

February 14, 2019

Mr. Ben Small, Superintendent
Central Valley School District
19307 East Cataldo Avenue
Spokane Valley, WA 99016

**Re: Results of Surface Soil Sampling, Test Pits 66, 67, and 68
North Henry Road and East Sprague Avenue
Greenacres, Washington
150014001**

Dear Ben:

This letter has been prepared to provide the results of site assessment activities completed on February 12, 2019 at the North Henry Road and East Sprague Avenue project site in Greenacres Washington (site). We conducted these site assessment activities per your request during our meeting on February 11, 2019. Site Assessment activities were conducted to better understand soil characteristics at the planned locations of baseball fields/tennis courts that are part of the new Ridgeline High School development (herein referred to as the "assessment area"). The assessment area is bounded by a former irrigation channel on the north, the western property line of Spokane County Parcel 55174.9014, and the newly constructed fence line that generally runs diagonally northwest to southeast from the former irrigation channel to the western property line of Spokane County Parcel 55174.9014 (see attached site plan C1.00).

Field Activities

Hart Crowser mobilized to the site on February 12, 2019 and hand-excavated three test pits (TP-66, TP-67, and TP-68) at the approximate locations shown on the attached site plan (C1.00). We excavated each test pit location to approximately 6-inches below ground surface (bgs) and we collected one soil sample from each test pit from between ground surface and the bottom of the test pit. No odors or staining was observed in the test pits. Samples were placed in laboratory-supplied containers, logged on a chain-of-custody, and placed in a cooler for storage/transport. We transported the samples to TestAmerica Laboratories, Inc. (Test America) in Spokane Valley, Washington for chemical analysis.

Laboratory Results

TestAmerica analyzed the samples for total lead by US Environmental Protection Agency (EPA) Method 6010C and polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C. Analytical results indicate



that lead was detected in the three samples at concentrations between 20 and 31 mg/kg which is less than the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) cleanup level of 250 mg/kg. Total metal analytical results are presented in Table 1 below:

Table 1 – Summary of Chemical Analytical Results – Metals in Soil¹

Sample Number	Date Sampled	Lead (mg/kg)
TP-66(6)	2/12/19	27
TP-67(6)	2/12/19	20
TP-68(6)	2/12/19	31
MTCA Method A Cleanup Level ²		250

Notes:

¹Chemical analyses conducted by TestAmerica of Spokane, Washington. Total Metals by EPA Method 6010C

²MTCA = Washington State, Model Toxics Control Act, Method A Soil Cleanup Levels for unrestricted land use.

mg/kg = milligrams per kilogram

Analytical results indicate several PAHs were detected in the samples at concentrations greater than the method detection limits but benzo(a)pyrene concentrations and the calculated carcinogenic PAH (cPAH) toxic equivalency (TEQ) concentrations were less than the applicable MTCA cleanup levels. PAH analytical results are summarized in Table 2 below:

Table 2 - Summary of Chemical Analytical Results - PAHs in Soil¹

	Test Pit Samples (µg/kg)			MTCA Method A Cleanup Level (µg/kg) ²
Sample ID	TP-66(6)	TP-67(6)	TP-68(6)	5,000
Sampling Date	2/12/19	2/12/19	2/12/19	
Naphthalene	12 U	13 U	13 U	
1-Methylnaphthalene	12 U	13 U	13 U	
2-Methylnaphthalene	12 U	13 U	13 U	100
Total Naphthalenes	12 U	13 U	13 U	
Acenaphthene	12 U	13 U	13 U	
Acenaphthylene	12 U	13 U	13 U	
Anthracene	12 U	13 U	13 U	
Benzo[a]anthracene	12 U	13 U	22	
Benzo[a]pyrene	12 U	15	32	100



Table 2 Continued

Sample ID	TP-66(6)	TP-67(6)	TP-68(6)	
Benzo[b]fluoranthene	12	19	40	
Benzo[g,h,i]perylene	12 U	13	27	
Benzo[k]fluoranthene	12 U	13 U	16	
Chrysene	12 U	13	29	
Dibenz(a,h)anthracene	12 U	13 U	13 U	
Fluoranthene	12 U	13	28	
Fluorene	12 U	13 U	13 U	
Indeno[1,2,3-cd]pyrene	12 U	13 U	21	
Phenanthrene	12 U	13 U	13 U	
Pyrene	12 U	14	33	
cPAH TEQ ³	1	17	42	100

Notes:

¹Chemical analyses conducted by TestAmerica Labs of Spokane, Washington. Polycyclic Aromatic Hydrocarbons analyzed by EPA Method 8270C.

²MTCA Method A cleanup level for unrestricted land use.

³MTCA 173-340-708 was utilized to assess total cPAH concentration using Toxicity Equivalency Factors shown in Table 708-2 of MTCA.

µg/kg = micrograms per kilogram.

U = analyte not detected at a concentration greater than method reporting limits.

Based on our observations during field activities conducted on February 12, 2019 and laboratory analytical results, we do not believe further assessment or cleanup activities in the assessment area are warranted.

Sincerely,

JOHN HANEY, PE

SENIOR ASSOCIATE

HART CROWSER, INC.

john.haney@hartcrowser.com

Attachments:

Site Plan C1.00

Final Laboratory Report – TestAmerica Laboratories, Inc.; Job ID: 590-10409-1

cc: Sara Fulton, Washington Department of Ecology

LEGEND:

- ⊕ FOUND ALUMINUM CAP, AS NOTED
○ FOUND 5/8" REBAR WITH CAP LS 35991, UNLESS OTHERWISE NOTED
○ FOUND 1/2" REBAR WITH CAP LS 7317/13315 UNLESS OTHERWISE NOTED
⊙ FOUND 1/2" IRON PIPE AS NOTED
△ CALCULATED POINT, NOTHING FOUND OR SET
● SET 5/8" REBAR WITH YELLOW PLASTIC CAP, MARKED "JUB ENGINEERS PLS 36817"
⊙ SET 3 1/2" BRASS CAP FROM EXISTING REFERENCE POINTS
△ TBM PROJECT BENCHMARK
☼ CONIFEROUS TREE (SIZE VARIES)
☼ DEODUOUS TREE (SIZE VARIES)
☼ SHRUB/BUSH
— SIGN—AS NOTED
UG UNDER GROUND GAS MARKER
⊕ FIRE HYDRANT
⊕ WATER MANHOLE
⊕ WATER VALVE
⊕ SEWER MANHOLE
⊕ DRYWELL
⊕ ELECTRIC TRANSFORMER
⊕ ELECTRICAL JUNCTION BOX
— GUY ANCHOR
— POWER POLE
⊕ LIGHT POLE
⊕ TELEPHONE MANHOLE
⊕ TELEPHONE PEDESTAL
⊕ BOLLARD
⊕ TEST HOLE

- EXISTING CHAINLINK FENCE
— EXISTING WIRE FENCE
— EXISTING WOOD FENCE
— SS UNDERGROUND SANITARY SEWER
— W UNDERGROUND WATER
— OHP OVERHEAD POWER
— UP UNDERGROUND POWER
— UNDERGROUND NATURAL GAS
— EDGE OF TRAVEL WAY
— BOTTOM DITCH
— EDGE OF ASPHALT
— TYPICAL CURB AND LIP
— LANE STRIPE
— CONCRETE
— ASPHALT
— TRAVEL WAY

BASIS OF BEARINGS:

THE BASIS OF BEARING FOR THIS SURVEY IS SOUTH 87°17'32" WEST BETWEEN THE MONUMENTED SOUTHEAST CORNER AND THE SOUTH 1/4 CORNER OF SECTION 17, TOWNSHIP 25 NORTH, RANGE 45 EAST, WILLAMETTE MERIDIAN, SPOKANE COUNTY, WASHINGTON, AS ESTABLISHED BY GPS OBSERVATION. WASHINGTON STATE PLANE COORDINATED SYSTEM. ALL DISTANCE ARE PROJECTED TO GROUND VALUES.

BENCHMARK/DATUM:

WASHINGTON DEPARTMENT OF TRANSPORTATION BRASS DISK SET IN CONCRETE MONUMENT AT GROUND LEVEL, DESIGNATION: GP32090-47, MONUMENT ID: 2312 SHOWN AS JUB POINT NO. 1. ELEVATION: 2055.31

VERTICAL IS: NAVD '88.

UTILITY NOTE:

ANY ABOVE GROUND OR UNDERGROUND UTILITIES SHOWN HEREON ARE PER ONE OR MORE OF THE FOLLOWING SOURCES: OBSERVED PHYSICAL EVIDENCE, UTILITY MARKS PROVIDED BY OTHERS OR RECORD INFORMATION. NO GUARANTEE IS MADE THAT ALL UTILITIES ARE SHOWN, EITHER IN SERVICE OR ABANDONED. CALL FOR LOCATES AT LEAST 48 HOURS BEFORE DIGGING. 800-342-1585.

*NOTE:

THIS SURVEY IS FOR INFORMATIONAL PURPOSES ONLY. NO CERTIFICATIONS ARE EXPRESSED OR IMPLIED. THE SURVEY WAS FURNISHED BY JUB ENGINEERS, INC.

SURVEY PROVIDED BY:



J-U-B ENGINEERS, INC.
W. 422 Riverside Ave.
Suite 304
Spokane, WA 99201

Phone: 509.458.3727
Fax: 509.458.3762
www.jub.com



GRAPHIC SCALE

100 0 50 100
(IN FEET)
1 inch = 100 ft.

CONTRACTOR NOTE

ALL EXISTING UTILITIES SHOWN ON PLANS ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED ON RECORD MAPS AND SURVEYS FURNISHED BY OTHERS. WE ASSUME NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS AND SURVEYS. CONTACT THE UTILITY OWNER/AGENCY FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION.

PROGRESS PRINT
(NOT FOR CONSTRUCTION)

THESE DRAWINGS HAVE BEEN RELEASED AT THE REQUEST OF THE CLIENT AND ARE NOT INTENDED FOR THE PURPOSES OF BIDDING, PERMITTING, OR CONSTRUCTION.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER

811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

NEW HIGH
SCHOOLCENTRAL
VALLEY SD

REV	DATE	DESCRIPTION

PROJ. NO.	2018-022
DRAWN	JFS
CHECKED	SDM
DATE	11/16/18

© ALSA ARCHITECTS, P.S.

EXISTING
SITE
SURVEY

C1.00

CURVE TABLE						
CURVE #	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING	CHORD LENGTH
C1	81.27'	1145.92'	40.65'	4°03'49"	N79°28'50"E	81.26'
C2	69.89'	716.20'	34.97'	5°35'29"	N74°39'11"E	69.86'
C3	51.69'	143.24'	26.13'	20°40'39"	N82°11'46"E	51.41'
C4	78.25'	190.99'	39.68'	23°28'23"	N80°47'54"E	77.70'
C5	75.63'	716.20'	37.85'	6°03'00"	N66°22'22"E	75.59'
C6	134.53'	95.49'	81.16'	80°43'24"	S76°17'26"E	123.68'
C7	98.41'	143.24'	51.24'	39°21'57"	S55°36'41"E	96.49'
C8	21.21'	286.48'	10.61'	4°14'34"	S77°24'57"E	21.21'
C9	530.87'	5699.58'	265.63'	5°20'12"	S44°40'40"W	530.68'
C10	29.94'	8564.38'	14.97'	0°12'01"	S41°54'34"W	29.94'

SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	264248.86	2551368.88	2055.31	WOOT-GP32090-47

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Spokane

11922 East 1st Ave

Spokane, WA 99206

Tel: (509)924-9200

TestAmerica Job ID: 590-10409-1

Client Project/Site: CVSD/15014001

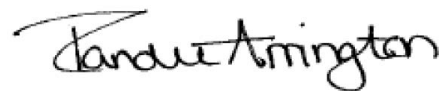
For:

Hart Crowser, Inc.

505 West Riverside Avenue, Suite 205

Spokane, Washington 99201

Attn: John Haney



Authorized for release by:

2/13/2019 3:54:12 PM

Randee Arrington, Project Manager II

(509)924-9200

randee.arrington@testamericainc.com

LINKS

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results through

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Job ID: 590-10409-1

Laboratory: TestAmerica Spokane

Narrative

Receipt

The samples were received on 2/12/2019 11:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-10409-1	TP-66(6)	Solid	02/12/19 10:00	02/12/19 11:35
590-10409-2	TP-67(6)	Solid	02/12/19 10:15	02/12/19 11:35
590-10409-3	TP-68(6)	Solid	02/12/19 10:30	02/12/19 11:35

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Client Sample ID: TP-66(6)

Date Collected: 02/12/19 10:00

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-1

Matrix: Solid

Percent Solids: 77.2

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
2-Methylnaphthalene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
1-Methylnaphthalene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Acenaphthylene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Acenaphthene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Fluorene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Phenanthrene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Anthracene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Fluoranthene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Pyrene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Benzo[a]anthracene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Chrysene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Benzo[b]fluoranthene	12		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Benzo[k]fluoranthene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Benzo[a]pyrene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Indeno[1,2,3-cd]pyrene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Dibenz(a,h)anthracene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Benzo[g,h,i]perylene	ND		12		ug/Kg	☼	02/13/19 09:02	02/13/19 12:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	66		23 - 120				02/13/19 09:02	02/13/19 12:37	1
2-Fluorobiphenyl (Surr)	77		38 - 123				02/13/19 09:02	02/13/19 12:37	1
p-Terphenyl-d14	88		68 - 136				02/13/19 09:02	02/13/19 12:37	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	27	F1	2.8		mg/Kg	☼	02/12/19 14:03	02/13/19 11:03	1

Client Sample ID: TP-67(6)

Date Collected: 02/12/19 10:15

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-2

Matrix: Solid

Percent Solids: 75.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
2-Methylnaphthalene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
1-Methylnaphthalene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Acenaphthylene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Acenaphthene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Fluorene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Phenanthrene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Anthracene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Fluoranthene	13		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Pyrene	14		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Benzo[a]anthracene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Chrysene	13		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Benzo[b]fluoranthene	19		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Benzo[k]fluoranthene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Benzo[a]pyrene	15		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Indeno[1,2,3-cd]pyrene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1

TestAmerica Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Client Sample ID: TP-67(6)

Date Collected: 02/12/19 10:15

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-2

Matrix: Solid

Percent Solids: 75.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Benzo[g,h,i]perylene	13		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	75		23 - 120				02/13/19 09:02	02/13/19 13:03	1
2-Fluorobiphenyl (Surr)	85		38 - 123				02/13/19 09:02	02/13/19 13:03	1
p-Terphenyl-d14	95		68 - 136				02/13/19 09:02	02/13/19 13:03	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	20		2.8		mg/Kg	☼	02/12/19 14:03	02/13/19 11:25	1

Client Sample ID: TP-68(6)

Date Collected: 02/12/19 10:30

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-3

Matrix: Solid

Percent Solids: 75.1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
2-Methylnaphthalene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
1-Methylnaphthalene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Acenaphthylene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Acenaphthene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Fluorene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Phenanthrene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Anthracene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Fluoranthene	28		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Pyrene	33		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Benzo[a]anthracene	22		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Chrysene	29		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Benzo[b]fluoranthene	40		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Benzo[k]fluoranthene	16		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Benzo[a]pyrene	32		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Indeno[1,2,3-cd]pyrene	21		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Dibenz(a,h)anthracene	ND		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Benzo[g,h,i]perylene	27		13		ug/Kg	☼	02/13/19 09:02	02/13/19 13:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	71		23 - 120				02/13/19 09:02	02/13/19 13:29	1
2-Fluorobiphenyl (Surr)	84		38 - 123				02/13/19 09:02	02/13/19 13:29	1
p-Terphenyl-d14	96		68 - 136				02/13/19 09:02	02/13/19 13:29	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	31		2.4		mg/Kg	☼	02/12/19 14:03	02/13/19 11:38	1

TestAmerica Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-20917/1-A

Matrix: Solid

Analysis Batch: 20918

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
2-Methylnaphthalene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
1-Methylnaphthalene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Acenaphthylene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Acenaphthene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Fluorene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Phenanthrene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Anthracene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Fluoranthene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Pyrene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Benzo[a]anthracene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Chrysene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Benzo[b]fluoranthene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Benzo[k]fluoranthene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Benzo[a]pyrene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Dibenz(a,h)anthracene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1
Benzo[g,h,i]perylene	ND		10		ug/Kg		02/13/19 09:02	02/13/19 10:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	65		23 - 120	02/13/19 09:02	02/13/19 10:52	1
2-Fluorobiphenyl (Surr)	70		38 - 123	02/13/19 09:02	02/13/19 10:52	1
p-Terphenyl-d14	99		68 - 136	02/13/19 09:02	02/13/19 10:52	1

Lab Sample ID: LCS 590-20917/2-A

Matrix: Solid

Analysis Batch: 20918

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	197		ug/Kg		74	41 - 121
2-Methylnaphthalene	267	206		ug/Kg		77	39 - 132
1-Methylnaphthalene	267	215		ug/Kg		80	46 - 131
Acenaphthylene	267	231		ug/Kg		87	56 - 123
Acenaphthene	267	220		ug/Kg		83	43 - 140
Fluorene	267	236		ug/Kg		88	54 - 131
Phenanthrene	267	233		ug/Kg		87	55 - 141
Anthracene	267	228		ug/Kg		85	60 - 129
Fluoranthene	267	246		ug/Kg		92	63 - 141
Pyrene	267	245		ug/Kg		92	62 - 139
Benzo[a]anthracene	267	247		ug/Kg		92	61 - 136
Chrysene	267	250		ug/Kg		94	57 - 144
Benzo[b]fluoranthene	267	248		ug/Kg		93	66 - 141
Benzo[k]fluoranthene	267	251		ug/Kg		94	63 - 150
Benzo[a]pyrene	267	215		ug/Kg		81	60 - 133
Indeno[1,2,3-cd]pyrene	267	247		ug/Kg		93	55 - 142
Dibenz(a,h)anthracene	267	249		ug/Kg		94	60 - 150
Benzo[g,h,i]perylene	267	246		ug/Kg		92	58 - 147

TestAmerica Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-20917/2-A

Matrix: Solid

Analysis Batch: 20918

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20917

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	85		23 - 120
2-Fluorobiphenyl (Surr)	92		38 - 123
p-Terphenyl-d14	107		68 - 136

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 590-20898/2-A

Matrix: Solid

Analysis Batch: 20921

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		3.0		mg/Kg		02/12/19 14:03	02/13/19 11:00	1

Lab Sample ID: LCS 590-20898/1-A

Matrix: Solid

Analysis Batch: 20921

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	52.8		mg/Kg		106	80 - 120

Lab Sample ID: 590-10409-1 MS

Matrix: Solid

Analysis Batch: 20921

Client Sample ID: TP-66(6)

Prep Type: Total/NA

Prep Batch: 20898

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	27	F1	53.1	60.3	F1	mg/Kg	☼	62	75 - 125

Lab Sample ID: 590-10409-1 MSD

Matrix: Solid

Analysis Batch: 20921

Client Sample ID: TP-66(6)

Prep Type: Total/NA

Prep Batch: 20898

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	27	F1	58.4	69.1	F1	mg/Kg	☼	72	75 - 125	14	20

Lab Sample ID: 590-10409-1 DU

Matrix: Solid

Analysis Batch: 20921

Client Sample ID: TP-66(6)

Prep Type: Total/NA

Prep Batch: 20898

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	27	F1	17.0	F3	mg/Kg	☼	46	20

TestAmerica Spokane

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Client Sample ID: TP-66(6)

Date Collected: 02/12/19 10:00

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			20909	02/12/19 17:32	JSP	TAL SPK

Client Sample ID: TP-66(6)

Date Collected: 02/12/19 10:00

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-1

Matrix: Solid

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.96 g	2 mL	20917	02/13/19 09:02	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1			20918	02/13/19 12:37	NMI	TAL SPK
Total/NA	Prep	3050B			1.38 g	50 mL	20898	02/12/19 14:03	JSP	TAL SPK
Total/NA	Analysis	6010C		1			20921	02/13/19 11:03	JSP	TAL SPK

Client Sample ID: TP-67(6)

Date Collected: 02/12/19 10:15

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			20909	02/12/19 17:32	JSP	TAL SPK

Client Sample ID: TP-67(6)

Date Collected: 02/12/19 10:15

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-2

Matrix: Solid

Percent Solids: 75.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.00 g	2 mL	20917	02/13/19 09:02	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1			20918	02/13/19 13:03	NMI	TAL SPK
Total/NA	Prep	3050B			1.42 g	50 mL	20898	02/12/19 14:03	JSP	TAL SPK
Total/NA	Analysis	6010C		1			20921	02/13/19 11:25	JSP	TAL SPK

Client Sample ID: TP-68(6)

Date Collected: 02/12/19 10:30

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			20909	02/12/19 17:32	JSP	TAL SPK

Client Sample ID: TP-68(6)

Date Collected: 02/12/19 10:30

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-3

Matrix: Solid

Percent Solids: 75.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.34 g	2 mL	20917	02/13/19 09:02	NMI	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Client Sample ID: TP-68(6)

Date Collected: 02/12/19 10:30

Date Received: 02/12/19 11:35

Lab Sample ID: 590-10409-3

Matrix: Solid

Percent Solids: 75.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D SIM		1			20918	02/13/19 13:29	NMI	TAL SPK
Total/NA	Prep	3050B			1.67 g	50 mL	20898	02/12/19 14:03	JSP	TAL SPK
Total/NA	Analysis	6010C		1			20921	02/13/19 11:38	JSP	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Laboratory: TestAmerica Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C569	01-06-20
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.				
Analysis Method	Prep Method	Matrix	Analyte	
Moisture		Solid	Percent Moisture	
Moisture		Solid	Percent Solids	

Method Summary

Client: Hart Crowser, Inc.
Project/Site: CVSD/15014001

TestAmerica Job ID: 590-10409-1

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010C	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING


11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT:		INVOICE TO: <u>JOHN HANEY</u> <u>HART CROWSEY</u>		TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. OTHER Specify: <u>24 HR</u> * Turnaround Requests less than standard may incur Rush Charges.			
REPORT TO: <u>JOHN HANEY</u> ADDRESS: <u>HART CROWSEY</u> PHONE: <u>206-324-9335</u> FAX:		P.O. NUMBER:					
PROJECT NAME: <u>CVSD</u>		PRESERVATIVE					
PROJECT NUMBER:		REQUESTED ANALYSES					
SAMPLED BY: <u>W. McDONALD</u>							
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PHAS	LEAD				
1 TP-66(6)	2/12/19 1000	X	X				
2 TP-67(6)	↓ 1015	X	X				
3 TP-68(6)	↓ 1030	X	X				
4							
5							
6							
7							
8							
9							
10							


 590-10409 Chain of Custody

RELEASED BY: <u>[Signature]</u>	FIRM: <u>HC</u>	DATE: <u>2/12/19</u>	RECEIVED BY: <u>[Signature]</u>	DATE: <u>2-12-19</u>
PRINT NAME: <u>WARD McDONALD</u>		TIME: <u>11:35</u>	PRINT NAME: <u>Math Suda</u>	TIME: <u>11:35</u>
RELEASED BY:		DATE:	RECEIVED BY:	DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	TIME:

ADDITIONAL REMARKS:

TEMP: 5.5°C
(1200) TAL-1000 (0714)

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-10409-1

Login Number: 10409

List Source: TestAmerica Spokane

List Number: 1

Creator: Arrington, Randee E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	