



March 26, 2018

Eagle Environmental Consulting, Inc.

Dan Coloccia

4101 Inca Street

Denver

CO 80211

Project Name - SRC - Ikenouye West Pit

Project Number - [none]

Attached are your analytical results for SRC - Ikenouye West Pit received by Origins Laboratory, Inc. March 23, 2018. This project is associated with Origins project number Y803413-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Dan Coloccia
Project Number: [none]
Project: SRC - Ikenouye West Pit

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N-02 @ 6'	Y803413-01	Soil	March 23, 2018 13:28	03/23/2018 14:57
S-01 @ 6'	Y803413-02	Soil	March 23, 2018 11:03	03/23/2018 14:57
E-01 @ 6'	Y803413-03	Soil	March 23, 2018 11:02	03/23/2018 14:57
W-01 @ 6'	Y803413-04	Soil	March 23, 2018 11:01	03/23/2018 14:57

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Dan Coloccia
 Project Number: [none]
 Project: SRC - Ikenouye West Pit

Origins Laboratory

F-012207-01-R1
 Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4803413

Client: Eagle

Client Project ID: SRC - Ikenouye West Pit

Checklist Completed by: JG

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 3/23/18

Airbill #: N/A

Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____

Cooler Number/Temperature: 1 / 3.4 °C / _____ °C / _____ °C (Describe)

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)(pH <2 for samples preserved with HNO ₃ , HCl, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)		<input checked="" type="checkbox"/>		
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.


 Reviewed by (Project Manager)

3/23/18
 Date/Time Reviewed

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Dan Coloccia
 Project Number: [none]
 Project: SRC - Ikenouye West Pit

N-02 @ 6'
3/23/2018 1:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803413-01 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018	U
<i>Surrogate: o-Terphenyl</i>	90.0 %	59-131			"	"	"	

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B8C2304	"	03/23/2018	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	114 %	70-130			"	"	"	
<i>Surrogate: Toluene-d8</i>	92.5 %	70-130			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	100 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Dan Coloccia
 Project Number: [none]
 Project: SRC - Ikenouye West Pit

S-01 @ 6'
3/23/2018 11:03:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803413-02 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018	U
<i>Surrogate: o-Terphenyl</i>	85.0 %	59-131			"	"	"	

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	0.278	0.200	mg/kg	1	B8C2304	"	03/23/2018	
Benzene	0.004	0.002	"	"	"	"	"	
Toluene	0.006	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	0.029	0.002	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	114 %	70-130			"	"	"	
<i>Surrogate: Toluene-d8</i>	96.3 %	70-130			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	103 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Dan Coloccia
 Project Number: [none]
 Project: SRC - Ikenouye West Pit

E-01 @ 6'
 3/23/2018 11:02:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y803413-03 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018	U
Surrogate: o-Terphenyl	84.3 %	59-131			"	"	"	

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B8C2304	"	03/23/2018	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.002	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	114 %	70-130			"	"	"	
Surrogate: Toluene-d8	96.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

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 4101 Inca Street
 Denver CO 80211

Dan Coloccia
 Project Number: [none]
 Project: SRC - Ikenouye West Pit

W-01 @ 6'
3/23/2018 11:01:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803413-04 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	277	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018	
Surrogate: o-Terphenyl	95.6 %	59-131			"	"	"	

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	422	5.00	mg/kg	25	B8C2304	"	03/23/2018	
Benzene	1.66	0.050	"	"	"	"	"	
Toluene	26.9	0.498	"	250	"	"	03/24/2018	
Ethylbenzene	1.93	0.050	"	25	"	"	03/23/2018	
Xylenes, total	53.4	0.498	"	250	"	"	03/24/2018	
Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	03/23/2018	
Surrogate: Toluene-d8	75.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	130 %	70-130			"	"	"	

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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Dan Coloccia
 Project Number: [none]
 Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2304 - EPA 5030 (soil)

Blank (B8C2304-BLK1)

Prepared: 03/23/2018 Analyzed: 03/23/2018

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	76		ug/kg	62.5		122	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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 Project Number: [none]
 Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2304 - EPA 5030 (soil)

LCS (B8C2304-BS1)

Prepared: 03/23/2018 Analyzed: 03/23/2018

Benzene	0.101	0.002	mg/kg	0.100		101	77.1-124			
Toluene	0.092	0.002	"	0.100		91.6	74.5-128			
Ethylbenzene	0.092	0.002	"	0.100		92.1	66.4-127			
m,p-Xylene	0.181	0.004	"	0.200		90.7	76.6-124			
o-Xylene	0.088	0.002	"	0.100		87.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	59		"	62.5		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.8	70-130			

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Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2304 - EPA 5030 (soil)

Matrix Spike (B8C2304-MS1)	Source: Y803412-01			Prepared: 03/23/2018 Analyzed: 03/23/2018						
Benzene	0.117	0.002	mg/kg	0.100	ND	117	71.8-126			
Toluene	0.108	0.002	"	0.100	ND	108	65.1-130			
Ethylbenzene	0.128	0.002	"	0.100	0.0007	127	62.2-130			
m,p-Xylene	0.247	0.004	"	0.200	0.001	123	46.5-137			
o-Xylene	0.120	0.002	"	0.100	0.001	119	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	77		"	62.5		123	70-130			

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 Denver CO 80211

Dan Coloccia
 Project Number: [none]
 Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2304 - EPA 5030 (soil)

Matrix Spike Dup (B8C2304-MSD1)	Source: Y803412-01			Prepared: 03/23/2018 Analyzed: 03/23/2018						
Benzene	0.108	0.002	mg/kg	0.100	ND	108	71.8-126	8.35	11.3	
Toluene	0.095	0.002	"	0.100	ND	95.0	65.1-130	12.7	15.4	
Ethylbenzene	0.107	0.002	"	0.100	0.0007	106	62.2-130	17.9	19.6	
m,p-Xylene	0.204	0.004	"	0.200	0.001	101	46.5-137	19.3	19.2	QR-02
o-Xylene	0.098	0.002	"	0.100	0.001	97.0	54.2-134	20.1	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	72		ug/kg	62.5		116	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	73		"	62.5		116	70-130			

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 Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Extractable Petroleum Hydrocarbons by 8015C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2305 - EPA 3550B

Blank (B8C2305-BLK1)

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	ND	50.0	mg/kg							U
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Surrogate: o-Terphenyl

43			"	50.0		86.1	59-131			
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LCS (B8C2305-BS1)

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	1020	50.0	mg/kg	1000		102	64-121			
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Surrogate: o-Terphenyl

49			"	50.0		97.4	59-131			
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Matrix Spike (B8C2305-MS1)

Source: Y803412-01

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	1320	50.0	mg/kg	1000	372	94.8	53-125			
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Surrogate: o-Terphenyl

54			"	50.0		107	59-131			
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Matrix Spike Dup (B8C2305-MSD1)

Source: Y803412-01

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	1470	50.0	mg/kg	1000	372	110	53-125	10.8	20	
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Surrogate: o-Terphenyl

54			"	50.0		108	59-131			
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4101 Inca Street
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Dan Coloccia
Project Number: [none]
Project: SRC - Ikenouye West Pit

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President