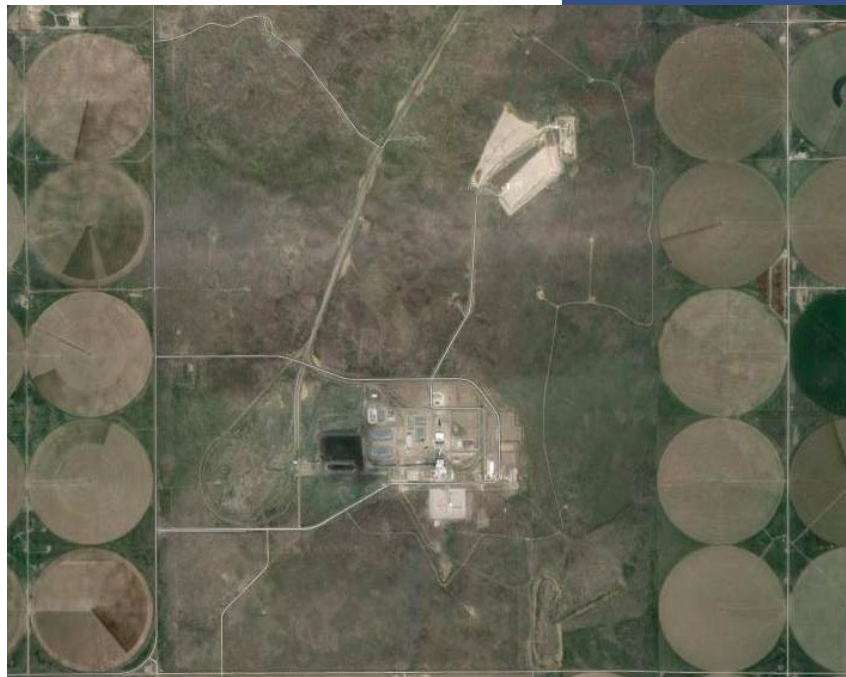




***2024 Annual Report 257.90(e)
Sunflower Electric Power Corporation
Holcomb Common Facilities, LLC***



Prepared for:



***AEC File No. 25002:4908
January 31, 2025***

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ATTEST

In our professional judgment and to the best of our knowledge, the results and conclusions presented in this document are accurate, and the document has been prepared using sound scientific methods.

ALLIED ENVIRONMENTAL CONSULTANTS, INC.



Theodore B. Francis, P.E.
Project Engineer



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1.0 EXECUTIVE SUMMARY

Sunflower operated the CCR unit pursuant to the detection monitoring program under Code of Federal Regulations (CFR) Title 40 Section 257.94.

In the Spring 2024 event, there were two (2) exceedances over the prediction limits for the intrawell method indicating possible SSIs for the event. Sunflower elected to run additional statistical analyses (interwell methods) to determine if the SSIs were attributable to variations in water quality across the network. The interwell analysis showed that these two exceedances were not SSIs across the network. However, the interwell method showed one (1) exceedance over the prediction limits for pH. Sunflower elected to perform resampling of pH for this exceedance, with the retest below prediction limits (See Appendix D). In the Fall 2024 event there were two (2) exceedances over the prediction limits for the intrawell method. Again, Sunflower elected to run additional statistical analyses (interwell methods). Interwell again showed two (2) exceedances over the prediction limits for the interwell method for pH, because intrawell did not show exceedances for pH, the exceedances were attributed to natural fluctuations in groundwater quality. A summary of the SSIs for the Spring and Fall 2024 events are shown in Table 1-1, Table 1-2, Table 1-3, and Table 1-4.

Table 1-1: Spring 2024 Event - Exceedances of Prediction Limits, Intrawell

Well	Parameter	Concentration	Prediction Limit	Location ¹	Action
H-5	Chloride	24.9 mg/L	24.8 mg/L	Side-gradient	Additional Stats
H-5	Sulfate	215 mg/L	182 mg/L	Side-gradient	Additional Stats

Table 1-2: Spring 2024 Event - Exceedances of Prediction Limits, Interwell

Well	Parameter	Concentration	Prediction Limit	Location ¹	Action
H-1	pH	6.94 S.U.	6.947 S.U.	Side-gradient	Resample

Table 1-3: Fall 2024 Event - Exceedances of Prediction Limits, Intrawell

Well	Parameter	Concentration	Prediction Limit	Location ¹	Action
H-5	Calcium	96.7 mg/L	92.89 mg/L	Side-gradient	Additional Stats
H-5	Chloride	25.2 mg/L	24.9 mg/L	Side-gradient	Additional Stats

Table 1-4: Fall 2024 Event - Exceedances of Prediction Limits, Interwell

Well	Parameter	Concentration	Prediction Limit	Location ¹	Action
H-1	pH	7.96 su	7.647 su	Side-gradient	Additional Stats
H-6	pH	7.65 su	7.647 su	Down-gradient	Additional Stats

Note 1: Location relative to landfill and groundwater flow direction

Originally and in accordance with 40 CFR 257.94(e), Sunflower prepared an “Alternate Source Demonstration” (ASD) certified by a qualified professional engineer due to the SSIs in compliance wells H-1, H-5, and H-6. Regulation provides conflicting timing requirements for the ASD, with the ASD to be provided in the Annual Report (due by January 31) and prepared within 90 days of the detection of the SSI. The original SSIs in compliance wells were identified in the Fall 2022 Event Report dated November 29, 2022. Sunflower completed an ASD within 90 days of the Report (on February 23, 2023) and placed it in the operating record. Additional SSIs were identified in compliance wells in the Spring 2023 Event Report dated June 20, 2023. Sunflower revised the ASD within 90 days of the Spring 2023 Event Report (on September 18, 2023) and placed it in the operating record. This version of the ASD was included with the 2023 Annual Report. Additional SSIs were identified in compliance wells in the Fall 2023 Event Report dated November 15, 2023. Sunflower prepared amended tables and charts for the ASD within 90 days of the Fall 2023 Event Report (on February 9, 2024) and placed it in the operating record. The amendments are provided in this Annual Report (Appendix F).

The facility has been in detection monitoring since April 18, 2018, as required under the CCR Rule, and has not required corrective measures to date.

*_*_*_*_*

2.0 APPLICABILITY UNDER 40 CFR 257.90

2.1 CCR UNIT SUBJECT TO 40 CFR § 257.90(a)

The Sunflower Electric Holcomb Landfill is a coal combustion residual (CCR) landfill subject to the requirements described under the 40 CFR §257.90 through §257.98.

2.2 ANNUAL REPORTING 40 CFR § 257.90(e)

40 CFR §257.91 requires the installation of a groundwater monitoring system and 40 CFR §257.93 requires that groundwater sampling and analysis be conducted prior to October 17, 2017. As required in §257.94 the status of the groundwater monitoring is provided herein.

*_*_*_*_*

3.0 DATA FOR 2024

3.1 *SITE MAP 40 CFR § 257.90(e)(1)*

Appendix A, Figure 1 provides a map showing the unit and upgradient and downgradient monitoring wells. This information is also provided in the Monitoring Well Installation Report which is included in the facility's operating record as required by §257.105(h)(2).

3.2 *WELL NETWORK STATUS 40 CFR § 257.90(e)(2)*

Sunflower did not install or decommission any monitoring wells during 2024. The Monitoring Well Installation Report included in the facility's operating record is current with the wells present at the landfill.

3.3 *MONITORING WELL DATA 40 CFR § 257.90(e)(3)*

As required in §257.94(b), Sunflower collected semiannual samples from all background and downgradient monitoring wells. Table 1 in Appendix B summarizes the related information including the sample names, dates, and analytical results.

3.4 *MONITORING PROGRAM STATUS 40 CFR § 257.90(e)(4)*

2024 was the seventh year of the detection monitoring program for Sunflower as shown in Appendix B, Table 1. As described in Section 1.0, the compliance wells exceeded the prediction limits in the Fall 2022, 2023 and 2024 events; however, the ASD and additional statistical analyses show the detections are from natural variations in groundwater quality and from an upgradient/off-site source.

Sunflower prepared an ASD in accordance with 40 CFR 257.94(e) due to the increases demonstrated in compliance wells H-1, H-5, and H-6. Subsequently, Sunflower has relied on additional statistical analyses.

3.5 *OTHER INFORMATION 40 CFR § 257.90(e)(5)*

The 2024 Annual Report serves as the report for this CCR Unit and documents all activities that Sunflower conducted to comply with §257.90 through §257.94. None of the activities referenced in §257.90 through §257.98 are relevant to the activities completed in 2024 beyond the provisions of §257.90(e).

*_*_*_*_*

4.0 RECORDKEEPING 40 CFR§ 257.90(f)

To comply with the recordkeeping requirements:

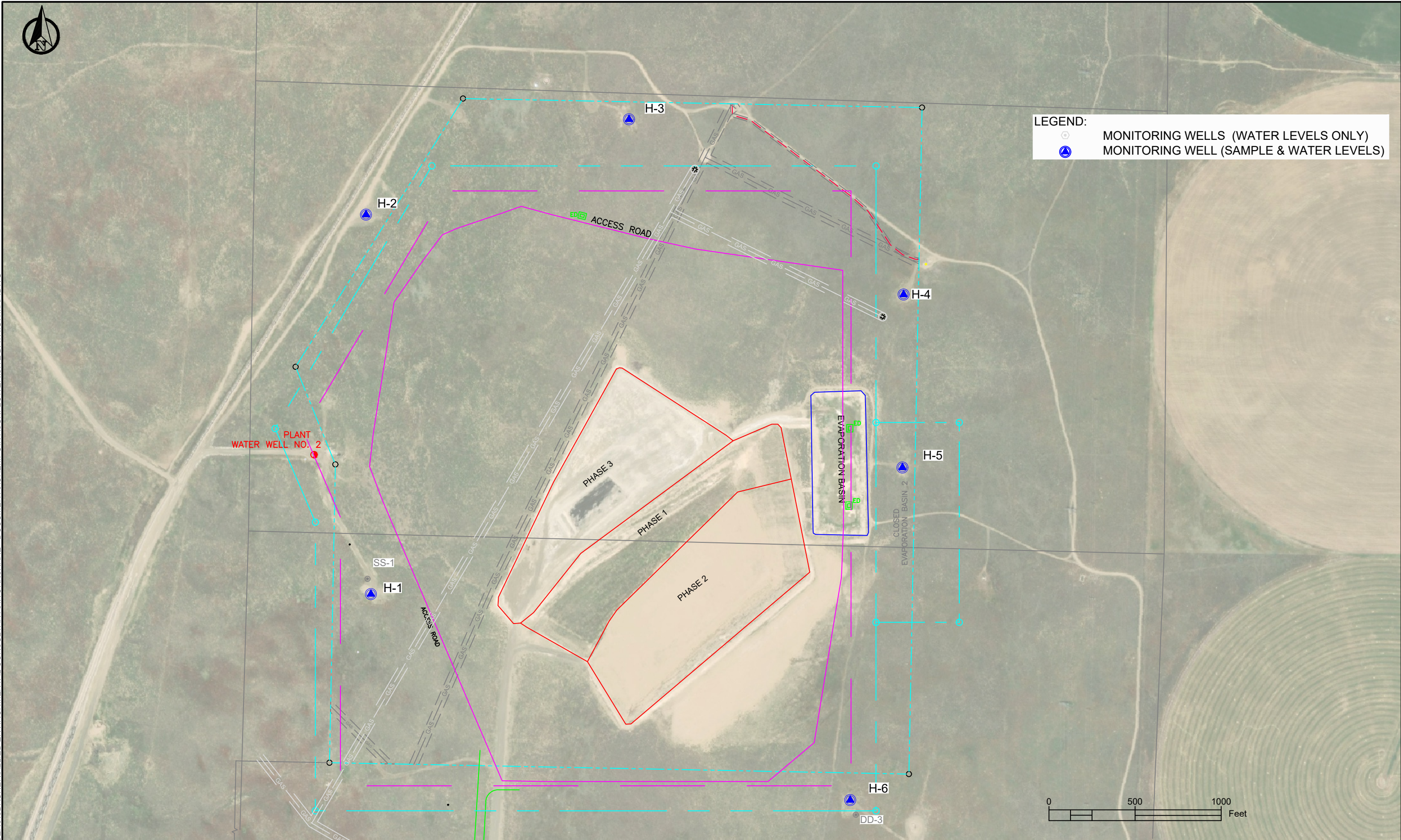
- The Annual Report must be placed in the facility's operating record, as required by §257.105(h)(1).
- Sunflower will notify the KDHE within 30 days of the Annual Report being placed in the facility's operating record, as required by §257.106(d).
- Sunflower will post the Annual Report on their CCR website within 30 days of the Annual Report being placed in the facility's operating record, as required by §257.107(d).

*_*_*_*_*

APPENDIX A

FIGURES

FILENAME:C:\USERS\BRUNER\ALLIED ENVIRONMENTAL CONSULTANTS\WORKSHARE - DOCUMENTS\CHIEFPOINTS\SUNFLOWERSITE\DATA\GWMAP.DWG



LEGEND:
 ○ MONITORING WELLS (WATER LEVELS ONLY)
 ● MONITORING WELL (SAMPLE & WATER LEVELS)

SUNFLOWER ELECTRIC
 HOLCOMB, KANSAS PLANT
 INDUSTRIAL LANDFILL

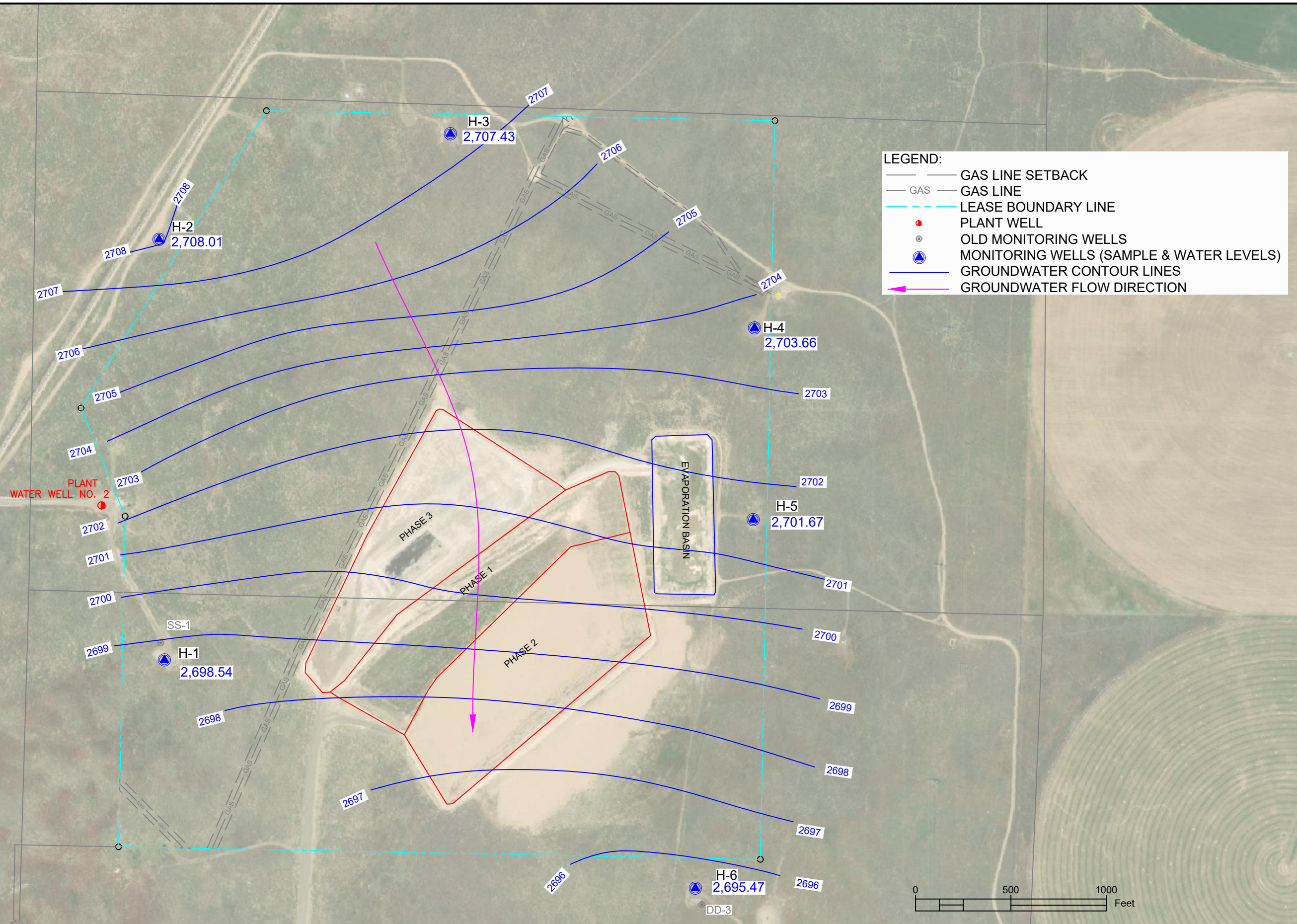


PROJECT: 25002-0:4908
 SCALE: AS_SHOWN
 DATE: 1/21/2025
 DWN BY: SMB
 CHKD BY: TBF

LANDFILL SITE MAP
 HOLCOMB COMMONS FACILITY, LLC

FIGURE
 1

FILENAME:C:\USERS\BRUNER\ALLIED ENVIRONMENTAL CONSULTANTS\WORKSHARE - DOCUMENTS\SCHEMPOINTS\SUNFLOWERSITE\DATA\GWMAP.DWG



LEGEND:

- GAS LINE SETBACK
- GAS LINE
- LEASE BOUNDARY LINE
- PLANT WELL
- OLD MONITORING WELLS
- MONITORING WELLS (SAMPLE & WATER LEVELS)
- GROUNDWATER CONTOUR LINES
- GROUNDWATER FLOW DIRECTION

SUNFLOWER ELECTRIC
 HOLCOMB, KANSAS PLANT
 INDUSTRIAL LANDFILL

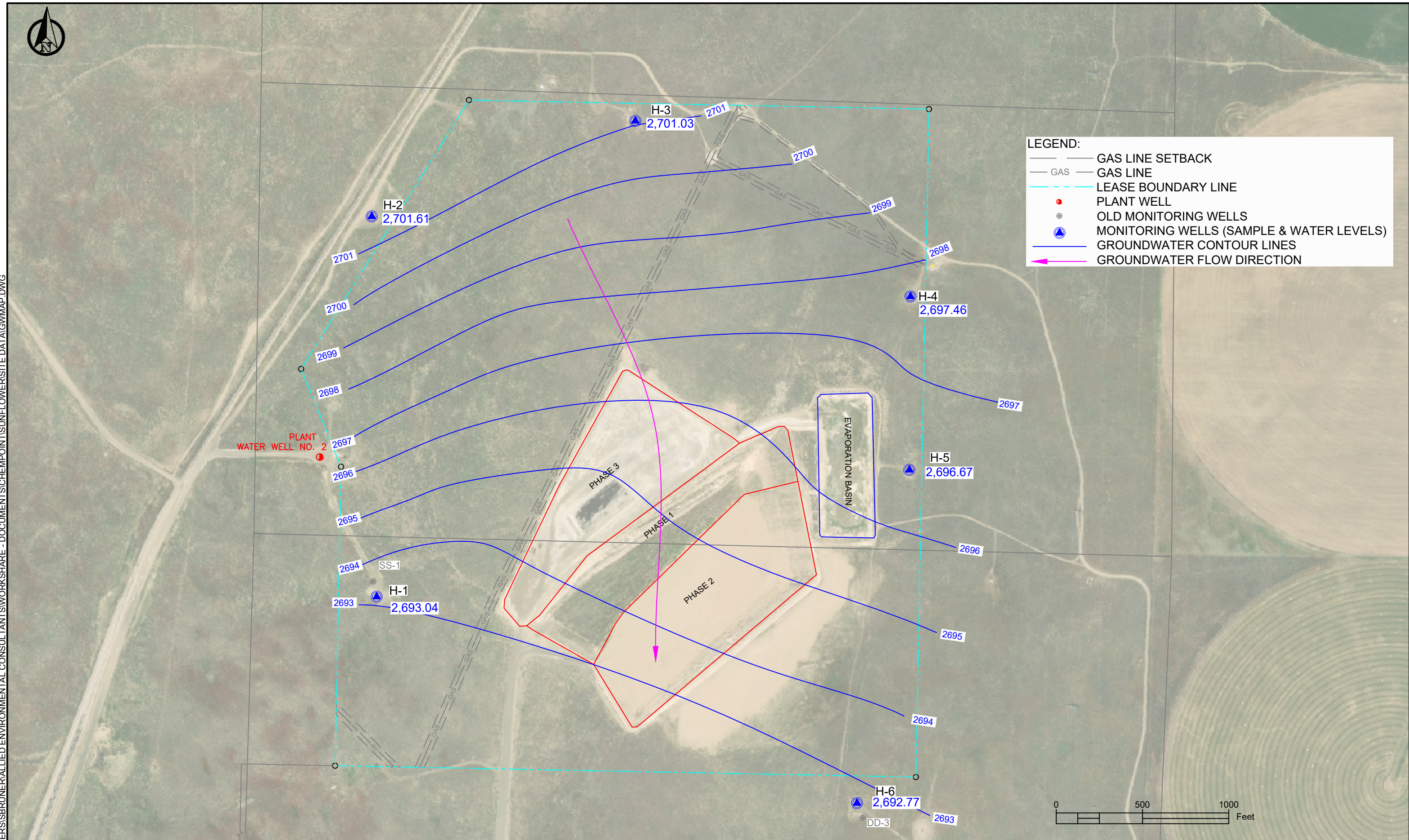
727 N WACO AVE, STE 265 • WICHITA, KS 67203 • 316.262.5698

PROJECT: 24002-1:4908
 SCALE: AS_SHOWN
 DATE: 4/17/2024
 DWN BY: SMB
 CHKD BY: TBF

GROUNDWATER ELEVATIONS
 APRIL 2024

FIGURE
 2

FILENAME:C:\USERS\BRUNER\ALLIED ENVIRONMENTAL CONSULTANTS\WORKSHARE - DOCUMENTS\SCHEMPOINTS\SUNFLOWERSITE\DATA\GWMAP.DWG



SUNFLOWER ELECTRIC
HOLCOMB, KANSAS PLANT
INDUSTRIAL LANDFILL



727 N WACO AVE, STE 265 • WICHITA, KS 67203 • 316.262.5698

PROJECT: 24002-2:4908
SCALE: AS_SHOWN
DATE: 10/2/2024
DWN BY: SMB
CHKD BY: TBF

GROUNDWATER ELEVATIONS
OCTOBER 2024

APPENDIX B

DATA SUMMARY - HOLCOMB COMMON FACILITIES, LLC

Table 1: Summary of Semi-Annual Analytical Results
Sunflower Electric Power Corporation
Holcomb Common Facilities, LLC.

Location	Measure Point Elevation (TOC) *	Sample Date	Depth to Water (BTOC)	Groundwater Elevation (ft. AMSL)	Field Parameters					Detection Monitoring Appendix III Constituents					
					Temperature (deg F)	Conductivity (µS/cm)	Turbidity (NTU)	pH (su)	Boron, Total (µg/L)	Calcium, Total (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	
															Secondary Maximum Contaminant Level (SMCL):
Up-Gradient	H-2	2914.71	4/18/2018	196.23	2,718.48	62.7	1588.0	0.55	7.33	ND (150)	260,000	93	0.39	810	1,400
			10/10/2018	200.80	2,713.91	59.0	1678.0	1.02	7.17	ND (150)	270,000	86	ND (0.50)	850	2,900
			4/10/2019	190.60	2,724.11	64.0	1755.0	1.08	7.38	ND (150)	280,000	91	0.32	950	1,500
			10/7/2019	200.00	2,714.71	62.0	1887.0	0.88	7.35	ND (150)	310,000	93	ND (0.5)	50	1,600
			4/7/2020	189.20	2,725.51	65.0	1968.0	0.79	7.24	ND (150)	310,000	84	0.31	860	1,600
			10/6/2020	199.40	2,715.31	66.0	1819.0	1.90	7.59	ND (150)	310,000	89	0.30	840	1,500
			4/6/2021	190.12	2,724.59	64.6	1994.0	1.70	7.26	ND (150)	330,000	89	ND (0.5)	900	1,200
			10/12/2021	200.80	2,713.91	65.6	1886.0	0.49	7.12	ND (150)	320,000	86	ND (0.5)	1,000	1,700***
			4/26/2022	200.50	2,714.21	66.0	1698.0	0.41	7.66	ND (150)	360,000	85	ND (0.5)	1,100	1,700
			10/18/2022	206.60	2,708.11	58.4	2175.0	10.20	7.14	60.6	372,000	91.8	0.330	1,100	1,750
			4/25/2023	206.20	2,708.51	62.0	2040.0	19.90	7.13	59.6	187,000	70.3	0.326	952	1,410
			10/12/2023	209.00	2,705.71	65.4	2183.0	20.30	7.04	67.7	336,000	96.6	0.319	1,230	2,030
	4/17/2024	206.70	2,708.01	66.0	1324.0	2.55	7.11	62.1	217,000	61.4	0.278	785	1,190		
	10/15/2024****	213.10	2,701.61	64.0	1211.0	7.95	7.46	71.2	187,000	49.3	0.530	518	910		
	4/18/2018	188.43	2,717.50	62.6	2191.0	7.96	7.29	ND (150)	340,000	90	ND (1.0)	1,200	2,000		
	10/10/2018	193.30	2,712.63	58.0	2005.0	3.26	7.23	ND (150)	320,000	87	ND (0.50)	1,100	1,800		
	4/10/2019	182.70	2,723.23	64.8	2026.0	2.58	7.32	ND (150)	270,000	78	0.33	1,100	1,800		
	10/7/2019	191.60	2,714.33	63.0	2180.0	4.34	7.27	ND (150)	310,000	84	ND (0.5)	1,100	1,700		
	4/7/2020	181.20	2,724.73	66.0	2157.0	2.00	7.29	ND (150)	310,000	81	ND (0.5)	1,100	1,800		
	10/6/2020	190.70	2,715.23	63.0	2248.0	8.00	7.20	ND (150)	350,000	88	0.30	1,100	1,900		
	4/6/2021	182.90	2,723.03	64.8	2284.0	2.96	7.39	ND (150)	340,000	81	ND (0.5)	730**	1,500		
	10/12/2021	192.60	2,713.33	65.5	2126.0	2.64	7.13	ND (150)	320,000	84	ND (0.5)	1,200	1600***		
	4/26/2022	191.70	2,714.23	66.0	2000.0	2.29	7.30	ND (150)	340,000	81	ND (1.0)	1,200	1,900		
	10/18/2022	198.20	2,707.73	58.4	2360.0	23.00	7.13	55.2	343,000	91.7	0.276	1,220	1,990		
	4/25/2023	198.00	2,707.93	61.4	2320.0	17.10	7.22	51	252,000	93	0.28	1,550	1,840		
	10/12/2023	200.80	2,705.13	65.1	2388.0	30.10	7.10	65.8	365,000	96.0	0.342	1,390	1,950		
	4/17/2024	198.50	2,707.43	67.0	2390.0	7.82	7.16	53.1	282,000	91.1	0.239	1,600	1,940		
	10/15/2024****	204.90	2,701.03	63.2	2429.0	12.40	7.26	68.8	378,000	95.4	0.378	1,420	1,900		
	4/18/2018	190.00	2,711.66	62.6	829.3	2.37	7.47	ND (150)	130,000	33	0.51	300	620		
	10/10/2018	195.50	2,706.16	58.0	857.0	1.37	7.47	ND (150)	130,000	33	0.46	310	330		
	4/10/2019	185.10	2,716.56	63.8	1134.0	1.08	7.48	ND (150)	170,000	42	0.40	510	970		
	10/7/2019	193.40	2,708.26	64.0	1162.0	1.07	7.45	ND (150)	170,000	46	0.41	490	910		
	4/7/2020	183.90	2,717.76	66.0	1208.0	0.88	7.47	ND (150)	200,000	47	0.39	540	1,000		
	10/6/2020	192.50	2,709.16	65.0	1186.0	1.40	7.41	ND (150)	190,000	50	0.38	520	960		
	4/6/2021	185.10	2,716.56	64.1	1318.0	0.90	7.38	ND (150)	220,000	53	0.38	5**	1,100		
	10/12/2021	193.90	2,707.76	66.0	1159.0	0.72	7.31	ND (150)	200,000	48	0.57	590	860***		
4/26/2022	192.30	2,709.36	66.0	1206.0	0.45	7.39	ND (150)	230,000	50	ND (0.5)	660	1,100			
10/18/2022	198.70	2,702.96	60.1	1590.0	2.07	7.18	33.9	169,000	56.6	0.348	661	1,160			
4/25/2023	198.00	2,703.66	60.7	1520.0	2.04	7.38	45	217,000	61	0.36	835	1,150			
10/12/2023	200.00	2,701.66	65.8	1515.0	2.22	7.20	40.8	201,000	59.9	0.449	726	1,230			
4/17/2024	198.00	2,703.66	68.0	892.0	1.35	7.34	38.6	116,000	39.2	0.331	232	612			
10/15/2024****	204.20	2,697.46	61.3	841.0	2.08	7.25	43.1	119,000	41.2	0.510	148	616			
Down-Gradient	H-1	2924.54	4/18/2018	217.00	2,707.54	64.3	385.3	0.47	7.62	ND (150)	47,000	5	0.57	33	240
			10/10/2018	222.40	2,702.14	58.2	382.0	0.40	7.37	ND (150)	45,000	5	0.53	30	240
			4/10/2019	213.00	2,711.54	65.7	387.7	1.67	7.76	ND (150)	42,000	4	0.51	29	250
			10/7/2019	222.60	2,701.94	62.0	400.0	0.57	7.68	ND (150)	46,000	5	0.48	32	240
			4/7/2020	212.30	2,712.24	65.0	400.0	0.51	7.54	ND (150)	48,000	5	0.49	28	240
			10/6/2020	222.90	2,701.64	64.0	399.0	0.63	7.62	ND (150)	46,000	5.5	0.48	28	140**
			4/6/2021	214.40	2,710.14	64.6	403.6	3.00	7.66	ND (150)	49,000	5.5	0.51	27	110**
			10/12/2021	222.80	2,701.74	66.2	398.7	0.63	7.36	ND (150)	46,000	5.2	0.54	30	37****
			4/26/2022	220.90	2,703.64	66.0	407.2	0.54	7.67	ND (150)	48,000	4	ND (0.5)**	26	240
			10/18/2022	227.10	2,697.44	59.0	397.0	0.85	7.65	41.0	50,200	4.54	0.570	32.6	244
			4/25/2023	225.20	2,699.34	61.9	397.0	1.02	7.29	42	40,700	5	0.282**	39	238
			10/12/2023	228.50	2,696.04	64.5	398.0	0.47	7.25	51.5	44,500	4.93	0.543	35.9	1910**
	4/17/2024	226.00	2,698.54	68.0	401.0	1.62	6.94	42.7	43,300	4.41	0.411	35.9	222		
	10/15/2024****	231.50	2,693.04	62.4	400.0	1.79	7.96	48.5	44,600	5.22	0.633	34.5	240		
	4/18/2018	187.80	2,708.87	64.0	409.1	0.97	7.63	ND (150)	59,000	12	0.54	36	250		
	10/10/2018	192.70	2,703.97	59.0	425.0	0.52	7.61	ND (150)	56,000	13	0.49	40	280		
	4/10/2019	183.90	2,712.77	65.0	425.2	0.83	7.70	ND (150)	57,000	12	0.47	41	280		
	10/7/2019	191.10	2,705.57	62.0	426.0	0.62	7.64	ND (150)	57,000	11	0.48	40	280		
	4/7/2020	182.70	2,713.97	65.0	432.0	0.54	7.57	ND (150)	57,000	9.6	0.47	39	220		
	10/6/2020	190.20	2,706.47	64.0	428.0	1.10	7.59	ND (150)	60,000	10	0.46	41	290		
	4/6/2021	182.80	2,713.87	64.1	440.1	1.30	7.60	ND (150)	61,000	10.0	0.49	39	220		
	10/12/2021	191.10	2,705.57	65.2	429.5	0.35	7.50	ND (150)	57,000	9.7	0.49	41	240***		
	4/26/2022	189.50	2,707.17	66.0	455.5	0.30	7.54	ND (150)	63,000	10	ND (0.5)**	45	280		
	10/18/2022	194.70	2,701.97	61.7	651.0	2.37	7.30	29.3	80,400	22.0	0.515	145	426		
	4/25/2023	194.20	2,702.47	60.5	649.0	1.18	7.56	36	71,600	24	0.42	182	440		
	10/12/2023	196.00	2,700.67	65.2	684.0	3.25	7.37	41.3	87,500	24.8	0.465	178	468		
	4/17/2024	195.00	2,701.67	68.0	654.0	1.72	7.45	39.0	79,100	24.9	0.306	215	442		
	10/15/2024****	200.00	2,696.67	62.5	686.0	1.74	7.53	48.3	96,700	25.2	0.550	188	410		
	4/18/2018	239.30	2,701.07	64.8	471.3	0.59	7.56	ND (150)	70,000	13	0.54	31	310		
	10/10/2018	242.70	2,697.67	60.0	468.0	0.50	7.56	ND (150)	68,000	13	0.51	28	310		
	4/10/2019	237.10	2,705.27	65.4	473.1	0.50	7.65	ND (150)	69,000	12	0.51	28	310		
	10/7/2019	242.30	2,698.07	63.0	478.0	0.52	7.64	ND (150)	69,000	13	0.51	31	270		
	4/7/2020	237.00	2,703.37	65.0	488.0	0.81	7.58	ND (150)	70,000	12	0.50	28	320		
	10/6/2020	242.00	2,698.37	64.0	486.0	0.33	7.51	ND (150)	67,000	12	0.49	30	280		
	4/6/2021	232.70	2,707.67	64.6	466.8	4.12	7.60	ND (150)	58,000	11.0	0.56	32	270		
	10/12/2021	241.60	2,698.77	64.8	463.2	0.32	7.46	ND (150)	65,000	11.0	0.53	31	340***		
4/26/2022	240.40	2,699.97	66.0	460.6	0.44	7.55	ND (150)	69,000							

APPENDIX C

**REGULATORY CROSS
REFERENCE- HOLCOMB COMMON FACILITIES, LLC**

REGULATORY CROSS REFERENCE
2024 Annual Report
Sunflower Electric Power Corporation
Holcomb Common Facilities, LLC.

Regulatory Citation	Annual Report Section or Compliance Narrative
<p>§257.90 Applicability. (a)</p> <p>(a) All CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under §§257.90 through 257.98.</p>	<p>See Annual Report, Section 2.1</p>
<p>§257.90 Applicability. (b)(1)(i)</p> <p>(b) <i>Initial timeframes - (1) Existing CCR landfills and existing CCR surface impoundments.</i> No later than October 17, 2017, the owner or operator of the CCR unit must be in compliance with the following groundwater monitoring requirements:</p> <p>(b)(i) Install the groundwater monitoring system as required by §257.91;</p>	<p>Sunflower installed the required groundwater monitoring system in 2016. Sunflower has placed installation reports and certifications in the operating record.</p>
<p>§257.90 Applicability. (b)(1)(ii)</p> <p>(b)(ii) Develop the groundwater sampling and analysis program to include selection of the statistical procedures to be used for evaluating groundwater monitoring data as required by §257.93;</p>	<p>Sunflower has prepared a groundwater sampling and analysis plan with accompanying statistical procedures as required by this subsection.</p>
<p>§257.90 Applicability. (b)(1)(iii)</p> <p>(b)(iii) Initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background and downgradient well as required by §257.94(b); and</p>	<p>Sunflower completed the collection and analysis of a minimum of eight independent samples in 2017 for all wells at the subject landfill.</p>
<p>§257.90 Applicability. (b)(1)(iv)</p> <p>(b)(iv) Begin evaluating the groundwater monitoring data for statistically significant increases over background levels for the constituents listed in appendix III of this part as required by §257.94.</p>	<p>Sunflower has begun to evaluate the data using the procedures described in the groundwater sampling and analysis plan.</p>

Regulatory Citation	Annual Report Section or Compliance Narrative
<p>§257.90 Applicability. (b)(2)</p> <p>(2) <i>New CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units.</i> Prior to initial receipt of CCR by the CCR unit, the owner or operator must be in compliance with the groundwater monitoring requirements specified in paragraph (b)(1)(i) and (ii) of this section. In addition, the owner or operator of the CCR unit must initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background well as required by §257.94(b).</p>	<p>The subject landfill pre-dates the CCR regulations. This subsection does not apply to the subject facility at this time.</p>
<p>§257.90 Applicability. (c)</p> <p>(c) Once a groundwater monitoring system and groundwater monitoring program has been established at the CCR unit as required by this subpart, the owner or operator must conduct groundwater monitoring and, if necessary, corrective action throughout the active life and post-closure care period of the CCR unit.</p>	<p>Sunflower initiated a post-background detection monitoring in 2018.</p>
<p>§257.90 Applicability. (d)</p> <p>(d) In the event of a release from a CCR unit, the owner or operator must immediately take all necessary measures to control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of contaminants into the environment. The owner or operator of the CCR unit must comply with all applicable requirements in §§257.96, 257.97, and 257.98.</p>	<p>Sunflower will respond accordingly should a release occur at this facility.</p>

Regulatory Citation	Annual Report Section or Compliance Narrative
<p>§257.90 Applicability. (e)</p> <p>(e) <i>Annual groundwater monitoring and corrective action report.</i> For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by §257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:</p>	<p>(see below for Annual report content requirements)</p>
<p>§257.90 Applicability. (e)(1)</p> <p>(1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;</p>	<p>See Annual Report, Section 3.1.</p>
<p>§257.90 Applicability. (e)(2)</p> <p>(2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;</p>	<p>See Annual Report, Section 3.2.</p>
<p>§257.90 Applicability. (e)(3)</p> <p>(3) In addition to all the monitoring data obtained under §§257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;</p>	<p>See Annual Report, Section 3.3.</p>

Regulatory Citation	Annual Report Section or Compliance Narrative
<p>§257.90 Applicability. (e)(3)</p> <p>(4) A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and</p>	<p>See Annual Report, Section 3.4</p>
<p>§257.90 Applicability. (e)(3)</p> <p>(5) Other information required to be included in the annual report as specified in §§257.90 through 257.98.</p>	<p>See Annual Report, Section 3.5</p>

§257.90 Applicability. (e)

See Annual Report, Section 1.0

(6) A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:

(i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

(ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

(iii) If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e):

(A) Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase; and

(B) Provide the date when the assessment monitoring program was initiated for the CCR unit.

(iv) If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following:

(A) Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase;

(B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;

(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and

(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.

(v) Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and

(vi) Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

<p>§257.90 Applicability. (f)</p> <p>(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in §257.105(h), the notification requirements specified in §257.106(h), and the internet requirements specified in §257.107(h).</p>	<p>See Annual Report, Section 4.0</p>
--	---------------------------------------

Source - [80 FR 21468, Apr. 17, 2015, as amended at 81 FR 53516, Aug. 28, 2020]

APPENDIX D

SPRING 2024 GROUNDWATER MONITORING REPORT



October 11, 2024

Sunflower Electric Power Corporation
PO Box 1020
Hays, Kansas 67601

Attention: Ms. Emily Vsetecka, P.E. via email: evsetecka@sunflower.net
Manager, Environmental and Laboratory Services

Reference: Holcomb Common Facilities Industrial Landfill (CCR Unit)
Amended Spring 2024 Sampling Summary Report
AEC File No.24002-1:4908

Dear Ms. Vsetecka:

Sunflower has completed the resampling for the Spring 2024 Sampling Event, and this letter reports the validated results. Enclosed with this letter are the groundwater flow map, the chemical laboratory reports, and the statistical analysis as an amendment to the report dated 6/12/24 and submitted to the KDHE on 6/17/24. Our qualified groundwater scientist and the project engineer have reviewed this report, as indicated by the signatures below.

Deviations from SAP

Sunflower did not report deviations from procedures established in the Sampling and Analysis Plan (SAP) submitted to the Kansas Department of Health and Environment (KDHE) on June 23, 2016. Sunflower did elect to additionally evaluate interwell prediction limit analysis due to changes in upgradient groundwater quality as described in detail in the Alternate Source Determination (ASD) dated September 18, 2023 and revised February 9, 2024.

Groundwater Flow

Figure 1 in Attachment 1 shows the depth to groundwater measurements as converted to elevations and the corresponding groundwater elevation contours. Attachment 2 shows the water level measurements. The general direction of groundwater flow is south-southeast in the northern portion of the landfill while the southern component of flow appears to be to the south.

Chemical Data Summary

Sunflower collected groundwater samples for each well using disposable HydraSleeve devices and decanted them into laboratory-supplied containers. Sunflower labeled all containers before placing on ice for shipment to the analytical laboratory under chain-of-custody protocol. Sunflower submitted the samples to ALS Laboratory Group, located in Houston, Texas.

Attachment 2 presents the analytical summary table showing detected analytes. Attachment 3 provides the complete laboratory report. Data validation shows that the data satisfies the quality control standards required in the SAP.

SUMMARY OF STATISTICAL ANALYSES RESULTS

In accordance with the SAP and per the regulatory requirements of 40 CFR 257.93, AEC performed statistical analysis using the Sanitas Technologies Statistical software to evaluate the data. AEC employed Outlier Analysis, Time Series, Intrawell Prediction Limits and Interwell Prediction Limits Analysis statistical methods to evaluate each parameter detected in the Sunflower monitoring wells. The specific methods and results are described below.

Outlier Analysis identifies anomalous values in the dataset. In this case, AEC relied on Outlier analysis (EPA 1989 Outlier Test) for each parameter to indicate any significant variation from the background levels. In many cases, these outlier values can graphically illustrate suspect values that may be attributed to sampling or laboratory error. In other cases, Outlier analysis can be used to aid in the verification of a statistically significant result if other factors can be ruled out. Attachment 4 includes the related Outlier output. As shown therein, multiple samples and constituents were flagged as potential outliers during this event. AEC reviewed the outliers shown in Table 1 below and elected to retain the values due to consistency in results among the constituents and increasing trends.

Table 1: Detected Outliers

Parameter	Well	Date
Fluoride	H-1	4/26/2022
		4/25/2023
		4/17/2024
	H-5	4/26/2022
		4/17/2024
	H-6	7/12/2017
		4/26/2022
		4/17/2024
	pH	H-1
4/17/2024		
H-5		1/19/2017
Sulfate	H-3	4/4/2017
		7/12/2017
	H-4	4/6/2021
Total Dissolved Solids	H-1	7/12/2017
		10/6/2020
		4/6/2021
		12/14/2021
		10/17/2023
		4/17/2024

As identified by the dates above, several outliers were identified during this event (4/17/2024). These specific outliers may possibly be related to laboratory detection issues or natural fluctuations in groundwater quality. However, the cause of these Outliers is unknown, and the data will be assumed to be valid unless further sampling indicates otherwise.

Time Series Analysis is performed to determine changes in analytical results over time. Time Series graphs were developed for each analyte detected in each well. These graphs produce observational evidence to determine if the detected concentrations for each analyte in each well are increasing or decreasing. Attachment 4 includes the related Time Series output.

Trend Analysis was performed utilizing Sen's Slope/Mann-Kendall analysis at 95% confidence to evaluate statistically significant trends in upgradient and downgradient wells. Table 2 shows the Wells/Parameter pairs that exhibit trends. Given the magnitude of trends, no background data were removed for statistical analysis as the sample size would be low for many of the observed parameters at $n < 7$.

Table 2: Trend Analysis

Parameter (trend)	Well	Well Type
Calcium (increasing)	H-2	Upgradient
	H-4	Upgradient
	H-5	Side-gradient
Chloride (increasing)	H-1	Side-gradient
	H-4	Upgradient
	H-5	Side-gradient
Fluoride (decreasing)	H-1	Side-gradient
	H-2	Upgradient
	H-4	Upgradient
	H-5	Side-gradient
Sulfate (increasing)	H-2	Upgradient
	H-3	Upgradient
	H-4	Upgradient
	H-5	Side-gradient
	H-6	Downgradient
Total Dissolved Solids (increasing)	H-2	Upgradient
	H-3	Upgradient
	H-4	Upgradient
	H-5	Side-gradient

Intrawell Prediction Limit Analysis is one of the statistical methods recommended by the EPA's Unified Guidance, Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities for facilities involved in compliance monitoring. A Statistically Significant Increase (SSI) is noted when the parameter value from a compliance well exceeds the Prediction Limit for that parameter.

As described in Section 5.2.3 of the Sunflower SAP, Intrawell Prediction Limits (see Attachment 4) are employed only after it has been demonstrated that there has been no prior facility impact on the background data. For certain wells, the data was non-normally distributed requiring non-parametric (vs. parametric) analysis; this will likely change as the sample size increases. As noted on the graphs in Attachment 4, when the non-parametric test is used, the calculated limit is equal to the highest of the background value for that parameter. Since there is a relatively small number of observations to date, the limit may be artificially low. Finally, due to the relatively small sample size, seasonality effects will not be able to be determined until 20 observations are available (i.e., $n=20$).

As shown on the Intrawell Prediction Limit charts (see Attachment 4) the compliance value for the following wells/parameters are shown to be above the predicted limits and therefore represent SSIs above background. Parameter values in compliance wells are well below upgradient values.

Table 3: Intrawell Statistically Significant Increases (SSIs)

Well	Parameter	Well Type
H-5	Chloride	Side-gradient / Compliance
H-5	Sulfate	Side-gradient / Compliance

Interwell Prediction Limit Analysis: In accordance with Section 5.2.5 of the Sunflower SAP, Sunflower elected to run Interwell Prediction Limit Analysis on the three (3) site Compliance wells. In lieu of the Tolerance Limit test outlined in the SAP, Sunflower utilized a Prediction Limit analysis at the 95% confidence level. With the pooled background data, seasonality was able to be tested but was not detected for any parameters in compliance wells.

As shown on the Interwell Prediction Limit charts the compliance value for the following wells/parameters are shown to be above the predicted limits and therefore represent potential SSIs above background, or below background in this case.

Table 4: Interwell Statistically Significant Increases (SSIs)

Well	Parameter	Well Type
H-1	pH	Side-gradient / Compliance

As a field parameter, pH can be highly impacted by field conditions, the analytical result exceeded the prediction limit by 0.007 S.U. This value was also flagged as an outlier and the well is located side-gradient from the landfill waste mass. Furthermore, Intrawell analysis did not identify H-1 pH as an SSI for this event. Sunflower will rely on resampling within 90 days of this report to determine whether an SSI has occurred or whether the value represents an error related to collection or analysis.

A review of the box-and-whiskers plots (included in Attachment 4) for these wells and constituents show a very narrow range for most historical detections. This narrow range is likely due to the relatively small sample size (n=14, n=15, n=16, n=17, n=18 or n=19 depending on any outliers that were removed). This can cause the prediction limit to be artificially low. The Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring¹ from Ohio indicates a minimum sample size of n=11 (seeking at least 10 degrees of freedom after the set of 8 background events) to accurately determine prediction limits. As noted above, we anticipate the data will become normally distributed, allowing for parametric analysis for all wells/constituents, allow for seasonality testing, and provide more reasonable prediction limits as the sample size increases.

The Facility Alternate Source Demonstration (ASD) shows that there is an alternate source for the parameters with intrawell SSIs in Site Compliance Wells. It is expected that concentrations of parameters in down-gradient compliance wells will eventually be similar to the elevated concentrations found in up-gradient background wells. Sunflower therefore relied on interwell analysis to determine if the SSIs found via intrawell analysis were indicative of a release or influences from upgradient groundwater quality. The flagged well/parameter pairs utilizing intrawell analysis were not shown as SSIs utilizing interwell analysis. Interwell analysis found a potential SSI that will be evaluated further.

Retest Results: pH

As a result of the interwell exceedance of pH in H-1, Sunflower resampled H-1 alone on September 5, 2024. The analysis of this retest indicated a pH of 7.84. The initial Spring H-1 value was below the low prediction limit and this result was above the high prediction limit. As a result, Allied recommended resampling the entire network for pH to ensure fluctuations in pH across the entire network were not occurring. Sunflower resampled the entire network on September 16, 2024. The results of analysis are shown in Attachment 2. This resampling indicated no statistically significant increases above background for pH utilizing interwell or intrawell parametric prediction limits or interwell non-parametric tolerance

¹ The Technical Guidance Manual is available online at: <http://www.epa.state.oh.us/portals/28/documents/TGM-13.pdf>

limits. Results of statistical analysis are shown in Attachment 4. Sunflower will resume with detection monitoring at the regularly scheduled Fall 2024 interval.

Should you have any questions or comments concerning the results of this investigation, please contact our office at your convenience.

Sincerely,

ALLIED ENVIRONMENTAL CONSULTANTS, INC.



Sheena M Bruner
Statistical Analyst



Paul R. Clark, P.G.
Project Geologist



Ted Francis, P.E.
Project Engineer

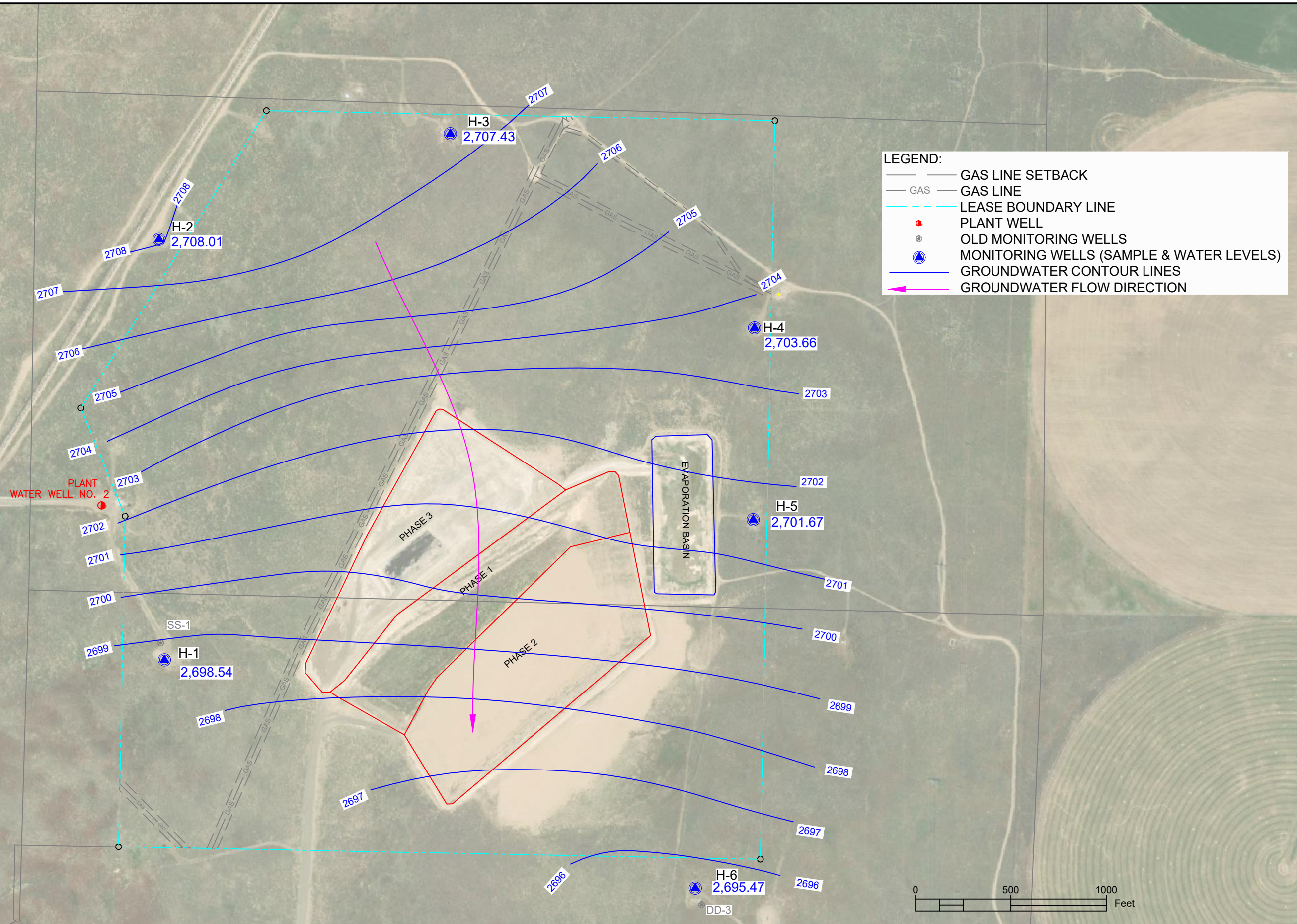
Attachments: 1 – Site Figures 2 – Table 3 – Laboratory Report 4 – Statistical Analysis

c: Ms. Kandi George (via email: kgeorge@sunflower.net)
Ms. Justine Sullivan (via email: jsullivan@sunflower.net)

ATTACHMENT 1

FIGURES

FILENAME:C:\USERS\BRUNER\ALLIED ENVIRONMENTAL CONSULTANTS\WORKSHARE - DOCUMENTS\SCHEMPOINTS\SUNFLOWERSITE\DATA\GWMAP.DWG



LEGEND:

- LEASE BOUNDARY LINE
- PLANT WELL
- OLD MONITORING WELLS
- MONITORING WELLS (SAMPLE & WATER LEVELS)
- GROUNDWATER CONTOUR LINES
- GROUNDWATER FLOW DIRECTION
- GAS LINE SETBACK
- GAS LINE

SUNFLOWER ELECTRIC
HOLCOMB, KANSAS PLANT
INDUSTRIAL LANDFILL

727 N WACO AVE, STE 265 • WICHITA, KS 67203 • 316.262.5698

PROJECT: 24002-1:4908
SCALE: AS_SHOWN
DATE: 4/17/2024
DWN BY: SMB
CHKD BY: TBF

GROUNDWATER ELEVATIONS
APRIL 2024

FIGURE
1

ATTACHMENT 2

ANALYTICAL SUMMARY TABLE

Table 1: Summary of Spring 2024 Analytical Results

Sunflower Electric Power Corporation
 Holcomb Common Facilities, LLC.

Location	Measure Point Elevation (TOC) *	Sample Date	Depth to Water (BTOC)	Groundwater Elevation (ft. AMSL)	Field Parameters				Detection Monitoring Appendix III Constituents						
					Temperature (deg F)	Conductivity (µS/cm)	Turbidity (NTU)	pH (su)	Boron, Total (µg/L)	Calcium, Total (µg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	
Up-Gradient	H-2	2914.71	4/17/2024	206.70	2,708.01	66.0	1324.0	2.55	7.11	62.1	217,000	61.4	0.278	785	1,190
	H-3	2905.93	4/17/2024	198.50	2,707.43	67.0	2390.0	7.92	7.16	53.1	282,000	91.1	0.239	1,600	1,940
	H-4	2901.66	4/17/2024	198.00	2,703.66	68.0	892.0	1.35	7.34	38.6	116,000	39.2	0.331	232	612
Down-Gradient	H-1	2924.54	4/17/2024	226.00	2,698.54	68.0	401.0	1.62	6.94	42.7	43,300	4.41	0.411	35.9	222
	H-5	2896.67	4/17/2024	195.00	2,701.67	68.0	654.0	1.72	7.45	39.0	79,100	24.9	0.306	215	442
	H-6	2940.37	4/17/2024	244.90	2,695.47	68.0	464.0	3.06	7.56	37.9	54,500	10.6	0.426	39.8	304
					6.5 - 8.5	NE	NE	250	2.00	250	500	Secondary Maximum Contaminant Level (SMCL)			

Notes & Abbreviations Key:

* Measuring point elevation at top of well casing, from survey completed and sealed by Cornerstone Professional Services Inc. on February 12, 2016

** Suspected outlier

TOC - Top of Casing

BTOC - below top of casing

ft. AMSL - Feet Above Mean Sea Level

deg F - Degrees Fahrenheit

µS/cm - microSeimens per centimeter

NTU - Nephelometric Turbidity Units

su - standard units

µg/L - micrograms per Liter

mg/L - milligrams per Liter

Bold values exceed SMCL value

Highlight values indicate SSI

ND - Non-Detect

NE - Not Established

pH Sample 9/16/2024

Location	pH (S.U.)
H-1	7.49
H-2	7.34
H-3	7.23
H-4	7.28
H-5	7.46
H-6	7.57

ATTACHMENT 3

LABORATORY REPORT

**DATA VALIDATION FORM
ALLIED ENVIRONMENTAL CONSULTANTS**

Project Name: Sunflower Spring 2024 Sampling

Project/Client Numbers: 24002-1:4908

Laboratory Name & Certification #: ALS E-10352

Laboratory Episode ID: _____ "Episode" = set of analytical reports represented one COC submittal.

Part I: Samples Represented In This Episode => Compare COC Form with Lab Identification

Sample ID	Lab. ID	Sample ID	Lab. ID	Sample ID	Lab. ID	Sample ID	Lab. ID
Blind Sample	HS24041435-01						

Part II: HOLDING TIME REQUIREMENTS

Date Samples Collected	7-Day Holding/Extract	14-Day Holding	Other Holding Date
4/17/2024	4/24/2024		28 Days-5/15/24; 180 Days-10/14/24

Part III: COMPLETENESS

Review Item	YES	NO	NA	Note Ref. Or Comment
Sample Manifest or Chain-of-Custody Complete	✓			
Sample receipt / inspection form by Lab – list concerns	✓			1.
Lab Completed All Request Analysis	✓			
Requested Detection Limits Satisfied	✓			
Extraction & Analytical Holding Times Satisfied	✓			
Sample Preservation Satisfied	✓			
Laboratory Provided Written Narrative – if yes see next page		✓		
Project Analytical Objectives Satisfied	✓			

Part IV: PROJECT QUALITY CONTROL REQUIREMENTS

Review Item	YES	NO	NA	Note Reference to Part VI
Trip Blanks accompanied VOC samples			✓	
VOCs Detected in Trip Blank			✓	
Duplicate Samples Collected / Listed on COC	✓			2.
RPDs for Duplicate vs. Original Sample Acceptable	✓			
Field Blanks Submitted and Analyzed		✓		
Decontamination Blanks Collected and Analyzed		✓		
Matrix Spike/Spike Duplicate Submitted		✓		
Surrogate Recoveries Acceptable, as reported by Lab	✓			
RPDs for MS/MSD Acceptable, as reported by Lab	✓			3. - 4.
LCS Percent Recoveries Acceptable	✓			
Analytes Detected in Lab Blank		✓		

RPD - Relative Percent Difference

PART V: DATA QUALITY ASSESSMENT

Data is acceptable for use as reported? Acceptable Not Acceptable

If some or all of the data is **Not Acceptable**, please indicate which analyses require qualification in the Comments Section. Describe how any issue or question regarding data quality or validity has been resolved.

PART VI: COMMENTS Use additional pages, if needed.

Note Ref.	Comments (List Questions to Lab)	Describe Resolution
1. - 4.	See Next Page	

Laboratory Written Narrative

COMMENTS (con't):

1. The laboratory reported that there was no Sample ID on the metals bottle.
2. This sample is the blind duplicate from sample H4 form work order HS24041444 and the RPD is acceptable between the two samples.
3. The laboratory reported that the sample amount is >4 times the amount spiked for the MS/MSD for Calcium however the MS/MSD is from an unrelated sample so it does not affect the validity of these results.
4. The laboratory reported that the Spike Recovery for the MS/MSD for both Calcium and Sulfate was outside of laboratory control limits but is from an unrelated samples so it does not affect the validity of these results.



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

May 02, 2024

Kandi George
Sunflower Electric Power Corporation
2440 Holcomb Power
Holcomb, KS 67851

Work Order: **HS24041435**

Laboratory Results for: **Sunflower Landfill GW Sampling**

Dear Kandi George,

ALS Environmental received 1 sample(s) on Apr 19, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER

Tyler Monroe



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
Work Order: HS24041435

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24041435-01	Blind Sample	Water		17-Apr-2024 00:00	19-Apr-2024 09:35	<input type="checkbox"/>



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
Work Order: HS24041435

CASE NARRATIVE

Metals by Method E200.8

Batch ID: 211160

Sample ID: HS24041273-01MS

- MS and MSD are for an unrelated sample

Sample ID: HS24041353-01MSD

- MSD is for an unrelated sample
-

WetChemistry by Method E300

Batch ID: R465544

Sample ID: HS24041444-01MS

- MS and MSD are for an unrelated sample (Sulfate)
-

WetChemistry by Method M2540C

Batch ID: R464918

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill GW Sampling
 Sample ID: Blind Sample
 Collection Date: 17-Apr-2024 00:00

ANALYTICAL REPORT
 WorkOrder:HS24041435
 Lab ID:HS24041435-01
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Apr-2024		Analyst: JC
Boron	39.0		20.0	ug/L	1	01-May-2024 22:36
Calcium	119,000		500	ug/L	1	01-May-2024 22:36
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	39.6		0.500	mg/L	1	30-Apr-2024 15:18
Fluoride	0.286		0.100	mg/L	1	30-Apr-2024 15:18
Sulfate	215		2.50	mg/L	5	30-Apr-2024 15:24
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: MH
Total Dissolved Solids (Residue, Filterable)	560		10.0	mg/L	1	23-Apr-2024 11:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

Batch ID: 211160	Start Date: 27 Apr 2024 10:00	End Date: 27 Apr 2024 10:00
Method: TOTAL METALS PREP BY E200.8, REV 5.4, 1994	Prep Code: 200.8PR	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24041435-01		10 (mL)	10 (mL)	1	120 plastic HNO3



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 211160 (0)		Test Name : TOTAL METALS BY E200.8, REV 5.4, 1994			Matrix: Water	
HS24041435-01	Blind Sample	17 Apr 2024 00:00		27 Apr 2024 10:00	01 May 2024 22:36	1
Batch ID: R464918 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Water	
HS24041435-01	Blind Sample	17 Apr 2024 00:00			23 Apr 2024 11:30	1
Batch ID: R465544 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Water	
HS24041435-01	Blind Sample	17 Apr 2024 00:00			30 Apr 2024 15:24	5
HS24041435-01	Blind Sample	17 Apr 2024 00:00			30 Apr 2024 15:18	1

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

QC BATCH REPORT

Batch ID: 211160 (0)		Instrument: ICPMS06		Method: TOTAL METALS BY E200.8, REV 5.4, 1994						
MBLK	Sample ID: MBLK-211160	Units: ug/L			Analysis Date: 01-May-2024 21:41					
Client ID:	Run ID: ICPMS06_465616	SeqNo: 7986349	PrepDate: 27-Apr-2024	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	ND	20.0								
Calcium	ND	500								
LCS	Sample ID: LCS-211160	Units: ug/L			Analysis Date: 01-May-2024 21:43					
Client ID:	Run ID: ICPMS06_465616	SeqNo: 7986350	PrepDate: 27-Apr-2024	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	462.1	20.0	500	0	92.4	85 - 115				
Calcium	4896	500	5000	0	97.9	85 - 115				
MS	Sample ID: HS24041353-01MS	Units: ug/L			Analysis Date: 02-May-2024 14:18					
Client ID:	Run ID: ICPMS06_465687	SeqNo: 7988128	PrepDate: 27-Apr-2024	DF: 5						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	2286	100	500	1775	102	70 - 130				
Calcium	636200	2500	5000	631900	85.7	70 - 130				O
MS	Sample ID: HS24041273-01MS	Units: ug/L			Analysis Date: 02-May-2024 14:10					
Client ID:	Run ID: ICPMS06_465687	SeqNo: 7988124	PrepDate: 27-Apr-2024	DF: 2						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	983	40.0	500	562.9	84.0	70 - 130				
Calcium	253000	1000	5000	260600	-153	70 - 130				SO
MSD	Sample ID: HS24041353-01MSD	Units: ug/L			Analysis Date: 02-May-2024 14:20					
Client ID:	Run ID: ICPMS06_465687	SeqNo: 7988129	PrepDate: 27-Apr-2024	DF: 5						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	2369	100	500	1775	119	70 - 130	2286	3.56	20	
Calcium	641100	2500	5000	631900	183	70 - 130	636200	0.765	20	SO

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

QC BATCH REPORT

Batch ID: 211160 (0) **Instrument:** ICPMS06 **Method:** TOTAL METALS BY E200.8, REV 5.4, 1994

MSD	Sample ID: HS24041273-01MSD				Units: ug/L	Analysis Date: 02-May-2024 14:12				
Client ID:		Run ID: ICPMS06_465687		SeqNo: 7988125	PrepDate: 27-Apr-2024	DF: 2				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	1007	40.0	500	562.9	88.8	70 - 130	983	2.41	20	
Calcium	257100	1000	5000	260600	-70.7	70 - 130	253000	1.62	20	SO

The following samples were analyzed in this batch:



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

QC BATCH REPORT

Batch ID: R464918 (0)	Instrument: Balance1	Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011
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MBLK	Sample ID: WMBLK-04232024	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID:	Run ID: Balance1_464918	SeqNo: 7968842	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) ND 10.0

LCS	Sample ID: WLCS-04232024	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID:	Run ID: Balance1_464918	SeqNo: 7968841	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 914 10.0 1000 0 91.4 85 - 115

DUP	Sample ID: HS24041444-06 DUP	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID:	Run ID: Balance1_464918	SeqNo: 7968840	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 304 10.0 304 0 20

DUP	Sample ID: HS24041394-01 DUP	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID:	Run ID: Balance1_464918	SeqNo: 7968828	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 2188 10.0 2180 0.366 20

The following samples were analyzed in this batch: HS24041435-01

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

QC BATCH REPORT

Batch ID: R465544 (0)	Instrument: ICS-Integrion	Method: ANIONS BY E300.0, REV 2.1, 1993
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MBLK	Sample ID: MBLK	Units: mg/L	Analysis Date: 30-Apr-2024 12:57							
Client ID:	Run ID: ICS-Integrion_465544	SeqNo: 7983401	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	ND	0.500								
Fluoride	ND	0.100								
Sulfate	ND	0.500								

LCS	Sample ID: LCS	Units: mg/L	Analysis Date: 30-Apr-2024 13:08							
Client ID:	Run ID: ICS-Integrion_465544	SeqNo: 7983402	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	20.07	0.500	20	0	100	90 - 110				
Fluoride	4.02	0.100	4	0	100	90 - 110				
Sulfate	21.76	0.500	20	0	109	90 - 110				

MS	Sample ID: HS24041653-10MS	Units: mg/L	Analysis Date: 30-Apr-2024 18:03							
Client ID:	Run ID: ICS-Integrion_465544	SeqNo: 7983443	PrepDate: DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	164	5.00	100	60.52	104	80 - 120				
Fluoride	19.36	1.00	20	0.944	92.1	80 - 120				
Sulfate	465.1	5.00	100	384.3	80.8	80 - 120				

MS	Sample ID: HS24041444-01MS	Units: mg/L	Analysis Date: 30-Apr-2024 13:32							
Client ID:	Run ID: ICS-Integrion_465544	SeqNo: 7983406	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	14.3	0.500	10	4.407	99.0	80 - 120				
Fluoride	2.192	0.100	2	0.4106	89.1	80 - 120				
Sulfate	43.68	0.500	10	35.87	78.1	80 - 120				S

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

QC BATCH REPORT

Batch ID: R465544 (0)	Instrument: ICS-Integrion	Method: ANIONS BY E300.0, REV 2.1, 1993
--------------------------------	----------------------------------	--

MSD	Sample ID: HS24041653-10MSD	Units: mg/L	Analysis Date: 30-Apr-2024 18:09							
Client ID:	Run ID: ICS-Integrion_465544	SeqNo: 7983444	PrepDate: DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	163.6	5.00	100	60.52	103	80 - 120	164	0.281	20	
Fluoride	19.11	1.00	20	0.944	90.8	80 - 120	19.36	1.32	20	
Sulfate	465.5	5.00	100	384.3	81.2	80 - 120	465.1	0.0804	20	

MSD	Sample ID: HS24041444-01MSD	Units: mg/L	Analysis Date: 30-Apr-2024 13:38							
Client ID:	Run ID: ICS-Integrion_465544	SeqNo: 7983407	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	14.04	0.500	10	4.407	96.3	80 - 120	14.3	1.89	20	
Fluoride	2.157	0.100	2	0.4106	87.3	80 - 120	2.192	1.65	20	
Sulfate	42.89	0.500	10	35.87	70.2	80 - 120	43.68	1.82	20	S

The following samples were analyzed in this batch: HS24041435-01



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041435

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2024



Sample Receipt Checklist

Work Order ID: HS24041435
Client Name: Sunflower EPC

Date/Time Received: 19-Apr-2024 09:35
Received by: Jacob Coronado

Completed By: /S/ Armand Morgan 22-Apr-2024 11:26 Reviewed by: /S/ Tyler Monroe 23-Apr-2024 12:25
eSignature Date/Time eSignature Date/Time

Matrices: W

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes No Not Present
- Chain of custody present? Yes No 1 Page(s)
- Chain of custody signed when relinquished and received? Yes No COC IDs:308258
- Samplers name present on COC? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 1.6UC/1.7C IR 31

Cooler(s)/Kit(s): 49805

Date/Time sample(s) sent to storage: 04/22/2024 11:30

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

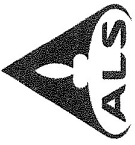
Login Notes: Sample Label No ID on metals bottle

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Houston, TX
+1 281 530 5656
Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Chain of Custody Form
Page 1 of 1
COC ID: 308258

Customer Information			Project Information			ALS Project Manager:			ALS Work Order #:												
Purchase Order	Project Name	Project Number	Parameter/Method Request for Analysis																		
Work Order	Sunflower Electric Power Corporat	2440 Holcomb Power	A 200.8 (Total B, Ca)																		
Company Name	Kandi George	2440 Holcomb Power	B 300_W(Cl, F, SO4)																		
Send Report To	Sunflower Electric Power Corporat	2440 Holcomb Power	C TDS_W 2540C (TDS)																		
Address	Kandi George	2440 Holcomb Power	D																		
City/State/Zip	Holcomb, KS 67851	Holcomb KS 67851	E																		
Phone			F																		
Fax			G																		
e-Mail Address	kgeorge@sunflower.net	kgeorge@sunflower.net	H																		
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold				
1	Blind Sample	04/17/2024		W	Z	2	X	X	X												
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Other		Results Due Date:													
Kandi George		FedEx Overnight		STD 10 Wk Days		<input checked="" type="checkbox"/> 5 Wk Days		<input type="checkbox"/> 24 Hour													
Relinquished by:		Received by:		Cooler Temp.		Cooler ID		Notes: Sunflower General Pricing													
Kandi George		Kandi George		4-18-24 17:30		4-18-24 0955		16°C/ke													
Relinquished by:		Received by (Laboratory):		Checked by (Laboratory):		Cooler Temp.		Cooler ID													
Kandi George		Kandi George		4-18-24 1600		4-19-24 0735		16°C/ke													
Logged by (Laboratory):		Preservative Key:		1-HCl		2-HNO ₃		3-H ₂ SO ₄		4-NaOH		5-Na ₂ S ₂ O ₃		6-NaHSO ₄		7-Other		8-4°C		9-5035	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

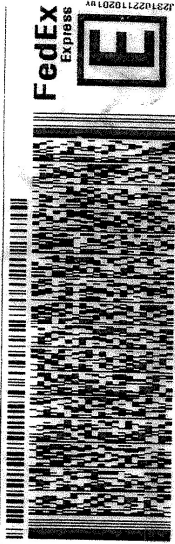
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Page 15 of 16

ORIGIN ID: 6NVA 770) 165
KAREN RAVEN
ALS
965 E 11TH ST
LOVELL CO CO 80177
UNIT STATES

SHIP TO: 18APR2
LP: 075
DIRS: 17

TO: SALES DEPARTMENT
ALS HOUSTON
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-6866
PO: 987554812



FRI - 19 APR 10:30A
PRIORITY OVERNIGHT

TRK# 7122 9261 9438
0901

NA SGRA

77099
TX-US IAH





10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

May 02, 2024

Kandi George
Sunflower Electric Power Corporation
2440 Holcomb Power
Holcomb, KS 67851

Work Order: **HS24041444**

Laboratory Results for: **Sunflower Landfill GW Sampling**

Dear Kandi George,

ALS Environmental received 6 sample(s) on Apr 19, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER

Tyler Monroe



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
Work Order: HS24041444

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24041444-01	H1	Water		17-Apr-2024 09:43	19-Apr-2024 09:35	<input type="checkbox"/>
HS24041444-02	H2	Water		17-Apr-2024 10:03	19-Apr-2024 09:35	<input type="checkbox"/>
HS24041444-03	H3	Water		17-Apr-2024 10:20	19-Apr-2024 09:35	<input type="checkbox"/>
HS24041444-04	H4	Water		17-Apr-2024 10:44	19-Apr-2024 09:35	<input type="checkbox"/>
HS24041444-05	H5	Water		17-Apr-2024 11:18	19-Apr-2024 09:35	<input type="checkbox"/>
HS24041444-06	H6	Water		17-Apr-2024 12:04	19-Apr-2024 09:35	<input type="checkbox"/>

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
Work Order: HS24041444

CASE NARRATIVE

Metals by Method E200.8

Batch ID: 211160

Sample ID: HS24041273-01MS

- MS and MSD are for an unrelated sample

Sample ID: HS24041353-01MS

- MS and MSD are for an unrelated sample
-

WetChemistry by Method E300

Batch ID: R465544

Sample ID: H1 (HS24041444-01MS)

- The recovery of the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) associated with this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS/MSD may be due to sample matrix interference. (Sulfate)
-

WetChemistry by Method M2540C

Batch ID: R464918

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill GW Sampling
 Sample ID: H1
 Collection Date: 17-Apr-2024 09:43

ANALYTICAL REPORT
 WorkOrder:HS24041444
 Lab ID:HS24041444-01
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Apr-2024		Analyst: JC
Boron	42.7		20.0	ug/L	1	01-May-2024 22:38
Calcium	43,300		500	ug/L	1	01-May-2024 22:38
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	4.41		0.500	mg/L	1	30-Apr-2024 13:26
Fluoride	0.411		0.100	mg/L	1	30-Apr-2024 13:26
Sulfate	35.9		0.500	mg/L	1	30-Apr-2024 13:26
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: MH
Total Dissolved Solids (Residue, Filterable)	222		10.0	mg/L	1	23-Apr-2024 11:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill GW Sampling
 Sample ID: H2
 Collection Date: 17-Apr-2024 10:03

ANALYTICAL REPORT
 WorkOrder:HS24041444
 Lab ID:HS24041444-02
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Apr-2024		Analyst: JC
Boron	62.1		20.0	ug/L	1	01-May-2024 22:40
Calcium	217,000		10000	ug/L	20	02-May-2024 12:27
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	61.4		0.500	mg/L	1	30-Apr-2024 13:50
Fluoride	0.278		0.100	mg/L	1	30-Apr-2024 13:50
Sulfate	785		10.0	mg/L	20	30-Apr-2024 13:55
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: MH
Total Dissolved Solids (Residue, Filterable)	1,190		10.0	mg/L	1	23-Apr-2024 11:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill GW Sampling
 Sample ID: H3
 Collection Date: 17-Apr-2024 10:20

ANALYTICAL REPORT
 WorkOrder:HS24041444
 Lab ID:HS24041444-03
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Apr-2024		Analyst: JC
Boron	53.1		20.0	ug/L	1	01-May-2024 22:42
Calcium	282,000		10000	ug/L	20	02-May-2024 14:33
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	91.1		0.500	mg/L	1	30-Apr-2024 14:31
Fluoride	0.239		0.100	mg/L	1	30-Apr-2024 14:31
Sulfate	1,600		10.0	mg/L	20	30-Apr-2024 14:37
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: MH
Total Dissolved Solids (Residue, Filterable)	1,940		10.0	mg/L	1	23-Apr-2024 11:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill GW Sampling
 Sample ID: H4
 Collection Date: 17-Apr-2024 10:44

ANALYTICAL REPORT
 WorkOrder:HS24041444
 Lab ID:HS24041444-04
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Apr-2024		Analyst: JC
Boron	38.6		20.0	ug/L	1	01-May-2024 22:44
Calcium	116,000		500	ug/L	1	01-May-2024 22:44
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	39.2		0.500	mg/L	1	30-Apr-2024 14:42
Fluoride	0.331		0.100	mg/L	1	30-Apr-2024 14:42
Sulfate	232		5.00	mg/L	10	30-Apr-2024 14:48
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: MH
Total Dissolved Solids (Residue, Filterable)	612		10.0	mg/L	1	23-Apr-2024 11:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill GW Sampling
 Sample ID: H5
 Collection Date: 17-Apr-2024 11:18

ANALYTICAL REPORT
 WorkOrder:HS24041444
 Lab ID:HS24041444-05
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Apr-2024		Analyst: JC
Boron	39.0		20.0	ug/L	1	01-May-2024 22:46
Calcium	79,100		500	ug/L	1	01-May-2024 22:46
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	24.9		0.500	mg/L	1	30-Apr-2024 14:54
Fluoride	0.306		0.100	mg/L	1	30-Apr-2024 14:54
Sulfate	215		5.00	mg/L	10	30-Apr-2024 15:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: MH
Total Dissolved Solids (Residue, Filterable)	442		10.0	mg/L	1	23-Apr-2024 11:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill GW Sampling
 Sample ID: H6
 Collection Date: 17-Apr-2024 12:04

ANALYTICAL REPORT
 WorkOrder:HS24041444
 Lab ID:HS24041444-06
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Apr-2024		Analyst: JC
Boron	37.9		20.0	ug/L	1	01-May-2024 22:48
Calcium	54,500		500	ug/L	1	01-May-2024 22:48
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	10.6		0.500	mg/L	1	30-Apr-2024 15:06
Fluoride	0.426		0.100	mg/L	1	30-Apr-2024 15:06
Sulfate	39.8		0.500	mg/L	1	30-Apr-2024 15:06
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: MH
Total Dissolved Solids (Residue, Filterable)	304		10.0	mg/L	1	23-Apr-2024 11:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.



Weight / Prep Log

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

Batch ID: 211160	Start Date: 27 Apr 2024 10:00	End Date: 27 Apr 2024 10:00
Method: TOTAL METALS PREP BY E200.8, REV 5.4, 1994		Prep Code: 200.8PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24041444-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24041444-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24041444-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24041444-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24041444-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24041444-06		10 (mL)	10 (mL)	1	120 plastic HNO3



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 211160 (0)		Test Name : TOTAL METALS BY E200.8, REV 5.4, 1994			Matrix: Water	
HS24041444-01	H1	17 Apr 2024 09:43		27 Apr 2024 10:00	01 May 2024 22:38	1
HS24041444-02	H2	17 Apr 2024 10:03		27 Apr 2024 10:00	02 May 2024 12:27	20
HS24041444-02	H2	17 Apr 2024 10:03		27 Apr 2024 10:00	01 May 2024 22:40	1
HS24041444-03	H3	17 Apr 2024 10:20		27 Apr 2024 10:00	02 May 2024 14:33	20
HS24041444-03	H3	17 Apr 2024 10:20		27 Apr 2024 10:00	01 May 2024 22:42	1
HS24041444-04	H4	17 Apr 2024 10:44		27 Apr 2024 10:00	01 May 2024 22:44	1
HS24041444-05	H5	17 Apr 2024 11:18		27 Apr 2024 10:00	01 May 2024 22:46	1
HS24041444-06	H6	17 Apr 2024 12:04		27 Apr 2024 10:00	01 May 2024 22:48	1
Batch ID: R464918 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Water	
HS24041444-01	H1	17 Apr 2024 09:43			23 Apr 2024 11:30	1
HS24041444-02	H2	17 Apr 2024 10:03			23 Apr 2024 11:30	1
HS24041444-03	H3	17 Apr 2024 10:20			23 Apr 2024 11:30	1
HS24041444-04	H4	17 Apr 2024 10:44			23 Apr 2024 11:30	1
HS24041444-05	H5	17 Apr 2024 11:18			23 Apr 2024 11:30	1
HS24041444-06	H6	17 Apr 2024 12:04			23 Apr 2024 11:30	1
Batch ID: R465544 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Water	
HS24041444-01	H1	17 Apr 2024 09:43			30 Apr 2024 13:26	1
HS24041444-02	H2	17 Apr 2024 10:03			30 Apr 2024 13:55	20
HS24041444-02	H2	17 Apr 2024 10:03			30 Apr 2024 13:50	1
HS24041444-03	H3	17 Apr 2024 10:20			30 Apr 2024 14:37	20
HS24041444-03	H3	17 Apr 2024 10:20			30 Apr 2024 14:31	1
HS24041444-04	H4	17 Apr 2024 10:44			30 Apr 2024 14:48	10
HS24041444-04	H4	17 Apr 2024 10:44			30 Apr 2024 14:42	1
HS24041444-05	H5	17 Apr 2024 11:18			30 Apr 2024 15:00	10
HS24041444-05	H5	17 Apr 2024 11:18			30 Apr 2024 14:54	1
HS24041444-06	H6	17 Apr 2024 12:04			30 Apr 2024 15:06	1

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

QC BATCH REPORT

Batch ID: 211160 (0)		Instrument: ICPMS06		Method: TOTAL METALS BY E200.8, REV 5.4, 1994						
MBLK	Sample ID: MBLK-211160	Units: ug/L		Analysis Date: 01-May-2024 21:41						
Client ID:	Run ID: ICPMS06_465616	SeqNo: 7986349	PrepDate: 27-Apr-2024	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	ND	20.0								
Calcium	ND	500								
LCS	Sample ID: LCS-211160	Units: ug/L		Analysis Date: 01-May-2024 21:43						
Client ID:	Run ID: ICPMS06_465616	SeqNo: 7986350	PrepDate: 27-Apr-2024	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	462.1	20.0	500	0	92.4	85 - 115				
Calcium	4896	500	5000	0	97.9	85 - 115				
MS	Sample ID: HS24041353-01MS	Units: ug/L		Analysis Date: 02-May-2024 14:18						
Client ID:	Run ID: ICPMS06_465687	SeqNo: 7988128	PrepDate: 27-Apr-2024	DF: 5						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	2286	100	500	1775	102	70 - 130				
Calcium	636200	2500	5000	631900	85.7	70 - 130				O
MS	Sample ID: HS24041273-01MS	Units: ug/L		Analysis Date: 02-May-2024 14:10						
Client ID:	Run ID: ICPMS06_465687	SeqNo: 7988124	PrepDate: 27-Apr-2024	DF: 2						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	983	40.0	500	562.9	84.0	70 - 130				
Calcium	253000	1000	5000	260600	-153	70 - 130				SO
MSD	Sample ID: HS24041353-01MSD	Units: ug/L		Analysis Date: 02-May-2024 14:20						
Client ID:	Run ID: ICPMS06_465687	SeqNo: 7988129	PrepDate: 27-Apr-2024	DF: 5						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	2369	100	500	1775	119	70 - 130	2286	3.56	20	
Calcium	641100	2500	5000	631900	183	70 - 130	636200	0.765	20	SO

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

QC BATCH REPORT

Batch ID: 211160 (0)		Instrument: ICPMS06		Method: TOTAL METALS BY E200.8, REV 5.4, 1994					
MSD	Sample ID: HS24041273-01MSD	Units: ug/L		Analysis Date: 02-May-2024 14:12					
Client ID:	Run ID: ICPMS06_465687	SeqNo: 7988125		PrepDate: 27-Apr-2024		DF: 2			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Boron	1007	40.0	500	562.9	88.8	70 - 130	983	2.41	20
Calcium	257100	1000	5000	260600	-70.7	70 - 130	253000	1.62	20 SO

The following samples were analyzed in this batch:

HS24041444-01	HS24041444-02	HS24041444-03	HS24041444-04
HS24041444-05	HS24041444-06		



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

QC BATCH REPORT

Batch ID: R464918 (0)	Instrument: Balance1	Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011
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MBLK	Sample ID: WMBLK-04232024	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID:	Run ID: Balance1_464918	SeqNo: 7968842	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) ND 10.0

LCS	Sample ID: WLCS-04232024	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID:	Run ID: Balance1_464918	SeqNo: 7968841	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 914 10.0 1000 0 91.4 85 - 115

DUP	Sample ID: HS24041444-06 DUP	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID: H6	Run ID: Balance1_464918	SeqNo: 7968840	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 304 10.0 304 0 20

DUP	Sample ID: HS24041394-01 DUP	Units: mg/L	Analysis Date: 23-Apr-2024 11:30							
Client ID:	Run ID: Balance1_464918	SeqNo: 7968828	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 2188 10.0 2180 0.366 20

The following samples were analyzed in this batch:	HS24041444-01	HS24041444-02	HS24041444-03	HS24041444-04
	HS24041444-05	HS24041444-06		

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

QC BATCH REPORT

Batch ID: R465544 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK		Sample ID: MBLK		Units: mg/L		Analysis Date: 30-Apr-2024 12:57			
Client ID:		Run ID: ICS-Integrion_465544		SeqNo: 7983401		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	ND	0.500							
Fluoride	ND	0.100							
Sulfate	ND	0.500							

LCS		Sample ID: LCS		Units: mg/L		Analysis Date: 30-Apr-2024 13:08			
Client ID:		Run ID: ICS-Integrion_465544		SeqNo: 7983402		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	20.07	0.500	20	0	100	90 - 110			
Fluoride	4.02	0.100	4	0	100	90 - 110			
Sulfate	21.76	0.500	20	0	109	90 - 110			

MS		Sample ID: HS24041653-10MS		Units: mg/L		Analysis Date: 30-Apr-2024 18:03			
Client ID:		Run ID: ICS-Integrion_465544		SeqNo: 7983443		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	164	5.00	100	60.52	104	80 - 120			
Fluoride	19.36	1.00	20	0.944	92.1	80 - 120			
Sulfate	465.1	5.00	100	384.3	80.8	80 - 120			

MS		Sample ID: HS24041444-01MS		Units: mg/L		Analysis Date: 30-Apr-2024 13:32			
Client ID: H1		Run ID: ICS-Integrion_465544		SeqNo: 7983406		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	14.3	0.500	10	4.407	99.0	80 - 120			
Fluoride	2.192	0.100	2	0.4106	89.1	80 - 120			
Sulfate	43.68	0.500	10	35.87	78.1	80 - 120			S

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

QC BATCH REPORT

Batch ID: R465544 (0)	Instrument: ICS-Integrion	Method: ANIONS BY E300.0, REV 2.1, 1993
--------------------------------	----------------------------------	--

MSD	Sample ID: HS24041653-10MSD	Units: mg/L	Analysis Date: 30-Apr-2024 18:09							
Client ID:	Run ID: ICS-Integrion_465544	SeqNo: 7983444	PrepDate: DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	163.6	5.00	100	60.52	103	80 - 120	164	0.281	20	
Fluoride	19.11	1.00	20	0.944	90.8	80 - 120	19.36	1.32	20	
Sulfate	465.5	5.00	100	384.3	81.2	80 - 120	465.1	0.0804	20	

MSD	Sample ID: HS24041444-01MSD	Units: mg/L	Analysis Date: 30-Apr-2024 13:38							
Client ID: H1	Run ID: ICS-Integrion_465544	SeqNo: 7983407	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	14.04	0.500	10	4.407	96.3	80 - 120	14.3	1.89	20	
Fluoride	2.157	0.100	2	0.4106	87.3	80 - 120	2.192	1.65	20	
Sulfate	42.89	0.500	10	35.87	70.2	80 - 120	43.68	1.82	20	S

The following samples were analyzed in this batch:

HS24041444-01	HS24041444-02	HS24041444-03	HS24041444-04
HS24041444-05	HS24041444-06		



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill GW Sampling
WorkOrder: HS24041444

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2024



Sample Receipt Checklist

Work Order ID: HS24041444
Client Name: Sunflower EPC

Date/Time Received: 19-Apr-2024 09:35
Received by: Jacob Coronado

Completed By: /S/ Armand Morgan 22-Apr-2024 12:32
Reviewed by: /S/ Tyler Monroe 23-Apr-2024 12:27
eSignature Date/Time eSignature Date/Time

Matrices: **W**

Carrier name: **FedEx**

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes No Not Present
- Chain of custody present? Yes No 1 Page(s)
- Chain of custody signed when relinquished and received? Yes No COC IDs:308228
- Samplers name present on COC? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 1.6UC/1.7C IR 31

Cooler(s)/Kit(s): 49805

Date/Time sample(s) sent to storage: 04/22/2024 12:35

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

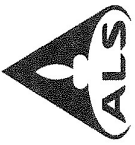
Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Houston, TX
+1 281 530 5656
Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Page 1 of 1

COC ID: 308228

Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:											
Purchase Order	Project Name	Parameter/Method Request for Analysis															
Work Order	Project Number	200.8 (Total B, Ca)															
Company Name	Bill To Company	Sunflower Electric Power Corporat															
Send Report To	Invoice Attn	Kandi George															
Address	Address	2440 Holcomb Power															
City/State/Zip	City/State/Zip	Holcomb, KS 67851															
Phone	Phone																
Fax	Fax																
e-Mail Address	e-Mail Address	kgeorge@sunflower.net															
Sample Description		Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	H1	04/17/2024	09:43A	W	2	2	X	X	X								
2	H2	04/17/2024	10:03A	W	2	2	X	X	X								
3	H3	04/17/2024	10:20A	W	2	2	X	X	X								
4	H4	04/17/2024	10:44A	W	2	2	X	X	X								
5	H5	04/17/2024	11:18A	W	2	2	X	X	X								
6	H6	04/17/2024	12:04P	W	2	2	X	X	X								
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Kandi George Shipment Method: FedEx Overnight Required Turnaround Time: (Check Box) 5 Wk Days 2 Wk Days 24 Hour Results Due Date:

Relinquished by: Kandi George Date: 04/17/2024 Time: 17:30 Received by: Kandi George Date: 4-18-24 Time: 08:55

Relinquished by: Kandi George Date: 4-17-24 Time: 1600 Received by (Laboratory): Kandi George Date: 4/17/24 Time: 2935

Logged by (Laboratory): Kandi George Checked by (Laboratory): Kandi George

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below) Level II Std QC Level III Std QC Level IV SW648/CLP Other

Notes: Sunflower General Pricing Cooler ID: 980/ke Cooler Temp: 9.80/ke TRRP Checklist: TRRP Level IV

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Page 20 of 21



ORIGIN ID: 6199
 KAREN RAVEN
 505 E 11TH
 LOVELL
 UNIT 5424

SHIP DATE: 199902
 0109
 075
 DIMS: 11.000 x 11.000 x 1.000

TO: SALES DEPARTMENT
 ALS HOUSTON
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099
 (281) 630-6666
 PO: 967554812

9836/FEC/FE20

FedEx Express

FRI - 19 APR 10:30A
 PRIORITY OVERNIGHT

TRK# 7122 9261 9438
 (0201)

NA SGRA

77099 TX-US IAH



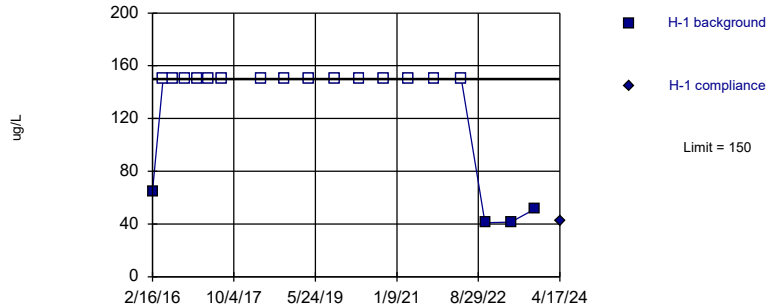
Printed on 16707-404 MTR EXP 06/22

ATTACHMENT 4

STATISTICAL ANALYSIS

Within Limit

Prediction Limit
Intrawell Non-parametric

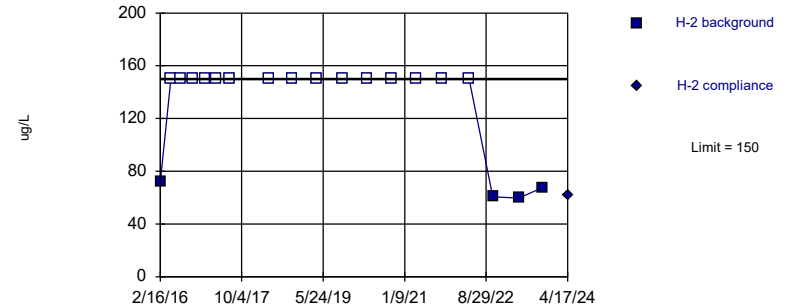


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

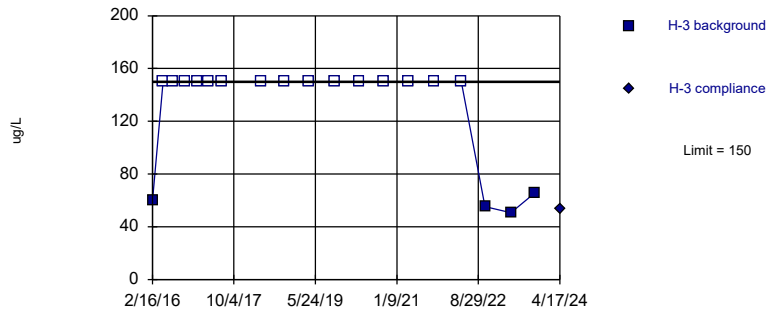


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

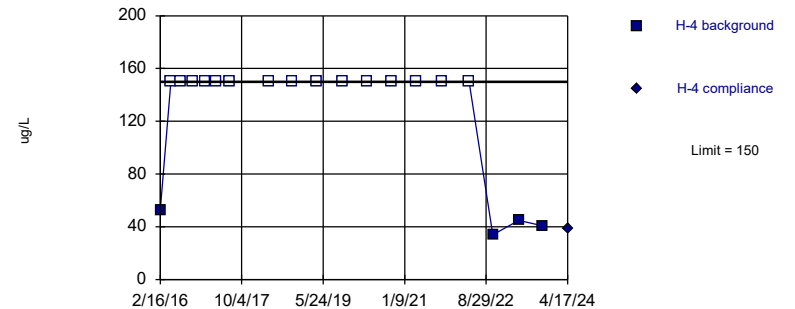


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

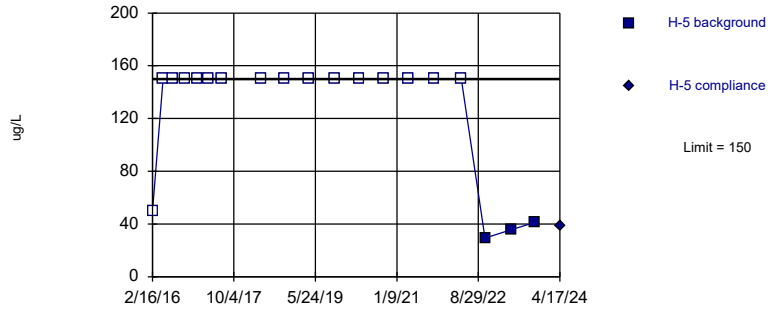


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

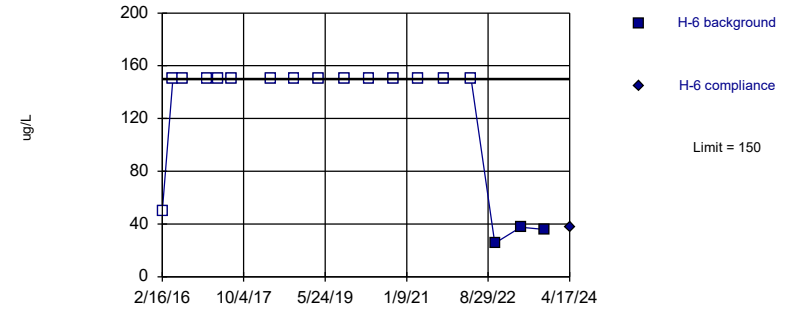


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 84.21% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

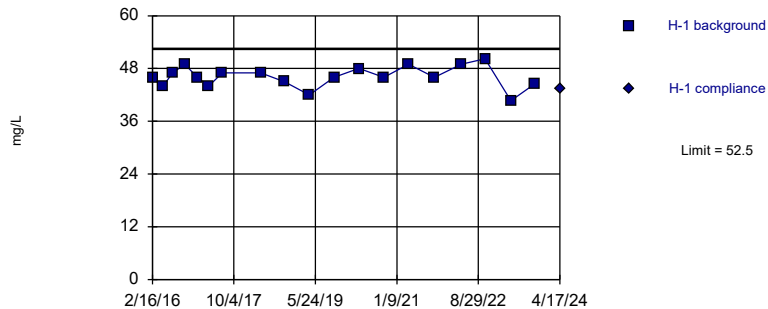


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 83.33% NDs. Report alpha = 0.05263. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

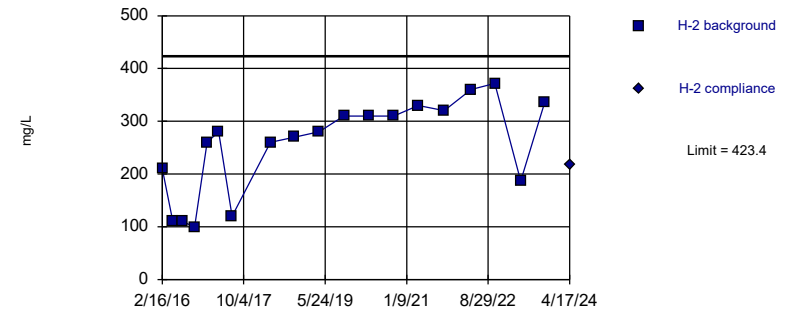


Background Data Summary: Mean=46.13, Std. Dev.=2.434, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9606, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

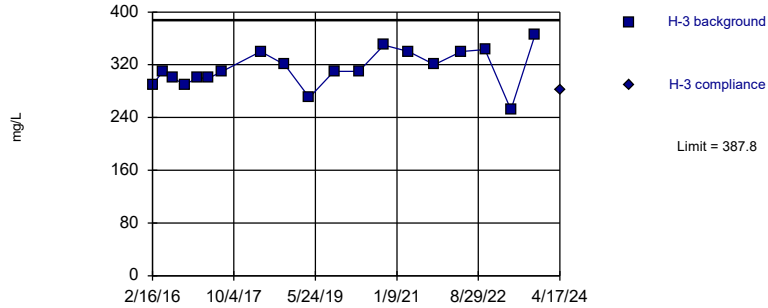


Background Data Summary (based on square transformation): Mean=72266, Std. Dev.=40847, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.931, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

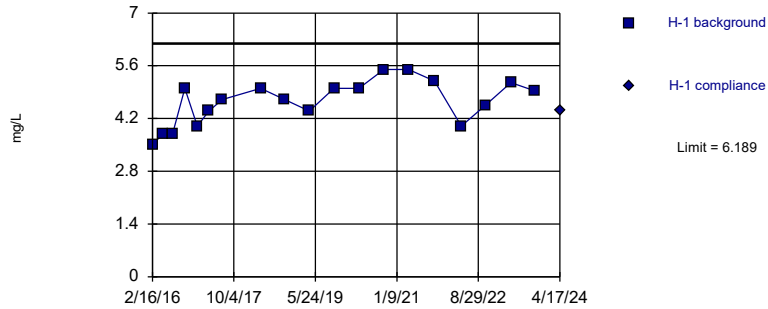
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

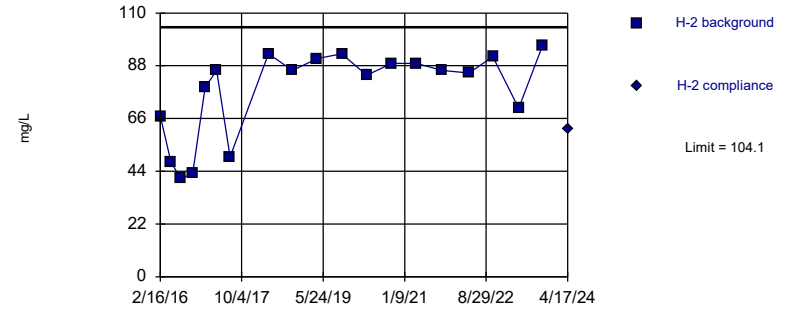


Background Data Summary: Mean=4.638, Std. Dev.=0.5924, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9406, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Chloride Analysis Run 6/11/2024 10:08 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

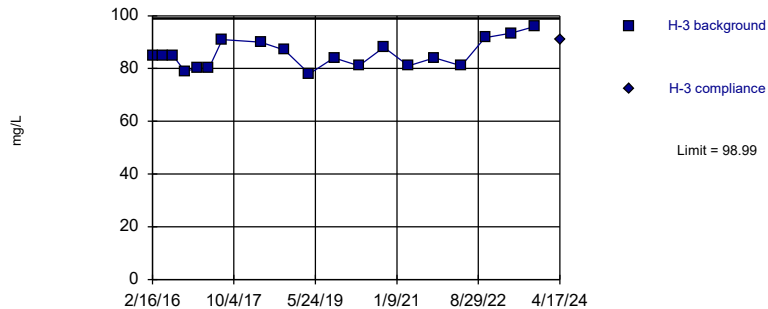


Background Data Summary (based on x*4 transformation): Mean=4.6e7, Std. Dev.=2.7e7, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9038, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Chloride Analysis Run 6/11/2024 10:08 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

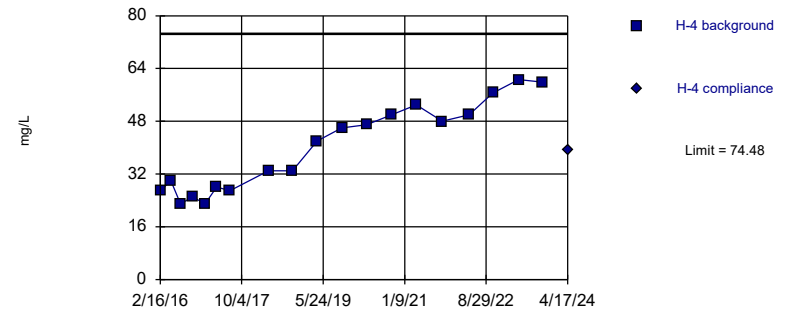


Background Data Summary: Mean=85.27, Std. Dev.=5.239, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9432, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Chloride Analysis Run 6/11/2024 10:08 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

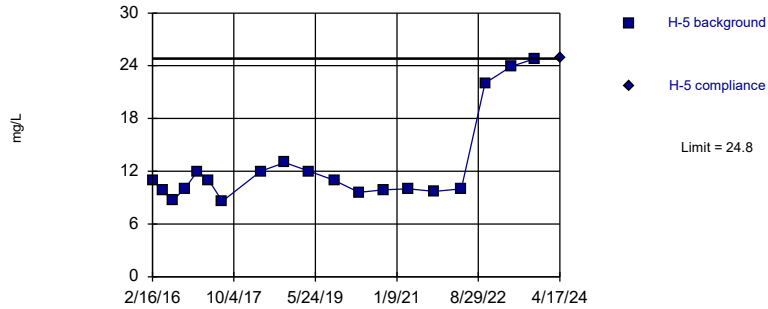


Background Data Summary: Mean=40.11, Std. Dev.=13.12, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9042, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Chloride Analysis Run 6/11/2024 10:08 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Exceeds Limit

Prediction Limit
Intrawell Non-parametric



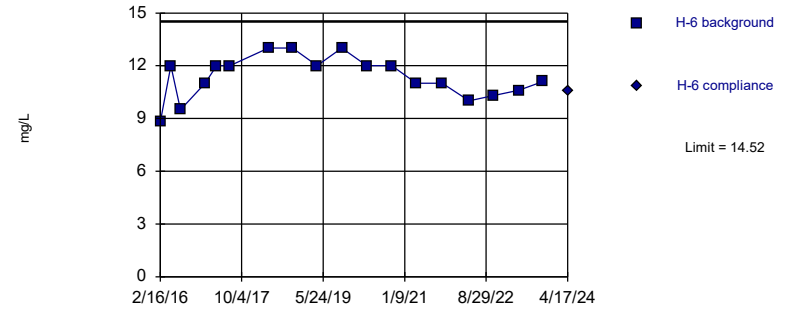
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Chloride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=11.35, Std. Dev.=1.202, n=18. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9352, critical = 0.897. Report alpha = 0.01. Most recent point compared to limit.

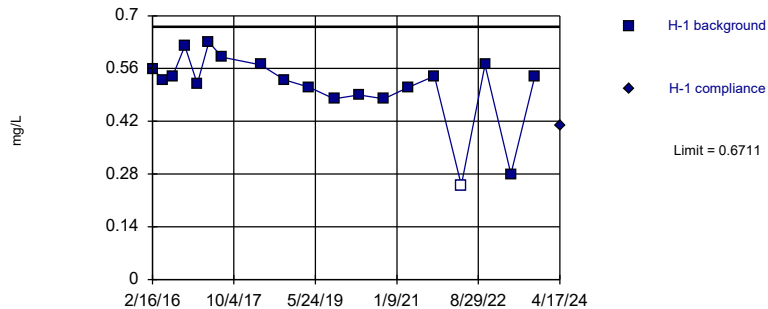
Constituent: Chloride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=0.147, Std. Dev.=0.0593, n=19, 5.263% NDs. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9284, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

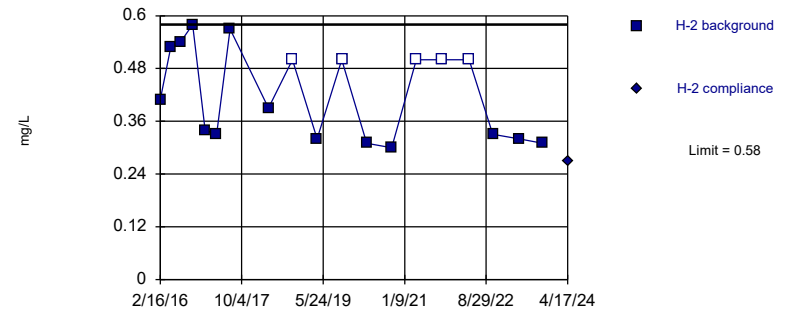
Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



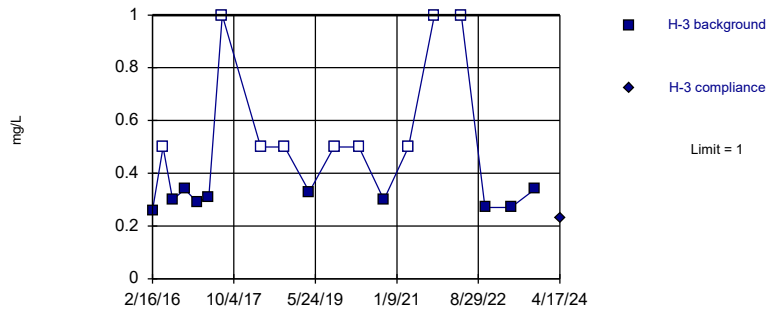
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. 26.32% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

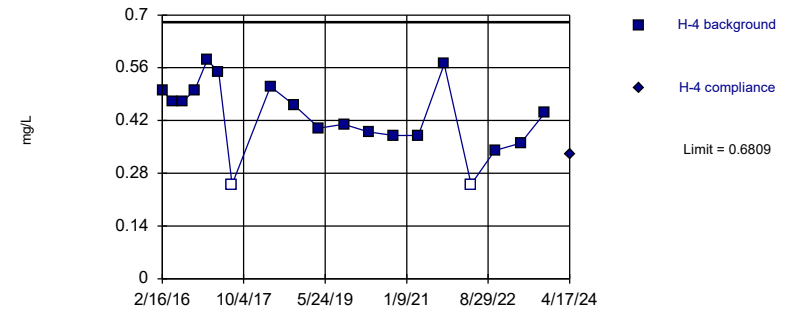


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. 47.37% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

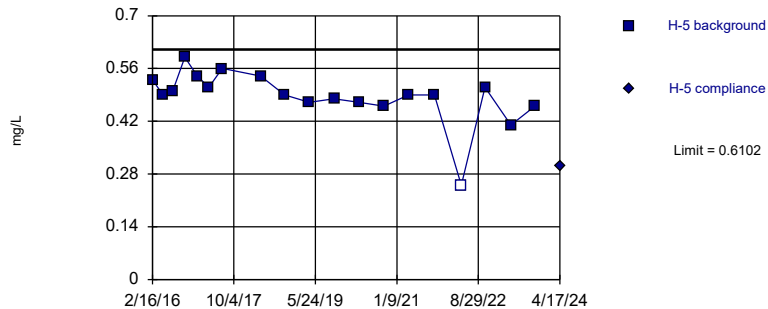


Background Data Summary: Mean=0.4321, Std. Dev.=0.09502, n=19, 10.53% NDs. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9598, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

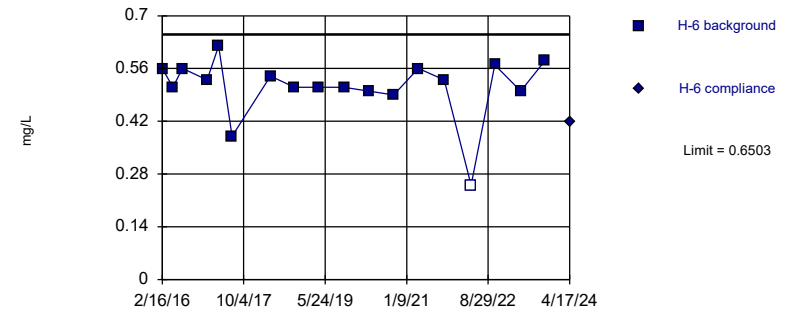


Background Data Summary (based on cube transformation): Mean=0.1212, Std. Dev.=0.04049, n=19, 5.263% NDs. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9459, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

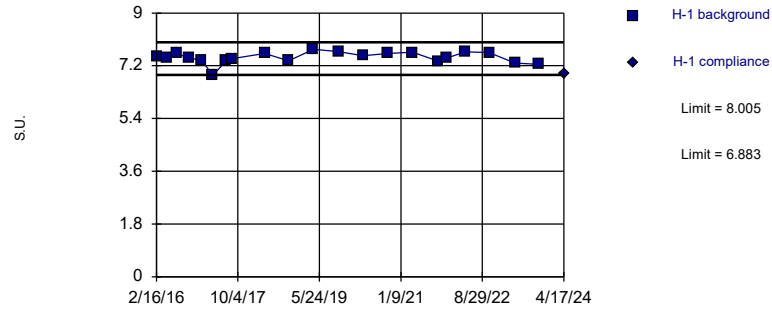


Background Data Summary (based on cube transformation): Mean=0.1427, Std. Dev.=0.05015, n=18, 5.556% NDs. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9192, critical = 0.897. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Intrawell Parametric



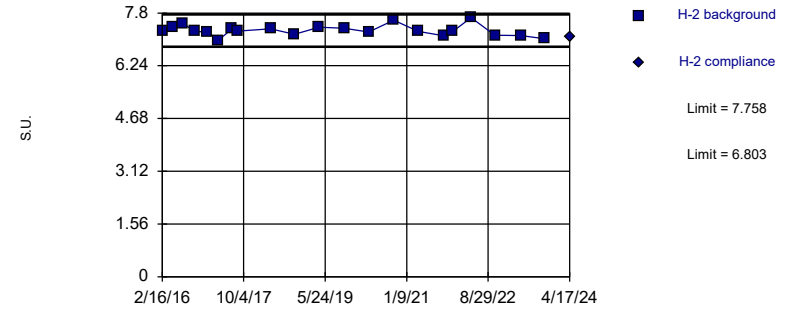
Background Data Summary (based on cube transformation): Mean=419.6, Std. Dev.=32.1, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9172, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Intrawell Parametric



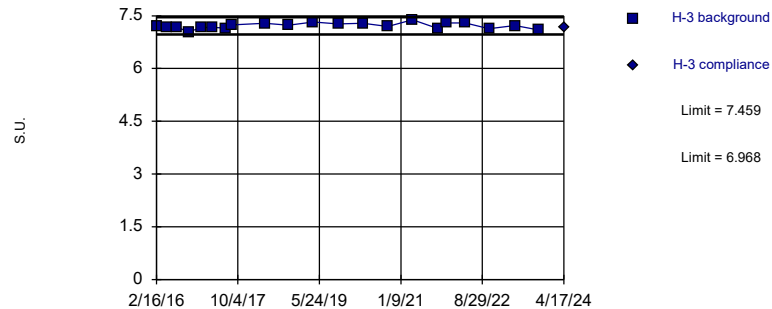
Background Data Summary: Mean=7.281, Std. Dev.=0.1639, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9517, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Intrawell Parametric



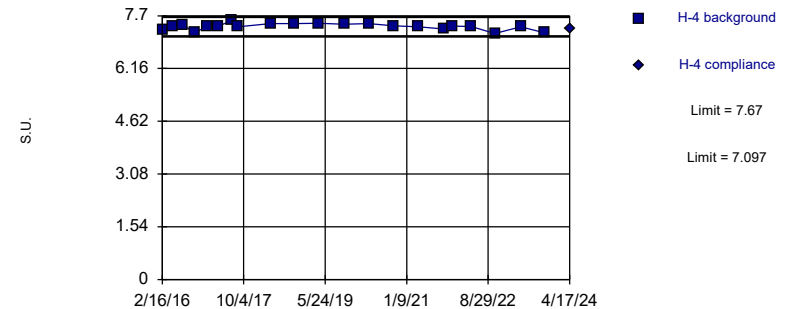
Background Data Summary: Mean=7.213, Std. Dev.=0.0844, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9852, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Intrawell Parametric



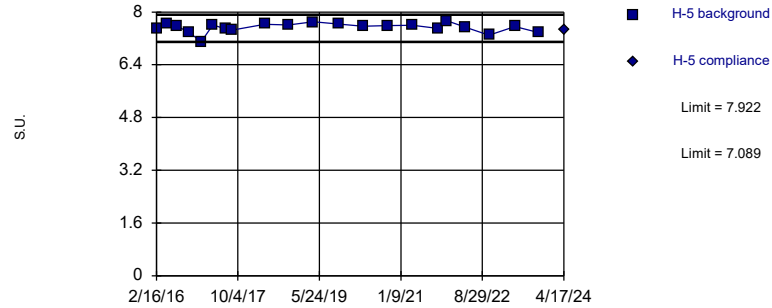
Background Data Summary: Mean=7.384, Std. Dev.=0.09841, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9091, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

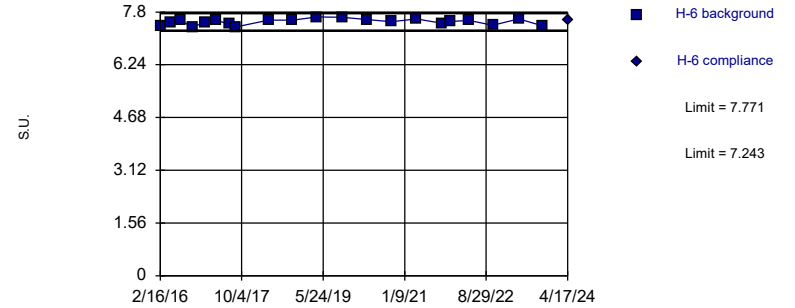
Prediction Limit
Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=426.8, Std. Dev.=24.21, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9102, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=7.507, Std. Dev.=0.09073, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9498, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

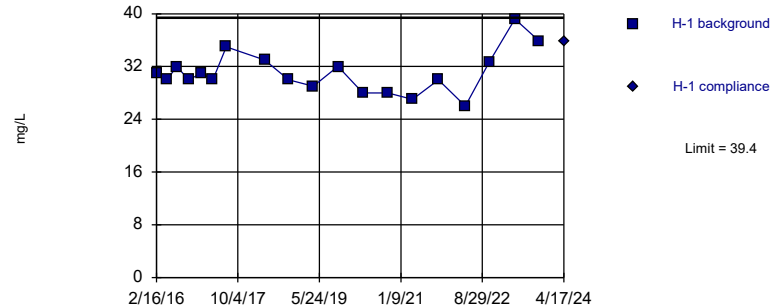
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



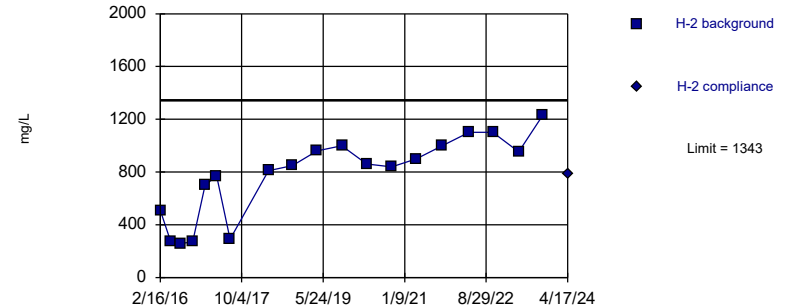
Background Data Summary: Mean=31.04, Std. Dev.=3.195, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9435, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

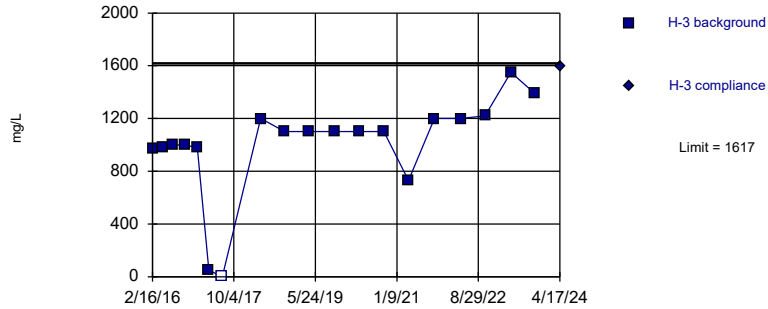


Background Data Summary (based on square transformation): Mean=686058, Std. Dev.=426873, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9424, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

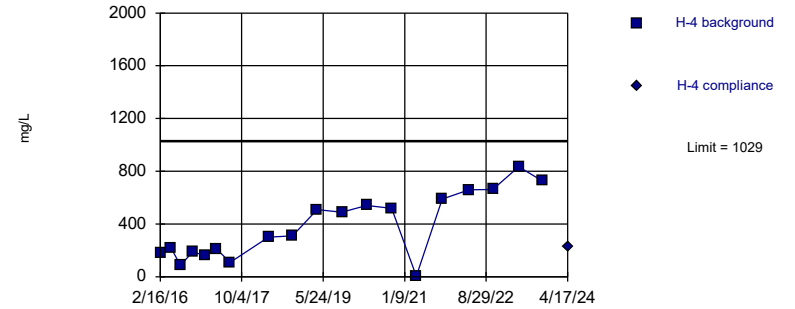
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary (based on square transformation): Mean=1136321, Std. Dev.=564820, n=19, 5.263% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9199, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

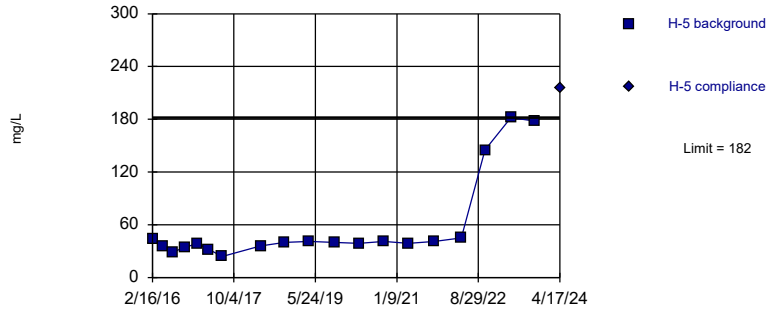
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=384.4, Std. Dev.=246.3, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9416, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

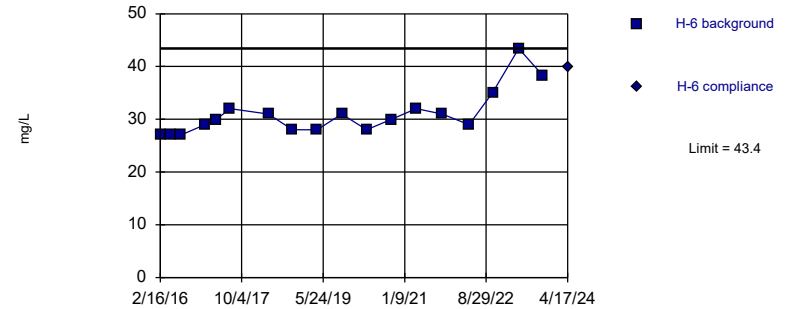
Exceeds Limit Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit Prediction Limit
Intrawell Non-parametric

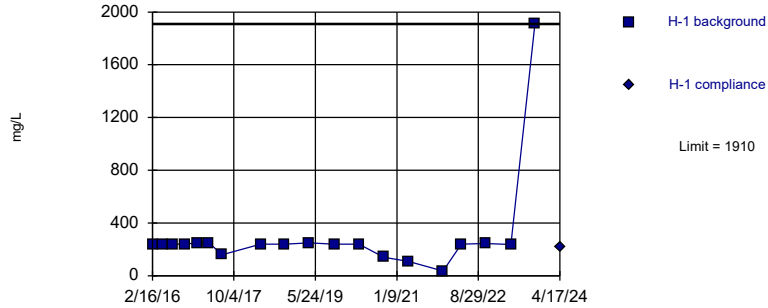


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 18 background values. Report alpha = 0.05263. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Non-parametric

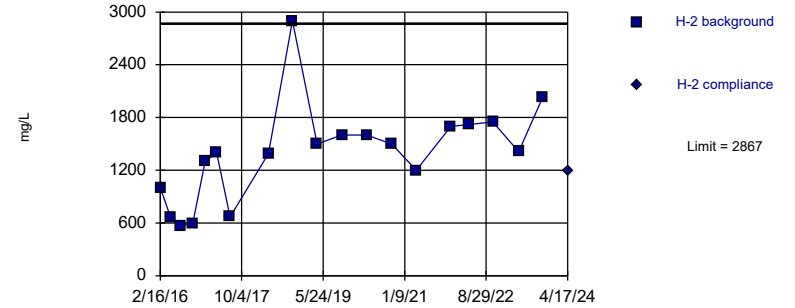


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Parametric

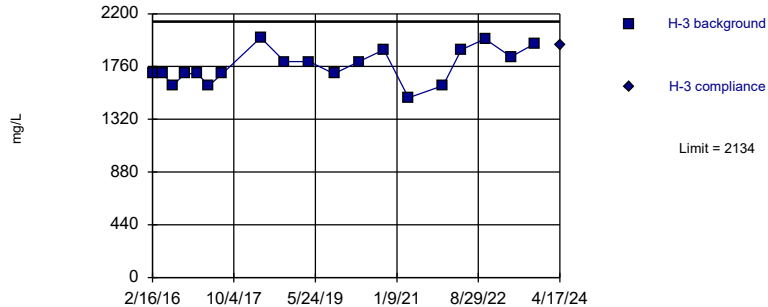


Background Data Summary: Mean=1394, Std. Dev.=562.6, n=19. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9161, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Parametric

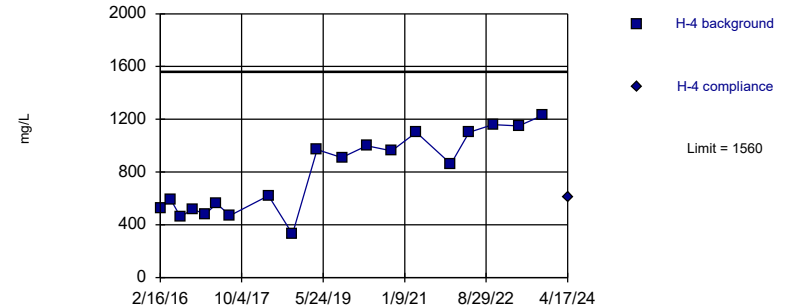


Background Data Summary: Mean=1762, Std. Dev.=142, n=19. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9492, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Parametric

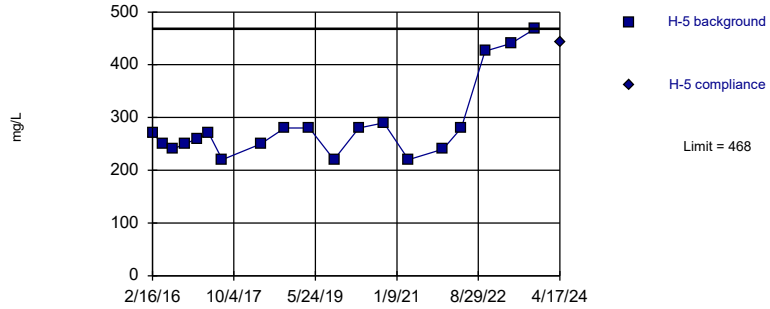


Background Data Summary: Mean=789.5, Std. Dev.=294.2, n=19. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9016, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Non-parametric

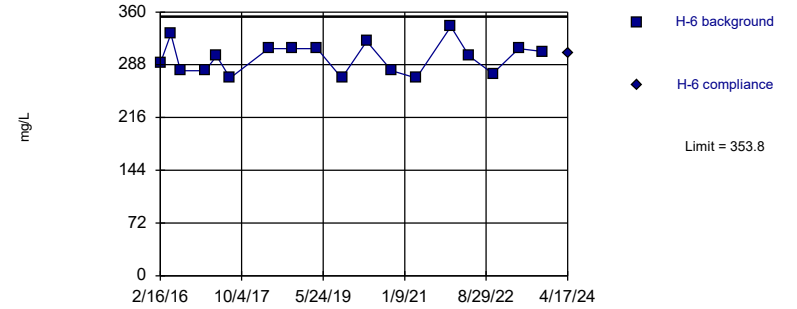


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

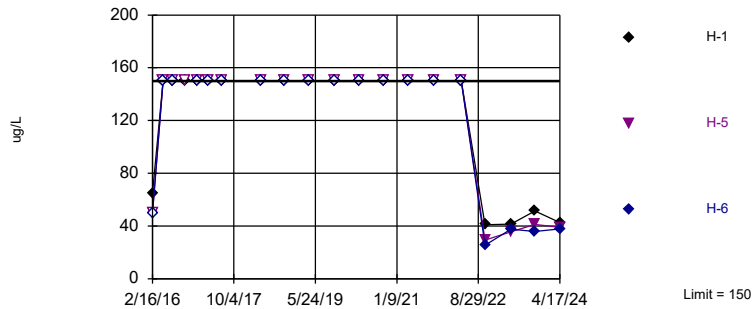
Prediction Limit Intrawell Parametric



Background Data Summary: Mean=297.3, Std. Dev.=21.4, n=18. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9289, critical = 0.897. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

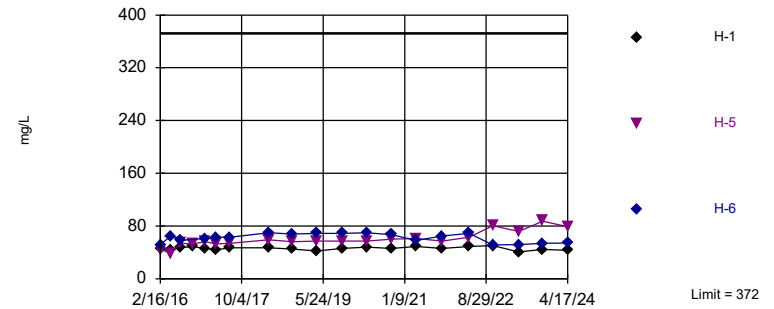
Within Limit Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 60 background values. 75% NDs. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

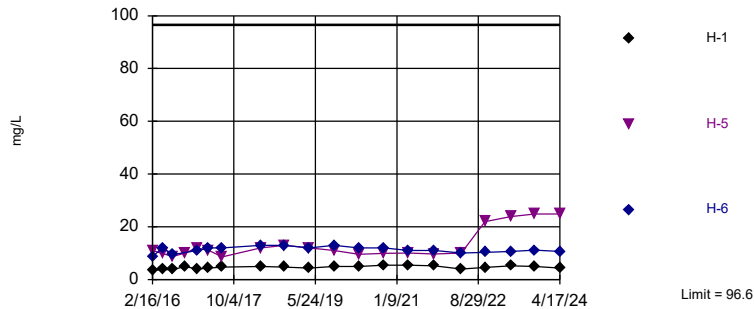
Within Limit Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Calcium Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

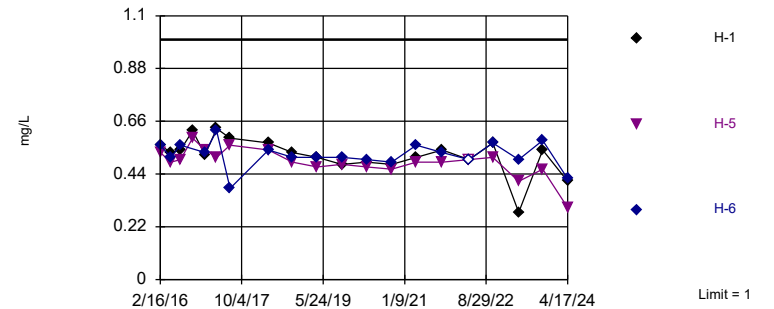
Within Limit Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Chloride Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit Prediction Limit
Interwell Non-parametric

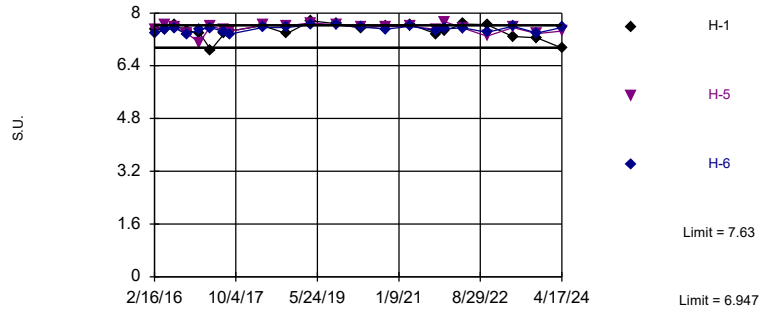


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. 26.67% NDs. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Exceeds Limits: H-1

Prediction Limit Interwell Parametric



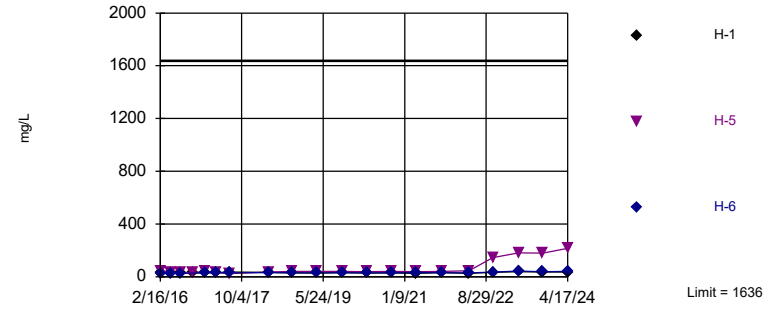
Background Data Summary: Mean=7.289, Std. Dev.=0.1379, n=66. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9874, critical = 0.965. Report alpha = 0.05. Individual comparison alpha = 0.008333. Most recent point for each compliance well compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:11 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Interwell Parametric



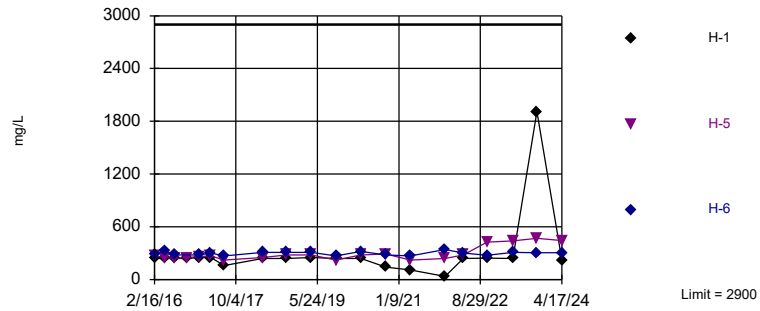
Background Data Summary: Mean=726, Std. Dev.=414.3, n=60, 1.667% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9654, critical = 0.962. Report alpha = 0.05. Individual comparison alpha = 0.01667. Most recent point for each compliance well compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:11 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Interwell Non-parametric



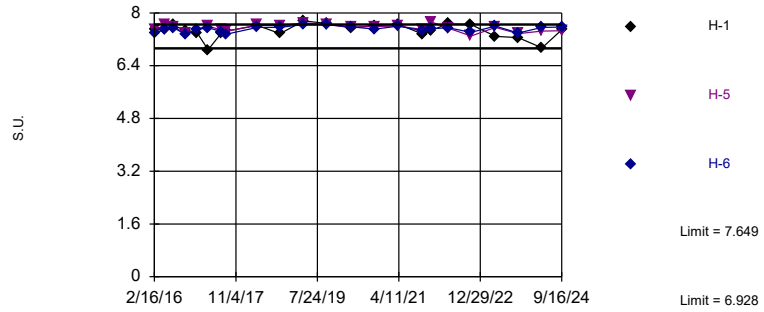
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:11 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Interwell Parametric



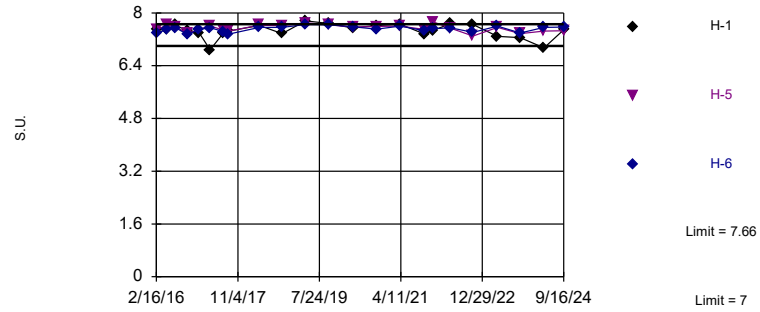
Background Data Summary: Mean=7.288, Std. Dev.=0.1351, n=69. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9881, critical = 0.966. Report alpha = 0.0297. Individual comparison alpha = 0.005. Most recent point for each compliance well compared to limit.

Constituent: pH Analysis Run 9/27/2024 2:00 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Within Limits

Tolerance Limit Interwell Non-parametric

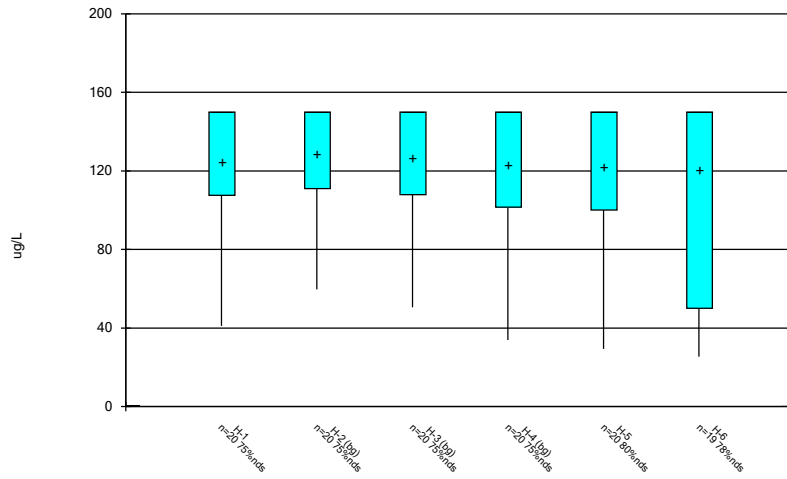


Non-parametric test used in lieu of parametric tolerance limit because no value exists in the tolerance factor table for n = 69, alpha = 0.05, two-tailed. Most recent observation is compared with limit. Limits are highest and lowest of 69 background values. 90.82% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.1345 (0.06724 per tail).

Constituent: pH Analysis Run 9/27/2024 2:01 PM

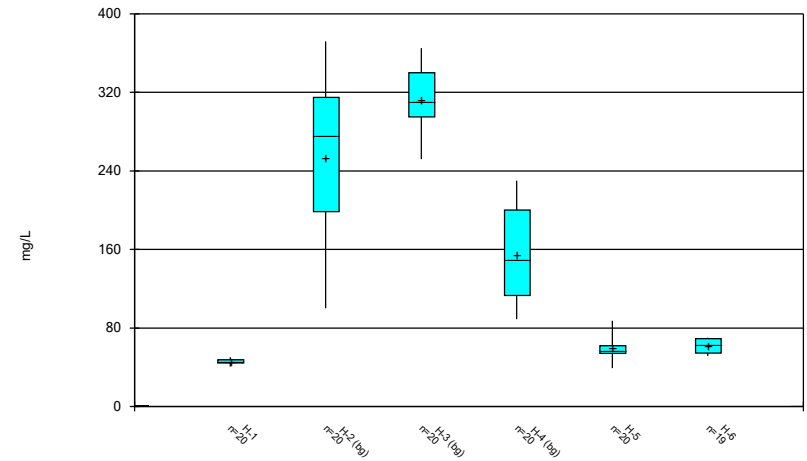
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Box & Whiskers Plot



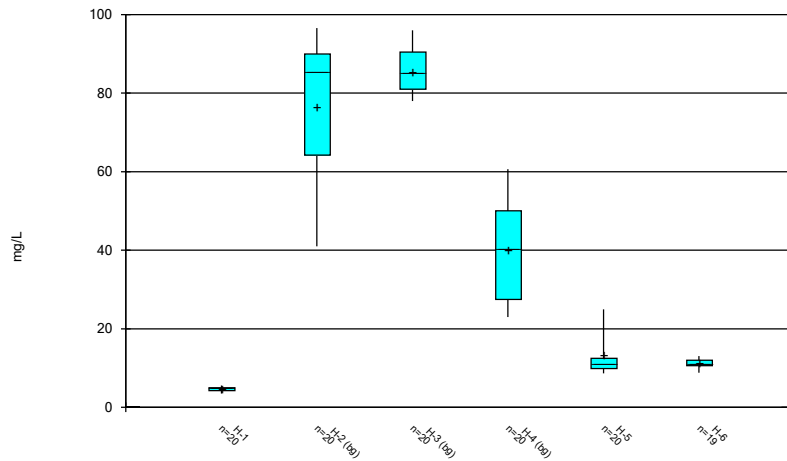
Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:05 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Box & Whiskers Plot



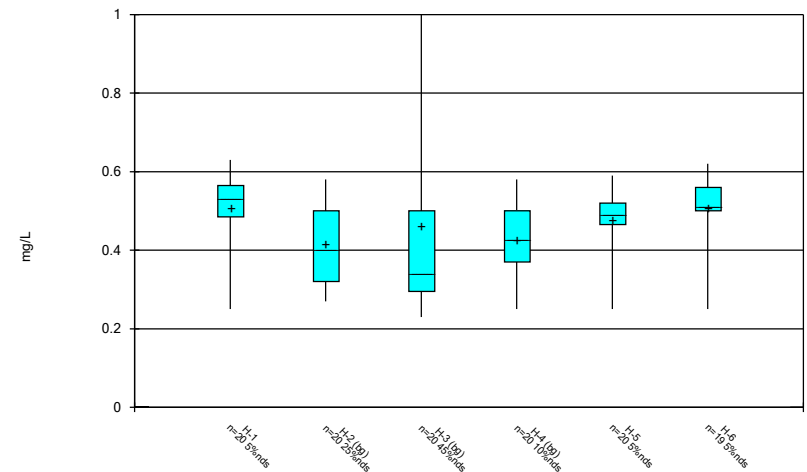
Constituent: Calcium Analysis Run 6/11/2024 10:05 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Box & Whiskers Plot



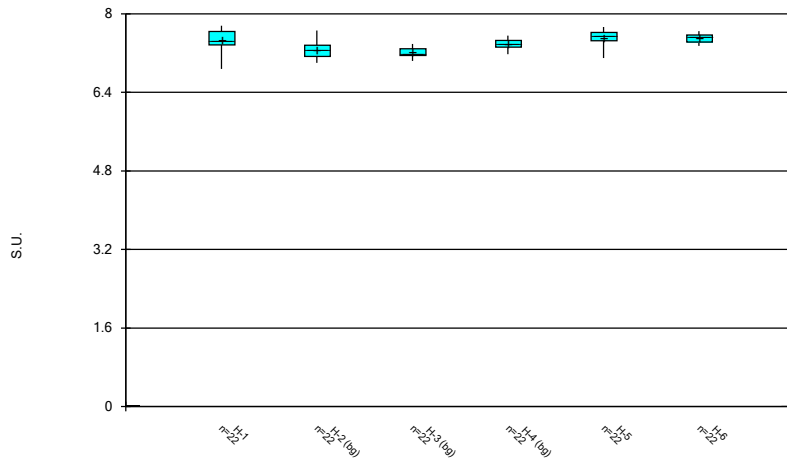
Constituent: Chloride Analysis Run 6/11/2024 10:05 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Box & Whiskers Plot



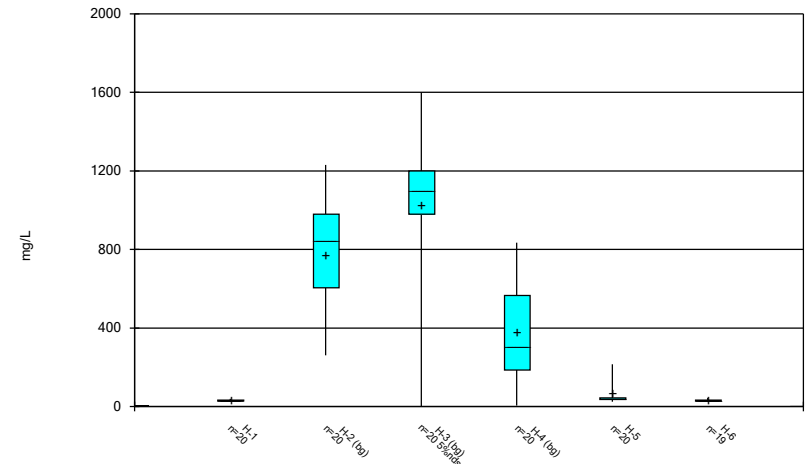
Constituent: Fluoride Analysis Run 6/11/2024 10:05 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Box & Whiskers Plot



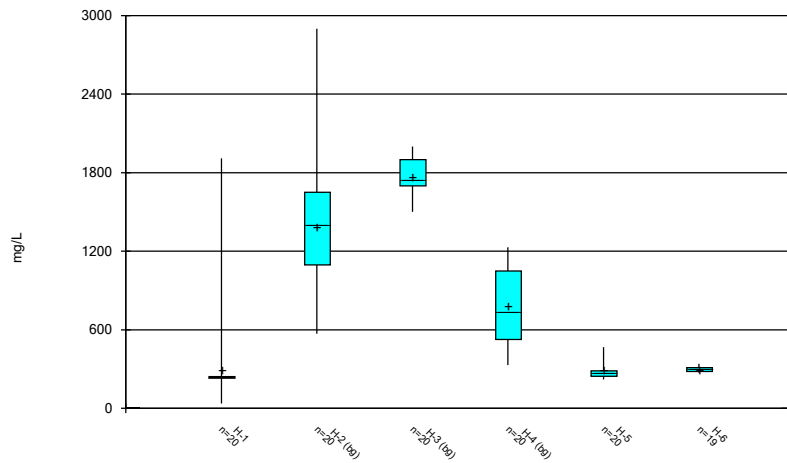
Constituent: pH Analysis Run 6/11/2024 10:05 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Box & Whiskers Plot



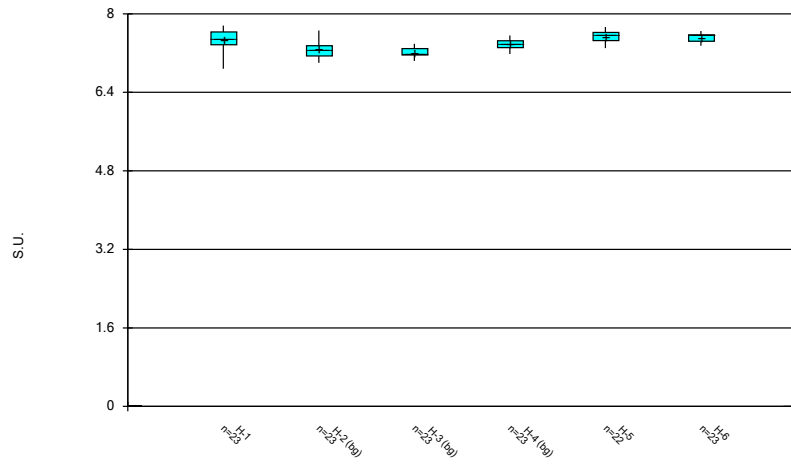
Constituent: Sulfate Analysis Run 6/11/2024 10:05 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:05 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Box & Whiskers Plot

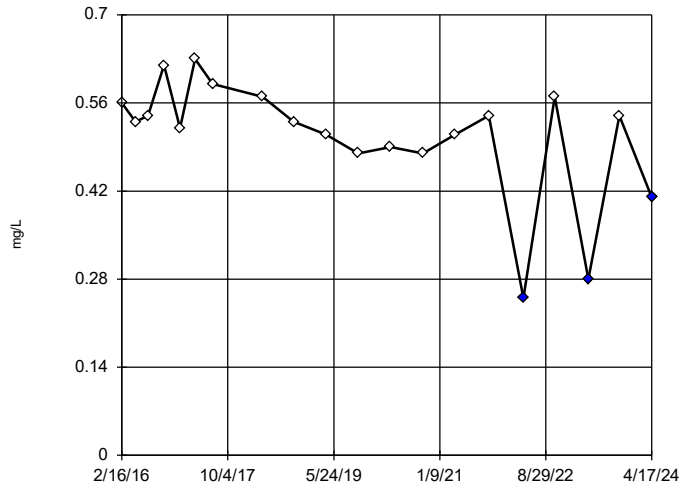


Constituent: pH Analysis Run 9/27/2024 1:59 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

EPA 1989 Outlier Screening

H-1

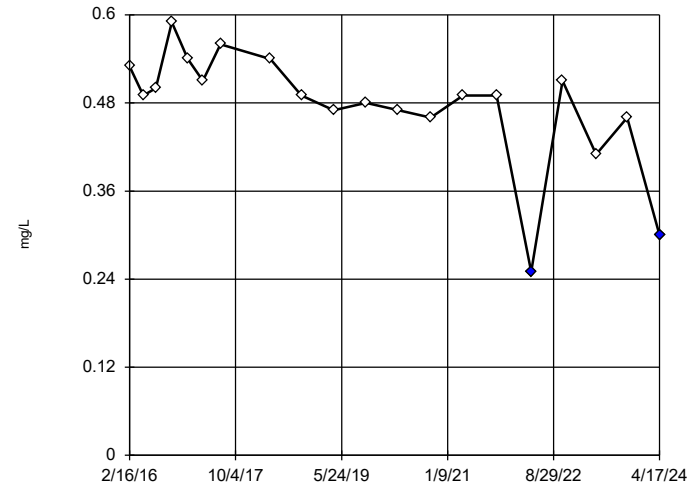


n = 20
 Statistical outliers are drawn as solid.
 Mean 0.5075, std. dev. 0.097, critical Tn 2.557;
 After removing suspect data: mean 0.5211, std. dev. 0.07781, Tn 2.532;
 mean 0.5344, std. dev. 0.05294, Tn 2.504; mean 0.5418, std. dev. 0.04419, Tn 2.475.
 Normality test used: Shapiro Wilk@alpha = 0.05
 Calculated = 0.9505
 Critical = 0.892
 The distribution, after removal of suspect values, was found to be normally distributed.

Constituent: Fluoride Analysis Run 6/11/2024 9:41 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

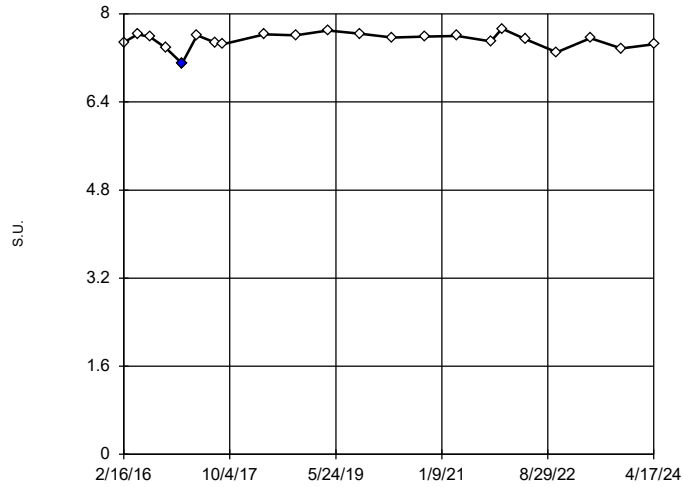
EPA 1989 Outlier Screening

H-5



EPA 1989 Outlier Screening

H-5

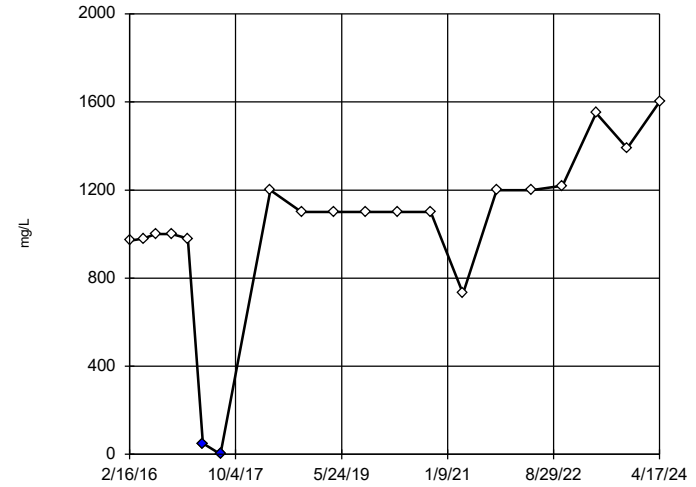


n = 22
 Statistical outlier is drawn as solid.
 Mean 7.523, std. dev. 0.1432, critical Tn 2.503.
 After removing suspect data: mean 7.543, std. dev. 0.1104, Tn 2.58.
 Normality test used: Shapiro Wilk@alpha = 0.05
 Calculated = 0.9646
 Critical = 0.908
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: pH Analysis Run 6/11/2024 9:41 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

EPA 1989 Outlier Screening

H-3 (bg)

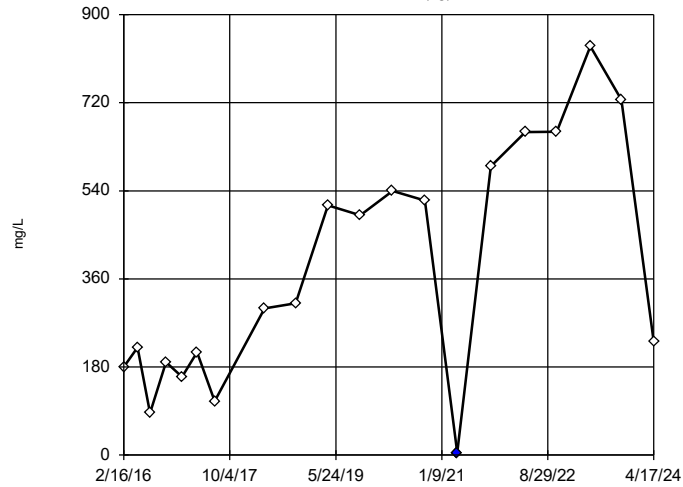


n = 20
 Statistical outliers are drawn as solid.
 Mean 1029, std. dev. 396.9, critical Tn 2.557. After removing suspect data: mean 1083, std. dev. 323.2, Tn 2.532; mean 1140, std. dev. 210.7, Tn 2.504.
 Normality test used: Shapiro Wilk@alpha = 0.05
 Calculated = 0.9152
 Critical = 0.897
 The distribution, after removal of suspect values, was found to be normally distributed.

Constituent: Sulfate Analysis Run 6/11/2024 9:41 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

EPA 1989 Outlier Screening

H-4 (bg)

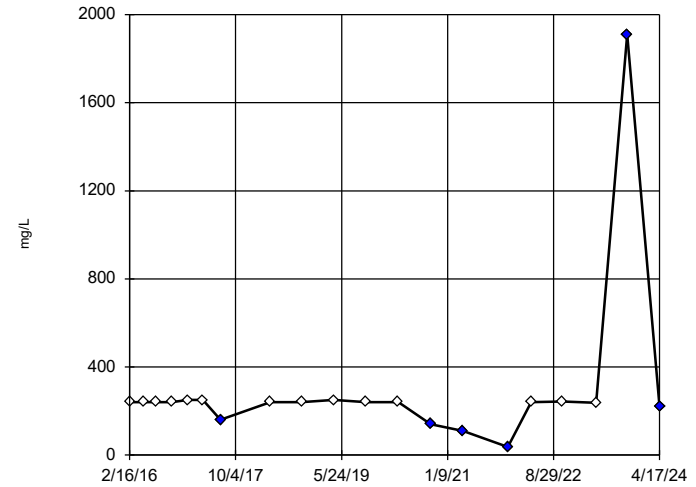


n = 20
 Statistical outlier is drawn as solid.
 Mean 376.7, std. dev. 242.2, critical Tn 2.557.
 After removing suspect data: mean 398.3, std. dev. 232, Tn 2.532.
 Normality test used: Shapiro Wilk@alpha = 0.05
 Calculated = 0.921
 Critical = 0.901
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Sulfate Analysis Run 6/11/2024 9:41 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

EPA 1989 Outlier Screening

H-1

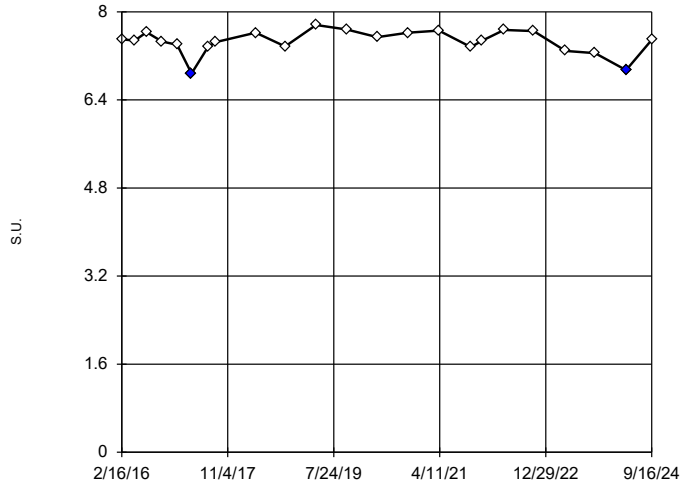


n = 20
 Statistical outliers are drawn as solid.
 NOTE: non-normal. User chose to continue.
 Mean 298.6, std. dev. 383.6, critical Tn 2.557.
 After removing suspect data: mean 213.7, std. dev. 58.71, Tn 2.532; mean 223.6, std. dev. 41.36, Tn 2.504; mean 230.2, std. dev. 31.05, Tn 2.475; mean 235.9, std. dev. 21.25, Tn 2.443; mean 240.9, std. dev. 6.713, Tn 2.409; mean 242.3, std. dev. 4.358, Tn 2.371.
 Normality test used: Shapiro Wilk@alpha = 0.05
 Calculated = 0.6657
 Critical = 0.874

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 9:41 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

EPA 1989 Outlier Screening

H-1



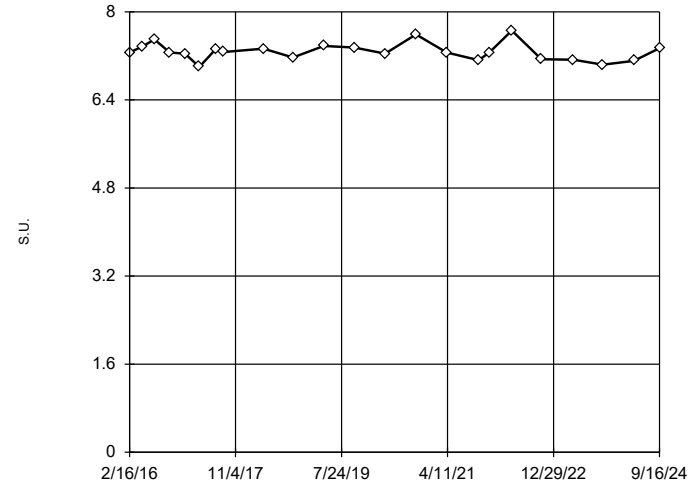
n = 23
 Statistical outliers are drawn as solid.
 Mean 7.458, std. dev. 0.2193, critical Tn 2.624.
 After removing suspect data: mean 7.485, std. dev. 0.1836, Tn 2.603;
 mean 7.51, std. dev. 0.141, Tn 2.58.
 Normality test used:
 Shapiro Wilk@alpha = 0.05
 Calculated = 0.9634
 Critical = 0.908
 The distribution, after removal of suspect values, was found to be normally distributed.

Constituent: pH Analysis Run 9/27/2024 1:59 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

EPA 1989 Outlier Screening

H-2 (bg)



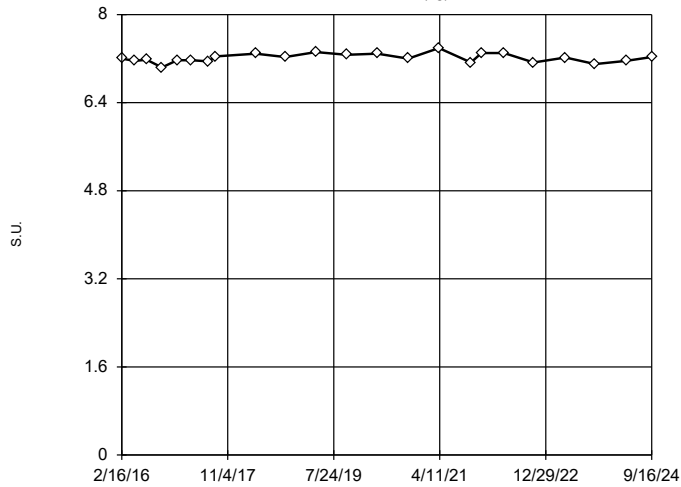
n = 23
 No statistical outliers.
 Mean 7.276, std. dev. 0.1609, critical Tn 2.624
 Normality test used:
 Shapiro Wilk@alpha = 0.05
 Calculated = 0.953
 Critical = 0.914
 The distribution was found to be normally distributed.

Constituent: pH Analysis Run 9/27/2024 1:59 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

EPA 1989 Outlier Screening

H-3 (bg)



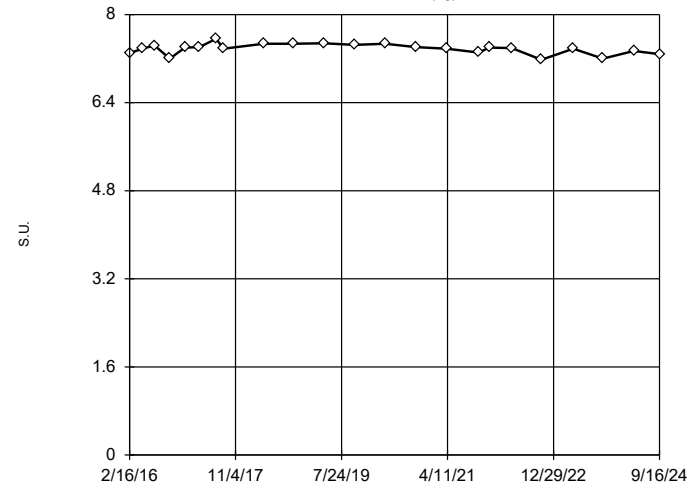
n = 23
 No statistical outliers.
 Mean 7.212, std. dev. 0.08133, critical Tn 2.624
 Normality test used:
 Shapiro Wilk@alpha = 0.05
 Calculated = 0.9852
 Critical = 0.914
 The distribution was found to be normally distributed.

Constituent: pH Analysis Run 9/27/2024 1:59 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

EPA 1989 Outlier Screening

H-4 (bg)



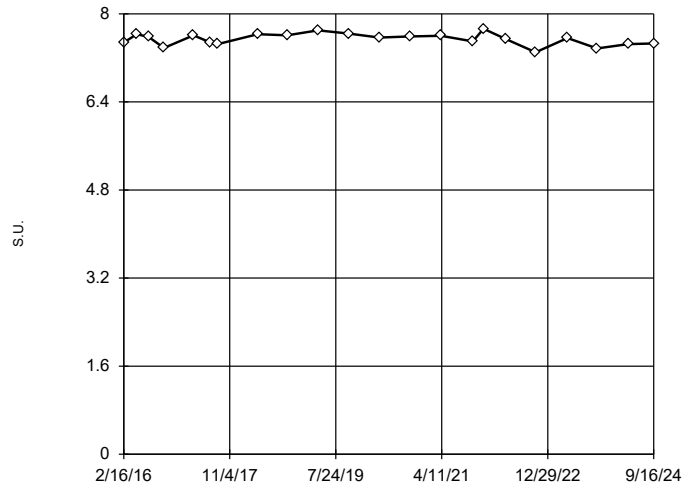
n = 23
 No statistical outliers.
 Mean 7.377, std. dev. 0.09664, critical Tn 2.624
 Normality test used:
 Shapiro Wilk@alpha = 0.05
 Calculated = 0.9396
 Critical = 0.914
 The distribution was found to be normally distributed.

Constituent: pH Analysis Run 9/27/2024 1:59 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

EPA 1989 Outlier Screening

H-5



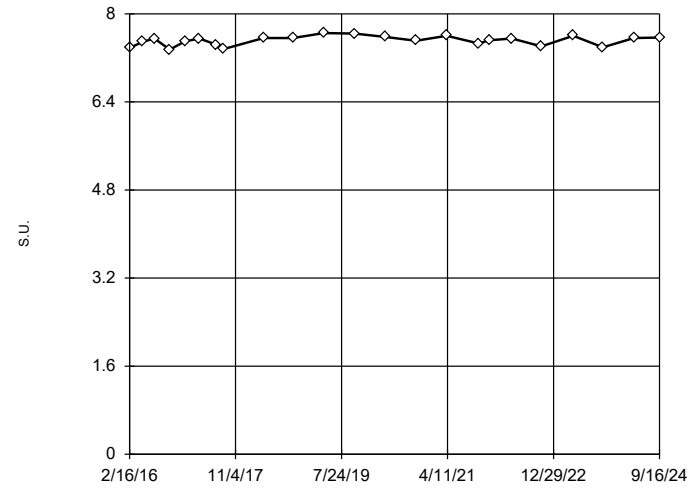
n = 22
No statistical outliers.
Mean 7.539, std. dev.
0.1091, critical Tn 2.603
Normality test used:
Shapiro Wilk@alpha = 0.05
Calculated = 0.9705
Critical = 0.911
The distribution was found
to be normally distrib-
uted.

Constituent: pH Analysis Run 9/27/2024 1:59 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

EPA 1989 Outlier Screening

H-6



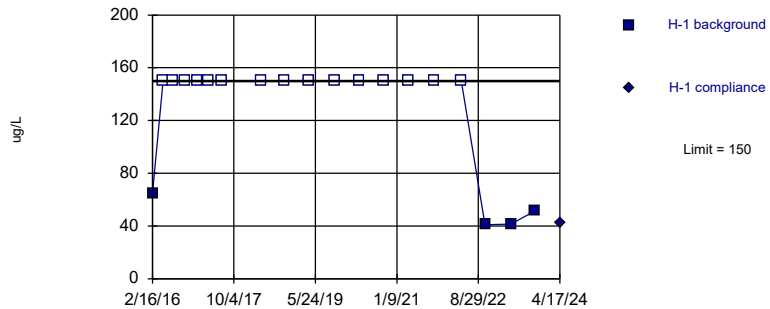
n = 23
No statistical outliers.
Mean 7.512, std. dev.
0.08811, critical Tn 2.624
Normality test used:
Shapiro Wilk@alpha = 0.05
Calculated = 0.9368
Critical = 0.914
The distribution was found
to be normally distrib-
uted.

Constituent: pH Analysis Run 9/27/2024 1:59 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Within Limit

Prediction Limit
Intrawell Non-parametric

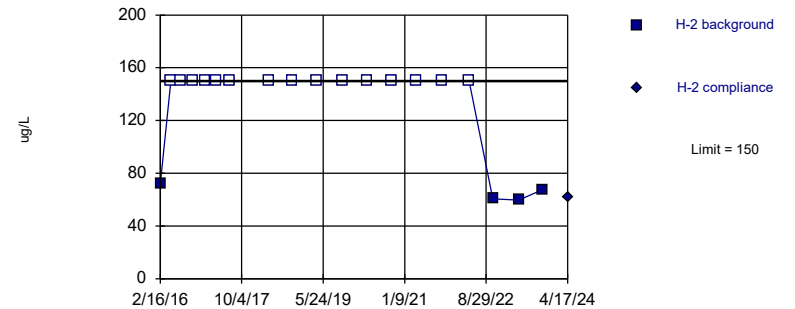


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

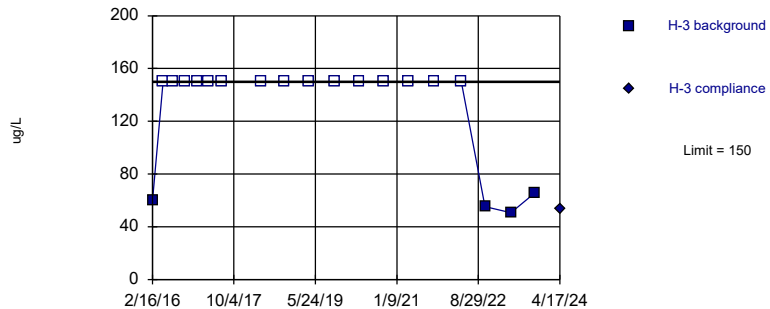


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

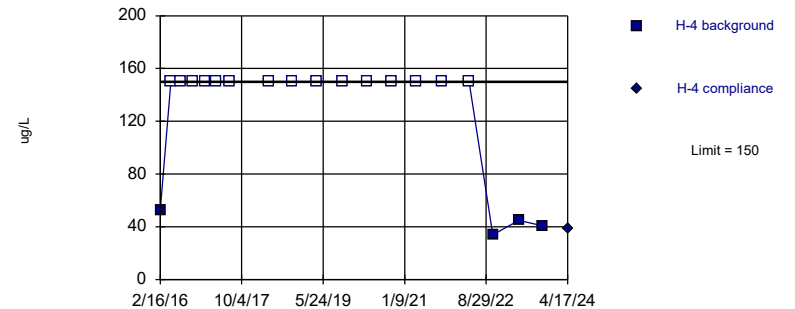


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

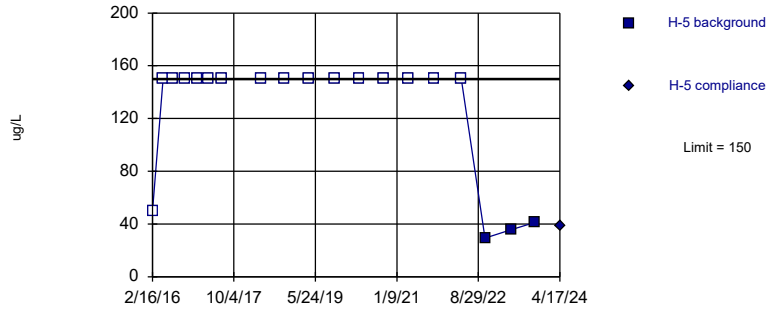


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

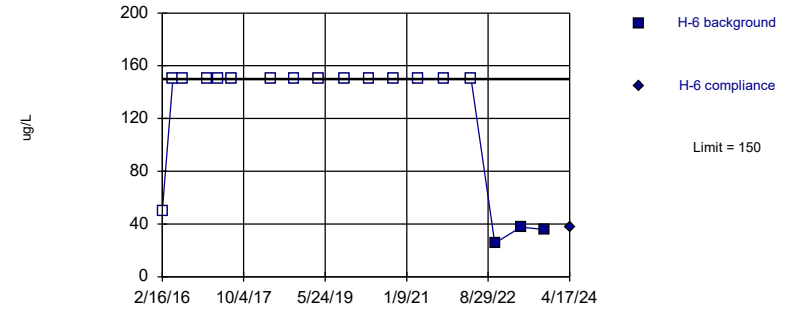


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 84.21% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

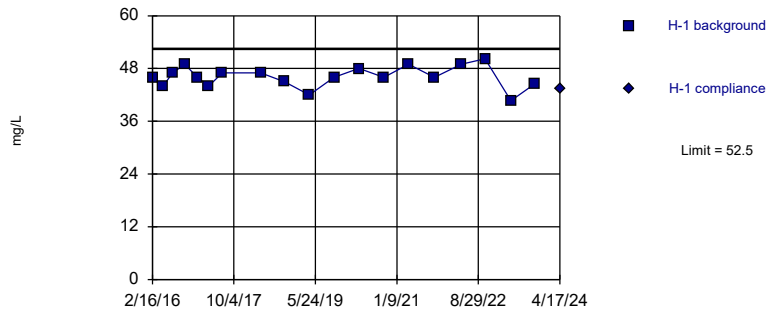


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 83.33% NDs. Report alpha = 0.05263. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

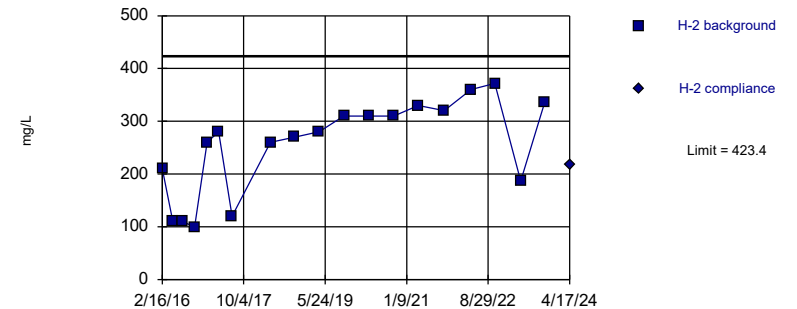


Background Data Summary: Mean=46.13, Std. Dev.=2.434, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9606, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

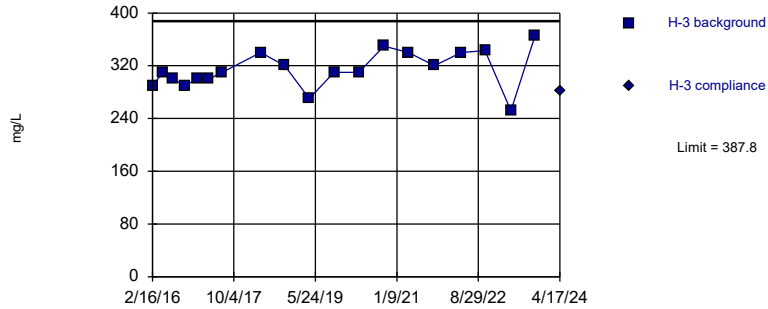


Background Data Summary (based on square transformation): Mean=72266, Std. Dev.=40847, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.931, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

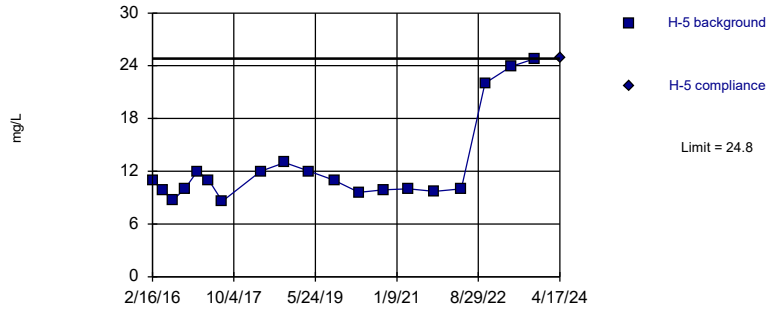
Within Limit

Prediction Limit
Intrawell Parametric



Exceeds Limit

Prediction Limit
Intrawell Non-parametric



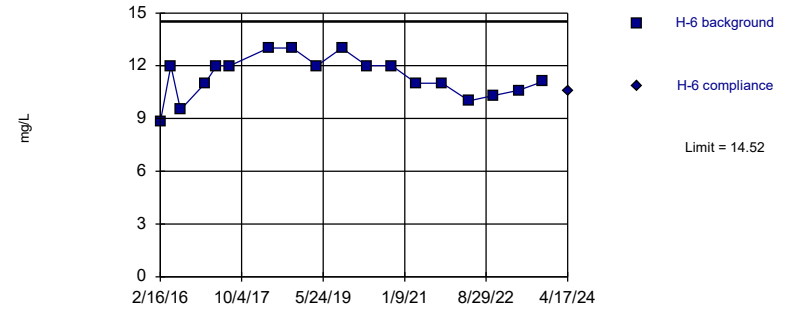
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Chloride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=11.35, Std. Dev.=1.202, n=18. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9352, critical = 0.897. Report alpha = 0.01. Most recent point compared to limit.

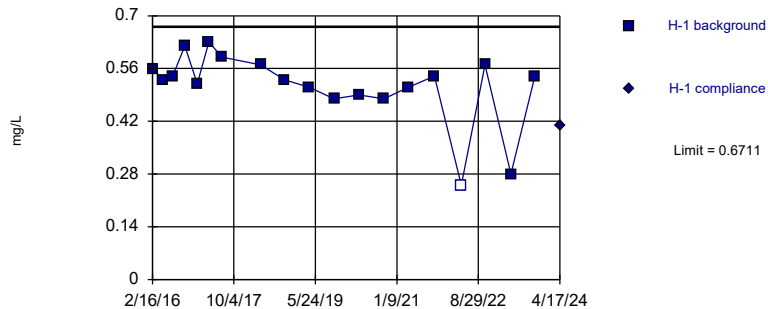
Constituent: Chloride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=0.147, Std. Dev.=0.0593, n=19, 5.263% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9284, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

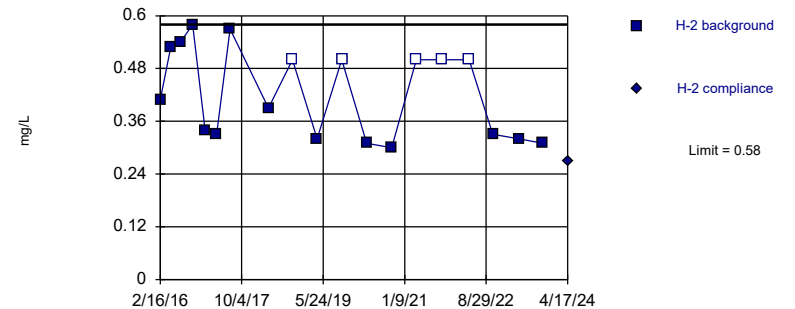
Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



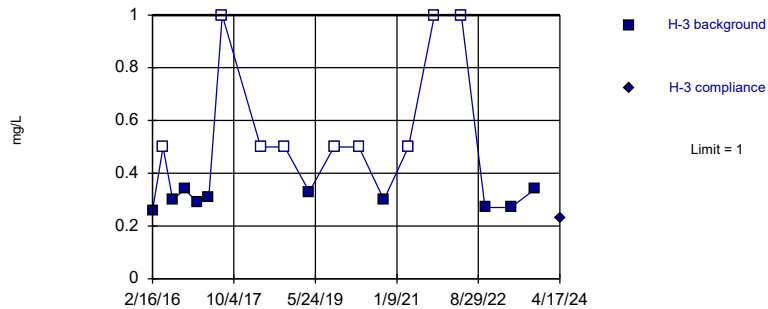
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. 26.32% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric



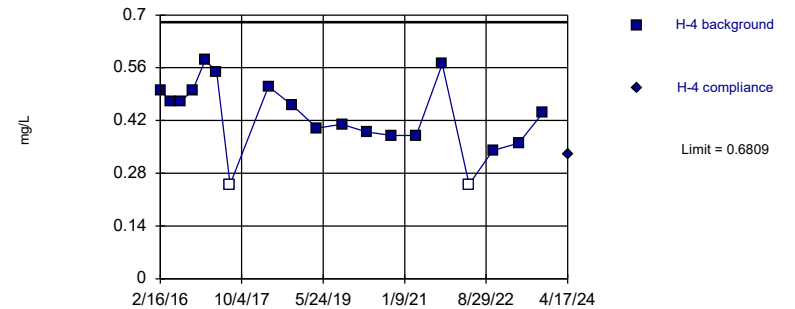
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. 47.37% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



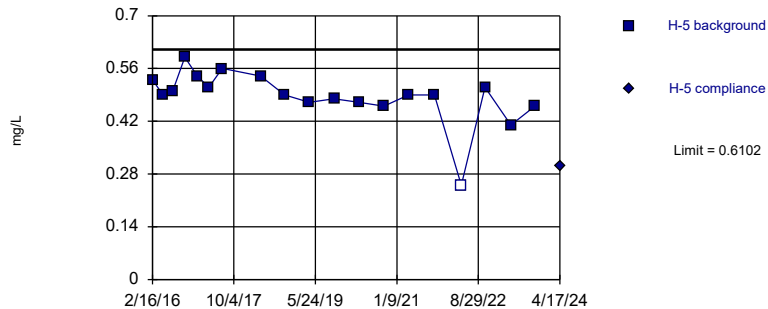
Background Data Summary: Mean=0.4321, Std. Dev.=0.09502, n=19, 10.53% NDs. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9598, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



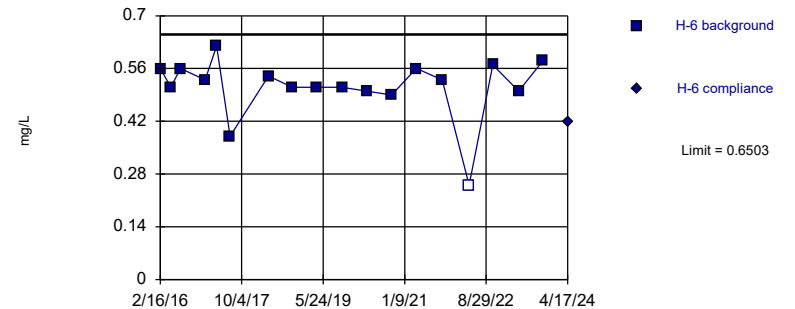
Background Data Summary (based on cube transformation): Mean=0.1212, Std. Dev.=0.04049, n=19, 5.263% NDs. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9459, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=0.1427, Std. Dev.=0.05015, n=18, 5.556% NDs. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9192, critical = 0.897. Report alpha = 0.01. Most recent point compared to limit.

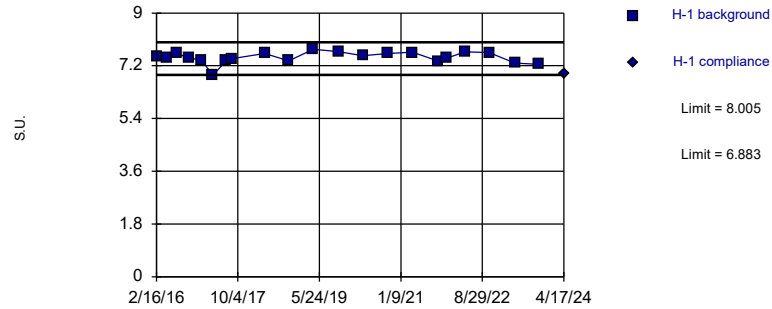
Constituent: Fluoride Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=419.6, Std. Dev.=32.1, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9172, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

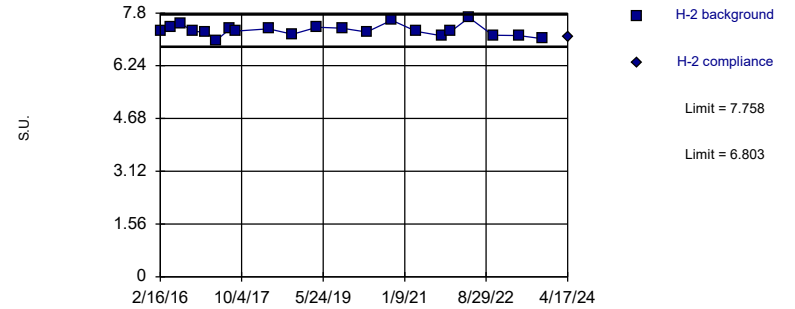
Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.281, Std. Dev.=0.1639, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9517, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

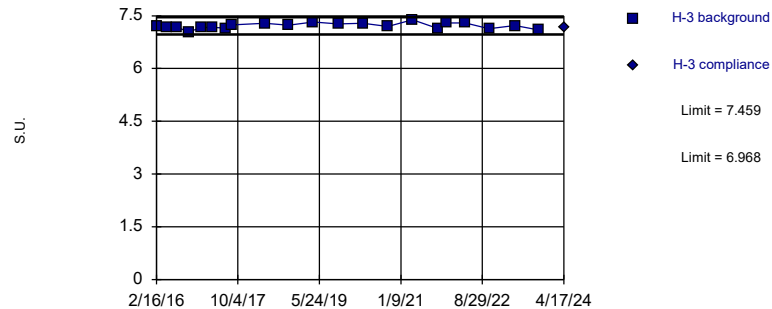
Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.213, Std. Dev.=0.0844, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9852, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

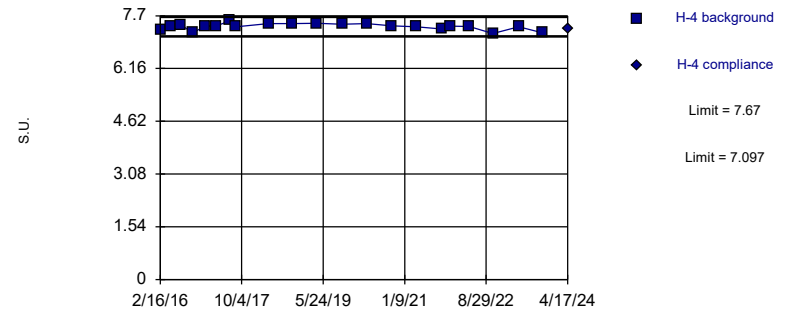
Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit

Intrawell Parametric



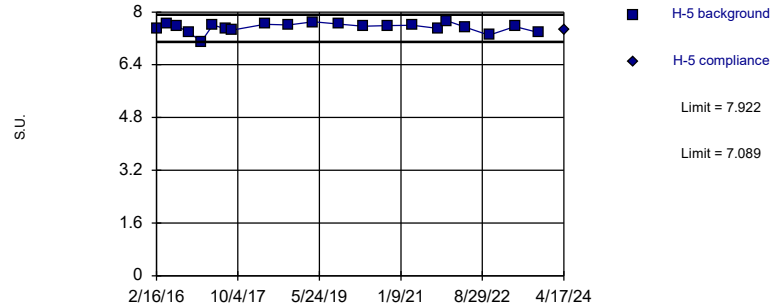
Background Data Summary: Mean=7.384, Std. Dev.=0.09841, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9091, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Intrawell Parametric



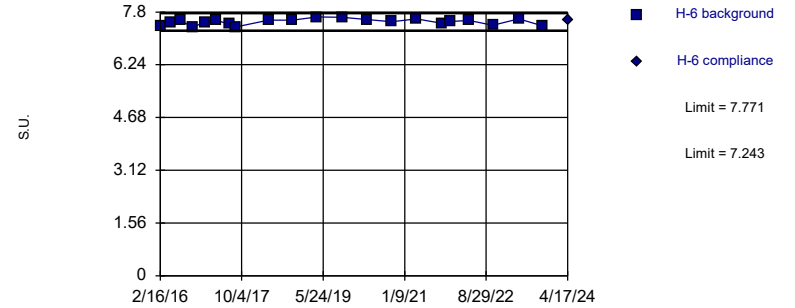
Background Data Summary (based on cube transformation): Mean=426.8, Std. Dev.=24.21, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9102, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Intrawell Parametric



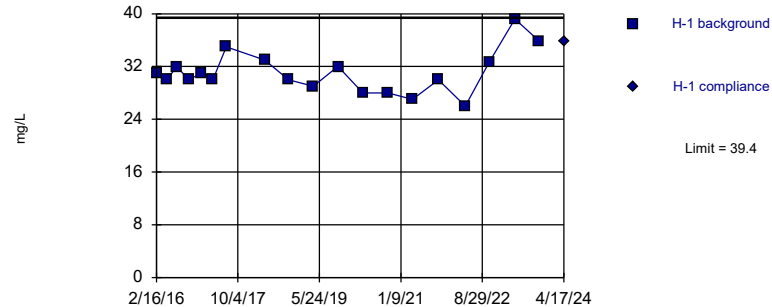
Background Data Summary: Mean=7.507, Std. Dev.=0.09073, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9498, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



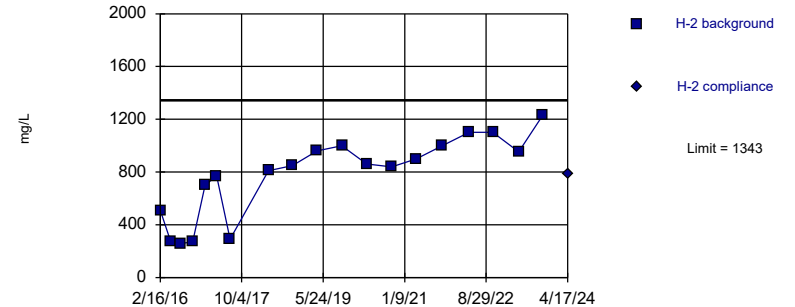
Background Data Summary: Mean=31.04, Std. Dev.=3.195, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9435, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric



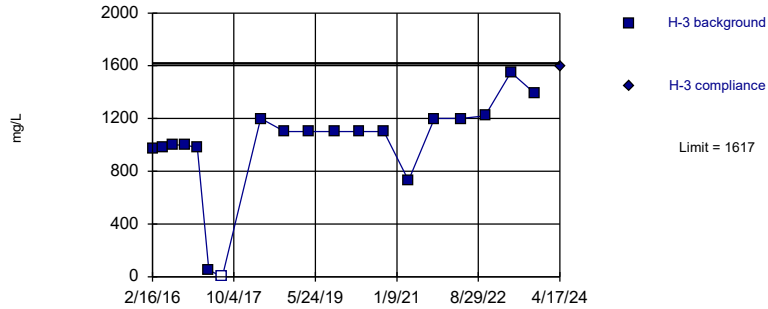
Background Data Summary (based on square transformation): Mean=686058, Std. Dev.=426873, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9424, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

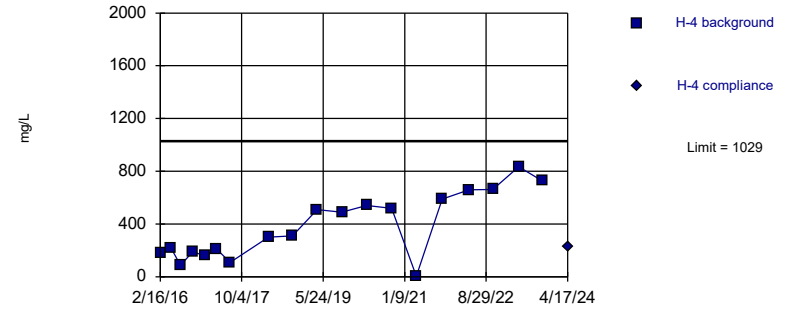


Background Data Summary (based on square transformation): Mean=1136321, Std. Dev.=564820, n=19, 5.263% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9199, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Parametric

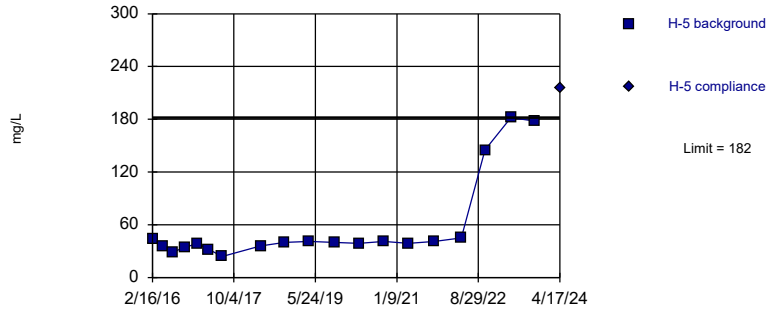


Background Data Summary: Mean=384.4, Std. Dev.=246.3, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9416, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

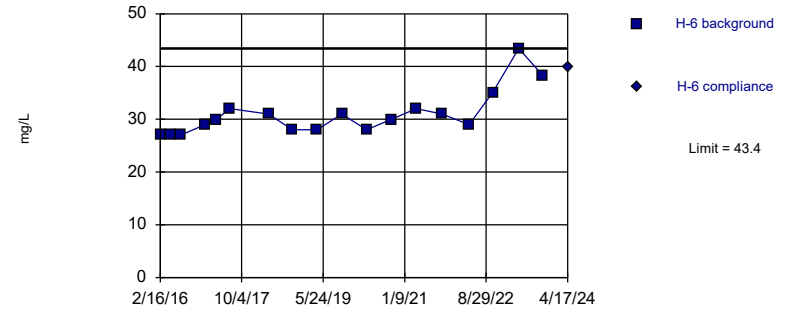


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Intrawell Non-parametric

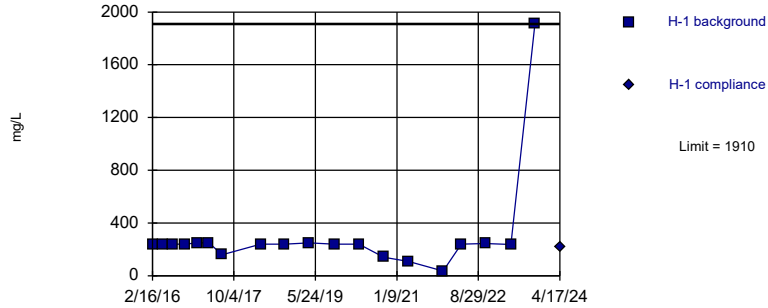


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 18 background values. Report alpha = 0.05263. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 6/11/2024 10:08 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Non-parametric

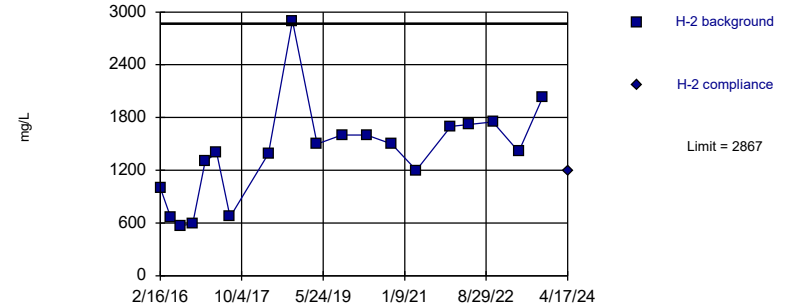


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Parametric

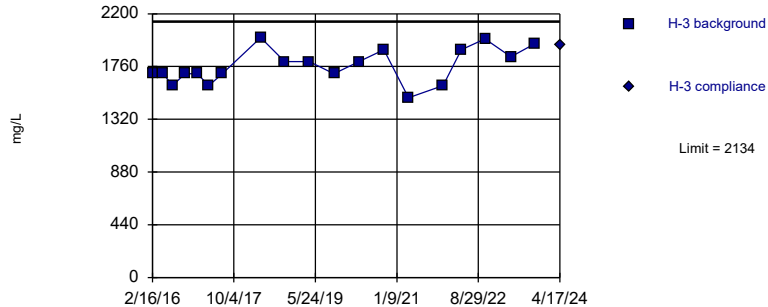


Background Data Summary: Mean=1394, Std. Dev.=562.6, n=19. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9161, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit Intrawell Parametric

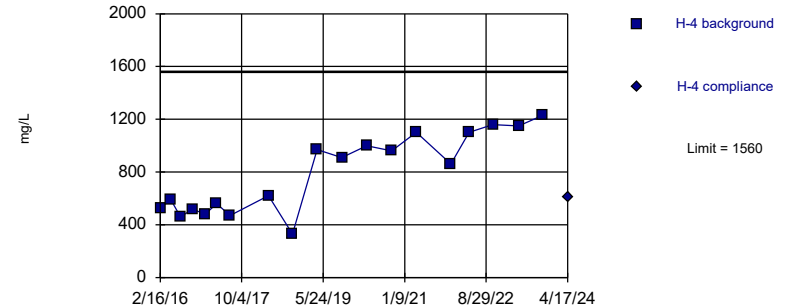


Background Data Summary: Mean=1762, Std. Dev.=142, n=19. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9492, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

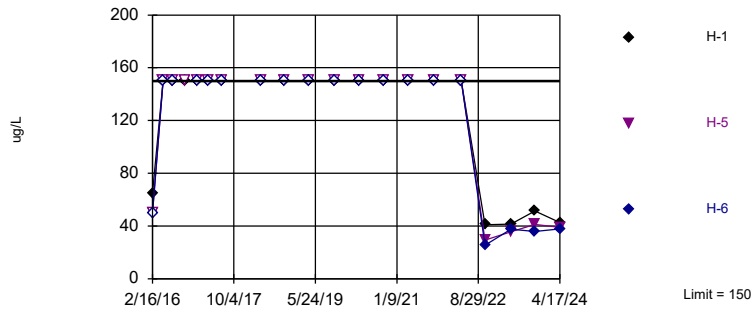
Prediction Limit Intrawell Parametric



Background Data Summary: Mean=789.5, Std. Dev.=294.2, n=19. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9016, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:09 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

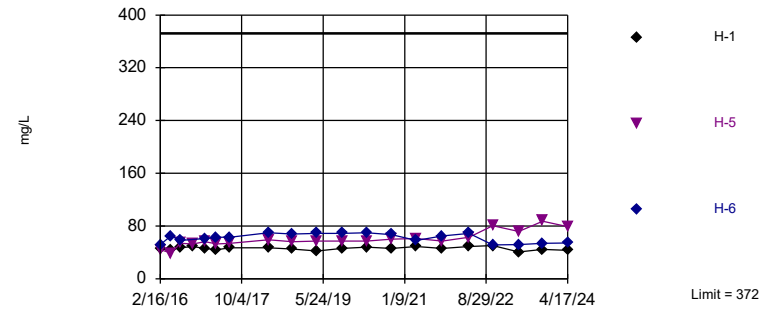
Within Limit Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 60 background values. 75% NDs. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

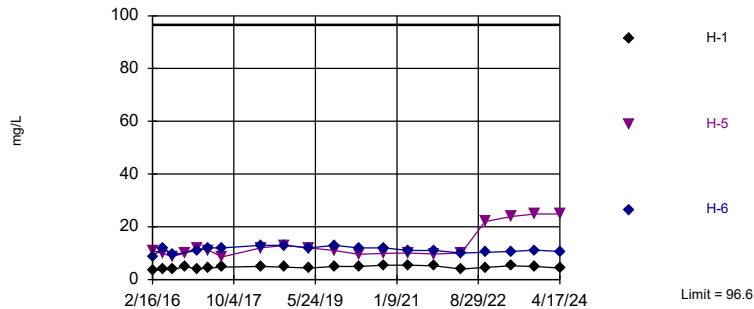
Within Limit Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Calcium Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

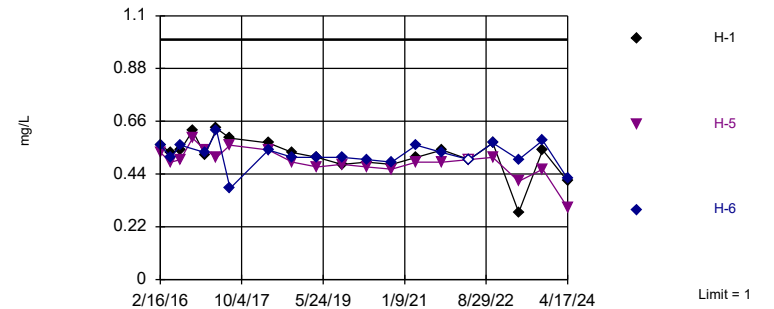
Within Limit Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Chloride Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit Prediction Limit
Interwell Non-parametric

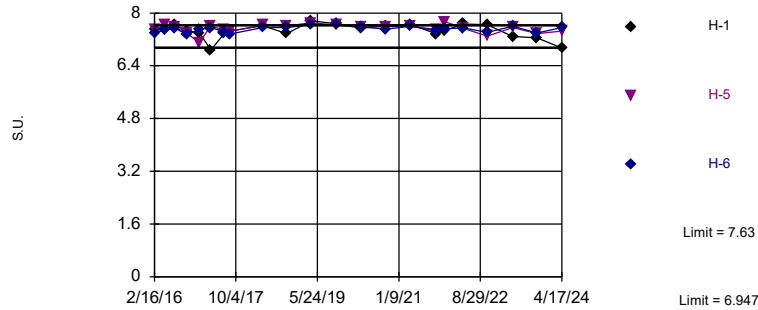


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. 26.67% NDs. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 6/11/2024 10:11 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Exceeds Limits: H-1

Prediction Limit
Interwell Parametric



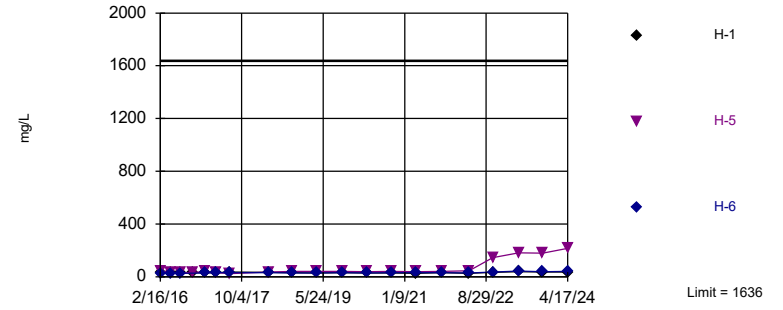
Background Data Summary: Mean=7.289, Std. Dev.=0.1379, n=66. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9874, critical = 0.965. Report alpha = 0.05. Individual comparison alpha = 0.008333. Most recent point for each compliance well compared to limit.

Constituent: pH Analysis Run 6/11/2024 10:11 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Interwell Parametric



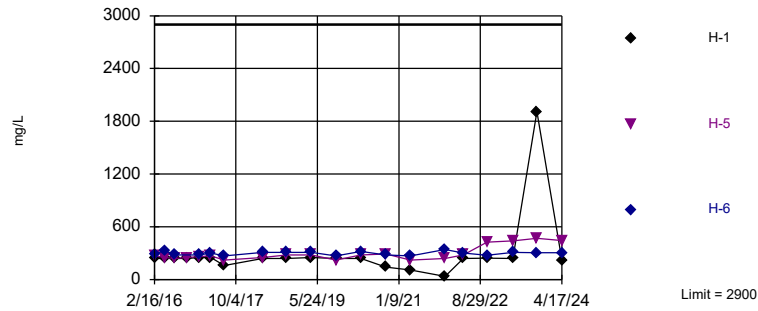
Background Data Summary: Mean=726, Std. Dev.=414.3, n=60, 1.667% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9654, critical = 0.962. Report alpha = 0.05. Individual comparison alpha = 0.01667. Most recent point for each compliance well compared to limit.

Constituent: Sulfate Analysis Run 6/11/2024 10:11 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limit

Prediction Limit
Interwell Non-parametric



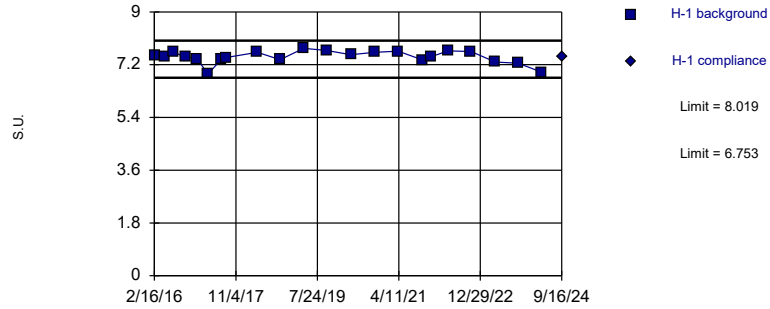
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 60 background values. Report alpha = 0.04762. Individual comparison alpha = 0.01613. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:11 AM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Within Limits

Prediction Limit
Intrawell Parametric



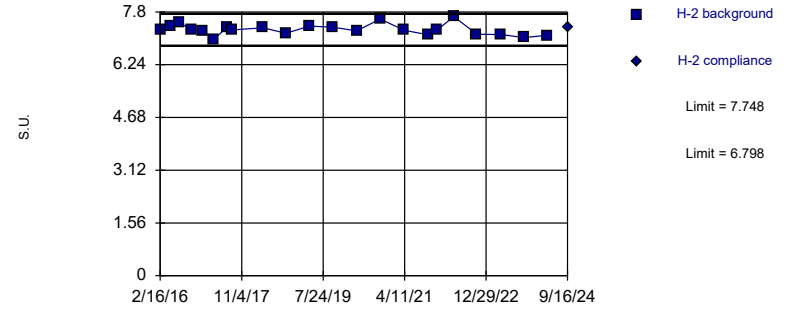
Background Data Summary (based on x⁴ transformation): Mean=3107, Std. Dev.=355, n=22. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9151, critical = 0.911. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 9/27/2024 1:58 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Within Limits

Prediction Limit
Intrawell Parametric



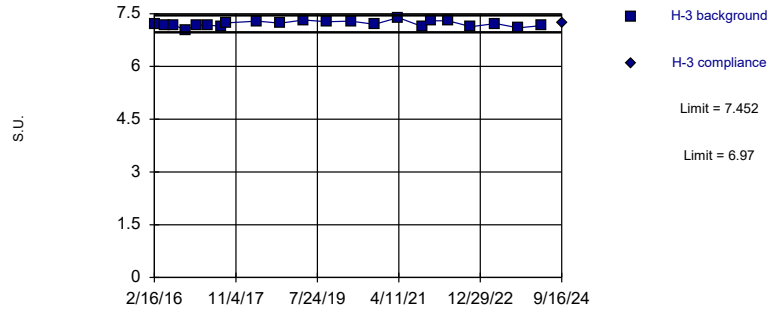
Background Data Summary: Mean=7.273, Std. Dev.=0.1641, n=22. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9501, critical = 0.911. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 9/27/2024 1:58 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Within Limits

Prediction Limit
Intrawell Parametric



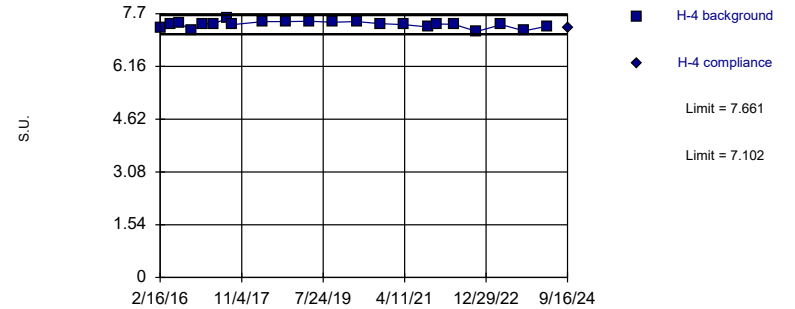
Background Data Summary: Mean=7.211, Std. Dev.=0.08315, n=22. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9813, critical = 0.911. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 9/27/2024 1:58 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Within Limits

Prediction Limit
Intrawell Parametric



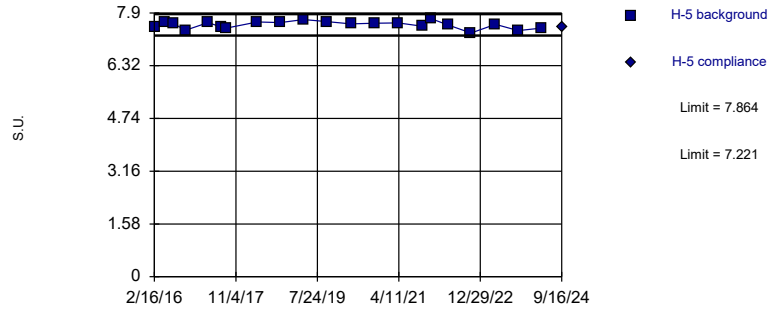
Background Data Summary: Mean=7.382, Std. Dev.=0.09649, n=22. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9228, critical = 0.911. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 9/27/2024 1:58 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Within Limits

Prediction Limit
Intrawell Parametric



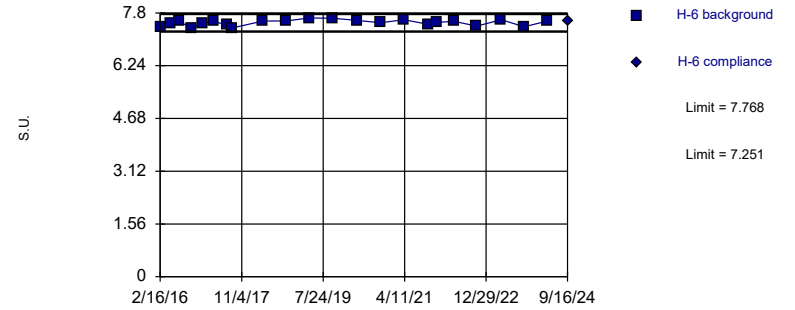
Background Data Summary: Mean=7.543, Std. Dev.=0.1104, n=21. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9646, critical = 0.908. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 9/27/2024 1:58 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Within Limits

Prediction Limit
Intrawell Parametric



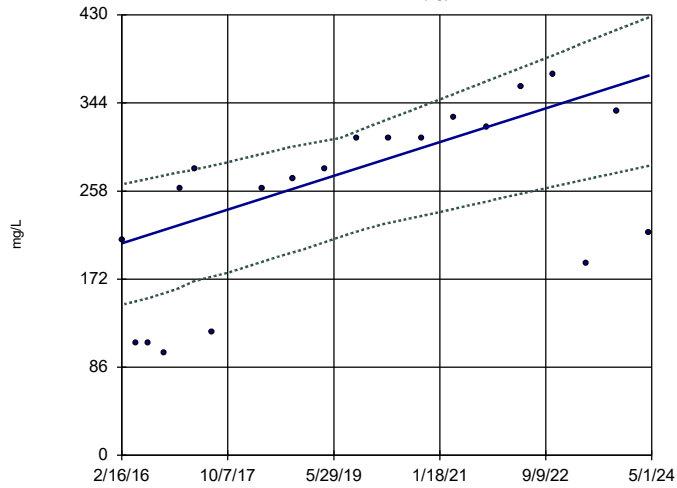
Background Data Summary: Mean=7.51, Std. Dev.=0.08925, n=22. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9433, critical = 0.911. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 9/27/2024 1:58 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Sen's Slope and 95% Confidence Band

H-2 (bg)

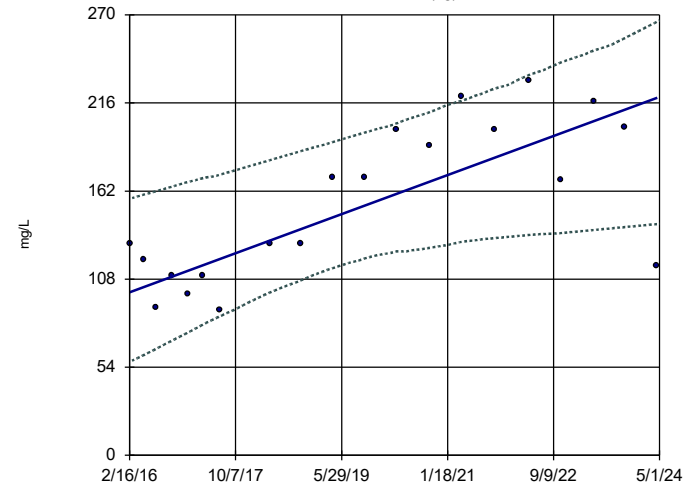


n = 20
 Slope = 20.09
 units per year.
 Mann-Kendall
 statistic = 106
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 6/11/2024 11:09 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-4 (bg)

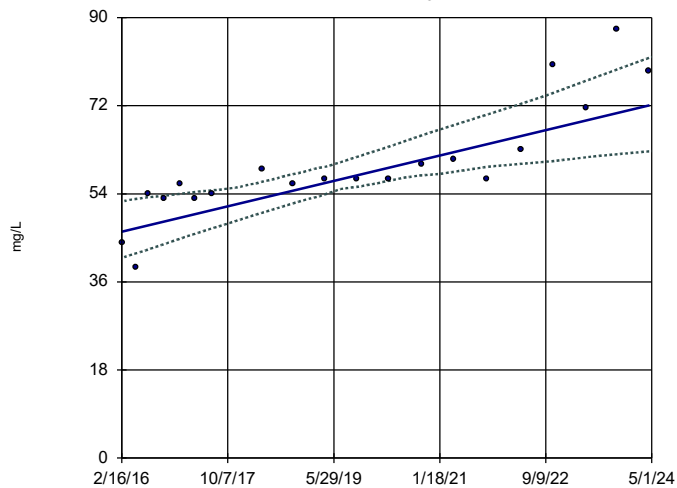


n = 20
 Slope = 14.59
 units per year.
 Mann-Kendall
 statistic = 96
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 6/11/2024 11:09 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-5

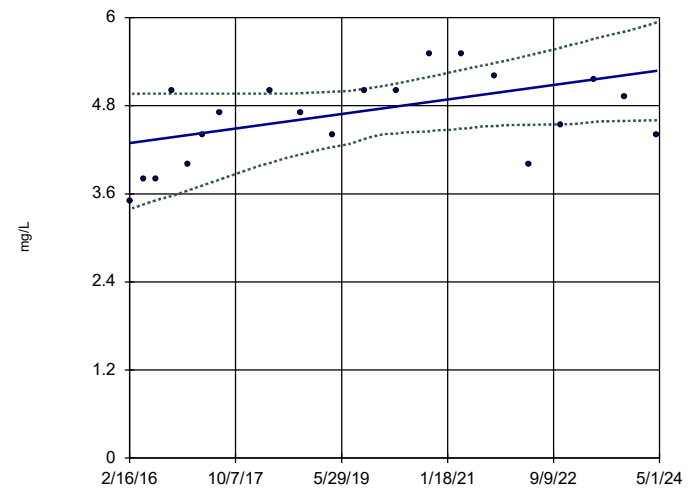


n = 20
 Slope = 3.157
 units per year.
 Mann-Kendall
 statistic = 151
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 6/11/2024 11:09 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-1

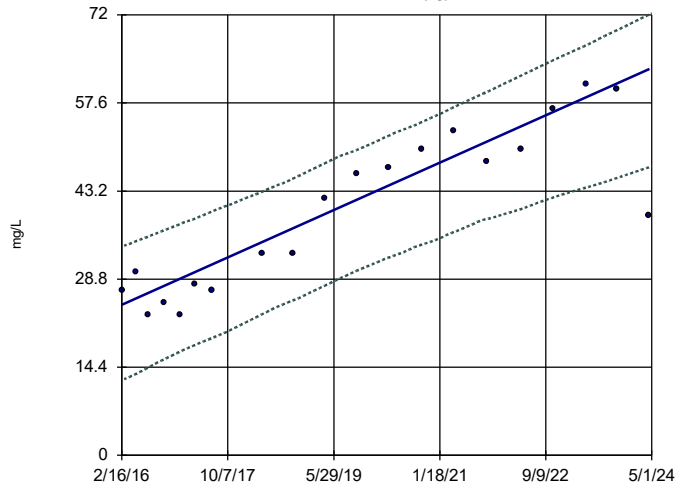


n = 20
 Slope = 0.1209
 units per year.
 Mann-Kendall
 statistic = 71
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 6/11/2024 11:09 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-4 (bg)

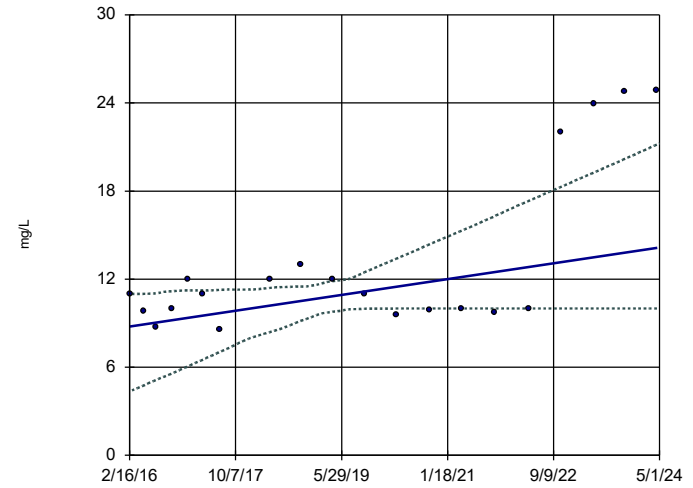


n = 20
 Slope = 4.719
 units per year.
 Mann-Kendall
 statistic = 138
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-5

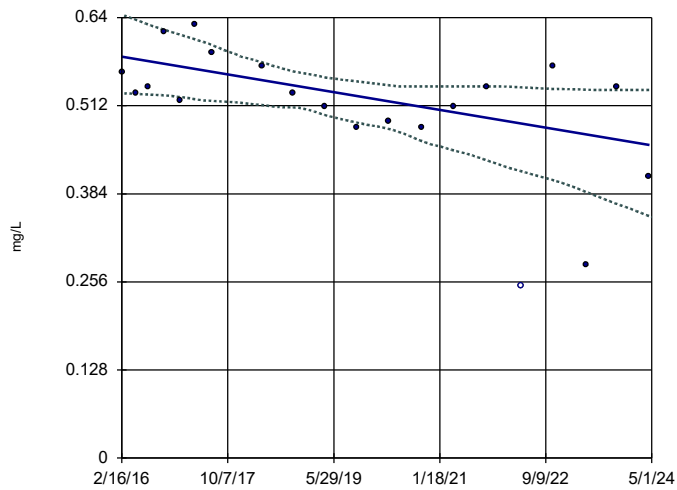


n = 20
 Slope = 0.6556
 units per year.
 Mann-Kendall
 statistic = 65
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-1

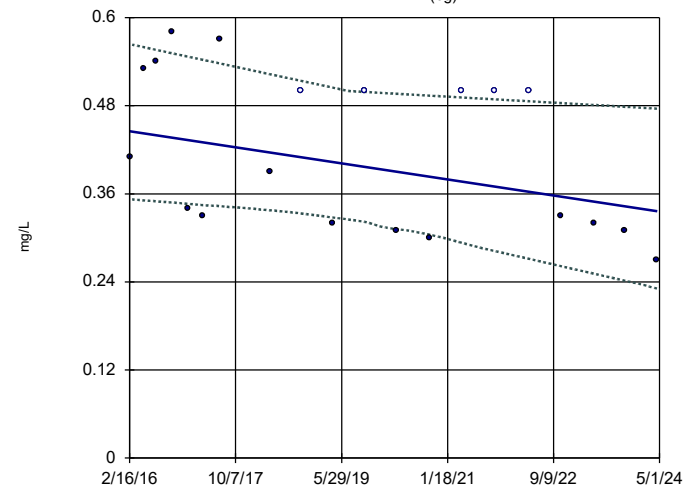


n = 20
 Slope = -0.01567
 units per year.
 Mann-Kendall
 statistic = -73
 critical = -62
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-2 (bg)

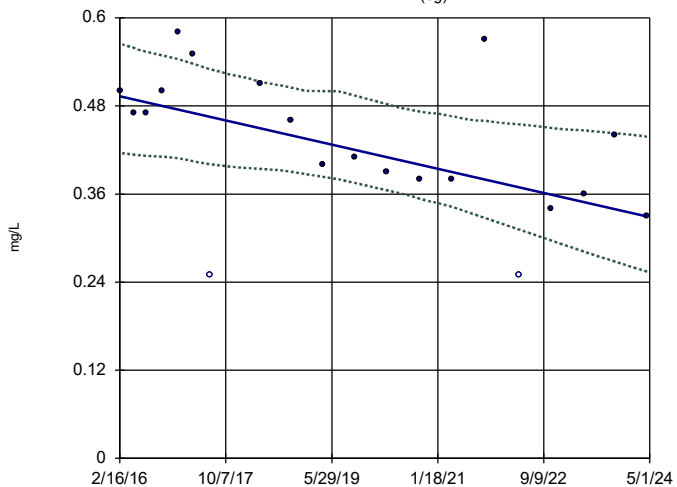


n = 20
 Slope = -0.01336
 units per year.
 Mann-Kendall
 statistic = -79
 critical = -62
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-4 (bg)

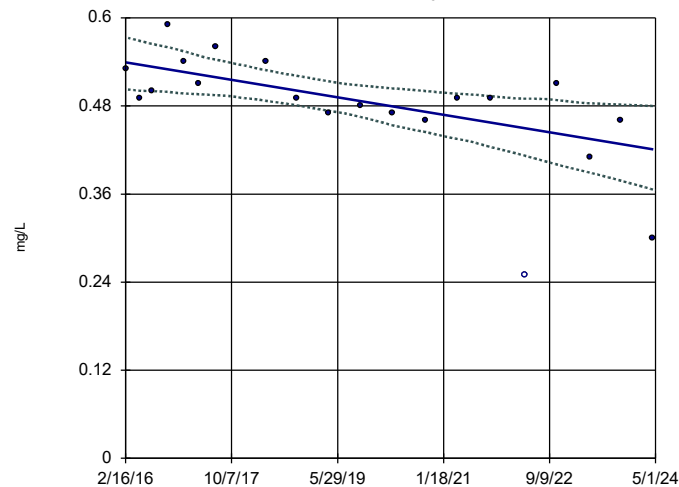


n = 20
Slope = -0.02005
units per year.
Mann-Kendall
statistic = -84
critical = -62
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Fluoride Analysis Run 6/11/2024 11:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-5

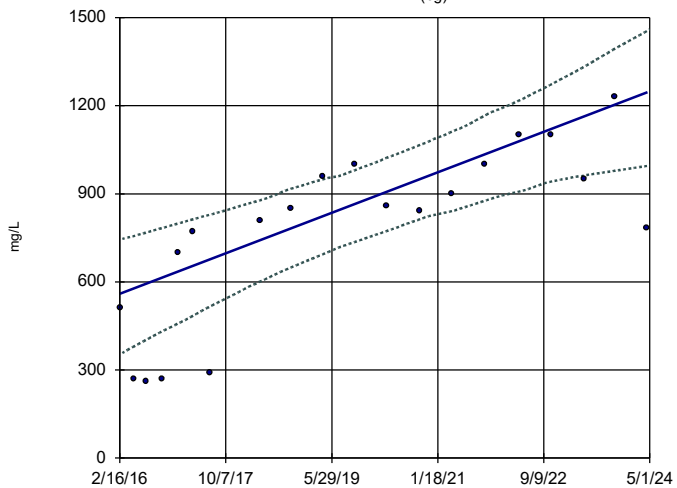


n = 20
Slope = -0.01451
units per year.
Mann-Kendall
statistic = -98
critical = -62
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Fluoride Analysis Run 6/11/2024 11:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-2 (bg)

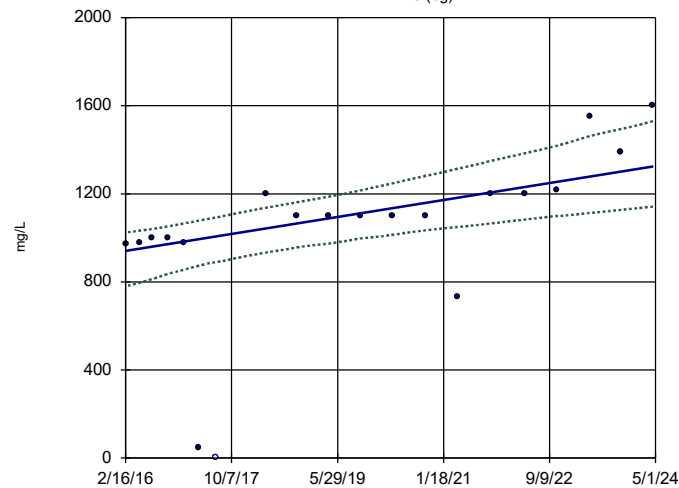


n = 20
Slope = 83.96
units per year.
Mann-Kendall
statistic = 123
critical = 62
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 6/11/2024 11:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-3 (bg)

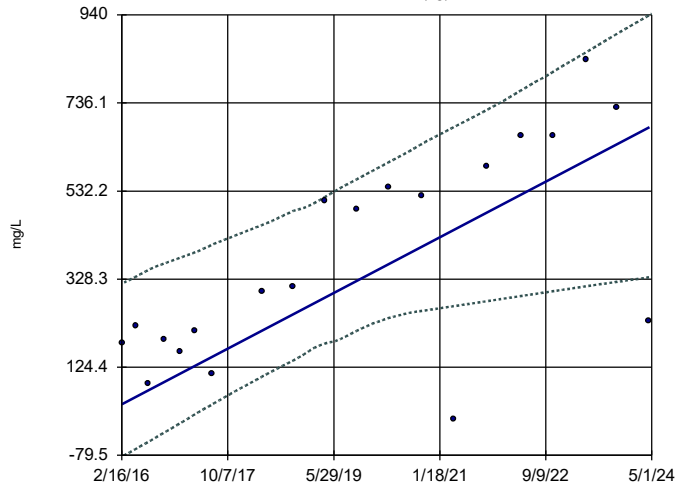


n = 20
Slope = 46.82
units per year.
Mann-Kendall
statistic = 115
critical = 62
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 6/11/2024 11:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-4 (bg)

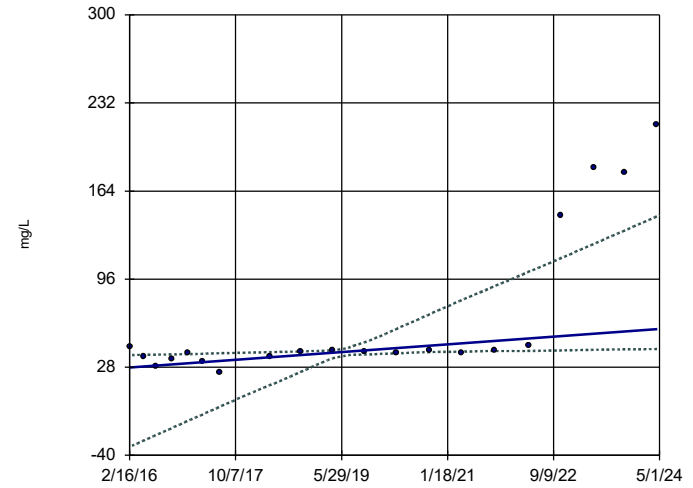


n = 20
 Slope = 78.43
 units per year.
 Mann-Kendall
 statistic = 112
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-5

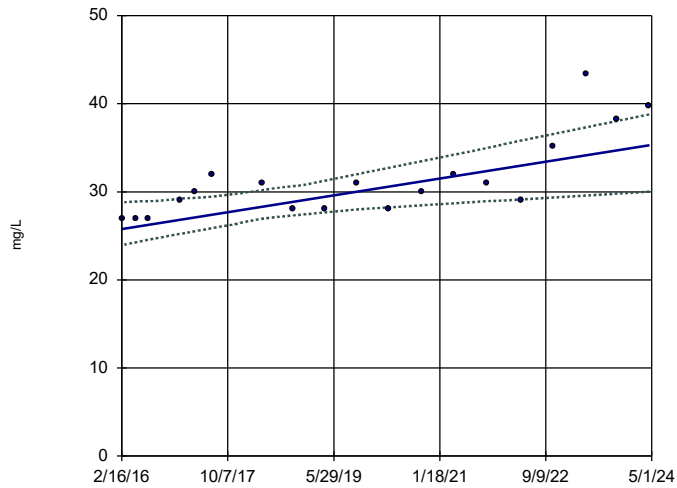


n = 20
 Slope = 3.623
 units per year.
 Mann-Kendall
 statistic = 114
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-6

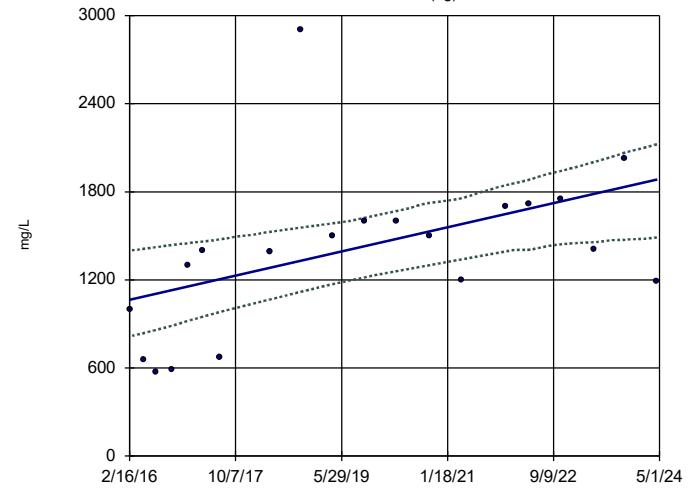


n = 19
 Slope = 1.165
 units per year.
 Mann-Kendall
 statistic = 101
 critical = 58
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-2 (bg)

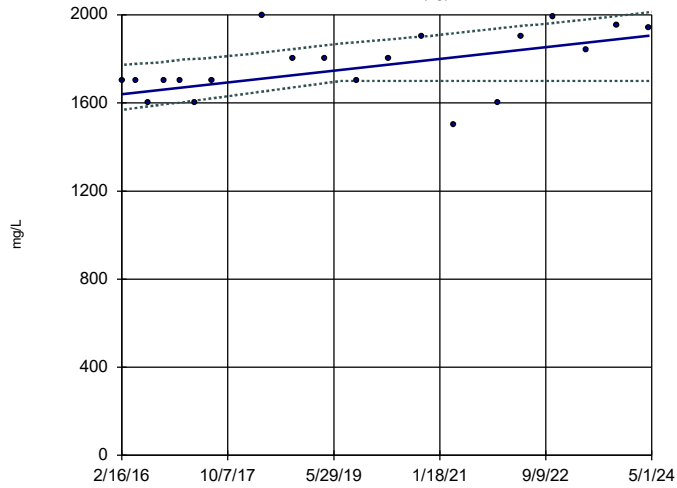


n = 20
 Slope = 100.3
 units per year.
 Mann-Kendall
 statistic = 90
 critical = 62
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 11:10 AM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-3 (bg)

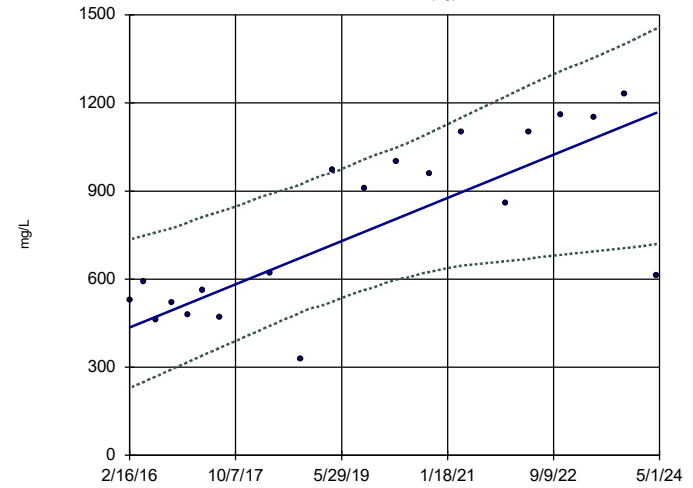


n = 20
Slope = 32.44
units per year.
Mann-Kendall
statistic = 72
critical = 62
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 11:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-4 (bg)

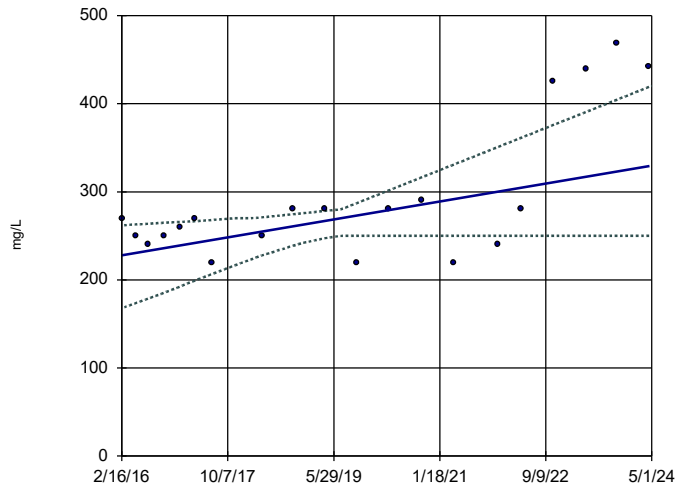


n = 20
Slope = 89.61
units per year.
Mann-Kendall
statistic = 107
critical = 62
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 11:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope and 95% Confidence Band

H-5

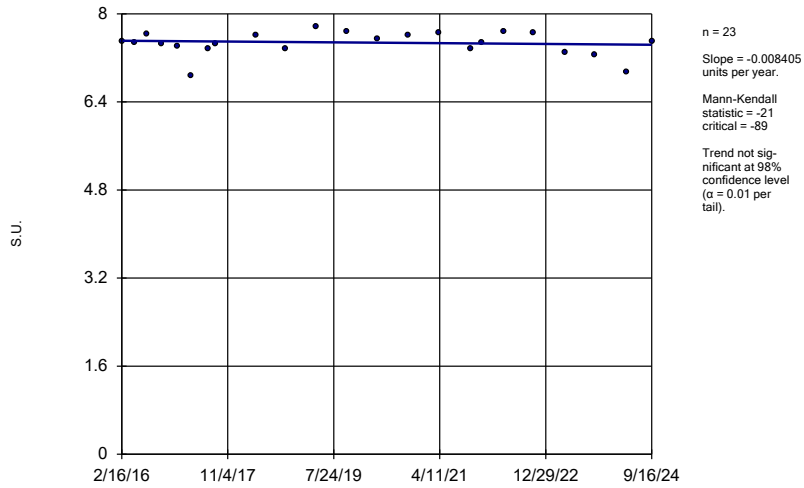


n = 20
Slope = 12.41
units per year.
Mann-Kendall
statistic = 84
critical = 62
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 6/11/2024 11:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Sen's Slope Estimator

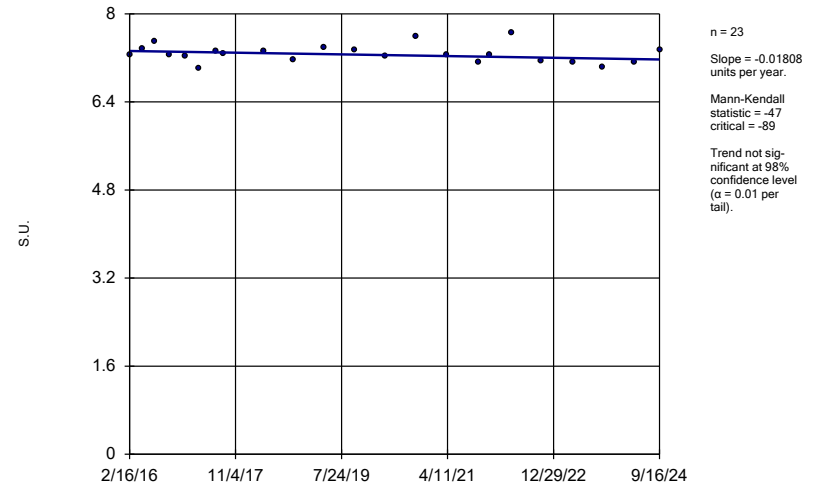
H-1



Constituent: pH Analysis Run 9/27/2024 1:56 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Sen's Slope Estimator

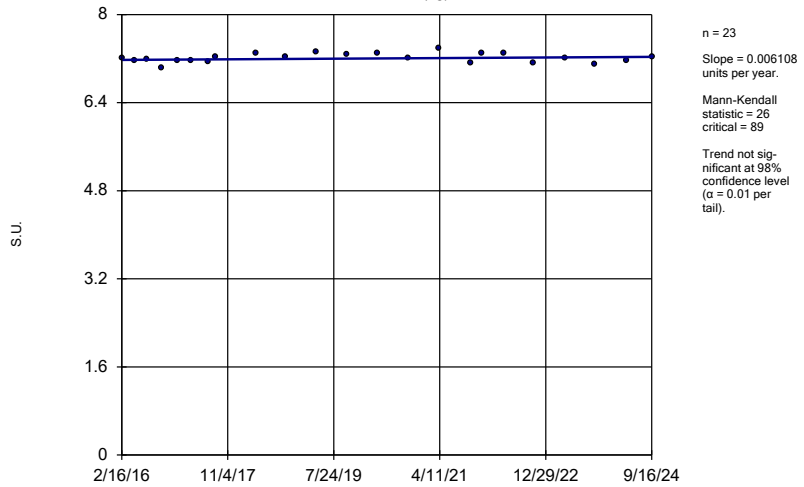
H-2 (bg)



Constituent: pH Analysis Run 9/27/2024 1:56 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Sen's Slope Estimator

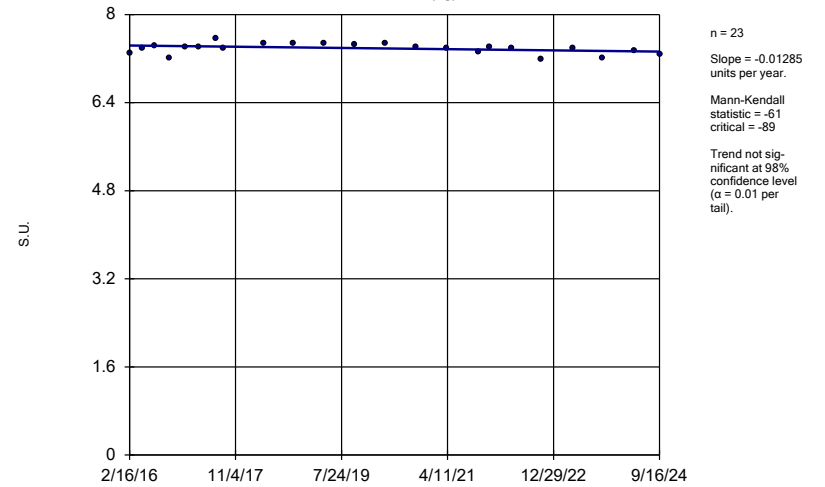
H-3 (bg)



Constituent: pH Analysis Run 9/27/2024 1:56 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Sen's Slope Estimator

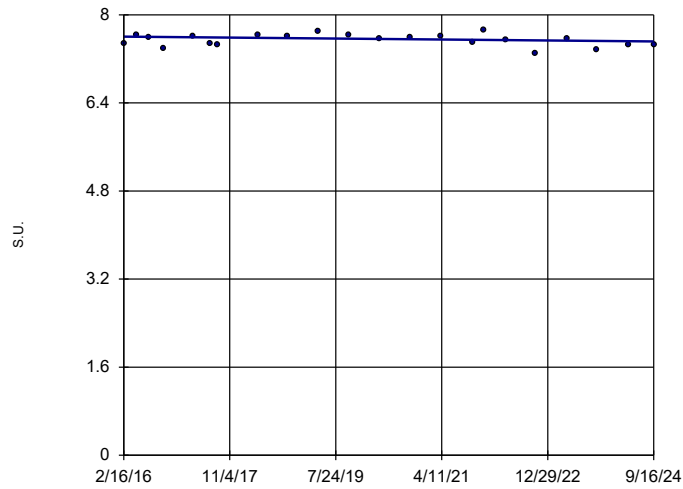
H-4 (bg)



Constituent: pH Analysis Run 9/27/2024 1:56 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Sen's Slope Estimator

H-5



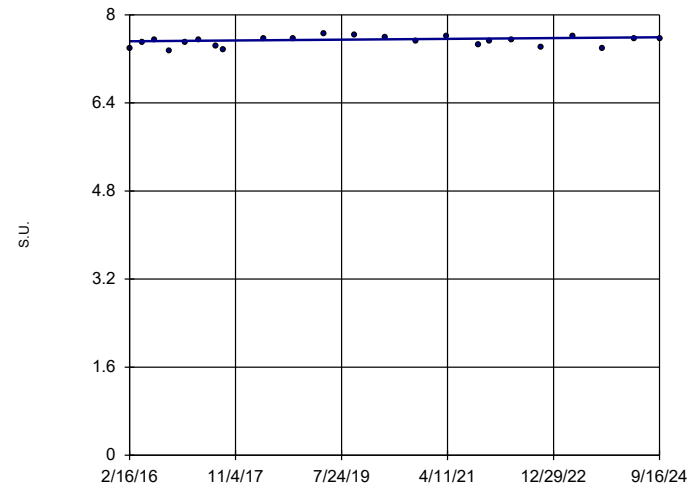
n = 22
Slope = -0.0101
units per year.
Mann-Kendall
statistic = -41
critical = -84
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: pH Analysis Run 9/27/2024 1:56 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Sen's Slope Estimator

H-6

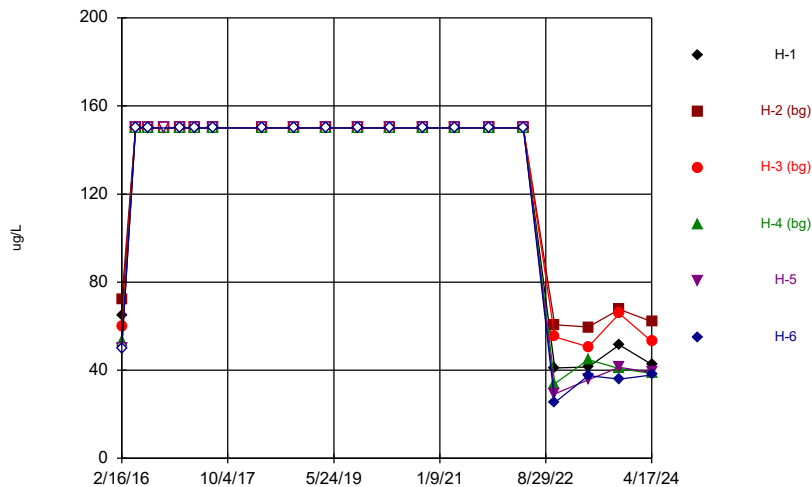


n = 23
Slope = 0.00825
units per year.
Mann-Kendall
statistic = 56
critical = 89
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: pH Analysis Run 9/27/2024 1:56 PM

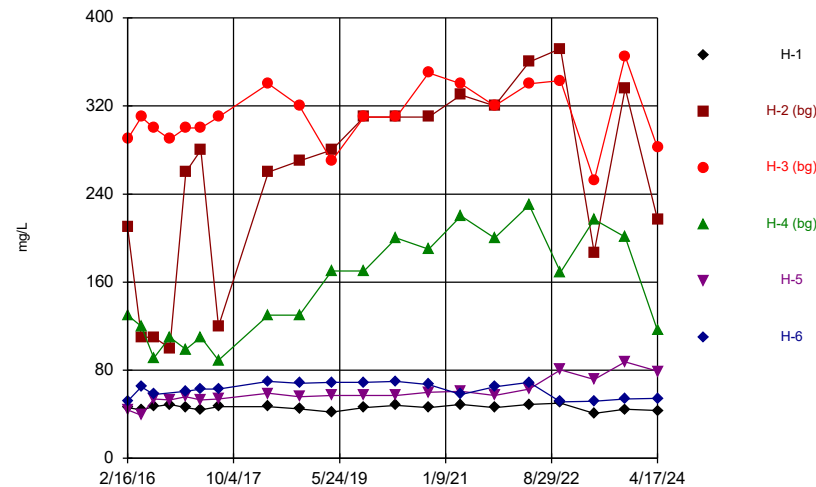
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

Time Series



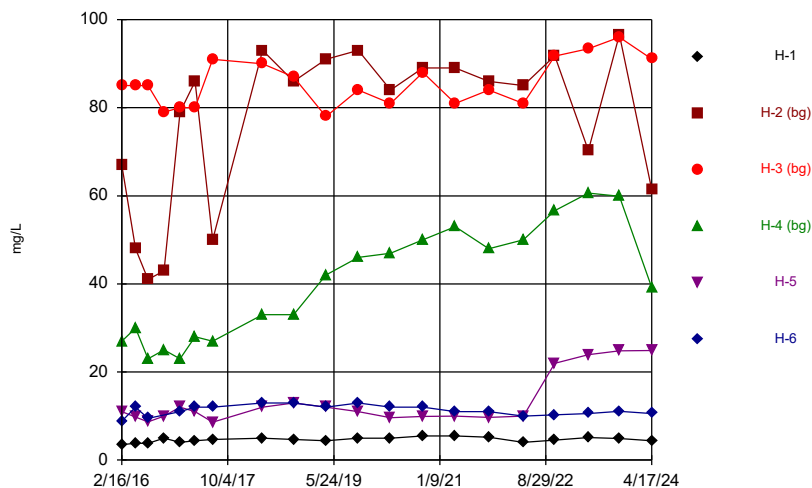
Constituent: Boron And Borates Only Analysis Run 6/11/2024 10:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Time Series



Constituent: Calcium Analysis Run 6/11/2024 10:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

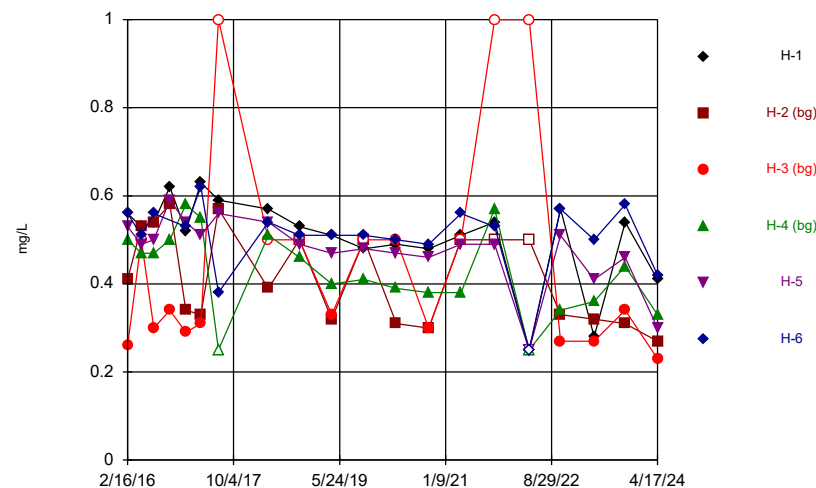
Time Series



Constituent: Chloride Analysis Run 6/11/2024 10:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

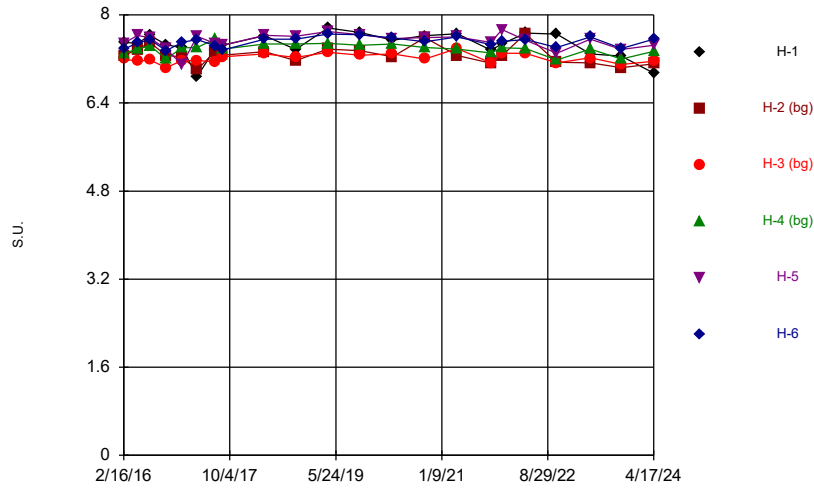
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 6/11/2024 10:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

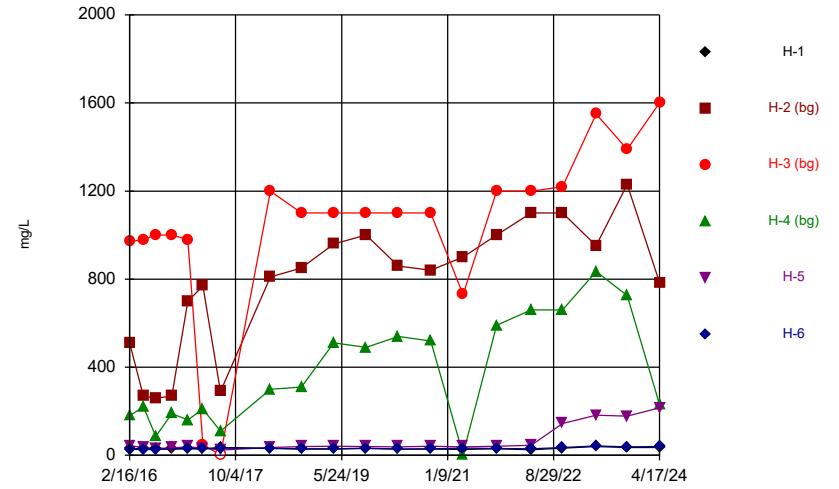
Time Series



Constituent: pH Analysis Run 6/11/2024 10:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

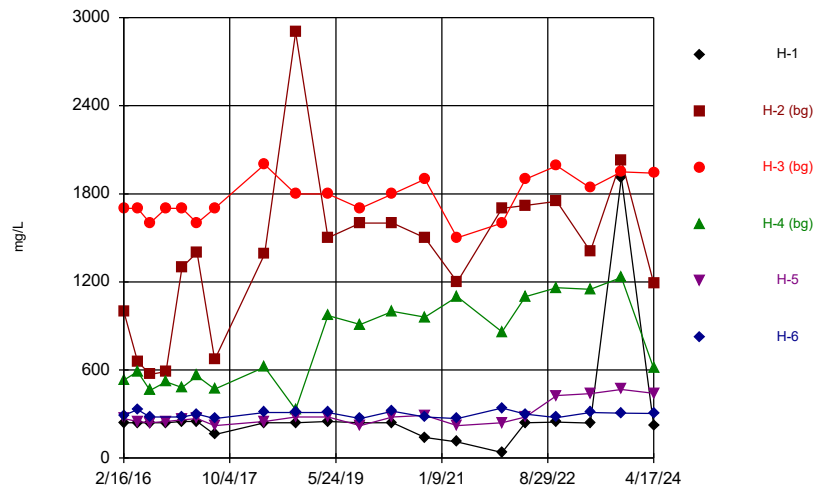
Hollow symbols indicate censored values.

Time Series



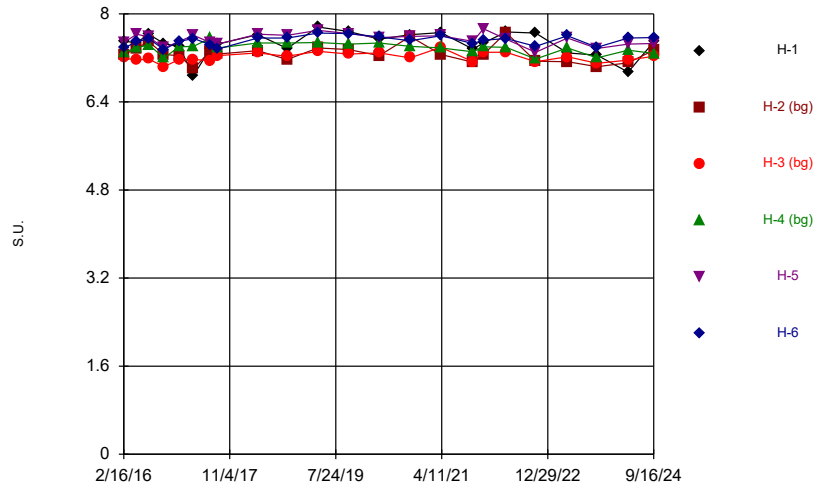
Constituent: Sulfate Analysis Run 6/11/2024 10:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Time Series



Constituent: Total Dissolved Solids Analysis Run 6/11/2024 10:10 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240417b

Time Series



Constituent: pH Analysis Run 9/27/2024 1:48 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20240910

APPENDIX E

FALL 2024 GROUNDWATER MONITORING REPORT



December 2, 2024

Sunflower Electric Power Corporation
PO Box 1020
Hays, Kansas 67601

Attention: Ms. Emily Vsetecka, P.E. via email: evsetecka@sunflower.net
Manager, Environmental and Laboratory Services

Reference: Holcomb Common Facilities Industrial Landfill (CCR Unit)
Fall 2024 Sampling Summary Report
AEC File No.24002-2:4908

Dear Ms. Vsetecka:

Sunflower has completed the sampling for the Fall 2024 Sampling Event, and this letter reports the validated results. Enclosed with this letter are the groundwater flow map, the chemical laboratory reports, and the statistical analysis. Our qualified groundwater scientist and the project engineer have reviewed this report, as indicated by the signatures below.

Deviations from SAP

Sunflower did not report deviations from procedures established in the Sampling and Analysis Plan (SAP) submitted to the Kansas Department of Health and Environment (KDHE) on June 23, 2016. However, Sunflower has elected to add interwell prediction limit analysis to the statistics completed to date due to changes in upgradient groundwater quality as described in the Alternate Source Determination (ASD) dated September 18, 2023, and revised February 9, 2024.

Groundwater Flow

Figure 1 in Attachment 1 shows groundwater elevations and contours converted from static water measurements recorded during the sampling event. Attachment 2 shows the related water level measurements. The general direction of groundwater flow is south-southeast in the northern portion of the landfill while the southern component of flow appears to be to the south to southwest. The groundwater gradient between H-1 and H-2 was 0.0039 feet per foot during this event.

Chemical Data Summary

Sunflower collected groundwater samples for each well using disposable HydraSleeve devices and decanted them into laboratory-supplied containers. Sunflower labeled all containers before placing on ice for shipment to the analytical laboratory under chain-of-custody protocol. Sunflower submitted the samples to ALS Laboratory Group, located in Houston, Texas.

Attachment 2 presents the analytical summary table showing detected analytes. Attachment 3 provides the complete laboratory report. Data validation shows that the data satisfies the quality control standards required in the Sampling and Analysis Plan (SAP).

SUMMARY OF STATISTICAL ANALYSES RESULTS

In accordance with the SAP and per the regulatory requirements of *40 CFR 257.93*, statistical analysis was performed using the Sanitas Technologies Statistical software to evaluate the data. The statistical methods employed include Outlier Analysis, Time Series, Intrawell Prediction Limits and Interwell Prediction Limits Analysis to evaluate each parameter detected in the Sunflower monitoring wells. The specific methods and results are described below.

Outlier Analysis identifies anomalous values in the dataset. In this case, Outlier analysis (EPA 1989 Outlier Test) for each parameter is applied to indicate significant variations from the background levels. In many cases, these outlier values can graphically illustrate suspect values that may be attributed to sampling or laboratory error. In other cases, Outlier analysis can be used to aid in the verification of a statistically significant result if other factors can be ruled out. Attachment 4 includes the related Outlier output. As shown therein, multiple samples and constituents were flagged as potential outliers during this event. AEC reviewed the outliers shown in Table 1 below and elected to retain the values due to consistency in results among the constituents and increasing trends.

Table 1: Detected Outliers

Parameter	Well	Date
Fluoride	H-1	4/26/2022
		4/25/2023
		4/17/2024
	H-5	4/26/2022
		4/17/2024
	H-6	7/12/2017
4/26/2022		
pH	H-5	1/19/2017
Sulfate	H-3	4/4/2017
		7/12/2017
	H-4	4/6/2021

Time Series Analysis is performed to determine changes in analytical results over time. Time Series graphs were developed for each analyte detected in each well. These graphs produce observational evidence to determine if the detected concentrations for each analyte in each well are increasing or decreasing. Attachment 4 includes the related Time Series output.

Trend Analysis was performed utilizing Sen’s Slope/Mann-Kendall analysis at 95% confidence to evaluate statistically significant trends in upgradient and downgradient wells. Table 2 shows the Wells/Parameter pairs that exhibit trends. Given the magnitude of trends, no background data was removed for statistical analysis as the sample size would be low for many of the observed parameters at n<12 or 13.

Table 2: Trend Analysis

Parameter (trend)	Well	Well Type
Calcium (increasing)	H-2	Upgradient
	H-4	Upgradient
	H-5	Side-gradient
Chloride (increasing)	H-1	Side-gradient
	H-4	Upgradient
	H-5	Side-gradient
Fluoride (decreasing)	H-5	Side-gradient
Sulfate (increasing)	H-2	Upgradient
	H-3	Upgradient
	H-4	Upgradient
	H-5	Side-gradient
	H-6	Downgradient
Total Dissolved Solids (increasing)	H-3	Upgradient
	H-4	Upgradient
	H-5	Side-gradient

Intrawell Prediction Limit Analysis is one of the statistical methods recommended by the EPA’s Unified Guidance, Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities for facilities involved in compliance monitoring. A Statistically Significant Increase (SSI) is noted when the parameter value from a compliance well exceeds the Prediction Limit for that parameter.

As described in Section 5.2.3 of the Sunflower SAP, Intrawell Prediction Limits (see Attachment 4) are employed only after it has been demonstrated that there has been no prior facility impact on the background data. For certain wells, the data was non-normally distributed requiring non-parametric (vs. parametric) analysis; this will likely change as the sample size increases. As noted on the graphs in Attachment 4, when the non-parametric test is used, the calculated limit is equal to the highest background value for that parameter. Since there is a relatively small number of observations to date, the limit may be artificially low. Finally, due to the relatively small sample size, seasonality effects will not be able to be determined until 20 observations are available (i.e., n=20).

As shown on the Intrawell Prediction Limit charts in Attachment 4, the compliance value for the following wells/parameters are shown to be above the predicted limits and therefore represent SSIs above background. Parameter values in compliance wells are well below upgradient values.

Table 3: Intrawell Statistically Significant Increases (SSIs)

Well	Parameter	Well Type
H-5	Calcium	Side-gradient / Compliance
H-5	Chloride	Side-gradient / Compliance

The Facility Alternate Source Demonstration (ASD) shows that there is an alternate source for the parameters with intrawell SSIs in Site Compliance Wells. It is expected that concentrations of parameters in down-gradient compliance wells will eventually be similar to the elevated concentrations found in up-gradient background wells. Sunflower therefore relied on interwell analysis to determine if the SSIs found via intrawell analysis were indicative of a release or influences from upgradient groundwater quality. The flagged well/parameter pairs utilizing intrawell analysis were not shown as SSIs utilizing interwell analysis.

Interwell Prediction Limit Analysis: In accordance with Section 5.2.5 of the Sunflower SAP, Sunflower elected to run Interwell Prediction Limit Analysis on the three (3) site Compliance wells. In lieu of the Tolerance Limit test outlined in the SAP, Sunflower utilized a Prediction Limit analysis at the 95% confidence level. With the pooled background data, seasonality was able to be tested but was not detected for any parameters in compliance wells.

As shown on the Interwell Prediction Limit charts the compliance value for the following wells/parameters are shown to be above the predicted limits and therefore represent potential SSIs above background.

Table 4: Interwell Statistically Significant Increases (SSIs)

Well	Parameter	Well Type
H-1	pH	Side-gradient / Compliance
H-6	pH	Downgradient

As a field parameter, pH can be highly impacted by field conditions, the analytical result exceeded the prediction limit by 0.313 S.U and 0.003 S.U. for H-1 and H-6, respectively. Given the vast differences in water salinity between the upgradient and downgradient wells, as described in the site ASD, we expect some variation with other parameters. Intrawell analysis did not identify H-1 and H-6 pH as an SSI for this event.

Furthermore, the SSI's found via Interwell parametric analysis did not represent an increasing trend as described above.

Sunflower will continue with routine monitoring to determine if future statistical analyses indicate a potential release from the landfill. Should you have any questions or comments concerning the results of this investigation, please contact our office at your convenience.

Sincerely,

ALLIED ENVIRONMENTAL CONSULTANTS, INC.



Sheena M Bruner
Statistical Analyst



Paul R. Clark, P.G.
Project Geologist



Ted Francis, P.E.
Project Engineer

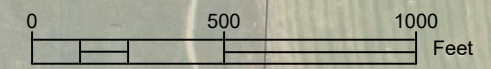
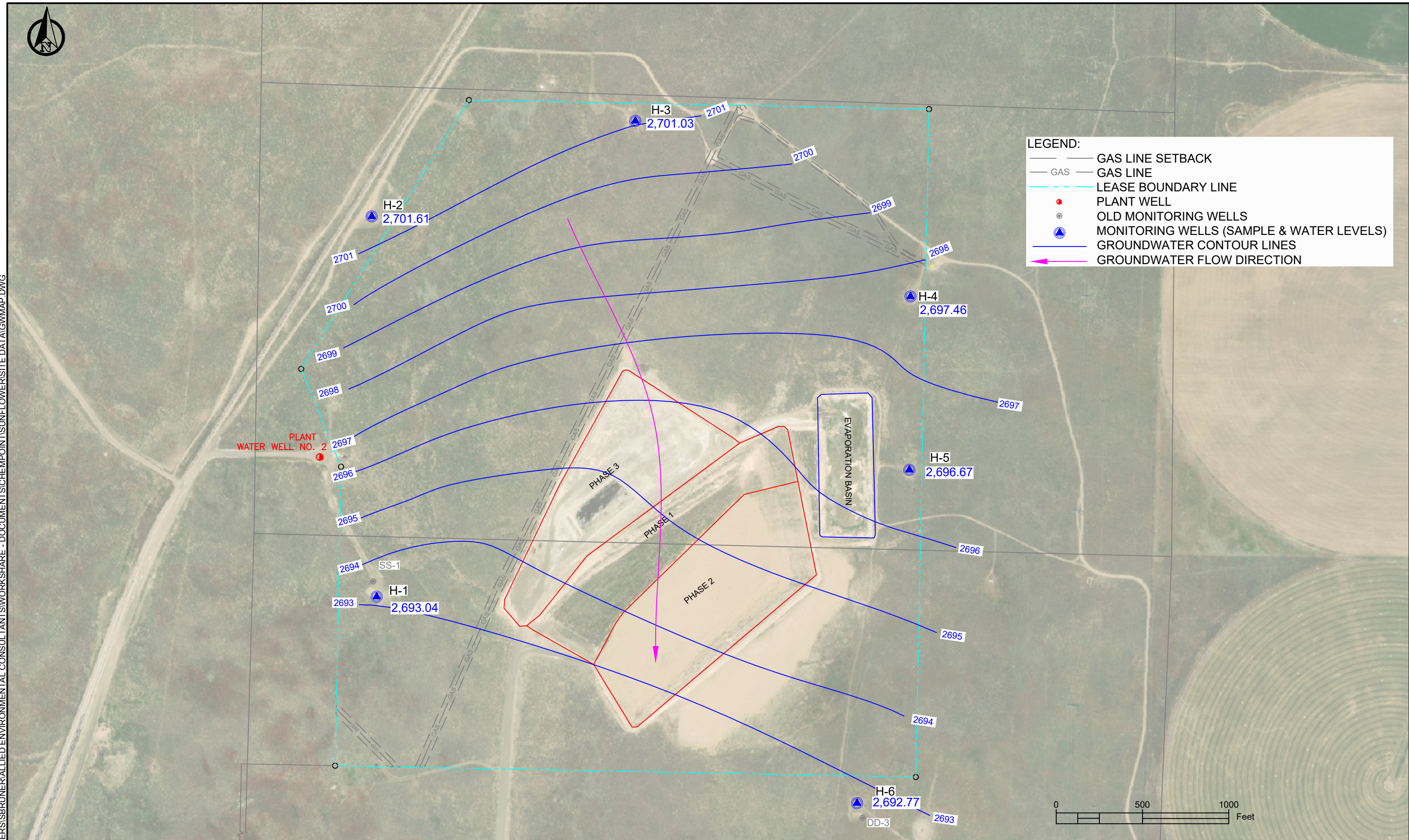
Attachments: 1 – Site Figures 2 – Table 3 – Laboratory Report 4 – Statistical Analysis

c: Ms. Kandi George (via email: kgeorge@sunflower.net)
Ms. Justine Sullivan (via email: jsullivan@sunflower.net)

ATTACHMENT 1

FIGURES

FILENAME:C:\USERS\BRUNER\ALLIED ENVIRONMENTAL CONSULTANTS\WORKSHARE - DOCUMENTS\SCHEMPOINTS\SUNFLOWERSITE\DATA\GWMAP.DWG



SUNFLOWER ELECTRIC
HOLCOMB, KANSAS PLANT
INDUSTRIAL LANDFILL



PROJECT: 24002-2:4908
SCALE: AS_SHOWN
DATE: 10/2/2024
DWN BY: SMB
CHKD BY: TBF

GROUNDWATER ELEVATIONS
OCTOBER 2024

FIGURE
1

ATTACHMENT 2

ANALYTICAL SUMMARY TABLE

Table 1: Summary of Fall 2024 Analytical Results

Sunflower Electric Power Corporation
Holcomb Common Facilities, LLC.

Location	Measure Point Elevation (TOC) *	Sample Date**	Depth to Water (BTOC)	Groundwater Elevation (ft. AMSL)	Field Parameters				Detection Monitoring Appendix III Constituents						
					Temperature (deg F)	Conductivity (µS/cm)	Turbidity (NTU)	pH (su)	Boron, Total (µg/L)	Calcium, Total (µg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	
Up-Gradient	H-2	2914.71	10/15/2024	213.10	2,701.61	64.0	1211.0	7.95	7.46	71.2	187,000	49.3	0.530	518	910
	H-3	2905.93	10/15/2024	204.90	2,701.03	63.2	2429.0	12.40	7.26	68.8	370,000	95.4	0.398	1,420	1,900
	H-4	2901.66	10/15/2024	204.20	2,697.46	61.3	841.0	2.08	7.25	43.1	119,000	41.2	0.510	148	616
Down-Gradient	H-1	2924.54	10/15/2024	231.50	2,693.04	62.4	400.0	1.79	7.96	48.5	44,600	5.22	0.633	34.5	240
	H-5	2896.67	10/15/2024	200.00	2,696.67	62.5	686.0	1.74	7.53	48.3	96,700	25.2	0.550	188	410
	H-6	2940.37	10/15/2024	247.60	2,692.77	62.3	466.0	1.49	7.65	41.8	58,500	10.7	0.649	30.7	254
									6.5 - 8.5	NE	NE	250	2.00	250	500
Secondary Maximum Contaminant Level (SMCL)															

Notes & Abbreviations Key:

* Measuring point elevation at top of well casing, from survey completed and sealed by Cornerstone Professional Services Inc. on February 12, 2016

**The Depth to Water values were measured on October 2, 2024 and the groundwater samples were collected on October 15, 2024

TOC - Top of Casing

BTOC - below top of casing

ft. AMSL - Feet Above Mean Sea Level

deg F - Degrees Fahrenheit

µS/cm - microSeimens per centimeter

NTU - Nephelometric Turbidity Units

su - standard units

µg/L - micrograms per Liter

mg/L - milligrams per Liter

Bold values exceed SMCL value

Highlight values indicate SSI

ND - Non-Detect

NE - Not Established

ATTACHMENT 3

LABORATORY REPORT

**DATA VALIDATION FORM
ALLIED ENVIRONMENTAL CONSULTANTS**

Project Name: Sunflower Electric Fall 2024

Project/Client Numbers: 24002-2:4908

Laboratory Name & Certification #: ALS E-10352

Laboratory Episode ID: HS24101050 "Episode" = set of analytical reports represented one COC submittal.

Part I: Samples Represented In This Episode => Compare COC Form with Lab Identification

Sample ID	Lab. ID	Sample ID	Lab. ID	Sample ID	Lab. ID	Sample ID	Lab. ID
H1	HS24101050-01	H6	HS24101050-06				
H2	HS24101050-02						
H3	HS24101050-03						
H4	HS24101050-04						
H5	HS24101050-05						

Part II: HOLDING TIME REQUIREMENTS

Date Samples Collected	7-Day Holding/Extract	14-Day Holding	Other Holding Date
10/15/2024	10/22/2024		28 Days-11/12/24; 180 Days-4/13/25

Part III: COMPLETENESS

Review Item	YES	NO	NA	Note Ref. Or Comment
Sample Manifest or Chain-of-Custody Complete	✓			
Sample receipt / inspection form by Lab – list concerns		✓		
Lab Completed All Request Analysis	✓			
Requested Detection Limits Satisfied	✓			
Extraction & Analytical Holding Times Satisfied	✓			
Sample Preservation Satisfied	✓			
Laboratory Provided Written Narrative – if yes see next page		✓		
Project Analytical Objectives Satisfied	✓			

Part IV: PROJECT QUALITY CONTROL REQUIREMENTS

Review Item	YES	NO	NA	Note Reference to Part VI
Trip Blanks accompanied VOC samples			✓	
VOCs Detected in Trip Blank			✓	
Duplicate Samples Collected / Listed on COC		✓		
RPDs for Duplicate vs. Original Sample Acceptable			✓	
Field Blanks Submitted and Analyzed		✓		
Decontamination Blanks Collected and Analyzed		✓		
Matrix Spike/Spike Duplicate Submitted		✓		
Surrogate Recoveries Acceptable, as reported by Lab	✓			
RPDs for MS/MSD Acceptable, as reported by Lab	✓			1. - 3.
LCS Percent Recoveries Acceptable	✓			
Analytes Detected in Lab Blank		✓		

RPD - Relative Percent Difference

PART V: DATA QUALITY ASSESSMENT

Data is acceptable for use as reported? Acceptable Not Acceptable

If some or all of the data is **Not Acceptable**, please indicate which analyses require qualification in the Comments Section. Describe how any issue or question regarding data quality or validity has been resolved.

PART VI: COMMENTS Use additional pages, if needed.

Note Ref.	Comments (List Questions to Lab)	Describe Resolution
1. - 3.	See Next Page	

Laboratory Written Narrative

COMMENTS (con't):

1. The laboratory noted that the MS/MSD values for Boron was above the quantitation range however the MS/MSD sample was from an unrelated sample so it isn't a concern.
2. The laboratory noted that the MS/MSD for Boron and Calcium the sample amount is >4 times the amount spiked however the MS/MSD sample was from an unrelated sample so it isn't a concern.
3. The laboratory reported that the MSD for Boron had the spike recovery outside the laboratory control limits however the MSD sample was from an unrelated sample so it isn't a concern.



right solutions.
right partner.

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October 28, 2024

Kandi George
Sunflower Electric Power Corporation
2440 Holcomb Power
Holcomb, KS 67851

Work Order: **HS24101050**

Laboratory Results for: **Sunflower Landfill Sampling**

Dear Kandi George,

ALS Environmental received 6 sample(s) on Oct 16, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER

Jessica Monfore
Project manager



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
Work Order: HS24101050

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24101050-01	H1	Aqueous		15-Oct-2024 10:22	16-Oct-2024 09:25	<input type="checkbox"/>
HS24101050-02	H2	Aqueous		15-Oct-2024 10:40	16-Oct-2024 09:25	<input type="checkbox"/>
HS24101050-03	H3	Aqueous		15-Oct-2024 10:58	16-Oct-2024 09:25	<input type="checkbox"/>
HS24101050-04	H4	Aqueous		15-Oct-2024 11:12	16-Oct-2024 09:25	<input type="checkbox"/>
HS24101050-05	H5	Aqueous		15-Oct-2024 11:50	16-Oct-2024 09:25	<input type="checkbox"/>
HS24101050-06	H6	Aqueous		15-Oct-2024 11:35	16-Oct-2024 09:25	<input type="checkbox"/>



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
Work Order: HS24101050

CASE NARRATIVE

Metals by Method E200.8

Batch ID: 219489

Sample ID: HS24101681-03MSD

- MSD is for an unrelated sample

WetChemistry by Method E300

Batch ID: R498160

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C

Batch ID: R480443,R480584

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill Sampling
 Sample ID: H1
 Collection Date: 15-Oct-2024 10:22

ANALYTICAL REPORT
 WorkOrder:HS24101050
 Lab ID:HS24101050-01
 Matrix:Aqueous

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Oct-2024		Analyst: JC
Boron	48.5		20.0	ug/L	1	28-Oct-2024 14:02
Calcium	44,600		500	ug/L	1	28-Oct-2024 14:02
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	5.22		0.500	mg/L	1	24-Oct-2024 20:30
Fluoride	0.633		0.100	mg/L	1	24-Oct-2024 20:30
Sulfate	34.5		0.500	mg/L	1	24-Oct-2024 20:30
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C				Analyst: KC
Total Dissolved Solids (Residue, Filterable)	240		10.0	mg/L	1	18-Oct-2024 08:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill Sampling
 Sample ID: H2
 Collection Date: 15-Oct-2024 10:40

ANALYTICAL REPORT
 WorkOrder:HS24101050
 Lab ID:HS24101050-02
 Matrix:Aqueous

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8			Prep:E200.8 / 27-Oct-2024	Analyst: JC
Boron	71.2		20.0	ug/L	1	28-Oct-2024 14:03
Calcium	187,000		10000	ug/L	20	28-Oct-2024 14:40
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	49.3		0.500	mg/L	1	24-Oct-2024 20:48
Fluoride	0.530		0.100	mg/L	1	24-Oct-2024 20:48
Sulfate	518		5.00	mg/L	10	24-Oct-2024 21:17
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: KC
Total Dissolved Solids (Residue, Filterable)	910		10.0	mg/L	1	18-Oct-2024 08:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill Sampling
 Sample ID: H3
 Collection Date: 15-Oct-2024 10:58

ANALYTICAL REPORT
 WorkOrder:HS24101050
 Lab ID:HS24101050-03
 Matrix:Aqueous

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Oct-2024		Analyst: JC
Boron	68.8		20.0	ug/L	1	28-Oct-2024 14:05
Calcium	370,000		10000	ug/L	20	28-Oct-2024 14:41
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	95.4		0.500	mg/L	1	24-Oct-2024 21:23
Fluoride	0.398		0.100	mg/L	1	24-Oct-2024 21:23
Sulfate	1,420		10.0	mg/L	20	24-Oct-2024 21:29
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C				Analyst: KC
Total Dissolved Solids (Residue, Filterable)	1,900		10.0	mg/L	1	21-Oct-2024 08:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill Sampling
 Sample ID: H4
 Collection Date: 15-Oct-2024 11:12

ANALYTICAL REPORT
 WorkOrder:HS24101050
 Lab ID:HS24101050-04
 Matrix:Aqueous

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Oct-2024		Analyst: JC
Boron	43.1		20.0	ug/L	1	28-Oct-2024 14:07
Calcium	119,000		500	ug/L	1	28-Oct-2024 14:07
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	41.2		0.500	mg/L	1	24-Oct-2024 21:35
Fluoride	0.510		0.100	mg/L	1	24-Oct-2024 21:35
Sulfate	148		2.50	mg/L	5	25-Oct-2024 07:49
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C				Analyst: KC
Total Dissolved Solids (Residue, Filterable)	616		10.0	mg/L	1	18-Oct-2024 08:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill Sampling
 Sample ID: H5
 Collection Date: 15-Oct-2024 11:50

ANALYTICAL REPORT
 WorkOrder:HS24101050
 Lab ID:HS24101050-05
 Matrix:Aqueous

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Oct-2024		Analyst: JC
Boron	48.3		20.0	ug/L	1	28-Oct-2024 14:09
Calcium	96,700		500	ug/L	1	28-Oct-2024 14:09
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	25.2		0.500	mg/L	1	24-Oct-2024 21:41
Fluoride	0.550		0.100	mg/L	1	24-Oct-2024 21:41
Sulfate	188		2.50	mg/L	5	25-Oct-2024 07:55
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: KC
Total Dissolved Solids (Residue, Filterable)	410		10.0	mg/L	1	21-Oct-2024 08:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Sunflower Electric Power Corporation
 Project: Sunflower Landfill Sampling
 Sample ID: H6
 Collection Date: 15-Oct-2024 11:35

ANALYTICAL REPORT
 WorkOrder:HS24101050
 Lab ID:HS24101050-06
 Matrix:Aqueous

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL METALS BY E200.8, REV 5.4, 1994		Method:E200.8		Prep:E200.8 / 27-Oct-2024		Analyst: JC
Boron	41.8		20.0	ug/L	1	28-Oct-2024 14:11
Calcium	58,500		500	ug/L	1	28-Oct-2024 14:11
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH
Chloride	10.7		0.500	mg/L	1	24-Oct-2024 21:47
Fluoride	0.649		0.100	mg/L	1	24-Oct-2024 21:47
Sulfate	30.7		0.500	mg/L	1	24-Oct-2024 21:47
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C				Analyst: KC
Total Dissolved Solids (Residue, Filterable)	254		10.0	mg/L	1	21-Oct-2024 08:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

Batch ID: 219489	Start Date: 27 Oct 2024 08:30	End Date: 27 Oct 2024 08:30
Method: TOTAL METALS PREP BY E200.8, REV 5.4, 1994		Prep Code: 200.8PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24101050-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24101050-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24101050-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24101050-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24101050-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24101050-06		10 (mL)	10 (mL)	1	120 plastic HNO3



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 219489 (0)		Test Name : TOTAL METALS BY E200.8, REV 5.4, 1994			Matrix: Aqueous	
HS24101050-01	H1	15 Oct 2024 10:22		27 Oct 2024 08:30	28 Oct 2024 14:02	1
HS24101050-02	H2	15 Oct 2024 10:40		27 Oct 2024 08:30	28 Oct 2024 14:40	20
HS24101050-02	H2	15 Oct 2024 10:40		27 Oct 2024 08:30	28 Oct 2024 14:03	1
HS24101050-03	H3	15 Oct 2024 10:58		27 Oct 2024 08:30	28 Oct 2024 14:41	20
HS24101050-03	H3	15 Oct 2024 10:58		27 Oct 2024 08:30	28 Oct 2024 14:05	1
HS24101050-04	H4	15 Oct 2024 11:12		27 Oct 2024 08:30	28 Oct 2024 14:07	1
HS24101050-05	H5	15 Oct 2024 11:50		27 Oct 2024 08:30	28 Oct 2024 14:09	1
HS24101050-06	H6	15 Oct 2024 11:35		27 Oct 2024 08:30	28 Oct 2024 14:11	1
Batch ID: R480443 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Aqueous	
HS24101050-01	H1	15 Oct 2024 10:22			18 Oct 2024 08:30	1
HS24101050-02	H2	15 Oct 2024 10:40			18 Oct 2024 08:30	1
HS24101050-04	H4	15 Oct 2024 11:12			18 Oct 2024 08:30	1
Batch ID: R480584 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Aqueous	
HS24101050-03	H3	15 Oct 2024 10:58			21 Oct 2024 08:30	1
HS24101050-05	H5	15 Oct 2024 11:50			21 Oct 2024 08:30	1
HS24101050-06	H6	15 Oct 2024 11:35			21 Oct 2024 08:30	1
Batch ID: R498160 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Aqueous	
HS24101050-01	H1	15 Oct 2024 10:22			24 Oct 2024 20:30	1
HS24101050-02	H2	15 Oct 2024 10:40			24 Oct 2024 21:17	10
HS24101050-02	H2	15 Oct 2024 10:40			24 Oct 2024 20:48	1
HS24101050-03	H3	15 Oct 2024 10:58			24 Oct 2024 21:29	20
HS24101050-03	H3	15 Oct 2024 10:58			24 Oct 2024 21:23	1
HS24101050-04	H4	15 Oct 2024 11:12			25 Oct 2024 07:49	5
HS24101050-04	H4	15 Oct 2024 11:12			24 Oct 2024 21:35	1
HS24101050-05	H5	15 Oct 2024 11:50			25 Oct 2024 07:55	5
HS24101050-05	H5	15 Oct 2024 11:50			24 Oct 2024 21:41	1
HS24101050-06	H6	15 Oct 2024 11:35			24 Oct 2024 21:47	1

Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

QC BATCH REPORT

Batch ID: 219489 (0) **Instrument:** ICPMS06 **Method:** TOTAL METALS BY E200.8, REV 5.4, 1994

MBLK		Sample ID: MBLK-219489		Units: ug/L		Analysis Date: 28-Oct-2024 13:33			
Client ID:		Run ID: ICPMS06_498258		SeqNo: 8480268		PrepDate: 27-Oct-2024		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Boron	ND	20.0							
Calcium	ND	500							

LCS		Sample ID: LCS-219489		Units: ug/L		Analysis Date: 28-Oct-2024 13:35			
Client ID:		Run ID: ICPMS06_498258		SeqNo: 8480269		PrepDate: 27-Oct-2024		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Boron	492	20.0	500	0	98.4	85 - 115			
Calcium	4820	500	5000	0	96.4	85 - 115			

MS		Sample ID: HS24101681-03MS		Units: ug/L		Analysis Date: 28-Oct-2024 13:42			
Client ID:		Run ID: ICPMS06_498258		SeqNo: 8480272		PrepDate: 27-Oct-2024		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Boron	3643	20.0	500	3185	91.7	70 - 130			EO
Calcium	47620	500	5000	41810	116	70 - 130			O

MSD		Sample ID: HS24101681-03MSD		Units: ug/L		Analysis Date: 28-Oct-2024 14:43			
Client ID:		Run ID: ICPMS06_498258		SeqNo: 8480419		PrepDate: 27-Oct-2024		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Boron	3869	20.0	500	3185	137	70 - 130	3643	6.01	20 SEO
Calcium	47280	500	5000	41810	109	70 - 130	47620	0.719	20 O

The following samples were analyzed in this batch:

HS24101050-01	HS24101050-02	HS24101050-03	HS24101050-04
HS24101050-05	HS24101050-06		



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

QC BATCH REPORT

Batch ID: R480443 (0) Instrument: Balance1 Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK	Sample ID: WMBLK-10182024	Units: mg/L			Analysis Date: 18-Oct-2024 08:30				
Client ID:	Run ID: Balance1_480443	SeqNo: 8322487		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) ND 10.0

LCS	Sample ID: WLCS-10182024	Units: mg/L			Analysis Date: 18-Oct-2024 08:30				
Client ID:	Run ID: Balance1_480443	SeqNo: 8322486		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) 984 10.0 1000 0 98.4 85 - 115

DUP	Sample ID: HS24101050-04 DUP	Units: mg/L			Analysis Date: 18-Oct-2024 08:30				
Client ID: H4	Run ID: Balance1_480443	SeqNo: 8322482		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) 620 10.0 616 0.647 20

DUP	Sample ID: HS24100770-06 DUP	Units: mg/L			Analysis Date: 18-Oct-2024 08:30				
Client ID:	Run ID: Balance1_480443	SeqNo: 8322465		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) 1036 10.0 1056 1.91 20

The following samples were analyzed in this batch: HS24101050-01 HS24101050-02 HS24101050-04



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

QC BATCH REPORT

Batch ID: R480584 (0) Instrument: Balance1 Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011

Table with 10 columns: MBLK, Sample ID, Units, Analysis Date, Client ID, Run ID, SeqNo, PrepDate, DF, Analyte, Result, PQL, SPK Val, SPK Ref Value, %REC, Control Limit, RPD Ref Value, %RPD, RPD Limit, Qual. Row 1: WMBLK-10212024, mg/L, 21-Oct-2024 08:30, Balance1_480584, 8325841, 21, ND, 10.0.

Total Dissolved Solids (Residue, Filterable) ND 10.0

Table with 10 columns: LCS, Sample ID, Units, Analysis Date, Client ID, Run ID, SeqNo, PrepDate, DF, Analyte, Result, PQL, SPK Val, SPK Ref Value, %REC, Control Limit, RPD Ref Value, %RPD, RPD Limit, Qual. Row 1: WLCS-10212024, mg/L, 21-Oct-2024 08:30, Balance1_480584, 8325840, 21, 946, 10.0, 1000, 0, 94.6, 85 - 115.

Total Dissolved Solids (Residue, Filterable) 946 10.0 1000 0 94.6 85 - 115

Table with 10 columns: DUP, Sample ID, Units, Analysis Date, Client ID, Run ID, SeqNo, PrepDate, DF, Analyte, Result, PQL, SPK Val, SPK Ref Value, %REC, Control Limit, RPD Ref Value, %RPD, RPD Limit, Qual. Row 1: HS24101050-06 DUP, mg/L, 21-Oct-2024 08:30, Balance1_480584, 8325832, 21, 258, 10.0, 254, 1.56, 20.

Total Dissolved Solids (Residue, Filterable) 258 10.0 254 1.56 20

The following samples were analyzed in this batch: HS24101050-03 HS24101050-05 HS24101050-06



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

QC BATCH REPORT

Batch ID: R498160 (0) Instrument: ICS-Integrion Method: ANIONS BY E300.0, REV 2.1, 1993

MBLK		Sample ID: MBLK		Units: mg/L		Analysis Date: 24-Oct-2024 18:26			
Client ID:		Run ID: ICS-Integrion_498160		SeqNo: 8476394		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	ND	0.500							
Fluoride	ND	0.100							
Sulfate	ND	0.500							

LCS		Sample ID: LCS		Units: mg/L		Analysis Date: 24-Oct-2024 18:38			
Client ID:		Run ID: ICS-Integrion_498160		SeqNo: 8476395		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	20.25	0.500	20	0	101	90 - 110			
Fluoride	4.256	0.100	4	0	106	90 - 110			
Sulfate	20.85	0.500	20	0	104	90 - 110			

MS		Sample ID: HS24101535-01MS		Units: mg/L		Analysis Date: 24-Oct-2024 18:55			
Client ID:		Run ID: ICS-Integrion_498160		SeqNo: 8476398		PrepDate:		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	911.1	10.0	200	707.2	102	80 - 120			
Fluoride	48.52	2.00	40	4.25	111	80 - 120			
Sulfate	710.5	10.0	200	504.8	103	80 - 120			

MS		Sample ID: HS24101050-01MS		Units: mg/L		Analysis Date: 24-Oct-2024 20:36			
Client ID: H1		Run ID: ICS-Integrion_498160		SeqNo: 8476413		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	15.28	0.500	10	5.223	101	80 - 120			
Fluoride	2.96	0.100	2	0.6328	116	80 - 120			
Sulfate	42.7	0.500	10	34.52	81.8	80 - 120			



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

QC BATCH REPORT

Batch ID: R498160 (0)	Instrument: ICS-Integrion	Method: ANIONS BY E300.0, REV 2.1, 1993
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MSD	Sample ID: HS24101535-01MSD	Units: mg/L	Analysis Date: 24-Oct-2024 19:01							
Client ID:	Run ID: ICS-Integrion_498160	SeqNo: 8476399	PrepDate: DF: 20							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	910.5	10.0	200	707.2	102	80 - 120	911.1	0.0637	20	
Fluoride	46.78	2.00	40	4.25	106	80 - 120	48.52	3.66	20	
Sulfate	710.6	10.0	200	504.8	103	80 - 120	710.5	0.02	20	

MSD	Sample ID: HS24101050-01MSD	Units: mg/L	Analysis Date: 24-Oct-2024 20:42							
Client ID: H1	Run ID: ICS-Integrion_498160	SeqNo: 8476414	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	15.62	0.500	10	5.223	104	80 - 120	15.28	2.19	20	
Fluoride	3	0.100	2	0.6328	118	80 - 120	2.96	1.37	20	
Sulfate	43.5	0.500	10	34.52	89.8	80 - 120	42.7	1.86	20	

The following samples were analyzed in this batch:

HS24101050-01	HS24101050-02	HS24101050-03	HS24101050-04
HS24101050-05	HS24101050-06		



Client: Sunflower Electric Power Corporation
Project: Sunflower Landfill Sampling
WorkOrder: HS24101050

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025



Sample Receipt Checklist

Work Order ID: HS24101050
Client Name: Sunflower EPC

Date/Time Received: 16-Oct-2024 09:25
Received by: Jacob Coronado

Completed By: /S/ Travis Appling 16-Oct-2024 12:57 Reviewed by: /S/ Jessica Monfore 22-Oct-2024 15:03
eSignature Date/Time eSignature Date/Time

Matrices:

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes No Not Present
- Chain of custody present? Yes No 1 Page(s)
- Chain of custody signed when relinquished and received? Yes No COC IDs:330799
- Samplers name present on COC? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 2.8UC/ 2.8C IR34
Cooler(s)/Kit(s): 52717
Date/Time sample(s) sent to storage: 10/16/2024 13:00

- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No N/A
- pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



+1 513 733 5336
 Everett, WA
 +1 425 356 2600

Fort Collins, CO
 +1 970 490 1511
 Holland, MI
 +1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 330799

ALS Project Manager:

PN241U1050

Sunflower Electric Power Corporation
 Sunflower Landfill Sampling



Customer Information		Project Information	
Purchase Order		Project Name	A 200.8 (Total B, Ca)
Work Order		Project Number	B 300_W (Cl, F, SO4)
Company Name	Sunflower Electric Power Corporat	Bill To Company	C TDS_W 2540C (TDS)
Send Report To	Kandi George	Invoice Attn	D
Address	2440 Holcomb Power	Address	E
City/State/Zip	Holcomb, KS 67851	City/State/Zip	F
Phone		Phone	G
Fax		Fax	H
e-Mail Address	kg@sunflower.net	e-Mail Address	I
			J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	H1	10/15/24	10:22a	AQ	X-2	2	X	X	X								
2	H2	10/15/24	10:40a	AQ	X-2	2	X	X	X								
3	H3	10/15/24	10:58a	AQ	X-2	2	X	X	X								
4	H4	10/15/24	11:12a	AQ	X-2	2	X	X	X								
5	H5	10/15/24	11:50a	AQ	X-2	2	X	X	X								
6	H6	10/15/24	11:35a	AQ	X-2	2	X	X	X								
7																	
8																	
9																	
10																	

Shipment Method: STD 10 Wk Days 5 Wk Days 3 Wk Days 24 Hour

Required Turnaround Time: (Check Box) 5 Wk Days 3 Wk Days 24 Hour

Results Due Date: _____

Notes: Sunflower General Pricing

Sampler(s) Please Print & Sign: Kandi George

Relinquished by: Kandi George Date: 10/15/2024 Time: 5:00P

Relinquished by: Kandi George Date: 10/16/24 Time: 09 25

Received by: _____ Date: _____ Time: _____

Checked by (Laboratory): _____ Date: _____ Time: _____

Preservative Key: 1-HCl (2-HNO₃) 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below) Level II Site OC Level III Site OC Level IV Site OC Other

TRIP Checklist: TRIP Level IV

COOLING: Cooler ID: 52217 Cooler Temp: 2.8

Other: 11/34

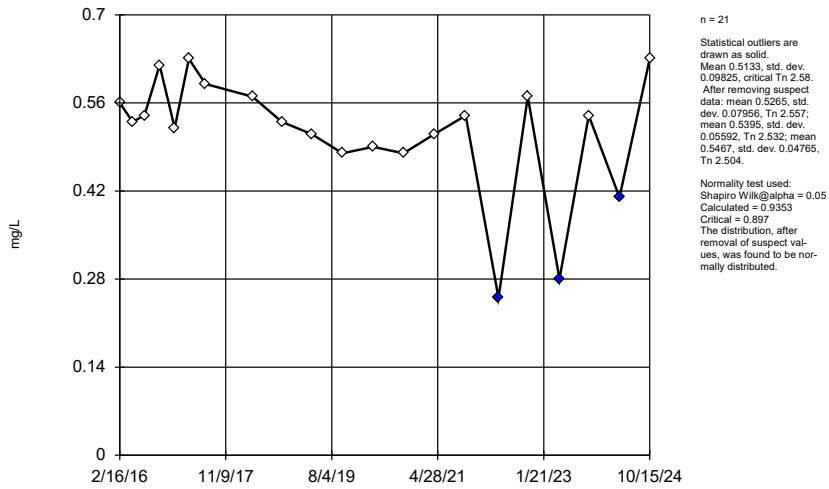
Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

ATTACHMENT 4

STATISTICAL ANALYSIS

EPA 1989 Outlier Screening

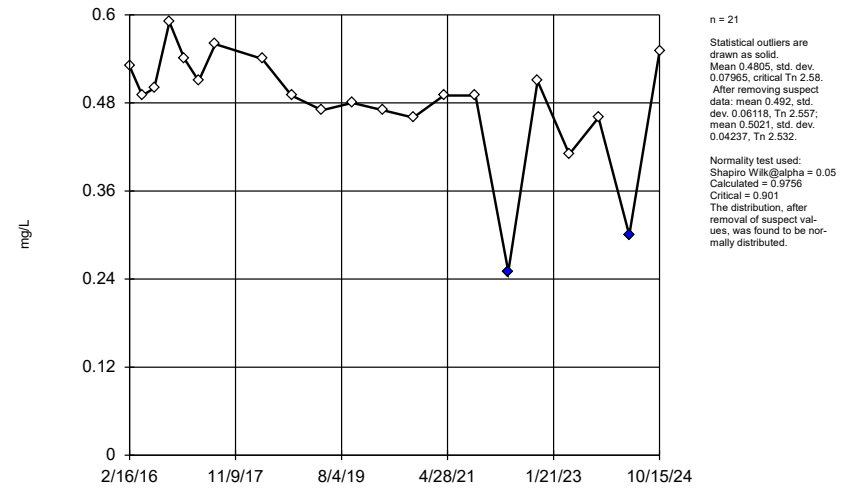
H-1



Constituent: Fluoride Analysis Run 11/21/2024 4:00 PM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

EPA 1989 Outlier Screening

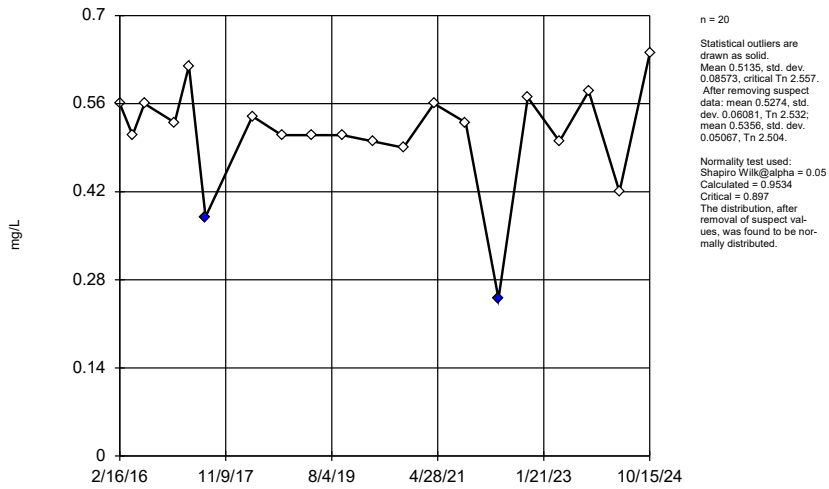
H-5



Constituent: Fluoride Analysis Run 11/21/2024 4:00 PM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

EPA 1989 Outlier Screening

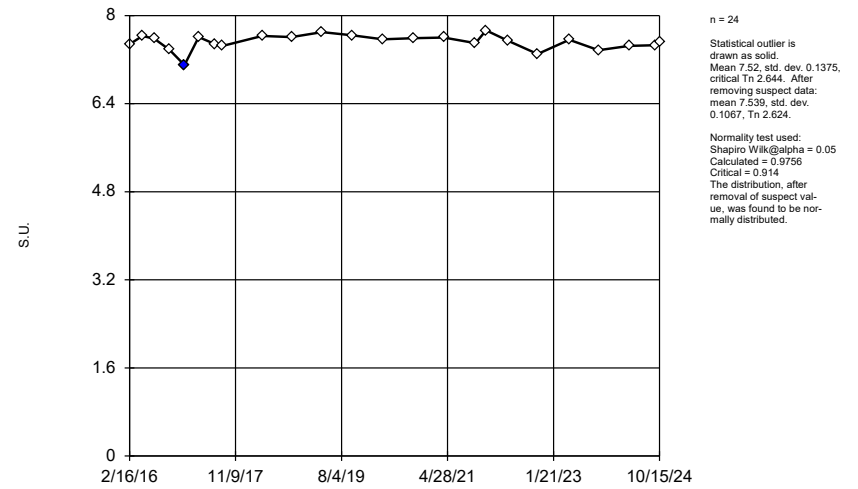
H-6



Constituent: Fluoride Analysis Run 11/21/2024 4:00 PM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

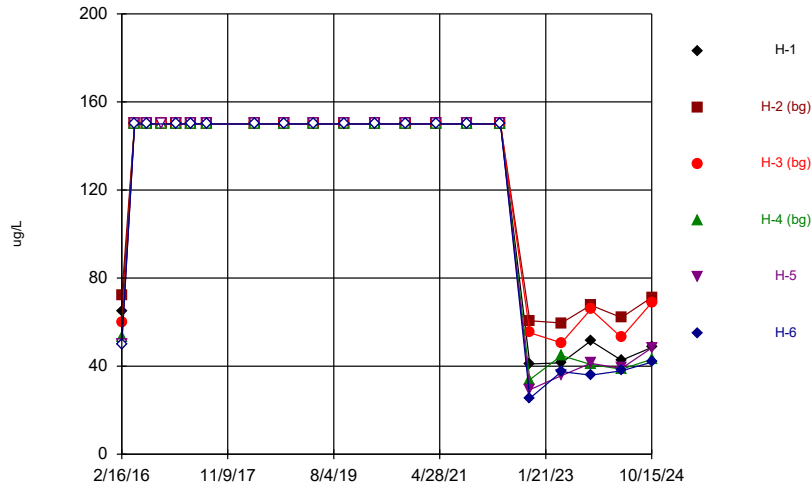
EPA 1989 Outlier Screening

H-5



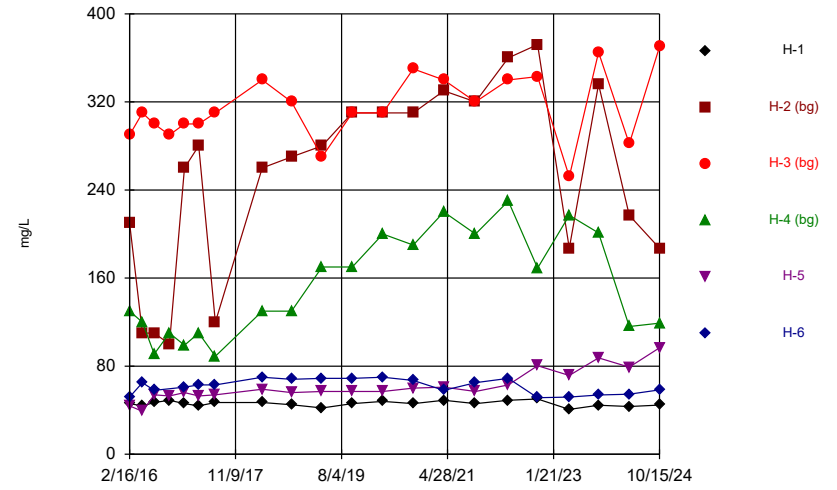
Constituent: pH Analysis Run 11/21/2024 4:00 PM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Time Series



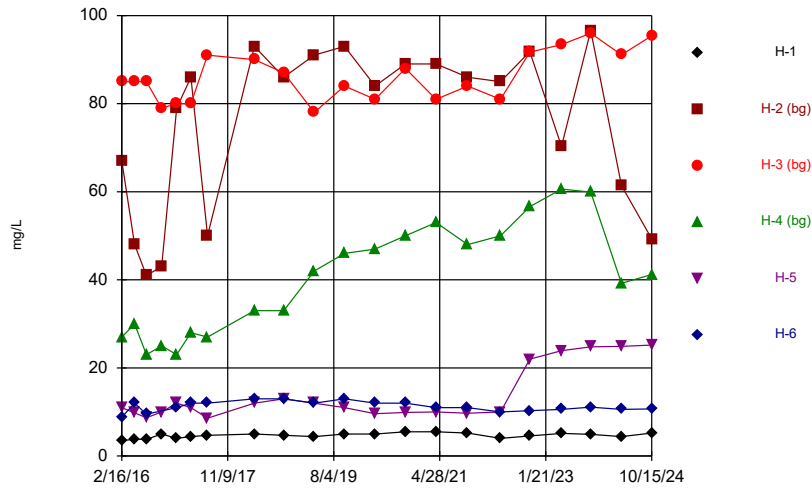
Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:03 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Time Series



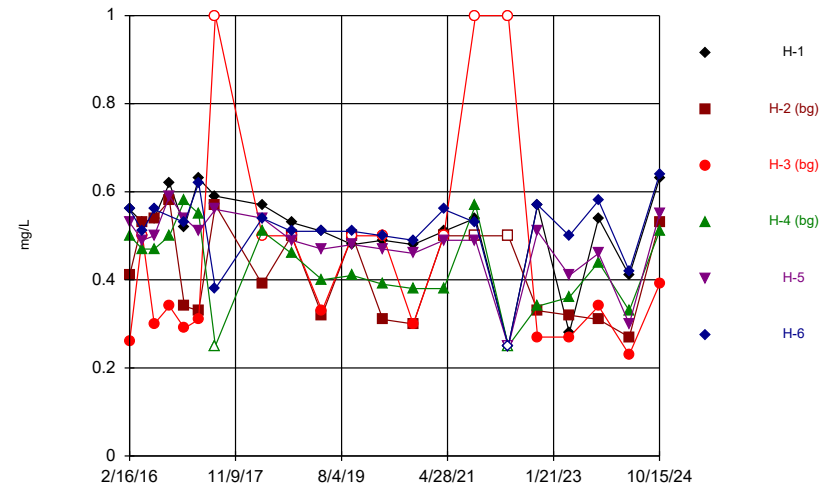
Constituent: Calcium Analysis Run 11/21/2024 4:03 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Time Series



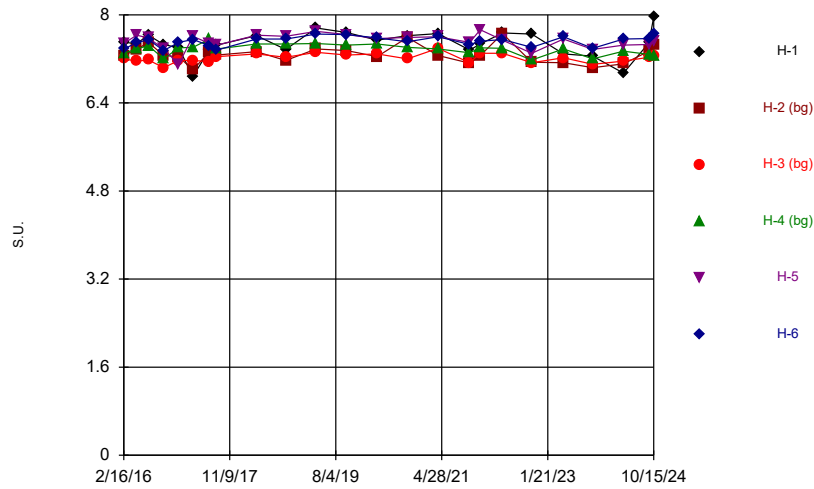
Constituent: Chloride Analysis Run 11/21/2024 4:03 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Time Series



Constituent: Fluoride Analysis Run 11/21/2024 4:03 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Time Series

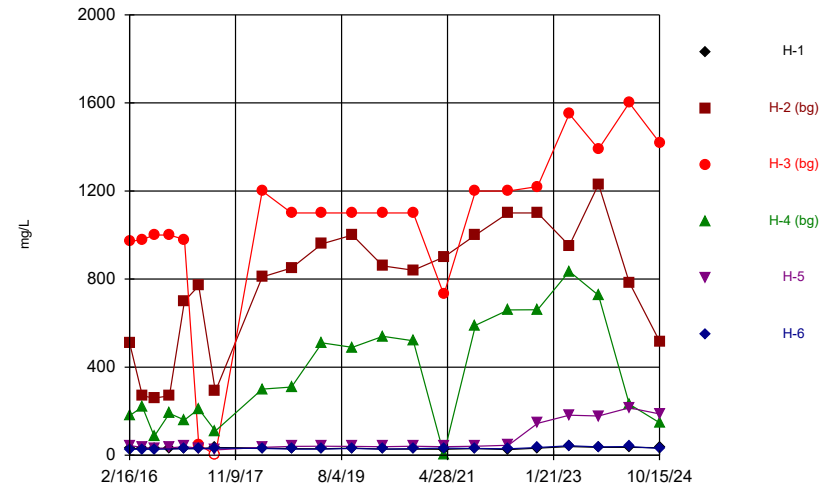


Constituent: pH Analysis Run 11/21/2024 4:03 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Hollow symbols indicate censored values.

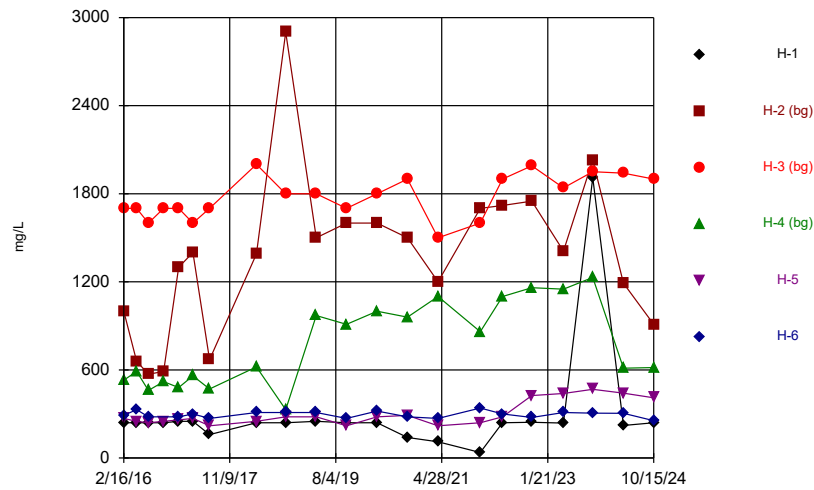
Time Series



Constituent: Sulfate Analysis Run 11/21/2024 4:03 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Time Series

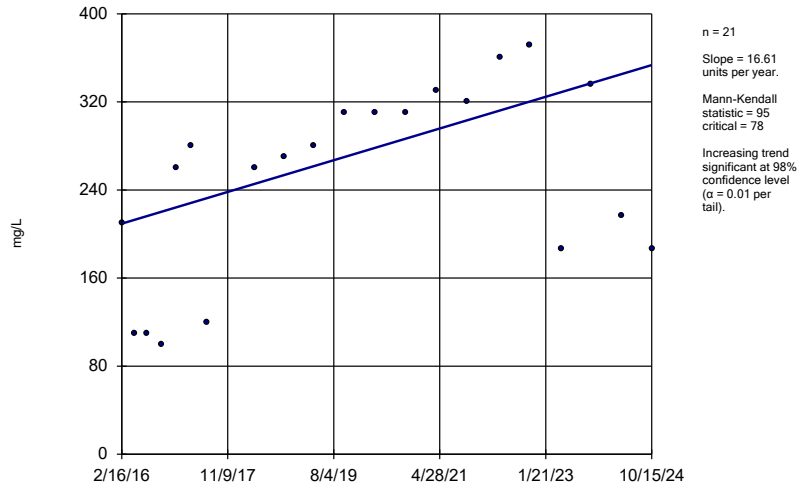


Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:03 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

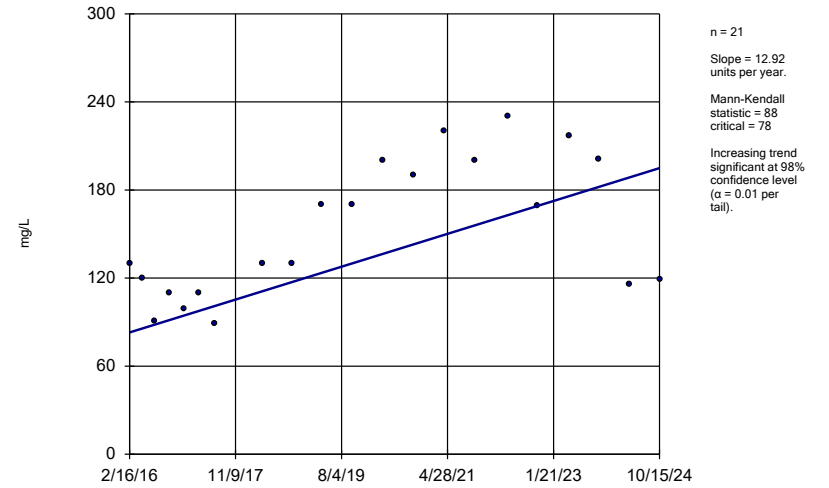
H-2 (bg)



Constituent: Calcium Analysis Run 11/21/2024 4:07 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

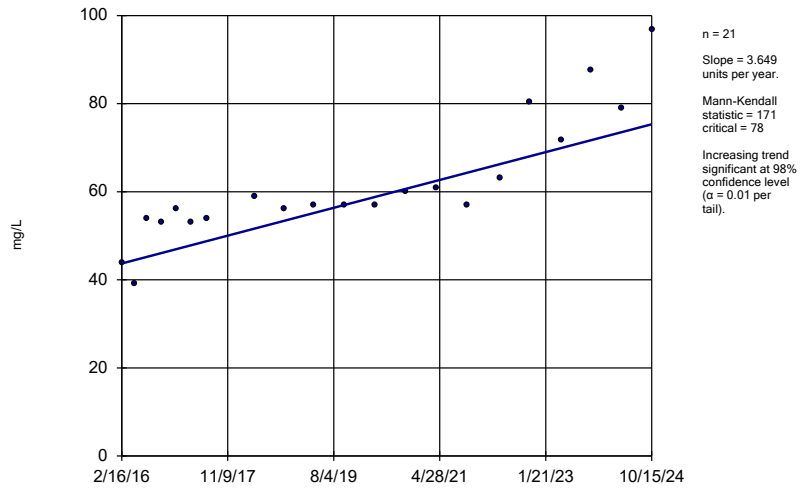
H-4 (bg)



Constituent: Calcium Analysis Run 11/21/2024 4:08 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

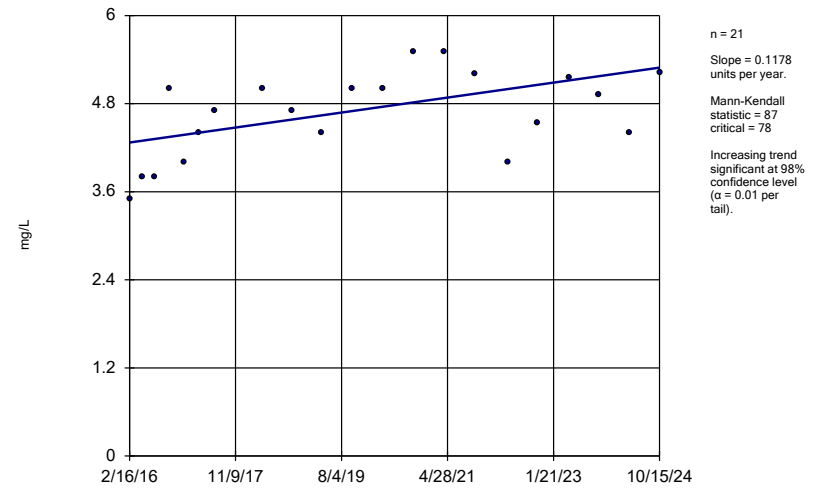
H-5



Constituent: Calcium Analysis Run 11/21/2024 4:08 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

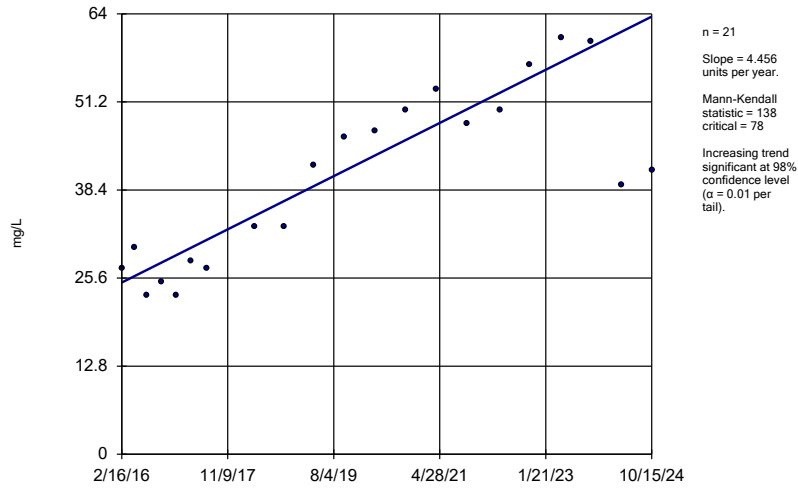
H-1



Constituent: Chloride Analysis Run 11/21/2024 4:08 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

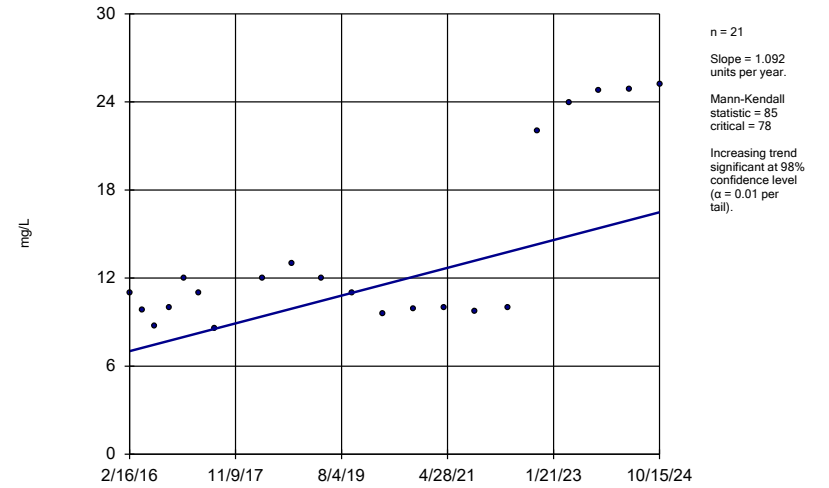
H-4 (bg)



Constituent: Chloride Analysis Run 11/21/2024 4:08 PM
 Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

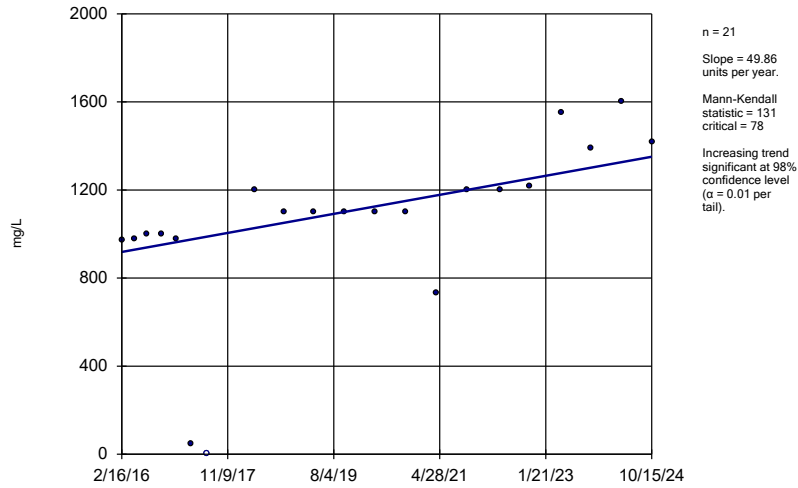
Sen's Slope Estimator

H-5



Sen's Slope Estimator

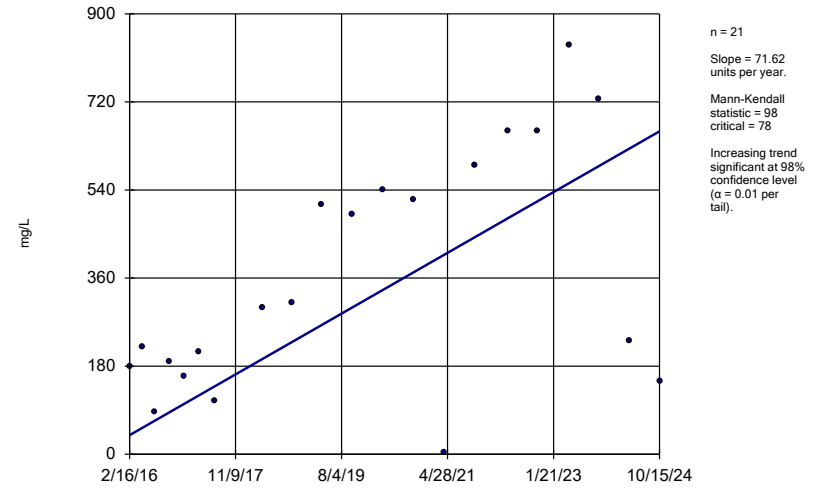
H-3 (bg)



Constituent: Sulfate Analysis Run 11/21/2024 4:08 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

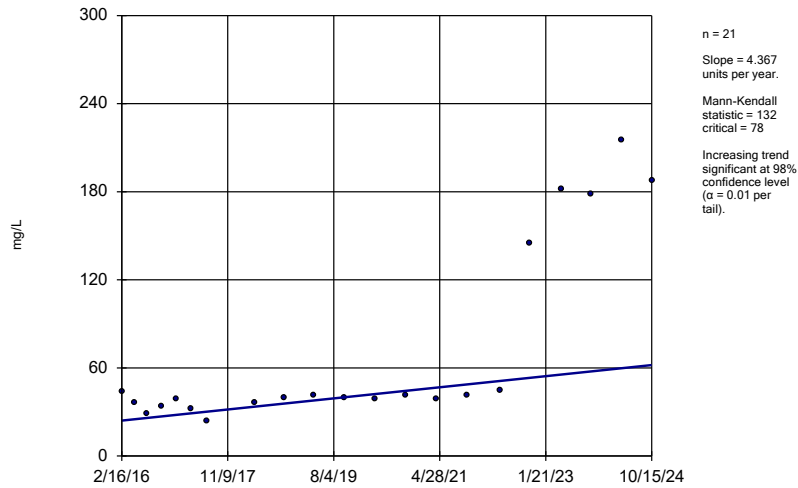
H-4 (bg)



Constituent: Sulfate Analysis Run 11/21/2024 4:08 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

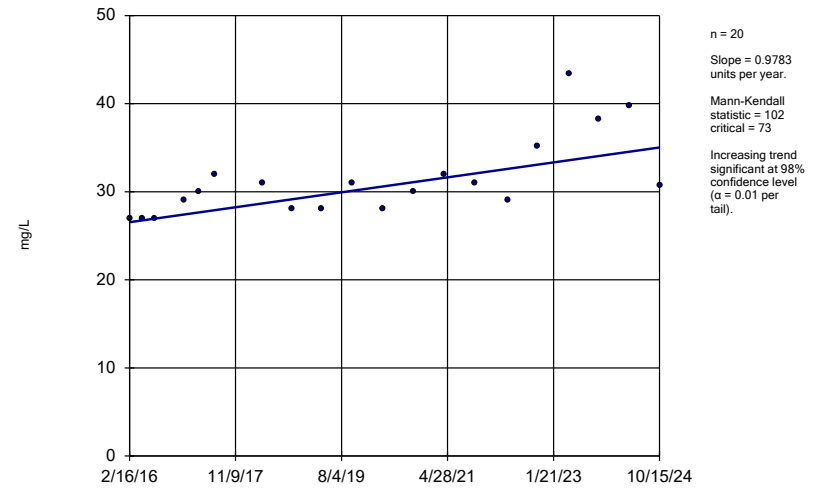
H-5



Constituent: Sulfate Analysis Run 11/21/2024 4:08 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Sen's Slope Estimator

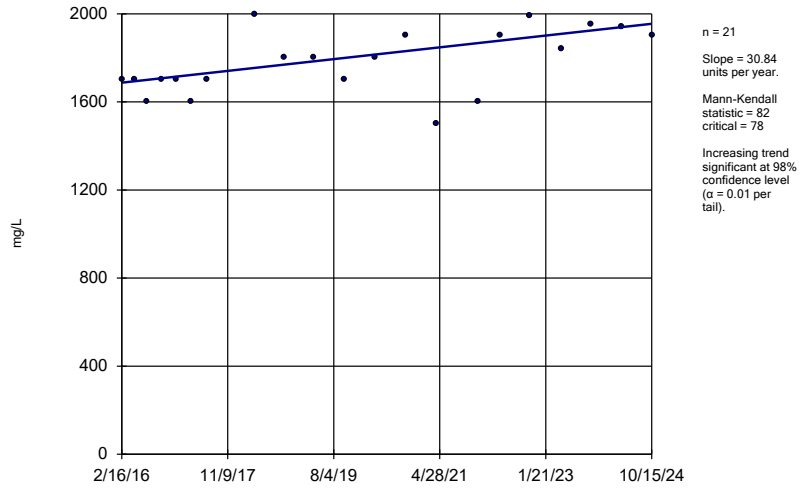
H-6



Constituent: Sulfate Analysis Run 11/21/2024 4:08 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

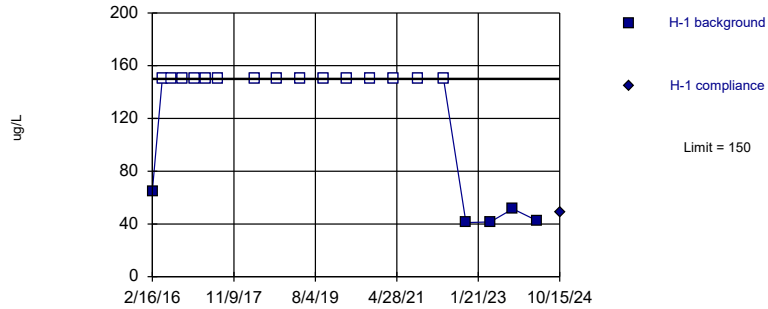
Sen's Slope Estimator

H-3 (bg)



Within Limit

Prediction Limit
Intrawell Non-parametric

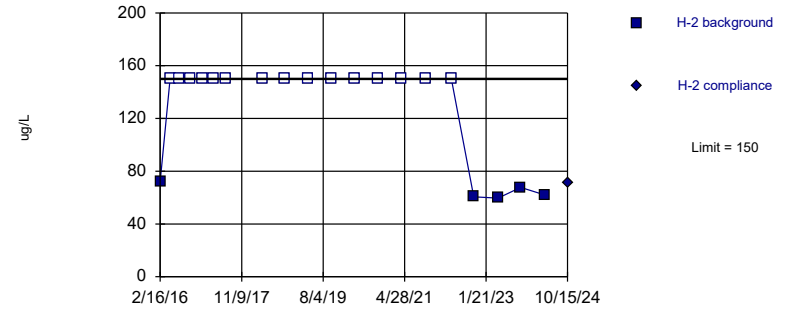


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 75% NDs. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric

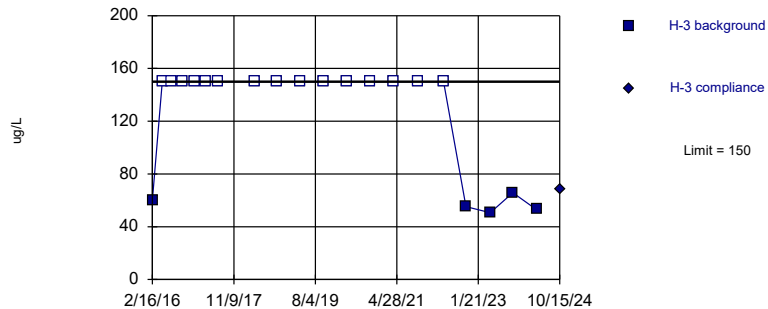


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 75% NDs. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric

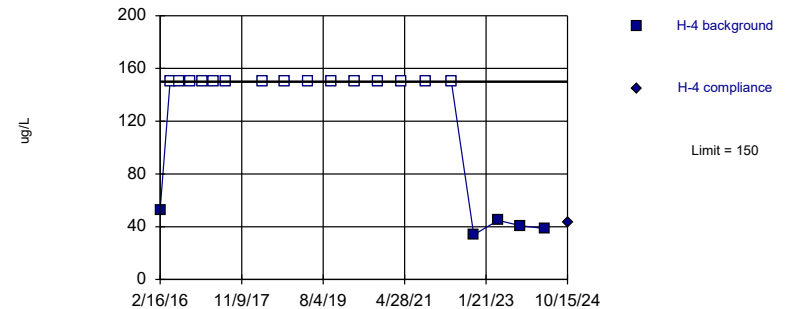


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 75% NDs. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric

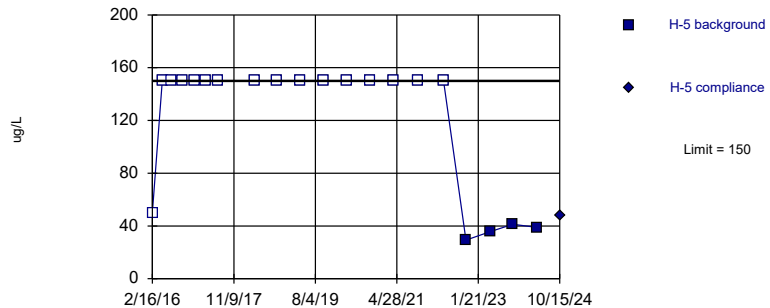


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 75% NDs. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric

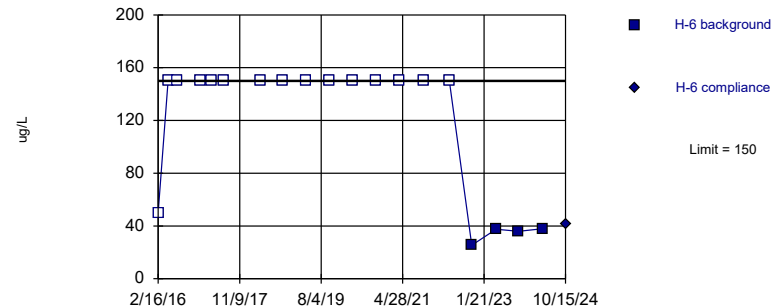


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 80% NDs. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric

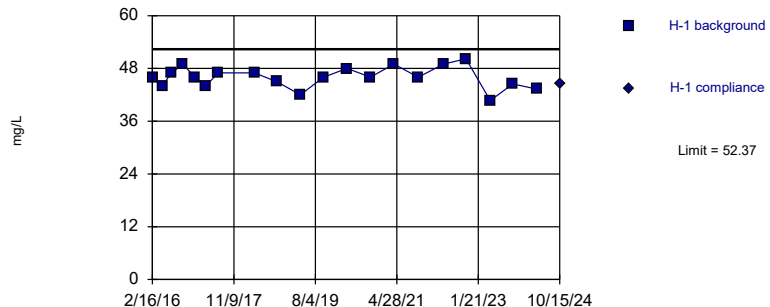


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 78.95% NDs. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric

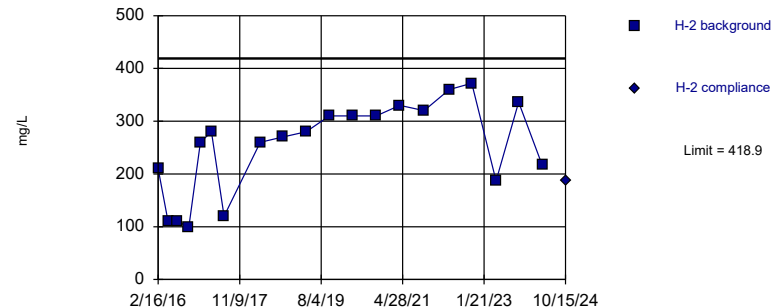


Background Data Summary: Mean=45.99, Std. Dev.=2.452, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9706, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric

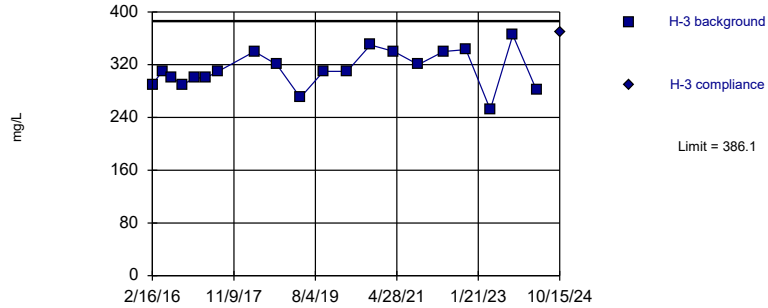


Background Data Summary (based on square transformation): Mean=71007, Std. Dev.=40154, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9422, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit Intrawell Parametric



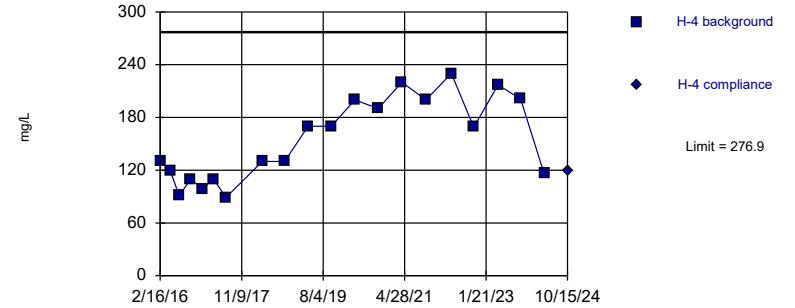
Background Data Summary: Mean=312.1, Std. Dev.=28.45, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9756, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit Intrawell Parametric



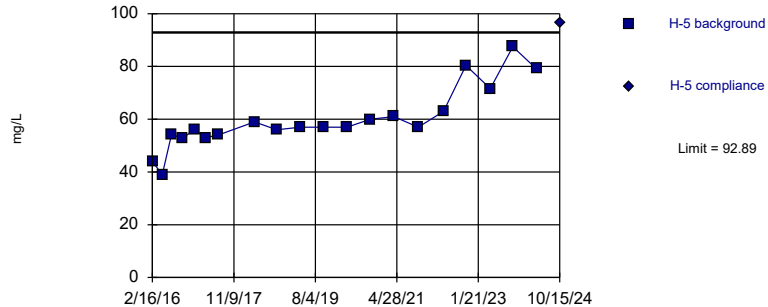
Background Data Summary: Mean=154.6, Std. Dev.=47.01, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9146, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Exceeds Limit

Prediction Limit Intrawell Parametric



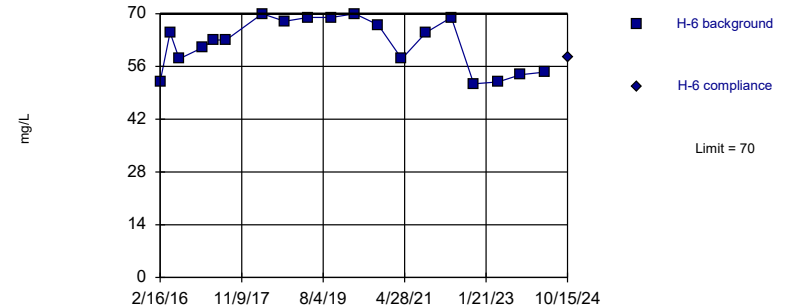
Background Data Summary (based on square root transformation): Mean=7.708, Std. Dev.=0.7418, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9091, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Calcium Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit Intrawell Non-parametric



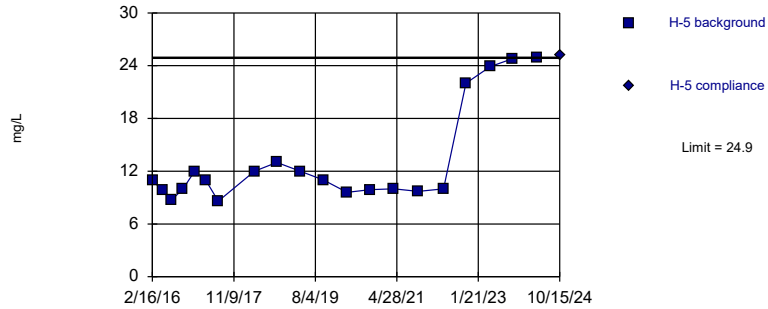
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Calcium Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Exceeds Limit

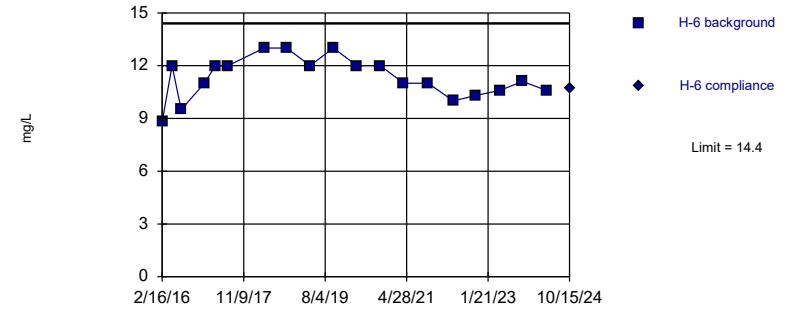
Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 20 background values. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Within Limit

Prediction Limit
Intrawell Parametric



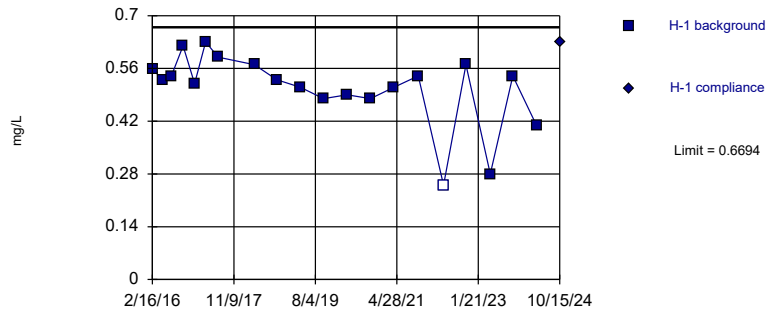
Background Data Summary: Mean=11.31, Std. Dev.=1.18, n=19. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9423, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Chloride Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Constituent: Chloride Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric

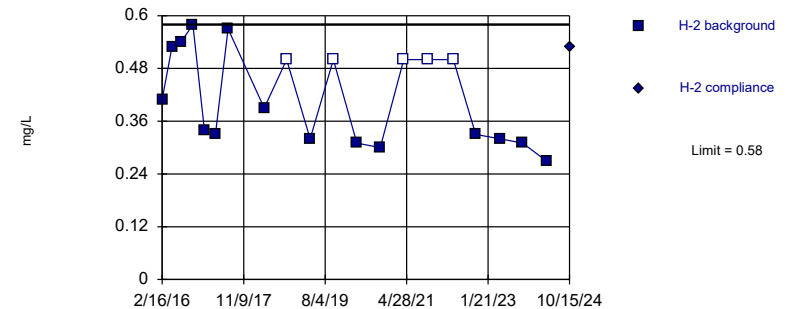


Background Data Summary (based on cube transformation): Mean=0.1431, Std. Dev.=0.0603, n=20, 5% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9509, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric

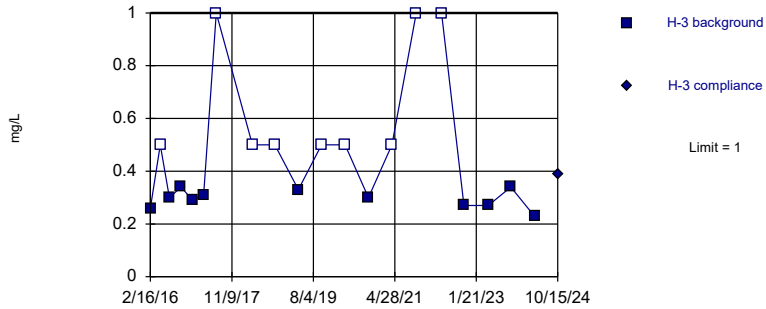


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 20 background values. 25% NDs. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 11/21/2024 4:05 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric



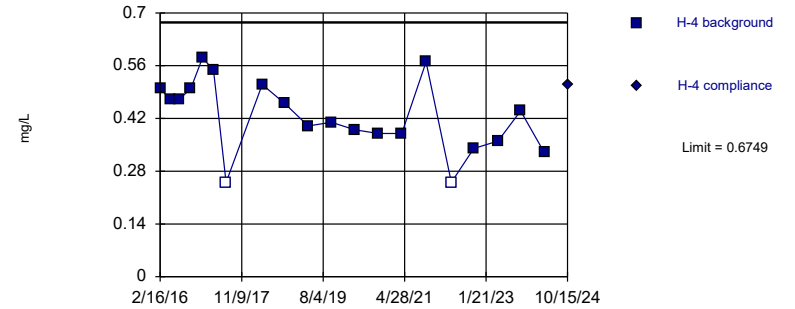
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 20 background values. 45% NDs. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Santitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric



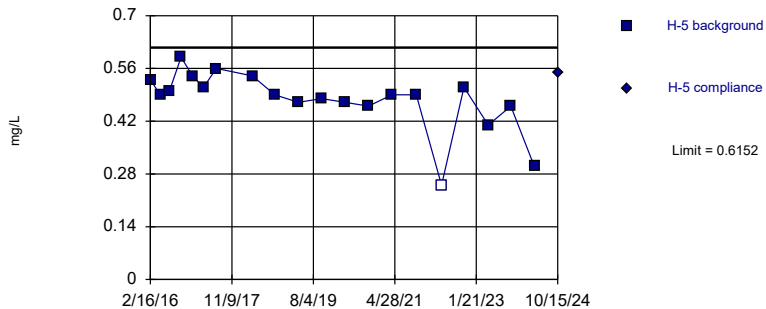
Background Data Summary: Mean=0.427, Std. Dev.=0.09526, n=20, 10% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9665, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Santitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric



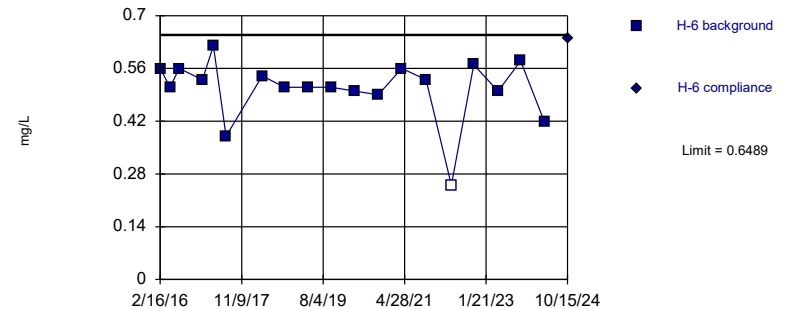
Background Data Summary (based on cube transformation): Mean=0.1165, Std. Dev.=0.04469, n=20, 5% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9443, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Santitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric



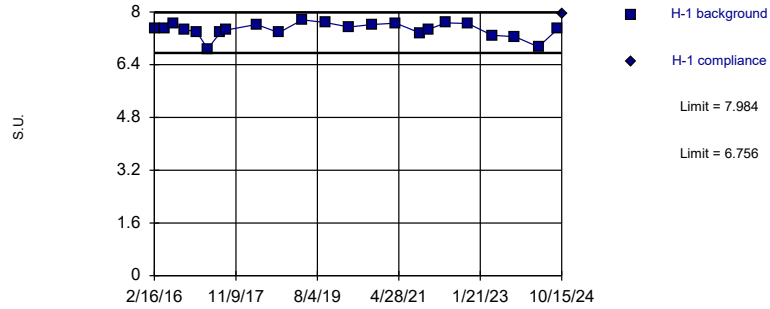
Background Data Summary (based on cube transformation): Mean=0.1391, Std. Dev.=0.05122, n=19, 5.263% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9456, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Fluoride Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Santitas Export 20241015

Within Limits

Prediction Limit
Intrawell Parametric



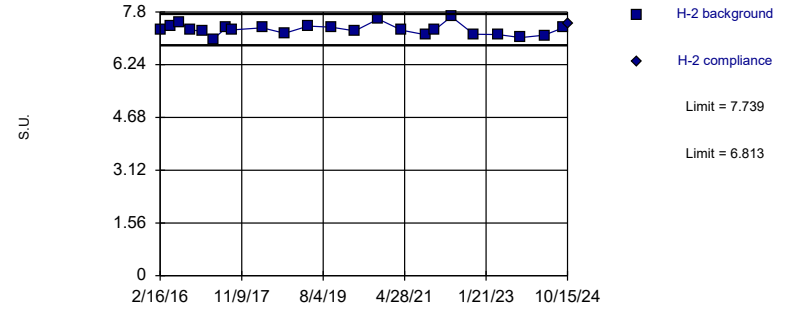
Background Data Summary (based on x⁴ transformation): Mean=23262, Std. Dev.=3191, n=23. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9223, critical = 0.914. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limits

Prediction Limit
Intrawell Parametric



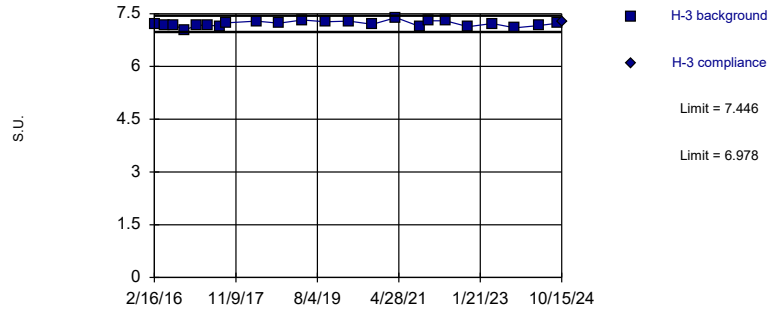
Background Data Summary: Mean=7.276, Std. Dev.=0.1609, n=23. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.953, critical = 0.914. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limits

Prediction Limit
Intrawell Parametric



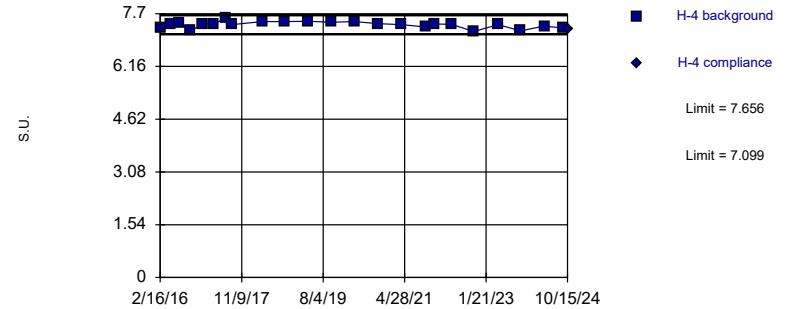
Background Data Summary: Mean=7.212, Std. Dev.=0.08133, n=23. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9852, critical = 0.914. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limits

Prediction Limit
Intrawell Parametric



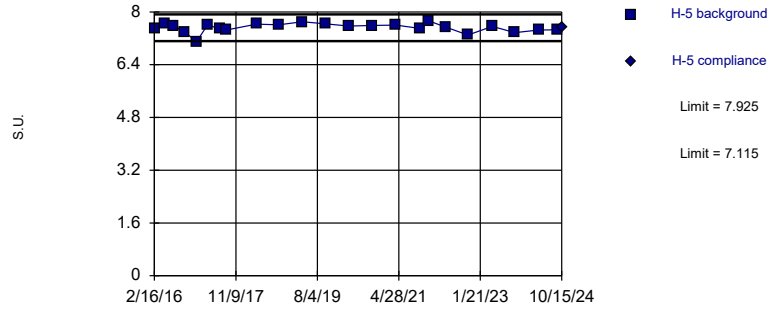
Background Data Summary: Mean=7.377, Std. Dev.=0.09664, n=23. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9396, critical = 0.914. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limits

Prediction Limit
Intrawell Parametric



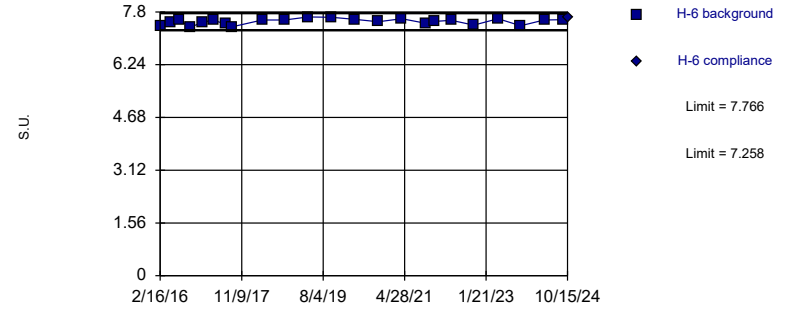
Background Data Summary: Mean=7.52, Std. Dev.=0.1406, n=23. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9162, critical = 0.914. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limits

Prediction Limit
Intrawell Parametric



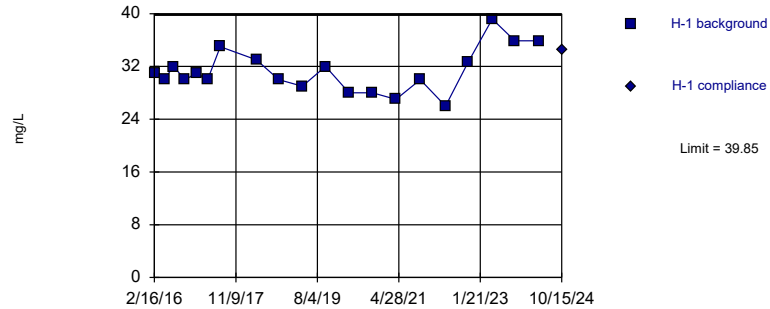
Background Data Summary: Mean=7.512, Std. Dev.=0.08811, n=23. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9368, critical = 0.914. Report alpha = 0.01. Most recent point compared to limit.

Constituent: pH Analysis Run 11/21/2024 4:05 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric



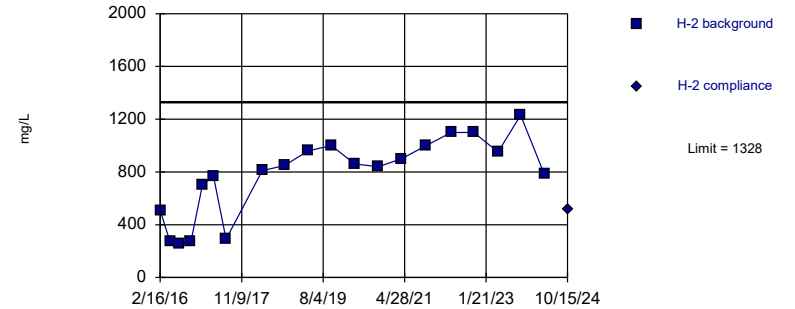
Background Data Summary: Mean=31.28, Std. Dev.=3.295, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9523, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Sulfate Analysis Run 11/21/2024 4:06 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square transformation): Mean=682566, Std. Dev.=415781, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9469, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

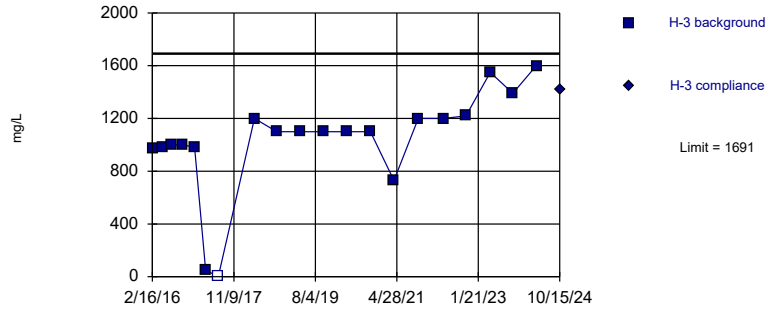
Constituent: Sulfate Analysis Run 11/21/2024 4:06 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=1207505, Std. Dev.=635275, n=20, 5% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9227, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

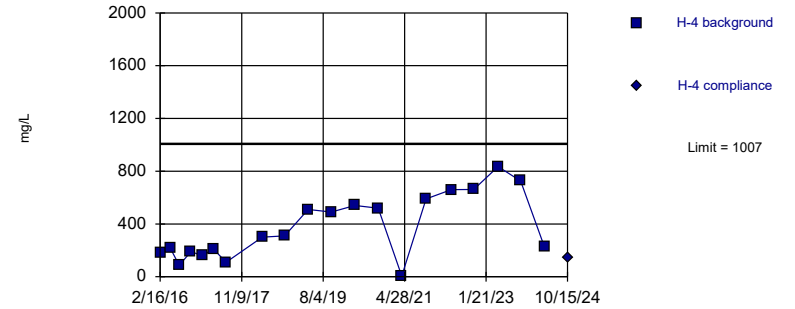
Constituent: Sulfate Analysis Run 11/21/2024 4:06 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=376.7, Std. Dev.=242.2, n=20. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9389, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

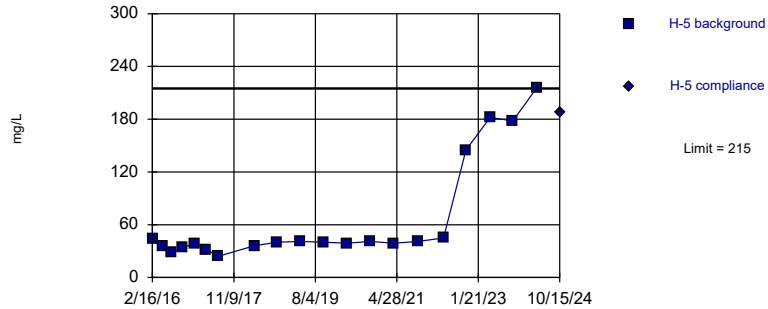
Constituent: Sulfate Analysis Run 11/21/2024 4:06 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 20 background values. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

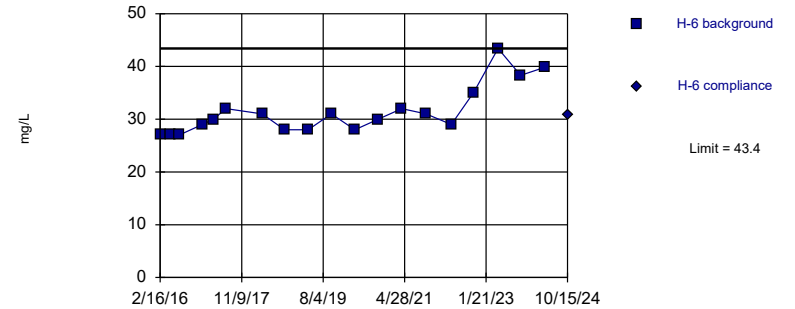
Constituent: Sulfate Analysis Run 11/21/2024 4:06 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit

Intrawell Non-parametric



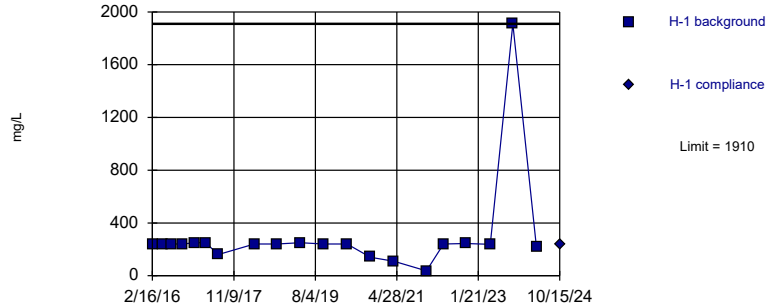
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Report alpha = 0.05. Most recent point compared to limit. Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 11/21/2024 4:06 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit Intrawell Non-parametric

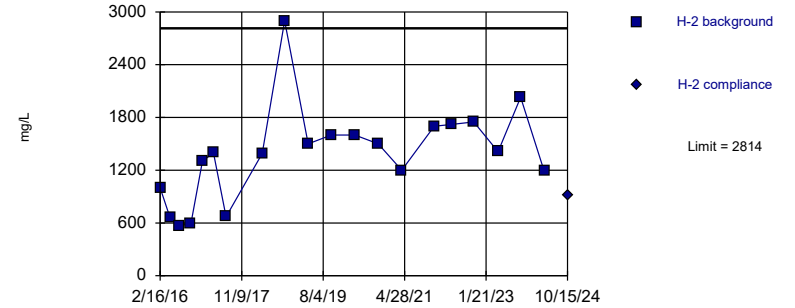


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 20 background values. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:06 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit Intrawell Parametric

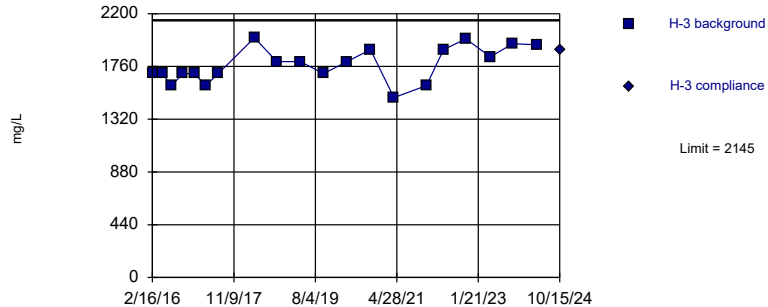


Background Data Summary: Mean=1384, Std. Dev.=549.5, n=20. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9191, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:06 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit Intrawell Parametric

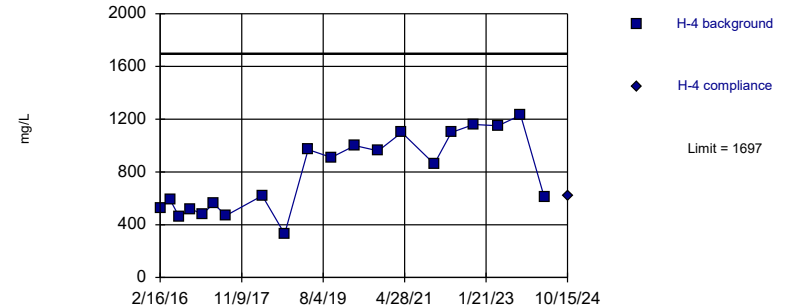


Background Data Summary: Mean=1771, Std. Dev.=143.8, n=20. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9466, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:06 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit Intrawell Parametric

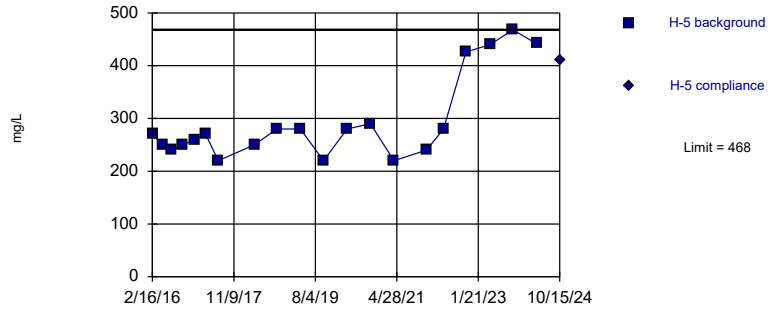


Background Data Summary (based on square root transformation): Mean=27.46, Std. Dev.=5.276, n=20. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9115, critical = 0.905. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:06 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Non-parametric

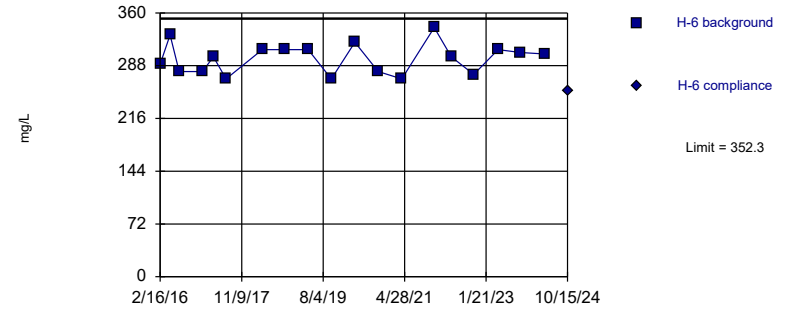


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 20 background values. Report alpha = 0.04762. Most recent point compared to limit. Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:06 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Intrawell Parametric

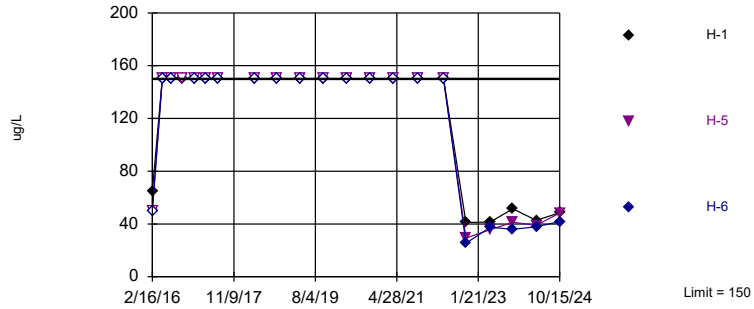


Background Data Summary: Mean=297.7, Std. Dev.=20.85, n=19. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9338, critical = 0.901. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:06 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Interwell Non-parametric



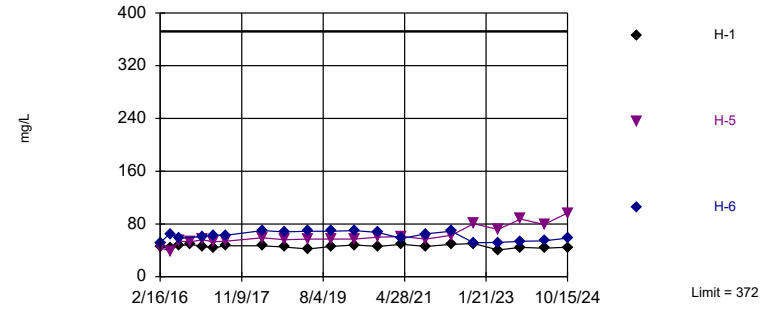
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 63 background values. 71.43% NDs. Report alpha = 0.04545. Individual comparison alpha = 0.01539. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron And Borates Only Analysis Run 11/21/2024 4:10 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Interwell Non-parametric



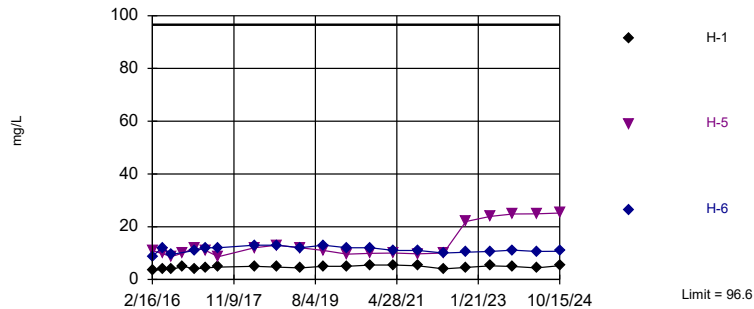
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 63 background values. Report alpha = 0.04545. Individual comparison alpha = 0.01539. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Calcium Analysis Run 11/21/2024 4:10 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Interwell Non-parametric



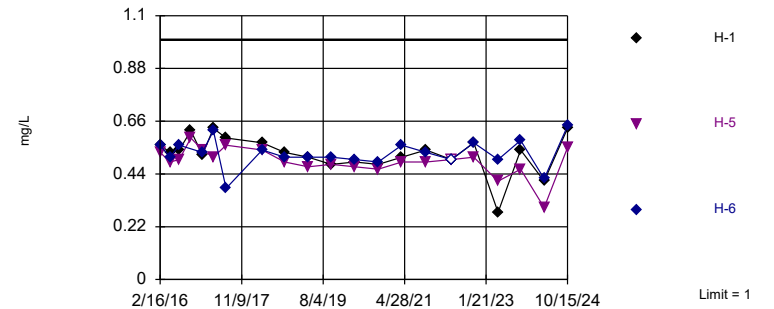
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 63 background values. Report alpha = 0.04545. Individual comparison alpha = 0.01539. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Chloride Analysis Run 11/21/2024 4:10 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Interwell Non-parametric



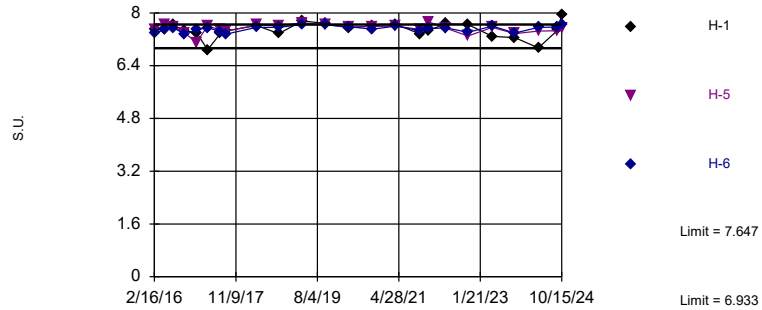
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 63 background values. 25.4% NDs. Report alpha = 0.04545. Individual comparison alpha = 0.01539. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 11/21/2024 4:10 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Exceeds Limits: H-1, H-6

Prediction Limit
Interwell Parametric



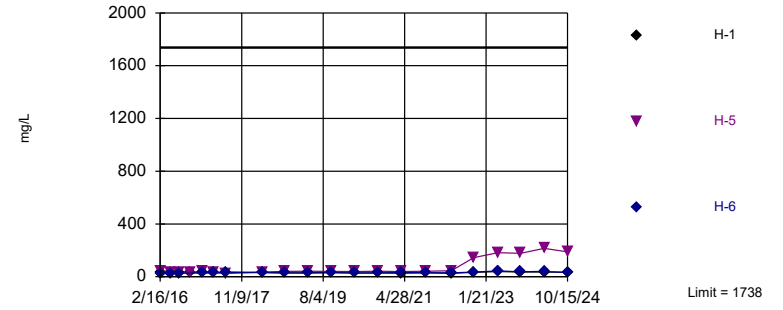
Background Data Summary: Mean=7.29, Std. Dev.=0.1339, n=72. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9886, critical = 0.968. Report alpha = 0.0297. Individual comparison alpha = 0.005. Most recent point for each compliance well compared to limit.

Constituent: pH Analysis Run 11/21/2024 4:10 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Interwell Parametric



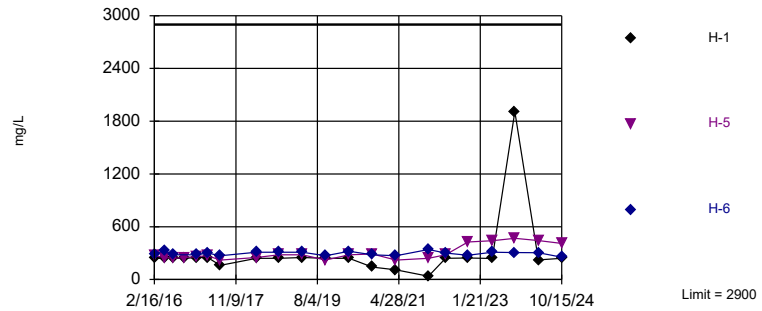
Background Data Summary: Mean=724.6, Std. Dev.=420.9, n=63, 1.587% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9685, critical = 0.963. Report alpha = 0.0297. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit.

Constituent: Sulfate Analysis Run 11/21/2024 4:10 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

Within Limit

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 63 background values. Report alpha = 0.04545. Individual comparison alpha = 0.01539. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Total Dissolved Solids Analysis Run 11/21/2024 4:10 PM

Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20241015

APPENDIX F

FALL 2023 ALTERNATE SOURCE DEMONSTRATION



February 9, 2024

Sunflower Electric Power Corporation
PO Box 1020
Hays, Kansas 67601

Attention: Ms. Emily Vsetecka
Manager, Environmental and Laboratory Services

VIA EMAIL: evsetecka@sunflower.net

Subject: Holcomb Common Facilities Industrial Landfill (CCR Unit)
Alternate Source Demonstration Amendment
AEC File No.: 24001:4908

Dear Ms. Vsetecka:

This Letter Amendment provides updates to the September 18, 2023 Alternate Source Demonstration (ASD) due to Statistically Significant Increases (SSIs) in the Holcomb Coal Combustion Residuals (CCR) Landfill during the Fall 2023 Monitoring Event. Because Allied's careful review and analysis of this updated data indicate that the alternate source has not changed and SSIs continue to occur because of that alternate source, Sunflower has elected to provide updated data to support the ASD and comply with 40 CFR 257.94(e) instead of preparing a new ASD. The following are updated Tables and Graphs that are included in the September 18, 2023 ASD. Table 1-1 is an addition to the ASD Table 1-1 while the remainder of the Graphs may be considered replacements to the Graphs in the ASD.

Allied verifies the accuracy of this updated information and confirms that the certification from the qualified professional engineer in the ASD applies to this update as well.

Sincerely,
ALLIED ENVIRONMENTAL CONSULTANTS, INC.

A handwritten signature in blue ink, appearing to read "Theodore B. Francis".

Theodore B. Francis, PE
Vice-President

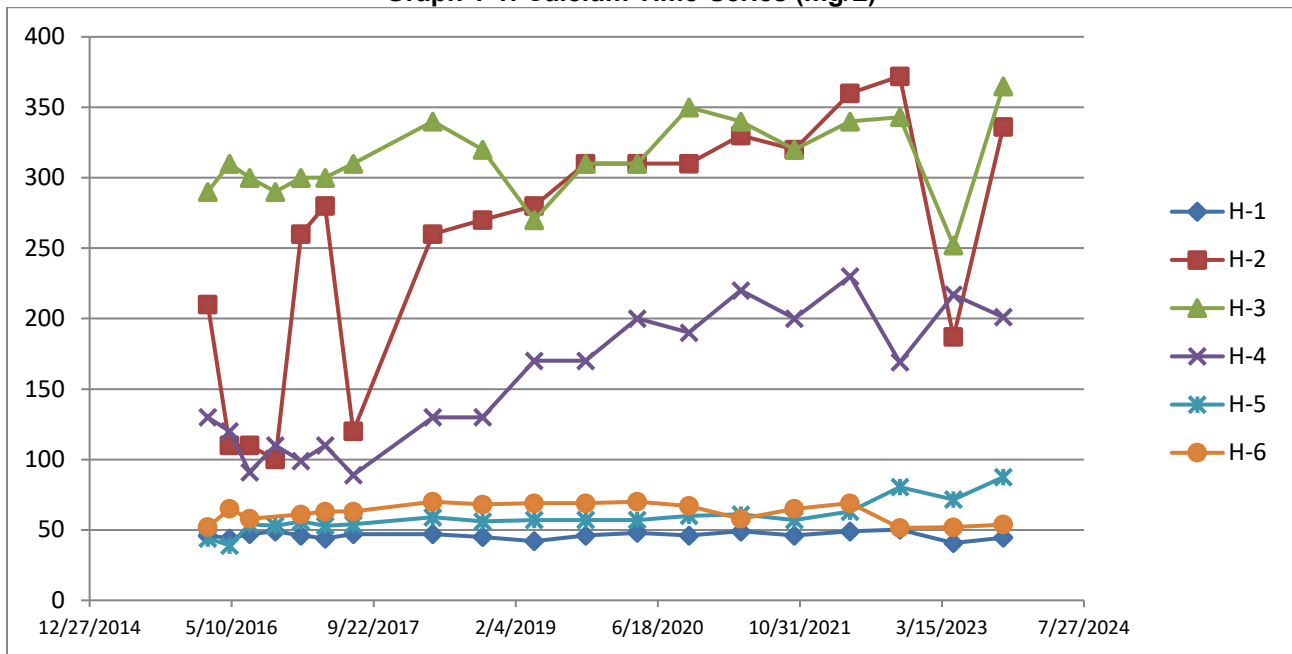


ATTACHMENT 1
TABLES AND GRAPHS

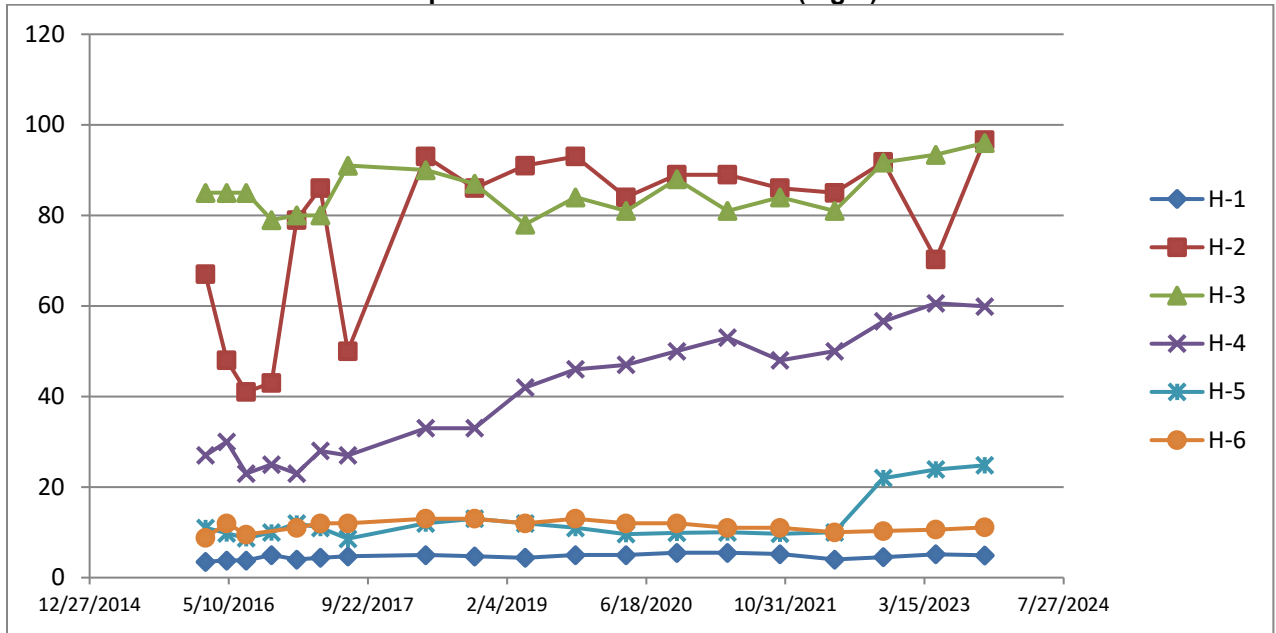
Table 1-1: Monitoring Network SSIs

Well	Parameter	Concentration (mg/L)	Prediction Limit (mg/L)	Well Type	Trend
Fall 2023					
H-2	Chloride	96.6	93	Up-gradient / Background	Yes
H-5	Calcium	87.5	81	Side-gradient / Compliance	Yes
H-5	Chloride	24.8	23.9	Side-gradient / Compliance	No
H-5	TDS	468	440	Side-gradient / Compliance	Yes

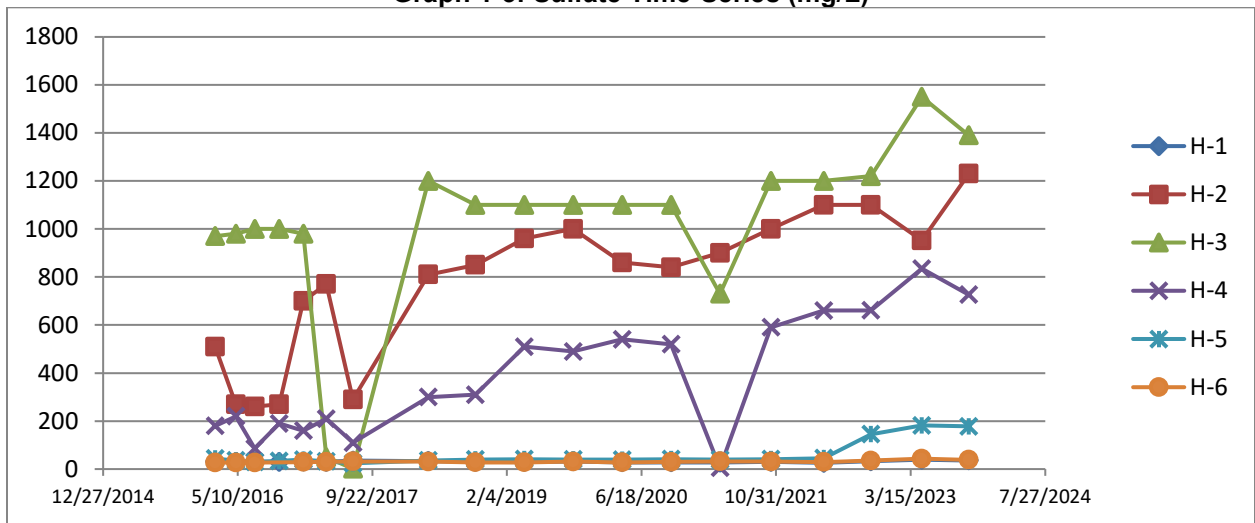
Graph 1-1: Calcium Time-Series (mg/L)



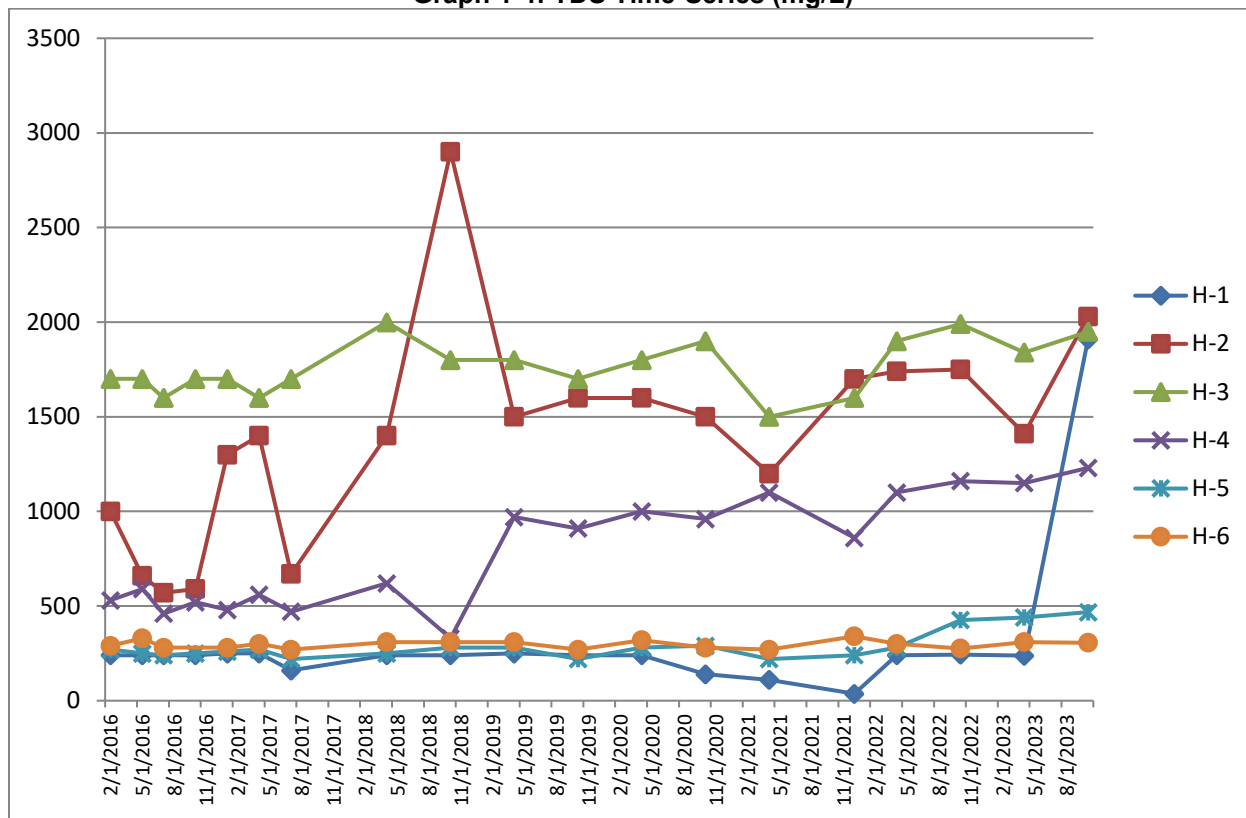
Graph 1-2: Chloride Time-Series (mg/L)



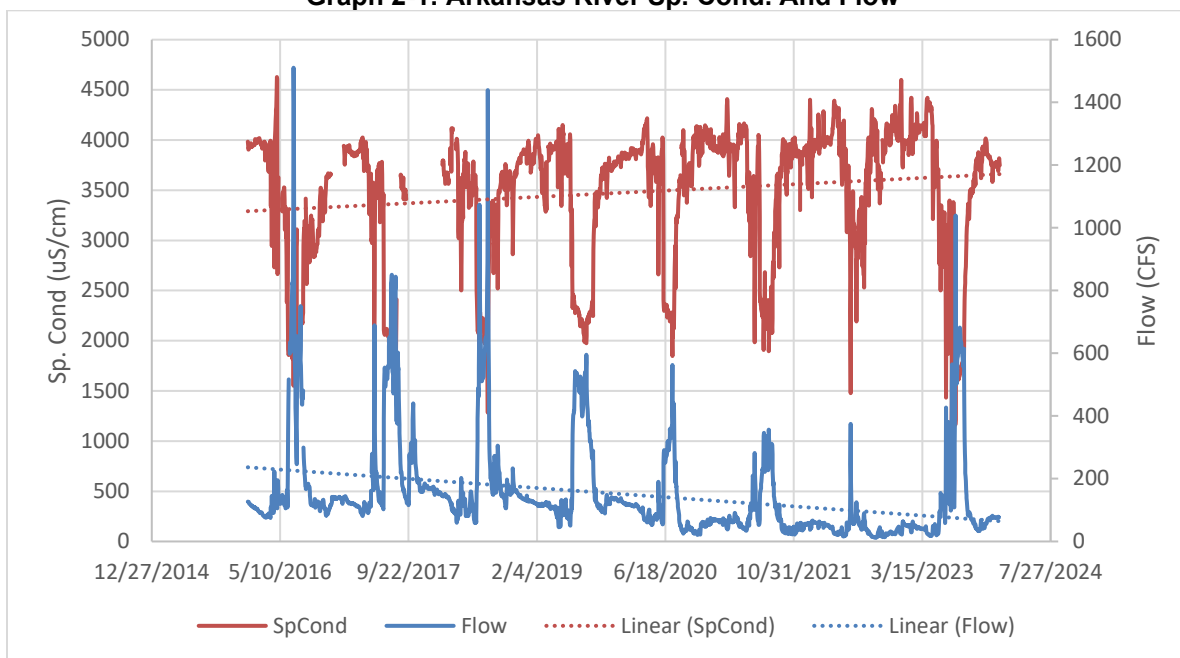
Graph 1-3: Sulfate Time-Series (mg/L)



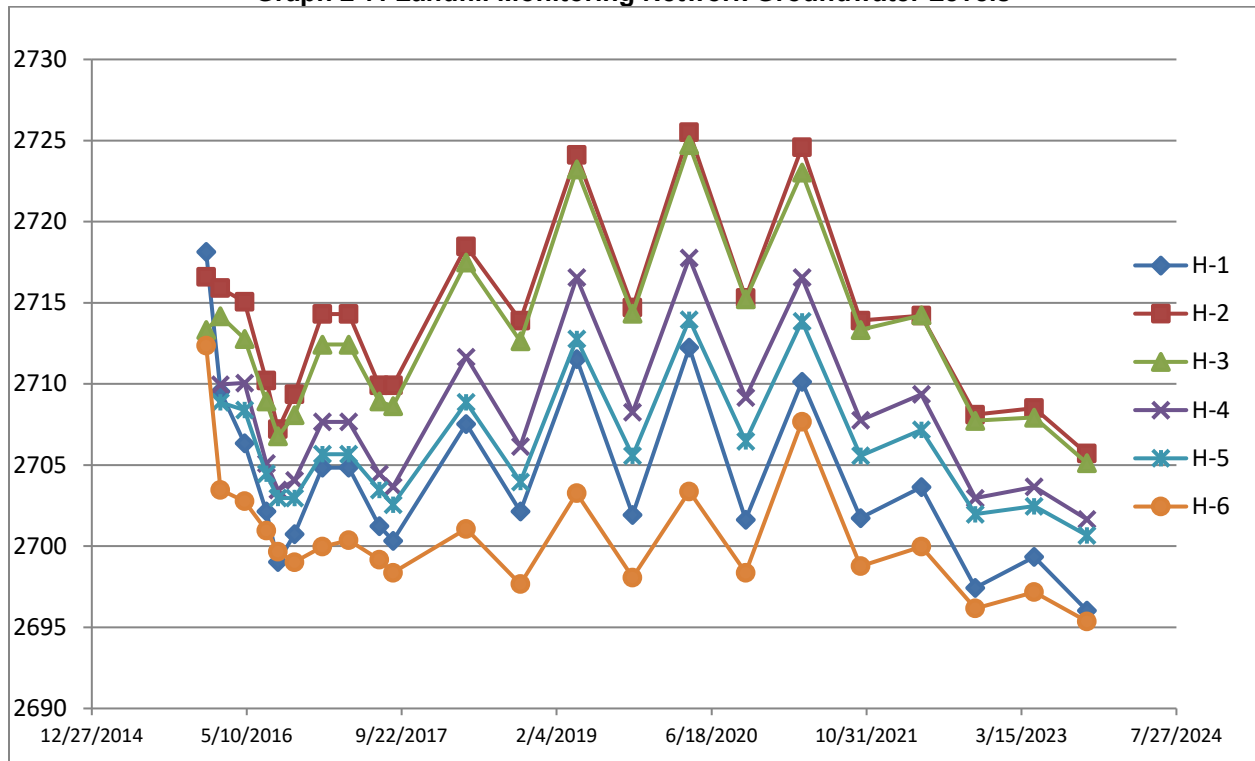
Graph 1-4: TDS Time-Series (mg/L)



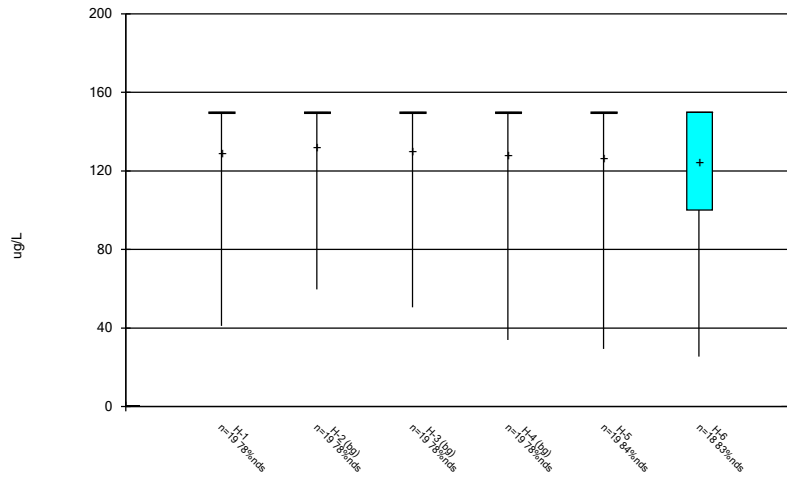
Graph 2-1: Arkansas River Sp. Cond. And Flow



Graph 2-7: Landfill Monitoring Network Groundwater Levels

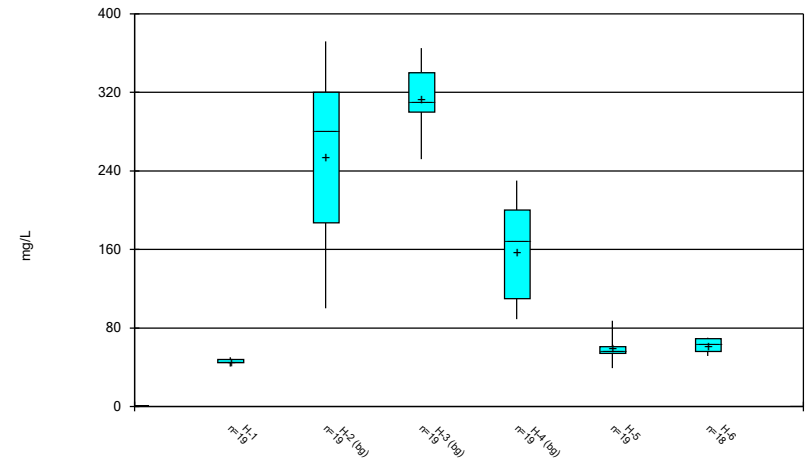


Box & Whiskers Plot



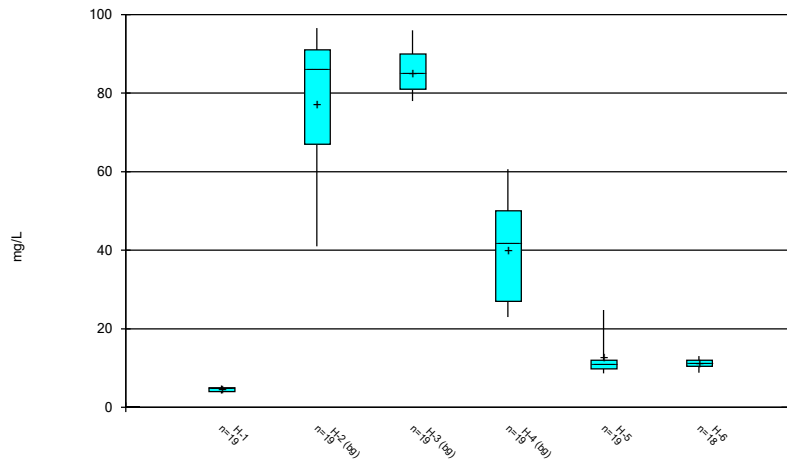
Constituent: Boron And Borates Only Analysis Run 11/14/2023 10:37 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Box & Whiskers Plot



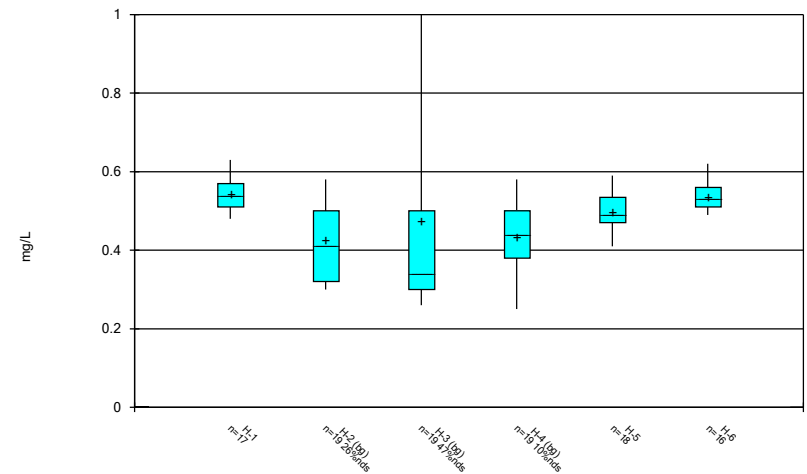
Constituent: Calcium Analysis Run 11/14/2023 10:37 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Box & Whiskers Plot



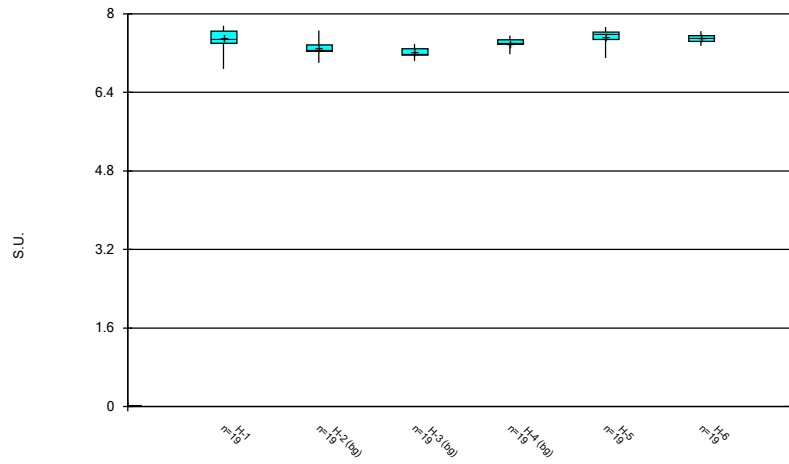
Constituent: Chloride Analysis Run 11/14/2023 10:37 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Box & Whiskers Plot



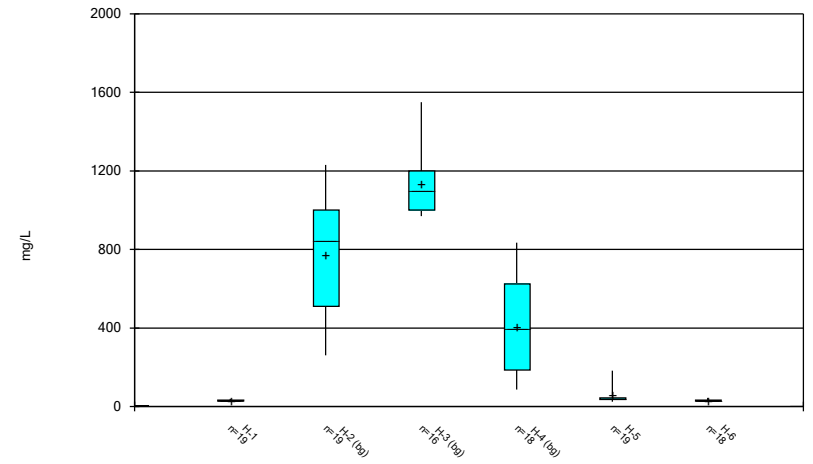
Constituent: Fluoride Analysis Run 11/14/2023 10:37 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Box & Whiskers Plot



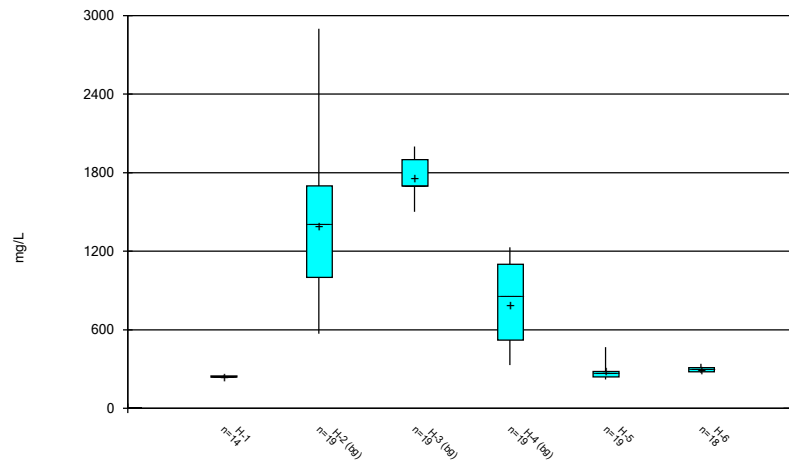
Constituent: pH Analysis Run 11/14/2023 10:37 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Box & Whiskers Plot



Constituent: Sulfate Analysis Run 11/14/2023 10:37 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

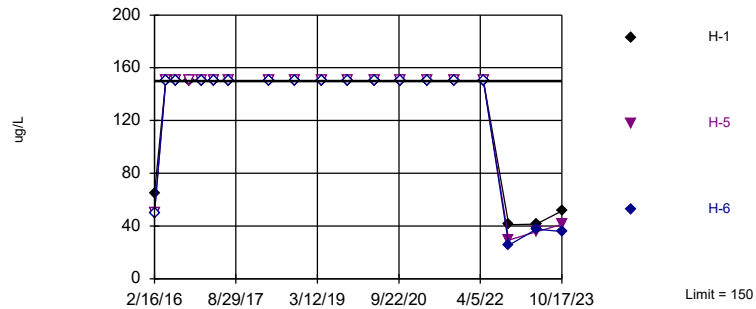
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/14/2023 10:37 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Within Limit

Prediction Limit
 Interwell Non-parametric

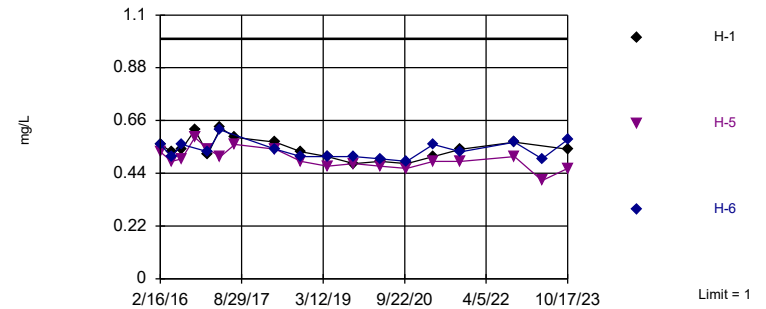


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 57 background values. 78.95% NDs. Report alpha = 0.05. Individual comparison alpha = 0.01695. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron And Borates Only Analysis Run 1/23/2024 1:11 PM
 Holcomb Station CCR LF Data: Sanitas Export 20231018

Within Limit

Prediction Limit
 Interwell Non-parametric

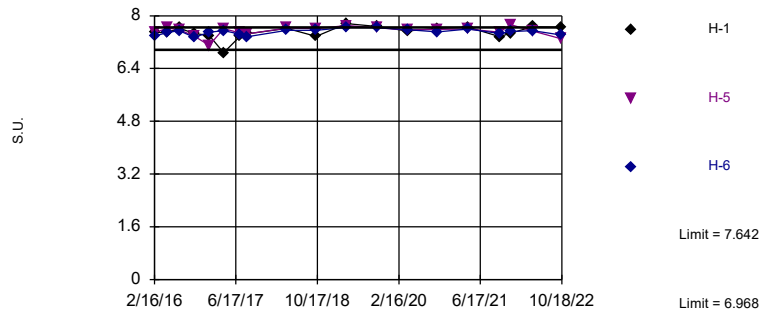


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 57 background values. 28.07% NDs. Report alpha = 0.05. Individual comparison alpha = 0.01695. Most recent point for each compliance well compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 1/23/2024 1:11 PM
 Holcomb Station CCR LF Data: Sanitas Export 20231018

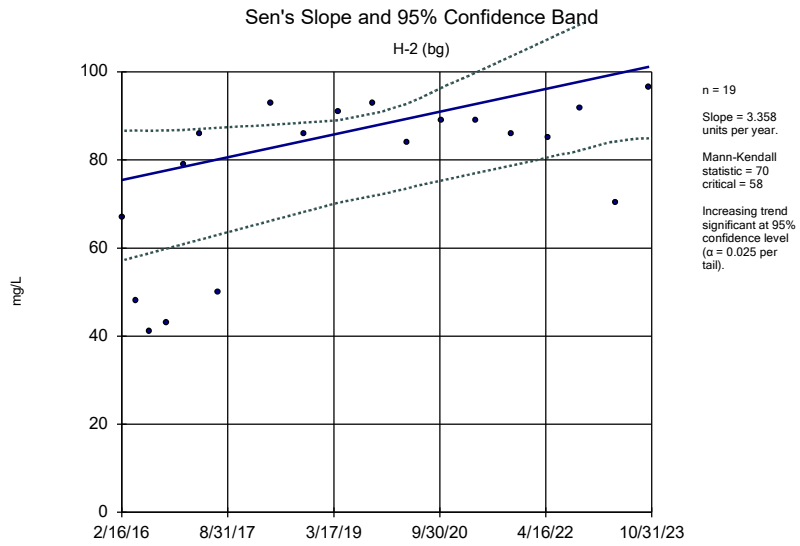
Exceeds Limits: H-1

Prediction Limit
 Interwell Parametric



Background Data Summary: Mean=7.305, Std. Dev.=0.1354, n=57. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9867, critical = 0.961. Report alpha = 0.05. Individual comparison alpha = 0.008333. Most recent point for each compliance well compared to limit.

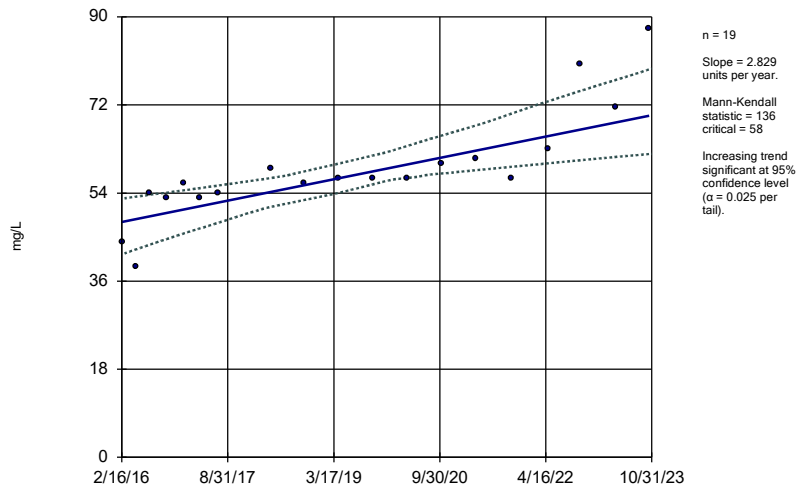
Constituent: pH Analysis Run 1/23/2024 1:11 PM
 Holcomb Station CCR LF Data: Sanitas Export 20231018



Constituent: Chloride Analysis Run 1/22/2024 11:16 AM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Sen's Slope and 95% Confidence Band

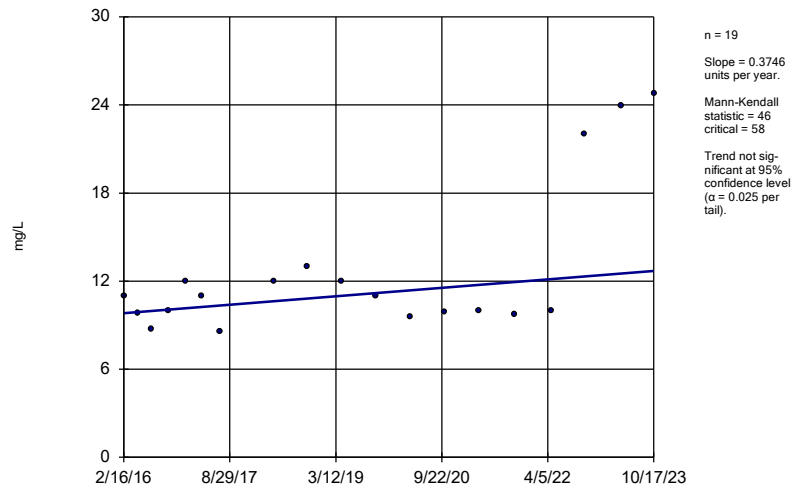
H-5



Constituent: Calcium Analysis Run 1/22/2024 12:32 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Sen's Slope Estimator

H-5



Constituent: Chloride Analysis Run 1/22/2024 12:33 PM
Holcomb Station CCR LF Client: Sunflower Electric Power Corp. Data: Sanitas Export 20231018

Sen's Slope and 95% Confidence Band

H-5

