

March 25, 2024

Cameron Curtis
 Legacy Development Group
 403 highway 35 - Hood River, Oregon 97031

Subject: Analytical Results for March 13, 2024 Cherry Hills Estates Soil Sampling Event

Dear Mr. Curtis,

This letter is to provide the analytical results for the soil that was sampled by HRK Engineering & Field Services (HRK) per the Department of Ecology comment filed under the Notice of Application/SEPA Optional DNS comment period. The soil originated from the Cherry Hill Estates property (parcel 0310247500400) in White Salmon, WA.

Five composite samples were obtained by HRK on March 13, 2024, and sent to Specialty Analytical for the analysis of Arsenic (As) and lead (Pb) (see Attachment A for soil sampling locations). The analytical results were received by HRK on March 20, 2024, and a copy is provided as Attachment B. The analytical results indicate that As metal was detected in all of the five samples at concentrations ranging from 3.59 to 4.51 ppm. Pb was also detected in all five samples at concentrations ranging from 11.1 to 14.1 ppm. The As and Pb constituents detected in the soil samples are summarized in the table below and are compared to the statistical-based background concentration for the region where the soil originated and Washington state-wide average¹.

Metal	Soil Sample 1 Analytical Result (ppm)	Soil Sample 2 Analytical Result (ppm)	Soil Sample 3 Analytical Result (ppm)	Soil Sample 4 Analytical Result (ppm)	Soil Sample 5 Analytical Result (ppm)	Background Concentration For Soil in the Yakima Basin ² Region (ppm)	Washington State-Wide Background Concentration For Soil (ppm)
As	4.51	4.04	3.59	4.25	4.46	5.13*	6.99*
						41.79**	41.81**
Pb	14.1	12.7	11.1	11.6	11.4	11.00	17.09

*Result using Atomic Absorption (AA) analysis
 **Result using Inductively Coupled Plasma (ICP) analysis

The results for the As and Pb metal constituents analyzed in the soil samples are at concentrations similar to, or within the background concentrations in the region where the soil originated and the average for Washington state.

¹Natural Background Soil Metals Concentrations in Washington State, Washington State Department of Ecology, Toxics Cleanup Program publication, October 1994.
²The Yakima Basin Region consists of Yakima, Kittitas, Klickitat, Chelan, and Benton counties.

March 25, 2024

Page 2 of 2

In comparison, the Model Toxics Control Act (MTCA) Method A clean-up levels for As and Pb are 20 ppm and 250 ppm, respectively that were developed assuming direct human contact with the soil including protection of groundwater (As) and prevention of unacceptable levels in blood (Pb)³.

If you have any questions or require anything else, don't hesitate to contact me at the information provided below.

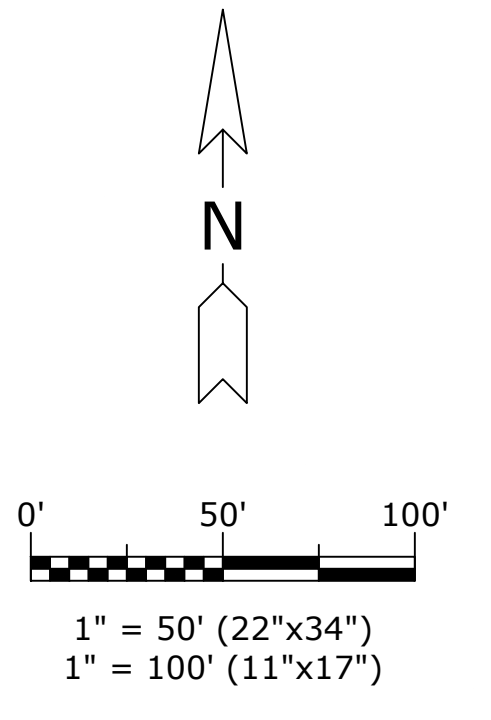
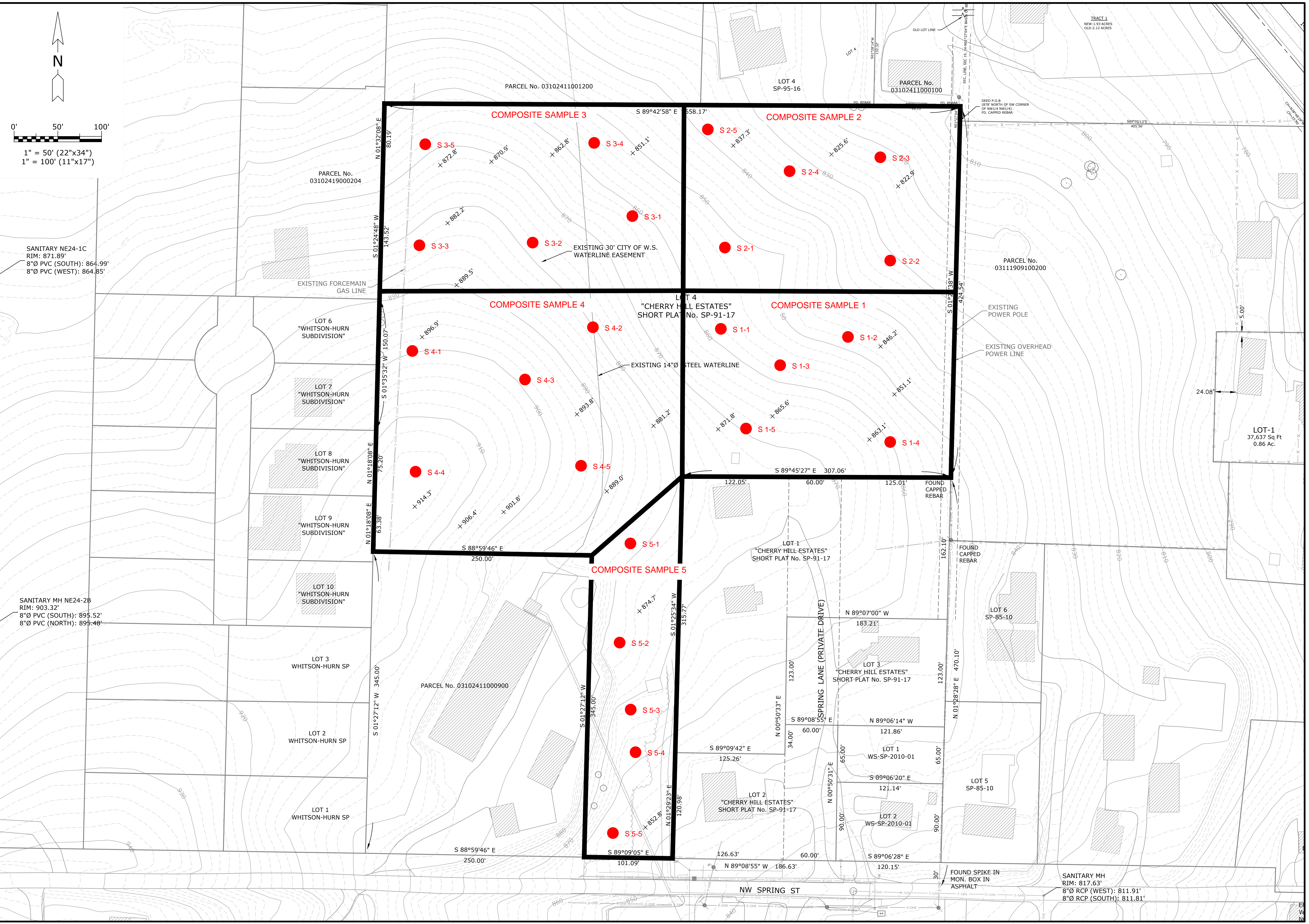


Phillip E. Kovacs, PE
Senior Environmental Engineer
pkovacs@hrkus.com
503-409-3346

³Washington Administrative Code (WAC) 173-340-900.

Attachment A

Soil Sampling Locations



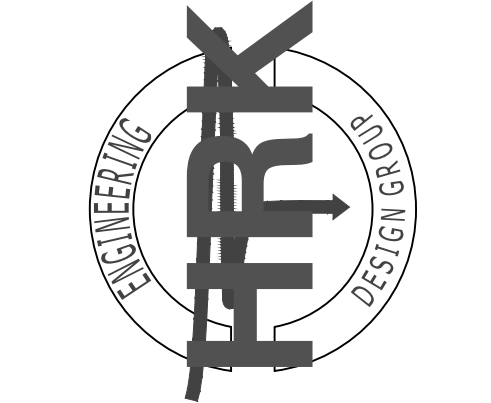
CLIENT

PROJECT NAME
CHERRY HILL ESTATES SUBDIVISION

PROJECT DATE
FEBRUARY 2021

PROJECT NO.
21-002

PHASE
SITE PLAN REVIEW



NO.	DATE	DRWN	CHKD	DESCRIPTION
	09/07/23			

SHEET NAME
SOIL SAMPLING LOCATION

SHEET NO. **1** OF 1

SANITARY NE24-1C
 RIM: 871.89'
 8"Ø PVC (SOUTH): 864.99'
 8"Ø PVC (WEST): 864.85'

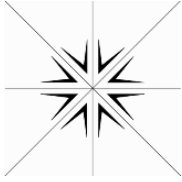
SANITARY MH NE24-2B
 RIM: 903.32'
 8"Ø PVC (SOUTH): 895.52'
 8"Ø PVC (NORTH): 895.48'

SANITARY MH
 RIM: 817.63'
 8"Ø RCP (WEST): 811.91'
 8"Ø RCP (SOUTH): 811.81'

LOT-1
 37,637 Sq Ft
 0.86 Ac.

Attachment B

Analytical Results



Specialty Analytical

9011 SE Janssen Rd
Clackamas, OR 97015
TEL: (503) 607-1331

Website: www.specialtyanalytical.com

March 20, 2024

Apedroza
HRK Engineering
489 N. 8th Street
Suite 201
Hood River, OR 97031
TEL: (541) 386-6480
FAX:

RE: Cherry Hill Estates / Z1-002

Order No.: 2403148

Dear Apedroza:

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Marty French
Lab Director

Specialty Analytical

WO#: 2403148

Date Reported: 3/20/2024

CLIENT: HRK Engineering
Project: Cherry Hill Estates / Z1-002

Lab ID: 2403148-001 **Matrix:** SOIL
Client Sample ID: Sample 1 **Collection Date:** 3/12/2024 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP/MS METALS-TOTAL RECOVERABLE						
				SW 6020B	SW3050B	Analyst: JRC
Arsenic	4510	1290		µg/Kg-dry	10	3/18/2024 3:52:28 PM
Lead	14100	323		µg/Kg-dry	10	3/18/2024 3:52:28 PM

Lab ID: 2403148-002 **Matrix:** SOIL
Client Sample ID: Sample 2 **Collection Date:** 3/12/2024 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP/MS METALS-TOTAL RECOVERABLE						
				SW 6020B	SW3050B	Analyst: JRC
Arsenic	4040	1270		µg/Kg-dry	10	3/18/2024 3:55:47 PM
Lead	12700	318		µg/Kg-dry	10	3/18/2024 3:55:47 PM

Lab ID: 2403148-003 **Matrix:** SOIL
Client Sample ID: Sample 3 **Collection Date:** 3/12/2024 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP/MS METALS-TOTAL RECOVERABLE						
				SW 6020B	SW3050B	Analyst: JRC
Arsenic	3590	1180		µg/Kg-dry	10	3/18/2024 3:25:27 PM
Lead	11100	295		µg/Kg-dry	10	3/18/2024 3:25:27 PM

Lab ID: 2403148-004 **Matrix:** SOIL
Client Sample ID: Sample 4 **Collection Date:** 3/12/2024 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP/MS METALS-TOTAL RECOVERABLE						
				SW 6020B	SW3050B	Analyst: JRC
Arsenic	4250	1200		µg/Kg-dry	10	3/18/2024 3:59:06 PM
Lead	11600	301		µg/Kg-dry	10	3/18/2024 3:59:06 PM

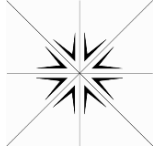
Specialty Analytical

WO#: 2403148
Date Reported: 3/20/2024

CLIENT: HRK Engineering
Project: Cherry Hill Estates / Z1-002

Lab ID: 2403148-005 Matrix: SOIL
Client Sample ID Sample 5 Collection Date: 3/12/2024 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP/MS METALS-TOTAL RECOVERABLE						
				SW 6020B	SW3050B	Analyst: JRC
Arsenic	4460	1260		µg/Kg-dry	10	3/18/2024 4:02:25 PM
Lead	11400	315		µg/Kg-dry	10	3/18/2024 4:02:25 PM



Specialty Analytical
9011 SE Jamnsen Ra
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

Accreditation Program Analytes Report

WO#: 2403148
20-Mar-24

Client: HRK Engineering
Project: Cherry Hill Estates / Z1-002

Program Name	Sample ID	ClientSampleID	Matrix	Test Name	Analyte	Status
ORELAP	2403148-001A	Sample 1	Soil	ICP/MS METALS-TOTAL RECOVERABLE	Lead	A
			Solid		Lead	A
	2403148-002A	Sample 2	Soil	Arsenic	A	
			Soil	Arsenic	A	
			Solid	Lead	A	
			Soil	Lead	A	
	2403148-003A	Sample 3	Solid	Arsenic	A	
			Soil	Lead	A	
			Soil	Arsenic	A	
			Soil	Lead	A	
	2403148-004A	Sample 4	Solid	Arsenic	A	
			Soil	Arsenic	A	
			Solid	Arsenic	A	
			Soil	Lead	A	
	2403148-005A	Sample 5	Solid	Lead	A	
			Solid	Lead	A	
			Soil	Lead	A	
			Soil	Arsenic	A	
				Soil	Arsenic	A
				Soil	Lead	A
			Solid	Arsenic	A	

ACCRED ORELAP A Accredited A

QC SUMMARY REPORT

Specialty Analytical

WO#: 2403148
3/20/2024

Client: HRK Engineering
Project: Cherry Hill Estates / Z1-002

TestCode: 6020_S

Sample ID: ICV	SampType: ICV	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: ICV	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687698						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4910	100	5000	0	98.3	90	110				
Lead	4930	25.0	5000	0	98.6	90	110				

Sample ID: MB-23233	SampType: MBLK	TestCode: 6020_S	Units: µg/Kg	Prep Date: 3/18/2024	RunNo: 53213						
Client ID: PBS	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687700						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	100									
Lead	ND	25.0									

Sample ID: LCS-23233	SampType: LCS	TestCode: 6020_S	Units: µg/Kg	Prep Date: 3/18/2024	RunNo: 53213						
Client ID: LCSS	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687701						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4510	1000	5000	0	90.2	73.4	120				
Lead	4990	250	5000	0	99.9	80	120				

Qualifiers: B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: 2403148
3/20/2024

Client: HRK Engineering
Project: Cherry Hill Estates / Z1-002

TestCode: 6020_S

Sample ID: LCSD-23233	SampType: LCSD	TestCode: 6020_S	Units: µg/Kg	Prep Date: 3/18/2024	RunNo: 53213						
Client ID: LCSS02	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687702						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4600	1000	5000	0	92.0	80	120	4508	1.98	20	
Lead	4980	250	5000	0	99.5	80	120	4995	0.344	20	

Sample ID: 2403148-003ADUP	SampType: DUP	TestCode: 6020_S	Units: µg/Kg-dry	Prep Date: 3/18/2024	RunNo: 53213						
Client ID: Sample 3	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687704						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	3760	1260						3594	4.45	20	
Lead	11800	314						11150	5.46	20	

Sample ID: 2403148-003AMS	SampType: MS	TestCode: 6020_S	Units: µg/Kg-dry	Prep Date: 3/18/2024	RunNo: 53213						
Client ID: Sample 3	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687705						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10200	1150	5728	3594	116	70	130				
Lead	19100	286	5728	11150	138	70	130				SMI

Qualifiers: B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: 2403148
3/20/2024

Client: HRK Engineering
Project: Cherry Hill Estates / Z1-002

TestCode: 6020_S

Sample ID: 2403148-003AMSD	SampType: MSD	TestCode: 6020_S	Units: µg/Kg-dry	Prep Date: 3/18/2024	RunNo: 53213						
Client ID: Sample 3	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687706						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10000	1150	5727	3594	112	70	130	10240	2.06	20	
Lead	17100	286	5727	11150	104	70	130	19080	10.8	20	

Sample ID: CCB	SampType: CCB	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCB	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687710						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	100									
Lead	ND	25.0									

Sample ID: CCV	SampType: CCV	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCV	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/18/2024	SeqNo: 687760						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	100	5000	0	0.244	90	110				S
Lead	ND	25.0	5000	0	0.0376	90	110				S

Qualifiers: B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: 2403148
3/20/2024

Client: HRK Engineering
Project: Cherry Hill Estates / Z1-002

TestCode: 6020_S

Sample ID: ICV	SampType: ICV	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: ICV	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/19/2024	SeqNo: 687952						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4990	25.0	5000	0	99.8	90	110				

Sample ID: CCB	SampType: CCB	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCB	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/19/2024	SeqNo: 687955						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	25.0									

Sample ID: CCV	SampType: CCV	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCV	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/19/2024	SeqNo: 687959						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4960	25.0	5000	0	99.1	90	110				

Sample ID: CCB	SampType: CCB	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCB	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/19/2024	SeqNo: 687960						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	25.0									

Qualifiers: B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: 2403148
3/20/2024

Client: HRK Engineering
Project: Cherry Hill Estates / Z1-002

TestCode: 6020_S

Sample ID: CCB	SampType: CCB	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCB	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/19/2024	SeqNo: 687960						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: CCV	SampType: CCV	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCV	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/19/2024	SeqNo: 687968						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4990	25.0	5000	0	99.8	90	110				

Sample ID: CCB	SampType: CCB	TestCode: 6020_S	Units: µg/Kg	Prep Date:	RunNo: 53213						
Client ID: CCB	Batch ID: 23233	TestNo: SW 6020B	SW3050B	Analysis Date: 3/19/2024	SeqNo: 687969						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	25.0									

Qualifiers: B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits



Specialty Analytical
 9011 SE Jannsen Rd
 Clackamas, Oregon 97015
 TEL: 503-607-1331 FAX: 503-607-1336
 Website: www.specialtyanalytical.com

Sample Receipt Checklist

Client Name HRK_ENGINEERING

Work Order Number 2403148

RcptNo: 1

Date and Time Receive 3/13/2024 1:50:30 PM

Received by: Julie Clay

Completed by

Reviewed by:

Completed Date: 3/13/2024 1:51:23 PM

Reviewed Date: 3/13/2024 4:02:38 PM

Carrier name: Client

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No Not Present
- Are matrices correctly identified on Chain of custody? Yes No
- Is it clear what analyses were requested? Yes No
- Custody seals intact on sample bottles? Yes No Not Present
- Samples in proper container/bottle? Yes No
- Were correct preservatives used and noted? Yes No NA
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- Were container labels complete (ID, Pres, Date)? Yes No
- All samples received within holding time? Yes No
- Was an attempt made to cool the samples? Yes No NA
- All samples received at a temp. of > 0° C to 6.0° C? Yes No NA
- Response when temperature is outside of range: Not required
- Preservative added to bottles:
- Sample Temp. taken and recorded upon receipt? Yes No To 16.3 °C
- Water - Were bubbles absent in VOC vials? Yes No No Vials
- Water - Was there Chlorine Present? Yes No NA
- Water - pH acceptable upon receipt? Yes No NA
- Are Samples considered acceptable? Yes No
- Custody Seals present? Yes No
- Traffic Report or Packing Lists present? Yes No
- Airbill or Sticker? Air Bill Sticker Not Present
- Airbill No:
- Sample Tags Present? Yes No
- Sample Tags Listed on COC? Yes No
- Tag Numbers:
- Sample Condition? Intact Broken Leaking

Case Number:

SDG:

SAS:

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section be



Specialty Analytical
9011 SE Jannsen Rd
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

Sample Receipt Checklist

Client Contacted? Yes No NA Person Contacted: _____ Comments: _____
Contact Mode: Phone: Fax: Email: In Person: _____
Client Instructions: _____
Date Contacted: _____ Contacted By: _____
Regarding: _____
CorrectiveAction: _____



9011 SE Jannsen Rd
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Chain of Custody Record

Date: _____ Page: _____ of: _____
 Laboratory Project No (internal): **2403148**
 Project Name: **Cherry Hills Estate**
 Temperature on Receipt: **16.3 °C**
 Project No: **Z1-002** PO No: _____
 Cooling: **Cooler** Shipped Via: **Client**
 Collected by: **Alexander Pedroza**
 Custody Seal: **Y** Intact / Broken Cooler / Bottle
 State Collected: OR WA OTHER _____
 Report To (PM): **Alexander Pedroza**
 MDL TIER IV EDD
 PM Email: **apedroza@hrkus.com**
 Sample Disposal: Return to client Disposal by lab (after 60 days)

Client: **HRK Engineering**
 Address: **489 N 3rd Street - Suite 201**
 City, State, Zip: **Hood River, OR, 97031**
 Telephone: **541-806-3629**
 AP Email: **apedroza@hrkus.com**

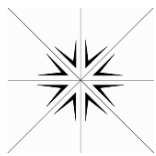
Sample Name	Sample Date	Sample Time	Sample Matrix*	# of Containers	Requested Tests												Comments			
					As some lead															
1 Sample 1	3/12/24	10:30	S	1	X	X														
2 Sample 2	3/12/24	10:30	S	1	X	X														
3 Sample 3	3/12/24	10:30	S	1	X	X														
4 Sample 4	3/12/24	10:30	S	1	X	X														
5 Sample 5	3/12/24	10:30	S	1	X	X														
6																				
7																				
8																				
9																				
10																				

* Matrix: A=Air, AQ=Aqueous, L=Liquid, O=Oil, P=Product, S=Soil, SD=Sediment, SL=Solid, W=Water, DW=Drinking Water, GW=Ground Water, SW=Storm Water, WW=Waste Water, M=Miscellaneous

Turn-around Time: Standard: 3 Day: _____ 2 Day: _____ Next Day: _____ Same Day: _____

Expedited turn-around requests should be coordinated in advance

Relinquished x _____ Date/Time 3/13/24	Received x _____ Date/Time 3/13/24 1343
Relinquished x _____ Date/Time	Received x _____ Date/Time
Relinquished x _____ Date/Time	Received x _____ Date/Time



Specialty Analytical
9011 SE Jannsen Ra
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

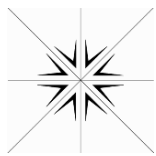
Definition Only

WO#: 2403148
Date: 3/20/2024

Definitions:

KEY TO FLAGS

- A: This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was qualified against gasoline calibration standards.
- A1: This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was qualified against diesel calibration standards.
- A2: This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was qualified against lube oil calibration standards.
- A3: The results was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4: The product appears to be aged or degraded.
- B: The blank exhibited a positive result greater than the reporting limit for this compound.
- BC: Sample concentration is >10x positive result in blank. Data is considered acceptable.
- CN: See Case Narrative.
- E: Result exceeds the calibration range for this compound. The result should be considered an estimate.
- F: The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- FS: Follow-up testing is suggested.
- G: Result may be biased high due to biogenic interferences. Clean up is recommended.
- H: Sample was analyzed outside recommended holding time.
- HT: At client's request, samples was analyzed outside of recommended holding time.
- HP: Sample was analyzed outside recommended holding time due to VOA having pH >2.
-



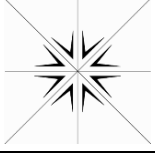
Specialty Analytical
9011 SE Jannsen Ra
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

Definition Only

WO#: 2403148
Date: 3/20/2024

Definitions:

- J: The results for this analyte is between the MDL and the PQL and should be considered an estimated concentration.
- K: Diesel result is biased high due to amount of Oil contained in the sample.
- L: Diesel result is biased high due to amount of Gasoline contained in the sample.
- M: Oil result is biased high due to amount of Diesel contained in the sample.
- N: Gasoline result is biased high due to amount of Diesel contained in the sample.
- MC: Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI: Result is outside control limits due to matrix interference.
- NH: Sample matrix is non-homogeneous
- MSA: Value determined by Method of Standard Addition.
- O: Laboratory Control Standard (LCS) exceeded laboratory control limits but meets CCV criteria. Data meets EPA requirements.
- Q: Detection levels elevated due to sample matrix.
- R: RPD control limits were exceeded
- RF: Duplicate failed due to result being at or near the method-reporting limit.
- RP: Matrix spike values exceed established QC limits; post digestion spike is in control.
- S: Recovery is outside control limits.
- SC: CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
-



Specialty Analytical
9011 SE Jannsen Ra
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

Definition Only

WO#: **2403148**

Date: **3/20/2024**

Definitions:

SL: LCS exceeded recovery control limits, but associated MS/MSD passing. Data meets EPA requirements.

SV: CCV exceeded low recovery control limits. ND as reported evaluated using EPA method 8260D section 11.4.3.2

TA: Sample treated with ascorbic acid for the removal of thiocyanates.

TS: Sample treated with Sodium Sulfite for the removal of chlorine.