Wickham, Jerry, Env. Health

From: Guthrie, Kristin [KGuthrie@haleyaldrich.com]
Sent: Friday, June 28, 2013 10:31 AM
To: Wickham, Jerry, Env. Health; Bajsarowicz, Voytek; Rigter, John
Subject: RE: Review Request: Potential Backfill Source at Former Hanson Radum Facility
Attachments: J50300-2 UDS Level 2 Report Final Report.pdf; J50300-1 UDS Level 2 Report Final Report.pdf; Stock Pile Sample Locations.pdf

Jerry and John – please see our responses to your questions below.

1) We collect four 4 oz jars from each stockpile. See attached photograph for the location of each Soil Pile.
    a. Soil Pile #1 = 150 cy
    b. Soil Pile #2 = 625 cy
    c. Soil Pile #3 = 50 cy
2) We have no firsthand knowledge of where any of the stockpiled material came from.
3) The type of fill and the heterogeneity are as follows:
    a. Pile #1 – included one pile of asphalt – not included in sample – to be disposed of separately. The remaining pile consisted of heterogeneous soil and rocks, piles of branches and vegetative material
    b. Pile # 2 – homogeneous mixture of sand, silt & gravel
    c. Pile # 3 – Same at #2
4) Pile # 1, as noted above includes one pile of asphalt, remaining pile mostly dirt and gravel with some concrete material. There was no construction debris observed in Piles #2 & #3.
5) The original ARCAIDS work plan only called for sampling pile #1
6) Lab results are attached.

Let me know if you need any additional information.

- Kristin
phone: 925.949.1017

From: Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]
Sent: Thursday, June 27, 2013 6:44 PM
To: Guthrie, Kristin; Bajsarowicz, Voytek; Rigter, John
Subject: RE: Review Request: Potential Backfill Source at Former Hanson Radum Facility

Kristin,

Could you please provide some background information regarding the fill material such as:

1) The location and volume of the stockpiles and volume that each sample represents
2) The source of the fill material
3) The type of fill and the heterogeneity
4) Whether the fill contains any debris or construction material
5) Whether this is a variance from the Work Plan
6) Laboratory analytical results

I will be out of the office until Tuesday, July 2.

Regards,
Jerry Wickham
Alameda County Environmental Health

1131 Harbor Bay Parkway
Alameda, CA 94502-6577
phone: 510-567-6791
jerry.wickham@acgov.org

From: Guthrie, Kristin [mailto:KGuthrie@haleyaldrich.com]
Sent: Thursday, June 27, 2013 4:24 PM
To: Bajsarowicz, Voytek; Rigter, John; Wickham, Jerry, Env. Health
Subject: Review Request: Potential Backfill Source at Former Hanson Radum Facility

All,

Please find attached for your review analytical results of the recent stockpile sampling at the Former Hanson Aggregates Radum Facility. Soil was collected from four points on each stockpile and composited in the lab prior to analysis. Can you please review and, if appropriate, approve the use of this material as backfill for upcoming closure activities.

AOC 3 field activities will be starting on Monday.

Thanks – please let me know if you have any questions.

Kristin M. Guthrie
Project Manager
HALEY & ALDRICH
2033 North Main Street, Suite 309
Walnut Creek, CA 94596
off: 925.949.1017
cell: 925.979.8529
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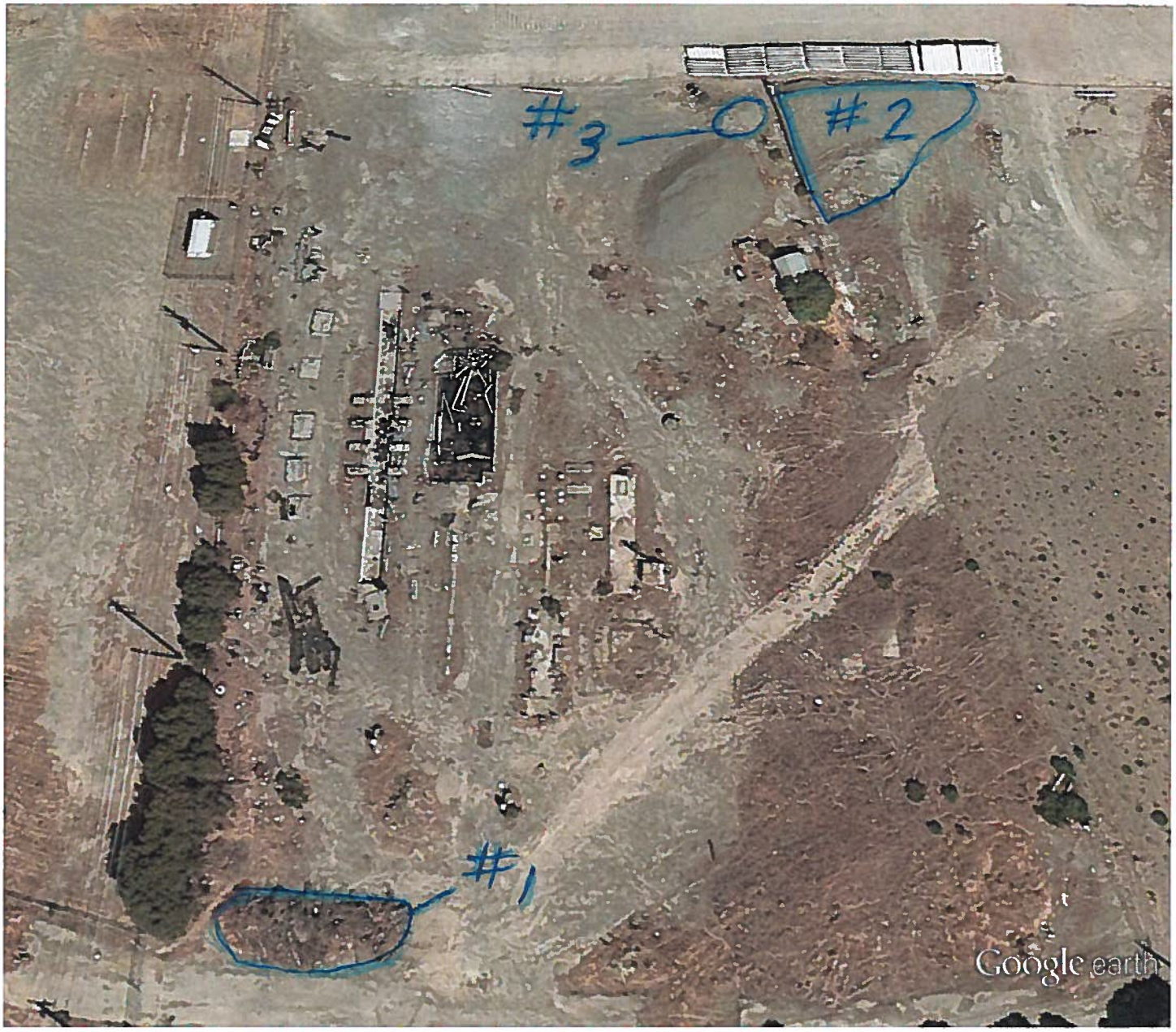
KGuthrie@HaleyAldrich.com
HaleyAldrich.com



Google earth feet 300 meters 100

#1 ~150 cy

#2 ~625 cy

#3 ~ 50 cy

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-50300-1
Client Project/Site: Hansen

For:
Haley & Aldrich, Inc.
2033 North Main Street
Suite 309
Walnut Creek, California 94596

Attn: Kristin Guthrie

Authorized for release by:
6/17/2013 4:05:52 PM
Afsaneh Salimpour, Project Manager I
afsaneh.salimpour@testamericainc.com

Designee for

Dimple Sharma, Project Manager I
dimple.sharma@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.

Table of Contents

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Job ID: 720-50300-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-50300-1

Comments
No additional comments.

Receipt
The samples were received on 6/13/2013 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 8.7º C.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Client Sample ID: SOILPILE_01-061313 — Lab Sample ID: 720-50300-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	13		0.99		mg/Kg	1		8015B	Silica Gel Cleanup
Arsenic	8.0		4.0		mg/Kg	4		6010B	Total/NA
Barium	310		2.0		mg/Kg	4		6010B	Total/NA
Beryllium	0.54		0.40		mg/Kg	4		6010B	Total/NA
Chromium	75		2.0		mg/Kg	4		6010B	Total/NA
Cobalt	14		0.79		mg/Kg	4		6010B	Total/NA
Copper	39		5.9		mg/Kg	4		6010B	Total/NA
Lead	12		2.0		mg/Kg	4		6010B	Total/NA
Nickel	84		2.0		mg/Kg	4		6010B	Total/NA
Vanadium	56		2.0		mg/Kg	4		6010B	Total/NA
Zinc	73		5.9		mg/Kg	4		6010B	Total/NA
Mercury	0.13		0.0088		mg/Kg	1		7471A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.94		0.100		SU	1		9045C	Soluble

Client Sample ID: SOILPILE_02-061313 — Lab Sample ID: 720-50300-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	2.3		0.99		mg/Kg	1		8015B	Silica Gel Cleanup
Barium	83		1.8		mg/Kg	4		6010B	Total/NA
Chromium	24		1.8		mg/Kg	4		6010B	Total/NA
Cobalt	5.4		0.73		mg/Kg	4		6010B	Total/NA
Copper	18		5.5		mg/Kg	4		6010B	Total/NA
Lead	5.0		1.8		mg/Kg	4		6010B	Total/NA
Nickel	36		1.8		mg/Kg	4		6010B	Total/NA
Vanadium	21		1.8		mg/Kg	4		6010B	Total/NA
Zinc	25		5.5		mg/Kg	4		6010B	Total/NA
Mercury	0.051		0.0086		mg/Kg	1		7471A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.75		0.100		SU	1		9045C	Soluble

Client Sample ID: SOILPILE_03-061313 — Lab Sample ID: 720-50300-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	13		1.0		mg/Kg	1		8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	84		50		mg/Kg	1		8015B	Silica Gel Cleanup
Barium	110		1.8		mg/Kg	4		6010B	Total/NA
Chromium	43		1.8		mg/Kg	4		6010B	Total/NA
Cobalt	12		0.73		mg/Kg	4		6010B	Total/NA
Copper	47		5.5		mg/Kg	4		6010B	Total/NA
Lead	7.0		1.8		mg/Kg	4		6010B	Total/NA
Nickel	48		1.8		mg/Kg	4		6010B	Total/NA
Vanadium	46		1.8		mg/Kg	4		6010B	Total/NA
Zinc	45		5.5		mg/Kg	4		6010B	Total/NA
Mercury	0.27		0.0097		mg/Kg	1		7471A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	8.00		0.100		SU	1		9045C	Soluble

This Detection Summary does not include radiochemical test results.

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Client Sample ID: SOILPILE_01-061313
Date Collected: 06/13/13 15:45
Date Received: 06/13/13 16:25

Lab Sample ID: 720-50300-5
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**13**		0.99		mg/Kg		06/14/13 08:28	06/17/13 10:39	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		06/14/13 08:28	06/17/13 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.02*		*0 - 1*	*06/14/13 08:28*	*06/17/13 10:39*	*1*
p-Terphenyl	*84*		*38 - 148*	*06/14/13 08:28*	*06/17/13 10:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Arsenic	**8.0**		4.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Barium	**310**		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Beryllium	**0.54**		0.40		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Cadmium	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Chromium	**75**		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Cobalt	**14**		0.79		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Copper	**39**		5.9		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Lead	**12**		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Molybdenum	ND		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Nickel	**84**		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Selenium	ND		4.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Silver	ND		0.99		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Thallium	ND		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Vanadium	**56**		2.0		mg/Kg		06/13/13 18:46	06/14/13 10:51	4
Zinc	**73**		5.9		mg/Kg		06/13/13 18:46	06/14/13 10:51	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.13**		0.0088		mg/Kg		06/13/13 19:21	06/14/13 12:11	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.94**		0.100		SU			06/14/13 15:55	1

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Client Sample ID: SOILPILE_02-061313
Date Collected: 06/13/13 15:55
Date Received: 06/13/13 16:25

Lab Sample ID: 720-50300-10
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**2.3**		0.99		mg/Kg		06/14/13 08:28	06/15/13 18:08	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		06/14/13 08:28	06/15/13 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.001*		*0 - 1*	*06/14/13 08:28*	*06/15/13 18:08*	*1*
p-Terphenyl	*88*		*38 - 148*	*06/14/13 08:28*	*06/15/13 18:08*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Arsenic	ND		3.7		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Barium	**83**		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Beryllium	ND		0.37		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Cadmium	ND		0.46		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Chromium	**24**		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Cobalt	**5.4**		0.73		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Copper	**18**		5.5		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Lead	**5.0**		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Molybdenum	ND		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Nickel	**36**		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Selenium	ND		3.7		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Silver	ND		0.92		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Thallium	ND		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Vanadium	**21**		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:55	4
Zinc	**25**		5.5		mg/Kg		06/13/13 18:46	06/14/13 10:55	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.051**		0.0086		mg/Kg		06/13/13 19:21	06/14/13 12:13	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.75**		0.100		SU			06/14/13 15:56	1

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Client Sample ID: SOILPILE_03-061313
Date Collected: 06/13/13 16:05
Date Received: 06/13/13 16:25

Lab Sample ID: 720-50300-15
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	13		1.0		mg/Kg		06/14/13 08:28	06/15/13 18:32	1
Motor Oil Range Organics [C24-C36]	84		50		mg/Kg		06/14/13 08:28	06/15/13 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.03*		*0 - 1*	*06/14/13 08:28*	*06/15/13 18:32*	*1*
p-Terphenyl	*67*		*38 - 148*	*06/14/13 08:28*	*06/15/13 18:32*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Arsenic	ND		3.7		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Barium	110		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Beryllium	ND		0.37		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Cadmium	ND		0.46		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Chromium	43		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Cobalt	12		0.73		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Copper	47		5.5		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Lead	7.0		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Molybdenum	ND		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Nickel	48		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Selenium	ND		3.7		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Silver	ND		0.92		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Thallium	ND		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Vanadium	46		1.8		mg/Kg		06/13/13 18:46	06/14/13 10:59	4
Zinc	45		5.5		mg/Kg		06/13/13 18:46	06/14/13 10:59	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.27		0.0097		mg/Kg		06/13/13 19:21	06/14/13 12:16	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.00		0.100		SU			06/14/13 15:58	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-138330/1-A
Matrix: Solid
Analysis Batch: 138396

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 138330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		06/14/13 08:28	06/15/13 16:05	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		06/14/13 08:28	06/15/13 16:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0*		*0 - 1*	*06/14/13 08:28*	*06/15/13 16:05*	*1*
p-Terphenyl	*81*		*38 - 148*	*06/14/13 08:28*	*06/15/13 16:05*	*1*

Lab Sample ID: LCS 720-138330/2-A
Matrix: Solid
Analysis Batch: 138396

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 138330

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			83.1	72.4		mg/Kg		87	36 - 112		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*106*		*38 - 148*

Lab Sample ID: LCSD 720-138330/3-A
Matrix: Solid
Analysis Batch: 138396

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 138330

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			82.6	67.6		mg/Kg		82	36 - 112	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*95*		*38 - 148*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-138307/1-A
Matrix: Solid
Analysis Batch: 138349

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138307

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Arsenic	ND		1.0		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Barium	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Beryllium	ND		0.10		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Cadmium	ND		0.13		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Chromium	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Cobalt	ND		0.20		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Copper	ND		1.5		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Lead	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Molybdenum	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Nickel	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-138307/1-A
Matrix: Solid
Analysis Batch: 138349

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138307

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		1.0		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Silver	ND		0.25		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Thallium	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Vanadium	ND		0.50		mg/Kg		06/13/13 18:46	06/14/13 09:36	1
Zinc	ND		1.5		mg/Kg		06/13/13 18:46	06/14/13 09:36	1

Lab Sample ID: LCS 720-138307/2-A
Matrix: Solid
Analysis Batch: 138349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138307

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	48.2		mg/Kg		96	80 - 120
Arsenic	50.0	48.2		mg/Kg		96	80 - 120
Barium	50.0	49.1		mg/Kg		98	80 - 120
Beryllium	50.0	48.9		mg/Kg		98	80 - 120
Cadmium	50.0	50.5		mg/Kg		101	80 - 120
Chromium	50.0	49.5		mg/Kg		99	80 - 120
Cobalt	50.0	50.8		mg/Kg		102	80 - 120
Copper	50.0	50.0		mg/Kg		100	80 - 120
Lead	50.0	50.2		mg/Kg		100	80 - 120
Molybdenum	50.0	50.0		mg/Kg		100	80 - 120
Nickel	50.0	50.2		mg/Kg		100	80 - 120
Selenium	50.0	47.0		mg/Kg		94	80 - 120
Silver	25.0	24.4		mg/Kg		98	80 - 120
Thallium	50.0	51.4		mg/Kg		103	80 - 120
Vanadium	50.0	48.6		mg/Kg		97	80 - 120
Zinc	50.0	49.5		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 720-138307/3-A
Matrix: Solid
Analysis Batch: 138349

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138307

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	50.0	48.2		mg/Kg		96	80 - 120	0	20
Arsenic	50.0	48.0		mg/Kg		96	80 - 120	0	20
Barium	50.0	49.1		mg/Kg		98	80 - 120	0	20
Beryllium	50.0	48.9		mg/Kg		98	80 - 120	0	20
Cadmium	50.0	50.1		mg/Kg		100	80 - 120	1	20
Chromium	50.0	49.3		mg/Kg		99	80 - 120	0	20
Cobalt	50.0	50.8		mg/Kg		102	80 - 120	0	20
Copper	50.0	50.0		mg/Kg		100	80 - 120	0	20
Lead	50.0	50.0		mg/Kg		100	80 - 120	0	20
Molybdenum	50.0	49.9		mg/Kg		100	80 - 120	0	20
Nickel	50.0	49.8		mg/Kg		100	80 - 120	1	20
Selenium	50.0	47.1		mg/Kg		94	80 - 120	0	20
Silver	25.0	24.2		mg/Kg		97	80 - 120	1	20
Thallium	50.0	51.1		mg/Kg		102	80 - 120	1	20
Vanadium	50.0	48.7		mg/Kg		97	80 - 120	0	20
Zinc	50.0	49.2		mg/Kg		98	80 - 120	1	20

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-138310/1-A
Matrix: Solid
Analysis Batch: 138343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138310

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		06/13/13 19:21	06/14/13 09:58	1

Lab Sample ID: LCS 720-138310/2-A
Matrix: Solid
Analysis Batch: 138343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.900		mg/Kg		108	80 - 120

Lab Sample ID: LCSD 720-138310/3-A
Matrix: Solid
Analysis Batch: 138343

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138310

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.975		mg/Kg		117	80 - 120	8	20

Method: 9045C - pH

Lab Sample ID: LCS 720-138368/1
Matrix: Solid
Analysis Batch: 138368

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.000		SU		100	99 - 101

GC Semi VOA

Prep Batch: 138330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Silica Gel Cleanup	Solid	3546	
720-50300-10	SOILPILE_02-061313	Silica Gel Cleanup	Solid	3546	
720-50300-15	SOILPILE_03-061313	Silica Gel Cleanup	Solid	3546	
LCS 720-138330/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-138330/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-138330/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 138395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-10	SOILPILE_02-061313	Silica Gel Cleanup	Solid	8015B	138330
720-50300-15	SOILPILE_03-061313	Silica Gel Cleanup	Solid	8015B	138330

Analysis Batch: 138396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-138330/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	138330
LCSD 720-138330/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	138330
MB 720-138330/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	138330

Analysis Batch: 138430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Silica Gel Cleanup	Solid	8015B	138330

Metals

Prep Batch: 138307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Total/NA	Solid	3050B	
720-50300-10	SOILPILE_02-061313	Total/NA	Solid	3050B	
720-50300-15	SOILPILE_03-061313	Total/NA	Solid	3050B	
LCS 720-138307/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-138307/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
MB 720-138307/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 138310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Total/NA	Solid	7471A	
720-50300-10	SOILPILE_02-061313	Total/NA	Solid	7471A	
720-50300-15	SOILPILE_03-061313	Total/NA	Solid	7471A	
LCS 720-138310/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-138310/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-138310/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 138343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-138310/2-A	Lab Control Sample	Total/NA	Solid	7471A	138310
LCSD 720-138310/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	138310
MB 720-138310/1-A	Method Blank	Total/NA	Solid	7471A	138310

Metals (Continued)

Analysis Batch: 138349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Total/NA	Solid	6010B	138307
720-50300-10	SOILPILE_02-061313	Total/NA	Solid	6010B	138307
720-50300-15	SOILPILE_03-061313	Total/NA	Solid	6010B	138307
LCS 720-138307/2-A	Lab Control Sample	Total/NA	Solid	6010B	138307
LCSD 720-138307/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	138307
MB 720-138307/1-A	Method Blank	Total/NA	Solid	6010B	138307

Analysis Batch: 138356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Total/NA	Solid	7471A	138310
720-50300-10	SOILPILE_02-061313	Total/NA	Solid	7471A	138310
720-50300-15	SOILPILE_03-061313	Total/NA	Solid	7471A	138310

General Chemistry

Leach Batch: 138296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Soluble	Solid	DI Leach	
720-50300-10	SOILPILE_02-061313	Soluble	Solid	DI Leach	
720-50300-15	SOILPILE_03-061313	Soluble	Solid	DI Leach	

Analysis Batch: 138368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Soluble	Solid	9045C	138296
720-50300-10	SOILPILE_02-061313	Soluble	Solid	9045C	138296
720-50300-15	SOILPILE_03-061313	Soluble	Solid	9045C	138296
LCS 720-138368/1	Lab Control Sample	Total/NA	Solid	9045C	

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Client Sample ID: SOILPILE_01-061313

Lab Sample ID: 720-50300-5

Date Collected: 06/13/13 15:45

Matrix: Solid

Date Received: 06/13/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			138330	06/14/13 08:28	MP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138430	06/17/13 10:39	DH	TAL PLS
Total/NA	Prep	3050B			138307	06/13/13 18:46	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138349	06/14/13 10:51	EFH	TAL PLS
Total/NA	Prep	7471A			138310	06/13/13 19:21	ASB	TAL PLS
Total/NA	Analysis	7471A		1	138356	06/14/13 12:11	EFH	TAL PLS
Soluble	Leach	DI Leach			138296	06/14/13 09:57	MJK	TAL PLS
Soluble	Analysis	9045C		1	138368	06/14/13 15:55	EYT	TAL PLS

Client Sample ID: SOILPILE_02-061313

Lab Sample ID: 720-50300-10

Date Collected: 06/13/13 15:55

Matrix: Solid

Date Received: 06/13/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			138330	06/14/13 08:28	MP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138395	06/15/13 18:08	DH	TAL PLS
Total/NA	Prep	3050B			138307	06/13/13 18:46	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138349	06/14/13 10:55	EFH	TAL PLS
Total/NA	Prep	7471A			138310	06/13/13 19:21	ASB	TAL PLS
Total/NA	Analysis	7471A		1	138356	06/14/13 12:13	EFH	TAL PLS
Soluble	Leach	DI Leach			138296	06/14/13 09:57	MJK	TAL PLS
Soluble	Analysis	9045C		1	138368	06/14/13 15:56	EYT	TAL PLS

Client Sample ID: SOILPILE_03-061313

Lab Sample ID: 720-50300-15

Date Collected: 06/13/13 16:05

Matrix: Solid

Date Received: 06/13/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			138330	06/14/13 08:28	MP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138395	06/15/13 18:32	DH	TAL PLS
Total/NA	Prep	3050B			138307	06/13/13 18:46	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138349	06/14/13 10:59	EFH	TAL PLS
Total/NA	Prep	7471A			138310	06/13/13 19:21	ASB	TAL PLS
Total/NA	Analysis	7471A		1	138356	06/14/13 12:16	EFH	TAL PLS
Soluble	Leach	DI Leach			138296	06/14/13 09:57	MJK	TAL PLS
Soluble	Analysis	9045C		1	138368	06/14/13 15:58	EYT	TAL PLS

Laboratory References:

= Asbestos TEM Laboratories, Inc., 630 BANCROFT WAY, Berkeley, CA 94710

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS
9045C	pH	SW846	TAL PLS
Asbestos CARB	General Sub Contract Method	NONE	

Protocol References:

NONE = NONE

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

Laboratory References:

= Asbestos TEM Laboratories, Inc., 630 BANCROFT WAY, Berkeley, CA 94710

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-50300-5	SOILPILE_01-061313	Solid	06/13/13 15:45	06/13/13 16:25
720-50300-10	SOILPILE_02-061313	Solid	06/13/13 15:55	06/13/13 16:25
720-50300-15	SOILPILE_03-061313	Solid	06/13/13 16:05	06/13/13 16:25

ASBESTOS TEM LABORATORIES, INC.

CARB Method 435
Polarized Light Microscopy
Analytical Report

Laboratory Job # 1283-00250

630 Bancroft Way
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429

ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP Lab Code: 101891-0
Berkeley, CA

Jun/17/2013

Dimple Sharma
Test America San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

RE: LABORATORY JOB # 1283-00250
Polarized light microscopy analytical results for 3 bulk sample(s).
Job Site:
Job No.: Hanson

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with the California Air Resources Board (ARB) Method 435 for the determination of asbestos in serpentine aggregate samples.

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Sample preparation follows a standard CARB 435 prep method. The entire sample is dried at 135-150 C and then crushed to ~3/8" gravel size using a Bico Chipmunk crusher. If the submitted sample is >1 pint, the sample was split using a 1/2" riffle splitter following ASTM Method C-702-98 to obtain a 1 pint aliquot. The entire 1 pint aliquot, or entire original sample, is then pulverized in a Bico Braun disc pulverizer calibrated to produce a nominal 200 mesh final product. If necessary, additional homogenization steps are undertaken using a 3/8" riffle splitter. Small aliquots are collected from throughout the pulverized material to create three separate microsope slide mounts containing the appropriate refractive index oil. The prepared slides are placed under a polarizing light microscope where standard mineralogical techniques are used to analyze the various materials present, including asbestos. If asbestos is identified and of less than 10% concentration by visual area estimate then an additional five sample mounts are prepared. Quantification of asbestos concentration is obtained using the standard CAL ARB Method 435 point count protocol. For samples observed to contain visible asbestos of less than 10% concentration, a point counting techinique is used with 50 points counted on each of eight sample mounts for a total of 400 points. The data is then compiled into standard report format and subjected to a thorough quality assurance check before the information is released to the client.

While the CARB 435 method has much to commend it, there are a number of situations where it fails to provide sufficient accuracy to make a definitive determination of the presence/absence of asbestos and/or an accurate count of the asbestos concentration present in a given sample. These problems include, but are not limited to, 1) statistical uncertainty with samples containing <1% asbestos when too few particles are counted, 2) definitive identification and discrimination between various fibrous amphibole minerals such as tremolite/actinolite/hornblende and the "Libby amphiboles" such as tremolite/winchite/richterite/arfvedsonite, and C) small asbestiform fibers which are near or below the resolution limit of the PLM microscope such as those found in various California coast range serpentine bodies. In these cases, further analysis by transmission electron microscopy is recommended to obtain a more accurate result.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

POLARIZED LIGHT MICROSCOPY
CARB 435 ANALYTICAL REPORT

Contact: Dimple Sharma

Address: Test America San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Samples Submitted: 3
Samples Analyzed: 0
Job Site / No. Hanson

Report No. **318361**
Date Submitted: Jun-14-13
Date Reported: Jun-17-13

SAMPLE ID	POINTS COUNTED	ASBESTOS %	ASBESTOS TYPE	LOCATION / DESCRIPTION
720-50300 #1		**<0.25%**	**None Detected**	No Point Count Performed - ARB Exception I
Lab ID # 1283-00250-001	**400** - Total Points			
720-50300 #2		**<0.25%**	**None Detected**	No Point Count Performed - ARB Exception I
Lab ID # 1283-00250-002	**400** - Total Points			
720-50300 #3		**<0.25%**	**None Detected**	No Point Count Performed - ARB Exception I
Lab ID # 1283-00250-003	**400** - Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			

QC Reviewer _____ **Analyst** _____

ASBESTOS TEM LABORATORIES, INC. 630 BANCROFT WAY, BERKELEY, CA 94710 PH. (510) 704-8930

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane ● Pleasanton CA 94566-4756
Phone: (925) 484-1919 ● Fax: (925) 600-3002

Reference #: _____

Date_____ Page_____of_____

Sub to Asbestos Tem

Report To

Attn: D. Sharma
Company:
Address:
Email:
Bill To: | Sampled By:
Attn: | Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	X Asbestos Cavb435	Number of Containers
720-50300#1	6-13-13	1545	S																			X	1
720-50300#2	6-13-13	1555	S																			X	1
720-50300#3	6-13-13	1605	S																			X	1

RUSH

Project Info.

Project Name/ #: Hanson
PO#:
Credit Card Y/N:

Sample Receipt

of Containers:
Head Space:
Temp:
If yes, please call with payment information ASAP

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | 1 Day | Other: 6-17-13

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID _____

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 0949	Signature: Time:	Signature: Time:
Printed Name: David Motha. Date: 06/14/13	Printed Name: Date:	Printed Name: Date:
Company: TAP	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 06-14-13 A09:49 IN	Signature: Time:	Signature: Time:
Printed Name: ATEM Date:	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

Rev.10/2012

Page 21 of 23

6/17/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 Fax: (925) 600-3002

720-50300

Reference #: 146582

Date 6/13/13 Page 1 of 1

6/17/2013

Report To

Attn: KRISTN GUTHRIE
Company: HALEY & ALDRICH
Address: 2033 N Main St Walnut Creek CA
Email: KGUTHRIE@haleyaldrich.com
Bill To: Haley & Aldrich
Sampled By: JSebik, AAtkinson
Attn: Accounts Payable
Phone: 925 949 1013

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☒ Silica Gel ☒ Diesel ☒ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☒ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Metals ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☒ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Asbestos CARB435		Number of Containers
SOILPILE-01-061313	6/13/13	1545	S	No				X					X	X JS 6/13			X	X					X		
SOILPILE-02-061313	↓	1555	S	No				X					X	X JS 6/13			X	X					X		
SOILPILE-03-061313	↓	1605	S	No				X					X	X JS 6/13			X	X					X		

720-50300 Chain of Custody

RUSH

Project Info

Project Name/ #: Former Hanson Radum Facility
PO#: 39187-000
Credit Card Y/N. If yes, please call with payment information ASAP

Sample Receipt

of Containers: 12
Head Space:
Temp: 8.7°C <4hrs

TAT: 10 Day | 5 Day | 4 Day | 3 Day | (2) Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID ___
Please composite 4 jars/sample in lab.

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by
Signature: [signature] Time: 1625	Signature: Time:	Signature: Time:
Printed Name: JOANNA SEBIK Date: 6/13/13	Printed Name: Date:	Printed Name: Date:
Company: HALEY & ALDRICH	Company:	Company:

1) Received by:	2) Received by:	3) Received by
Signature: [signature] Time: 1625	Signature: Time:	Signature: Time:
Printed Name: Mulley Date: 6-13-13	Printed Name: Date:	Printed Name: Date:
Company: TAL A	Company:	Company:

Rev 10/2012

Page 22 of 23

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 720-50300-1

Login Number: 50300

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-50300-2
Client Project/Site: Hansen

For:
Haley & Aldrich, Inc.
2033 North Main Street
Suite 309
Walnut Creek, California 94596

Attn: Kristin Guthrie

Authorized for release by:
6/18/2013 4:43:56 PM

Dimple Sharma, Project Manager I
dimple.sharma@testamericainc.com

Table of Contents

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Job ID: 720-50300-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-50300-2

Comments
No additional comments.

Receipt
The samples were received on 6/13/2013 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 8.7º C.

GC/MS Semi VOA
Method 8270C SIM: The following sample was diluted due to the abundance of non-target analytes: SOILPILE_02-061313 (720-50300-10), SOILPILE_03-061313 (720-50300-15). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Client Sample ID: SOILPILE_01-061313 — **Lab Sample ID: 720-50300-5**

No Detections.

Client Sample ID: SOILPILE_02-061313 — **Lab Sample ID: 720-50300-10**

No Detections.

Client Sample ID: SOILPILE_03-061313 — **Lab Sample ID: 720-50300-15**

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Client Sample ID: SOILPILE_01-061313
Date Collected: 06/13/13 15:45
Date Received: 06/13/13 16:25

Lab Sample ID: 720-50300-5
Matrix: Solid

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/Kg		06/17/13 16:00	06/18/13 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*94*		*33 - 120*	*06/17/13 16:00*	*06/18/13 14:01*	*1*
Terphenyl-d14	*139*		*35 - 146*	*06/17/13 16:00*	*06/18/13 14:01*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Client Sample ID: SOILPILE_02-061313
Date Collected: 06/13/13 15:55
Date Received: 06/13/13 16:25

Lab Sample ID: 720-50300-10
Matrix: Solid

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		25		ug/Kg		06/17/13 16:00	06/18/13 14:21	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*33 - 120*	*06/17/13 16:00*	*06/18/13 14:21*	*5*
Terphenyl-d14	*94*		*35 - 146*	*06/17/13 16:00*	*06/18/13 14:21*	*5*

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Client Sample ID: SOILPILE_03-061313
Date Collected: 06/13/13 16:05
Date Received: 06/13/13 16:25

Lab Sample ID: 720-50300-15
Matrix: Solid

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		25		ug/Kg		06/17/13 16:00	06/18/13 14:42	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*33 - 120*	*06/17/13 16:00*	*06/18/13 14:42*	*5*
Terphenyl-d14	*89*		*35 - 146*	*06/17/13 16:00*	*06/18/13 14:42*	*5*

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-138441/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138432 — **Prep Batch: 138441**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/Kg		06/17/13 11:36	06/17/13 17:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*33 - 120*	*06/17/13 11:36*	*06/17/13 17:00*	*1*
Terphenyl-d14	*82*		*35 - 146*	*06/17/13 11:36*	*06/17/13 17:00*	*1*

Lab Sample ID: LCS 720-138441/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138432 — **Prep Batch: 138441**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			332	205		ug/Kg		62	46 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*68*		*33 - 120*
Terphenyl-d14	*82*		*35 - 146*

Lab Sample ID: LCSD 720-138441/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138432 — **Prep Batch: 138441**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			329	222		ug/Kg		67	46 - 120	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*33 - 120*
Terphenyl-d14	*84*		*35 - 146*

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

GC/MS Semi VOA

Analysis Batch: 138432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-138441/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	138441
LCSD 720-138441/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	138441
MB 720-138441/1-A	Method Blank	Total/NA	Solid	8270C SIM	138441

Prep Batch: 138441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Total/NA	Solid	3546	
720-50300-10	SOILPILE_02-061313	Total/NA	Solid	3546	
720-50300-15	SOILPILE_03-061313	Total/NA	Solid	3546	
LCS 720-138441/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-138441/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-138441/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 138511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50300-5	SOILPILE_01-061313	Total/NA	Solid	8270C SIM	138441
720-50300-10	SOILPILE_02-061313	Total/NA	Solid	8270C SIM	138441
720-50300-15	SOILPILE_03-061313	Total/NA	Solid	8270C SIM	138441

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Client Sample ID: SOILPILE_01-061313

Lab Sample ID: 720-50300-5

Date Collected: 06/13/13 15:45

Matrix: Solid

Date Received: 06/13/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			138441	06/17/13 16:00	NP	TAL PLS
Total/NA	Analysis	8270C SIM		1	138511	06/18/13 14:01	ML	TAL PLS

Client Sample ID: SOILPILE_02-061313

Lab Sample ID: 720-50300-10

Date Collected: 06/13/13 15:55

Matrix: Solid

Date Received: 06/13/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			138441	06/17/13 16:00	NP	TAL PLS
Total/NA	Analysis	8270C SIM		5	138511	06/18/13 14:21	ML	TAL PLS

Client Sample ID: SOILPILE_03-061313

Lab Sample ID: 720-50300-15

Date Collected: 06/13/13 16:05

Matrix: Solid

Date Received: 06/13/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			138441	06/17/13 16:00	NP	TAL PLS
Total/NA	Analysis	8270C SIM		5	138511	06/18/13 14:42	ML	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS

Protocol References:

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

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-50300-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-50300-5	SOILPILE_01-061313	Solid	06/13/13 15:45	06/13/13 16:25
720-50300-10	SOILPILE_02-061313	Solid	06/13/13 15:55	06/13/13 16:25
720-50300-15	SOILPILE_03-061313	Solid	06/13/13 16:05	06/13/13 16:25

Salimpour, Afsaneh 720-50300 Job 2

From: Guthrie, Kristin [KGuthrie@haleyaldrich.com]
Sent: Monday, June 17, 2013 4:49 PM
To: Salimpour, Afsaneh
Cc: Atkinson, Allan
Subject: FW: Files from 720-50300-1 Hansen

Afsnaeh

Can you please re-run these samples for Naphthalene by 8270C SIM please.

It was unintentionally left off of the COC. Please put it on 48-hr TAT.

Thanks

- Kristin
phone: 925.949.1017

RUSH

From: Atkinson, Allan
Sent: Monday, June 17, 2013 4:46 PM
To: Guthrie, Kristin
Subject: RE: Files from 720-50300-1 Hansen


720-50300 Chain of Custody

Hey Kristin,

Looks like we messed up slightly on our analyte request. The cleanup goals table in section 5.1 of the AOC#1 document requires analysis of naphthalene and does not ask for metals. So I think we need to request the lab to analyze for naphthalene by 8270C SIM to comply with Jerry's wishes. The metals are all within background concentrations; however, some people, Jerry for instance, may balk at chromium of 75 mg/kg. The TPHs all look okay.

From: Guthrie, Kristin
Sent: Monday, June 17, 2013 4:16 PM
To: Atkinson, Allan; Miller, Katherine
Subject: FW: Files from 720-50300-1 Hansen

Hey Al

Here are the results from the soil stockpile sampling. Please take a look and let me know if you approve of the material.

Katherine – these are backfill characterization samples for the project we discussed last Friday.

G:\39792_USL_Pleasanton Remediation\002 Soil Excavation, Disposal & Backfill-Area 8

- Kristin
phone: 925.949.1017

From: Salimpour, Afsaneh [mailto:afsaneh.salimpour@testamericainc.com]
Sent: Monday, June 17, 2013 4:11 PM

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 720-50300-2

Login Number: 50300

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	