# **APPENDIX F**

ENVIRONMENTAL DATA RESOURCES, INC.

**City Directory** 

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**Jamison Way Parcels** 

3544 Jamison Way Castro Valley, CA 94546

Inquiry Number: 4549561.5

March 02, 2016

# The EDR-City Directory Image Report



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**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

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# **EXECUTIVE SUMMARY**

# **DESCRIPTION**

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

### **RESEARCH SUMMARY**

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	Target Street	Cross Street	<u>Source</u>
2013	$\overline{\checkmark}$		Cole Information Services
2008	$\overline{\checkmark}$		Cole Information Services
2003	$\overline{\checkmark}$		Cole Information Services
1999	$\overline{\checkmark}$		Cole Information Services
1995	$\overline{\checkmark}$		Cole Information Services
1992	$\overline{\checkmark}$		Cole Information Services
1989	$\overline{\checkmark}$		Haines Criss-Cross Directory
1985	$\overline{\checkmark}$		Haines Criss-Cross Directory
1980	$\overline{\checkmark}$		Haines Criss-Cross Directory
1975			Haines Criss-Cross Directory

#### **RECORD SOURCES**

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# **FINDINGS**

# TARGET PROPERTY STREET

3544 Jamison Way Castro Valley, CA 94546

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
JAMISON	WAY	
2013	pg A2	Cole Information Services
2008	pg A4	Cole Information Services
2003	pg A6	Cole Information Services
1999	pg A8	Cole Information Services
1995	pg A10	Cole Information Services
1992	pg A11	Cole Information Services
1989	pg A12	Haines Criss-Cross Directory
1989	pg A13	Haines Criss-Cross Directory
1985	pg A14	Haines Criss-Cross Directory
1980	pg A15	Haines Criss-Cross Directory
1975	pg A16	Haines Criss-Cross Directory

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# **FINDINGS**

# **CROSS STREETS**

No Cross Streets Identified

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**Cross Street** 

#### Target Street **Source** Cole Information Services

0.450	DATRICIA FEDRIFRA
3450	
3451	
3511	
3512	
3528	
	PHILLIP ANTONE
3530	
3532	
3534	
3541	
	CASTRO VILLAGE SHOPPING CENTER ADAMS
3544	
3545	
3546	
3547	DUM KENT
3548	DANIEL CEPEDA
3550	VINCE GUERRERO
3560	BEATRICE REYES
	BRANDON COLEMAN
	CHRISTOPHER HIMMEL
	CLIFTON PAYNE
	DAVID SHAW
	HELEN SANTONASTASSO
	LAURA CHURCHFIELD
	MARGERY SCHUTZE
	MARIE METAYER
	MARTHELLA GITLIN
	MARY RENSEN
	MICHELLE THOMAS
	PHILIP DEMMEL
	PINEHAVEN GARDEN APARTMENTS
	RICHARD CRAIG
	RICHARD PURDEE
	RICHARD SKEWIS
	RONALD NOBRIGA
	SAM HERSEU
	SARAH MACUDZINSKI
	SCOTT ROBINSON
	SERENA LAI
	STACY ROCHA
3561	OCCUPANT UNKNOWN
3563	
3566	
3570	
3577	
3579	
3590	
3594	
3596	
3597	
0001	

# JAMISON WAY 2013 (Cont'd)

	JAMISON WAY	2013	(Cont'd)	
3603 3609 3612	WHITEHOUSE JOSEPH A MS DDS CHEN AVA J DDS INC ANGIE ZIGENIS			
3633	CAMILLE LE CHRIS WAN TIFFANY MORALES			
3634 3649	CASTRO VILLAGE CARE HOME OCCUPANT UNKNOWN JACK F EDWARDS INC			
3650	RICHARD AVALOS			

<u>Target Street</u> <u>Cross Street</u> <u>Source</u>

# - Cole Information Services

3450	PATRICIA FERREIRA
3451	SOPHIA TEJADA
3511	BERNA FIELDS
3512	COREY VITELLO
3528	RENE IN
3530	OCCUPANT UNKNOWN
3532	SUZIE GETMAN
3534	TENAYA LEDEUX
3541	ADAMS ADAMS & MORRIS INC
3544	OCCUPANT UNKNOWN
3545	UNITED WORKERS FEDERAL CREDIT UNION
3546	OCCUPANT UNKNOWN
3547	DUM KENT
3548	LINDSAY GRATHWOHL
3550	VINCE GUERRERO
3560	ALLEN PEEK
	ARTOR LAGUMEN
	CIMERON YEE
	CLIFTON PAYNE
	DON GARBELLANO
	GLORIA GIBSON
	HALF PRICE TOWING
	ILDIKO BIRO
	JANICE SAUNDERS
	JOSEPH AZZARITO
	MARGERY SCHUTZE
	MARIAM DONALDSON
	MARTHELLA GITLIN
	MATTIA BOSCO
	MYRL SANSOM
	OLGA SILVA
	PINEHAVEN GARDEN APARTMENTS RANDY NEMETH
	RENATA MASTROYANNIS
	RICARDO RAMIREZ RICHARD SKEWIS
	ROBERT DOWLING
	ROBERT WILCOX
	SAM HERSEU
	WENDY DYER
3561	OCCUPANT UNKNOWN
3563	CHRISTINE COSTELLO
3566	ARNOLD ANDERSON
3570	BRUCE WILE
3570 3577	ROXANN HINTZ
3577 3579	OCCUPANT UNKNOWN
3590	ACCESS WIRELESS
3090	ANDY KRAKE
3594	M CASTANEDA
3596	JONG KIM
3330	CONCINION CONTRACTOR C

	JAMISON WAY	2008	(Cont'd)	
3603	CASTRO VALLEY DENTAL CARE			
	WHITEHOUSE JOSEPH A MS DDS			
3609	AVA J CHEN DDS			
	VICTOR R KVIKSTAD FDDS			
3612	CROMPTON WAN			
	FABIAN MONTANO			
	FU SUN JAU LUO			
	LARRY YU			
3633	DAN BRIGGS			
3634	CASTRO VILLAGE CARE HOME			
3649	CASTRO VALLEY ENTERPRISES INC			
	EDWARDS & ANDERSON INC			
	JACK F EDWARDS INC			
	MARINA SHELL			
3650	RICHARD AVALOS			

<u>Target Street</u> <u>Cross Street</u> <u>Source</u>

# Cole Information Services

0.450	DATRICIA EEDDIEDA	
3450	PATRICIA FERRIERA	
3451	GINA GONZALEZ	
3511	ROBERT KOZAK	
3512	OCCUPANT UNKNOWN	
3528	OCCUPANT UNKNOWN	
3530	JACK CRAWFORD	
3532	CHUN WANG	
3533	EVERYBODYS BUSINESS	
2524	HP DESIGNS	
3534	OCCUPANT UNKNOWN	
3541	ADAMS ADAMS & MORRIS INC	
3544	DAN BRIGGS	
3546 3548	OCCUPANT UNKNOWN DAVIS WERTSBAUGH	
3550	VINCE GUERRERO	
3560	CHARLES GOLDIE	
3300	DENISE VOLZ	
	DOC SILVA	
	DONNA MULLINS	
	GINNY JONES	
	ILDIKO BIRO	
	JANE TENEYCK	
	JOHN ODONNELL	
	JUDITH NICHOLS	
	MARIAM DONALDSON	
	MICHAEL PITNER	
	PETER MARTIN	
	PINEHAVEN GARDEN APARTMENTS	
	TAE RHEE	
	WILLIAM KAVANAGH	
	ZOLTAN HAVAS	
3561	MIKE HARBURG	
3563	SALLY STONE	
3566	ARNOLD ANDERSON	
3570	ARNOLD ANDERSON	
3577	KEVIN JUNG	
3590	NANCY DURMAS	
3597	DUC HUY TRAN CAR WASH	
3603	DENTAL ASSISTANT TRAINING SCHL	
	KESTNER ENGINEERS PC	
	KOWALSKI MICHAEL DDS	
	SHIRANI ALI DDS	
	VICTOR KVIKSTAD	
3609	KVIKSTAD DDS VICTOR	
	KVIKSTAD VICTOR R DDS INC	
	OCCUPANT UNKNOWN	
3612	A ZIGENIS	
	CLEVER CONSTRUCTION	
	FLORENCE NAGLE	
	GARRICK UTLEY	

JAMISON WAY 2003 (Cont'd)

3612 JAE LEE SAMUEL DORROUGH 3633 HEINRY HARDT 3634 CASTRO VILLAGE CARE HOME LAURA MACPHERSON 3650 RICHARD AVALOS		JAMISON WAY	2003	(Conta)	
SAMUEL DORROUGH 3633 HENRY HARDT 3634 CASTRO VILLAGE CARE HOME LAURA MACPHERSON	2612	IAELEE			
3633 HENRY HARDT 3634 CASTRO VILLAGE CARE HOME LAURA MACPHERSON	3012				
LAURA MACPHERSON		HENRY HARDT			
	3634				
	3650				

3450	PATRICIA FERREIRA	
3451	GINA GONZALEZ	
3511	BERNA FIELDS	
3512	COREY VITELLO	
	OCCUPANT UNKNOWN	
3532	SUZIE GETMAN	
3534	OCCUPANT UNKNOWN	
3541	ADAMS ADAMS & MORRIS REAL ESTATE INCORPORATED	
	CASTRO VILLAGE SHOPPING CENTER REAL ESTATE	
0544	MORRIS MAX A ADAMS ADAMS & MORRIS REAL ESTATE INCORPORATED	
3544	OCCUPANT UNKNOWN	
3545	CASTRO VILLAGE SHOPPING CENTER SPECIALTY STORES	
	EVERYBODYS BUSINESS WESTERN UNION	
3547	DUM KENT	
354 <i>1</i> 3548	LINDSAY GRATHWOHL	
3550	OCCUPANT UNKNOWN	
3330	VINCE GUERRERO	
3560	ALLEN PEEK	
3300	ARTOR LAGUMEN	
	CARMEN FLORES	
	CIMERON YEE	
	CONSTANTINE MASTROYANNIS	
	DENISE VOLZ	
	DONALD TRUSCOTT	
	GLORIA GIBSON	
	HARRY MAREZ	
	HELEN SANTONASTASSO	
	JANICE SAUNDERS	
	JOSEPH AZZARITO	
	MARC FRISCHLING	
	MARGERY SCHUTZE	
	MARIAM DONALDSON	
	MARTHELLA GITLIN	
	MARY CALVAO	
	MARY COOLEY	
	OLGA SILVA	
	PINEHAVEN GARDEN APARTMENTS	
	RICHARD CRAIG	
	RICHARD SKEWIS	
	ROBERT DOWLING	
	ROBERT WILCOX	
	RONALD NOBRIGA	
	SAM HERSEU	
2562	ZOLTAN HAVAS	
3563	CHRISTINE COSTELLO OCCUPANT UNKNOWN	
3566	ARNOLD ANDERSON	
3570	BRUCE WILE	
5570	OCCUPANT UNKNOWN	
		- 1

JAMISON WAY 1999 (Cont'd)

3577	OCCUPANT UNKNOWN
	ROXANN HINTZ
3590	ANDY KRAKE
	M HASE
3594	M CASTANEDA
3596	JONG KIM
3601	CATCH A DREAM
3602	OCCUPANT UNKNOWN
3603	CASTRO VALLEY DENTAL CARE
	KOWALSKI MICHAEL DDS
	WHITEHOUSE JOSEPH A MS DDS
3609	KVIKSTAD VICTOR R DDS INCORPORATED
3612	CROMPTON WAN
	FABIAN MONTANO
	FU SUN
	JANET CHUNG
	JAU LUO
	LARRY YU
	SAMUEL DORROUGH
3633	DAN BRIGGS
	H HARDT
3634	CASTRO VILLAGE CARE HOME
3650	RICHARD AVALOS

	JAMISON WAY	1995
3541 3545	ADAMS ADAMS & MORRIS REAL INC EVERYBODYS BUSINESS SERVICEMASTER	
3560 3603	WESTERN UNION PINEHAVEN GARDEN APARTMENTS CASTRO VALLEY DENTAL CARE FRANKLIN G BALLARD DDS	
3609	JOSEPH A WHITEHOUSE DDS CATHERINE KVIKSTAD VICTOR R KVIKSTAD DDS	

3532	MELVIN, MARK	
3533	JOHN VELLAS LCKR RM	
	RAIDER LOCKER ROOM	
3541	ADAMS ADAMS&MORRIS	
3545	CANN, KIT	
	EVERYBODYS BUSINESS	
3560	CALDWELL, WESLEY H	
	PINEHAVEN GRDN APTS	
	POCOCK, ARTHUR F	
	REMER, WILLIAM A	
	SCHINO, G	
3566	ANDERSON, ARNOLD C	
3596	MCDONALD, ERIN	
3597	VEJBY, FRED L	
3602	SMITH, C	
	WEAKLEY, CHRIS B	
3603	BALLARD F G DDS	
	GREENLAW S DMD	
	OXMAN DANL K DR	
	WHITEHOUSE JOS DDS	
3609	KVIKSTAD, C	
	KVINKSTAD V DDS INC	
0000	O&H PRPRTY INVSTMNT	
3633	HARDT, H S	
35605	PERRINE, G M	
35606	WARD, PATRICK	
35607	,	
35609	020222,000	
	MOORE, FLOYD A	
	HAVAS, ZOLTAN	
	THOMPSON, EARL	
	BRODAHL, M	
356031	SKUBE, MICHAEL	

<u>Target Street</u> <u>Cross Street</u> <u>Source</u>

✓ - Haines Criss-Cross Directory

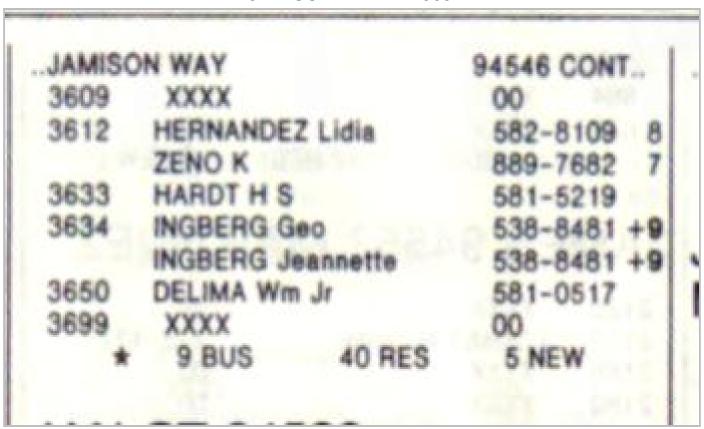
CAS	TRO VALLEY	
3450	XXXX	00
3503	XXXX	00
3512	XXXX	00
3541	*ADAMS ADAMSAMORRIS	537-4314+
3545	*EVERYBODYS BUSINESS	886-9778+
3546	XXXX	00
3547	XXXX	00
3548		00
3550	XXXX	00
3560	PINEHAVEN GRON APTS	
	ALBINO Anthony	889-0201
	BEARDEN Gerald	582-4792
	CONWAY Kyle Rev	889-0382
	GANZ Samuel	581-7752
	HAVAS Zoltan	881-4682
	KIME Kirk	538-4933
	KOCH Joe	537-1850 +
	MANTER M C	581-3282
	MCKIM John R	582-9212 582-1123
0	MOORE Floyd A	
9	ODONNELL John J	886-4801 582-2011
19	PERRINE Gertrude M *PINEHAVEN GRDN APTS	582-2011 581-8885
19	POCOCK Arthur F	889-6721
32	SCHINO G	581-6762
24	THOMPSON Earl	886-1539
6	WARD Patrick	886-1906
3560	The state of the s	
3563	XXXX	00
3566	ANDERSON Arnold C	537-1119
3570	XXXX	00
3577	XXXX	00
3579	XXXX	00
3588	XXXX	00
3597	VEJBY Fred L	581-8588
3600	XXXX	00
3603	*BALLARD F G DDS	537-3404
	*GREENLAW S DMD	881-0600
	*KVIKSTAD VICTOR DDS	886-3888
2607	*WHITEHOUSE JOS DDS	881-1924
3607	*SHEAR SENSATION *SHEAR SENSATION	582-4131 581-6936

Target Street

**Cross Street** 

<u>Source</u>

Haines Criss-Cross Directory



CAST	TRO VALLEY	NC 3 LIB	1
3450	XXXX	00	
3503	WHITEHOUSE JOS DDS	537-3404 +5	
3511	XXXX	00	
3512	FARIS O F	582-8298	1
3528	XXXX	00	ľ
3532	PENNINGTON K	889-0225 4	
3534	XXXX	00	
3546	NEAL D A	537-3895	
3547	XXXX	00	
3548	XXXX	00	
3550	XXXX	00	П
3560	PINEHAVEN GRDN APTS	MATERIAL STATES	П
	ALBINO ANTHONY	889-0201 4	1
14	CALDWELL WESLEY JR	886-6044 1	
29	KRAMER LEONE M	581-8126 8	М
	MOORE FLOYD A	582-1123 2	
	MURPHY BETTY	538-2800 +5	М
9	ODONNELL JOHN J	886-4801 6	1
5	PERRINE GERTRUDE M	582-2011 0	
19	PINEHAVEN GRON APTS	581-8885	
	POCOCK ARTHUR F	889-6721 4	
32	SCHINO G	581-6762 9	
22	SHOEMAKER WILLIAM A	881-0631 7	
	SOMERSETT M L	889-6661 +5	
24	THOMPSON EARL	886-1539	
6	WARD PATRICK	886-1906 7	
3560		*****	
3563	XXXX	00	
3566	ANDERSON ARNOLD C	537-1119	
3570	XXXX	00	
3577	BEAN C	581-9177 +5	
3579	XXXX	00	
3588	XXXX	00	
3597	VEJBY FRED L	581-8588	
3601	TOOTHMAKER THE	538-4001+5	,
3603	GREENLAW S DMD	881-0600 +5	
	KVIKSTAD VICTOR DDS	886-3888+5	1
2007	WHITEHOUSE JOS DDS	881-1924 +5	
3607	LOU ANNS HAIR STYLS	581-6936 2	
3609	BAUER EDWIN L CPA	881-8600 +5	
3612	BIANCHINE JERRY	538-1738 2	
	COOPER SULLIVAN	886-9711 4	
2022	SIMPSON ROY	537-5384 1	
3633	HARDT H S	581-5219	
3634	PANUM ALFRED	537-0906	
3650	DELIMA WM JR	581-0517	-
3699	XXXX 4 BUS 41 RES	9 NEW	1
	a DUO AIRES	75 FRE 188	

<u>Target Street</u> <u>Cross Street</u> <u>Source</u>

✓ - Haines Criss-Cross Directory

CAST	RO VALLEY	
3450		00
	Literate.	00
	nnnn	582-8298
	111110 0	00
3528		00
3532	XXXX SANDERS BOB NEAL D A	886-7224 +0
3534	SANDERS BOB	507 2005 5
3546	NEAL D A	537-3895 5
3547		
	HURST L L	582-1490 8
3560	PINEHAVEN GRON APTS	
12	ANDERSON FRANK E	886-3003 7
18		881-5887 7
7	HARBERT LLOYD	582-9537 8
19	JOHNSON HURL W	886-3240 6
23		886-3132 6
29	KRAMER LEONE M	
	ODONNELL JOHN J	
	PERRINE GERTRUDE M	
*	PINEHAVEN GRDN APTS	
26	PRATT ARTHUR C	886-5599 5
14	RUEGNITZ CHARLES B	
1.4	SANTOS IDA L	582-1180 9
	SCHINO G	581-6762 9
1	SCHWARTZ BURNHARDT	
1	CHOCMAKED WILLIAM A	881-0631 7
24	THOMPSON FARI	886-1539 5
31	THOMPSON EARL TUCKER J M	886-3490 5
6	WARD PATRICK	886-1906 7
3560	TAND FAIRIOR	300 1000 1
	XXXX	00
	ANDERSON ARNOLD C	
		00
	XXXX	00
	XXXX	581-1420
3588*		582-9800 9
	M M SERVICES	
	SPACE CONTROL	582-8125+0
3597	VEJBY FRED L	581-8588
3601*	MCINOGLE ENTPRS	538-4127+0
3603*	CASTRO VLG EMMES DR	
		582-3603 7
3607*		538-3888 7
3609 *	J W V CONSTRUCTION	
3611*	GADSBY C NORMAN	582-5100 8
3612	APARTMENTS	
6	COOPER CHARLES B	537-0552 8
	DAWSON DIANNE	886-6564+0
		581-3542+0
	JAVA RUSS	886-4802+0
	PRITCHARD DONALD A	
3612		
	HARDT H S	581-5219 3
3634		537-0906
	DELIMA WM JR	581-0517
3650		7 NEW
*	9 BUS 41 RES	1 145 44

<u>Target Street</u> <u>Cross Street</u> <u>Source</u>

✓ - Haines Criss-Cross Directory

JAMI	SON WAY	94546	CASTE	0 V	ALLE'	Y
3450	EMANUELE	R	5	37-2	2265	2
3451	GOSSELIN	ALFRED	J 5	37-	7021	
	MILLERS					15
3512	FARIS O	F	5	82-	8298	
	POTTS JE		_		06584	
	WHITE RO				3928	
	NOBORI A				37764	
3533	ASHLEY R	ICHARD	5	82-	71974	-5
3534	CASEY PA	TRICIA	J 5	81-	5238	3
3535	MCGUFFEY	NATHAN	1 5			
	NEAL D A				38954	
	DENU RAY	JR			5408	2
	XXXX	de la lace	_	0		
	SCHUSTER					
	TRIBE R			-	7069	
3559	PINEHA		0	0		
3560.						_
	BOYLE THE	IOMAS	8		7803	
	CAMPANIL	E A	8		3387	
	DEININGE					
	DUNN R H	1			2075	-
	JANZEN H		8		7612	
	JOHNSON	7			8687	
	KANE STE				7803	
	LOPES ME	LVIN F	8	86-	2481	+5
	MONTGOME	RY JIM	L 8	86-	4053	+5
1	*PINEHAVE					
	PRATT AF				5599	
	SCHWARTZ	BURNHA	ARDT 8			
	THOMPSON TUCKER	EARL	8		1539	-
	VOORHEES VOORHEES	J M	8		3490	
	VITALE N	MORRIS	8		2759	
	VOORHEES	ED F	8		1175	_
	WEST HOM	MARD	8	86-	7891	+5
3560.			;			
	WAGNER I			100	4127	
	ANDERSON				1119	
	BUTLER (				6872	
	GILMORE				8379	
	NIELSEN		_		1800	+5
	VALENTI					
3588	JOHNSTON				4241	+5
2507	JOHNSTON		TO		2507	
	VEJBY FR		3	01-	8588	
0012.	APARTI			0.6	7222	. =
	BOHN CHA				7332	
	HUDGINS				0265	
	LAVINE	DICHAR				
	SWANSON		0 5		6646	
	WALKER I	. N			3926	+5
	********					
	XXXX			00	E212	-
	HARDT H				5219	
	PANUM AL				0906	
	DELIMA	MM JR			0517	
3666	XXXX			00		
	* 2 BUS	5 51	CH5	32	NEW	

# **APPENDIX G**

**Environmental Site Assessment Questionnaire** 

A
P
P
I
X



Project Name: Jamison Way

Project No. P2016.000.210



2010 Crow Canyon Place • Suite 250 • San Ramon, CA 94583	(925) 866-9000 • Fax (888) 279-2698
2213 Plaza Drive - Rocklin, CA 95765	(916) 786-8883 • Fax (888) 279-2698
332 Pine Street • Suite 300 • San Francisco, CA 94104	(415) 284-9900 • Fax (888) 279-2698
6399 San Ignacio Avenue • Suite 150 • San Jose, CA 95119	(408) 574-4900 • Fax (888) 279-2698
580 N. Wilma Avenue Suite A Ripon, CA 95366	(209) 835-0610 • Fax (888) 279-2698
☐ 17675 Sierra Highway • Santa Clarita, CA 91351	(661) 257-4004 • Fax (888) 279-2698
6 Morgan • Suite 162 • Irvine, CA 92618	(949) 529-3479 • Fax (888) 279-2698

# ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE FOR "KEY SITE MANAGER"

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

#### **PARTI**

1. Property Address/Location and Assessor's Parcel Number (APN):

3530, 3544, 3546, 3548, 3528 Jamison Way, Castro Valley, in the County of Alameda, California. The Assessor's Parcel Numbers (APNs) for the Real Property are: 84A-76-23, 84A-76-20-1, 84A-76-21-4, 84A-76-21-6, 84A-76-22

2. Current property owner (name, address, voice/fax number):

Mr. Dan E. Briggs, Trustee Briggs Family Trust 3544 Jamison Way

3. Date current property owner assumed title of property: 1974

4. Current property development/improvements:

Single Family Residential

5. Past property use, development/improvements:

No knowledge of previous use, no new development during ownership.

6. Neighboring property uses:

Residential - West Multi-family Residential - East Commercial - South Multi-family Residential - North



# $PART\ II$ - The following questions should be answered to the best of your knowledge.

		Yes	No
1.	Is/has the property or any adjoining property used/been used for industrial purposes?		~
2.	Has the <i>property</i> or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		<b>V</b>
3.	Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the <i>property</i> or at the facility?		<b>V</b>
4.	Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is cubic yards.		<b>V</b>
5.	Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin?		~
6.	Are there currently, or have there been previously, any pits, ponds, or lagoons located on the <i>property</i> in connection with waste treatment or waste disposal?		<b>V</b>
7.	Is there currently, or has there been previously, any stained soil on the property?		~
8.	Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the <i>property</i> ?		<b>V</b>
9.	Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the <i>property</i> or adjacent to any structure located on the <i>property</i> ?		<b>V</b>
10.	Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?		<b>V</b>
11.	Are there any domestic, irrigation or monitoring wells on the property?	~	
12.	If the <i>property</i> is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?		<b>V</b>
13.	Have you been informed of the past or current existence of <i>hazardous substances</i> or <i>petroleum products</i> or environmental violations with respect to the <i>property</i> or any facility located on the <i>property</i> ?		1
14.	Have there been any <i>environmental site assessments</i> of the <i>property</i> or facility that indicated the presence of <i>hazardous substances</i> or <i>petroleum products</i> on, or contamination of, the <i>property</i> or recommended further assessment of the <i>property</i> ?		<b>V</b>
15.	Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any <i>hazardous substance</i> or <i>petroleum products</i> involving the <i>property</i> ?		~
16.	Has there been any past agricultural use of the property, such as orchards or seed crop cultivation?		V
17.	Have any <i>hazardous substances</i> or <i>petroleum products</i> , unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the <i>property</i> ?		<b>V</b>
18.	Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?		<b>V</b>



y that the information herein is true and corn	rect to the best of a	ny knowledge as of	the date signed below	:
Name (Printed/Typed): Dan Briggs Truste	ee for Briggs Fam	ily Trust	34. 34. 34. 34. 34. 34. 34. 34. 34. 34.	
0 44 -				
Signature: Ton Buy		Date: 3/5/	2016	

# **APPENDIX H**

**Qualifications of Environmental Professional** 

A P P E N D I X

H



#### **EDUCATION**

BS, Geology, University of Massachusetts, Amherst, 1975

MS, Geology, California State University, Hayward, 1988

#### **EXPERIENCE**

Years with ENGEO: 32 Years with Other Firms: 3

#### **REGISTRATIONS & CERTIFICATIONS**

Certified Engineering Geologist, CA, 1256

Certified Hydrogeologist, CA, 460 Registered Environmental Assessor, CA, 923

Professional Geologist, CA, 4030

### **SPECIALIZATIONS**

- Environmental Assessments and Remediation
- Geologic Hazard Evaluation
- Hillside Grading
- Landslide Investigations and Repairs
- Water Wells/Hydrogeology

#### **AFFILIATIONS**

**OBA** - Oakland Builders Alliance

San Francisco Housing Action Coalition

**SPUR** 

# BRIAN FLAHERTY, CEG, CHG, REA I PRINCIPAL GEOLOGIST

Mr. Flaherty has more than 30 years of diverse experience in the fields of engineering geology, geologic hazard evaluation and mitigation, and hydrogeology. During that time he has also managed and completed numerous soil and ground water characterization studies, environmental assessments, and the design and implementation of soil and ground water remediation systems. During his professional career he has worked on small to large residential developments, commercial developments, industrial business parks, military base re-use projects, water storage facilities, transportation projects and educational facilities throughout California.

Mr. Flaherty's geologic project experience includes geotechnical, geologic and earthquake hazard evaluation for projects throughout the San Francisco Bay Area. His work as a geologist has included landslide hazard mapping and assessment, slope stability evaluation, structural and rock mechanic analysis of bedrock slopes, earthquake fault hazard explorations, and preparation of Geologic Hazard Abatement District (GHAD) plans of control and monitoring.

### Select Project Experience

# Phelan Loop Development—San Francisco, CA

Project Manager. Mr. Flaherty provided project management and principal review for during preparation of a phase I and phase II environmental site assessment for the Phelan Loop project site is located at the site of a MUNI bus turnaround, near the intersection of Phelan Avenue and Ocean Avenue, in San Francisco, California. The Phelan Loop project site is located at the site of a MUNI bus turnaround, near the intersection of Phelan Avenue and Ocean Avenue, in San Francisco, California. The proposed housing development will create approximately 60 units of supportive housing for low-income families and transitional aged youth (TAY).

# 11th Street Four Story Mixed Use Development—San Francisco, CA

*Project Manager*. Mr. Flaherty's duties included phase one and two environmental assessment, development and implementation of a geotechnical exploration using both conventional auger drilling and cone penetration testing. ENGEO is the geotechnical and environmental consultant for a proposed multi-use building at 340-350 11th Street. T his 4-



level wood-framed residential development will include 16 townhouse units with 2-level townhouses above 2-level townhouses. The structure will be set on a concrete podium containing ground floor commercial space above one level of underground parking. Geotechnical constraints included a high water table, liquefiable soil, building constraints and environmental soil and groundwater contamination.

# Docktown Marina—Redwood City, CA

*Project Manager*. Mr. Flaherty managed the phase II environmental assessment to identify possible recognized environmental conditions associated with past property use as a vehicle and boat maintenance areas and as a former tannery facility. The Docktown Marina study involved two land use plans under consideration; four-story over two-story podium structures located around the perimeter of the site or two four-story residential buildings wrapped around two four-story parking structures.

# 1150 Ocean Avenue—San Francisco, CA

*Project Manager*. Mr. Flaherty prepared the geotechnical exploration and a phase II environmental site assessment for this mixed use project. Site concerns include possible soil and groundwater contamination from hydraulic lifts and the impact of a high groundwater table on the planned underground parking structure. A four-level wood-framed mixed-use residential development is planned with about 150 apartment units. The structure will be set on a concrete podium with about 30,000 square feet of retail commercial space above one level of underground parking.

### Terminal One, Brickyard Cove—Richmond, CA

Principal in Charge. Mr. Flaherty provided expert environmental review of the Remedial Investigation Report and the Feasibility Study including consultation with the Regional Water Control Board (RWQCB). The purpose was to evaluate the findings and recommendations of an environmental consultant's reports to determine if the property could be developed for a multi family residential use. The Terminal One property includes approximately 12 acres of Bay margin land south of Brickyard Cove Road in Point Richmond, California. The site was previously used by both public and private entities primarily for the processing, transferring, and storage of bulk liquids.

The current project development concept included a high-density residential constructions with a large, central multi-unit "podium structure" and approximately 5 smaller multi-unit podium structures totaling approximately 272 housing units.

# Redwood Road, Chevron—Oakland, CA

*Project Manager*. Mr. Flaherty reviewed the site history and prepared a work plan for regulatory agency approval to characterize reported soil contamination beneath a former fueling station ENGEO provided environmental services to remove the former LUST designated facility from the county's list of contaminated properties

# Marina District Various PG&E Sites—San Francisco, CA

*Project Manager*. Mr. Flaherty managed the compilation and review of historic maps and air photographs, consultants reports, and archival records to help establish the histroy of development and filling in the Marina District of San Francisco. Efforts included the



development of a fill sequence timeline in the neighborhood and a graphic video showing three dimensional views of the various sequences of fill. ENGEO undertook an extensive review of public and private documents and photographs to develop a timeline for the placement of fill in the Marina District of San Francisco

# Monarch Village - Senior Housing—Daly City, CA

*Project Manager.* Mr. Flaherty led the geotechnical and environmental review of the site conditions during the project design phase actively working with the owner and contractor. He also oversaw the site grading providing guidance for the characterization and disposal of contaminated soils Attached senior housing complex with construction of a three-story building over two levels of garage, two retail buildings, and related landscape and hardscape improvements with on-grade paved parking.

# Tidewater Avenue—San Francisco, CA

Project Manager. Mr. Flaherty provided geotechnical and environmental consultation services to a group of industrial property owners located within the boundaries of the City of Oakland's Central Estuary Plan area. Mr. Flaherty has reviewed geotechnical engineering reports, geohazards (liquefaction analysis) reports and phase I and II environmental site assessment reports for the various property owners. He has provided input to the owners with regard to the various redevelopment plans considered by the City of Oakland and responded to requests by the owners to clarify City directives and requests made to the owners regarding access and use of their parcels by City of Oakland environmental consultants. ENGEO provided as-needed geotechnical and environmental consultation services to a group of industrial property owners located within the City of Oakland's Central Estuary Plan area.

# Ashby Arts Mixed Use Development—Berkeley, CA

*Project Manager*. Mr. Flaherty managed and completed the project geotechnical exploration and provided environmental consultation to the design team. The Ashby Arts development consists of a five-story mixed-used podium structure. The ground level will contain retail and parking spaces while the 2nd to 5th floors will be 1-to-2 bedroom residential units along with common areas for the residents' use.

# Hunters Point Shipyard Redevelopment, 'Parcel A'—San Francisco, CA

Principal Geologist. Mr. Flaherty was Principal in Charge for the geotechnical, geologic, and hydrologic design for the development of Parcel A at the Hunters Point Shipyard. He managed the production of the project geotechnical exploration report and the analysis and development of the project corrective grading plans and storm water management plan. He managed the mapping of the project bedrock and the implementation of a bedrock screening and sampling program to test for naturally-occurring asbestos in the site bedrock. The 70-acre project includes 1,800 residential units, approximately 25 acres of parks and open space, limited retail, and supporting infrastructure and roadways. Site preparation included construction of terraced soil nail walls and mechanically stabilized earth walls, geotechnical remediation of 13 landslides totaling over 500,000 cubic yards of soil, and project grading totaling nearly 1.5 million cubic yards.





Project No. **12854.000.000** 

April 29, 2016

Mr. Todd Deutscher Catalyst Development Partners 18 Crow Canyon Court, Suite 190 San Ramon, CA 94583

Subject: Jamison Way Parcels

Castro Valley, California

### AGRICULTURAL CHEMICAL IMPACT ASSESSMENT

Reference: ENGEO, Phase I Environmental Site Assessment, Jamison Way Parcels, Castro

Valley, California, Project No. 12854.000.000, March 18, 2016 (DRAFT).

Dear Mr. Deutscher:

We are pleased to submit this document summarizing recent soil sampling at the above-referenced property (Property) located in Castro Valley, California. This assessment was performed based on a recommendation in our referenced phase I environmental assessment. Since the Property was historically used for agricultural cultivation, an agrichemical assessment was conducted to evaluate the potential for residual concentrations of organochlorine pesticides and arsenical herbicides.

### **BACKGROUND**

The Property is located on Jamison Way between Santa Maria Avenue and Redwood Road in Castro Valley, California (Figure 1). The approximately 2-acre Property is identified by the Assessor's Parcel Numbers (APN) listed below.

TABLE 1
Assessor's Parcel Number Summary

Address	APN
3544 Jamison Way, Castro Valley, CA 94546	84A-76-20-1
3546 Jamison Way, Castro Valley, CA 94546	84A-76-21-4
3548/3550 Jamison Way, Castro Valley, CA 94546	84A-76-21-6
3528 B Jamison Way, Castro Valley, CA 94546	84A-76-22
3530/3532/3534 Jamison Way, Castro Valley, CA 94546	84A-76-23

12854.000.000 April 29, 2016 Page 2

It appears that the Property was historically used as an orchard from at least the 1930s to the 1940s. Pesticides or other agricultural chemicals might have been applied to the Property at that time. While subsequent construction activity likely resulted in the disturbance, movement, dilution, and/or removal of possible pesticide-impacted soil on the Property, agricultural chemicals may remain in surface or near-surface soil.

# **SOIL SAMPLING**

Initial fieldwork was conducted on March 25, 2016. Shallow soil samples were collected from four locations across the Property. Samples were recovered with hand sampling equipment. Specific soil samples were recovered for laboratory analysis by collecting soil from the respective desired sampling depths in each location. One sample was recovered from each boring at an approximate depth of 3 to 9 inches below the ground surface. The sample locations are depicted in Figure 2.

The samples were labeled to indicate a unique sample number, sample location, time and date collected, and the sampler's identification. Samples were preserved in a chilled cooler and transported to TestAmerica Laboratories, Inc., in Pleasanton, California under documented chain-of-custody.

The samples were analyzed for organochlorine pesticides (EPA Method 8081) and total arsenic (EPA 6020). Three of the four samples exhibited elevated concentrations of arsenic and/or several organochlorine pesticide analytes, including DDT, DDE, dieldrin, and chlordane.

Based on the initial results, additional sampling was performed on April 11, 2016. A total of 22 samples were collected from 10 locations at the following depths: 10 samples from 3 to 9 inches below the ground surface, 6 samples from 12 to 18 inches below the ground surface, and 6 samples from 18 to 24 inches below the ground surfaces. The samples were labeled to indicate a unique sample number, sample location, time and date collected, and the sampler's identification. Samples were preserved in a chilled cooler and transported to Torrent Laboratory, Inc., in Milpitas, California under documented chain-of-custody. The samples were analyzed for organochlorine pesticides (EPA Method 8081) and total arsenic (EPA 6010). The samples collected from 18 to 24 inches below the ground surface were held and not analyzed pending results of shallower samples.

### SAMPLING RESULTS

As mentioned, three of the four initial samples (Samples S-1, S-3, and S-4) exhibited elevated concentrations of arsenic and/or several organochlorine pesticide analytes, including DDT, DDE, dieldrin, and chlordane. Samples collected from locations A3, A4, and A10 also exhibited elevated concentrations of DDT, DDE, dieldrin, and chlordane. Samples at A3 and A4 confirm impact to a depth of 18 inches. These concentrations exceed the current residential Regional Screening Level (RSL) established by the United States Environmental Protection Agency Region IX, and in some cases exceed respective Total Threshold Limit Concentrations (TTLC), which results in a Class I California Hazardous Waste designation. A summary table of the

results is presented in Table A, and the laboratory results are presented in their entirety in Appendix A.

### IMPACTED VOLUME ESTIMATE

Based on the results of the agrichemical assessment, the extent of pesticide-impacted material encompasses three hotspots measuring a cumulative area of 55,000 square feet. Assuming an impacted soil thickness of 24 inches in the identified locations, approximately 2,000 cubic yards of impacted in-situ soil is present. The estimated quantity of California Hazardous Waste soil is approximately 1,000 cubic yards. The remainder of the volume (1,000 cubic yards) could be handled as Class II non-hazardous soil.

Please note this volume estimate is preliminary in nature, is based on the data presented, and represents only a general approximation of the extent of in-situ impacted soil. The soil volume would be expected to significantly dilate upon removal from the subsurface, resulting in a greater volume of soil subject to mitigation or remediation. Additionally, we recommend applying a contingency factor to account for this dilation as well as to account for existing soil that is present under structures and hardscape areas. These materials may be impacted but could not be assessed at this time.

#### REMEDIATION

# **Excavation and Offsite Disposal of Impacted Soil**

Soil from impacted areas can be excavated and transported to an appropriate Class I hazardous waste facility and Class II non-hazardous waste facility as appropriate for disposal. Assuming an impacted volume of 2,000 cubic yards, a transport and disposal cost of \$40 per ton for Class II non-hazardous waste, a transport and disposal cost of \$120 per ton for Class I hazardous waste, a unit weight of approximately 1.5 tons per cubic yard of excavated soil, and a contingency of 40 percent, we estimate an associated cost of about \$350,000 for transport and disposal. Based on our discussions with you regarding additional anticipated fees and costs, this sum may be extended to approximately \$445,000. This estimate does not include the costs associated with importing clean backfill material for the excavation areas; we recommend that a cost of approximately \$25,000 be included for an import program.

# REGULATORY OVERSIGHT CONSIDERATIONS

Given the extent and the degree of impact, it is possible that a self-directed remediation program is feasible for the Property. If remediation were performed in a self-directed manner, neither regulatory agency oversight nor approval of a remedial plan or remediation activity would be requested. We would recommend the preparation of a Removal Action Workplan (RAW) following typical CAL-EPA protocols. Following report preparation of the report and subsequent remedial activity, we would prepare a Removal Action Completion Report (RACR). A self-directed remediation program would be expected to take approximately 2 months. Please

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note this is a preliminary estimate; a remediation contractor may be engaged to provide a more detailed estimate.

In the event that regulatory agency oversight is desired or required to facilitate necessary development approvals or permits, it is likely the remedial work may be performed under the oversight of the Department of Toxic Substances Control. Regulatory oversight would be assigned as part of a joint review process between DTSC and the Regional Water Quality Control Board (RWQCB) under an existing Memorandum of Understanding (MOU).

Assuming the likely assumption of oversight jurisdiction by DTSC, the applicant would enter into a Voluntary Cleanup Agreement (VCA) with DTSC. The VCA would provide for oversight activity by DTSC with financial reimbursement for their oversight. Following a scoping meeting with DTSC, we would prepare a RAW for their review and approval. Again, following completion of remedial activity, we would provide a RACR for their review and approval. DTSC would also likely choose to review testing of import material following remediation. If DTSC oversight of remedial activity were necessary or requested, we would anticipate that the remediation program would take an additional 4 to 6 months until case closure is granted, as compared to pursuing a self-directed remediation program.

If you have any questions regarding this report, please do not hesitate to contact us.

Sincerely,

**ENGEO** Incorporated

Kelsey Gerhart

Jeffrey A. Adams, PhD, PE

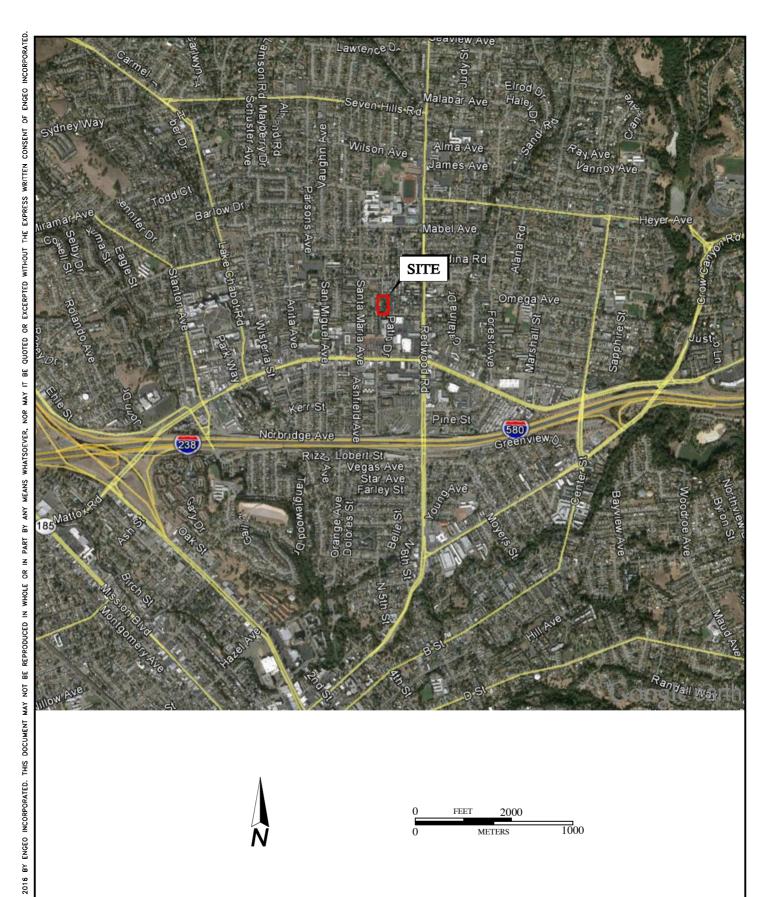
Shawn Munger kg/jaa/sm/jf

Attachments: Figure 1 - Vicinity Map

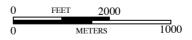
Figure 2 – Sampling Plan

Table A – Summary of Discrete Soil Analytical Results

Appendix A - Laboratory Analysis Reports







BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

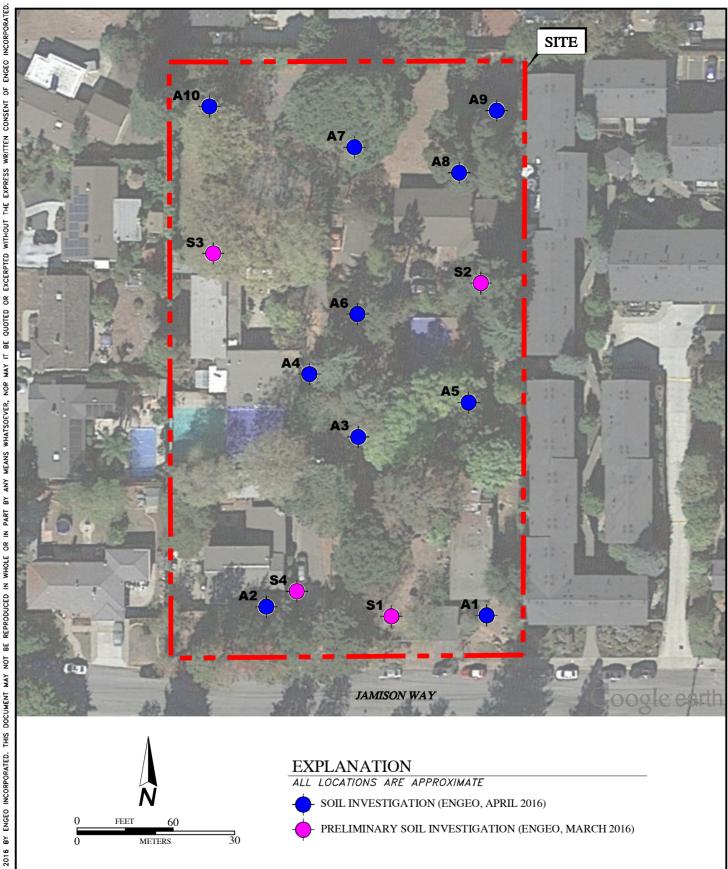


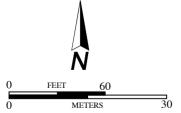
COPYRIGHT

VICINITY MAP JAMISON WAY PARCELS CASTRO VALLEY, CALIFORNIA

**PROJECT NO.:** 12854.000.000 SCALE: AS SHOWN CHECKED BY: JAA DRAWN BY: LL

FIGURE NO





# **EXPLANATION**

ALL LOCATIONS ARE APPROXIMATE

SOIL INVESTIGATION (ENGEO, APRIL 2016)

PRELIMINARY SOIL INVESTIGATION (ENGEO, MARCH 2016)

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE



COPYRIGHT

SAMPLING PLAN JAMISON WAY PARCELS CASTRO VALLEY, CALIFORNIA

FIGURE NO **PROJECT NO.:** 12854.000.000 SCALE: AS SHOWN CHECKED BY: JAA DRAWN BY: LL

**TABLE A** SUMMARY OF DISCRETE SOIL ANALYTICAL RESULTS

			Metals							0	CPs			
SAMPLE ID	DATE	Type of	Arsenic	alpha-Chlordane	gamma-Chlordane	Heptachlor epoxide	Chlordane	delta-BHC	gamma- BHC (Lindane)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Other OCPs
		sample	mg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg
Scree	ening Level <sup>1</sup>		0.68			70	430 <sup>2</sup>	-	-	2,300	2,000	1,900	34	N/A
S1	3/25/2016	Discrete	9.3	4.8	2.9	ND	ND	ND	ND	ND	6.3	13	93	ND
S2	3/25/2016	Discrete	10	3.7	ND	ND	ND	ND	ND	ND	77	38	16	ND
S3	3/25/2016	Discrete	35	170	180	13	1200	ND	4.2	27	130	360	420	ND
S4	3/25/2016	Discrete	33	1100	820	ND	5500	ND	ND	520	1700	950	30	ND
A1 @ 3 - 9"	4/11/2016	Discrete	8.8	ND	ND	ND	ND	4	ND	ND	17	30	33	ND
A1 @ 12 - 18"	4/11/2016	Discrete	9	ND	ND	ND	ND	ND	ND	ND	2.7	ND	ND	ND
A2 @ 3 - 9"	4/11/2016	Discrete	16	8.2	5.6	ND	80	ND	ND	ND	120	21	13	ND
A3 @ 3 - 9"	4/11/2016	Discrete	9	12	9.4	ND	140	ND	ND	ND	15	14	90	ND
A3 @ 12 - 18"	4/11/2016	Discrete	7.9	16	13	ND	170	ND	ND	ND	26	20	170	ND
A4 @ 3 - 9"	4/11/2016	Discrete	11	980	850	45	5300	ND	ND	480	15000	24000	190	ND
A4 @ 12 - 18"	4/11/2016	Discrete	9.7	89	83	10	750	ND	ND	16	360	1000	29	ND
A5 @ 3 - 9"	4/11/2016	Discrete	8.9	ND	4	ND	ND	ND	ND	ND	130	33	13	ND
A6 @ 3 - 9"	4/11/2016	Discrete	9	ND	7.9	ND	ND	ND	ND	ND	45	56	27	ND
A6 @ 12 - 18"	4/11/2016	Discrete	8.6	ND	ND	ND	ND	ND	ND	ND	3.8	3.8	3.6	ND
A7 @ 3 - 9"	4/11/2016	Discrete	7.9	3.8	4.2	ND	ND	ND	ND	ND	23	12	7.6	ND
A8 @ 3 - 9"	4/11/2016	Discrete	8.2	ND	ND	ND	ND	ND	ND	ND	6.6	4.8	ND	ND
A9 @ 3 - 9"	4/11/2016	Discrete	8.3	ND	ND	ND	ND	ND	ND	ND	42	14	4.4	ND
A9 @ 12 - 18"	4/11/2016	Discrete	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
A10 @ 3 - 9"	4/11/2016	Discrete	9.5	49	46	7.1	590	ND	ND	12	680	410	420	ND
A10 @ 12 - 18"	4/11/2016	Discrete	8.4	ND	ND	ND	ND	ND	ND	2.6	11	3.7	2.5	ND

Notes:

N/A = not applicable

NA = not analyzed

ND = not detected



<sup>&</sup>lt;sup>1</sup> EPA Region 9 Regional Screening Levels (RSLs) for residential soil, November 2015. <sup>2</sup>DTSC HERO Note 3, DTSC-Modified Screening Levels (DTSC-SLs), May 2015.



# APPENDIX A

LABORATORY ANALYSIS RESULTS

TestAmerica Laboratories, Inc. Torrent Laboratory, Inc.



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: 720-71116-1

Client Project/Site: Jamison Way Parcels

For:

Engeo, Inc. 2010 Crow Canyon Place Suite 250 San Ramon, California 94583

Attn: Mr. Jeff Adams



Authorized for release by: 4/5/2016 5:42:39 PM

Afsaneh Salimpour, Senior Project Manager (925)484-1919

afsaneh.salimpour@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: 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.

Client: Engeo, Inc. Project/Site: Jamison Way Parcels TestAmerica Job ID: 720-71116-1

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\_\_\_\_\_

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14

1

# **Definitions/Glossary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

# **Qualifiers**

#### **GC Semi VOA**

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
Χ	Surrogate is outside control limits

# Glossary

TEQ

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
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)

#### **Case Narrative**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Job ID: 720-71116-1

**Laboratory: TestAmerica Pleasanton** 

**Narrative** 

Job Narrative 720-71116-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/25/2016 8:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 15.5° C.

#### GC Semi VOA

Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 720-199936 recovered above the upper control limit for Toxaphene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: S4 (720-71116-4).

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for alpha-Chlordane & gamma-Chlordane for the following samples: S1 (720-71116-1). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for alpha-Chlordane for the following samples: S2 (720-71116-2). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for Heptachlor epoxide, alpha-Chlordane & 4,4'-DDD for the following samples: S3 (720-71116-3). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

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

#### Metals

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

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

# **Detection Summary**

Client: Engeo, Inc.

**Client Sample ID: S1** 

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-1

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac [	Method	Prep Type
Dieldrin	93	2.0	ug/Kg	1	8081A	Total/NA
4,4'-DDT	13	2.0	ug/Kg	1	8081A	Total/NA
4,4'-DDE	6.3	2.0	ug/Kg	1	8081A	Total/NA
alpha-Chlordane	4.8 p	2.0	ug/Kg	1	8081A	Total/NA
gamma-Chlordane	2.9 p	2.0	ug/Kg	1	8081A	Total/NA
Arsenic	9.3	0.44	mg/Kg	10	6020	Total/NA

Client Sample ID: S2 Lab Sample ID: 720-71116-2

Analyte	Result Qualifier	RL	MDL U	Jnit	Dil Fac	D Method	Prep Type
Dieldrin	16	2.0	u	ıg/Kg	1	8081A	Total/NA
4,4'-DDT	38	2.0	u	ıg/Kg	1	8081A	Total/NA
4,4'-DDE	77	2.0	u	ıg/Kg	1	8081A	Total/NA
alpha-Chlordane	3.7 p	2.0	u	ıg/Kg	1	8081A	Total/NA
Arsenic	10	0.45	m	ng/Kg	10	6020	Total/NA

**Client Sample ID: S3** Lab Sample ID: 720-71116-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	420		3.9		ug/Kg		_	8081A	Total/NA
Heptachlor epoxide	13	р	3.9		ug/Kg	2		8081A	Total/NA
4,4'-DDT	360		3.9		ug/Kg	2		8081A	Total/NA
4,4'-DDE	130		3.9		ug/Kg	2		8081A	Total/NA
4,4'-DDD	27	р	3.9		ug/Kg	2		8081A	Total/NA
gamma-BHC (Lindane)	4.2		3.9		ug/Kg	2		8081A	Total/NA
Chlordane (technical)	1200		79		ug/Kg	2		8081A	Total/NA
alpha-Chlordane	170	р	3.9		ug/Kg	2		8081A	Total/NA
gamma-Chlordane	180		3.9		ug/Kg	2		8081A	Total/NA
Arsenic	35		0.46		mg/Kg	10		6020	Total/NA

Lab Sample ID: 720-71116-4 Client Sample ID: S4

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac	D N	<b>l</b> lethod	Prep Type
Dieldrin	30	20	ug/K	g 10	_ 8	081A	Total/NA
4,4'-DDT	950	20	ug/Ko	g 10	8	081A	Total/NA
4,4'-DDE	1700	20	ug/Ko	g 10	8	081A	Total/NA
4,4'-DDD	520	20	ug/K	10	8	081A	Total/NA
Chlordane (technical)	5500	400	ug/K	10	8	081A	Total/NA
alpha-Chlordane	1100	20	ug/K	10	8	081A	Total/NA
gamma-Chlordane	820	20	ug/K	10	8	081A	Total/NA
Arsenic	33	0.45	ma/K	a 10	6	020	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Engeo, Inc.

Arsenic

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-1

Matrix: Solid

Client Sample ID: S1

Date Collected: 03/25/16 07:56 Date Received: 03/25/16 08:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Dieldrin	93		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endrin aldehyde	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endrin	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endrin ketone	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Heptachlor	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Heptachlor epoxide	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
4,4'-DDT	13		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
4,4'-DDE	6.3		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
4,4'-DDD	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endosulfan I	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endosulfan II	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
alpha-BHC	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
beta-BHC	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
delta-BHC	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endosulfan sulfate	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Methoxychlor	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Toxaphene	ND		39		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Chlordane (technical)	ND		39		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
alpha-Chlordane	4.8	p	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
gamma-Chlordane	2.9	p	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	85		57 - 122				03/31/16 10:15	04/05/16 09:01	1
DCB Decachlorobiphenyl	131		21 - 136				03/31/16 10:15	04/05/16 09:01	1
Method: 6020 - Metals (IC	P/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa

0.44

mg/Kg

9.3

TestAmerica Pleasanton

03/30/16 08:51 03/30/16 18:00

3

0

10

12

13

14

15

Client: Engeo, Inc.

Methoxychlor

Chlordane (technical)

alpha-Chlordane

gamma-Chlordane

Toxaphene

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-2

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

Matrix: Solid

Client Sample ID: S2 Date Collected: 03/25/16 08:02

Date Received: 03/25/16 08:40

Method: 8081A - Organochio	hod: 8081A - Organochlorine Pesticides (GC)										
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Aldrin	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Dieldrin	16	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Endrin aldehyde	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Endrin	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Endrin ketone	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Heptachlor	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Heptachlor epoxide	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
4,4'-DDT	38	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
4,4'-DDE	77	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
4,4'-DDD	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Endosulfan I	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Endosulfan II	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
alpha-BHC	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
beta-BHC	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
gamma-BHC (Lindane)	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
delta-BHC	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			
Endosulfan sulfate	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1			

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87	57 - 122	03/31/16 10:15	04/05/16 09:19	1
DCB Decachlorobiphenyl	115	21 - 136	03/31/16 10:15	04/05/16 09:19	1

2.0

39

39

2.0

2.0

ug/Kg

ug/Kg

ug/Kg

ug/Kg

ug/Kg

ND

ND

ND

3.7

ND

Method: 6020 - Metals (ICP/MS							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	0.45	mg/Kg		03/30/16 08:51	03/30/16 18:04	10

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Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-3

Matrix: Solid

Client Sample ID: S3

Date Collected: 03/25/16 08:08 Date Received: 03/25/16 08:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Aldrin	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Dieldrin	420		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Endrin aldehyde	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
Endrin	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Endrin ketone	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Heptachlor	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Heptachlor epoxide	13	p	3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
4,4'-DDT	360		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
4,4'-DDE	130		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
4,4'-DDD	27	<b>p</b>	3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Endosulfan I	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Endosulfan II	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
alpha-BHC	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
beta-BHC	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
gamma-BHC (Lindane)	4.2		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
delta-BHC	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Endosulfan sulfate	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
Methoxychlor	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
Toxaphene	ND		79		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Chlordane (technical)	1200		79		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
alpha-Chlordane	170	p	3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
gamma-Chlordane	180		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	84		57 - 122				03/31/16 10:15	04/05/16 09:36	
DCB Decachlorobiphenyl	118		21 - 136				03/31/16 10:15	04/05/16 09:36	;
Method: 6020 - Metals (ICP/I	MS)								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	35		0.46		mg/Kg		03/30/16 08:51	03/30/16 18:09	10

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-4

Matrix: Solid

Client Sample ID: S4

Date Collected: 03/25/16 08:12 Date Received: 03/25/16 08:40

Method: 8081A - Organoc Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Dieldrin	30		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endrin aldehyde	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endrin	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endrin ketone	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Heptachlor	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Heptachlor epoxide	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
4,4'-DDT	950		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
4,4'-DDE	1700		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
4,4'-DDD	520		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endosulfan I	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endosulfan II	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
alpha-BHC	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
beta-BHC	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
gamma-BHC (Lindane)	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
delta-BHC	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endosulfan sulfate	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Methoxychlor	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Toxaphene	ND		400		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Chlordane (technical)	5500		400		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
alpha-Chlordane	1100		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
gamma-Chlordane	820		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X D	57 - 122				03/31/16 10:15	04/05/16 15:15	10
DCB Decachlorobiphenyl	0	XD	21 - 136				03/31/16 10:15	04/05/16 15:15	10
Method: 6020 - Metals (IC	P/MS)								
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	33		0.45		mg/Kg		03/30/16 08:51	03/30/16 18:13	10

# **Surrogate Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid Prep Type: Total/NA

ecovery (Acceptance Limits)	Percent Surrogate			
	DCB2	TCX2		
	(21-136)	(57-122)	Client Sample ID	Lab Sample ID
	131	85	S1	720-71116-1
	115	87	S2	720-71116-2
	118	84	S3	720-71116-3
				Surrogate Legend
			xylene	Surrogate Legend TCX = Tetrachloro-m

DCB = DCB Decachlorobiphenyl

Method: 8081A - Organochlorine Pesticides (GC)

**Matrix: Solid** Prep Type: Total/NA

			Percent Surro	gate Recovery (Acceptance Limits)
		TCX1	DCB1	
Lab Sample ID	Client Sample ID	(57-122)	(21-136)	
720-71116-4	S4	0 X D	0 X D	
LCS 720-199685/2-A	Lab Control Sample	93	106	
Surrogate Legend				
TCX = Tetrachloro-m-	xylene			
DCB = DCB Decachlo	robiphenyl			

Method: 8081A - Organochlorine Pesticides (GC)

**Matrix: Solid** Prep Type: Total/NA

			Percer	t Surrogate Recovery (Acceptance Limits)
		TCX1	DCB2	
Lab Sample ID	Client Sample ID	(57-122)	(21-136)	
MB 720-199685/1-A	Method Blank	96	98	

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

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TestAmerica Job ID: 720-71116-1

Client: Engeo, Inc. Project/Site: Jamison Way Parcels

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 720-199685/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Total/NA Analysis Batch: 199936 Prep Batch: 199685** 

-	MB MB					-	
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Dieldrin	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endrin aldehyde	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endrin	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endrin ketone	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Heptachlor	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Heptachlor epoxide	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
4,4'-DDT	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
4,4'-DDE	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
4,4'-DDD	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endosulfan I	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endosulfan II	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
alpha-BHC	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
beta-BHC	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
gamma-BHC (Lindane)	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
delta-BHC	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endosulfan sulfate	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Methoxychlor	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Toxaphene	ND	40	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Chlordane (technical)	ND	40	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
alpha-Chlordane	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
gamma-Chlordane	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1

	MB MB				
Surrogate	%Recovery Quality	fier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96	57 - 122	03/31/16 10:15	04/05/16 05:25	1
DCB Decachlorobiphenyl	98	21 - 136	03/31/16 10:15	04/05/16 05:25	1

Lab Sample ID: LCS 720-199685/2-A

Matrix: Solid Analysis Batch: 199936							Prep Type: Total/NA Prep Batch: 199685
•	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aldrin	16.7	15.5		ug/Kg		93	65 - 120
Dieldrin	16.7	16.5		ug/Kg		99	72 - 120
Endrin aldehyde	16.7	17.4		ug/Kg		104	68 - 120
Endrin	16.7	17.1		ug/Kg		102	68 - 120
Endrin ketone	16.7	16.9		ug/Kg		101	84 - 133
Heptachlor	16.7	16.2		ug/Kg		97	69 - 120
Heptachlor epoxide	16.7	17.0		ug/Kg		102	68 - 120
4,4'-DDT	16.7	15.4		ug/Kg		93	63 - 127
4,4'-DDE	16.7	16.7		ug/Kg		100	84 - 126
4,4'-DDD	16.7	17.0		ug/Kg		102	85 - 128
Endosulfan I	16.7	16.9		ug/Kg		101	62 - 120
Endosulfan II	16.7	16.9		ug/Kg		102	65 - 120
alpha-BHC	16.7	15.3		ug/Kg		92	62 - 120
beta-BHC	16.7	16.7		ug/Kg		100	74 - 124
gamma-BHC (Lindane)	16.7	15.9		ug/Kg		95	72 - 120
delta-BHC	16.7	13.5		ug/Kg		81	43 - 125

**Client Sample ID: Lab Control Sample** 

Page 11 of 21

TestAmerica Job ID: 720-71116-1

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 720-199685/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA Prep Batch: 199685 Analysis Batch: 199936** 

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit %Rec Endosulfan sulfate 16.7 16.3 ug/Kg 98 74 - 121 Methoxychlor 16.7 16.5 ug/Kg 99 71 - 132alpha-Chlordane 16.7 16.2 ug/Kg 97 70 - 120 gamma-Chlordane 16.7 16.3 ug/Kg 98 68 - 120

LCS LCS Surrogate %Recovery Qualifier Limits Tetrachloro-m-xylene 93 57 - 122 DCB Decachlorobiphenyl 106 21 - 136

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-213921/21-A **Client Sample ID: Method Blank** Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 214025** Prep Batch: 213921 MB MB

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 0.25 03/30/16 08:51 03/30/16 16:44 Arsenic ND mg/Kg

Lab Sample ID: LCS 580-213921/22-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 214025** Prep Batch: 213921 LCS LCS Spike %Rec.

Analyte Added Result Qualifier Limits Unit %Rec Arsenic 200 199 mg/Kg 100 80 - 120

Lab Sample ID: LCSD 580-213921/23-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 214025 Prep Batch: 213921** Spike LCSD LCSD %Rec. **RPD** 

Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 200 197 98 20 Arsenic mg/Kg 80 - 120

4/5/2016

# **QC Association Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

# GC Semi VOA

# **Prep Batch: 199685**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	3546	
720-71116-2	S2	Total/NA	Solid	3546	
720-71116-3	S3	Total/NA	Solid	3546	
720-71116-4	S4	Total/NA	Solid	3546	
LCS 720-199685/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-199685/1-A	Method Blank	Total/NA	Solid	3546	

# Analysis Batch: 199935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	8081A	199685
720-71116-2	S2	Total/NA	Solid	8081A	199685
720-71116-3	S3	Total/NA	Solid	8081A	199685

# **Analysis Batch: 199936**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-4	S4	Total/NA	Solid	8081A	199685
LCS 720-19968	5/2-A Lab Control Sample	Total/NA	Solid	8081A	199685
MB 720-199685	11-A Method Blank	Total/NA	Solid	8081A	199685

# **Metals**

# Prep Batch: 213921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	3050B	_
720-71116-2	S2	Total/NA	Solid	3050B	
720-71116-3	S3	Total/NA	Solid	3050B	
720-71116-4	S4	Total/NA	Solid	3050B	
LCS 580-213921/22-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 580-213921/23-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
MB 580-213921/21-A	Method Blank	Total/NA	Solid	3050B	

#### **Analysis Batch: 214025**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	6020	213921
720-71116-2	S2	Total/NA	Solid	6020	213921
720-71116-3	S3	Total/NA	Solid	6020	213921
720-71116-4	\$4	Total/NA	Solid	6020	213921
LCS 580-213921/22-A	Lab Control Sample	Total/NA	Solid	6020	213921
LCSD 580-213921/23-A	Lab Control Sample Dup	Total/NA	Solid	6020	213921
MB 580-213921/21-A	Method Blank	Total/NA	Solid	6020	213921

TestAmerica Pleasanton

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# **Lab Chronicle**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-1

**Matrix: Solid** 

Date Collected: 03/25/16 07:56 Date Received: 03/25/16 08:40

Client Sample ID: S1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		1	199935	04/05/16 09:01	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:00	FCW	TAL SEA

Client Sample ID: S2 Lab Sample ID: 720-71116-2

Date Collected: 03/25/16 08:02 Matrix: Solid

Date Received: 03/25/16 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		1	199935	04/05/16 09:19	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:04	FCW	TAL SEA

Client Sample ID: S3 Lab Sample ID: 720-71116-3 **Matrix: Solid** 

Date Collected: 03/25/16 08:08

Date Received: 03/25/16 08:40

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		2	199935	04/05/16 09:36	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:09	FCW	TAL SEA

Client Sample ID: S4 Lab Sample ID: 720-71116-4

Date Collected: 03/25/16 08:12

Date Received: 03/25/16 08:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		10	199936	04/05/16 15:15	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:13	FCW	TAL SEA

#### **Laboratory References:**

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

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

**Matrix: Solid** 

# **Certification Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

# **Laboratory: TestAmerica Pleasanton**

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

Authority	Program		EPA Region	Certification ID	Expiration Da
California	State Prog	gram	9	2496	01-31-17
Analysis Method	Prep Method	Matrix	Analyt	·e	

# **Laboratory: TestAmerica Seattle**

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	10-31-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-17

4/5/2016

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# **Method Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Method	Method Description	Protocol	Laboratory
8081A	Organochlorine Pesticides (GC)	SW846	TAL PLS
6020	Metals (ICP/MS)	SW846	TAL SEA

#### **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 TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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# **Sample Summary**

Client: Engeo, Inc. Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-71116-1	S1	Solid	03/25/16 07:56	03/25/16 08:40
720-71116-2	S2	Solid	03/25/16 08:02	03/25/16 08:40
720-71116-3	S3	Solid	03/25/16 08:08	03/25/16 08:40
720-71116-4	S4	Solid	03/25/16 08:12	03/25/16 08:40

# **TestAmerica Pleasanton**

# 720-71116 Chain of Custody Record

167574

1220 Quarry Lane THE LEADER IN ERVIRONMENTAL TESTING Pleasanton, CA 94566-4756 phone 925.484.1919 fax 925.600.3002 Regulatory Program: Dw NPDES RCRA Other: TestAmerica Laboratories, Inc. COC No: Client Contact Project Manager: Jeff Adams Site Contact: Jenna Lohmann Date: COCs ENGEO, Inc. Tel/Fax: Carrier: Lab Contact: 2010 Crow Canyon Place, Suite 250 **Analysis Turnaround Time** Sampler. Perform MS / MSD (Y / N)
Organochiorine Pesticides (EPA 8081) San Ramon, CA 94583 CALENDAR DAYS WORKING DAYS For Lab Use Only: Walk-ın Client: (925) 866-9000 Phone TAT if different from Below (888) 279-2698 Lab Sampling: 2 weeks Arsenic (EPA 6010/6020) Project Name: Jamison Way Parcels 1 week Site: Jamison Way, Castro Valley П 2 days Job / SDG No.: P O # 12584.000.000 1 day Sample Type Sample # of (C=Comp, Sample Date Sample Specific Notes: Sample Identification Time G=Grab) Matrix Cont. 51 3/25/2016 0756 2 grab soil 3/25/2016 0807 2 grab soil 3/25/2016 6808 2 grab soil 2 3/25/2016 08/2 grab soil

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reservation Used:	1= lce, 2= HCl; 3=	H2SO4; 4=HNO3; 5=NaOH; 6=	Other			1			1					4				1				
		ious Waste? Please List any EP	A Waste Codes fo	or the sample		Samı	ple Di	isposa	al (A	A fee	may l	be as	sess	ed if	sam	ples	are	reta	inec	d longer than 1 m	onth)	ļ ,
Non-Hazard	Flammable	Skin Irritant Poison B	Unknow	n	_]		Retun	n to Clie	nt			Dispo	sal by l	ab	_		Arch	ve fo	r	Months		
pecial Instructions	/QC Requirements 8	& Comments:																				

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Relinquished by:		Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 3/25/14 0840
L					Form No.	. CA-C-WI-002, Rev. 4.9, dated 2/2/2

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THE LEADER IN ENVIRONMENTAL TESTING

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20 Quarry Lane	Chain of Custody Record
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Phone (925) 484-1919 Fax (925) 600-3002	Sampler:			Lab F	>1.4-							Carrier	Trackir	ng No(s	):		CO	C No:			
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State, Zip:																l,		· Nitric Acid · NaHSO4		la204S la2S03	
NA, 98424 Phone:	PO #:				- 1									-			F-	MeOH	R-N	la2S2O3 l2SO4	
253-922-2310(Tel) 253-922-5047(Fax)	1 0 <del>1.</del>					á						1				L.		- Amchlor - Ascorbic Acid	d T-T	SP Dodecahydi	rate
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Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	(C=comp, of G=grab)	=waste/oil, issue, A=Air	Field Filt	FULL OF THE PARTY										Total	2	Special	Instruc	tions/Note:	
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61 (720-71116-1)	3/25/16	07:56 Pacific		Solid	П	>										1	I.				
S2 (720-71116-2) <sub>.</sub>	3/25/16	08:02 Pacific		Solid		>										.1	1.				
53 (720-71116-3)	3/25/16	08:08 Pacific		Solid		>										1	1				
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Custody Seals Intact: Custody Seal No.:			1			Со	oler Ten	nperati	ıre(s) °C	and Ot	her Rer	narks:	TR	2:	<u> </u>	.7	10.	Ŕ			

Client: Engeo, Inc.

Job Number: 720-71116-1

Login Number: 71116 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Duong, Paloma R

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

**TestAmerica Pleasanton** 

Client: Engeo, Inc.

Job Number: 720-71116-1

Login Number: 71116
List Source: TestAmerica Seattle
List Number: 2
List Creation: 03/26/16 10:55 AM

Creator: Abello, Andrea N

Creator: Abello, Andrea N		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR2 = 0.7 / 0.8
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?	N/A	Received project as a subcontract.
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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**TestAmerica Pleasanton** 



Engeo (San Ramon) 2010 Crow Canyon Place,#250 San Ramon, California 94583

Tel: (925) 866-9000 Fax: (925) 866-0199 RE: Jamison Way

Work Order No.: 1604069

#### Dear Kelsey Gerhart:

Torrent Laboratory, Inc. received 22 sample(s) on April 11, 2016 for the analyses presented in the following Report.

As requested on the chain of custody, six samples were placed on hold.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock
QA Officer

April 14, 2016
Date

Total Page Count: 34 Page 1 of 34



**Date:** 4/14/2016

Client: Engeo (San Ramon)
Project: Jamison Way
Work Order: 1604069

#### **CASE NARRATIVE**

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Total Page Count: 34 Page 2 of 34

483 Sinclair Frontage Rd., Milpitas, CA 95035 | tel: 408.263.5258 | fax: 408.263.8293 | www.torrentlab.com



A1 @ 3-9"

4,4'-DDE

Dieldrin

4,4'-DDT

Chlordane

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

1604069-001

Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.8	mg/Kg
delta-BHC	SW8081A	10	4.0	20	4.0	ug/Kg
4,4'-DDE	SW8081A	10	5.1	20	17	ug/Kg
Dieldrin	SW8081A	10	5.8	20	33	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	30	ug/Kg
A1 @ 12-18"					16	604069-002
Parameters:	Analysis Method	<u>DF</u>	MDL	PQL	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	9.0	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	2.7	ug/Kg
A2 @ 3-9"					16	604069-004
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	16	mg/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	5.6	ug/Kg
alpha-Chlordane	SW8081A	4	3.8	8.0	8.2	ug/Kg

SW8081A

SW8081A

SW8081A

SW8081A

2.0

2.3

2.7

41

8.0

8.0

8.0

80

120

13

21

80

ug/Kg

ug/Kg

ug/Kg

ug/Kg

Total Page Count: 34 Page 3 of 34



A3 @ 3-9"

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

1604069-005

Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
gamma-Chlordane	SW8081A	10	7.9	20	9.4	ug/Kg
alpha-Chlordane	SW8081A	10	9.4	20	12	ug/Kg
4,4'-DDE	SW8081A	10	5.1	20	15	ug/Kg
Dieldrin	SW8081A	10	5.8	20	90	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	14	ug/Kg
Chlordane	SW8081A	10	100	200	140	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	9.0	mg/Kg

A3 @ 12-18"

Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
gamma-Chlordane	SW8081A	10	7.9	20	13	ug/Kg
alpha-Chlordane	SW8081A	10	9.4	20	16	ug/Kg
4,4'-DDE	SW8081A	10	5.1	20	26	ug/Kg
Dieldrin	SW8081A	10	5.8	20	170	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	20	ug/Kg
Chlordane	SW8081A	10	100	200	170	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	7.9	mg/Kg

**A4** @ **3-9**"

Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
4,4'-DDT	SW8081A	1000	670	2000	24000	ug/Kg
gamma-Chlordane	SW8081A	100	79	200	850	ug/Kg
alpha-Chlordane	SW8081A	100	94	200	980	ug/Kg
4,4'-DDE	SW8081A	100	51	200	1500	ug/Kg
Heptachlor epoxide	SW8081A	10	3.6	20	45	ug/Kg
Dieldrin	SW8081A	10	5.8	20	190	ug/Kg
4,4'-DDD	SW8081A	10	7.6	20	480	ug/Kg
Chlordane	SW8081A	10	100	200	5300	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	11	mg/Kg

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Parameters:

gamma-Chlordane

4,4'-DDE

Dieldrin

4,4'-DDT

Arsenic

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

**Analysis** 

Method

SW8081A

SW8081A

SW8081A

SW8081A

SW6010B

10

10

10

10

7.9

5.1

5.8

6.7

0.28

20

20

20

20

1.7

7.9

45

27

56

9.0

ug/Kg

ug/Kg

ug/Kg

ug/Kg

mg/Kg

MDI

DF

POI

Results

Unit

**A4** @ **12-18**"

.6 @ 3-9"					16	04069-012
4,4'-DDT	SW8081A	4	2.7	8.0	33	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	13	ug/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	130	ug/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	4.0	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	8.9	mg/Kg
Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
5 @ 3-9"					16	604069-011
4,4'-DDT	SW8081A	50	33	100	1000	ug/Kg
Chlordane	SW8081A	4	41	80	750	ug/Kg
4,4'-DDD	SW8081A	4	3.0	8.0	16	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	29	ug/Kg
alpha-Chlordane	SW8081A	4	3.8	8.0	89	ug/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	83	ug/Kg
Heptachlor epoxide	SW8081A	4	1.4	8.0	10	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	9.7	mg/Kg
4,4'-DDE	SW8081A	10	5.1	20	360	ug/Kg
	<u>Method</u>					

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Dieldrin

4,4'-DDT

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

**A6** @ **12-18**"

A0 @ 12-10					11	304003-016
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.6	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	3.8	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	3.6	ug/Kg
4,4'-DDT	SW8081A	4	2.7	8.0	3.8	ug/Kg
A7 @ 3-9"					16	604069-015
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.9	mg/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	4.2	ug/Kg
alpha-Chlordane	SW8081A	4	3.8	8.0	3.8	ug/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	23	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	7.6	ug/Kg
4,4'-DDT	SW8081A	4	2.7	8.0	12	ug/Kg
A8 @ 3-9"					16	604069-016
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.2	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	6.6	ug/Kg
4,4'-DDT	SW8081A	4	2.7	8.0	4.8	ug/Kg
A9 @ 3-9"					16	604069-017
Parameters:	Analysis Method	<u>DF</u>	MDL	PQL	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.3	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	42	ug/Kg
		_				

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SW8081A

SW8081A

ug/Kg

ug/Kg

4.4

2.7

8.0



# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

**A9** @ **12-18**"

 Parameters:
 Analysis Method
 DF MDL Method
 PQL PQL PQL PQL PQL
 Results PQL PQL PQL

 Arsenic
 SW6010B
 1
 0.28
 1.7
 9.0
 mg/Kg

**A10**@ **3-9**"

Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
Heptachlor epoxide	SW8081A	10	3.6	20	7.1	ug/Kg
gamma-Chlordane	SW8081A	10	7.9	20	46	ug/Kg
alpha-Chlordane	SW8081A	10	9.4	20	49	ug/Kg
Dieldrin	SW8081A	10	5.8	20	420	ug/Kg
4,4'-DDD	SW8081A	10	7.6	20	12	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	410	ug/Kg
Chlordane	SW8081A	10	100	200	590	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	9.5	mg/Kg
4,4'-DDE	SW8081A	20	10	40	680	ug/Kg

A10 @ 12-18" 1604069-021

Parameters:	Analysis Method	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.4	mg/Kg
4,4'-DDE	SW8081A	1	0.51	2.0	11	ug/Kg
Dieldrin	SW8081A	1	0.58	2.0	2.5	ug/Kg
4,4'-DDD	SW8081A	1	0.76	2.0	2.6	ug/Kg
4,4'-DDT	SW8081A	1	0.67	2.0	3.7	ug/Kg

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Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A1 @ 3-9" Lab Sample ID: 1604069-001A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

**Date/Time Sampled:** 12854.000.000 04/11/16 / 8:45

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.8		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	norted using t	heir MDI									
alpha-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	10	4.0	20	4.0		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	10	9.4	20	ND		ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	10	5.1	20	17	J	ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	10	5.8	20	33		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	10	6.7	20	30		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	10	100	200	ND		ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	10	52.5	139	93.5		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	10	50.2	139	99.3		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (\	/iscous/dark	color	extract)						

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Sample Matrix:

Soil

Kelsey Gerhart Report prepared for: Date Received: 04/11/16 Engeo (San Ramon) Date Reported: 04/14/16

Client Sample ID: A1 @ 12-18" Lab Sample ID: 1604069-002A

Project Name/Location: Jamison Way **Project Number:** 12854.000.000

Date/Time Sampled: 04/11/16 / 8:50

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL									
alpha-BHC	SW8081A	4/11/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	4	2.0	8.0	2.7	J	ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	4	2.7	8.0	ND		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	4	41	80	ND		ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	4	33	400	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	4	52.5	139	87.6		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	4	50.2	139	88.5		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 9 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A2 @ 3-9" Lab Sample ID: 1604069-004A

Project Name/Location:Jamison WayProject Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 11:10

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	16		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                      </u>								
alpha-BHC	SW8081A	4/11/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	4	3.2	8.0	5.6	J	ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	4	3.8	8.0	8.2		ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	4	2.0	8.0	120		ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	4	2.3	8.0	13		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	4	2.7	8.0	21		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	4	41	80	80		ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	4	33	400	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	4	52.5	139	86.7		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	4	50.2	139	83.3		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (\	viscous/dark	color	extract)						

Total Page Count: 34 Page 10 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A3 @ 3-9" Lab Sample ID: 1604069-005A

Project Name/Location: Jamison Way
Project Number: 12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 9:00

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re											
alpha-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	10	7.9	20	9.4	J	ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	10	9.4	20	12	J	ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	10	5.1	20	15	J	ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	10	5.8	20	90		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	10	6.7	20	14	J	ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	10	100	200	140	J	ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	10	52.5	139	96.6		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	10	50.2	139	94.7		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (\	viscous/dark	color	extract)						

Total Page Count: 34 Page 11 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A3 @ 12-18" Lab Sample ID: 1604069-006A

Project Name/Location:Jamison WayProject Number:12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 9:05

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	7.9		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below a	are reported using	their MDL			<u> </u>	1	<u>I</u>	1		ı	<u>.                                    </u>
alpha-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	10	7.9	20	13	J	ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	10	9.4	20	16	J	ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	10	5.1	20	26		ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	10	5.8	20	170		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	10	6.7	20	20		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	10	100	200	170	J	ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	10	52.5	139	99.7		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	10	50.2	139	96.7		%	429672	16830
NOTE: Reporting limits incre	ased due to nature of t	he matrix (v	/iscous/dark	color	extract)						

Total Page Count: 34 Page 12 of 34



Sample Matrix:

Soil

Unit

**Analytical** 

Prep

Report prepared for: Kelsey Gerhart Date Received: 04/11/16
Engeo (San Ramon) Date Reported: 04/14/16

Client Sample ID: A4 @ 3-9" Lab Sample ID: 1604069-008A

Project Name/Location: Jamison Way
Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 9:45

Analysis Prep Date DF MDL PQL Results Lab

Parameters:	Method	Date	Analyzed					Qualifier		Batch	Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	11		mg/Kg	429665	16845
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
4,4'-DDT	SW8081A	4/13/16	04/13/16	1000	670	2000	24000		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	100	79	200	850		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	100	94	200	980		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	100	51	200	1500		ug/Kg	429672	16847
The results shown below a	are reported using	their MDL									
alpha-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	10	3.6	20	45		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	10	5.8	20	190		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	10	7.6	20	480		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	10	8.2	20	ND		ua/Ka	429672	16847

Endosulfan II ug/Kg SW8081A 4/13/16 04/13/16 10 8.2 20 ND 429672 16847 Endrin aldehyde SW8081A 4/13/16 04/13/16 10 4.6 20 ND ug/Kg 429672 16847 Endosulfan sulfate SW8081A 4/13/16 04/13/16 10 5.8 20 ND ug/Kg 429672 16847 Methoxychlor SW8081A 50 ND 429672 16847 4/13/16 04/13/16 10 6.1 ug/Kg **Endrin Ketone** SW8081A 4/13/16 04/13/16 5.8 20 ND ug/Kg 429672 16847 10 Chlordane SW8081A 4/13/16 100 200 5300 ug/Kg 429672 16847 04/13/16 10 Toxaphene SW8081A 4/13/16 82 1000 ND 429672 04/13/16 10 ug/Kg 16847 TCMX (S) SW8081A 4/13/16 52.5 89.9 % 429672 16847 04/13/16 10 139 DCBP (S) SW8081A 4/13/16 04/13/16 50.2 139 85.2 % 429672 16847 NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

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Total Page Count: 34 Page 13 of 34



Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A4 @ 12-18" Lab Sample ID: 1604069-009A

Project Name/Location: Jamison Way Sample Matrix: Soil

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 9:46

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.7		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Unit Qualifier	Analytical Batch	Prep Batch
4,4'-DDE	SW8081A	4/13/16	04/13/16	10	5.1	20	360	ug/Kg	429672	16847
The results shown below are re	ported using t	heir MDL								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND	ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND	ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND	ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND	ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND	ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND	ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	10	ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	83	ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	89	ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND	ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	29	ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND	ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	16	ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND	ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND	ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND	ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND	ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND	ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	750	ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND	ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	80.6	%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	74.0	%	429672	16847
NOTE: Reporting limits increased of	due to nature of the	ne matrix (\	/iscous/dark	color	extract)					
4,4'-DDT	SW8081A	4/13/16	04/13/16	50	33	100	1000	ug/Kg	429672	16847

Total Page Count: 34 Page 14 of 34



Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A5 @ 3-9" **Lab Sample ID:** 1604069-011A

Project Name/Location: Jamison Way Sample Matrix: Soil

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:00

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.9		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                     </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	4.0	J	ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	130		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	13		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	33		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	86.7		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	75.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 15 of 34



Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A6 @ 3-9" Lab Sample ID: 1604069-012A

Project Name/Location: Jamison Way Sample Matrix:
Project Number: 12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:05

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                      </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	10	7.9	20	7.9		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	10	9.4	20	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	10	5.1	20	45		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	10	5.8	20	27		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	10	6.7	20	56		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	10	100	200	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	10	52.5	139	90.3		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	10	50.2	139	86.3		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 16 of 34



Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A6 @ 12-18" Lab Sample ID: 1604069-013A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:10

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.6		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                     </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	3.8	J	ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	3.6	J	ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	3.8	J	ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	88.7		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	78.5		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 17 of 34



Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A7 @ 3-9" **Lab Sample ID:** 1604069-015A

Project Name/Location: Jamison Way Sample Matrix: Soil

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:25

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	7.9		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL									
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	4.2	J	ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	3.8	J	ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	23		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	7.6	J	ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	12		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	87.9		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	84.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 18 of 34



Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A8 @ 3-9" Lab Sample ID: 1604069-016A

Project Name/Location: Jamison Way Sample Matrix: Soil

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:30

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.2		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u> </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	6.6	J	ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	4.8	J	ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	89.3		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	79.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 19 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A9 @ 3-9" **Lab Sample ID:** 1604069-017A

Project Name/Location:Jamison WayProject Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:35

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.3		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                       </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	42		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	4.4	J	ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	14		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	84.7		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	80.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	riscous/dark	color	extract)						

Total Page Count: 34 Page 20 of 34



Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A9 @ 12-18" **Lab Sample ID:** 1604069-018A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:40

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
			,,								
alpha-BHC	SW8081A	4/13/16	04/13/16	1	0.61	2.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	1	0.61	2.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	1	0.56	2.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	1	0.40	2.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	1	0.81	2.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	1	0.36	2.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	1	0.94	2.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	1	0.64	2.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	1	0.51	2.0	ND		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	1	0.86	2.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	1	0.76	2.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	1	0.82	2.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	1	0.67	2.0	ND		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	1	0.46	2.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	1	0.61	5.0	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	1	10	20	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	1	8.2	100	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	1	52.5	139	82.4		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	1	50.2	139	70.8		%	429672	16847

Total Page Count: 34 Page 21 of 34

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Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A10@ 3-9" **Lab Sample ID:** 1604069-020A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:50

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.5		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re											
alpha-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	10	3.6	20	7.1	J	ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	10	7.9	20	46		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	10	9.4	20	49		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	10	5.8	20	420		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	10	7.6	20	12	J	ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	10	6.7	20	410		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	10	100	200	590		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	10	52.5	139	88.4		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	10	50.2	139	77.3		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	riscous/dark	color	extract)						
4,4'-DDE	SW8081A	4/13/16	04/13/16	20	10	40	680		ug/Kg	429672	16847

Total Page Count: 34 Page 22 of 34



Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A10 @ 12-18" Lab Sample ID: 1604069-021A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:55

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.4		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
alpha-BHC	SW8081A	4/13/16	04/13/16	1	0.61	2.0	ND		ug/Kg	429672	16847
'			04/13/16	-							
gamma-BHC	SW8081A	4/13/16		1	0.61	2.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	1	0.56	2.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	1	0.40	2.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	1	0.81	2.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	1	0.36	2.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	1	0.94	2.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	1	0.64	2.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	1	0.51	2.0	11		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	1	0.58	2.0	2.5		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	1	0.86	2.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	1	0.76	2.0	2.6		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	1	0.82	2.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	1	0.67	2.0	3.7		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	1	0.46	2.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	1	0.61	5.0	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	1	10	20	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	1	8.2	100	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	1	52.5	139	88.6		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	1	50.2	139	72.9		%	429672	16847
• /											

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## **MB Summary Report**

Work Order:	1604069	Prep I	Method:	3546_OCP	·		04/11/16	Prep Batch:	16830
Matrix:	Soil	Analy		SW8081A	Anal	yzed Date:	04/12/16	Analytical	429655
Units:	ug/Kg	Metho	od:					Batch:	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
alpha-BHC		0.61	2.0	ND					
gamma-BHC		0.61	2.0	ND					
beta-BHC		0.56	2.0	ND					
delta-BHC		0.40	2.0	ND					
Heptachlor		0.79	2.0	ND					
Aldrin		0.81	2.0	ND					
Heptachlor epoxide		0.36	2.0	ND					
gamma-Chlordane		0.79	2.0	ND					
alpha-Chlordane		0.94	2.0	ND					
Endosulfan I		0.64	2.0	ND					
4,4'-DDE		0.51	2.0	ND					
Dieldrin		0.58	2.0	ND					
Endrin		0.86	2.0	ND					
4,4'-DDD		0.76	2.0	ND					
Endosulfan II		0.82	2.0	ND					
4,4'-DDT		0.67	2.0	ND					
Endrin aldehyde		0.46	2.0	ND					
Endosulfan sulfate		0.58	2.0	ND					
Methoxychlor		0.61	5.0	ND					
Endrin Ketone		0.58	2.0	ND					
Chlordane		10	20	ND					
Toxaphene		8.2	100	ND					
TCMX (S)				99.7					
DCBP (S)				92.7					
Work Order:	1604069	Prep I	Method:	3050	Prep	Date:	04/13/16	Prep Batch:	16845
Matrix:	Soil	Analy		SW6010B	Anal	yzed Date:	04/13/16	Analytical	429665
Units:	mg/Kg	Metho	od:					Batch:	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
Arsenic		0.25	1.7	ND					

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## **MB Summary Report**

Work Order: Prep Method: 3546\_OCP Prep Date: 04/13/16 Prep Batch: 16847 1604069 Matrix: Soil Analytical SW8081A Analyzed Date: 04/13/16 Analytical 429672 Method: Batch: Units: ug/Kg

Parameters	MDL	PQL	Method Blank	Lab Qualifier
T diamotors	MDL	1 44.	Conc.	- Quanner
alpha-BHC	0.61	2.0	ND	
gamma-BHC	0.61	2.0	ND	
beta-BHC	0.56	2.0	ND	
delta-BHC	0.40	2.0	ND	
Heptachlor	0.79	2.0	ND	
Aldrin	0.81	2.0	ND	
Heptachlor epoxide	0.36	2.0	ND	
gamma-Chlordane	0.79	2.0	ND	
alpha-Chlordane	0.94	2.0	ND	
Endosulfan I	0.64	2.0	ND	
4,4'-DDE	0.51	2.0	ND	
Dieldrin	0.58	2.0	ND	
Endrin	0.86	2.0	ND	
4,4'-DDD	0.76	2.0	ND	
Endosulfan II	0.82	2.0	ND	
4,4'-DDT	0.67	2.0	ND	
Endrin aldehyde	0.46	2.0	ND	
Endosulfan sulfate	0.58	2.0	ND	
Methoxychlor	0.61	5.0	ND	
Endrin Ketone	0.58	2.0	ND	
Chlordane	10	20	ND	
Toxaphene	8.2	100	ND	
TCMX (S)			98.7	
DCBP (S)			90.7	

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## LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1604069	Prep Method:	3546_OCP	Prep Date:	04/11/16	Prep Batch:	16830
Matrix:	Soil	Analytical	SW8081A	Analyzed Date:	04/12/16	Analytical	429655
Units:	ug/Kg	Method:				Batch:	

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC	0.61	2.0	ND	40	99.0	107	7.62	56.9 - 120	30	
Heptachlor	0.79	2.0	ND	40	106	107	0.789	63.6 - 117	30	
Aldrin	0.81	2.0	ND	40	95.8	103	7.64	53 - 123	30	
Dieldrin	0.58	2.0	ND	40	99.4	105	5.61	44 - 130	30	
Endrin	0.86	2.0	ND	40	103	108	4.28	44.1 - 121	30	
4,4'-DDT	0.67	2.0	ND	40	105	113	7.41	52.8 - 134	30	
TCMX (S)			ND	100	95.5	102		52.5 - 139		
DCBP (S)			ND	100	92.8	101		50.2 - 139		

Work Order:	1604069	Prep Method:	3050	Prep Date:	04/13/16	Prep Batch:	16845
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	04/13/16	Analytical Batch:	429665
Units:	mg/Kg	wethou.				васп.	

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	ND	50	97.6	99.6	2.01	71 - 121	30	

Work Order:	1604069	Prep Method:	3546_OCP	Prep Date:	04/13/16	Prep Batch:	16847
Matrix:	Soil	Analytical	SW8081A	Analyzed Date:	04/13/16	Analytical	429672
Units:	ug/Kg	Method:				Batch:	

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC	0.61	2.0	ND	40	100	99.3	0.698	56.9 - 120	30	
Heptachlor	0.79	2.0	ND	40	100	98.1	2.35	63.6 - 117	30	
Aldrin	0.81	2.0	ND	40	97.4	96.9	0.587	53 - 123	30	
Dieldrin	0.58	2.0	ND	40	98.2	98.4	0.167	44 - 130	30	
Endrin	0.86	2.0	ND	40	98.9	99.1	0.195	44.1 - 121	30	
4,4'-DDT	0.67	2.0	ND	40	103	105	1.45	52.8 - 134	30	
TCMX (S)			ND	100	96.3	95.6		52.5 - 139		
DCBP (S)			ND	100	90.9	90.5		50.2 - 139		

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### **MS/MSD Summary Report**

Raw values are used in quality control assessment.

Work Order: 1604069 Prep Method: 3050 Prep Date:

04/13/16

Prep Batch: 16845

Matrix:

Soil

Analytical

**Analyzed Date:** 

04/13/16

Analytical

429665

Spiked Sample:

Method:

Batch:

1604069-001A

Units: mg/Kg

MSD % MS/MSD % RPD **Parameters** MDL **PQL** Sample **Spike MS** % Lab Conc. % RPD Recovery Limits Qualifier Conc. Recovery Recovery Limits 0.25 50 1.32 71 - 121 30 1.7 0.18 95.8 94.5 Arsenic

Work Order:

1604069

Prep Method:

3546\_OCP

SW6010B

Prep Date:

04/13/16

Prep Batch: 16847

Matrix:

DCBP (S)

Soil

Analytical Method:

SW8081A

Analyzed Date:

04/13/16

Analytical Batch:

50.2 - 139

429672

Spiked Sample:

1604069-021A

Units: ug/	Kg									
Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Aldrin	0.81	2.0	0	40	87.5	86.4	1.17	53 - 123	30	
gamma-BHC	0.61	2.0	0	40	85.4	85.0	0.374	56.9 - 120	30	
Heptachlor	0.79	2.0	0	40	88.1	85.2	3.32	63.6 - 117	30	
Dieldrin	0.58	2.0	2.4658	40	88.3	85.8	2.65	44 - 130	30	
Endrin	0.86	2.0	0	40	84.5	82.8	2.14	44.1 - 121	30	
4,4'-DDT	0.67	2.0	3.7332	40	84.3	83.8	0.484	52.8 - 134	30	
TCMX (S)				100	91.9	88.8		52.5 - 139	,"	

87.8

81.2

100

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## Laboratory Qualifiers and Definitions

#### **DEFINITIONS:**

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.

**Blank (Method/Preparation Blank)** -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.

**Duplicate** - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)

Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.

Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)

**Matrix Spike (MS/MSD)** - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.

Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero

Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.

Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates

Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis

**Tentatively Identified Compound (TIC)** - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.

**Units:** the unit of measure used to express the reported result - **mg/L** and **mg/Kg** (equivalent to PPM - parts per million in **liquid** and **solid**), **ug/L** and **ug/Kg** (equivalent to PPB - parts per billion in **liquid** and **solid**), **ug/m3**, **mg.m3**, **ppbv** and **ppmv** (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

#### LABORATORY QUALIFIERS:

- B Indicates when the anlayte is found in the associated method or preparation blank
- **D** Surrogate is not recoverable due to the necessary dilution of the sample
- **E** Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
- H- Indicates that the recommended holding time for the analyte or compound has been exceeded
- J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
- NA Not Analyzed
- N/A Not Applicable
- NR Not recoverable a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
- R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
- S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case parrative
- **X** -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

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## Sample Receipt Checklist

Client Name: Engeo (San Ramon) Date and Time Received: 4/11/2016 16:07

Project Name: <u>Jamison Way</u> Received By: <u>Idi</u>

Work Order No.: 1604069 Physically Logged By: Idi

Checklist Completed By: Idi

Carrier Name: FedEx

**Chain of Custody (COC) Information** 

Chain of custody present? <u>Yes</u>

Chain of custody signed when relinquished and received? Yes

Chain of custody agrees with sample labels? Yes

Custody seals intact on sample bottles? <u>Not Present</u>

**Sample Receipt Information** 

Custody seals intact on shipping container/cooler?

Not Present

Shipping Container/Cooler In Good Condition? <u>Yes</u>

Samples in proper container/bottle? <u>Yes</u>

Samples containers intact? <u>Yes</u>

Sufficient sample volume for indicated test?

Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes

Container/Temp Blank temperature in compliance? Yes Temperature: 3 °C

Water-VOA vials have zero headspace? No VOA vials submitted

Water-pH acceptable upon receipt? N/A

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pH Checked by: n/a pH Adjusted by: n/a

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## **Login Summary Report**

Client ID: TL5123 Engeo (San Ramon) QC Level:

**Project Name:** Jamison Way **TAT Requested:** 3 day:25

**Project #:** 12854.000.000 **Date Received:** 4/11/2016

Report Due Date: 4/14/2016 Time Received: 16:07

Comments:

Work Order #: 1604069

WO Sample ID	<u>Client</u> Sample ID	Collection Date/Time	<u>Matrix</u>		Sample On Hold	<u>Test</u> On Hold	Requested Tests	Subbed
1604069-001A	A1 @ 3-9"	04/11/16 8:45	Soil	10/08/16			S_6010BAs/Pb Homogenize S_8081AOCP	
Sample Note:	Arsenic & OCPs							
1604069-002A	A1 @ 12-18"	04/11/16 8:50	Soil	10/08/16			S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-003A	A1 @ 18-24"	04/11/16 8:55	Soil	10/08/16			-	
1604069-004A	A2 @ 3-9"	04/11/16 11:10	Soil	10/08/16			Hold Samples  S_6010BAs/Pb  Homogenize S_8081AOCP	
1604069-005A	A3 @ 3-9"	04/11/16 9:00	Soil	10/08/16			S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-006A	A3 @ 12-18"	04/11/16 9:05	Soil	10/08/16			S_6010BAs/Pb Homogenize S_8081AOCP	
1604069-007A	A3 @ 18-24"	04/11/16 9:10	Soil	10/08/16				
1604069-008A	A4 @ 3-9"	04/11/16 9:45	Soil	10/08/16			Hold Samples S_6010BAs/Pb Homogenize	
1604069-009A	A4 @ 12-18"	04/11/16 9:46	Soil	10/08/16			S_8081AOCP S_6010BAs/Pb Homogenize S_8081AOCP	
1604069-010A	A4 @ 18-24"	04/11/16 9:47	Soil	10/08/16				
1604069-011A	A5 @ 3-9"	04/11/16 10:00	Soil	10/08/16			Hold Samples	

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## **Login Summary Report**

Client ID: TL5123 Engeo (San Ramon) QC Level:

**Project Name:** Jamison Way **TAT Requested:** 3 day:25

Project #: 12854.000.000 Date Received: 4/11/2016

Report Due Date: 4/14/2016 Time Received: 16:07

Comments:

Work Order #: 1604069

WO Sample ID	Client Sample ID	Collection Date/Time	<u>Matrix</u>			<u>Test</u> On Hold	Requested Tests	Subbed
							S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-012A	A6 @ 3-9"	04/11/16 10:05	Soil	10/08/16				
							S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-013A	A6 @ 12-18"	04/11/16 10:10	Soil	10/08/16			g	
							S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-014A	A6 @ 18-24"	04/11/16 10:15	Soil	10/08/16				
	1-0-2						Hold Samples	
1604069-015A	A7 @ 3-9"	04/11/16 10:25	Soil	10/08/16			S_6010BAs/Pb	
							S_8081AOCP	
							Homogenize	
1604069-016A	A8 @ 3-9"	04/11/16 10:30	Soil	10/08/16			0	
							S_6010BAs/Pb S_8081AOCP	
							Homogenize	
1604069-017A	A9 @ 3-9"	04/11/16 10:35	Soil	10/08/16			1 lolllogotii20	
							S_6010BAs/Pb	
							S_8081AOCP	
1604069-018A	A9 @ 12-18"	04/11/16 10:40	Soil	10/08/16			Homogenize	
1004009-0107	A3 @ 12-10	0-1/11/10 10:40	Oon	10/00/10			S_6010BAs/Pb	
							S_8081AOCP	
							Homogenize	
1604069-019A	A9 @ 18-24"	04/11/16 10:45	Soil	10/08/16			Hold Comples	
1604069-020A	A10@ 3-9"	04/11/16 10:50	Soil	10/08/16			Hold Samples	
.00.000 020.1		0 1,7 1,7 10 10100	•	. 0, 00, . 0			S_6010BAs/Pb	
							Homogenize	
4004000 004 4	A40 @ 40 40"	04/44/40 40:55	Cail	40/00/40			S_8081AOCP	
1604069-021A	A10 @ 12-18"	04/11/16 10:55	Soil	10/08/16			S_6010BAs/Pb	

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## **Login Summary Report**

Client ID: TL5123 Engeo (San Ramon) QC Level:

**Project Name:** Jamison Way **TAT Requested:** 3 day:25

**Project #:** 12854.000.000 **Date Received:** 4/11/2016

Report Due Date: 4/14/2016 Time Received: 16:07

Comments:

Work Order #: 1604069

WO Sample ID	<u>Client</u> <u>Sample ID</u>	<u>Collection</u> <u>Matrix</u> <u>Date/Time</u>		Scheduled Disposal	Sample On Hold	<u>Test</u> On Hold	Requested Tests	Subbed
400 4000 0004	A40 O 40 O W		0.11	40/00/40			S_8081AOCP Homogenize	
1604069-022A	A10 @ 18-24"	04/11/16 11:00	Soil	10/08/16			Hold Samples	

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				CH	IAIN O	F CUST	OD	Υ	REC	OF	RD						16 040	69	
PROJECT NUM	BER 12854.000.000	PROJECT NA	ME Jamis	on Way						П		Т			Т	T			П
SAMPLED BY: (	SIGNATURE/PRINT) Kelse	ey Gerhart ,	Hilary	Mann			<u>۽</u>	١											
PPO JECT MAN	AGER: (SIGNATURE/PRIN	m	- 1				8	(6010									REMA	ARKS	
PROJECT MAN	NOCK. (SIGNATOREFRIM	",					Pesticides (8081)	Arsenic (6010)									REQUIRED DET		5
ROUTING: E-M/	AlL kgerhart@engeo.cor	n			HARD COPY		Pes	٤											
SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE													
A1 @3-9"	4/11/2016	8:45	Soil	1	Jar		x	x		Ш	_		1/		_	$\perp$	Homaguitee		
A1@12-18"	4/11/2016	8:50	Soil	1	Jar		x	×		Ш		90	M		_	_	U		
A1@18"-24"	4/11/2016	8:55	Soil	1	Jar		L	L		Ш		<u>- do</u>	23	1	4	_	HOLD		
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## **APPENDIX G**

**Environmental Site Assessment Questionnaire** 

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Project Name: Jamison Way

Project No. P2016.000.210



2010 Crow Canyon Place • Suite 250 • San Ramon, CA 94583	(925) 866-9000 • Fax (888) 279-2698
2213 Plaza Drive - Rocklin, CA 95765	(916) 786-8883 • Fax (888) 279-2698
332 Pine Street • Suite 300 • San Francisco, CA 94104	(415) 284-9900 • Fax (888) 279-2698
6399 San Ignacio Avenue • Suite 150 • San Jose, CA 95119	(408) 574-4900 • Fax (888) 279-2698
580 N. Wilma Avenue Suite A Ripon, CA 95366	(209) 835-0610 • Fax (888) 279-2698
☐ 17675 Sierra Highway • Santa Clarita, CA 91351	(661) 257-4004 • Fax (888) 279-2698
6 Morgan • Suite 162 • Irvine, CA 92618	(949) 529-3479 • Fax (888) 279-2698

## ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE FOR "KEY SITE MANAGER"

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

#### **PARTI**

1. Property Address/Location and Assessor's Parcel Number (APN):

3530, 3544, 3546, 3548, 3528 Jamison Way, Castro Valley, in the County of Alameda, California. The Assessor's Parcel Numbers (APNs) for the Real Property are: 84A-76-23, 84A-76-20-1, 84A-76-21-4, 84A-76-21-6, 84A-76-22

2. Current property owner (name, address, voice/fax number):

Mr. Dan E. Briggs, Trustee Briggs Family Trust 3544 Jamison Way

- 3. Date current property owner assumed title of property: 1974
- Current property development/improvements:
   Single Family Residential

5. Past property use, development/improvements:

No knowledge of previous use, no new development during ownership.

6. Neighboring property uses:

Residential - West Multi-family Residential - East Commercial - South Multi-family Residential - North



## $\boldsymbol{PART}\ \boldsymbol{\Pi}$ - The following questions should be answered to the best of your knowledge.

		Yes	No
1.	Is/has the property or any adjoining property used/been used for industrial purposes?		~
2.	Has the <i>property</i> or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		<b>V</b>
3.	Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the <i>property</i> or at the facility?		<b>V</b>
4.	Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is cubic yards.		<b>V</b>
5.	Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin?		~
6.	Are there currently, or have there been previously, any pits, ponds, or lagoons located on the <i>property</i> in connection with waste treatment or waste disposal?		<b>V</b>
7.	Is there currently, or has there been previously, any stained soil on the property?		~
8.	Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the <i>property</i> ?		<b>V</b>
9.	Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the <i>property</i> or adjacent to any structure located on the <i>property</i> ?		<b>V</b>
10.	Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?		<b>V</b>
11.	Are there any domestic, irrigation or monitoring wells on the property?	~	
12.	If the <i>property</i> is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?		<b>V</b>
13.	Have you been informed of the past or current existence of <i>hazardous substances</i> or <i>petroleum products</i> or environmental violations with respect to the <i>property</i> or any facility located on the <i>property</i> ?		<b>V</b>
14.	Have there been any <i>environmental site assessments</i> of the <i>property</i> or facility that indicated the presence of <i>hazardous substances</i> or <i>petroleum products</i> on, or contamination of, the <i>property</i> or recommended further assessment of the <i>property</i> ?		<b>V</b>
15.	Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any <i>hazardous substance</i> or <i>petroleum products</i> involving the <i>property</i> ?		~
16.	Has there been any past agricultural use of the property, such as orchards or seed crop cultivation?		V
17.	Have any <i>hazardous substances</i> or <i>petroleum products</i> , unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the <i>property</i> ?		<b>V</b>
18.	Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?		<b>V</b>



y that the information herein is true and cor-	rect to the best of a	ny knowledge as of	the date signed below	:
Name (Printed/Typed): Dan Briggs Trust	ee for Briggs Fam	ily Trust		
0 11 -				
Signature: Ton Buy		Date: 3/5/	2016	

## **APPENDIX H**

**Qualifications of Environmental Professional** 

A P P E N D I X

H



#### **EDUCATION**

BS, Geology, University of Massachusetts, Amherst, 1975

MS, Geology, California State University, Hayward, 1988

#### **EXPERIENCE**

Years with ENGEO: 32 Years with Other Firms: 3

#### **REGISTRATIONS & CERTIFICATIONS**

Certified Engineering Geologist, CA, 1256

Certified Hydrogeologist, CA, 460 Registered Environmental Assessor, CA, 923

Professional Geologist, CA, 4030

#### **SPECIALIZATIONS**

- Environmental Assessments and Remediation
- Geologic Hazard Evaluation
- Hillside Grading
- Landslide Investigations and Repairs
- Water Wells/Hydrogeology

#### **AFFILIATIONS**

**OBA - Oakland Builders Alliance** 

San Francisco Housing Action Coalition

**SPUR** 

# BRIAN FLAHERTY, CEG, CHG, REA I PRINCIPAL GEOLOGIST

Mr. Flaherty has more than 30 years of diverse experience in the fields of engineering geology, geologic hazard evaluation and mitigation, and hydrogeology. During that time he has also managed and completed numerous soil and ground water characterization studies, environmental assessments, and the design and implementation of soil and ground water remediation systems. During his professional career he has worked on small to large residential developments, commercial developments, industrial business parks, military base re-use projects, water storage facilities, transportation projects and educational facilities throughout California.

Mr. Flaherty's geologic project experience includes geotechnical, geologic and earthquake hazard evaluation for projects throughout the San Francisco Bay Area. His work as a geologist has included landslide hazard mapping and assessment, slope stability evaluation, structural and rock mechanic analysis of bedrock slopes, earthquake fault hazard explorations, and preparation of Geologic Hazard Abatement District (GHAD) plans of control and monitoring.

#### Select Project Experience

#### Phelan Loop Development—San Francisco, CA

Project Manager. Mr. Flaherty provided project management and principal review for during preparation of a phase I and phase II environmental site assessment for the Phelan Loop project site is located at the site of a MUNI bus turnaround, near the intersection of Phelan Avenue and Ocean Avenue, in San Francisco, California. The Phelan Loop project site is located at the site of a MUNI bus turnaround, near the intersection of Phelan Avenue and Ocean Avenue, in San Francisco, California. The proposed housing development will create approximately 60 units of supportive housing for low-income families and transitional aged youth (TAY).

# 11th Street Four Story Mixed Use Development—San Francisco, CA

*Project Manager*. Mr. Flaherty's duties included phase one and two environmental assessment, development and implementation of a geotechnical exploration using both conventional auger drilling and cone penetration testing. ENGEO is the geotechnical and environmental consultant for a proposed multi-use building at 340-350 11th Street. T his 4-



level wood-framed residential development will include 16 townhouse units with 2-level townhouses above 2-level townhouses. The structure will be set on a concrete podium containing ground floor commercial space above one level of underground parking. Geotechnical constraints included a high water table, liquefiable soil, building constraints and environmental soil and groundwater contamination.

#### Docktown Marina—Redwood City, CA

*Project Manager*. Mr. Flaherty managed the phase II environmental assessment to identify possible recognized environmental conditions associated with past property use as a vehicle and boat maintenance areas and as a former tannery facility. The Docktown Marina study involved two land use plans under consideration; four-story over two-story podium structures located around the perimeter of the site or two four-story residential buildings wrapped around two four-story parking structures.

#### 1150 Ocean Avenue—San Francisco, CA

*Project Manager*. Mr. Flaherty prepared the geotechnical exploration and a phase II environmental site assessment for this mixed use project. Site concerns include possible soil and groundwater contamination from hydraulic lifts and the impact of a high groundwater table on the planned underground parking structure. A four-level wood-framed mixed-use residential development is planned with about 150 apartment units. The structure will be set on a concrete podium with about 30,000 square feet of retail commercial space above one level of underground parking.

#### Terminal One, Brickyard Cove—Richmond, CA

Principal in Charge. Mr. Flaherty provided expert environmental review of the Remedial Investigation Report and the Feasibility Study including consultation with the Regional Water Control Board (RWQCB). The purpose was to evaluate the findings and recommendations of an environmental consultant's reports to determine if the property could be developed for a multi family residential use. The Terminal One property includes approximately 12 acres of Bay margin land south of Brickyard Cove Road in Point Richmond, California. The site was previously used by both public and private entities primarily for the processing, transferring, and storage of bulk liquids.

The current project development concept included a high-density residential constructions with a large, central multi-unit "podium structure" and approximately 5 smaller multi-unit podium structures totaling approximately 272 housing units.

#### Redwood Road, Chevron—Oakland, CA

*Project Manager*. Mr. Flaherty reviewed the site history and prepared a work plan for regulatory agency approval to characterize reported soil contamination beneath a former fueling station ENGEO provided environmental services to remove the former LUST designated facility from the county's list of contaminated properties

#### Marina District Various PG&E Sites—San Francisco, CA

*Project Manager*. Mr. Flaherty managed the compilation and review of historic maps and air photographs, consultants reports, and archival records to help establish the histroy of development and filling in the Marina District of San Francisco. Efforts included the



development of a fill sequence timeline in the neighborhood and a graphic video showing three dimensional views of the various sequences of fill. ENGEO undertook an extensive review of public and private documents and photographs to develop a timeline for the placement of fill in the Marina District of San Francisco

#### Monarch Village - Senior Housing—Daly City, CA

*Project Manager.* Mr. Flaherty led the geotechnical and environmental review of the site conditions during the project design phase actively working with the owner and contractor. He also oversaw the site grading providing guidance for the characterization and disposal of contaminated soils Attached senior housing complex with construction of a three-story building over two levels of garage, two retail buildings, and related landscape and hardscape improvements with on-grade paved parking.

#### Tidewater Avenue—San Francisco, CA

Project Manager. Mr. Flaherty provided geotechnical and environmental consultation services to a group of industrial property owners located within the boundaries of the City of Oakland's Central Estuary Plan area. Mr. Flaherty has reviewed geotechnical engineering reports, geohazards (liquefaction analysis) reports and phase I and II environmental site assessment reports for the various property owners. He has provided input to the owners with regard to the various redevelopment plans considered by the City of Oakland and responded to requests by the owners to clarify City directives and requests made to the owners regarding access and use of their parcels by City of Oakland environmental consultants. ENGEO provided as-needed geotechnical and environmental consultation services to a group of industrial property owners located within the City of Oakland's Central Estuary Plan area.

#### Ashby Arts Mixed Use Development—Berkeley, CA

*Project Manager*. Mr. Flaherty managed and completed the project geotechnical exploration and provided environmental consultation to the design team. The Ashby Arts development consists of a five-story mixed-used podium structure. The ground level will contain retail and parking spaces while the 2nd to 5th floors will be 1-to-2 bedroom residential units along with common areas for the residents' use.

#### Hunters Point Shipyard Redevelopment, 'Parcel A'—San Francisco, CA

Principal Geologist. Mr. Flaherty was Principal in Charge for the geotechnical, geologic, and hydrologic design for the development of Parcel A at the Hunters Point Shipyard. He managed the production of the project geotechnical exploration report and the analysis and development of the project corrective grading plans and storm water management plan. He managed the mapping of the project bedrock and the implementation of a bedrock screening and sampling program to test for naturally-occurring asbestos in the site bedrock. The 70-acre project includes 1,800 residential units, approximately 25 acres of parks and open space, limited retail, and supporting infrastructure and roadways. Site preparation included construction of terraced soil nail walls and mechanically stabilized earth walls, geotechnical remediation of 13 landslides totaling over 500,000 cubic yards of soil, and project grading totaling nearly 1.5 million cubic yards.





Project No. **12854.000.000** 

April 29, 2016

Mr. Todd Deutscher Catalyst Development Partners 18 Crow Canyon Court, Suite 190 San Ramon, CA 94583

Subject: Jamison Way Parcels

Castro Valley, California

#### AGRICULTURAL CHEMICAL IMPACT ASSESSMENT

Reference: ENGEO, Phase I Environmental Site Assessment, Jamison Way Parcels, Castro

Valley, California, Project No. 12854.000.000, March 18, 2016 (DRAFT).

Dear Mr. Deutscher:

We are pleased to submit this document summarizing recent soil sampling at the above-referenced property (Property) located in Castro Valley, California. This assessment was performed based on a recommendation in our referenced phase I environmental assessment. Since the Property was historically used for agricultural cultivation, an agrichemical assessment was conducted to evaluate the potential for residual concentrations of organochlorine pesticides and arsenical herbicides.

#### **BACKGROUND**

The Property is located on Jamison Way between Santa Maria Avenue and Redwood Road in Castro Valley, California (Figure 1). The approximately 2-acre Property is identified by the Assessor's Parcel Numbers (APN) listed below.

TABLE 1
Assessor's Parcel Number Summary

Address	APN			
3544 Jamison Way, Castro Valley, CA 94546	84A-76-20-1			
3546 Jamison Way, Castro Valley, CA 94546	84A-76-21-4			
3548/3550 Jamison Way, Castro Valley, CA 94546	84A-76-21-6			
3528 B Jamison Way, Castro Valley, CA 94546	84A-76-22			
3530/3532/3534 Jamison Way, Castro Valley, CA 94546	84A-76-23			

12854.000.000 April 29, 2016 Page 2

It appears that the Property was historically used as an orchard from at least the 1930s to the 1940s. Pesticides or other agricultural chemicals might have been applied to the Property at that time. While subsequent construction activity likely resulted in the disturbance, movement, dilution, and/or removal of possible pesticide-impacted soil on the Property, agricultural chemicals may remain in surface or near-surface soil.

#### **SOIL SAMPLING**

Initial fieldwork was conducted on March 25, 2016. Shallow soil samples were collected from four locations across the Property. Samples were recovered with hand sampling equipment. Specific soil samples were recovered for laboratory analysis by collecting soil from the respective desired sampling depths in each location. One sample was recovered from each boring at an approximate depth of 3 to 9 inches below the ground surface. The sample locations are depicted in Figure 2.

The samples were labeled to indicate a unique sample number, sample location, time and date collected, and the sampler's identification. Samples were preserved in a chilled cooler and transported to TestAmerica Laboratories, Inc., in Pleasanton, California under documented chain-of-custody.

The samples were analyzed for organochlorine pesticides (EPA Method 8081) and total arsenic (EPA 6020). Three of the four samples exhibited elevated concentrations of arsenic and/or several organochlorine pesticide analytes, including DDT, DDE, dieldrin, and chlordane.

Based on the initial results, additional sampling was performed on April 11, 2016. A total of 22 samples were collected from 10 locations at the following depths: 10 samples from 3 to 9 inches below the ground surface, 6 samples from 12 to 18 inches below the ground surface, and 6 samples from 18 to 24 inches below the ground surfaces. The samples were labeled to indicate a unique sample number, sample location, time and date collected, and the sampler's identification. Samples were preserved in a chilled cooler and transported to Torrent Laboratory, Inc., in Milpitas, California under documented chain-of-custody. The samples were analyzed for organochlorine pesticides (EPA Method 8081) and total arsenic (EPA 6010). The samples collected from 18 to 24 inches below the ground surface were held and not analyzed pending results of shallower samples.

#### SAMPLING RESULTS

As mentioned, three of the four initial samples (Samples S-1, S-3, and S-4) exhibited elevated concentrations of arsenic and/or several organochlorine pesticide analytes, including DDT, DDE, dieldrin, and chlordane. Samples collected from locations A3, A4, and A10 also exhibited elevated concentrations of DDT, DDE, dieldrin, and chlordane. Samples at A3 and A4 confirm impact to a depth of 18 inches. These concentrations exceed the current residential Regional Screening Level (RSL) established by the United States Environmental Protection Agency Region IX, and in some cases exceed respective Total Threshold Limit Concentrations (TTLC), which results in a Class I California Hazardous Waste designation. A summary table of the

results is presented in Table A, and the laboratory results are presented in their entirety in Appendix A.

#### IMPACTED VOLUME ESTIMATE

Based on the results of the agrichemical assessment, the extent of pesticide-impacted material encompasses three hotspots measuring a cumulative area of 55,000 square feet. Assuming an impacted soil thickness of 24 inches in the identified locations, approximately 2,000 cubic yards of impacted in-situ soil is present. The estimated quantity of California Hazardous Waste soil is approximately 1,000 cubic yards. The remainder of the volume (1,000 cubic yards) could be handled as Class II non-hazardous soil.

Please note this volume estimate is preliminary in nature, is based on the data presented, and represents only a general approximation of the extent of in-situ impacted soil. The soil volume would be expected to significantly dilate upon removal from the subsurface, resulting in a greater volume of soil subject to mitigation or remediation. Additionally, we recommend applying a contingency factor to account for this dilation as well as to account for existing soil that is present under structures and hardscape areas. These materials may be impacted but could not be assessed at this time.

#### REMEDIATION

#### **Excavation and Offsite Disposal of Impacted Soil**

Soil from impacted areas can be excavated and transported to an appropriate Class I hazardous waste facility and Class II non-hazardous waste facility as appropriate for disposal. Assuming an impacted volume of 2,000 cubic yards, a transport and disposal cost of \$40 per ton for Class II non-hazardous waste, a transport and disposal cost of \$120 per ton for Class I hazardous waste, a unit weight of approximately 1.5 tons per cubic yard of excavated soil, and a contingency of 40 percent, we estimate an associated cost of about \$350,000 for transport and disposal. Based on our discussions with you regarding additional anticipated fees and costs, this sum may be extended to approximately \$445,000. This estimate does not include the costs associated with importing clean backfill material for the excavation areas; we recommend that a cost of approximately \$25,000 be included for an import program.

#### REGULATORY OVERSIGHT CONSIDERATIONS

Given the extent and the degree of impact, it is possible that a self-directed remediation program is feasible for the Property. If remediation were performed in a self-directed manner, neither regulatory agency oversight nor approval of a remedial plan or remediation activity would be requested. We would recommend the preparation of a Removal Action Workplan (RAW) following typical CAL-EPA protocols. Following report preparation of the report and subsequent remedial activity, we would prepare a Removal Action Completion Report (RACR). A self-directed remediation program would be expected to take approximately 2 months. Please

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note this is a preliminary estimate; a remediation contractor may be engaged to provide a more detailed estimate.

In the event that regulatory agency oversight is desired or required to facilitate necessary development approvals or permits, it is likely the remedial work may be performed under the oversight of the Department of Toxic Substances Control. Regulatory oversight would be assigned as part of a joint review process between DTSC and the Regional Water Quality Control Board (RWQCB) under an existing Memorandum of Understanding (MOU).

Assuming the likely assumption of oversight jurisdiction by DTSC, the applicant would enter into a Voluntary Cleanup Agreement (VCA) with DTSC. The VCA would provide for oversight activity by DTSC with financial reimbursement for their oversight. Following a scoping meeting with DTSC, we would prepare a RAW for their review and approval. Again, following completion of remedial activity, we would provide a RACR for their review and approval. DTSC would also likely choose to review testing of import material following remediation. If DTSC oversight of remedial activity were necessary or requested, we would anticipate that the remediation program would take an additional 4 to 6 months until case closure is granted, as compared to pursuing a self-directed remediation program.

If you have any questions regarding this report, please do not hesitate to contact us.

Sincerely,

**ENGEO** Incorporated

Kelsey Gerhart

Jeffrey A. Adams, PhD, PE

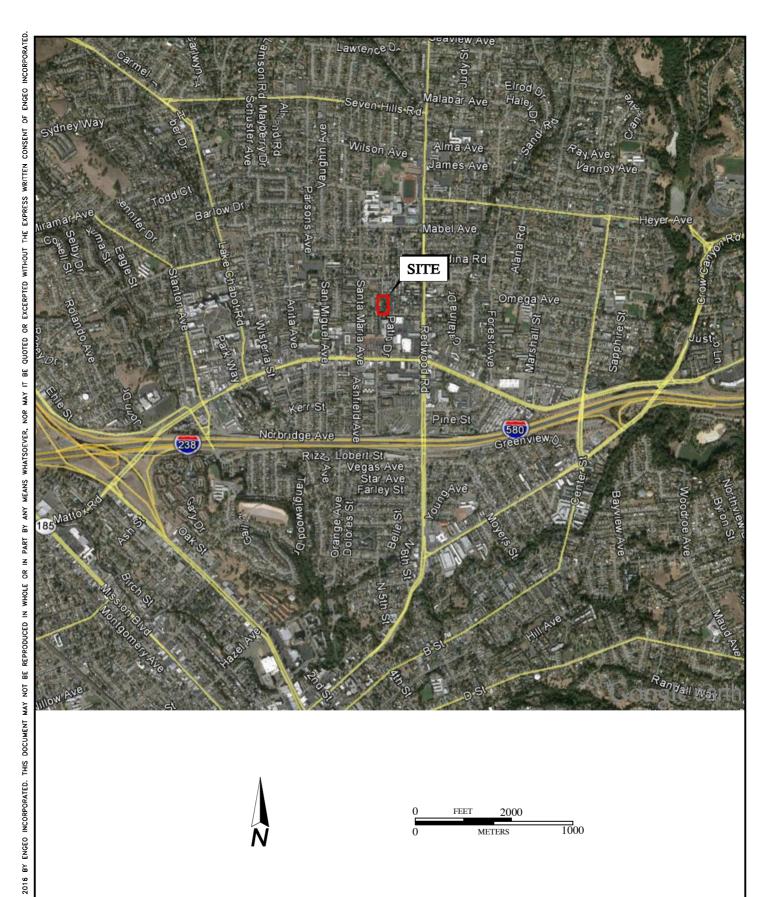
Shawn Munger kg/jaa/sm/jf

Attachments: Figure 1 - Vicinity Map

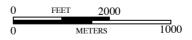
Figure 2 – Sampling Plan

Table A – Summary of Discrete Soil Analytical Results

Appendix A - Laboratory Analysis Reports







BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

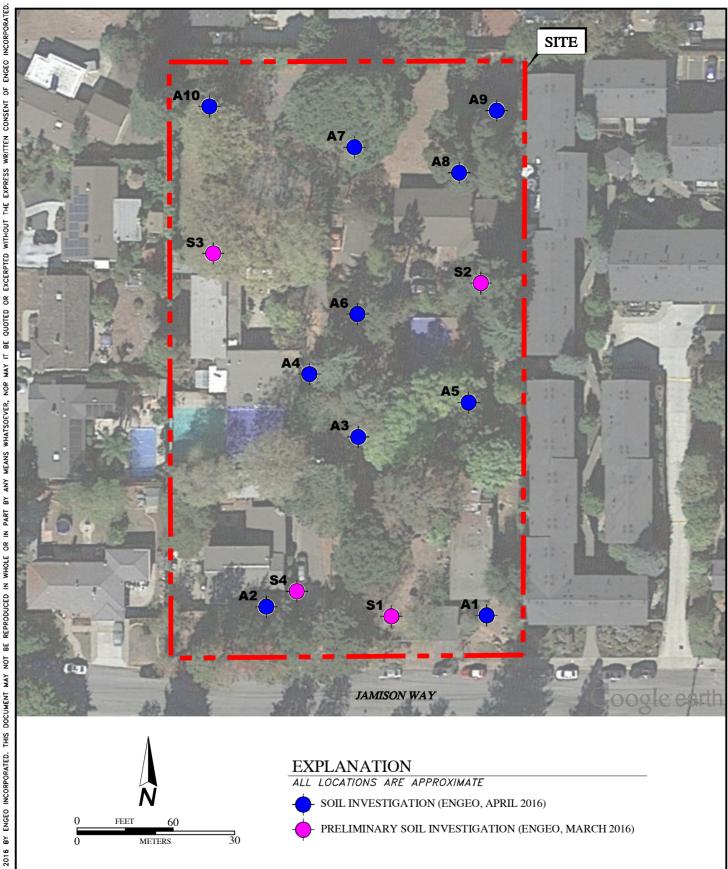


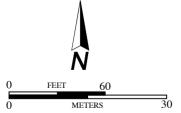
COPYRIGHT

VICINITY MAP JAMISON WAY PARCELS CASTRO VALLEY, CALIFORNIA

**PROJECT NO.:** 12854.000.000 SCALE: AS SHOWN CHECKED BY: JAA DRAWN BY: LL

FIGURE NO





#### **EXPLANATION**

ALL LOCATIONS ARE APPROXIMATE

SOIL INVESTIGATION (ENGEO, APRIL 2016)

PRELIMINARY SOIL INVESTIGATION (ENGEO, MARCH 2016)

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE



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SAMPLING PLAN JAMISON WAY PARCELS CASTRO VALLEY, CALIFORNIA

FIGURE NO **PROJECT NO.:** 12854.000.000 SCALE: AS SHOWN CHECKED BY: JAA DRAWN BY: LL

**TABLE A** SUMMARY OF DISCRETE SOIL ANALYTICAL RESULTS

			Metals				OCPs							
SAMPLE ID	DATE	Type of	Arsenic	alpha-Chlordane	gamma-Chlordane	Heptachlor epoxide	Chlordane	delta-BHC	gamma- BHC (Lindane)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Other OCPs
		sample	mg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg
Screening Level <sup>1</sup>		0.68			70	430 <sup>2</sup>	-		2,300	2,000	1,900	34	N/A	
S1	3/25/2016	Discrete	9.3	4.8	2.9	ND	ND	ND	ND	ND	6.3	13	93	ND
S2	3/25/2016	Discrete	10	3.7	ND	ND	ND	ND	ND	ND	77	38	16	ND
S3	3/25/2016	Discrete	35	170	180	13	1200	ND	4.2	27	130	360	420	ND
S4	3/25/2016	Discrete	33	1100	820	ND	5500	ND	ND	520	1700	950	30	ND
A1 @ 3 - 9"	4/11/2016	Discrete	8.8	ND	ND	ND	ND	4	ND	ND	17	30	33	ND
A1 @ 12 - 18"	4/11/2016	Discrete	9	ND	ND	ND	ND	ND	ND	ND	2.7	ND	ND	ND
A2 @ 3 - 9"	4/11/2016	Discrete	16	8.2	5.6	ND	80	ND	ND	ND	120	21	13	ND
A3 @ 3 - 9"	4/11/2016	Discrete	9	12	9.4	ND	140	ND	ND	ND	15	14	90	ND
A3 @ 12 - 18"	4/11/2016	Discrete	7.9	16	13	ND	170	ND	ND	ND	26	20	170	ND
A4 @ 3 - 9"	4/11/2016	Discrete	11	980	850	45	5300	ND	ND	480	15000	24000	190	ND
A4 @ 12 - 18"	4/11/2016	Discrete	9.7	89	83	10	750	ND	ND	16	360	1000	29	ND
A5 @ 3 - 9"	4/11/2016	Discrete	8.9	ND	4	ND	ND	ND	ND	ND	130	33	13	ND
A6 @ 3 - 9"	4/11/2016	Discrete	9	ND	7.9	ND	ND	ND	ND	ND	45	56	27	ND
A6 @ 12 - 18"	4/11/2016	Discrete	8.6	ND	ND	ND	ND	ND	ND	ND	3.8	3.8	3.6	ND
A7 @ 3 - 9"	4/11/2016	Discrete	7.9	3.8	4.2	ND	ND	ND	ND	ND	23	12	7.6	ND
A8 @ 3 - 9"	4/11/2016	Discrete	8.2	ND	ND	ND	ND	ND	ND	ND	6.6	4.8	ND	ND
A9 @ 3 - 9"	4/11/2016	Discrete	8.3	ND	ND	ND	ND	ND	ND	ND	42	14	4.4	ND
A9 @ 12 - 18"	4/11/2016	Discrete	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
A10 @ 3 - 9"	4/11/2016	Discrete	9.5	49	46	7.1	590	ND	ND	12	680	410	420	ND
A10 @ 12 - 18"	4/11/2016	Discrete	8.4	ND	ND	ND	ND	ND	ND	2.6	11	3.7	2.5	ND

Notes:

N/A = not applicable

NA = not analyzed

ND = not detected



<sup>&</sup>lt;sup>1</sup> EPA Region 9 Regional Screening Levels (RSLs) for residential soil, November 2015. <sup>2</sup>DTSC HERO Note 3, DTSC-Modified Screening Levels (DTSC-SLs), May 2015.



# APPENDIX A

LABORATORY ANALYSIS RESULTS

TestAmerica Laboratories, Inc. Torrent Laboratory, Inc.



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: 720-71116-1

Client Project/Site: Jamison Way Parcels

For:

Engeo, Inc. 2010 Crow Canyon Place Suite 250 San Ramon, California 94583

Attn: Mr. Jeff Adams



Authorized for release by: 4/5/2016 5:42:39 PM

Afsaneh Salimpour, Senior Project Manager (925)484-1919

afsaneh.salimpour@testamericainc.com

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Review your project results through

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**Have a Question?** 



Visit us at: 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.

Client: Engeo, Inc. Project/Site: Jamison Way Parcels TestAmerica Job ID: 720-71116-1

# **Table of Contents**

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# **Definitions/Glossary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

# **Qualifiers**

#### **GC Semi VOA**

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
Χ	Surrogate is outside control limits

# Glossary

TEQ

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
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)

#### **Case Narrative**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Job ID: 720-71116-1

**Laboratory: TestAmerica Pleasanton** 

**Narrative** 

Job Narrative 720-71116-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/25/2016 8:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 15.5° C.

#### GC Semi VOA

Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 720-199936 recovered above the upper control limit for Toxaphene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: S4 (720-71116-4).

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for alpha-Chlordane & gamma-Chlordane for the following samples: S1 (720-71116-1). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for alpha-Chlordane for the following samples: S2 (720-71116-2). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for Heptachlor epoxide, alpha-Chlordane & 4,4'-DDD for the following samples: S3 (720-71116-3). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

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

#### Metals

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

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

# **Detection Summary**

Client: Engeo, Inc.

**Client Sample ID: S1** 

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-1

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac [	Method	Prep Type
Dieldrin	93	2.0	ug/Kg	1	8081A	Total/NA
4,4'-DDT	13	2.0	ug/Kg	1	8081A	Total/NA
4,4'-DDE	6.3	2.0	ug/Kg	1	8081A	Total/NA
alpha-Chlordane	4.8 p	2.0	ug/Kg	1	8081A	Total/NA
gamma-Chlordane	2.9 p	2.0	ug/Kg	1	8081A	Total/NA
Arsenic	9.3	0.44	mg/Kg	10	6020	Total/NA

Client Sample ID: S2 Lab Sample ID: 720-71116-2

Analyte	Result Qualifier	RL	MDL U	Jnit	Dil Fac	D Method	Prep Type
Dieldrin	16	2.0	u	ıg/Kg	1	8081A	Total/NA
4,4'-DDT	38	2.0	u	ıg/Kg	1	8081A	Total/NA
4,4'-DDE	77	2.0	u	ıg/Kg	1	8081A	Total/NA
alpha-Chlordane	3.7 p	2.0	u	ıg/Kg	1	8081A	Total/NA
Arsenic	10	0.45	m	ng/Kg	10	6020	Total/NA

**Client Sample ID: S3** Lab Sample ID: 720-71116-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	420		3.9		ug/Kg		_	8081A	Total/NA
Heptachlor epoxide	13	р	3.9		ug/Kg	2		8081A	Total/NA
4,4'-DDT	360		3.9		ug/Kg	2		8081A	Total/NA
4,4'-DDE	130		3.9		ug/Kg	2		8081A	Total/NA
4,4'-DDD	27	р	3.9		ug/Kg	2		8081A	Total/NA
gamma-BHC (Lindane)	4.2		3.9		ug/Kg	2		8081A	Total/NA
Chlordane (technical)	1200		79		ug/Kg	2		8081A	Total/NA
alpha-Chlordane	170	р	3.9		ug/Kg	2		8081A	Total/NA
gamma-Chlordane	180		3.9		ug/Kg	2		8081A	Total/NA
Arsenic	35		0.46		mg/Kg	10		6020	Total/NA

Lab Sample ID: 720-71116-4 Client Sample ID: S4

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac	D N	<b>l</b> lethod	Prep Type
Dieldrin	30	20	ug/K	g 10	_ 8	081A	Total/NA
4,4'-DDT	950	20	ug/Ko	10	8	081A	Total/NA
4,4'-DDE	1700	20	ug/Ko	g 10	8	081A	Total/NA
4,4'-DDD	520	20	ug/K	10	8	081A	Total/NA
Chlordane (technical)	5500	400	ug/K	10	8	081A	Total/NA
alpha-Chlordane	1100	20	ug/K	10	8	081A	Total/NA
gamma-Chlordane	820	20	ug/K	10	8	081A	Total/NA
Arsenic	33	0.45	ma/K	a 10	6	020	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Engeo, Inc.

Arsenic

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-1

Matrix: Solid

Client Sample ID: S1

Date Collected: 03/25/16 07:56 Date Received: 03/25/16 08:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Dieldrin	93		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endrin aldehyde	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endrin	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endrin ketone	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Heptachlor	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Heptachlor epoxide	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
4,4'-DDT	13		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
4,4'-DDE	6.3		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
4,4'-DDD	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endosulfan I	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endosulfan II	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
alpha-BHC	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
beta-BHC	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
delta-BHC	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Endosulfan sulfate	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Methoxychlor	ND		2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Toxaphene	ND		39		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Chlordane (technical)	ND		39		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
alpha-Chlordane	4.8	p	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
gamma-Chlordane	2.9	p	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	85		57 - 122				03/31/16 10:15	04/05/16 09:01	1
DCB Decachlorobiphenyl	131		21 - 136				03/31/16 10:15	04/05/16 09:01	1
Method: 6020 - Metals (IC	P/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa

0.44

mg/Kg

9.3

TestAmerica Pleasanton

03/30/16 08:51 03/30/16 18:00

3

0

10

12

13

14

15

Client: Engeo, Inc.

Methoxychlor

Chlordane (technical)

alpha-Chlordane

gamma-Chlordane

Toxaphene

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-2

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

03/31/16 10:15 04/05/16 09:19

Matrix: Solid

Client Sample ID: S2 Date Collected: 03/25/16 08:02

Date Received: 03/25/16 08:40

Method: 8081A - Organochio	orine Pesticides (GC)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Dieldrin	16	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Endrin aldehyde	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Endrin	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Endrin ketone	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Heptachlor	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Heptachlor epoxide	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
4,4'-DDT	38	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
4,4'-DDE	77	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
4,4'-DDD	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Endosulfan I	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Endosulfan II	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
alpha-BHC	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
beta-BHC	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
gamma-BHC (Lindane)	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
delta-BHC	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1
Endosulfan sulfate	ND	2.0		ug/Kg		03/31/16 10:15	04/05/16 09:19	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87	57 - 122	03/31/16 10:15	04/05/16 09:19	1
DCB Decachlorobiphenyl	115	21 - 136	03/31/16 10:15	04/05/16 09:19	1

2.0

39

39

2.0

2.0

ug/Kg

ug/Kg

ug/Kg

ug/Kg

ug/Kg

ND

ND

ND

3.7

ND

Method: 6020 - Metals (ICP/MS							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	0.45	mg/Kg		03/30/16 08:51	03/30/16 18:04	10

Page 7 of 21

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-3

Matrix: Solid

Client Sample ID: S3

Date Collected: 03/25/16 08:08 Date Received: 03/25/16 08:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Aldrin	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Dieldrin	420		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Endrin aldehyde	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
Endrin	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Endrin ketone	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Heptachlor	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Heptachlor epoxide	13	p	3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
4,4'-DDT	360		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
4,4'-DDE	130		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
4,4'-DDD	27	<b>p</b>	3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Endosulfan I	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
Endosulfan II	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
alpha-BHC	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
beta-BHC	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
gamma-BHC (Lindane)	4.2		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
delta-BHC	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Endosulfan sulfate	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
Methoxychlor	ND		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	:
Toxaphene	ND		79		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Chlordane (technical)	1200		79		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
alpha-Chlordane	170	p	3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	2
gamma-Chlordane	180		3.9		ug/Kg		03/31/16 10:15	04/05/16 09:36	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	84		57 - 122				03/31/16 10:15	04/05/16 09:36	
DCB Decachlorobiphenyl	118		21 - 136				03/31/16 10:15	04/05/16 09:36	;
Method: 6020 - Metals (ICP/I	MS)								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	35		0.46		mg/Kg		03/30/16 08:51	03/30/16 18:09	10

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-4

Matrix: Solid

Client Sample ID: S4

Date Collected: 03/25/16 08:12 Date Received: 03/25/16 08:40

Method: 8081A - Organoc Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Dieldrin	30		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endrin aldehyde	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endrin	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endrin ketone	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Heptachlor	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Heptachlor epoxide	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
4,4'-DDT	950		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
4,4'-DDE	1700		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
4,4'-DDD	520		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endosulfan I	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endosulfan II	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
alpha-BHC	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
beta-BHC	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
gamma-BHC (Lindane)	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
delta-BHC	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Endosulfan sulfate	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Methoxychlor	ND		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Toxaphene	ND		400		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Chlordane (technical)	5500		400		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
alpha-Chlordane	1100		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
gamma-Chlordane	820		20		ug/Kg		03/31/16 10:15	04/05/16 15:15	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X D	57 - 122				03/31/16 10:15	04/05/16 15:15	10
DCB Decachlorobiphenyl	0	XD	21 - 136				03/31/16 10:15	04/05/16 15:15	10
Method: 6020 - Metals (IC	P/MS)								
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	33		0.45		mg/Kg		03/30/16 08:51	03/30/16 18:13	10

# **Surrogate Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid Prep Type: Total/NA

ecovery (Acceptance Limits)	Percent Surrogate				
	DCB2	TCX2			
	(21-136)	(57-122)	Client Sample ID	Lab Sample ID	
	131	85	S1	720-71116-1	
	115	87	S2	720-71116-2	
	118	84	S3	720-71116-3	
				Surrogate Legend	
			xylene	Surrogate Legend TCX = Tetrachloro-m	

DCB = DCB Decachlorobiphenyl

Method: 8081A - Organochlorine Pesticides (GC)

**Matrix: Solid** Prep Type: Total/NA

			Percent Surro	gate Recovery (Acceptance Limits)
		TCX1	DCB1	
Lab Sample ID	Client Sample ID	(57-122)	(21-136)	
720-71116-4	S4	0 X D	0 X D	
LCS 720-199685/2-A	Lab Control Sample	93	106	
Surrogate Legend				
TCX = Tetrachloro-m-	xylene			
DCB = DCB Decachlo	robiphenyl			

Method: 8081A - Organochlorine Pesticides (GC)

**Matrix: Solid** Prep Type: Total/NA

			Percer	t Surrogate Recovery (Acceptance Limits)
		TCX1	DCB2	
Lab Sample ID	Client Sample ID	(57-122)	(21-136)	
MB 720-199685/1-A	Method Blank	96	98	

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Page 10 of 21

TestAmerica Job ID: 720-71116-1

Client: Engeo, Inc. Project/Site: Jamison Way Parcels

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 720-199685/1-A **Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA Analysis Batch: 199936 Prep Batch: 199685** 

-	MB MB					-	
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Dieldrin	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endrin aldehyde	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endrin	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endrin ketone	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Heptachlor	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Heptachlor epoxide	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
4,4'-DDT	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
4,4'-DDE	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
4,4'-DDD	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endosulfan I	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endosulfan II	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
alpha-BHC	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
beta-BHC	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
gamma-BHC (Lindane)	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
delta-BHC	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Endosulfan sulfate	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Methoxychlor	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Toxaphene	ND	40	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
Chlordane (technical)	ND	40	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
alpha-Chlordane	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1
gamma-Chlordane	ND	2.0	ug/Kg		03/31/16 10:15	04/05/16 05:25	1

	MB MB				
Surrogate	%Recovery Quality	fier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96	57 - 122	03/31/16 10:15	04/05/16 05:25	1
DCB Decachlorobiphenyl	98	21 - 136	03/31/16 10:15	04/05/16 05:25	1

Lab Sample ID: LCS 720-199685/2-A

Matrix: Solid Analysis Batch: 199936							Prep Type: Total/NA Prep Batch: 199685
•	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aldrin	16.7	15.5		ug/Kg		93	65 - 120
Dieldrin	16.7	16.5		ug/Kg		99	72 - 120
Endrin aldehyde	16.7	17.4		ug/Kg		104	68 - 120
Endrin	16.7	17.1		ug/Kg		102	68 - 120
Endrin ketone	16.7	16.9		ug/Kg		101	84 - 133
Heptachlor	16.7	16.2		ug/Kg		97	69 - 120
Heptachlor epoxide	16.7	17.0		ug/Kg		102	68 - 120
4,4'-DDT	16.7	15.4		ug/Kg		93	63 - 127
4,4'-DDE	16.7	16.7		ug/Kg		100	84 - 126
4,4'-DDD	16.7	17.0		ug/Kg		102	85 - 128
Endosulfan I	16.7	16.9		ug/Kg		101	62 - 120
Endosulfan II	16.7	16.9		ug/Kg		102	65 - 120
alpha-BHC	16.7	15.3		ug/Kg		92	62 - 120
beta-BHC	16.7	16.7		ug/Kg		100	74 - 124
gamma-BHC (Lindane)	16.7	15.9		ug/Kg		95	72 - 120
delta-BHC	16.7	13.5		ug/Kg		81	43 - 125

**Client Sample ID: Lab Control Sample** 

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TestAmerica Job ID: 720-71116-1

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 720-199685/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA Prep Batch: 199685 Analysis Batch: 199936** 

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit %Rec Endosulfan sulfate 16.7 16.3 ug/Kg 98 74 - 121 Methoxychlor 16.7 16.5 ug/Kg 99 71 - 132alpha-Chlordane 16.7 16.2 ug/Kg 97 70 - 120 gamma-Chlordane 16.7 16.3 ug/Kg 98 68 - 120

LCS LCS Surrogate %Recovery Qualifier Limits Tetrachloro-m-xylene 93 57 - 122 DCB Decachlorobiphenyl 106 21 - 136

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-213921/21-A **Client Sample ID: Method Blank** Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 214025** Prep Batch: 213921 MB MB

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 0.25 03/30/16 08:51 03/30/16 16:44 Arsenic ND mg/Kg

Lab Sample ID: LCS 580-213921/22-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 214025** Prep Batch: 213921 LCS LCS Spike %Rec.

Analyte Added Result Qualifier Limits Unit %Rec Arsenic 200 199 mg/Kg 100 80 - 120

Lab Sample ID: LCSD 580-213921/23-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 214025 Prep Batch: 213921** Spike LCSD LCSD %Rec. **RPD** 

Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 200 197 98 20 Arsenic mg/Kg 80 - 120

4/5/2016

# **QC Association Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

# GC Semi VOA

# **Prep Batch: 199685**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	3546	
720-71116-2	S2	Total/NA	Solid	3546	
720-71116-3	S3	Total/NA	Solid	3546	
720-71116-4	S4	Total/NA	Solid	3546	
LCS 720-199685/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-199685/1-A	Method Blank	Total/NA	Solid	3546	

# Analysis Batch: 199935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	8081A	199685
720-71116-2	S2	Total/NA	Solid	8081A	199685
720-71116-3	S3	Total/NA	Solid	8081A	199685

# **Analysis Batch: 199936**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-4	S4	Total/NA	Solid	8081A	199685
LCS 720-19968	5/2-A Lab Control Sample	Total/NA	Solid	8081A	199685
MB 720-199685	11-A Method Blank	Total/NA	Solid	8081A	199685

# **Metals**

# **Prep Batch: 213921**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	3050B	_
720-71116-2	S2	Total/NA	Solid	3050B	
720-71116-3	S3	Total/NA	Solid	3050B	
720-71116-4	S4	Total/NA	Solid	3050B	
LCS 580-213921/22-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 580-213921/23-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
MB 580-213921/21-A	Method Blank	Total/NA	Solid	3050B	

### **Analysis Batch: 214025**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71116-1	S1	Total/NA	Solid	6020	213921
720-71116-2	S2	Total/NA	Solid	6020	213921
720-71116-3	S3	Total/NA	Solid	6020	213921
720-71116-4	\$4	Total/NA	Solid	6020	213921
LCS 580-213921/22-A	Lab Control Sample	Total/NA	Solid	6020	213921
LCSD 580-213921/23-A	Lab Control Sample Dup	Total/NA	Solid	6020	213921
MB 580-213921/21-A	Method Blank	Total/NA	Solid	6020	213921

TestAmerica Pleasanton

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# **Lab Chronicle**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID: 720-71116-1

**Matrix: Solid** 

Date Collected: 03/25/16 07:56 Date Received: 03/25/16 08:40

Client Sample ID: S1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		1	199935	04/05/16 09:01	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:00	FCW	TAL SEA

Client Sample ID: S2 Lab Sample ID: 720-71116-2

Date Collected: 03/25/16 08:02 Matrix: Solid

Date Received: 03/25/16 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		1	199935	04/05/16 09:19	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:04	FCW	TAL SEA

Client Sample ID: S3 Lab Sample ID: 720-71116-3 **Matrix: Solid** 

Date Collected: 03/25/16 08:08

Date Received: 03/25/16 08:40

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		2	199935	04/05/16 09:36	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:09	FCW	TAL SEA

Client Sample ID: S4 Lab Sample ID: 720-71116-4

Date Collected: 03/25/16 08:12

Date Received: 03/25/16 08:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			199685	03/31/16 10:15	KMK	TAL PLS
Total/NA	Analysis	8081A		10	199936	04/05/16 15:15	JZT	TAL PLS
Total/NA	Prep	3050B			213921	03/30/16 08:51	MKN	TAL SEA
Total/NA	Analysis	6020		10	214025	03/30/16 18:13	FCW	TAL SEA

#### **Laboratory References:**

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

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

**Matrix: Solid** 

# **Certification Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

# **Laboratory: TestAmerica Pleasanton**

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

Authority	Program		EPA Region	Certification ID	Expiration Da
California	State Prog	gram	9	2496	01-31-17
Analysis Method	Prep Method	Matrix	Analyt	·e	

# **Laboratory: TestAmerica Seattle**

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	10-31-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-17

4/5/2016

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# **Method Summary**

Client: Engeo, Inc.

Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Method	Method Description	Protocol	Laboratory
8081A	Organochlorine Pesticides (GC)	SW846	TAL PLS
6020	Metals (ICP/MS)	SW846	TAL SEA

#### **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 TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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# **Sample Summary**

Client: Engeo, Inc. Project/Site: Jamison Way Parcels

TestAmerica Job ID: 720-71116-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-71116-1	S1	Solid	03/25/16 07:56	03/25/16 08:40
720-71116-2	S2	Solid	03/25/16 08:02	03/25/16 08:40
720-71116-3	S3	Solid	03/25/16 08:08	03/25/16 08:40
720-71116-4	S4	Solid	03/25/16 08:12	03/25/16 08:40

# **TestAmerica Pleasanton**

# 720-71116 Chain of Custody Record

167574

1220 Quarry Lane THE LEADER IN ERVIRONMENTAL TESTING Pleasanton, CA 94566-4756 phone 925.484.1919 fax 925.600.3002 Regulatory Program: Dw NPDES RCRA Other: TestAmerica Laboratories, Inc. COC No: **Client Contact** Project Manager: Jeff Adams Site Contact: Jenna Lohmann Date: COCs ENGEO, Inc. Tel/Fax: Carrier: Lab Contact: 2010 Crow Canyon Place, Suite 250 **Analysis Turnaround Time** Sampler. Perform MS / MSD (Y / N)
Organochiorine Pesticides (EPA 8081) San Ramon, CA 94583 CALENDAR DAYS WORKING DAYS For Lab Use Only: Walk-ın Client: (925) 866-9000 Phone TAT if different from Below (888) 279-2698 Lab Sampling: 2 weeks Arsenic (EPA 6010/6020) Project Name: Jamison Way Parcels 1 week Site: Jamison Way, Castro Valley П 2 days Job / SDG No.: P O # 12584.000.000 1 day Sample Type Sample # of (C=Comp, Sample Date Sample Specific Notes: Sample Identification Time G=Grab) Matrix Cont. 51 3/25/2016 0756 2 grab soil 3/25/2016 0807 2 grab soil 3/25/2016 6808 2 grab soil 2 3/25/2016 08/2 grab soil

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reservation Used:	1= lce, 2= HCl; 3=	H2SO4; 4=HNO3; 5=NaOH; 6=	Other			1			1					4				1				
		ious Waste? Please List any EP	A Waste Codes fo	or the sample		Samı	ple Di	isposa	al (A	A fee	may l	be as	sess	ed if	sam	ples	are	reta	inec	d longer than 1 m	onth)	ļ ,
Non-Hazard	Flammable	Skin Irritant Poison B	Unknow	n	_]		Retun	n to Clie	nt			Dispo	sal by l	ab	_		Arch	ve fo	r	Months		
pecial Instructions	/QC Requirements 8	& Comments:																				

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Custody Seals Intact:	Yes No	Custody Seal No.:		Cooler Temp. (°C): Obs'd _	Con'd	Therm ID No.:
Relinquished by.	70 -	Company. ENGEO	Date/Time: 3/25 0840	Received by:	Company:	Date/Time:
Relinguished by:		Company:	Date/Time:	Received by.	Company <sup>*</sup>	Date/Time·
Relinquished by:		Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 3/25/14 0840
L					Form No.	. CA-C-WI-002, Rev. 4.9, dated 2/2/2

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20 Quarry Lane	Chain of Custody Record
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NA, 98424 Phone:	PO #:				- 1									-			F-	MeOH	R-N	la2S2O3 l2SO4	
253-922-2310(Tel) 253-922-5047(Fax)	1 0 <del>1.</del>					á						1				L.		- Amchlor - Ascorbic Acid	d T-T	SP Dodecahydi	rate
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Jamison Way Parcels	72007857				2	Sept Sings										ntair		EDA	Z - 0	ther (specify)	
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Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	(C=comp, of G=grab)	=waste/oil, issue, A=Air	Field Filt	FULL OF THE PARTY										Total	2	Special	Instruc	tions/Note:	
		نبترن الم	Preservation		X	<b>1</b>	1					MARK Y	15.7			$\rightarrow$			At the t		en Julia
61 (720-71116-1)	3/25/16	07:56 Pacific		Solid	П	>										1	I.				
S2 (720-71116-2) <sub>.</sub>	3/25/16	08:02 Pacific		Solid		>										.1	1.				
53 (720-71116-3)	3/25/16	08:08 Pacific		Solid		>										1	1				
54 (720-71116-4)	3/25/16	08:12 Pacific		Solid		7										ាំ	ř <sup>®</sup>				
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Possible Hazard Identification					ľ		Returr			e may			al By L				hive i			onths	
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)					s				s/QC I	Requir			и Бу С	.au		AICI	nive i	-01	1010	Uliuis	_
Empty Kit Relinquished by:	,	Date:			Time			_				V	fethod o	of Shipn							
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Custody Seals Intact: Custody Seal No.:			1			Со	oler Ten	nperati	ıre(s) °C	and Ot	her Rer	narks:	TR	2:	<u> </u>	· 7	10.	Ŕ			

Client: Engeo, Inc.

Job Number: 720-71116-1

Login Number: 71116 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Duong, Paloma R

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

**TestAmerica Pleasanton** 

Client: Engeo, Inc.

Job Number: 720-71116-1

Login Number: 71116
List Source: TestAmerica Seattle
List Number: 2
List Creation: 03/26/16 10:55 AM

Creator: Abello, Andrea N

Creator: Abello, Andrea N		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR2 = 0.7 / 0.8
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?	N/A	Received project as a subcontract.
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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**TestAmerica Pleasanton** 



Engeo (San Ramon) 2010 Crow Canyon Place,#250 San Ramon, California 94583

Tel: (925) 866-9000 Fax: (925) 866-0199 RE: Jamison Way

Work Order No.: 1604069

#### Dear Kelsey Gerhart:

Torrent Laboratory, Inc. received 22 sample(s) on April 11, 2016 for the analyses presented in the following Report.

As requested on the chain of custody, six samples were placed on hold.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock
QA Officer

April 14, 2016
Date

Total Page Count: 34 Page 1 of 34



**Date:** 4/14/2016

Client: Engeo (San Ramon)
Project: Jamison Way
Work Order: 1604069

#### **CASE NARRATIVE**

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

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A1 @ 3-9"

4,4'-DDE

Dieldrin

4,4'-DDT

Chlordane

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

1604069-001

Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.8	mg/Kg
delta-BHC	SW8081A	10	4.0	20	4.0	ug/Kg
4,4'-DDE	SW8081A	10	5.1	20	17	ug/Kg
Dieldrin	SW8081A	10	5.8	20	33	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	30	ug/Kg
A1 @ 12-18"					16	604069-002
Parameters:	Analysis Method	<u>DF</u>	MDL	PQL	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	9.0	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	2.7	ug/Kg
A2 @ 3-9"					16	604069-004
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	16	mg/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	5.6	ug/Kg
alpha-Chlordane	SW8081A	4	3.8	8.0	8.2	ug/Kg

SW8081A

SW8081A

SW8081A

SW8081A

2.0

2.3

2.7

41

8.0

8.0

8.0

80

120

13

21

80

ug/Kg

ug/Kg

ug/Kg

ug/Kg

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A3 @ 3-9"

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

1604069-005

Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
gamma-Chlordane	SW8081A	10	7.9	20	9.4	ug/Kg
alpha-Chlordane	SW8081A	10	9.4	20	12	ug/Kg
4,4'-DDE	SW8081A	10	5.1	20	15	ug/Kg
Dieldrin	SW8081A	10	5.8	20	90	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	14	ug/Kg
Chlordane	SW8081A	10	100	200	140	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	9.0	mg/Kg

A3 @ 12-18"

Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
gamma-Chlordane	SW8081A	10	7.9	20	13	ug/Kg
alpha-Chlordane	SW8081A	10	9.4	20	16	ug/Kg
4,4'-DDE	SW8081A	10	5.1	20	26	ug/Kg
Dieldrin	SW8081A	10	5.8	20	170	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	20	ug/Kg
Chlordane	SW8081A	10	100	200	170	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	7.9	mg/Kg

**A4** @ **3-9**"

Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
4,4'-DDT	SW8081A	1000	670	2000	24000	ug/Kg
gamma-Chlordane	SW8081A	100	79	200	850	ug/Kg
alpha-Chlordane	SW8081A	100	94	200	980	ug/Kg
4,4'-DDE	SW8081A	100	51	200	1500	ug/Kg
Heptachlor epoxide	SW8081A	10	3.6	20	45	ug/Kg
Dieldrin	SW8081A	10	5.8	20	190	ug/Kg
4,4'-DDD	SW8081A	10	7.6	20	480	ug/Kg
Chlordane	SW8081A	10	100	200	5300	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	11	mg/Kg

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Parameters:

gamma-Chlordane

4,4'-DDE

Dieldrin

4,4'-DDT

Arsenic

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

**Analysis** 

Method

SW8081A

SW8081A

SW8081A

SW8081A

SW6010B

10

10

10

10

7.9

5.1

5.8

6.7

0.28

20

20

20

20

1.7

7.9

45

27

56

9.0

ug/Kg

ug/Kg

ug/Kg

ug/Kg

mg/Kg

MDI

DF

POI

Results

Unit

**A4** @ **12-18**"

.6 @ 3-9"					16	04069-012
4,4'-DDT	SW8081A	4	2.7	8.0	33	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	13	ug/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	130	ug/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	4.0	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	8.9	mg/Kg
Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
5 @ 3-9"					16	604069-011
4,4'-DDT	SW8081A	50	33	100	1000	ug/Kg
Chlordane	SW8081A	4	41	80	750	ug/Kg
4,4'-DDD	SW8081A	4	3.0	8.0	16	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	29	ug/Kg
alpha-Chlordane	SW8081A	4	3.8	8.0	89	ug/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	83	ug/Kg
Heptachlor epoxide	SW8081A	4	1.4	8.0	10	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	9.7	mg/Kg
4,4'-DDE	SW8081A	10	5.1	20	360	ug/Kg
	<u>Method</u>					

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Dieldrin

4,4'-DDT

# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

**A6** @ **12-18**"

A0 @ 12-10					11	304003-016
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.6	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	3.8	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	3.6	ug/Kg
4,4'-DDT	SW8081A	4	2.7	8.0	3.8	ug/Kg
A7 @ 3-9"					16	604069-015
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.9	mg/Kg
gamma-Chlordane	SW8081A	4	3.2	8.0	4.2	ug/Kg
alpha-Chlordane	SW8081A	4	3.8	8.0	3.8	ug/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	23	ug/Kg
Dieldrin	SW8081A	4	2.3	8.0	7.6	ug/Kg
4,4'-DDT	SW8081A	4	2.7	8.0	12	ug/Kg
A8 @ 3-9"					16	604069-016
Parameters:	Analysis Method	DF	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.2	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	6.6	ug/Kg
4,4'-DDT	SW8081A	4	2.7	8.0	4.8	ug/Kg
A9 @ 3-9"					16	604069-017
Parameters:	Analysis Method	<u>DF</u>	MDL	PQL	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.3	mg/Kg
4,4'-DDE	SW8081A	4	2.0	8.0	42	ug/Kg
		_				

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SW8081A

SW8081A

ug/Kg

ug/Kg

4.4

2.7

8.0



# **Sample Result Summary**

Report prepared for: Kelsey Gerhart Date Received: 04/11/16

Engeo (San Ramon) Date Reported: 04/14/16

**A9** @ **12-18**"

 Parameters:
 Analysis Method
 DF MDL Method
 PQL PQL PQL PQL PQL
 Results PQL PQL PQL

 Arsenic
 SW6010B
 1
 0.28
 1.7
 9.0
 mg/Kg

**A10**@ **3-9**"

Parameters:	<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
Heptachlor epoxide	SW8081A	10	3.6	20	7.1	ug/Kg
gamma-Chlordane	SW8081A	10	7.9	20	46	ug/Kg
alpha-Chlordane	SW8081A	10	9.4	20	49	ug/Kg
Dieldrin	SW8081A	10	5.8	20	420	ug/Kg
4,4'-DDD	SW8081A	10	7.6	20	12	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	410	ug/Kg
Chlordane	SW8081A	10	100	200	590	ug/Kg
Arsenic	SW6010B	1	0.28	1.7	9.5	mg/Kg
4,4'-DDE	SW8081A	20	10	40	680	ug/Kg

A10 @ 12-18" 1604069-021

Parameters:	Analysis Method	<u>DF</u>	MDL	<u>PQL</u>	Results	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.4	mg/Kg
4,4'-DDE	SW8081A	1	0.51	2.0	11	ug/Kg
Dieldrin	SW8081A	1	0.58	2.0	2.5	ug/Kg
4,4'-DDD	SW8081A	1	0.76	2.0	2.6	ug/Kg
4,4'-DDT	SW8081A	1	0.67	2.0	3.7	ug/Kg

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Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A1 @ 3-9" Lab Sample ID: 1604069-001A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

**Date/Time Sampled:** 12854.000.000 04/11/16 / 8:45

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.8		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	norted using t	heir MDI									
alpha-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	10	4.0	20	4.0		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	10	9.4	20	ND		ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	10	5.1	20	17	J	ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	10	5.8	20	33		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	10	6.7	20	30		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	10	100	200	ND		ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	10	52.5	139	93.5		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	10	50.2	139	99.3		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (\	/iscous/dark	color	extract)						

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Sample Matrix:

Soil

Kelsey Gerhart Report prepared for: Date Received: 04/11/16 Engeo (San Ramon) Date Reported: 04/14/16

Client Sample ID: A1 @ 12-18" Lab Sample ID: 1604069-002A

Project Name/Location: Jamison Way **Project Number:** 12854.000.000

Date/Time Sampled: 04/11/16 / 8:50

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL									
alpha-BHC	SW8081A	4/11/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	4	2.0	8.0	2.7	J	ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	4	2.7	8.0	ND		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	4	41	80	ND		ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	4	33	400	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	4	52.5	139	87.6		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	4	50.2	139	88.5		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 9 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A2 @ 3-9" Lab Sample ID: 1604069-004A

Project Name/Location:Jamison WayProject Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 11:10

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	16		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                      </u>								
alpha-BHC	SW8081A	4/11/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	4	3.2	8.0	5.6	J	ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	4	3.8	8.0	8.2		ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	4	2.0	8.0	120		ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	4	2.3	8.0	13		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	4	2.7	8.0	21		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	4	41	80	80		ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	4	33	400	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	4	52.5	139	86.7		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	4	50.2	139	83.3		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (\	viscous/dark	color	extract)						

Total Page Count: 34 Page 10 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A3 @ 3-9" Lab Sample ID: 1604069-005A

Project Name/Location: Jamison Way
Project Number: 12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 9:00

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re											
alpha-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	10	7.9	20	9.4	J	ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	10	9.4	20	12	J	ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	10	5.1	20	15	J	ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	10	5.8	20	90		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	10	6.7	20	14	J	ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	10	100	200	140	J	ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	10	52.5	139	96.6		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	10	50.2	139	94.7		%	429672	16830
NOTE: Reporting limits increased of	due to nature of th	ne matrix (\	viscous/dark	color	extract)						

Total Page Count: 34 Page 11 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A3 @ 12-18" Lab Sample ID: 1604069-006A

Project Name/Location:Jamison WayProject Number:12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 9:05

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	7.9		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below a	are reported using	their MDL			<u> </u>	1	<u>I</u>	1		ı	<u>.                                    </u>
alpha-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
gamma-BHC	SW8081A	4/11/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16830
beta-BHC	SW8081A	4/11/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16830
delta-BHC	SW8081A	4/11/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16830
Heptachlor	SW8081A	4/11/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16830
Aldrin	SW8081A	4/11/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16830
Heptachlor epoxide	SW8081A	4/11/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16830
gamma-Chlordane	SW8081A	4/11/16	04/13/16	10	7.9	20	13	J	ug/Kg	429672	16830
alpha-Chlordane	SW8081A	4/11/16	04/13/16	10	9.4	20	16	J	ug/Kg	429672	16830
Endosulfan I	SW8081A	4/11/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16830
4,4'-DDE	SW8081A	4/11/16	04/13/16	10	5.1	20	26		ug/Kg	429672	16830
Dieldrin	SW8081A	4/11/16	04/13/16	10	5.8	20	170		ug/Kg	429672	16830
Endrin	SW8081A	4/11/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16830
4,4'-DDD	SW8081A	4/11/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16830
Endosulfan II	SW8081A	4/11/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16830
4,4'-DDT	SW8081A	4/11/16	04/13/16	10	6.7	20	20		ug/Kg	429672	16830
Endrin aldehyde	SW8081A	4/11/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16830
Endosulfan sulfate	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Methoxychlor	SW8081A	4/11/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16830
Endrin Ketone	SW8081A	4/11/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16830
Chlordane	SW8081A	4/11/16	04/13/16	10	100	200	170	J	ug/Kg	429672	16830
Toxaphene	SW8081A	4/11/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16830
TCMX (S)	SW8081A	4/11/16	04/13/16	10	52.5	139	99.7		%	429672	16830
DCBP (S)	SW8081A	4/11/16	04/13/16	10	50.2	139	96.7		%	429672	16830
NOTE: Reporting limits incre	ased due to nature of t	he matrix (v	/iscous/dark	color	extract)						

Total Page Count: 34 Page 12 of 34



Sample Matrix:

Soil

Unit

**Analytical** 

Prep

Report prepared for: Kelsey Gerhart Date Received: 04/11/16
Engeo (San Ramon) Date Reported: 04/14/16

Client Sample ID: A4 @ 3-9" Lab Sample ID: 1604069-008A

Project Name/Location: Jamison Way
Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 9:45

Analysis Prep Date DF MDL PQL Results Lab

Parameters:	Method	Date	Analyzed					Qualifier		Batch	Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	11		mg/Kg	429665	16845
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
4,4'-DDT	SW8081A	4/13/16	04/13/16	1000	670	2000	24000		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	100	79	200	850		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	100	94	200	980		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	100	51	200	1500		ug/Kg	429672	16847
The results shown below a	are reported using	their MDL									
alpha-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	10	3.6	20	45		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	10	5.8	20	190		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	10	7.6	20	480		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	10	8.2	20	ND		ua/Ka	429672	16847

Endosulfan II ug/Kg SW8081A 4/13/16 04/13/16 10 8.2 20 ND 429672 16847 Endrin aldehyde SW8081A 4/13/16 04/13/16 10 4.6 20 ND ug/Kg 429672 16847 Endosulfan sulfate SW8081A 4/13/16 04/13/16 10 5.8 20 ND ug/Kg 429672 16847 Methoxychlor SW8081A 50 ND 429672 16847 4/13/16 04/13/16 10 6.1 ug/Kg **Endrin Ketone** SW8081A 4/13/16 04/13/16 5.8 20 ND ug/Kg 429672 16847 10 Chlordane SW8081A 4/13/16 100 200 5300 ug/Kg 429672 16847 04/13/16 10 Toxaphene SW8081A 4/13/16 82 1000 ND 429672 04/13/16 10 ug/Kg 16847 TCMX (S) SW8081A 4/13/16 52.5 89.9 % 429672 16847 04/13/16 10 139 DCBP (S) SW8081A 4/13/16 04/13/16 50.2 139 85.2 % 429672 16847 NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

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Chlordane

Toxaphene

TCMX (S)

DCBP (S)

NOTE:

4,4'-DDT

#### SAMPLE RESULTS

Sample Matrix:

Soil

Report prepared for: Kelsey Gerhart Date Received: 04/11/16 Engeo (San Ramon) Date Reported: 04/14/16

**Client Sample ID:** A4 @ 12-18" Lab Sample ID: 1604069-009A

**Project Name/Location:** Jamison Way Project Number: 12854.000.000

SW8081A

SW8081A

SW8081A

SW8081A

SW8081A

Reporting limits increased due to nature of the matrix (viscous/dark color extract)

4/13/16 04/13/16

4/13/16 04/13/16

04/13/16

04/13/16

04/13/16

4/13/16

4/13/16

4/13/16

04/11/16 / 9:46 Date/Time Sampled:

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.7		mg/Kg	429665	16845
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
4,4'-DDE	SW8081A	4/13/16	04/13/16	10	5.1	20	360	1	ug/Kg	429672	16847
The results shown below are	e reported using t	their MDL									
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	10		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	83		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	89		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	29		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	16		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847

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41

33

52.5

50.2

33

4

4

80

400

139

139

100

750

ND

80.6

74.0

1000

ug/Kg

ug/Kg

%

%

ug/Kg

429672

429672

429672

429672

429672

16847

16847

16847

16847

16847



Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A5 @ 3-9" **Lab Sample ID:** 1604069-011A

Project Name/Location: Jamison Way Sample Matrix: Soil

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:00

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.9		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                     </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	4.0	J	ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	130		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	13		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	33		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	86.7		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	75.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

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Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A6 @ 3-9" Lab Sample ID: 1604069-012A

Project Name/Location: Jamison Way Sample Matrix:
Project Number: 12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:05

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                      </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	10	3.6	20	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	10	7.9	20	7.9		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	10	9.4	20	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	10	5.1	20	45		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	10	5.8	20	27		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	10	7.6	20	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	10	6.7	20	56		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	10	100	200	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	10	52.5	139	90.3		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	10	50.2	139	86.3		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 16 of 34



Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A6 @ 12-18" Lab Sample ID: 1604069-013A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:10

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.6		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                     </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	3.8	J	ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	3.6	J	ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	3.8	J	ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	88.7		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	78.5		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 17 of 34



Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A7 @ 3-9" **Lab Sample ID:** 1604069-015A

Project Name/Location: Jamison Way Sample Matrix: Soil

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:25

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	7.9		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL									
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	4.2	J	ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	3.8	J	ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	23		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	7.6	J	ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	12		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	87.9		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	84.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 18 of 34



Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A8 @ 3-9" Lab Sample ID: 1604069-016A

Project Name/Location: Jamison Way Sample Matrix: Soil

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:30

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.2		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u> </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	6.6	J	ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	4.8	J	ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	89.3		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	79.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	viscous/dark	color	extract)						

Total Page Count: 34 Page 19 of 34



Sample Matrix:

Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A9 @ 3-9" **Lab Sample ID:** 1604069-017A

Project Name/Location:Jamison WayProject Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:35

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.3		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re	ported using t	heir MDL	<u>                                       </u>								
alpha-BHC	SW8081A	4/13/16	04/13/16	4	2.4	8.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	4	2.5	8.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	4	1.6	8.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	4	1.4	8.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	4	3.2	8.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	4	3.8	8.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	4	2.6	8.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	4	2.0	8.0	42		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	4	2.3	8.0	4.4	J	ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	4	3.4	8.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	4	3.0	8.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	4	3.3	8.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	4	2.7	8.0	14		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	4	1.8	8.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	4	2.5	20	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	4	2.3	8.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	4	41	80	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	4	33	400	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	4	52.5	139	84.7		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	4	50.2	139	80.1		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	riscous/dark	color	extract)						

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Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A9 @ 12-18" **Lab Sample ID:** 1604069-018A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:40

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.0		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
			,,								
alpha-BHC	SW8081A	4/13/16	04/13/16	1	0.61	2.0	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	1	0.61	2.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	1	0.56	2.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	1	0.40	2.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	1	0.81	2.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	1	0.36	2.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	1	0.94	2.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	1	0.64	2.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	1	0.51	2.0	ND		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	1	0.86	2.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	1	0.76	2.0	ND		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	1	0.82	2.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	1	0.67	2.0	ND		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	1	0.46	2.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	1	0.61	5.0	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	1	10	20	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	1	8.2	100	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	1	52.5	139	82.4		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	1	50.2	139	70.8		%	429672	16847

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Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

**Client Sample ID:** A10@ 3-9" **Lab Sample ID:** 1604069-020A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

Project Number: 12854.000.000

Date/Time Sampled: 04/11/16 / 10:50

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	9.5		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are re											
alpha-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
gamma-BHC	SW8081A	4/13/16	04/13/16	10	6.1	20	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	10	5.6	20	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	10	4.0	20	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	10	7.9	20	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	10	8.1	20	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	10	3.6	20	7.1	J	ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	10	7.9	20	46		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	10	9.4	20	49		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	10	6.4	20	ND		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	10	5.8	20	420		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	10	8.6	20	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	10	7.6	20	12	J	ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	10	8.2	20	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	10	6.7	20	410		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	10	4.6	20	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	10	6.1	50	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	10	5.8	20	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	10	100	200	590		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	10	82	1000	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	10	52.5	139	88.4		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	10	50.2	139	77.3		%	429672	16847
NOTE: Reporting limits increased of	due to nature of th	ne matrix (v	riscous/dark	color	extract)						
4,4'-DDE	SW8081A	4/13/16	04/13/16	20	10	40	680		ug/Kg	429672	16847

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Soil

Report prepared for:Kelsey GerhartDate Received: 04/11/16Engeo (San Ramon)Date Reported: 04/14/16

Client Sample ID: A10 @ 12-18" Lab Sample ID: 1604069-021A

Project Name/Location:Jamison WaySample Matrix:Project Number:12854.000.000

 Project Number:
 12854.000.000

 Date/Time Sampled:
 04/11/16 / 10:55

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	4/13/16	04/13/16	1	0.28	1.7	8.4		mg/Kg	429665	16845

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
alpha-BHC	SW8081A	4/13/16	04/13/16	1	0.61	2.0	ND		ug/Kg	429672	16847
'			04/13/16	-							
gamma-BHC	SW8081A	4/13/16		1	0.61	2.0	ND		ug/Kg	429672	16847
beta-BHC	SW8081A	4/13/16	04/13/16	1	0.56	2.0	ND		ug/Kg	429672	16847
delta-BHC	SW8081A	4/13/16	04/13/16	1	0.40	2.0	ND		ug/Kg	429672	16847
Heptachlor	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
Aldrin	SW8081A	4/13/16	04/13/16	1	0.81	2.0	ND		ug/Kg	429672	16847
Heptachlor epoxide	SW8081A	4/13/16	04/13/16	1	0.36	2.0	ND		ug/Kg	429672	16847
gamma-Chlordane	SW8081A	4/13/16	04/13/16	1	0.79	2.0	ND		ug/Kg	429672	16847
alpha-Chlordane	SW8081A	4/13/16	04/13/16	1	0.94	2.0	ND		ug/Kg	429672	16847
Endosulfan I	SW8081A	4/13/16	04/13/16	1	0.64	2.0	ND		ug/Kg	429672	16847
4,4'-DDE	SW8081A	4/13/16	04/13/16	1	0.51	2.0	11		ug/Kg	429672	16847
Dieldrin	SW8081A	4/13/16	04/13/16	1	0.58	2.0	2.5		ug/Kg	429672	16847
Endrin	SW8081A	4/13/16	04/13/16	1	0.86	2.0	ND		ug/Kg	429672	16847
4,4'-DDD	SW8081A	4/13/16	04/13/16	1	0.76	2.0	2.6		ug/Kg	429672	16847
Endosulfan II	SW8081A	4/13/16	04/13/16	1	0.82	2.0	ND		ug/Kg	429672	16847
4,4'-DDT	SW8081A	4/13/16	04/13/16	1	0.67	2.0	3.7		ug/Kg	429672	16847
Endrin aldehyde	SW8081A	4/13/16	04/13/16	1	0.46	2.0	ND		ug/Kg	429672	16847
Endosulfan sulfate	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Methoxychlor	SW8081A	4/13/16	04/13/16	1	0.61	5.0	ND		ug/Kg	429672	16847
Endrin Ketone	SW8081A	4/13/16	04/13/16	1	0.58	2.0	ND		ug/Kg	429672	16847
Chlordane	SW8081A	4/13/16	04/13/16	1	10	20	ND		ug/Kg	429672	16847
Toxaphene	SW8081A	4/13/16	04/13/16	1	8.2	100	ND		ug/Kg	429672	16847
TCMX (S)	SW8081A	4/13/16	04/13/16	1	52.5	139	88.6		%	429672	16847
DCBP (S)	SW8081A	4/13/16	04/13/16	1	50.2	139	72.9		%	429672	16847
• /											

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# **MB Summary Report**

Work Order:	1604069	Prep I	Method:	3546_OCP	Prep	Date:	04/11/16	Prep Batch:	16830
Matrix:	Soil	Analy		SW8081A	Anal	yzed Date:	04/12/16	Analytical	429655
Units:	ug/Kg	Metho	od:					Batch:	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
alpha-BHC		0.61	2.0	ND					
gamma-BHC		0.61	2.0	ND					
beta-BHC		0.56	2.0	ND					
delta-BHC		0.40	2.0	ND					
Heptachlor		0.79	2.0	ND					
Aldrin		0.81	2.0	ND					
Heptachlor epoxide		0.36	2.0	ND					
gamma-Chlordane		0.79	2.0	ND					
alpha-Chlordane		0.94	2.0	ND					
Endosulfan I		0.64	2.0	ND					
4,4'-DDE		0.51	2.0	ND					
Dieldrin		0.58	2.0	ND					
Endrin		0.86	2.0	ND					
4,4'-DDD		0.76	2.0	ND					
Endosulfan II		0.82	2.0	ND					
4,4'-DDT		0.67	2.0	ND					
Endrin aldehyde		0.46	2.0	ND					
Endosulfan sulfate		0.58	2.0	ND					
Methoxychlor		0.61	5.0	ND					
Endrin Ketone		0.58	2.0	ND					
Chlordane		10	20	ND					
Toxaphene		8.2	100	ND					
TCMX (S)				99.7					
DCBP (S)				92.7					
Work Order:	1604069	Prep I	Method:	3050	Prep	Date:	04/13/16	Prep Batch:	16845
Matrix:	Soil	Analy		SW6010B	Anal	yzed Date:	04/13/16	Analytical	429665
Units:	mg/Kg	Metho	od:					Batch:	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
Arsenic		0.25	1.7	ND					

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## **MB Summary Report**

Work Order: Prep Method: 3546\_OCP Prep Date: 04/13/16 Prep Batch: 16847 1604069 Matrix: Soil Analytical SW8081A Analyzed Date: 04/13/16 Analytical 429672 Method: Batch: Units: ug/Kg

Parameters	MDL	PQL	Method Blank	Lab Qualifier
T diamotors	MDL	1 44.	Conc.	- Quanner
alpha-BHC	0.61	2.0	ND	
gamma-BHC	0.61	2.0	ND	
beta-BHC	0.56	2.0	ND	
delta-BHC	0.40	2.0	ND	
Heptachlor	0.79	2.0	ND	
Aldrin	0.81	2.0	ND	
Heptachlor epoxide	0.36	2.0	ND	
gamma-Chlordane	0.79	2.0	ND	
alpha-Chlordane	0.94	2.0	ND	
Endosulfan I	0.64	2.0	ND	
4,4'-DDE	0.51	2.0	ND	
Dieldrin	0.58	2.0	ND	
Endrin	0.86	2.0	ND	
4,4'-DDD	0.76	2.0	ND	
Endosulfan II	0.82	2.0	ND	
4,4'-DDT	0.67	2.0	ND	
Endrin aldehyde	0.46	2.0	ND	
Endosulfan sulfate	0.58	2.0	ND	
Methoxychlor	0.61	5.0	ND	
Endrin Ketone	0.58	2.0	ND	
Chlordane	10	20	ND	
Toxaphene	8.2	100	ND	
TCMX (S)			98.7	
DCBP (S)			90.7	

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# LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1604069	Prep Method:	3546_OCP	Prep Date:	04/11/16	Prep Batch:	16830
Matrix:	Soil	Analytical	SW8081A	Analyzed Date:	04/12/16	Analytical	429655
Units:	ug/Kg	Method:				Batch:	

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC	0.61	2.0	ND	40	99.0	107	7.62	56.9 - 120	30	
Heptachlor	0.79	2.0	ND	40	106	107	0.789	63.6 - 117	30	
Aldrin	0.81	2.0	ND	40	95.8	103	7.64	53 - 123	30	
Dieldrin	0.58	2.0	ND	40	99.4	105	5.61	44 - 130	30	
Endrin	0.86	2.0	ND	40	103	108	4.28	44.1 - 121	30	
4,4'-DDT	0.67	2.0	ND	40	105	113	7.41	52.8 - 134	30	
TCMX (S)			ND	100	95.5	102		52.5 - 139		
DCBP (S)			ND	100	92.8	101		50.2 - 139		

Work Order:	1604069	Prep Method:	3050	Prep Date:	04/13/16	Prep Batch:	16845
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	04/13/16	Analytical Batch:	429665
Units:	mg/Kg	wethou.				васп.	

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	ND	50	97.6	99.6	2.01	71 - 121	30	

Work Order:	1604069	Prep Method:	3546_OCP	Prep Date:	04/13/16	Prep Batch:	16847
Matrix:	Soil	Analytical	SW8081A	Analyzed Date:	04/13/16	Analytical	429672
Units:	ug/Kg	Method:				Batch:	

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC	0.61	2.0	ND	40	100	99.3	0.698	56.9 - 120	30	
Heptachlor	0.79	2.0	ND	40	100	98.1	2.35	63.6 - 117	30	
Aldrin	0.81	2.0	ND	40	97.4	96.9	0.587	53 - 123	30	
Dieldrin	0.58	2.0	ND	40	98.2	98.4	0.167	44 - 130	30	
Endrin	0.86	2.0	ND	40	98.9	99.1	0.195	44.1 - 121	30	
4,4'-DDT	0.67	2.0	ND	40	103	105	1.45	52.8 - 134	30	
TCMX (S)			ND	100	96.3	95.6		52.5 - 139		
DCBP (S)			ND	100	90.9	90.5		50.2 - 139		

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## **MS/MSD Summary Report**

Raw values are used in quality control assessment.

Work Order:

1604069

3050

SW6010B

Prep Date:

04/13/16

Prep Batch:

16845

Matrix:

Soil

Prep Method: Analytical

**Analyzed Date:** 

04/13/16

Analytical

429665

Spiked Sample:

1604069-001A

Method:

Batch:

Units: mg/Kg

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	17	0.18	50	95.8	94.5	1 32	71 - 121	30	

Work Order:

1604069

Prep Method:

3546\_OCP

Prep Date:

04/13/16

Prep Batch:

16847

Matrix:

Soil

Analytical

SW8081A

Analyzed Date:

04/13/16

Analytical Batch:

429672

Spiked Sample:

1604069-021A

Method:

Units:

ug/Kg

Parameters	meters MDL PQL Sample Conc.		Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier	
Aldrin	0.81	2.0	0	40	87.5	86.4	1.17	53 - 123	30	ı
gamma-BHC	0.61	2.0	0	40	85.4	85.0	0.374	56.9 - 120	30	
Heptachlor	0.79	2.0	0	40	88.1	85.2	3.32	63.6 - 117	30	
Dieldrin	0.58	2.0	2.4658	40	88.3	85.8	2.65	44 - 130	30	
Endrin	0.86	2.0	0	40	84.5	82.8	2.14	44.1 - 121	30	
4,4'-DDT	0.67	2.0	3.7332	40	84.3	83.8	0.484	52.8 - 134	30	
TCMX (S)				100	91.9	88.8		52.5 - 139	,"	
DCBP (S)				100	87.8	81.2		50.2 - 139	,"	



### Laboratory Qualifiers and Definitions

#### **DEFINITIONS:**

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.

**Blank (Method/Preparation Blank)** -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.

**Duplicate** - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)

Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.

Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)

Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.

Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero

Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.

Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates

Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis

**Tentatively Identified Compound (TIC)** - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.

**Units:** the unit of measure used to express the reported result - **mg/L** and **mg/Kg** (equivalent to PPM - parts per million in **liquid** and **solid**), **ug/L** and **ug/Kg** (equivalent to PPB - parts per billion in **liquid** and **solid**), **ug/m3**, **mg.m3**, **ppbv** and **ppmv** (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

#### LABORATORY QUALIFIERS:

- B Indicates when the anlayte is found in the associated method or preparation blank
- **D** Surrogate is not recoverable due to the necessary dilution of the sample
- **E** Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
- H- Indicates that the recommended holding time for the analyte or compound has been exceeded
- J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
- NA Not Analyzed
- N/A Not Applicable
- NR Not recoverable a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
- R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
- S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case parrative
- **X** -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

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## Sample Receipt Checklist

Client Name: Engeo (San Ramon) Date and Time Received: 4/11/2016 16:07

Project Name: <u>Jamison Way</u> Received By: <u>Idi</u>

Work Order No.: 1604069 Physically Logged By: Idi

Checklist Completed By: Idi

Carrier Name: FedEx

Chain of Custody (COC) Information

Chain of custody present? <u>Yes</u>

Chain of custody signed when relinquished and received? Yes

Chain of custody agrees with sample labels? Yes

Custody seals intact on sample bottles? <u>Not Present</u>

**Sample Receipt Information** 

Custody seals intact on shipping container/cooler?

Not Present

Shipping Container/Cooler In Good Condition? <u>Yes</u>

Samples in proper container/bottle? <u>Yes</u>

Samples containers intact? <u>Yes</u>

Sufficient sample volume for indicated test? <u>Yes</u>

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes

Container/Temp Blank temperature in compliance? Yes Temperature: 3 °C

Water-VOA vials have zero headspace? No VOA vials submitted

Water-pH acceptable upon receipt? N/A

Total Page Count: 34

pH Checked by: n/a pH Adjusted by: n/a



## **Login Summary Report**

Client ID: TL5123 Engeo (San Ramon) QC Level:

**Project Name:** Jamison Way **TAT Requested:** 3 day:25

**Project # :** 12854.000.000 **Date Received:** 4/11/2016

Report Due Date: 4/14/2016 Time Received: 16:07

Comments:

Work Order #: 1604069

WO Sample ID	Client Sample ID	Collection Date/Time	<u>Matrix</u>		<u>Test</u> On Hold	Requested Tests	Subbed
1604069-001A	A1 @ 3-9"	04/11/16 8:45	Soil	10/08/16		S_6010BAs/Pb Homogenize S_8081AOCP	
Sample Note:	Arsenic & OCPs						
1604069-002A	A1 @ 12-18"	04/11/16 8:50	Soil	10/08/16		S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-003A	A1 @ 18-24"	04/11/16 8:55	Soil	10/08/16		-	
1604069-004A	A2 @ 3-9"	04/11/16 11:10	Soil	10/08/16		Hold Samples  S_6010BAs/Pb  Homogenize	
1604069-005A	A3 @ 3-9"	04/11/16 9:00	Soil	10/08/16		S_8081AOCP S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-006A	A3 @ 12-18"	04/11/16 9:05	Soil	10/08/16		S_6010BAs/Pb Homogenize S_8081AOCP	
1604069-007A	A3 @ 18-24"	04/11/16 9:10	Soil	10/08/16			
1604069-008A	A4 @ 3-9"	04/11/16 9:45	Soil	10/08/16		Hold Samples S_6010BAs/Pb Homogenize	
1604069-009A	A4 @ 12-18"	04/11/16 9:46	Soil	10/08/16		S_8081AOCP S_6010BAs/Pb Homogenize S_8081AOCP	
1604069-010A	A4 @ 18-24"	04/11/16 9:47	Soil	10/08/16			
1604069-011A	A5 @ 3-9"	04/11/16 10:00	Soil	10/08/16		Hold Samples	

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## **Login Summary Report**

Client ID: TL5123 Engeo (San Ramon) QC Level:

**Project Name:** Jamison Way **TAT Requested:** 3 day:25

Project #: 12854.000.000 Date Received: 4/11/2016

Report Due Date: 4/14/2016 Time Received: 16:07

Comments:

Work Order #: 1604069

WO Sample ID	Client Sample ID	Collection Date/Time	<u>Matrix</u>	Scheduled Disposal	<u>Test</u> On Hold	Requested Tests	Subbed
						S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-012A	A6 @ 3-9"	04/11/16 10:05	Soil	10/08/16			
						S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-013A	A6 @ 12-18"	04/11/16 10:10	Soil	10/08/16		g	
						S_6010BAs/Pb S_8081AOCP Homogenize	
1604069-014A	A6 @ 18-24"	04/11/16 10:15	Soil	10/08/16			
	0					Hold Samples	
1604069-015A	A7 @ 3-9"	04/11/16 10:25	Soil	10/08/16		S_6010BAs/Pb	
						S_8081AOCP	
						Homogenize	
1604069-016A	A8 @ 3-9"	04/11/16 10:30	Soil	10/08/16		0	
						S_6010BAs/Pb S_8081AOCP	
						Homogenize	
1604069-017A	A9 @ 3-9"	04/11/16 10:35	Soil	10/08/16		1 lolllogotii20	
						S_6010BAs/Pb	
						S_8081AOCP	
1604069-018A	A9 @ 12-18"	04/11/16 10:40	Soil	10/08/16		Homogenize	
1004009-0107	A3 @ 12-10	0-1/11/10 10:40	Oon	10/00/10		S_6010BAs/Pb	
						S_8081AOCP	
						Homogenize	
1604069-019A	A9 @ 18-24"	04/11/16 10:45	Soil	10/08/16		Hold Comples	
1604069-020A	A10@ 3-9"	04/11/16 10:50	Soil	10/08/16		Hold Samples	
.00.000 020.1		0 1,7 1,7 10 10100	•	. 0, 00, . 0		S_6010BAs/Pb	
						Homogenize	
4004000 004 4	A40 @ 40 40"	04/44/40 40:55	Cail	40/00/40		S_8081AOCP	
1604069-021A	A10 @ 12-18"	04/11/16 10:55	Soil	10/08/16		S_6010BAs/Pb	

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## **Login Summary Report**

Date Received:

4/11/2016

Client ID: TL5123 Engeo (San Ramon) QC Level:

**Project Name:** Jamison Way **TAT Requested:** 3 day:25

Report Due Date: 4/14/2016 Time Received: 16:07

Comments:

Project #:

Work Order #: 1604069

12854.000.000

WO Sample ID	<u>Client</u> <u>Sample ID</u>	Collection Date/Time	<u>Matrix</u>	Scheduled Disposal	 <u>Test</u> On Hold	Requested Tests	Subbed
1604069-022A	A10 @ 18-24"	04/11/16 11:00	Soil	10/08/16		S_8081AOCP Homogenize	
1604009-022A	A10 @ 10-24	04/11/16 11.00	3011	10/06/10		Hold Samples	

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PROJECT NUM	BER 12854.000.000	PROJECT NA	ME Jamis	son Way						П		Т			Т	T			
SAMPLED BY: (	SIGNATURE/PRINT) Kelse	ey Gerhart ,	Hilary	Mann			<u>۽</u>	١											
PPO JECT MAN	AGER: (SIGNATURE/PRIN	m	- 1				8	(6010									REM	ARKS	
PROJECT MAN	NOCK. (SIGNATOREFRIM	",					Pesticides (8081)	Arsenic (6010)									REQUIRED DET		rs
ROUTING: E-M/	AlL kgerhart@engeo.cor	n			HARD COPY		Pes	٤											
SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE													
A1 @3-9"	4/11/2016	8:45	Soil	1	Jar		x	x		Ш	_		1/		_	$\perp$	Homagui	70	
A1@12-18"	4/11/2016	8:50	Soil	1	Jar		x	×		Ш		90	M		_	_	U		
A1@18"-24"	4/11/2016	8:55	Soil	1	Jar			L		Ш		<u>- do</u>	23	1	4	_	HOLD		
A2@3-9*	4/11/2016	11:10	Soil	11	Jar		x	x		Ш		-0	14	4	_	$\perp$			
A3@3-9"	4/11/2016	9:00	Soil	1	Jar		×	×		Ш		<u>- þ</u>	20	4	_	$\perp$			
A3@12-18"	4/11/2016	9:05	Soil	1	Jar		x	x		Ш	_	-0	06	4	_	$\perp$			_
A3@18-24"	4/11/2016	9:10	Soil	1	Jar		L	L		Ш	_	_	07	$\rightarrow$	_		HOLD		
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A4@12-18*	4/11/2016	9:46	Soil	1	Jar		×	x	Ш	$\perp$	$\perp$	$\rightarrow$	109	<del>. I</del>	4	_			_
A4@18-24*	4/11/2016	9:47	Soil	1	Jar		<u> </u>	_		$\perp$	$\perp$	_	016	<del>'</del>	_	_	HOLD	$\perp$	
A5@3-9*	4/11/2016	10:00	Soil	1	Jar		x	x	Ш	$\perp$	Ц	$\overline{}$	$\overline{}$	A	4	4			_
A6@3-9*	4/11/2016	10:05	Soil	1	Jar		×	x	Ш	$\perp$	Ц	4		A	4	$\perp$			
A6@12-18*	4/11/2016	10:10	Soil	1	Jar		x	x	$\perp$	Ш	$\perp$	_	01	3 <i>A</i>	4	4			_
A6@18-24*	4/11/2016	10:15	Soil	1	Jar		_	L		Ш	_	_		fA	_	$\perp$	HOLD		_
A7@3-9*	4/11/2016	10:25	Soil	1	Jar		x	x	Ш	$\perp$	_	_	-	邜	_	_		$\perp$	_
A8@3-9*	4/11/2016	10:30	Soil	1	Jar		×	x		Ш	4	4	<del>-</del>	ЬΑ	4	$\perp$			_
A9@3-9*	4/11/2016	10:35	Soil	1	Jar		x	x	$\sqcup$	Ш	$\perp$	4	_	7A	_	$\perp$			ᆜ
A9@12-18"	4/11/2016	10:40	Soil	1	Jar		x	x	Ш	Ш		4	_	8/1	_	_	ļ	$\overline{V}$	_
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SAMPLED BY: (SI	GNATURE/PRINT) Kelsey	Gerhart , H	llar Ma	MN			_											
			/				Pesticides (8081)	6010)										REMARKS
PROJECT MANAG	SER: (SIGNATURE/PRINT)						licides	Arsenic (6010)							1			REQUIRED DETECTION LIMITS
ROUTING: E-MAIL	kgarhart@engeo.com			H	IARD COPY		3	٤			ı			٦.	١.			
SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE								Ya	Ald	b		
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A10@12-18*	4/11/2016	10:55	Soil	1	Jar		x	×	$\perp$			ρφį	CVT	$\perp$	_	121		0
A10 @18"-24"	@18"-24" 4/11/2016 11:00 Soil			1	Jar			Ш		_	Ŀ	\$6	3A	1	Ł	927	1	HOLD V
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