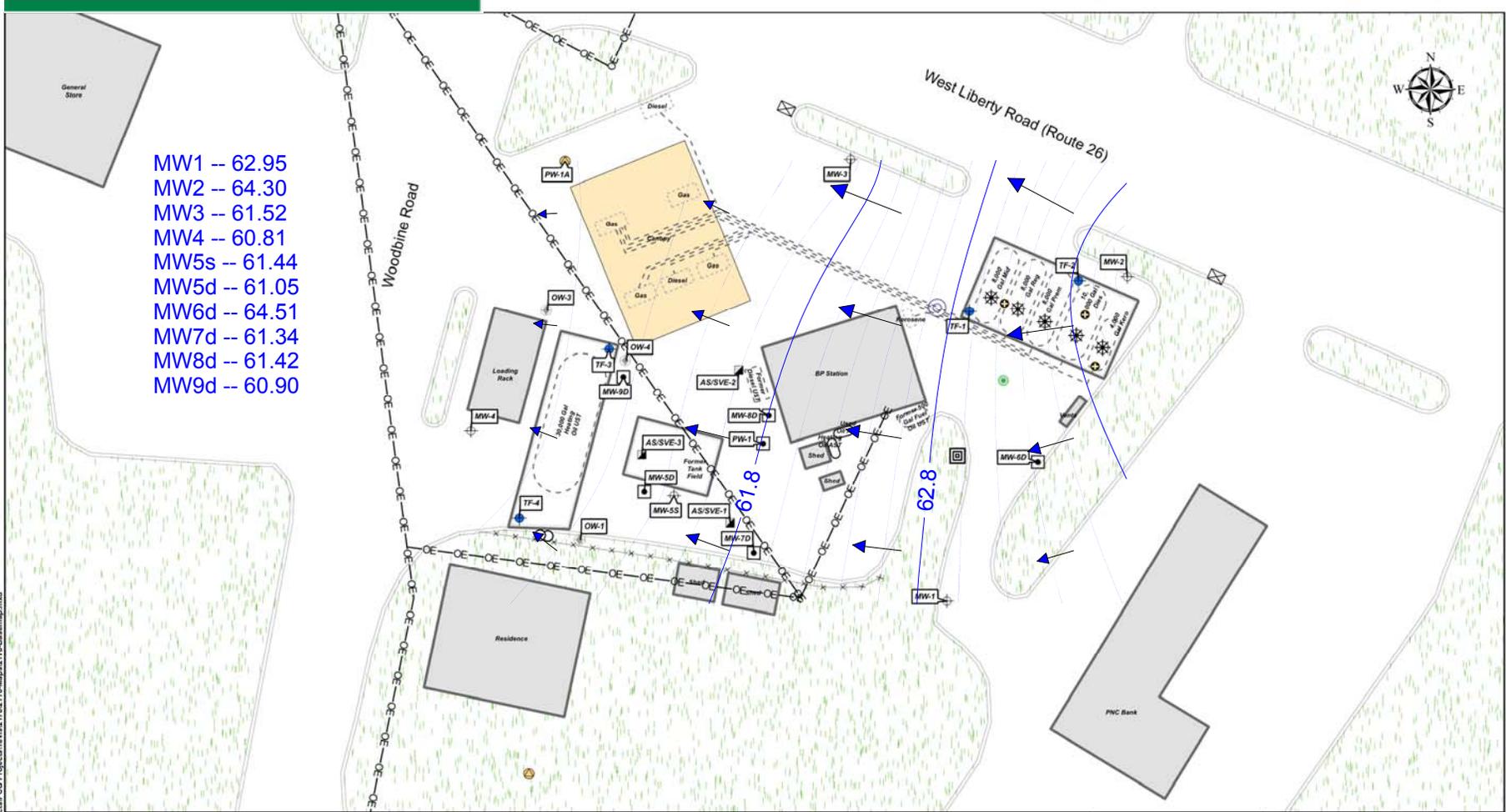
AEC recommends the sampling of the DSWs for the properties located immediately adjacent to the subject property which include:

PERMIT	Address	City	Property Owner	TAX MAP	PARCEL
CL945574	4707 Woodbine Rd.	Winfield	Casey Forsythe, Josh Alvandi	67	3
CL950358	1707 W Liberty Rd	Winfield	Ameyyash Invest. LLC	67	267
NA	1621 W Liberty Rd	Sykesville	Westminster Trust (bank)	67	50

5.0 Future Activities

AEC, Inc. will continue with the quarterly sampling of site MWs and the DSW and will await confirmation MDE's OCP approval of the recommendation to sample the adjacent property DSWs.

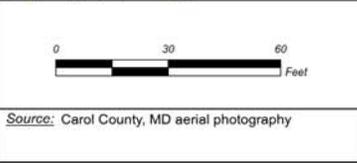
Appendix A
Site Maps



- MW1 -- 62.95
- MW2 -- 64.30
- MW3 -- 61.52
- MW4 -- 60.81
- MW5s -- 61.44
- MW5d -- 61.05
- MW6d -- 64.51
- MW7d -- 61.34
- MW8d -- 61.42
- MW9d -- 60.90

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Legend			

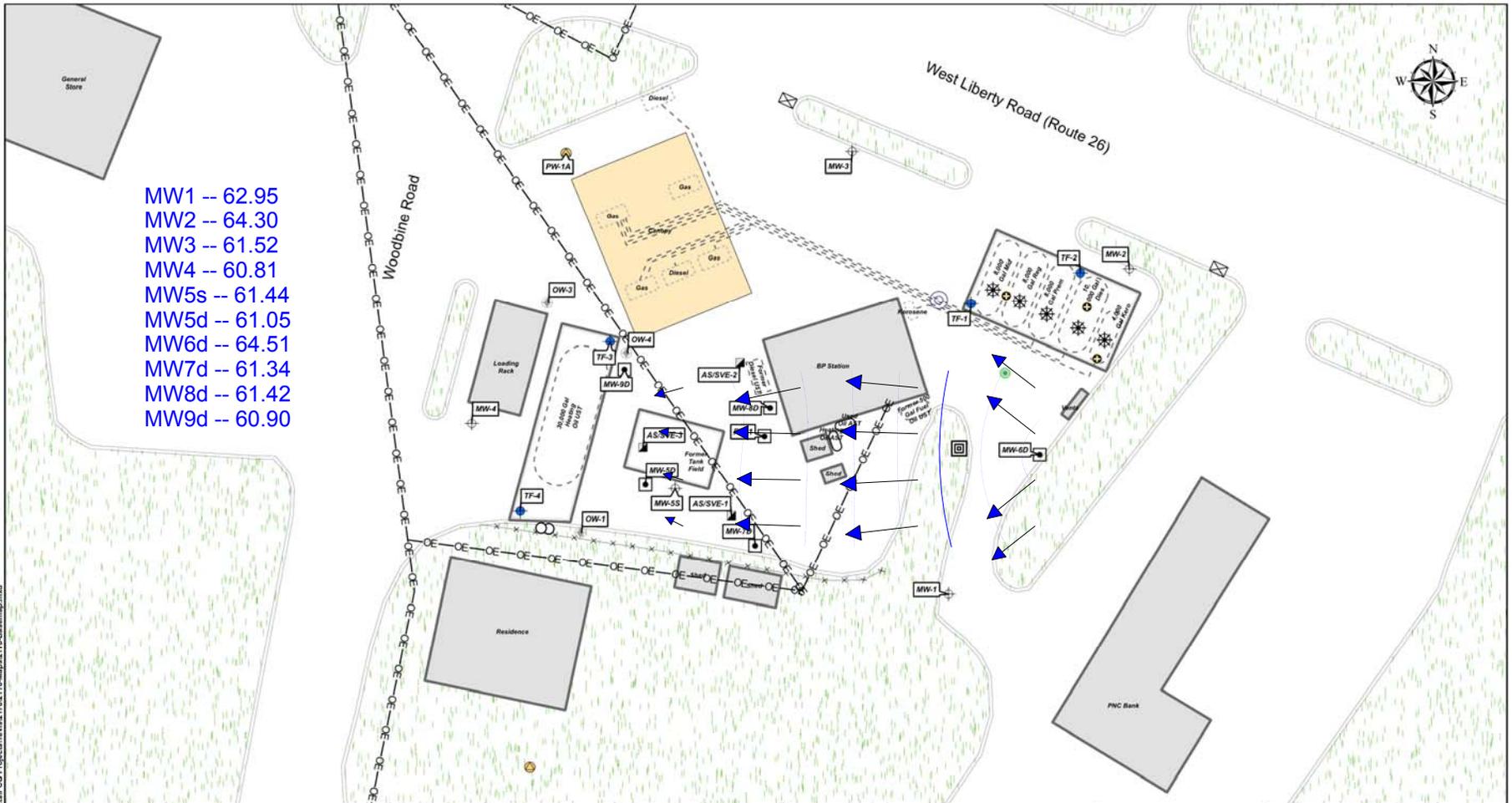


Tevis Winfield
Shallow MW
Groundwater
Flow Direction
.2ft contours

Winfield BP
1631 West Liberty Road
Sykesville, Maryland 21784

March 2019

DESIGNED BY: CAF	DRAWN BY: SKJ	UPDATED BY: ---	FIGURE NO.:
APPROVED BY:	PROJECT NO. 2178	DATE: 11/17/2015	1



- MW1 -- 62.95
- MW2 -- 64.30
- MW3 -- 61.52
- MW4 -- 60.81
- MW5s -- 61.44
- MW5d -- 61.05
- MW6d -- 64.51
- MW7d -- 61.34
- MW8d -- 61.42
- MW9d -- 60.90

Legend

	Shallow Monitoring Well		AS/SVE Location		Sanitary Cleanout		Curb/Edge of Pavement		Building		UST
	Deep Monitoring Well		Fill Valve		Transition Sump		Fence		Canopy		AST
	Tank Field Well		Vapor Recovery		Catch Basin		Overhead Electric		Dispenser		Vegetation
	Abandoned Well		Vent		Product Line		Tank Field				
	Potable Well		Grease Trap								

0 30 60 Feet

Source: Carol County, MD aerial photography

Deep Well
Groundwater
Flow
.5ft contours

Winfield BP 1631 West Liberty Road Sykesville, Maryland 21784			
March 2019			
APPROVED BY:	PROJECT NO.:	DATE:	FIGURE NO.:
CAF	2178	11/17/2015	1

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Appendix B
Groundwater Gauging & Analytical Tables

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE, GNCS, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-1 TOS=unknown BOS=76.6	100.00														
		3/14/2014	39.91	60.09	--	--	--	--	--	--	--	--	--	--	--
		4/17/2014	39.75	60.25	--	--	--	--	--	--	--	--	--	--	--
		5/1/2014	38.51	61.49	<1.00	<1.00	<1.00	<1.00	4.99	<5.00	<1.00	<1.00	<1.00	--	--
		7/8/2014	39.49	60.51	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	--	--
		10/3/2014	43.30	56.70	<1.00	<1.00	<1.00	<1.00	4.55	<5.00	<1.00	<1.00	<1.00	--	--
		1/29/2015	42.98	57.02	<1.00	<1.00	<1.00	<1.00	10.8	<5.00	<1.00	<1.00	<1.00	--	--
		2/9/2015	42.84	57.16	<1.00	<1.00	<1.00	<1.00	5.17	<5.00	<1.00	<1.00	<1.00	--	--
		3/27/2015	42.02	57.98	<1.00	<1.00	<1.00	<1.00	5.48	<5.00	<1.00	<1.00	<1.00	--	--
		4/28/2015	42.46	57.54	<1.00	<1.00	<1.00	<1.00	10.5	<5.00	<1.00	<1.00	<1.00	--	--
		7/1/2015	42.30	57.70	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	--	--
		8/13/2015	42.27	57.73	--	--	--	--	--	--	--	--	--	--	--
		9/2/2015	43.38	56.62	--	--	--	--	--	--	--	--	--	--	--
		10/8/2015	44.53	55.47	<1.00	<1.00	<1.00	<1.00	1.09	<5.00	<1.00	<1.00	<1.00	--	--
		10/5/2016	45.78	54.22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		1/16/2017	47.15	52.85	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		6/27/2017	44.31	55.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		9/27/2017	46.21	53.79	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		9/21/2018	36.63	63.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		12/31/2018	46.85	53.15	<5	<5	<5	<5	<5	<50	<5	<5	<5	<500	<100
		3/22/2019	37.05	62.95	<5	<5	<5	<5	<5	<50	<5	<5	<5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNSCs, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-2 TOS=unknown BOS=71.83	98.64														
		3/14/2014			--	--	--	--	--	--	--	--	--	--	--
		4/17/2014	36.92	61.72	--	--	--	--	--	--	--	--	--	--	--
		5/1/2014	36.86	61.78	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		7/8/2014	35.58	63.06	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/3/2014	36.73	61.91	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		1/29/2015	40.74	57.90	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		2/9/2015	40.40	58.24	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		3/27/2015	40.26	58.38	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		4/28/2015	39.28	59.36	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		7/1/2015	39.79	58.85	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		8/13/2015	38.47	60.17	Well covered										
		9/2/2015	--	--	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/8/2015	41.90	56.74	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		10/5/2016	43.20	55.44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		1/16/2017	44.57	54.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		6/27/2017	41.60	57.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		9/27/2017	43.65	54.99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		9/21/2018	33.65	64.99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		12/31/2018	43.91	54.73	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<100
		3/22/2019	34.34	64.30	<5	<5	<5	<5	<5	<50	<5	<5	<5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-3 TOS=unknown BOS=71	99.03														
		3/14/2014	40.58	58.45	--	--	--	--	--	--	--	--	--	--	--
		4/17/2014	39.29	59.74	--	--	--	--	--	--	--	--	--	--	--
		5/1/2014	39.33	59.70	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		7/8/2014	40.05	58.98	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/3/2014	44.03	55.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		1/29/2015	44.69	54.34	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		2/9/2015	43.71	55.32	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		3/27/2015	42.89	56.14	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		4/28/2015	43.24	55.79	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		7/1/2015	42.04	56.99	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		8/13/2015	43.05	55.98	--	--	--	--	--	--	--	--	--	--	--
		9/2/2015	44.20	54.83	--	--	--	--	--	--	--	--	--	--	--
		10/8/2015	45.35	53.68	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/5/2016	46.63	52.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		1/16/2017	48.23	50.80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		6/27/2017	45.16	53.87	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		9/27/2017	47.28	51.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--
		9/21/2018	36.84	62.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		12/31/2018	48.11	50.92	<5	<5	<5	<5	<5	<50	<5	<5	<5	<500	<100
		3/22/2019	37.51	61.52	<5	<5	<5	<5	<5	<50	<5	<5	<5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-4 TOS=unknown n BOS=84.18	100.23 100.25														
		3/4/2014	42.75	57.50	< 2.00	< 2.00	< 2.00	< 2.00	416	< 2.00	< 10.0	13.5	< 2.00	< 2.00	
		3/14/2014	60.08	40.17	3.10	< 2.00	< 2.00	< 2.00	545	< 2.00	19.8	24.9	< 2.00	< 2.00	
		4/7/2014	42.35	57.90	< 2.00	< 2.00	< 2.00	< 2.00	504	< 2.00	< 10.0	8.66 2e	< 2.00	< 2.00 2e	
		4/17/2014	61.92	38.33	< 2.00	< 2.00	< 2.00	< 2.00	514	< 2.00	11.6	12.4 2e	< 2.00	< 2.00 2e	
		5/2/2014	41.37	58.88	< 1.00	< 1.00	< 1.00	< 1.00	168	< 5.00	4.34	< 1.00 2d	< 1.00		--
		5/28/2014	40.09	60.16	< 1.00	< 1.00 2d	< 1.00 2d	< 1.00 2d	140	< 5.00	3.45	< 1.00 2d	< 1.00		--
		6/25/2014	41.24	59.01	< 1.00	< 1.00	< 1.00	< 1.00	116	< 5.00	3.41	< 1.00	< 1.00		--
		7/8/2014	41.94	58.31	< 1.00	< 1.00	< 1.00	< 1.00	0	< 5.00	< 1.00	< 1.00	< 1.00		--
		8/5/2014	43.55	56.70	< 1.00	< 1.00	< 1.00	< 1.00	19.5	< 5.00	< 1.00	< 1.00	< 1.00		--
		9/5/2014	44.74	55.51	< 1.00	< 1.00	< 1.00	< 1.00	251	< 5.00	8.31	< 1.00	< 1.00		--
		10/3/2014	45.88	54.37	< 1.00	< 1.00	< 1.00	< 1.00	186	5.98	7.49	< 1.00	< 1.00		--
		11/4/2014	45.35	54.90	< 1.00	< 1.00	< 1.00	< 1.00	61.9	< 5.00	1.56	< 1.00	< 1.00		--
		12/5/2014	47.11	53.14	< 1.00	< 1.00	< 1.00	< 1.00	157	< 5.00	4.42	< 1.00	< 1.00		--
		1/29/2015	46.89	53.36	< 1.00	< 1.00	< 1.00	< 1.00	225	< 5.00	5.48	< 1.00	< 1.00		--
		2/9/2015	46.82	53.43	< 1.00	< 1.00	< 1.00	< 1.00	184	< 5.00	4.62	< 1.00	< 1.00		--
		3/27/2015	45.04	55.21	< 1.00	< 1.00	< 1.00	< 1.00	245	< 5.00	6.83	< 1.00	< 1.00		--
		4/28/2015	45.25	55.00	< 1.00	< 1.00	< 1.00	< 1.00	0	< 5.00	< 1.00	< 1.00	< 1.00		--
		5/29/2015	45.87	54.38	< 1.00	< 1.00	< 1.00	< 1.00	25	< 5.00	< 1.00	< 1.00	< 1.00		--
		6/24/2015	44.75	55.50	1.53	< 1.00	< 1.00	< 1.00	388	6.50	14.2	< 1.00	< 1.00		--
		7/1/2015	44.15	56.10	1.73	< 1.00	< 1.00	< 1.00	468	5.97	17.9	< 1.00	< 1.00		--
		8/13/2015	44.99	55.26	< 1.00	< 1.00	< 1.00	< 1.00	172	< 5.00	4.91	< 1.00	< 1.00		--
		9/2/2015	46.13	54.12	< 1.00	< 1.00	< 1.00	< 1.00	278	6.56	8.13	< 1.00	< 1.00		--
		10/8/2015	47.42	52.83	< 1.00	< 1.00	< 1.00	< 1.00	336	15.9	8.09	< 1.00	< 1.00		--
		10/5/2016	48.58	51.67	ND	ND	ND	ND	17.6	ND	ND	ND	ND	ND	ND
		1/16/2017	50.09	50.16	ND	ND	ND	ND	27.7	ND	ND	ND	ND	ND	ND
		4/5/2017	49.75	50.50	ND	ND	ND	ND	463	ND	10.2	ND	ND		
		5/31/2017	46.53	53.72	ND	ND	ND	ND	441	ND	ND	ND	ND		
		6/27/2017	47.16	53.09	ND	ND	ND	ND	14.8	ND	ND	ND	ND	ND	ND
		8/24/2017	48.34	51.91	ND	ND	ND	ND	554	ND	15.10	ND	ND		
		9/27/2017	49.2	51.05	ND	ND	ND	ND	348	ND	8.68	ND	ND		
		9/21/2018	38.94	61.31	ND	ND	ND	ND	833	ND	15.60	ND	ND	ND	ND
		12/31/2018	50.01	50.24	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 500	< 100
		3/22/2019	39.44	60.81	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-5S TOS = 10' BOS = 85'	100.67														
		03/19/14	43.36	57.31	< 1.00	< 1.00	< 1.00	< 1.00	123	< 5.00	5.42	< 1.00	< 1.00	--	--
		04/03/14	42.59	58.08	--	--	--	--	0	--	--	--	--	--	--
		04/17/14	42.41	58.26	--	--	--	--	0	--	--	--	--	--	--
		05/02/14	41.20	59.47	< 1.00	< 1.00	< 1.00	< 1.00	0	< 5.00	< 1.00	< 1.00 2d	< 1.00	--	--
		05/28/14	39.95	60.72	< 1.00	< 1.00 2d	< 1.00 2d	< 1.00 2d	80.2	< 5.00	4.14	< 1.00 2d	< 1.00	--	--
		06/25/14	41.07	59.60	1.27	< 1.00	< 1.00	< 1.00	189	< 5.00	8.02	< 1.00	< 1.00	--	--
		07/08/14	39.76	60.91	< 1.00	< 1.00	< 1.00	< 1.00	30.5	< 5.00	1.34	< 1.00	< 1.00	--	--
		08/05/14	43.31	57.36	3.50	< 1.00	< 1.00	< 1.00	644	27.5	34.0	< 1.00	< 1.00	--	--
		09/05/14	44.61	56.06	< 1.00	< 1.00	< 1.00	< 1.00	30.5	< 5.00	1.18	< 1.00	< 1.00	--	--
		10/03/14	45.73	54.94	12.4	< 1.00	< 1.00	< 1.00	1,750	97.3	108	< 1.00	< 1.00	--	--
		11/04/14	45.20	55.47	2.40	< 1.00	< 1.00	< 1.00	1,200	26.3	60.0	< 1.00	< 1.00	--	--
		12/05/14	46.99	53.68	1.71	< 1.00	< 1.00	< 1.00	1,020	21.7	46.3	< 1.00	< 1.00	--	--
		01/29/15	45.72	54.95	1.53	< 1.00	< 1.00	< 1.00	550	9.66	28.4	< 1.00	< 1.00	--	--
		02/09/15	45.81	54.86	< 1.00	< 1.00	< 1.00	< 1.00	0	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		03/27/15	44.76	55.91	< 1.00	< 1.00	< 1.00	< 1.00	177	< 5.00	10.1	< 1.00	< 1.00	--	--
		04/28/15	45.02	55.65	< 1.00	< 1.00	< 1.00	< 1.00	0	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		05/29/15	45.59	55.08	< 1.00	< 1.00	< 1.00	< 1.00	6.58	< 5.00 2e	< 1.00	< 1.00	< 1.00	--	--
		06/24/15	44.53	56.14	< 1.00	< 1.00	< 1.00	< 1.00	155	< 5.00	8.10	< 1.00	< 1.00	--	--
		07/01/15	43.98	56.69	< 1.00	< 1.00	< 1.00	< 1.00	48.5	< 5.00	2.46	< 1.00	< 1.00	--	--
		8/13/2015	44.76	55.91	< 2.00	< 2.00	< 2.00	< 2.00	53.6	< 10.0	< 2.00	< 2.00	< 2.00	--	--
		09/02/15	45.91	54.76	3.04	< 1.00	< 1.00	< 1.00	930	25.9	40.1	< 1.00	< 1.00	--	--
		10/08/15	47.25	53.42	5.16	< 1.00	< 1.00	< 1.00	1,200	86.2	46.6	1.06	< 1.00	--	--
		10/5/2016	48.41	52.26	ND	ND	ND	ND	641	ND	19.8	ND	ND	ND	710
		1/16/2017	49.92	50.75	ND	ND	ND	ND	1,035	ND	75.2	ND	ND	ND	1270
		4/5/2017	49.87	50.80	ND	ND	ND	ND	2,480	190	ND	ND	ND		
		6/27/2017	47.05	53.62	ND	ND	ND	ND	796	ND	ND	ND	ND	ND	ND
		8/24/2017	48.23	52.44	ND	ND	ND	ND	1,600	ND	56.9	ND	ND	--	--
		9/27/2017	49.05	51.62	ND	ND	ND	ND	2,560	ND	103	ND	ND	--	--
		9/21/2018	38.86	61.81	ND	ND	ND	ND	0	ND	103	ND	ND	ND	ND
		12/31/2018	48.94	51.73	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 500	< 100
		3/22/2019	39.23	61.44	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-6D TOS=116.5 BOS=136.5	100.55														
		04/17/14	38.40	62.15	--	--	--	--	--	--	--	--	--	--	--
		05/02/14	37.45	63.10	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		07/08/14	38.42	62.13	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/03/14	42.41	58.14	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		01/29/15	42.06	58.49	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		02/09/15	41.99	58.56	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		03/27/15	41.00	59.55	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		04/28/15	41.50	59.05	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		07/01/15	41.50	59.05	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		08/13/15	41.29	59.26	--	--	--	--	--	--	--	--	--	--	--
		09/02/15	43.11	57.44	--	--	--	--	--	--	--	--	--	--	--
		10/08/15	43.50	57.05	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/5/2016	44.82	55.73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		1/16/2017	46.18	54.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		6/27/2017	43.26	57.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		9/27/2017	45.40	55.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--
		9/21/2018	35.32	65.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		12/31/2018	46.02	54.53	<5	<5	<5	<5	<5	<50	<5	<5	<5	<500	<100
		3/22/2019	36.04	64.51	<5	<5	<5	<5	<5	<50	<5	<5	<5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-7D TOS=118' BOS=138'	101.31														
		03/19/14	44.02	57.29	< 1.00	< 1.00	< 1.00	< 1.00	37.90	< 5.00	2.34	< 1.00	< 1.00	--	--
		04/03/14	43.10	58.21	--	--	--	--	0.00	--	--	--	--	--	--
		04/17/14	42.91	58.40	--	--	--	--	0.00	--	--	--	--	--	--
		05/02/14	41.76	59.55	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		05/28/14	40.59	60.72	< 1.00	< 1.00	< 1.00	< 1.00	3.39	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		06/25/14	41.80	59.51	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		07/08/14	43.46	57.85	< 1.00	< 1.00	< 1.00	< 1.00	5.24	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		08/05/14	43.90	57.41	< 1.00	< 1.00	< 1.00	< 1.00	4.13	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		09/05/14	45.18	56.13	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/03/14	45.56	55.75	< 1.00	< 1.00	< 1.00	< 1.00	6.32	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		11/04/14	45.08	56.23	< 1.00	< 1.00	< 1.00	< 1.00	115.00	< 5.00	5.69	< 1.00	< 1.00	--	--
		12/05/14	47.60	53.71	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		01/29/15	46.32	54.99	18.9	< 1.00	< 1.00	< 1.00	1610.00	50.1	122	1.72	< 1.00	--	--
		02/09/15	46.08	55.23	< 1.00	< 1.00	< 1.00	< 1.00	1.72	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		03/27/15	45.49	55.82	< 1.00	< 1.00	< 1.00	< 1.00	33.20	< 5.00	1.79	< 1.00	< 1.00	--	--
		04/28/15	45.78	55.53	< 1.00	< 1.00	< 1.00	< 1.00	51.50	< 5.00	3.70	< 1.00	< 1.00	--	--
		05/29/15	46.32	54.99	< 1.00	< 1.00	< 1.00	< 1.00	77.50	< 5.00	5.23	< 1.00	< 1.00	--	--
		06/24/15	45.17	56.14	< 1.00	< 1.00	< 1.00	< 1.00	219	< 5.00	16.6	< 1.00	< 1.00	--	--
		07/01/15	44.65	56.66	< 1.00	< 1.00	< 1.00	< 1.00	610	7.81	47.1	< 1.00	< 1.00	--	--
		8/13/2015	45.47	55.84	< 1.00	< 1.00	< 1.00	< 1.00	578	6.48	32.3	< 1.00	< 1.00	--	--
		09/02/15	46.62	54.69	< 1.00	< 1.00	< 1.00	< 1.00	380	5.58	11.9	< 1.00	< 1.00	--	--
		10/08/15	48.92	52.39	< 1.00	< 1.00	< 1.00	< 1.00	170	11.0	10.2	< 1.00	< 1.00	--	--
		10/5/2016	49.10	52.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		1/16/2017	50.64	50.67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		6/27/2017	47.82	53.49	ND	ND	ND	ND	130	ND	6.09	ND	ND	ND	210
		9/27/2017	50.21	51.10	ND	ND	ND	ND	208	ND	13.9	ND	ND	--	--
		9/21/2018	39.43	61.88	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		12/31/2018	50.26	51.05	<5	<5	<5	<5	<5	<50	<5	<5	<5	<500	<100
		3/22/2019	39.97	61.34	<5	<5	<5	<5	<5	<50	<5	<5	<5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20.00	NG	NG	NG	NG	47	47
MW-8D TOS=114' BOS=134'	101.37														
		3/19/2014	43.88	57.49	< 1.00	< 1.00	< 1.00	< 1.00	3.78	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		3/14/2004	42.97	58.40	--	--	--	--	--	--	--	--	--	--	--
		4/17/2014	42.74	58.63	--	--	--	--	--	--	--	--	--	--	--
		5/2/2014	41.67	59.70	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		5/28/2014	40.51	60.86	< 1.00	< 1.00	< 1.00	< 1.00	30.40	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		6/25/2014	41.71	59.66	< 1.00	< 1.00	< 1.00	< 1.00	549.00	< 5.00	36.1	< 1.00	< 1.00	--	--
		7/8/2014	42.39	58.98	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		8/5/2014	43.95	57.42	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/3/2014	46.43	54.94	< 1.00	< 1.00	< 1.00	< 1.00	963	13.50	96.2	< 1.00	< 1.00	--	--
		1/29/2015	46.79	54.58	6.23	< 1.00	< 1.00	< 1.00	1450	38.80	113.0	1.57	< 1.00	--	--
		2/9/2015	45.99	55.38	6.41	< 1.00	< 1.00	< 1.00	1340	36.50	89.6	1.46	< 1.00	--	--
		3/27/2015	45.28	56.09	1.86	< 1.00	< 1.00	< 1.00	1380	36.60	119.0	< 1.00	< 1.00	--	--
		4/28/2015	45.62	55.75	1.56	< 1.00	< 1.00	< 1.00	1260	36.80	103.0	1.17	< 1.00	--	--
		7/2/2015	44.51	56.86	< 1.00	< 1.00	< 1.00	< 1.00	796	26.30	77.5	< 1.00	< 1.00	--	--
		8/13/2015	45.39	55.98	< 1.00	< 1.00	< 1.00	< 1.00	1010	12.70	77.5	< 1.00	< 1.00	--	--
		9/2/2015	46.53	54.84	1.54	< 1.00	< 1.00	< 1.00	590	36.80	83.1	< 1.00	< 1.00	--	--
		10/8/2015	47.74	53.63	2.44	< 1.00	< 1.00	< 1.00	1200	63.90	56.8	< 1.00	< 1.00	--	--
		10/5/2016	48.95	52.42	ND	ND	ND	ND	1200	100.00	72.2	ND	ND	ND	1,375
		1/16/2017	50.48	50.89	ND	ND	ND	ND	356	ND	ND	ND	ND	ND	ND
		4/5/2017	50.09	51.28	ND	ND	ND	ND	920	ND	58.7	ND	ND		
		5/31/2017	47.10	54.27	ND	ND	ND	ND	ND	ND	ND	ND	ND		
		6/27/2017	47.53	53.84	ND	ND	ND	ND	772	ND	61.5	ND	ND	ND	920
		8/24/2017	48.72	52.65	ND	38.6	ND	24.36	243	ND	16.2	ND	ND	--	--
		9/27/2017	49.63	51.74	5.94	6.57	ND	ND	534	ND	40.1	ND	ND	--	--
		9/21/2018	39.37	62.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		12/31/2018	50.21	51.16	<5	<5	<5	<5	<5	<50	<5	<5	<5	<500	<100
		3/22/2019	39.95	61.42	<5	<5	<5	<5	<5	<50	<5	<5	<5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
MW-9D	100.57														
TOS=119'															
BOS=139'															
		04/03/14	42.67	57.90	--	--	--	--	--	--	--	--	--	--	--
		04/17/14	42.31	58.26	--	--	--	--	--	--	--	--	--	--	--
		05/02/14	40.80	59.77	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		07/08/14	42.07	58.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/03/14	46.07	54.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		01/29/15	45.12	55.45	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		02/09/15	45.08	55.49	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		03/27/15	44.21	56.36	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		04/28/15	45.38	55.19	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		07/01/15	44.13	56.44	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		08/13/15	45.01	55.56	--	--	--	--	--	--	--	--	--	--	--
		09/02/15	46.02	54.55	--	--	--	--	--	--	--	--	--	--	--
		10/08/15	47.42	53.15	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		10/5/2016	48.68	51.89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		1/16/2017	50.20	50.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		6/27/2017	47.26	53.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		9/27/2017	49.31	51.26	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--
		9/21/2018	38.94	61.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		12/31/2018	49.95	50.62	<5	<5	<5	<5	<5	<50	<5	<5	<5	<500	<100
		3/22/2019	39.67	60.90	<5	<5	<5	<5	<5	<50	<5	<5	<5	NS	NS

Groundwater Analytical Data Summary
Tevis Oil- Winfield BP

ID	TOC	Date	Depth to Groundwater	Groundwater Elevation	BENZENE	TOLUENE	Ethyl-benzene	XYLENES	MTBE	TBA	TAME	DIPE	ETBE	TPH-DRO	TPH-GRO
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20	NG	NG	NG	NG	47	47
PW-1	101.19														
6" steel casing															
		01/24/14	45.92	55.27	1.24	< 1.00	< 1.00	< 1.00	153	< 5.00	12.4	< 1.00	< 1.00	--	--
		05/01/14	41.96	59.23	< 1.00	< 1.00	< 1.00	< 1.00	32.8	< 5.00	2.06	< 1.00	< 1.00	--	--
		07/08/14	41.69	59.50	< 1.00	< 1.00	< 1.00	< 1.00	59.30	< 5.00	2.32	< 1.00	< 1.00	--	--
		09/05/14	44.27	56.92	4.69	< 1.00	< 1.00	< 1.00	993	9.67	84.4	< 1.00	< 1.00	--	--
		10/03/14	45.56	55.63	< 1.00	< 1.00	< 1.00	< 1.00	21	< 5.00	< 1.00	< 1.00	< 1.00	--	--
		11/04/14	46.19	55.00	9.36	< 1.00	< 1.00	< 1.00	1,160	50.9	100	1.11	< 1.00	--	--
		12/05/14	46.48	54.71	16.4	< 1.00	< 1.00	< 1.00	1,330	75.9	116	1.06	< 1.00	--	--
		1/29/2015	45.80	55.39	19.0	< 1.00	< 1.00	< 1.00	1,660	54.3	120	1.73	< 1.00	--	--
		9/15/2002	44.97	56.22	17.7	< 1.00	< 1.00	< 1.00	1,520	59.4	112	< 1.00	< 1.00	--	--
		3/27/2015	44.25	56.94	10.6	< 1.00	< 1.00	< 1.00	1,560	83.2	116	1.55	< 1.00	--	--
		4/28/2015	44.11	57.08	< 1.00	< 1.00	< 1.00	< 1.00	992	18.5	83.1	< 1.00	< 1.00	--	--
		5/29/2015	45.18	56.01	< 1.00	< 1.00	< 1.00	< 1.00	944	143.2e	71.7	< 1.00	< 1.00	--	--
		6/24/2015	45.08	56.11	1.43	< 1.00	< 1.00	< 1.00	682	20.8	60.7	< 1.00	< 1.00	--	--
		7/2/2015	43.17	58.02	6.49	< 1.00	< 1.00	< 1.00	1,130	44.8	112	1.13	< 1.00	--	--
		10/21/2015	47.89	53.30	2.36	< 1.00	< 1.00	< 1.00	1,340	88.0	102	1.13	< 1.00	--	--
		10/5/2016	47.87	53.32	ND	ND	ND	ND	136	ND	5.31	ND	ND	ND	145
		1/16/2017	49.46	51.73	ND	ND	ND	ND	ND	ND	5.31	ND	ND	ND	ND
		4/5/2017	48.99	52.20	ND	ND	ND	ND	2,280	190	178	ND	ND		
		5/31/2017	47.70	53.49	ND	22.6	ND	41.8	899	ND	57.4	ND	ND	--	--
		6/27/2017	46.57	54.62	ND	ND	ND	ND	967	ND	166	ND	ND	ND	1,430
		8/24/2017	47.83	53.36	ND	ND	ND	ND	61.70	ND	ND	ND	ND	--	--
		9/27/2017	48.33	52.86	ND	ND	ND	ND	1,550	ND	112	ND	ND	--	--
		9/21/18	NA	NA	Damaged	Well Head	Man Way	Not	Sampled						
		12/31/18	NA	NA	Damaged	Well Head	Man Way	Not	Sampled						
		3/22/2019	NA	NA	<5	<5	<5	<5	12.7	<50	<5	<5	<5	NS	NS

Tevis / Winfield BP
1631 West Liberty Rd
Sykesville, MD

Well	Date	Benzene	Toluene	Ethyl- benzene	Xylenes, Total	MTBE	TBA	TAME	DIPE	ETBE
	MDE GNCS, Type I and II Aquifers	5	1,000	700	10,000	20	NG	NG	NG	NG
PW-1A	5/18/2006	< 0.1	0.6	0.1 J	< 0.2	3.1	--	--	--	--
TOS=178', TD=305'	7/13/2006	< 0.1	< 0.1	< 0.1	< 0.2	2.2	--	--	--	--
	11/7/2010	< 0.1	< 0.1	< 0.1	< 0.2	1.0	< 5	< 0.1	< 0.1	< 0.1
	1/30/2008	< 0.1	0.2 J	< 0.1	< 0.2	1.7	< 5	< 0.1	< 0.1	< 0.1
	4/30/2008	< 0.1	< 0.1	< 0.1	< 0.2	1.9	< 5	< 0.1	< 0.1	< 0.1
	7/15/2008	< 0.1	< 0.1	< 0.1	< 0.2	1.7	< 5	< 0.1	< 0.1	< 0.1
	10/22/2008	< 0.5	< 0.5	< 0.5	< 0.5	1.49	< 2.5	< 0.5	< 0.5	< 0.5
	4/9/2002	< 0.5	< 0.5	< 0.5	< 0.5	1.93	< 2.5	< 0.5	< 0.5	< 0.5
	4/27/2009	< 0.5	< 0.5	< 0.5	< 0.5	1.91	24.5	< 0.5	< 0.5	< 0.5
	7/20/2009	< 0.5	< 0.5	< 0.5	< 0.5	1.70	21.4	< 0.5	< 0.5	< 0.5
	10/20/2009	< 0.5	< 0.5	< 0.5	< 0.5	1.12	15.7	< 0.5	< 0.5	< 0.5
	1/20/2010	< 0.5	0.64	< 0.5	< 0.5	1.35	< 2.5	< 0.5	< 0.5	< 0.5
	7/16/2010	< 0.5	< 0.5	< 0.5	< 0.5	1.97	25.3	< 0.5	< 0.5	< 0.5
	11/10/2010	< 0.5	< 0.5	< 0.5	< 1.0	1.78	17.7	< 0.5	< 0.5	< 0.5
	11/11/2002	< 0.5	< 0.5	< 0.5	< 1.0	1.92	12.0	< 0.5	< 0.5	< 0.5
	7/26/2011	< 0.5	< 0.5	< 0.5	< 1.0	2.85	29.7	< 0.5	< 0.5	< 0.5
	12/12/2001	< 0.500	< 0.500	< 0.500	< 1.00	3.95	19.3	< 0.500	< 0.500	< 0.500
	5/12/2007	< 0.500	< 0.500	< 0.500	< 1.00	5.00	16.6	< 0.500	< 0.500	< 0.500
	1/22/2013	< 0.500	< 0.500	< 0.500	< 1.00	2.23	38.8	0.840	< 0.500	< 0.500
	7/24/2013	< 0.500	< 0.500	< 0.500	< 1.00	9.00	21.7	< 0.500	< 0.500	< 0.500
	11/14/2002	< 0.500	< 0.500	< 0.500	< 1.00	0.66	< 2.50	< 0.500	< 0.500	< 0.500
	8/14/2007	< 0.500	< 0.500	< 0.500	< 1.00	1.34	< 2.50	< 0.500	< 0.500	< 0.500
	1/29/2015	< 0.500	< 0.500	< 0.500	< 1.00	1.22	< 2.50	< 0.500	< 0.500	< 0.500
	1/15/2007	< 0.500	< 0.500	< 0.500	< 1.00	5.86	< 2.50	< 0.500	< 0.500	< 0.500
	1/16/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9/27/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9/21/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/31/2018	< 0.50	< 0.50	< 0.50	< 0.50	5.86	< 10.0	< 0.50	< 0.50	< 0.50
	3/22/2019	< 0.50	< 0.50	< 0.50	< 0.50	0.77	< 10.0	< 0.50	< 0.50	< 0.50

MW-4

Significance level (%): 5

Continuity correction: Yes

Confidence interval %(Sen's slope): 95

Summary statistics



Summary statistics:

Variable	Observations	Obs. with missing data	Obs. without missing data	Minimum	Maximum	Mean	Std. deviation
MTBE	33	0	33	0.000	833.000	245.409	213.242

Mann-Kendall trend test / Two-tailed test (MTBE):

Kendall's tau	-0.046
S	-24.000
Var(S)	4156.667
p-value (Two-tailed)	0.721
alpha	0.05

An approximation has been used to compute the p-value.

Test interpretation:

H0: There is no trend in the series

Ha: There is a trend in the series

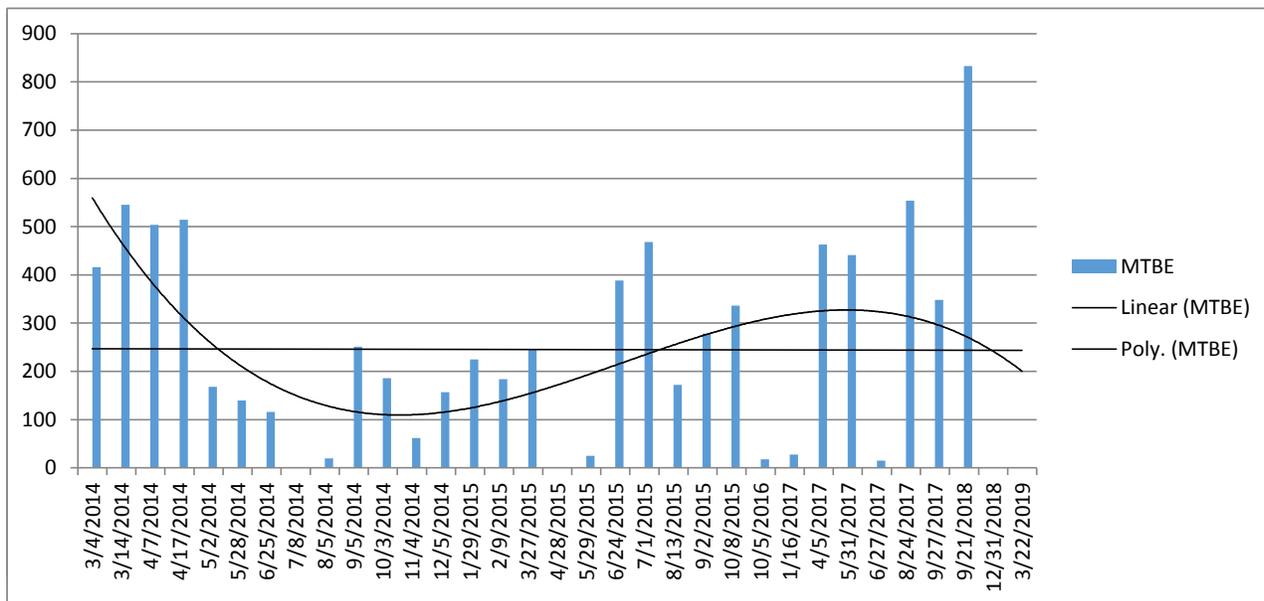
As the computed p-value is greater than the significance level $\alpha=0.05$, one cannot reject the null hypothesis H0.

The continuity correction has been applied.

Ties have been detected in the data and the appropriate corrections have been applied.

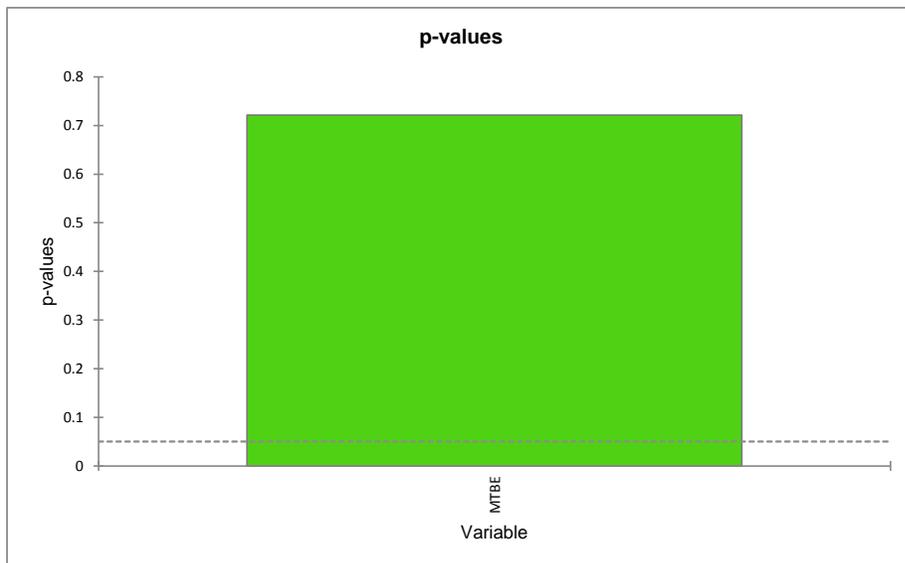
Sen's slope:

	Value	Lower bound (95%)	Upper bound (95%)
Slope	-0.017	-0.162	0.210
Intercept	887.202	-8597.658	7055.428



Summary:

Series\Test	Kendall's tau	p-value	Sen's slope
MTBE	-0.046	0.721	-0.017



MW-5S

Significance level (%): 5

Continuity correction: Yes

Confidence interval %(Sen's slope): 95

Summary statistics



Summary statistics:

Variable	Observation s	Obs. with missing data	Obs. without missing data	Minimum	Maximum	Mean	Std. deviation
MTBE	31	0	31	0.000	2560.000	558.061	739.598

Mann-Kendall trend test / Two-tailed test (MTBE):

Kendall's tau	0.131
S	59.000
Var(S)	3394.333
p-value (Two-tailed)	0.319
alpha	0.05

An approximation has been used to compute the p-value.

Test interpretation:

H0: There is no trend in the series

Ha: There is a trend in the series

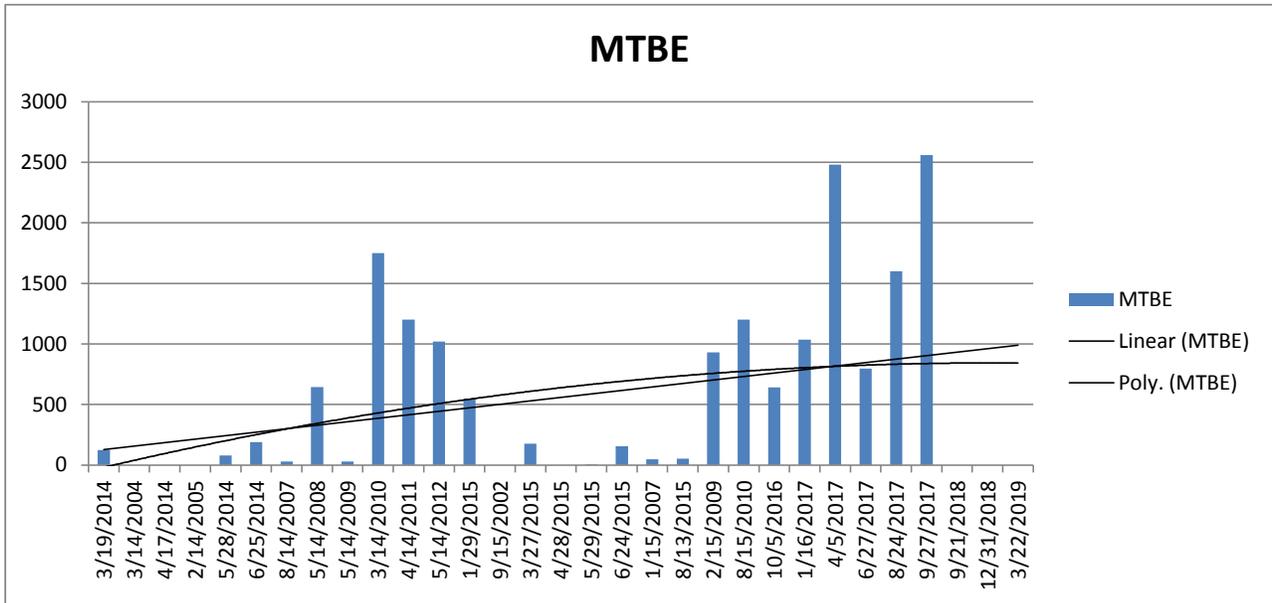
As the computed p-value is greater than the significance level $\alpha=0.05$, one cannot reject the null hypothesis H0.

The continuity correction has been applied.

Ties have been detected in the data and the appropriate corrections have been applied.

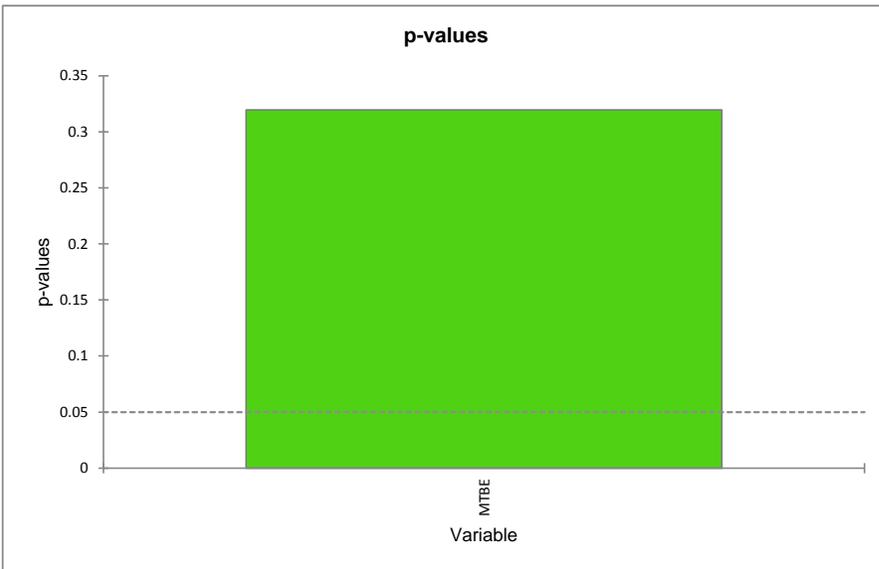
Sen's slope:

	Value	Lower bound (95%)	Upper bound (95%)
Slope	0.017	-0.011	0.176
Intercept	-562.090	-6858.828	612.353



Summary:

Series\Test	Kendall's		Sen's
	tau	p-value	slope
MTBE	0.131	0.319	0.017



MW-7D

Significance level (%): 5

Continuity correction: Yes

Confidence interval (%)(Sen's slope): 95

Summary statistics ▼

Summary statistics:

Variable	Observations	Obs. with missing data	Obs. without missing data	Minimum	Maximum	Mean	Std. deviation
MTBE	29	0	29	0.000	1610.000	146.238	326.456

Mann-Kendall trend test / Two-tailed test (MTBE):

Kendall's tau	0.003
S	1.000
Var(S)	2677.000
p-value (Two-tailed)	1.000
alpha	0.05

An approximation has been used to compute the p-value.

Test interpretation:

H0: There is no trend in the series

Ha: There is a trend in the series

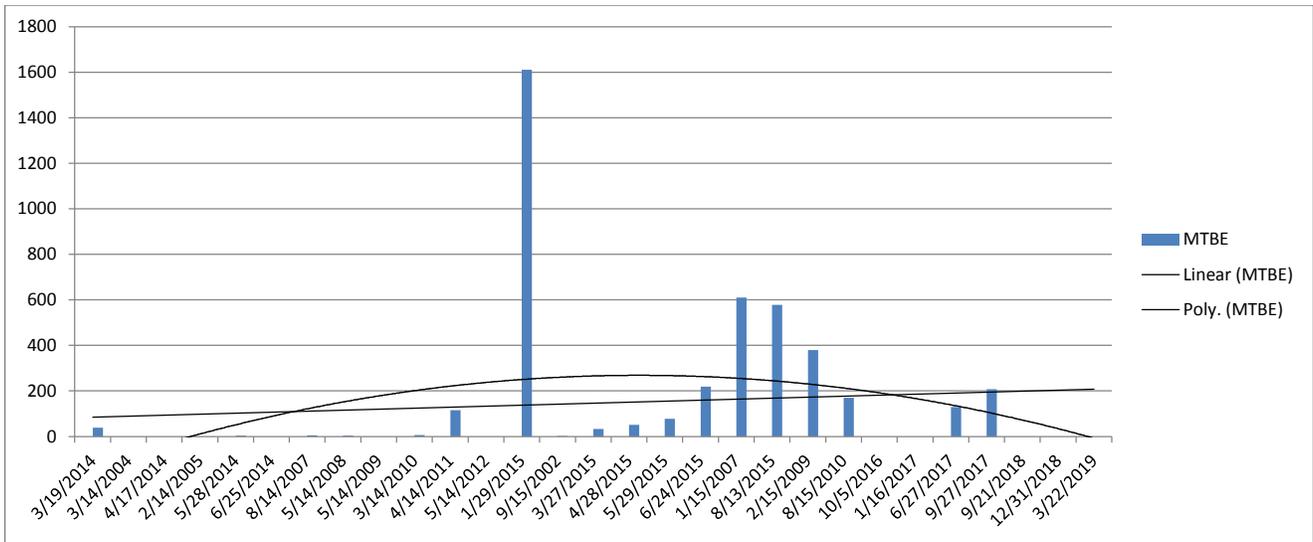
As the computed p-value is greater than the significance level $\alpha=0.05$, one cannot reject the null hypothesis H0.

The continuity correction has been applied.

Ties have been detected in the data and the appropriate corrections have been applied.

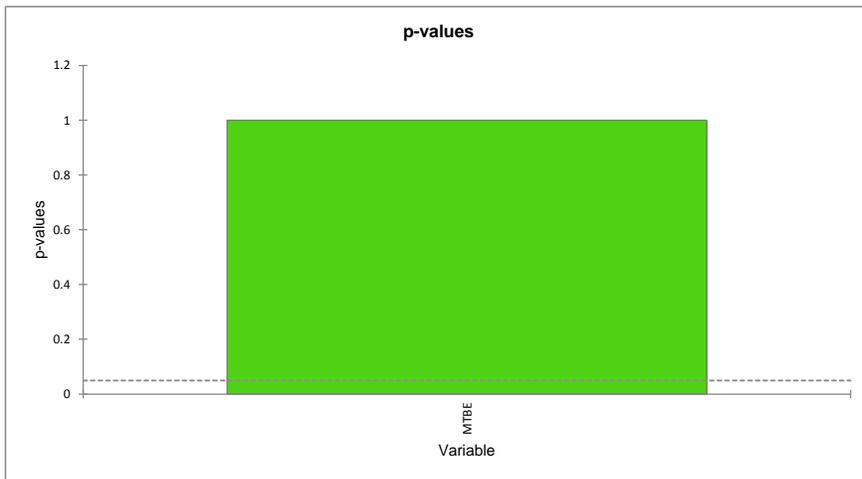
Sen's slope:

	Value	Lower bound (95%)	Upper bound (95%)
Slope	0.000	-0.002	0.010
Intercept	5.240	-397.934	83.101



Summary:

Series\Test	Kendall's tau	p-value	Sen's slope
MTBE	0.003	1.000	0.000

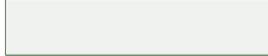


Well P1a

Significance level (%): 5

Continuity correction: Yes

Confidence interval %(Sen's slope): 95



Summary statistics



Summary statistics:

Variable	Observations	Obs. with missing data	Obs. without missing data	Minimum	Maximum	Mean	Std. deviation
MTBE	23	0	23	0.500	2280.000	847.109	670.936

Mann-Kendall trend test / Two-tailed test (MTBE):

Kendall's tau	-0.067
S	-17.000
Var(S)	1433.667
p-value (Two-tailed)	0.673
alpha	0.05

An approximation has been used to compute the p-value.

Test interpretation:

H0: There is no trend in the series

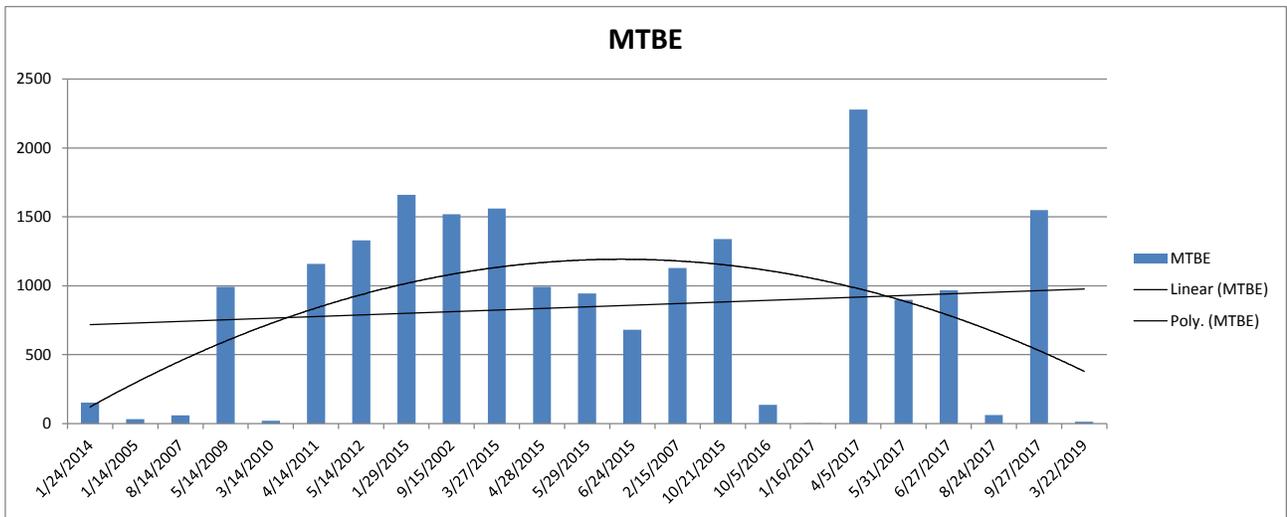
Ha: There is a trend in the series

As the computed p-value is greater than the significance level $\alpha=0.05$, one cannot reject the null hypothesis H0.

The continuity correction has been applied.

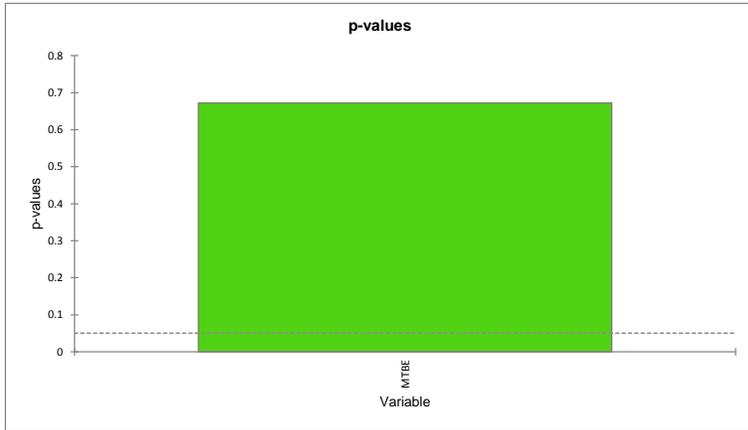
Sen's slope:

	Value	Lower bound (95%)	Upper bound (95%)
Slope	-0.011	-0.242	0.182
Intercept	1432.247	-6746.565	10873.952



Summary:

Series\Test	Kendall's tau	p-value	Sen's slope
MTBE	-0.067	0.673	-0.011



Appendix C
Report of Analysis & Chain of Custody Record

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-1	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D13

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-1	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D13

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	106	EPA 8260
Dibromofluoromethane	%	110	EPA 8260
Toluene-d8	%	96	EPA 8260
Bromofluorobenzene	%	101	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-2	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D14

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-2	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D14

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	107	EPA 8260
Dibromofluoromethane	%	111	EPA 8260
Toluene-d8	%	95	EPA 8260
Bromofluorobenzene	%	98	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-3	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D15

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-3	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D15

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	105	EPA 8260
Dibromofluoromethane	%	111	EPA 8260
Toluene-d8	%	98	EPA 8260
Bromofluorobenzene	%	99	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-4	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D16

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	8.58	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-4	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D16

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	107	EPA 8260
Dibromofluoromethane	%	113	EPA 8260
Toluene-d8	%	96	EPA 8260
Bromofluorobenzene	%	100	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-5D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D18

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-5D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D18

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	107	EPA 8260
Dibromofluoromethane	%	111	EPA 8260
Toluene-d8	%	98	EPA 8260
Bromofluorobenzene	%	100	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-5S	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D17

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	12.1	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-5S	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D17

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	109	EPA 8260
Dibromofluoromethane	%	113	EPA 8260
Toluene-d8	%	98	EPA 8260
Bromofluorobenzene	%	103	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-6D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D19

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-6D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D19

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	107	EPA 8260
Dibromofluoromethane	%	112	EPA 8260
Toluene-d8	%	96	EPA 8260
Bromofluorobenzene	%	99	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-7D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D20

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-7D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D20

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	106	EPA 8260
Dibromofluoromethane	%	110	EPA 8260
Toluene-d8	%	97	EPA 8260
Bromofluorobenzene	%	101	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-8D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D21

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-8D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D21

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	106	EPA 8260
Dibromofluoromethane	%	110	EPA 8260
Toluene-d8	%	98	EPA 8260
Bromofluorobenzene	%	101	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-9D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D22

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	ND	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-9D	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D22

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	107	EPA 8260
Dibromofluoromethane	%	113	EPA 8260
Toluene-d8	%	97	EPA 8260
Bromofluorobenzene	%	101	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	P-1	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D23

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	5	ug/L	ND	EPA 8260
Chloromethane	5	ug/L	ND	EPA 8260
Vinyl Chloride	5	ug/L	ND	EPA 8260
Bromomethane	5	ug/L	ND	EPA 8260
Chloroethane	5	ug/L	ND	EPA 8260
Trichlorofluoromethane	5	ug/L	ND	EPA 8260
1,1-Dichloroethene	5	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	50	ug/L	ND	EPA 8260
Methylene Chloride	5	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	5	ug/L	12.7	EPA 8260
1,1-Dichloroethane	5	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	5	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	5	ug/L	ND	EPA 8260
Bromochloromethane	5	ug/L	ND	EPA 8260
Chloroform	5	ug/L	ND	EPA 8260
2,2-Dichloropropane	5	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	5	ug/L	ND	EPA 8260
1,2-Dichloroethane	5	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	50	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	5	ug/L	ND	EPA 8260
1,1-Dichloropropene	5	ug/L	ND	EPA 8260
Carbon tetrachloride	5	ug/L	ND	EPA 8260
Benzene	5	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	5	ug/L	ND	EPA 8260
Dibromomethane	5	ug/L	ND	EPA 8260
1,2-Dichloropropane	5	ug/L	ND	EPA 8260
Trichloroethene	5	ug/L	ND	EPA 8260
Bromodichloromethane	5	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	5	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	5	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	5	ug/L	ND	EPA 8260
Toluene	5	ug/L	ND	EPA 8260
1,3-Dichloropropane	5	ug/L	ND	EPA 8260
Dibromochloromethane	5	ug/L	ND	EPA 8260
1,2-Dibromoethane	5	ug/L	ND	EPA 8260
Tetrachloroethene	5	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	5	ug/L	ND	EPA 8260
Chlorobenzene	5	ug/L	ND	EPA 8260
Ethylbenzene	5	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	P-1	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D23

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	5	ug/L	ND	EPA 8260
Bromoform	5	ug/L	ND	EPA 8260
Styrene	5	ug/L	ND	EPA 8260
o-Xylene	5	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	5	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	5	ug/L	ND	EPA 8260
Isopropylbenzene	5	ug/L	ND	EPA 8260
Bromobenzene	5	ug/L	ND	EPA 8260
n-Propylbenzene	5	ug/L	ND	EPA 8260
2-Chlorotoluene	5	ug/L	ND	EPA 8260
4-Chlorotoluene	5	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	5	ug/L	ND	EPA 8260
tert-Butylbenzene	5	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	5	ug/L	ND	EPA 8260
sec-Butylbenzene	5	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	5	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	5	ug/L	ND	EPA 8260
p-iso-Propyltoluene	5	ug/L	ND	EPA 8260
n-Butylbenzene	5	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	5	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	5	ug/L	ND	EPA 8260
Naphthalene	5	ug/L	ND	EPA 8260
Hexachlorobutadiene	5	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	5	ug/L	ND	EPA 8260

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	105	EPA 8260
Dibromofluoromethane	%	108	EPA 8260
Toluene-d8	%	97	EPA 8260
Bromofluorobenzene	%	91	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	P-1A	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D12

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	0.77	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	ND	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	ND	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	P-1A	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D12

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	108	EPA 524.2
Dibromofluoromethane	%	110	EPA 524.2
Toluene-d8	%	97	EPA 524.2
Bromofluorobenzene	%	106	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	TRIP BLANK	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D11

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	ND	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	ND	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	TRIP BLANK	Project Identification:	WINFIELD BP
MATRIX:	water	Client Identification:	TEVIS
Sample Date:	3/22/2019	Client Telephone:	
Date Received:	3/22/2019	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/23/2019	Lab File:	32319.D11

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	106	EPA 524.2
Dibromofluoromethane	%	111	EPA 524.2
Toluene-d8	%	95	EPA 524.2
Bromofluorobenzene	%	106	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

Client: <u>TEVIS</u>		Project Name: <u>WINFIELD BP</u>		SDG#	
Address:		Project Location: <u>WINFIELD MD</u>		Preservatives	
Contact:		Phone:	Fax:	Requested Analysis	
Email:		Receive Completed Report Via (Circle One)		Observation	
		U.S. Mail	Email		
		Date	Time	Matrix	pH
Sample By:	Sample #	Sample ID	Date	Time	Matrix
	1	MW-1	3/22		H ₂ O
	2	MW-2			
	3	MW-3			
	4	MW-4			
	5	MW-5S			
	6	MW 5D			
	7	MW 6D			
	8	MW 7D			
	9	MW 8D			
	10	MW 9D			
Relinquished/Received By Signature		Date	Time	Delivery Method	
Relinquished By: <u>[Signature]</u>		3/22/19			
Received By:				Temp of Cooler	
Relinquished By:				24°C	
Received By: <u>[Signature]</u>				Ice Present (Y/N)	
Relinquished By:				Custody Seal (Y/N)	
Received By:				Date of Extraction	
				2/1	
Matrix Codes: SO = Soil, GW = Ground Water, WW = Waste Water, VP = Vapor, SL = Sludge, DW = Drinking Water, O = Other					
Special Instructions / Comments / QC Requirements:					
Turn Around Time: <u>STD</u> 1 Day 2 Day 3 Day Other					

Client: <u>TEVIS</u>		Project Name: <u>WINFIELD BP</u>		SDG#	
Address:		Project Location: <u>WINFIELD MD</u>		Preservatives	
Contact:		Phone:	Fax:	Requested Analysis	
Sample By:		Email:		Observation	
Receive Completed Report Via (Circle One)		U.S. Mail		Email	
Sample #	Sample ID	Date	Time	Matrix	pH
1	P-1	3/22		H ₂ O	
2	P-1A	}		}	8.2
3	Trip				8.2
4					
5					
6					
7					
8					
9					
10					
Relinquished/Received By Signature		Date	Time	Delivery Method	
Relinquished By: <u>[Signature]</u>		3/22/19		Temp of Cooler <u>< 4°C</u>	
Received By:				Ice Present <u>(N)</u>	
Relinquished By:				Custody Seal <u>(N)</u>	
Received By: <u>[Signature]</u>		3/22/19		Date of Extraction <u>N/A</u>	
Relinquished By:				Lab Use Only	
Received By:					
Relinquished By:					
Received By:					
Matrix Codes: SO = Soil, GW = Ground Water, WW = Waste Water, VP = Vapor, SL = Sludge, DW = Drinking Water, O = Other					
Special Instructions / Comments / QC Requirements:					
Turn Around Time: <u>STD</u> 1 Day 2 Day 3 Day Other					

No
 other

Appendix D
DSW Data

MDE provided data from PIA Request

PERMIT	Address	City	Property Owner	TAX MAP	PARCEL	TOTAL_DE PTH	TOP SCREEN	BOTTOM SCREEN
CL739673	1900 Liberty Rd	Sykesville	S Carroll Swim Club	62	424	260	20	260
CL740072	5176 Stone House Village Ct	Sykesville	James Kleinschmidt	67	481	440	20	440
CL739869	1623 W Old Liberty Rd	Sykesville	Mathew Pollack	67	229	167	156	167
CL813434	1830 Liberty Rd	Sykesville	Timothy Bauerlien	61	461	340	19	340
CL880284	1630 W Old Liberty Rd	Sykesville	Terry Livesay	67	516	95	63	95
CL881738	2605 Bollinger Mill Rd.	Sykesville	Paul Kuegler	69	296	200	141	200
CL930541	1630 W Old Liberty Rd	Sykesville	Terry Livesay (restaurant)	67	516	165	128	165
CL930725	1715 W Old Liberrty Rd	Sykesville	Kamaleer Mini Storage	67	321	152	64	152
CL-94-0953	4559 Salem Bottom	Westminster	Brooke Meeley	62	172	105	58	105
CL942111	4525 Salem Bottom Rd	Westminster	Katherine Little	62	188	170	76	170
CL944581	1615 W Old Liberty Rd	Sykesville	1615 Old Liberty LLC	67	223	300	147	300
CL945574	4707 Woodbine Rd.	Winfield	Casey Forsythe, Josh Alvandi (adjacent)	67	3	180	70	80
CL950003	1631 Liberty Rd	Winfield	SMO Inc.	67	221	80	50	80
CL950004	1631 Liberty Rd	Winfield	SMO Inc.	67	221	80	50	80
CL950002	1631 Liberty Rd	Winfield	SMO Inc.	67	221	120	90	120
CL950387	1631 Liberty Rd	Winfield	SMO Inc.	67	221	85	10	85
CL950399	1631 Liberty Rd	Winfield	SMO Inc.	67	221	305	178	305
CL950358	1707 W Liberty Rd	Winfield	Ameyyash Invest. LLC	67	267	246	66	246
CL950937	1626 W Old Liberty Rd	Winfield	Terry Livesay	67	306	280	173	280
CL950900	1631 Liberty Rd	Winfield	SMO Inc.	67	221	139		114
CL950901	1631 Liberty Rd	Winfield	SMO Inc.	67	221	85		10
CL952169/ CL140154	1750 Raydan Dr	Eldersburg	John Downs	67	526	260	86	260
CL110160	4544 Salem Bottom Rd	Westminster	Jeffrey Goodman	0062	0133	175	67	175
CL160130	2825 Old Liberty Rd	Sykesville	John Keyser	74	729	267	0	0

Wells Observed During Field Inspection With No Associated PIA Data

CL-16-0137	1623 1625 Old Liberty Rd	Sykesville	Mathew Pollack	67	229
CL-73-2680	1636 Old Liberty	Sykesville	Classic Exterior Solutions	67	152
CL-95-0597	1610 W Old Liberty Rd	Sykesville	Sams Plaza Body Wachter Auctions	67	79
CL-95-0937	1626 W Old Liberty Rd	Sykesville	Terry Livesay	67	306
CL-93-0541	1630 W Old Liberty Rd	Sykesville	Terry Livesay	67	516
No Tag	1730 W Old Liberty Rd	Sykesville	Mary Grubs	62	226
No Tag	1726 W Old Liberty Rd	Sykesville	Michael Keller	62	140
No Tag	1744 W Old Liberty Rd	Sykesville	Stephen Bruha	62	420
CL-73-6597	4561 Salem Bottom	Westminster	Eric Kissell	62	71
Not visible	4562 Salem Bottom	Westminster	Robert Mercer	62	131
CL-94-0953	4559 Salem Bottom	Westminster	Brooke Meeley	62	172
CL-94-1701	4555 Salem Bottom	Westminster	William Odonnell	62	163
CL-16-0172	4901 Woodbine RD	Sykesville	Ebenezer UMC	67	220
CL-73-8498	4820 Woodbine Rd	Sykesville	Mark Herbolt	67	148
CL-94-1015	4812 Woodbine Rd	Sykesville	Bobbi Cabral	67	444
CL-94-5584	1705 Charles Ray Acres	Eldersburg	Vourlous Kirkner	67	625
CL-94-5583	1700 Charles Ray Acres	Eldersburg	Timothy Brown	67	625
CL-94-5585	1711 Charles Ray Acres	Eldersburg	Scott Hanel	67	625
CL-81-3586	1720 Charles Ray Acres	Eldersburg	Joseph Pavlock	67	513
CL-14-0155	1740 Ray Dan Rd	Sykesville	Mitchell Richards	67	562
CL-14-0154	1750 Ray Dan Rd.	Sykesville	John Downs	67	526
CL-95-2169	1720 Ray Dan Rd.	Sykesville	Brandon Webb	67	562

Area Properties Without Well Data

4716 Woodbine Rd	Sykesville	Phyllis Gilliss	67	198
4720 Woodbine Rd	Sykesville	Brian Cunningham	67	60
4724 Woodbine Rd	Sykesville	Geraldine Gordon	67	61
4728 Woodbine Rd	Sykesville	John Schulze	67	62
4732 Woodbine Rd	Sykesville	James Fogle	67	63
4736 Woodbine Rd	Sykesville	Ann Kern	67	173
4800 Woodbine Rd	Sykesville	Hamilton Snowden	67	445
4740 Woodbine Rd	Sykesville	Rod Fansler	67	193
4746 Woodbine Rd	Sykesville	Erman Will	67	64
1621 W Liberty Rd	Sykesville	Westminster Trust (bank)	67	50

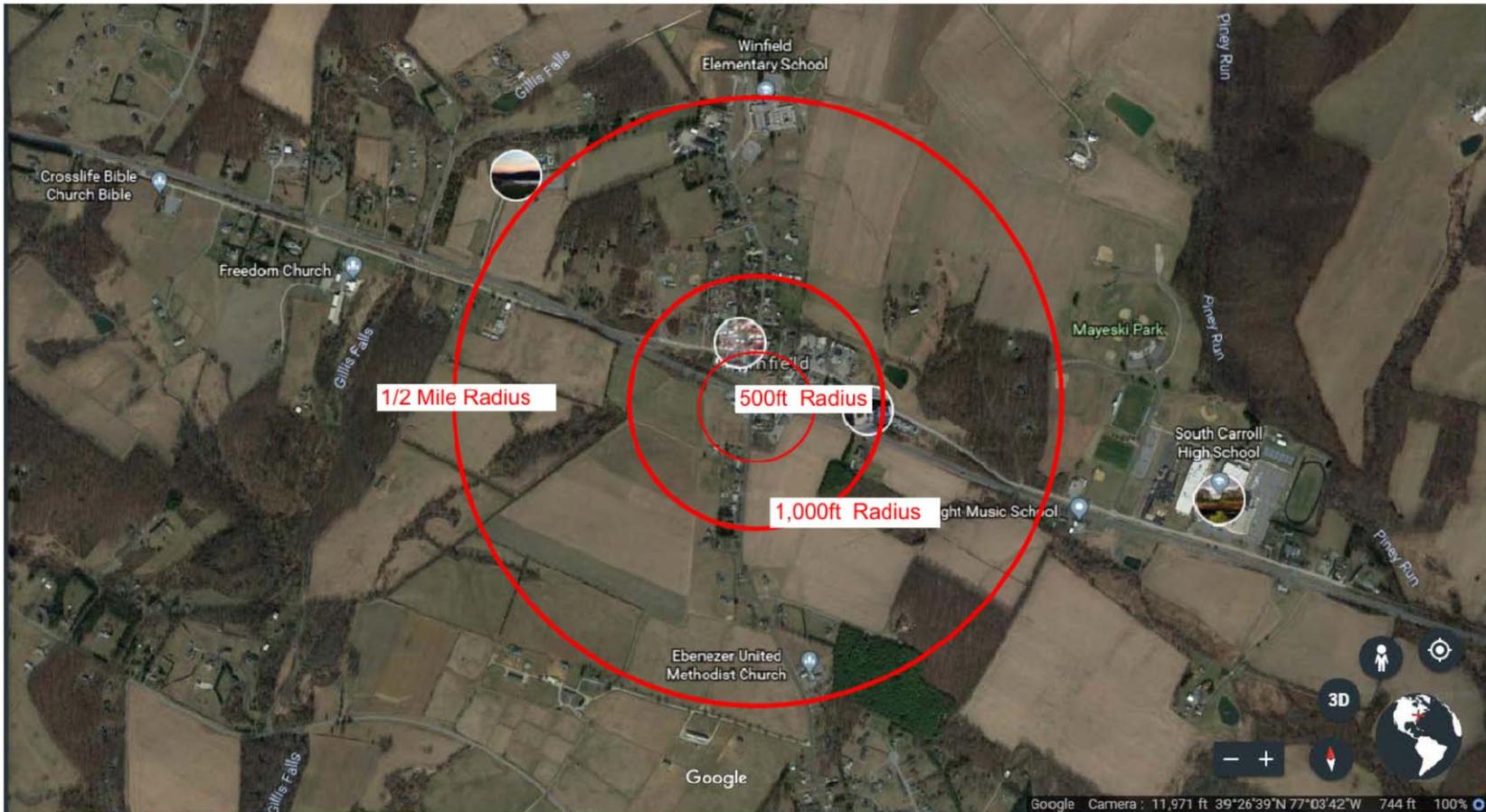
Winfield BP DSW Field Inspection



Google Earth

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1000 ft



Tevis Winfield BP
Radius Map
April 2019