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ANALYTICAL REPORT

Eurofins TestAmerica, Denver
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Laboratory Job ID: 280-139903-1
Client Project/Site: Hidden Valley LF
Revision: 1

For:
SCS Engineers
2405 140th Avenue NE
Suite 107
Bellevue, Washington 98005-1877

Attn: Mr. Kevin Lakey

Betsy Sara

Authorized for release by:
9/29/2020 2:06:14 PM

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Definitions/Glossary

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Subcontract

Qualifier	Qualifier Description
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 280-139903-1

Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: SCS Engineers

Project: Hidden Valley LF

Report Number: 280-139903-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving

The samples were received on 08/28/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.1 C.

Holding Times

All holding times were within established control limits.

Method Blanks

All Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B, however, an LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for Ammonia Method 350.1. In addition, the RPD result was outside the RPD limit for Ammonia. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

General Comments

For samples requiring analysis at a dilution, the dilution factor has been multiplied by the Method Detection Limit (MDL) for each analyte and evaluated versus the project-specific reporting limit (PSRL). If the obtained value is below the PSRL, then the PSRL is preserved as the reporting limit for the diluted result, otherwise, the obtained value becomes the reporting limit. This is done in order to maintain the PSRL to meet permit requirements at the request of the client and to report the lowest possible RL for each analyte.

Job ID: 280-139903-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.
13715 Rider Trail North
Earth City, MO 63045
Phone: 314-298-8566

The analysis for Dissolved Iron Method 200.8 was performed by Eurofins Frontier Global Sciences, LLC.
Eurofins Frontier Global Sciences, LLC
5755 8th St E
Tacoma, WA 98424
Phone: 253-922-2310

Report Revision

This submission was revised to merge the Dissolved Iron results into the deliverables.

Detection Summary

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Client Sample ID: HVL-082720-23 — Lab Sample ID: 280-139903-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	11		0.20		mg/L	1		300.0	Total/NA
Chloride - DL	6.8		1.2		mg/L	20		300.0	Total/NA
Zinc, Total	0.014		0.010		mg/L	1		6020	Total/NA
Nitrate as N	2.1		0.20		mg/L	1		300.0	Total/NA
Color	5.0		5.0		PCU	1		SM 2120B	Total/NA

Client Sample ID: HVL-082720-24 — Lab Sample ID: 280-139903-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	9.8		0.20		mg/L	1		300.0	Total/NA
Chloride - DL	5.5		1.2		mg/L	20		300.0	Total/NA
Manganese, Total	0.0011		0.0010		mg/L	1		6020	Total/NA
Nitrate as N	1.4		0.20		mg/L	1		300.0	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 280-139903-3

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6020	Metals (ICP/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
Subcontract	LL Tot Fe 200.8 RL=0.03 mg/L (Eurofins Frontier)	None	FrontierGe
3020A	Preparation, Total Metals	SW846	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

FrontierGe = Frontier GeoSciences, Inc, 5755 8th Street E, Tacoma, WA 98424
TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-139903-1	HVL-082720-23	Water	08/27/20 13:45	08/28/20 09:30	
280-139903-2	HVL-082720-24	Water	08/27/20 14:15	08/28/20 09:30	
280-139903-3	TRIP BLANK	Water	08/27/20 13:45	08/28/20 09:30	

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: HVL-082720-23
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/09/20 03:05	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/09/20 03:05	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/09/20 03:05	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/09/20 03:05	1
1,1-Dichloroethane	ND		0.50		ug/L			09/09/20 03:05	1
1,1-Dichloroethene	ND		0.50		ug/L			09/09/20 03:05	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/09/20 03:05	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/09/20 03:05	1
1,2-Dibromoethane	ND		1.0		ug/L			09/09/20 03:05	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/09/20 03:05	1
1,2-Dichloroethane	ND		0.50		ug/L			09/09/20 03:05	1
1,2-Dichloropropane	ND		0.50		ug/L			09/09/20 03:05	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/09/20 03:05	1
2-Butanone (MEK)	ND		6.0		ug/L			09/09/20 03:05	1
2-Hexanone	ND		5.0		ug/L			09/09/20 03:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/09/20 03:05	1
Acetone	ND		10		ug/L			09/09/20 03:05	1
Acrylonitrile	ND		20		ug/L			09/09/20 03:05	1
Benzene	ND		0.50		ug/L			09/09/20 03:05	1
Bromochloromethane	ND		0.50		ug/L			09/09/20 03:05	1
Bromodichloromethane	ND		0.50		ug/L			09/09/20 03:05	1
Bromoform	ND		0.50		ug/L			09/09/20 03:05	1
Bromomethane	ND		0.50		ug/L			09/09/20 03:05	1
Carbon disulfide	ND		0.50		ug/L			09/09/20 03:05	1
Carbon tetrachloride	ND		0.50		ug/L			09/09/20 03:05	1
Chlorobenzene	ND		0.50		ug/L			09/09/20 03:05	1
Chloroethane	ND		0.50		ug/L			09/09/20 03:05	1
Chloroform	ND		0.50		ug/L			09/09/20 03:05	1
Chloromethane	ND		0.50		ug/L			09/09/20 03:05	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/09/20 03:05	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/09/20 03:05	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/09/20 03:05	1
Dibromochloromethane	ND		0.50		ug/L			09/09/20 03:05	1
Dibromomethane	ND		0.50		ug/L			09/09/20 03:05	1
Dichlorodifluoromethane	ND		2.0		ug/L			09/09/20 03:05	1
Ethylbenzene	ND		1.0		ug/L			09/09/20 03:05	1
Iodomethane	ND		1.0		ug/L			09/09/20 03:05	1
Methylene Chloride	ND		2.0		ug/L			09/09/20 03:05	1
m-Xylene & p-Xylene	ND		0.50		ug/L			09/09/20 03:05	1
o-Xylene	ND		0.50		ug/L			09/09/20 03:05	1
Styrene	ND		0.50		ug/L			09/09/20 03:05	1
Tetrachloroethene	ND		0.50		ug/L			09/09/20 03:05	1
Toluene	ND		0.50		ug/L			09/09/20 03:05	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/09/20 03:05	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/09/20 03:05	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/09/20 03:05	1
Trichloroethene	ND		0.50		ug/L			09/09/20 03:05	1
Trichlorofluoromethane	ND		0.50		ug/L			09/09/20 03:05	1
Vinyl acetate	ND		3.0		ug/L			09/09/20 03:05	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-082720-23
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50		ug/L			09/09/20 03:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 127*		*09/09/20 03:05*	*1*
4-Bromofluorobenzene (Surr)	*100*		*78 - 120*		*09/09/20 03:05*	*1*
Dibromofluoromethane (Surr)	*102*		*77 - 120*		*09/09/20 03:05*	*1*
Toluene-d8 (Surr)	*100*		*80 - 125*		*09/09/20 03:05*	*1*

Client Sample ID: HVL-082720-24
Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/09/20 03:26	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/09/20 03:26	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/09/20 03:26	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/09/20 03:26	1
1,1-Dichloroethane	ND		0.50		ug/L			09/09/20 03:26	1
1,1-Dichloroethene	ND		0.50		ug/L			09/09/20 03:26	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/09/20 03:26	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/09/20 03:26	1
1,2-Dibromoethane	ND		1.0		ug/L			09/09/20 03:26	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/09/20 03:26	1
1,2-Dichloroethane	ND		0.50		ug/L			09/09/20 03:26	1
1,2-Dichloropropane	ND		0.50		ug/L			09/09/20 03:26	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/09/20 03:26	1
2-Butanone (MEK)	ND		6.0		ug/L			09/09/20 03:26	1
2-Hexanone	ND		5.0		ug/L			09/09/20 03:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/09/20 03:26	1
Acetone	ND		10		ug/L			09/09/20 03:26	1
Acrylonitrile	ND		20		ug/L			09/09/20 03:26	1
Benzene	ND		0.50		ug/L			09/09/20 03:26	1
Bromochloromethane	ND		0.50		ug/L			09/09/20 03:26	1
Bromodichloromethane	ND		0.50		ug/L			09/09/20 03:26	1
Bromoform	ND		0.50		ug/L			09/09/20 03:26	1
Bromomethane	ND		0.50		ug/L			09/09/20 03:26	1
Carbon disulfide	ND		0.50		ug/L			09/09/20 03:26	1
Carbon tetrachloride	ND		0.50		ug/L			09/09/20 03:26	1
Chlorobenzene	ND		0.50		ug/L			09/09/20 03:26	1
Chloroethane	ND		0.50		ug/L			09/09/20 03:26	1
Chloroform	ND		0.50		ug/L			09/09/20 03:26	1
Chloromethane	ND		0.50		ug/L			09/09/20 03:26	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/09/20 03:26	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/09/20 03:26	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/09/20 03:26	1
Dibromochloromethane	ND		0.50		ug/L			09/09/20 03:26	1
Dibromomethane	ND		0.50		ug/L			09/09/20 03:26	1
Dichlorodifluoromethane	ND		2.0		ug/L			09/09/20 03:26	1
Ethylbenzene	ND		1.0		ug/L			09/09/20 03:26	1
Iodomethane	ND		1.0		ug/L			09/09/20 03:26	1
Methylene Chloride	ND		2.0		ug/L			09/09/20 03:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-082720-24
Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50		ug/L			09/09/20 03:26	1
o-Xylene	ND		0.50		ug/L			09/09/20 03:26	1
Styrene	ND		0.50		ug/L			09/09/20 03:26	1
Tetrachloroethene	ND		0.50		ug/L			09/09/20 03:26	1
Toluene	ND		0.50		ug/L			09/09/20 03:26	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/09/20 03:26	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/09/20 03:26	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/09/20 03:26	1
Trichloroethene	ND		0.50		ug/L			09/09/20 03:26	1
Trichlorofluoromethane	ND		0.50		ug/L			09/09/20 03:26	1
Vinyl acetate	ND		3.0		ug/L			09/09/20 03:26	1
Vinyl chloride	ND		0.50		ug/L			09/09/20 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 127*		*09/09/20 03:26*	*1*
4-Bromofluorobenzene (Surr)	*101*		*78 - 120*		*09/09/20 03:26*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 120*		*09/09/20 03:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 125*		*09/09/20 03:26*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/09/20 03:47	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/09/20 03:47	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/09/20 03:47	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/09/20 03:47	1
1,1-Dichloroethane	ND		0.50		ug/L			09/09/20 03:47	1
1,1-Dichloroethene	ND		0.50		ug/L			09/09/20 03:47	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/09/20 03:47	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/09/20 03:47	1
1,2-Dibromoethane	ND		1.0		ug/L			09/09/20 03:47	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/09/20 03:47	1
1,2-Dichloroethane	ND		0.50		ug/L			09/09/20 03:47	1
1,2-Dichloropropane	ND		0.50		ug/L			09/09/20 03:47	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/09/20 03:47	1
2-Butanone (MEK)	ND		6.0		ug/L			09/09/20 03:47	1
2-Hexanone	ND		5.0		ug/L			09/09/20 03:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/09/20 03:47	1
Acetone	ND		10		ug/L			09/09/20 03:47	1
Acrylonitrile	ND		20		ug/L			09/09/20 03:47	1
Benzene	ND		0.50		ug/L			09/09/20 03:47	1
Bromochloromethane	ND		0.50		ug/L			09/09/20 03:47	1
Bromodichloromethane	ND		0.50		ug/L			09/09/20 03:47	1
Bromoform	ND		0.50		ug/L			09/09/20 03:47	1
Bromomethane	ND		0.50		ug/L			09/09/20 03:47	1
Carbon disulfide	ND		0.50		ug/L			09/09/20 03:47	1
Carbon tetrachloride	ND		0.50		ug/L			09/09/20 03:47	1
Chlorobenzene	ND		0.50		ug/L			09/09/20 03:47	1
Chloroethane	ND		0.50		ug/L			09/09/20 03:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.50		ug/L			09/09/20 03:47	1
Chloromethane	ND		0.50		ug/L			09/09/20 03:47	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/09/20 03:47	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/09/20 03:47	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/09/20 03:47	1
Dibromochloromethane	ND		0.50		ug/L			09/09/20 03:47	1
Dibromomethane	ND		0.50		ug/L			09/09/20 03:47	1
Dichlorodifluoromethane	ND		2.0		ug/L			09/09/20 03:47	1
Ethylbenzene	ND		1.0		ug/L			09/09/20 03:47	1
Iodomethane	ND		1.0		ug/L			09/09/20 03:47	1
Methylene Chloride	ND		2.0		ug/L			09/09/20 03:47	1
m-Xylene & p-Xylene	ND		0.50		ug/L			09/09/20 03:47	1
o-Xylene	ND		0.50		ug/L			09/09/20 03:47	1
Styrene	ND		0.50		ug/L			09/09/20 03:47	1
Tetrachloroethene	ND		0.50		ug/L			09/09/20 03:47	1
Toluene	ND		0.50		ug/L			09/09/20 03:47	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/09/20 03:47	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/09/20 03:47	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/09/20 03:47	1
Trichloroethene	ND		0.50		ug/L			09/09/20 03:47	1
Trichlorofluoromethane	ND		0.50		ug/L			09/09/20 03:47	1
Vinyl acetate	ND		3.0		ug/L			09/09/20 03:47	1
Vinyl chloride	ND		0.50		ug/L			09/09/20 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 127*		*09/09/20 03:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*78 - 120*		*09/09/20 03:47*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*09/09/20 03:47*	*1*
Toluene-d8 (Surr)	*98*		*80 - 125*		*09/09/20 03:47*	*1*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HVL-082720-23
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**11**		0.20		mg/L			09/16/20 00:20	1

Client Sample ID: HVL-082720-24
Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**9.8**		0.20		mg/L			09/16/20 01:24	1

Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HVL-082720-23
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.8**		1.2		mg/L			09/16/20 00:36	20

Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HVL-082720-24
Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.5**		1.2		mg/L			09/16/20 01:40	20

Method: 6020 - Metals (ICP/MS)

Client Sample ID: HVL-082720-23
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Total	ND		0.0050		mg/L		09/02/20 08:18	09/04/20 16:47	1
Manganese, Total	ND		0.0010		mg/L		09/02/20 08:18	09/04/20 16:47	1
Zinc, Total	**0.014**		0.010		mg/L		09/02/20 08:18	09/08/20 15:52	1

Client Sample ID: HVL-082720-24
Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Total	ND		0.0050		mg/L		09/02/20 08:18	09/04/20 17:05	1
Manganese, Total	**0.0011**		0.0010		mg/L		09/02/20 08:18	09/04/20 17:05	1
Zinc, Total	ND		0.010		mg/L		09/02/20 08:18	09/08/20 16:09	1

General Chemistry

Client Sample ID: HVL-082720-23
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**2.1**		0.20		mg/L			08/28/20 19:07	1
Nitrite as N	ND		0.50		mg/L			08/28/20 19:07	1
Ammonia	ND		0.10		mg/L			09/12/20 15:03	1
Chemical Oxygen Demand	ND		10		mg/L			09/08/20 09:22	1
Total Organic Carbon - Quad	ND		1.0		mg/L			09/11/20 05:36	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	**5.0**		5.0		PCU			08/28/20 23:31	1

Client Sample ID: HVL-082720-24
Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.4**		0.20		mg/L			08/28/20 20:13	1
Nitrite as N	ND		0.50		mg/L			08/28/20 20:13	1
Ammonia	ND		0.10		mg/L			09/12/20 15:17	1
Chemical Oxygen Demand	ND		10		mg/L			09/08/20 09:22	1
Total Organic Carbon - Quad	ND		1.0		mg/L			09/11/20 05:51	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		5.0		PCU			08/28/20 23:31	1

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Method: LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr - General Subcontract Method

Client Sample ID: HVL-082720-23
Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	U	10		µg/L		09/14/20 11:13	09/15/20 03:32	1

Client Sample ID: HVL-082720-24
Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	U	10		µg/L		09/14/20 11:13	09/15/20 03:37	1

Surrogate Summary

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-127)	(78-120)	(77-120)	(80-125)
280-139903-1	HVL-082720-23	101	100	102	100
280-139903-2	HVL-082720-24	101	101	101	99
280-139903-3	TRIP BLANK	99	100	100	98
LCS 280-508332/4	Lab Control Sample	99	99	100	98
LCSD 280-508332/5	Lab Control Sample Dup	100	99	101	98
MB 280-508332/9	Method Blank	100	101	100	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-508332/9
Matrix: Water
Analysis Batch: 508332

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/08/20 23:09	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/08/20 23:09	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/08/20 23:09	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/08/20 23:09	1
1,1-Dichloroethane	ND		0.50		ug/L			09/08/20 23:09	1
1,1-Dichloroethene	ND		0.50		ug/L			09/08/20 23:09	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/08/20 23:09	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/08/20 23:09	1
1,2-Dibromoethane	ND		1.0		ug/L			09/08/20 23:09	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/08/20 23:09	1
1,2-Dichloroethane	ND		0.50		ug/L			09/08/20 23:09	1
1,2-Dichloropropane	ND		0.50		ug/L			09/08/20 23:09	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/08/20 23:09	1
2-Butanone (MEK)	ND		6.0		ug/L			09/08/20 23:09	1
2-Hexanone	ND		5.0		ug/L			09/08/20 23:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/08/20 23:09	1
Acetone	ND		10		ug/L			09/08/20 23:09	1
Acrylonitrile	ND		20		ug/L			09/08/20 23:09	1
Benzene	ND		0.50		ug/L			09/08/20 23:09	1
Bromochloromethane	ND		0.50		ug/L			09/08/20 23:09	1
Bromodichloromethane	ND		0.50		ug/L			09/08/20 23:09	1
Bromoform	ND		0.50		ug/L			09/08/20 23:09	1
Bromomethane	ND		0.50		ug/L			09/08/20 23:09	1
Carbon disulfide	ND		0.50		ug/L			09/08/20 23:09	1
Carbon tetrachloride	ND		0.50		ug/L			09/08/20 23:09	1
Chlorobenzene	ND		0.50		ug/L			09/08/20 23:09	1
Chloroethane	ND		0.50		ug/L			09/08/20 23:09	1
Chloroform	ND		0.50		ug/L			09/08/20 23:09	1
Chloromethane	ND		0.50		ug/L			09/08/20 23:09	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/08/20 23:09	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/08/20 23:09	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/08/20 23:09	1
Dibromochloromethane	ND		0.50		ug/L			09/08/20 23:09	1
Dibromomethane	ND		0.50		ug/L			09/08/20 23:09	1
Dichlorodifluoromethane	ND		2.0		ug/L			09/08/20 23:09	1
Ethylbenzene	ND		1.0		ug/L			09/08/20 23:09	1
Iodomethane	ND		1.0		ug/L			09/08/20 23:09	1
Methylene Chloride	ND		2.0		ug/L			09/08/20 23:09	1
m-Xylene & p-Xylene	ND		0.50		ug/L			09/08/20 23:09	1
o-Xylene	ND		0.50		ug/L			09/08/20 23:09	1
Styrene	ND		0.50		ug/L			09/08/20 23:09	1
Tetrachloroethene	ND		0.50		ug/L			09/08/20 23:09	1
Toluene	ND		0.50		ug/L			09/08/20 23:09	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/08/20 23:09	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/08/20 23:09	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			09/08/20 23:09	1
Trichloroethene	ND		0.50		ug/L			09/08/20 23:09	1
Trichlorofluoromethane	ND		0.50		ug/L			09/08/20 23:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-508332/9
Matrix: Water
Analysis Batch: 508332

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		3.0		ug/L			09/08/20 23:09	1
Vinyl chloride	ND		0.50		ug/L			09/08/20 23:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 127*		*09/08/20 23:09*	*1*
4-Bromofluorobenzene (Surr)	*101*		*78 - 120*		*09/08/20 23:09*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*09/08/20 23:09*	*1*
Toluene-d8 (Surr)	*100*		*80 - 125*		*09/08/20 23:09*	*1*

Lab Sample ID: LCS 280-508332/4
Matrix: Water
Analysis Batch: 508332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.4		ug/L		106	65 - 135
1,1,1-Trichloroethane	25.0	27.8		ug/L		111	65 - 135
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	58 - 135
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	64 - 135
1,1-Dichloroethane	25.0	26.1		ug/L		104	65 - 135
1,1-Dichloroethene	25.0	25.6		ug/L		102	65 - 136
1,2,3-Trichloropropane	25.0	24.6		ug/L		99	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	24.6		ug/L		98	57 - 135
1,2-Dibromoethane	25.0	24.9		ug/L		100	65 - 135
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	65 - 135
1,2-Dichloroethane	25.0	26.0		ug/L		104	65 - 135
1,2-Dichloropropane	25.0	27.1		ug/L		109	64 - 135
1,4-Dichlorobenzene	25.0	25.5		ug/L		102	65 - 135
2-Butanone (MEK)	100	90.2		ug/L		90	44 - 177
2-Hexanone	100	94.2		ug/L		94	57 - 139
4-Methyl-2-pentanone (MIBK)	100	96.3		ug/L		96	60 - 150
Acetone	100	97.1		ug/L		97	39 - 156
Acrylonitrile	250	243		ug/L		97	56 - 135
Benzene	25.0	25.7		ug/L		103	65 - 135
Bromochloromethane	25.0	25.2		ug/L		101	65 - 135
Bromodichloromethane	25.0	27.6		ug/L		110	65 - 135
Bromoform	25.0	23.3		ug/L		93	62 - 135
Bromomethane	25.0	28.6		ug/L		115	45 - 135
Carbon disulfide	25.0	24.8		ug/L		99	55 - 143
Carbon tetrachloride	25.0	28.1		ug/L		112	65 - 135
Chlorobenzene	25.0	25.8		ug/L		103	65 - 135
Chloroethane	25.0	26.5		ug/L		106	46 - 136
Chloroform	25.0	26.6		ug/L		106	65 - 135
Chloromethane	25.0	23.6		ug/L		94	34 - 145
cis-1,2-Dichloroethene	25.0	27.1		ug/L		109	65 - 135
cis-1,3-Dichloropropene	25.0	27.3		ug/L		109	65 - 135
Dibromochloromethane	25.0	27.1		ug/L		109	65 - 135
Dibromomethane	25.0	26.1		ug/L		104	65 - 135
Dichlorodifluoromethane	25.0	29.0		ug/L		116	43 - 142

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-508332/4
Matrix: Water
Analysis Batch: 508332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	26.1		ug/L		104	65 - 135
Iodomethane	25.0	21.6		ug/L		86	65 - 142
Methylene Chloride	25.0	24.1		ug/L		96	54 - 141
m-Xylene & p-Xylene	25.0	26.0		ug/L		104	65 - 135
o-Xylene	25.0	25.9		ug/L		104	65 - 135
Styrene	25.0	26.6		ug/L		106	65 - 135
Tetrachloroethene	25.0	27.3		ug/L		109	65 - 135
Toluene	25.0	26.4		ug/L		106	65 - 135
trans-1,2-Dichloroethene	25.0	26.8		ug/L		107	65 - 135
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	65 - 135
trans-1,4-Dichloro-2-butene	25.0	28.1		ug/L		112	53 - 135
Trichloroethene	25.0	26.1		ug/L		104	65 - 135
Trichlorofluoromethane	25.0	28.7		ug/L		115	53 - 137
Vinyl acetate	50.0	77.0		ug/L		154	11 - 187
Vinyl chloride	25.0	28.0		ug/L		112	40 - 137

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 127*
4-Bromofluorobenzene (Surr)	*99*		*78 - 120*
Dibromofluoromethane (Surr)	*100*		*77 - 120*
Toluene-d8 (Surr)	*98*		*80 - 125*

Lab Sample ID: LCSD 280-508332/5
Matrix: Water
Analysis Batch: 508332

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	65 - 135	1	20
1,1,1-Trichloroethane	25.0	28.4		ug/L		114	65 - 135	2	20
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	58 - 135	4	20
1,1,2-Trichloroethane	25.0	26.1		ug/L		104	64 - 135	0	27
1,1-Dichloroethane	25.0	26.3		ug/L		105	65 - 135	1	21
1,1-Dichloroethene	25.0	25.4		ug/L		102	65 - 136	1	20
1,2,3-Trichloropropane	25.0	25.5		ug/L		102	65 - 135	3	23
1,2-Dibromo-3-Chloropropane	25.0	25.7		ug/L		103	57 - 135	4	22
1,2-Dibromoethane	25.0	25.2		ug/L		101	65 - 135	1	27
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	65 - 135	0	20
1,2-Dichloroethane	25.0	25.8		ug/L		103	65 - 135	1	20
1,2-Dichloropropane	25.0	27.1		ug/L		108	64 - 135	0	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	65 - 135	1	23
2-Butanone (MEK)	100	100		ug/L		100	44 - 177	11	32
2-Hexanone	100	107		ug/L		107	57 - 139	12	25
4-Methyl-2-pentanone (MIBK)	100	106		ug/L		106	60 - 150	10	22
Acetone	100	104		ug/L		104	39 - 156	7	23
Acrylonitrile	250	259		ug/L		104	56 - 135	7	30
Benzene	25.0	25.9		ug/L		104	65 - 135	1	20
Bromochloromethane	25.0	25.2		ug/L		101	65 - 135	0	29
Bromodichloromethane	25.0	27.8		ug/L		111	65 - 135	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-508332/5
Matrix: Water
Analysis Batch: 508332

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform			25.0	23.8		ug/L		95	62 - 135	2	27
Bromomethane			25.0	26.9		ug/L		107	45 - 135	6	33
Carbon disulfide			25.0	24.7		ug/L		99	55 - 143	0	20
Carbon tetrachloride			25.0	28.3		ug/L		113	65 - 135	1	21
Chlorobenzene			25.0	26.3		ug/L		105	65 - 135	2	20
Chloroethane			25.0	26.1		ug/L		104	46 - 136	2	25
Chloroform			25.0	26.4		ug/L		106	65 - 135	1	20
Chloromethane			25.0	23.1		ug/L		93	34 - 145	2	24
cis-1,2-Dichloroethene			25.0	27.3		ug/L		109	65 - 135	1	20
cis-1,3-Dichloropropene			25.0	26.9		ug/L		108	65 - 135	1	26
Dibromochloromethane			25.0	27.0		ug/L		108	65 - 135	0	20
Dibromomethane			25.0	26.4		ug/L		105	65 - 135	1	26
Dichlorodifluoromethane			25.0	28.5		ug/L		114	43 - 142	2	30
Ethylbenzene			25.0	26.5		ug/L		106	65 - 135	1	20
Iodomethane			25.0	22.3		ug/L		89	65 - 142	3	25
Methylene Chloride			25.0	23.9		ug/L		96	54 - 141	1	26
m-Xylene & p-Xylene			25.0	26.1		ug/L		104	65 - 135	1	20
o-Xylene			25.0	26.3		ug/L		105	65 - 135	1	20
Styrene			25.0	26.6		ug/L		106	65 - 135	0	26
Tetrachloroethene			25.0	27.0		ug/L		108	65 - 135	1	20
Toluene			25.0	26.9		ug/L		107	65 - 135	2	20
trans-1,2-Dichloroethene			25.0	27.3		ug/L		109	65 - 135	2	24
trans-1,3-Dichloropropene			25.0	26.4		ug/L		106	65 - 135	1	26
trans-1,4-Dichloro-2-butene			25.0	29.1		ug/L		117	53 - 135	4	25
Trichloroethene			25.0	26.4		ug/L		105	65 - 135	1	20
Trichlorofluoromethane			25.0	27.7		ug/L		111	53 - 137	3	27
Vinyl acetate			50.0	79.7		ug/L		159	11 - 187	4	24
Vinyl chloride			25.0	27.3		ug/L		109	40 - 137	2	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 127*
4-Bromofluorobenzene (Surr)	*99*		*78 - 120*
Dibromofluoromethane (Surr)	*101*		*77 - 120*
Toluene-d8 (Surr)	*98*		*80 - 125*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-482469/9
Matrix: Water
Analysis Batch: 482469

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.20		mg/L			09/15/20 12:42	1
Sulfate	ND		0.20		mg/L			09/15/20 12:42	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 160-482469/10
Matrix: Water
Analysis Batch: 482469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.97		mg/L		99	90 - 110		
Sulfate			8.00	7.87		mg/L		98	90 - 110		

Lab Sample ID: 280-139903-2 MS
Matrix: Water
Analysis Batch: 482469

Client Sample ID: HVL-082720-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	9.8		4.00	13.9		mg/L		102	90 - 110		

Lab Sample ID: 280-139903-2 DU
Matrix: Water
Analysis Batch: 482469

Client Sample ID: HVL-082720-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	9.8			9.81		mg/L				0.3	20

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 280-139903-2 DU
Matrix: Water
Analysis Batch: 482469

Client Sample ID: HVL-082720-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride - DL	5.5			5.90		mg/L				7	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 280-507480/1-A
Matrix: Water
Analysis Batch: 508168

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Total	ND		0.0050		mg/L		09/02/20 08:18	09/04/20 16:40	1
Manganese, Total	ND		0.0010		mg/L		09/02/20 08:18	09/04/20 16:40	1

Lab Sample ID: MB 280-507480/1-A
Matrix: Water
Analysis Batch: 508360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc, Total	ND		0.010		mg/L		09/02/20 08:18	09/08/20 15:45	1

Lab Sample ID: LCS 280-507480/2-A
Matrix: Water
Analysis Batch: 508168

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507480

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic, Total			0.0400	0.0403		mg/L		101	85 - 117		
Manganese, Total			0.0400	0.0434		mg/L		108	85 - 117		

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-507480/2-A
Matrix: Water
Analysis Batch: 508360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc, Total	0.0400	0.0393		mg/L		98	83 - 122

Lab Sample ID: 280-139903-1 MS
Matrix: Water
Analysis Batch: 508168

Client Sample ID: HVL-082720-23
Prep Type: Total/NA
Prep Batch: 507480

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Total	ND		0.0400	0.0391		mg/L		96	85 - 117
Manganese, Total	ND		0.0400	0.0440		mg/L		109	85 - 117

Lab Sample ID: 280-139903-1 MS
Matrix: Water
Analysis Batch: 508360

Client Sample ID: HVL-082720-23
Prep Type: Total/NA
Prep Batch: 507480

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc, Total	0.014		0.0400	0.0483		mg/L		87	83 - 122

Lab Sample ID: 280-139903-1 MSD
Matrix: Water
Analysis Batch: 508168

Client Sample ID: HVL-082720-23
Prep Type: Total/NA
Prep Batch: 507480

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic, Total	ND		0.0400	0.0398		mg/L		98	85 - 117	2	20
Manganese, Total	ND		0.0400	0.0428		mg/L		106	85 - 117	3	20

Lab Sample ID: 280-139903-1 MSD
Matrix: Water
Analysis Batch: 508360

Client Sample ID: HVL-082720-23
Prep Type: Total/NA
Prep Batch: 507480

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc, Total	0.014		0.0400	0.0476		mg/L		85	83 - 122	2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-507207/6
Matrix: Water
Analysis Batch: 507207

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			08/28/20 11:44	1
Nitrite as N	ND		0.50		mg/L			08/28/20 11:44	1

Lab Sample ID: LCS 280-507207/4
Matrix: Water
Analysis Batch: 507207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.88		mg/L		98	90 - 110
Nitrite as N	5.00	4.93		mg/L		99	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-507207/5
Matrix: Water
Analysis Batch: 507207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N			5.00	4.90		mg/L		98	90 - 110	0	10
Nitrite as N			5.00	4.98		mg/L		100	90 - 110	1	10

Lab Sample ID: MRL 280-507207/3
Matrix: Water
Analysis Batch: 507207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			0.500	ND		mg/L		99	50 - 150		
Nitrite as N			0.500	0.509		mg/L		102	50 - 150		

Lab Sample ID: 280-139903-1 MS
Matrix: Water
Analysis Batch: 507207

Client Sample ID: HVL-082720-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	2.1		5.00	7.57		mg/L		109	80 - 120		
Nitrite as N	ND		5.00	5.26		mg/L		105	80 - 120		

Lab Sample ID: 280-139903-1 MSD
Matrix: Water
Analysis Batch: 507207

Client Sample ID: HVL-082720-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.1		5.00	7.55		mg/L		109	80 - 120	0	20
Nitrite as N	ND		5.00	5.35		mg/L		107	80 - 120	2	20

Lab Sample ID: 280-139903-1 DU
Matrix: Water
Analysis Batch: 507207

Client Sample ID: HVL-082720-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N	2.1			2.14		mg/L				1	15
Nitrite as N	ND			ND		mg/L				NC	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-508862/62
Matrix: Water
Analysis Batch: 508862

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			09/12/20 14:55	1

Lab Sample ID: LCS 280-508862/61
Matrix: Water
Analysis Batch: 508862

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			2.50	2.51		mg/L		100	90 - 110		

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-140119-A-1 MS
Matrix: Water
Analysis Batch: 508862

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	ND	F1 F2	1.00	0.871	F1	mg/L		85	90 - 110		

Lab Sample ID: 280-140119-A-1 MSD
Matrix: Water
Analysis Batch: 508862

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND	F1 F2	1.00	1.00	F2	mg/L		98	90 - 110	14	10

Method: 410.4 - COD

Lab Sample ID: MB 280-508210/5
Matrix: Water
Analysis Batch: 508210

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			09/08/20 09:22	1

Lab Sample ID: LCS 280-508210/3
Matrix: Water
Analysis Batch: 508210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			100	102		mg/L		102	90 - 110		

Lab Sample ID: LCSD 280-508210/4
Matrix: Water
Analysis Batch: 508210

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand			100	99.1		mg/L		99	90 - 110	2	11

Lab Sample ID: 280-139903-1 MS
Matrix: Water
Analysis Batch: 508210

Client Sample ID: HVL-082720-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		50.0	47.4		mg/L		95	90 - 110		

Lab Sample ID: 280-139903-1 MSD
Matrix: Water
Analysis Batch: 508210

Client Sample ID: HVL-082720-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		50.0	45.3		mg/L		91	90 - 110	5	11

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-507280/1
Matrix: Water
Analysis Batch: 507280

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		5.0		PCU			08/28/20 23:31	1

Lab Sample ID: 280-139903-1 DU
Matrix: Water
Analysis Batch: 507280

Client Sample ID: HVL-082720-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Color	5.0			5.00		PCU				0	20

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-508773/35
Matrix: Water
Analysis Batch: 508773

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	ND		1.0		mg/L			09/11/20 00:22	1

Lab Sample ID: LCS 280-508773/34
Matrix: Water
Analysis Batch: 508773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Quad			25.0	23.8		mg/L		95	88 - 112		

Lab Sample ID: 280-139814-C-12 MS
Matrix: Water
Analysis Batch: 508773

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Quad	ND		25.0	24.7		mg/L		99	88 - 112		

Lab Sample ID: 280-139814-C-12 MSD
Matrix: Water
Analysis Batch: 508773

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	ND		25.0	24.7		mg/L		99	88 - 112	0	15

Method: LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr - General Subcontract Method

Lab Sample ID: F009359-BLK1
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	U	5		µg/L		09/14/20 11:13	09/14/20 22:01	1

Method: LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr - General Subcontract Method (Continued)

Lab Sample ID: F009359-BLK2
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	U	5		µg/L		09/14/20 11:13	09/14/20 22:06	1

Lab Sample ID: F009359-BS1
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			1250	1278		µg/L		102	85 - 115		

Lab Sample ID: F009359-BSD1
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron			1250	1266		µg/L		101	85 - 115	0.921	20

Lab Sample ID: F009359-MS1
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron	2868		1250	4411	E	µg/L		123	70 - 130		

Lab Sample ID: F009359-MS2
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron	ND		2500	2398		µg/L		95.9	70 - 130		

Lab Sample ID: F009359-MSD1
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte	Sample Result	Sample Qualifier	Spike Added	ix Spike Dup Result	Matrix Spike D Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	2868		1250	4093	E	µg/L		98	70 - 130	7.49	20

Lab Sample ID: F009359-MSD2
Matrix: Water
Analysis Batch: F009359

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: F009359_P

Analyte	Sample Result	Sample Qualifier	Spike Added	ix Spike Dup Result	Matrix Spike D Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	ND		2500	2424		µg/L		96.9	70 - 130	1.06	20

QC Association Summary

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

GC/MS VOA

Analysis Batch: 508332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	8260B	
280-139903-2	HVL-082720-24	Total/NA	Water	8260B	
280-139903-3	TRIP BLANK	Total/NA	Water	8260B	
MB 280-508332/9	Method Blank	Total/NA	Water	8260B	
LCS 280-508332/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-508332/5	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 482469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	300.0	
280-139903-1 - DL	HVL-082720-23	Total/NA	Water	300.0	
280-139903-2	HVL-082720-24	Total/NA	Water	300.0	
280-139903-2 - DL	HVL-082720-24	Total/NA	Water	300.0	
MB 160-482469/9	Method Blank	Total/NA	Water	300.0	
LCS 160-482469/10	Lab Control Sample	Total/NA	Water	300.0	
280-139903-2 MS	HVL-082720-24	Total/NA	Water	300.0	
280-139903-2 DU	HVL-082720-24	Total/NA	Water	300.0	
280-139903-2 DU - DL	HVL-082720-24	Total/NA	Water	300.0	

Metals

Prep Batch: 507480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	3020A	
280-139903-2	HVL-082720-24	Total/NA	Water	3020A	
MB 280-507480/1-A	Method Blank	Total/NA	Water	3020A	
LCS 280-507480/2-A	Lab Control Sample	Total/NA	Water	3020A	
280-139903-1 MS	HVL-082720-23	Total/NA	Water	3020A	
280-139903-1 MSD	HVL-082720-23	Total/NA	Water	3020A	

Analysis Batch: 508168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	6020	507480
280-139903-2	HVL-082720-24	Total/NA	Water	6020	507480
MB 280-507480/1-A	Method Blank	Total/NA	Water	6020	507480
LCS 280-507480/2-A	Lab Control Sample	Total/NA	Water	6020	507480
280-139903-1 MS	HVL-082720-23	Total/NA	Water	6020	507480
280-139903-1 MSD	HVL-082720-23	Total/NA	Water	6020	507480

Analysis Batch: 508360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	6020	507480
280-139903-2	HVL-082720-24	Total/NA	Water	6020	507480
MB 280-507480/1-A	Method Blank	Total/NA	Water	6020	507480
LCS 280-507480/2-A	Lab Control Sample	Total/NA	Water	6020	507480
280-139903-1 MS	HVL-082720-23	Total/NA	Water	6020	507480
280-139903-1 MSD	HVL-082720-23	Total/NA	Water	6020	507480

QC Association Summary

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

General Chemistry

Analysis Batch: 507207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	300.0	
280-139903-2	HVL-082720-24	Total/NA	Water	300.0	
MB 280-507207/6	Method Blank	Total/NA	Water	300.0	
LCS 280-507207/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-507207/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-507207/3	Lab Control Sample	Total/NA	Water	300.0	
280-139903-1 MS	HVL-082720-23	Total/NA	Water	300.0	
280-139903-1 MSD	HVL-082720-23	Total/NA	Water	300.0	
280-139903-1 DU	HVL-082720-23	Total/NA	Water	300.0	

Analysis Batch: 507280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	SM 2120B	
280-139903-2	HVL-082720-24	Total/NA	Water	SM 2120B	
MB 280-507280/1	Method Blank	Total/NA	Water	SM 2120B	
280-139903-1 DU	HVL-082720-23	Total/NA	Water	SM 2120B	

Analysis Batch: 508210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	410.4	
280-139903-2	HVL-082720-24	Total/NA	Water	410.4	
MB 280-508210/5	Method Blank	Total/NA	Water	410.4	
LCS 280-508210/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-508210/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-139903-1 MS	HVL-082720-23	Total/NA	Water	410.4	
280-139903-1 MSD	HVL-082720-23	Total/NA	Water	410.4	

Analysis Batch: 508773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	SM 5310B	
280-139903-2	HVL-082720-24	Total/NA	Water	SM 5310B	
MB 280-508773/35	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-508773/34	Lab Control Sample	Total/NA	Water	SM 5310B	
280-139814-C-12 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-139814-C-12 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 508862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	350.1	
280-139903-2	HVL-082720-24	Total/NA	Water	350.1	
MB 280-508862/62	Method Blank	Total/NA	Water	350.1	
LCS 280-508862/61	Lab Control Sample	Total/NA	Water	350.1	
280-140119-A-1 MS	Matrix Spike	Total/NA	Water	350.1	
280-140119-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Subcontract

Analysis Batch: F009359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P

Subcontract (Continued)

Analysis Batch: F009359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-2	HVL-082720-24	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-BLK1	Method Blank	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-BLK2	Method Blank	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-BS1	Lab Control Sample	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-BSD1	Lab Control Sample Dup	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-MS1	Matrix Spike	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-MS2	Matrix Spike	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-MSD1	Matrix Spike Duplicate	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P
F009359-MSD2	Matrix Spike Duplicate	Total/NA	Water	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	F009359_P

Prep Batch: F009359_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-139903-1	HVL-082720-23	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
280-139903-2	HVL-082720-24	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F009359-BLK1	Method Blank	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F009359-BLK2	Method Blank	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F009359-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F009359-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F009359-MS1	Matrix Spike	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	

Subcontract (Continued)

Prep Batch: F009359_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
F009359-MS2	Matrix Spike	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F009359-MSD1	Matrix Spike Duplicate	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F009359-MSD2	Matrix Spike Duplicate	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	

Lab Chronicle

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Client Sample ID: HVL-082720-23

Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508332	09/09/20 03:05	PP	TAL DEN
Total/NA	Analysis	300.0		1			482469	09/16/20 00:20	LTC	TAL SL
Total/NA	Analysis	300.0	DL	20			482469	09/16/20 00:36	LTC	TAL SL
Total/NA	Prep	3020A			50 mL	50 mL	507480	09/02/20 08:18	EAS	TAL DEN
Total/NA	Analysis	6020		1			508168	09/04/20 16:47	LMT	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	507480	09/02/20 08:18	EAS	TAL DEN
Total/NA	Analysis	6020		1			508360	09/08/20 15:52	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	507207	08/28/20 19:07	BWH	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	508862	09/12/20 15:03	BWH	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	508210	09/08/20 09:22	SPG	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	507280	08/28/20 23:31	CKB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	508773	09/11/20 05:36	JMB	TAL DEN
Total/NA	Prep	EFGS SOP2836 Closed Vessel Water Oven Digestion		1			F009359_P	09/14/20 11:13		FrontierGe
Total/NA	Analysis	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr		1			F009359	09/15/20 03:32	MGS	FrontierGe

Client Sample ID: HVL-082720-24

Date Collected: 08/27/20 14:15
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508332	09/09/20 03:26	PP	TAL DEN
Total/NA	Analysis	300.0		1			482469	09/16/20 01:24	LTC	TAL SL
Total/NA	Analysis	300.0	DL	20			482469	09/16/20 01:40	LTC	TAL SL
Total/NA	Prep	3020A			50 mL	50 mL	507480	09/02/20 08:18	EAS	TAL DEN
Total/NA	Analysis	6020		1			508168	09/04/20 17:05	LMT	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	507480	09/02/20 08:18	EAS	TAL DEN
Total/NA	Analysis	6020		1			508360	09/08/20 16:09	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	507207	08/28/20 20:13	BWH	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	508862	09/12/20 15:17	BWH	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	508210	09/08/20 09:22	SPG	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	507280	08/28/20 23:31	CKB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	508773	09/11/20 05:51	JMB	TAL DEN
Total/NA	Prep	EFGS SOP2836 Closed Vessel Water Oven Digestion		1			F009359_P	09/14/20 11:13		FrontierGe
Total/NA	Analysis	LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr		1			F009359	09/15/20 03:37	MGS	FrontierGe

Lab Chronicle

Client: SCS Engineers
Project/Site: Hidden Valley LF

Job ID: 280-139903-1

Client Sample ID: TRIP BLANK

Date Collected: 08/27/20 13:45
Date Received: 08/28/20 09:30

Lab Sample ID: 280-139903-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508332	09/09/20 03:47	PP	TAL DEN

Laboratory References:

FrontierGe = Frontier GeoSciences, Inc, 5755 8th Street E, Tacoma, WA 98424

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

16 September 2020

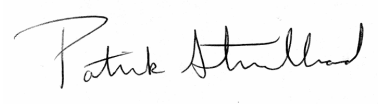
Betsy Sara
Eurofins Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: 200.8 Metals

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Patrick Garcia-Strickland
Business Unit Manager

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HVL-082720-23 (280-139903-1)	0I00004-01	Water	27-Aug-20 13:45	01-Sep-20 09:30
HVL-082720-24 (280-139903-2)	0I00004-02	Water	27-Aug-20 14:15	01-Sep-20 09:30

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 01-Sep-20 09:30. The samples were received intact.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total recoverable metals by inductively coupled plasma mass spectrometry (ICP-MS) in accordance with EPA 200.8.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Patrick Garcia-Strickland, Business Unit Manager

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Sample Receipt Checklist

Client: TA - Denver Date & Time Received: 9/1/2020 9:32 Date Labeled: 9/1/20 Labeled By: VL

~~Project~~ Matrix: water Received By: _____ Label Verified By: _____

# of Coolers Received: 1 Samples Arrived By: X Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: ☐ None/Ambient ☑ ~~Loose~~ Ice ☐ Gel Ice ☐ Dry Ice Coolant Required: Y / (N) Temp Blank Used: (Y)/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/(N)

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: 80187813 CF: -0.2°C			Date/time: 9/1/2020 9:32 By:		
Cooler 1: 0.3 °C	w/ CF: -0.1 °C		Cooler 4: °C	w/ CF:	°C
Cooler 2: °C	w/ CF:	°C	Cooler 5: °C	w/ CF:	°C
Cooler 3: °C	w/ CF:	°C	Cooler 6: °C	w/ CF:	°C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N/A	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	N/A	

Anomalies/Non-conformances (attach additional pages if needed):

0100004

EFGS Sample Receipt Checklist Revision 7; 9/15/2017

DI water

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-537260.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Betsy.Sara@Eurofinset.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note): State Program - Washington		Job #: 280-139903-1
Address: 5755 8th Street E, ,	Due Date Requested: 9/16/2020			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: Hidden Valley LF	Project #: 28003580			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Frontier))/ LL Diss Fe 200.8 RL=0.3 mg/L (Eurofins F	SUB (LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Frontier))/ LL Tot Fe 200.8 RL=0.3 mg/L (Eurofins Fr	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
HVL-082720-23 (280-139903-1)	8/27/20	13:45 Pacific		Water			X	X	1	
HVL-082720-24 (280-139903-2)	8/27/20	14:15 Pacific		Water			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Fed Ex

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/31/2020 1330			9/1/2020 0930	FGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ○ Yes △ No	Custody Seal No.: 1411452	Cooler Temperature(s) °C and Other Remarks: -0.1°C

1347 4120 0867

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

HVL-082720-23 (280-139903-1)

0I00004-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2836 Closed Vessel Water Oven Digestion											
Iron	ND	-	10	µg/L	1	F009359	14-Sep-20	0I15014	15-Sep-20	EPA 200.8	U

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

HVL-082720-24 (280-139903-2)

0I00004-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2836 Closed Vessel Water Oven Digestion											
Iron	ND	-	10	µg/L	1	F009359	14-Sep-20	0I15014	15-Sep-20	EPA 200.8	U

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5755 8th Street East
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Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I15014 - F009358											
Cal Standard (0I15014-CAL1)					Prepared & Analyzed: 14-Sep-20						
Iron	0.7	-		µg/L	0.50000		135				
Cal Standard (0I15014-CAL2)					Prepared & Analyzed: 14-Sep-20						
Iron	2	-		µg/L	2.0000		107				
Cal Standard (0I15014-CAL3)					Prepared & Analyzed: 14-Sep-20						
Iron	10	-		µg/L	10.000		102				
Cal Standard (0I15014-CAL4)					Prepared & Analyzed: 14-Sep-20						
Iron	20	-		µg/L	20.000		101				
Cal Standard (0I15014-CAL5)					Prepared & Analyzed: 14-Sep-20						
Iron	12	-		µg/L	12.500		99.2				
Cal Standard (0I15014-CAL6)					Prepared & Analyzed: 14-Sep-20						
Iron	25	-		µg/L	25.000		100				
Cal Standard (0I15014-CAL7)					Prepared & Analyzed: 14-Sep-20						
Iron	50	-		µg/L	50.000		99.5				
Cal Standard (0I15014-CAL8)					Prepared & Analyzed: 14-Sep-20						
Iron	102	-		µg/L	100.00		102				
Cal Standard (0I15014-CAL9)					Prepared & Analyzed: 14-Sep-20						
Iron	250	-		µg/L	250.00		99.9				
Cal Standard (0I15014-CALA)					Prepared & Analyzed: 14-Sep-20						
Iron	504	-		µg/L	500.00		101				

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: 200.8 Metals
Project Number: 28003580
Project Manager: Betsy Sara

Reported:
16-Sep-20 16:53

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I15014 - F009358											
Cal Standard (0I15014-CALB)					Prepared & Analyzed: 14-Sep-20						
Iron	996	-		µg/L	1000.0		99.6				
Cal Standard (0I15014-CALC)					Prepared & Analyzed: 14-Sep-20						
Iron	2001	-		µg/L	2000.0		100				
Calibration Blank (0I15014-CCB1)					Prepared & Analyzed: 14-Sep-20						
Iron	0.09	-		µg/L							
Calibration Blank (0I15014-CCB2)					Prepared & Analyzed: 14-Sep-20						
Iron	0.1	-		µg/L							
Calibration Blank (0I15014-CCB3)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	0.1	-		µg/L							
Calibration Blank (0I15014-CCB4)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	0.09	-		µg/L							
Calibration Blank (0I15014-CCB5)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	0.3	-		µg/L							
Calibration Blank (0I15014-CCB6)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	0.1	-		µg/L							
Calibration Blank (0I15014-CCB7)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	0.1	-		µg/L							
Calibration Blank (0I15014-CCB8)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	0.1	-		µg/L							

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I15014 - F009358											
Calibration Check (0I15014-CCV1)					Prepared & Analyzed: 14-Sep-20						
Iron	249	-		µg/L	250.60		99.5	90-110			
Calibration Check (0I15014-CCV2)					Prepared & Analyzed: 14-Sep-20						
Iron	252	-		µg/L	250.60		100	90-110			
Calibration Check (0I15014-CCV3)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	239	-		µg/L	250.60		95.2	90-110			
Calibration Check (0I15014-CCV4)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	241	-		µg/L	250.60		96.0	90-110			
Calibration Check (0I15014-CCV5)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	239	-		µg/L	250.60		95.4	90-110			
Calibration Check (0I15014-CCV6)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	239	-		µg/L	250.60		95.5	90-110			
Calibration Check (0I15014-CCV7)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	245	-		µg/L	250.60		97.6	90-110			
Calibration Check (0I15014-CCV8)					Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	237	-		µg/L	250.60		94.6	90-110			
Initial Cal Blank (0I15014-ICB1)					Prepared & Analyzed: 14-Sep-20						
Iron	0.1	-		µg/L							
Initial Cal Check (0I15014-ICV1)					Prepared & Analyzed: 14-Sep-20						
Iron	251	-		µg/L	250.60		100	90-110			

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5755 8th Street East
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Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I15014 - F009358											
Low Cal Check (0I15014-LCV3)					Prepared & Analyzed: 14-Sep-20						
Iron	0.6	-		µg/L	0.50000		122	0-200			
Low Cal Check (0I15014-LCV4)					Prepared & Analyzed: 14-Sep-20						
Iron	1	-		µg/L	1.0000		109	0-200			
Low Cal Check (0I15014-LCV5)					Prepared & Analyzed: 14-Sep-20						
Iron	2	-		µg/L	2.0000		102	0-200			
Low Cal Check (0I15014-LCV6)					Prepared & Analyzed: 14-Sep-20						
Iron	6	-		µg/L	6.2500		101	0-200			
Low Cal Check (0I15014-LCV7)					Prepared & Analyzed: 14-Sep-20						
Iron	13	-		µg/L	12.500		100	0-200			
Batch F009359 - EFGS SOP2836 Closed Vessel Water Oven Digestion											
Blank (F009359-BLK1)					Prepared & Analyzed: 14-Sep-20						
Iron	ND	-	5	µg/L							U
Blank (F009359-BLK2)					Prepared & Analyzed: 14-Sep-20						
Iron	ND	-	5	µg/L							U
LCS (F009359-BS1)					Prepared & Analyzed: 14-Sep-20						
Iron	1278	-	5	µg/L	1250.0		102	85-115			
LCS Dup (F009359-BSD1)					Prepared & Analyzed: 14-Sep-20						
Iron	1266	-	5	µg/L	1250.0		101	85-115	0.921	20	

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Patrick Garcia-Strickland, Business Unit Manager

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F009359 - EFGS SOP2836 Closed Vessel Water Oven Digestion											
Matrix Spike (F009359-MS1)		**Source: 0I00001-01**			Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	4411	-	5	µg/L	1250.0	2868	123	70-130			E
Matrix Spike (F009359-MS2)		**Source: 0I00002-01**			Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	2398	-	10	µg/L	2500.0	ND	95.9	70-130			
Matrix Spike Dup (F009359-MSD1)		**Source: 0I00001-01**			Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	4093	-	5	µg/L	1250.0	2868	98.0	70-130	7.49	20	E
Matrix Spike Dup (F009359-MSD2)		**Source: 0I00002-01**			Prepared: 14-Sep-20 Analyzed: 15-Sep-20						
Iron	2424	-	10	µg/L	2500.0	ND	96.9	70-130	1.06	20	

Eurofins Frontier Global Sciences, LLC

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5755 8th Street East
Tacoma, WA 98424
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Eurofins Test America - Denver	Project: 200.8 Metals	
4955 Yarrow Street	Project Number: 28003580	**Reported:**
Arvada CO, 80002	Project Manager: Betsy Sara	16-Sep-20 16:53

Notes and Definitions

U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
QM-12	Continuing calibration verification (CCV) and/or blank spike/blank spike duplicate (BS/BSD) recoveries above upper control limits. All reported sample concentrations were below the reporting limit.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

Denver #280 TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Sam G.	Lab PM: Sara, Betsy A	Carrier Tracking No(s): 8156 5724 6309	COC No: 280-21692-4512.1
Client Contact: Sam Graber	Phone:	E-Mail: betsy.sara@testamericainc.com		Page: Page 1 of 1
Company: SCS Engineers				Job #: 04220002.03
Address: 2405 140th Avenue NE Suite 107	Due Date Requested: standard			
City: Bellevue	TAT Requested (days):			
State, Zip: WA, 98005-1877				
Phone: 425-766-3362	PO #: Purchase Order not requir			
Email: SGraber@scsengineers.com	WO #:			
Project Name: Hidden Valley Landfill	Project #: 28003580-Water Supply Wells			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B	Total Metals	Total Iron (Frontier)	NO3/NO2(IC)/Color	Cl/SO4 (TA St. Louis)	TOC/COD/Ammonia	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	D	N	N	S		
HVL-082720-23	8/27/20	1345	6	W	N	N	X	X	X	X	X	X	8	Short Holds: NO3/NO2(IC), Color
HVL-082720-24	↓	1415	6	↓	N	N	X	X	X	X	X	X	8	
Trip Blank	↓	–	–	↓	N	N	X						2	

280-139903 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	8/27/20 1500	SCS	Reed RA	8/28/20 0930	ETA-Rem
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1309107	Cooler Temperature(s) °C and Other Remarks: 2.3 IR#11 -0.2 RP 8/28/20

Do Not Lift Using This Tag

280-139903 Waybill

FedEx Express

Expanded Billable Stamp

Use only for shipments within the U.S. Saturday delivery available.

FedEx Priority Overnight®

Next business morning by 10:30 a.m. Not available to all locations. Please consult the current FedEx Service Guide for specific commitments

1 From See optional release signature below

ORDER: 00851499

DECLARED VALUE $100

PACKAGE WEIGHT

2 To Shipment will not be accepted if ar

SAMPLE RECEI
TESTAMERICA
4955 YARROW S
ARVADA, CO 8000
(303) 736-0100

650

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10:30

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08.28
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ATURDAY DELIVERY

Shipments tendered on Friday are delivered on Saturday to most locations.

8156 5924 6309

There is an artificial watermark on this document. Hold at an angle to view.

Release Signature

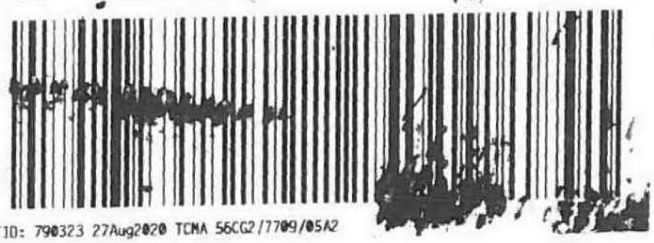
FedEx

TRK# 0667 8156 5924 6309

FRI - 28 AUG 10:30A
PRIORITY OVERNIGHT

XH LAAA

80002
CO-US
DEN



F10: 790323 27Aug2020 TCMA 56CG2/7709/05A2

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FedEx

TRK# 0667 8156 5924 6309

FRI - 28 AUG 10:30A
PRIORITY OVERNIGHT

80002
CO-US
DEN

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FID: 790323 27Aug2020 TCMA 56CG2/7709/05A2

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-537106.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Betsy.Sara@Eurofinset.com	State of Origin: Washington	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington		Job #: 280-139903-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 9/17/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Hidden Valley LF	Project #: 28003580			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Sulfate/Chloride (TA St. Louis)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HVL-082720-23 (280-139903-1)	8/27/20	13:45 Pacific		Water			X	1	
HVL-082720-24 (280-139903-2)	8/27/20	14:15 Pacific		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Scott R Hall	8/31/20 1325	ETA Denver	FedEx		
2	FedEx				9/1/20 09:30	ETA STL
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-139903-1

Login Number: 139903
List Number: 1
Creator: Pottruff, Reed W

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-139903-1

Login Number: 139903
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 09/01/20 01:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	