

Data Box Information

All Result(s) Less than or equal to SRGs

ILB0307	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	> SL

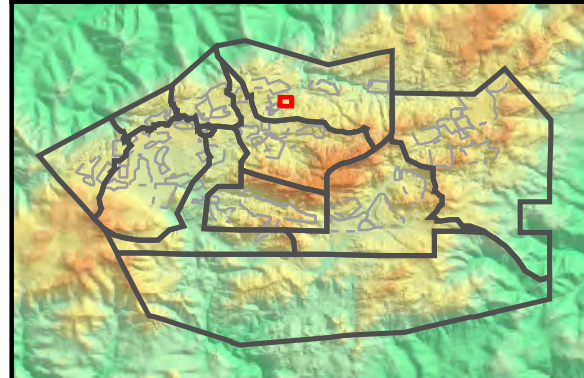
Result(s) Greater than SRGs

Sample Location ID	ILB0138	Result X SRG
ISRA COC	Mercury	0.12 mg/kg 1.3
	RCRA R.D.s	> SL

Result and Comparison to SRG

RCRA R.D.s Compared to SL

[2] - Represents the number of samples collected from this sample location, in this case 2, within the depth range being assessed, in this case < 2 feet bgs. Only the maximum result is presented for each analyte.



- Base Map Legend**
- Administrative Area Boundary
 - RFI Site Boundary
 - Report Group Boundary
 - Drainage
 - Non Jurisdictional Surface Water Pathway
 - Surface Water Divide
 - Previous Excavation Area
 - Elevation Contour

- Figure Legend**
- ISRA Planned Excavation
 - Swimming Pool
 - Near Surface Well
 - Chatsworth Well

- ISRA Constituents of Concern**
Cadmium, Copper, Lead, Mercury, Dioxin
- Soil Remediation Goals (SRGs)**
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pp/g
- RCRA R.D.s = RCRA Risk Drivers
SL = Screening Level
- Notes:**
1. Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
2. Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
3. Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
4. Aerial imagery and topographic contours from Sage, 2010. Aerial imagery was collected June 2, 2010, and represents pre-excavation conditions. Topographic contours represent pre-excavation conditions.

- Chemical Data Legend**
- Cadmium, Copper, Lead, and/or Mercury Sample Locations**
- <= SRG
 - > SRG and <= 2x SRG
 - > 2x SRG and <= 10x SRG
 - > 10x SRG
- Dioxin Sample Locations**
- <= SRG
 - > SRG and <= 2x SRG
 - > 2x SRG and <= 10x SRG
 - > 10x SRG
- Sample Not Analyzed for ISRA COCs**
- > SL for one or more RCRA R.D.s
 - <= SL for all RCRA R.D.s
 - Not analyzed for RCRA R.D.s

Outfall 009 - ISRA Area AP/STP-1E Pre-Excavation Sample Results Surface Soils (0 - 2 feet bgs) SANTA SUSANA FIELD LABORATORY

Path: T:\project\rock3\ISRA\Figures\NASA\AP-STP-1E\APSTP-1E_PreExcav_Shallow.mxd Date: 12/20/2013

1 inch = 20 feet

0 20 40 Feet

MWH

Figure E-5.1

Data Box Information

All Result(s) Less than or equal to SRGs

ILBS0307	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	>SL

Result and Comparison to SRG

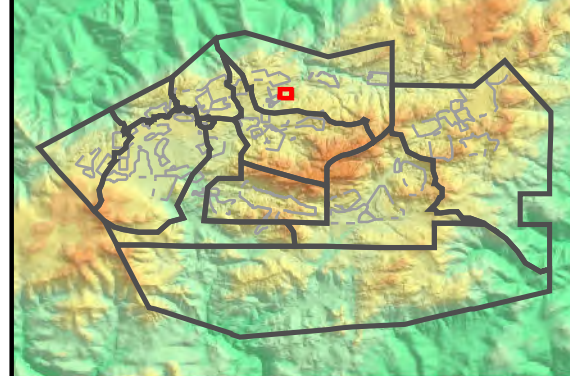
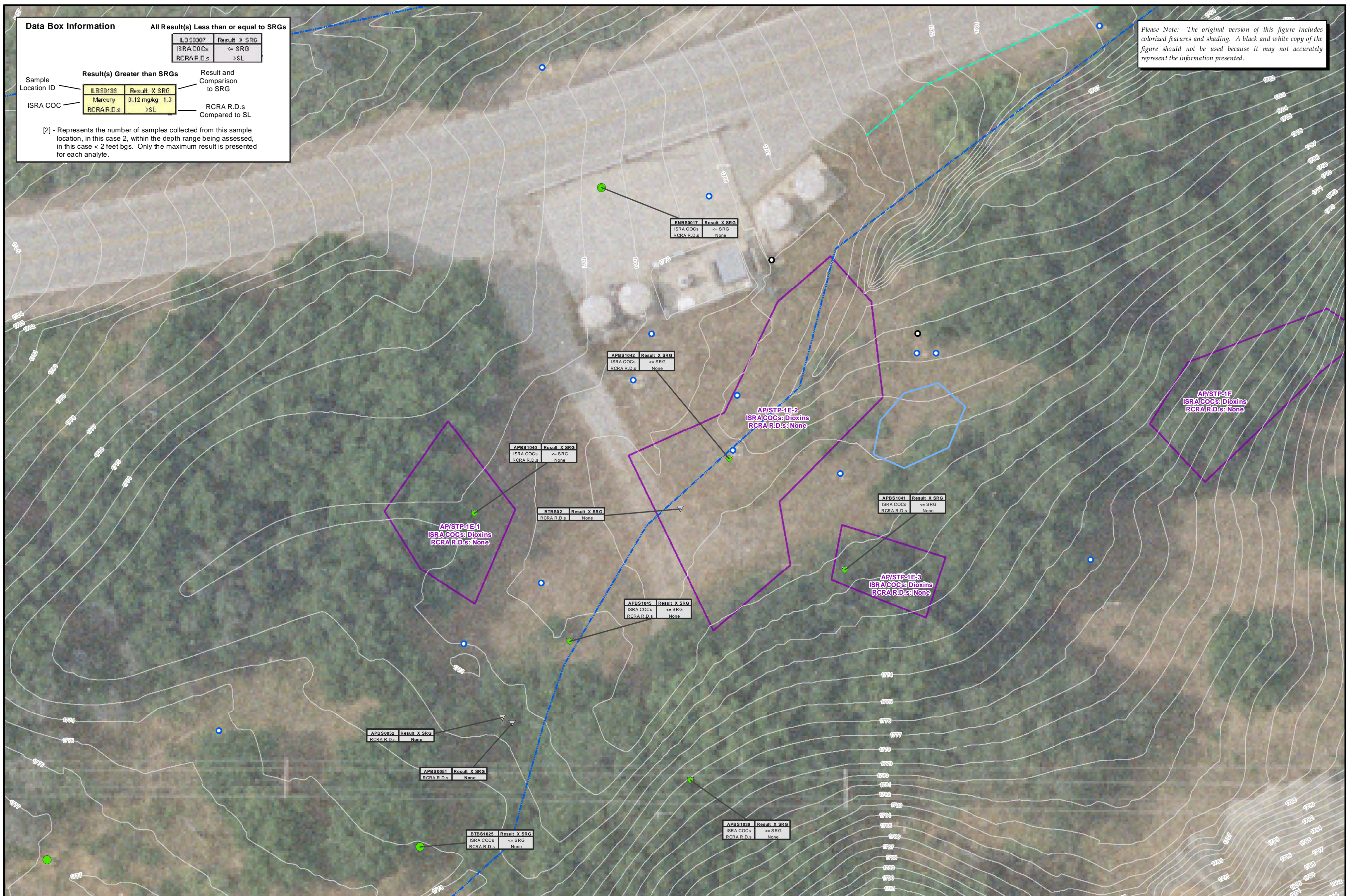
Result(s) Greater than SRGs

ILBS0138	Result X SRG
Mercury	0.12 mg/kg 1.3
RCRA R.D.s	>SL

RCRA R.D.s Compared to SL

[2] - Represents the number of samples collected from this sample location, in this case 2, within the depth range being assessed, in this case < 2 feet bgs. Only the maximum result is presented for each analyte.

Please Note: The original version of this figure includes colored features and shading. A black and white copy of the figure should not be used because it may not accurately represent the information presented.



Base Map Legend

- Administrative Area Boundary
- RFI Site Boundary
- Report Group Boundary
- Drainage
- Non Jurisdictional Surface Water Pathway
- Surface Water Divide
- Previous Excavation Area
- Elevation Contour

Figure Legend

- ISRA Planned Excavation
- Swimming Pool
- Near Surface Well
- Chatsworth Well

ISRA Constituents of Concern
Cadmium, Copper, Lead, Mercury, Dioxin

Soil Remediation Goals (SRGs)
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pg/g

RCRA R.D.s = RCRA Risk Drivers
SL = Screening Level

Notes:
1. Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
2. Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
3. Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
4. Aerial imagery and topographic contours from Sage, 2010. Aerial imagery was collected June 2, 2010, and represents pre-excavation conditions. Topographic contours represent pre-excavation conditions.

Chemical Data Legend

Cadmium, Copper, Lead, and/or Mercury Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- > 2x SRG and <= 10x SRG
- > 10x SRG

Dioxin Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- > 2x SRG and <= 10x SRG
- > 10x SRG

Sample Not Analyzed for ISRA COCs

- > SL for one or more RCRA R.D.s
- <= SL for all RCRA R.D.s
- Not analyzed for RCRA R.D.s

**Outfall 009 - ISRA Area AP/STP-1E
Pre-Excavation Sample Results
Subsurface Soils (2 - 10 feet bgs)
SANTA SUSANA FIELD LABORATORY**

Path: T:\projects\rock3\ISRA\Figures\NASA\AP-STP-1E\APSTP-1E_PreExcav_Deep.mxd Date: 12/20/2013

1 inch = 20 feet

0 20 40 Feet

MWH

Figure E-5.2

**TABLE E-5.1
AP/STP-1E PRE-EXCAVATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

Group		Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Dioxins	
Preferred Analyte		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	TCDD TEQ			
Result Value Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pg/g	
Background		8.7	15	140	1.1	1	36.8	21	29	34	0.09	5.3	29	0.655	0.79	0.46	62	110	110	0.87		
ISRA SRG		--	--	--	--	1	--	--	29	34	0.09	--	--	--	--	--	--	--	--	3		
CMS		0.77	--	--	--	--	--	--	8.2	--	0.88	--	15	--	96	--	--	26	--	--		
Lowest Characterization RBSL		0.095	0.095	15	5.1	0.021	930	8.9	1.1	0.063	0.1	0.11	0.1	0.17	0.54	2.9	1.5	21	4.27			
RBSL Type		ECO	RES	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO		
Object Name	Sample Name	Collection Date	Sample Depth (feet bgs)	ISRA Area	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	
APBS1040	APBS1040S001	4/1/2009	0.0-0.1	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46.0	
APBS1040	APBS1040S002	4/1/2009	3.5-4.0	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.82	
APBS1054	APBS1054S001	6/17/2009	0.0-0.0	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.75	
APBS1221	APBS1221S001	4/28/2010	0.0-1.0	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.51	
APBS1222	APBS1222S001	4/28/2010	0.0-1.0	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.22	
APBS1223	APBS1223S001	4/28/2010	0.0-1.0	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.02	
APBS1224	APBS1224S001	4/28/2010	0.0-1.0	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.73	
APBS1238	APBS1238S001	4/28/2010	0.0-1.0	AP/STP-1E-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.78	
APWC0401	APWC0401S001	7/29/2010	0.5-1.0	AP/STP-1E-1	1 J	5	110	0.58	<0.2	22	5.8	12	5.4	<0.012	0.67 J	15	<1	<0.8	<0.8	35	63	--
APWC0402	APWC0402S001	7/29/2010	0.5-1.0	AP/STP-1E-1	0.9 J	4	71	0.5	<0.2	19	4.7	9.8	4.4	<0.012	0.66 J	12	1.2 J	<0.79	<0.79	30	49	--
APWC0404	APWC0404S001	7/29/2010	0.5-1.0	AP/STP-1E-1	1 J	4.4	98	0.59	<0.2	21	5.5	12	5.6	<0.012	0.62 J	14	<0.99	<0.79	<0.79	34	61	--
APBS1019	APBS1019S01	6/3/2008	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.57	
APBS1042	APBS1042S001	4/1/2009	0.0-0.1	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	592	
APBS1042	APBS1042S002	4/1/2009	4.5-5.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.60	
APBS1056	APBS1056S001	6/17/2009	0.0-0.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.64	
APBS1209	APBS1209S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	
APBS1210	APBS1210S001	4/29/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.53	
APBS1211	APBS1211S001	4/29/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.63	
APBS1212	APBS1212S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.23	
APBS1213	APBS1213S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.74	
APBS1214	APBS1214S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.91	
APBS1215	APBS1215S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.89	
APBS1216	APBS1216S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.11	
APBS1220	APBS1220S001	4/29/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.099	
APBS1227	APBS1227S001	4/29/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.3	
APBS1235	APBS1235S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.5	
APBS1236	APBS1236S001	4/28/2010	0.0-1.0	AP/STP-1E-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.01	
APWC0501	APWC0501S001	7/30/2010	0.5-1.0	AP/STP-1E-2	1.5 J	9.4	120	0.5	<0.2	19	4.8	12	17	0.02	0.94 J	12	<0.99	13	<0.79	34	260	--
APWC0502	APWC0502S001	7/30/2010	0.5-1.0	AP/STP-1E-2	<0.87	7.2	72	0.56	<0.2	22	5.7	12	6.8	0.013 J	0.88 J	13	<0.99	<0.79	<0.79	40	46	--
APWC0503	APWC0503S001	7/30/2010	0.5-1.0	AP/STP-1E-2	<0.88	4.6	100	0.49 J	<0.2	19	5.3	15	11	<0.012	0.68 J	12	<1	0.81 J	<0.8	35	62	--
APWC0504	APWC0504S001	7/30/2010	0.5-1.0	AP/STP-1E-2	0.88 J	2.5	78	<0.2	<0.2	8.8	4.4	11	4.7	<0.012	0.45 J	9	1 J	5.7	<0.79	26	58	--
APWC0505	APWC0505S001	7/30/2010	0.5-1.0	AP/STP-1E-2	<0.87	4.4	91	0.47 J	<0.2	18	5	9.4	5.7	<0.012	0.7 J	11	<0.99	<0.79	<0.79	32	54	--
APBS1041	APBS1041S001	4/1/2009	0.0-0.1	AP/STP-1E-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.72	
APBS1041	APBS1041S002	4/1/2009	4.5-5.0	AP/STP-1E-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0694	
APBS1217	APBS1217S001	4/29/2010	0.0-1.0	AP/STP-1E-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.037	
APBS1218	APBS1218S001	4/29/2010	0.0-1.0	AP/STP-1E-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.18	
APBS1232	APBS1232S001	4/29/2010	0.0-1.0	AP/STP-1E-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.340	
APWC0601	APWC0601S001	7/30/2010	0.5-1.0	AP/STP-1E-3	<0.88	4.8	89	0.5	<0.2	18	4.9	9.8	6.9	<0.012	0.83 J	12	<1	<0.8	<0.8	34	51	--
APWC0604	APWC0604S001	7/30/2010	0.5-1.0	AP/STP-1E-3	<0.87	4.7	83	0.51	<0.2	20	5.2	9.7	5.8	<0.012	0.77 J	11	0.99 J	<0.79	<0.79	35	50	--
APBS0017	APBS0017S01	12/14/2006	0.0-0.5	--	0.094 J	3.1	76	0.28	0.27	11	3.4	6.2 J	7.3	<0.0082	<0.1 J	7.2	<0.2	6.3	0.16 J	20	42	1.63
APBS0051	APBS0051S01	2/26/2007	0.5-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.81	--	--	--	--
APBS0051	APBS0051S02	2/26/2007	4.5-5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2	--	--	--	--
APBS0052	APBS0052S01	2/26/2007	0.5-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9	--	--	--	--
APBS0052	APBS0052S02	2/26/2007	4.5-5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--
APBS1018	APBS1018S01	6/3/2008	0.0-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.208	
APBS1039	APBS1039S001	4/1/2009	0.0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00351	

**TABLE E-5.1
AP/STP-1E PRE-EXCAVATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

Group		Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Dioxins		
Preferred Analyte		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	TCDD TEQ			
Result Value Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pg/g		
Background		8.7	15	140	1.1	1	36.8	21	29	34	0.09	5.3	29	0.655	0.79	0.46	62	110	0.87			
ISRA SRG		--	--	--	--	1	--	--	29	34	0.09	--	--	--	--	--	--	--	3			
CMS		0.77	--	--	--	--	--	--	8.2	--	0.88	--	15	--	96	--	--	26	--			
Lowest Characterization RBSL		0.095	0.095	15	5.1	0.021	930	8.9	1.1	0.063	0.1	0.11	0.1	0.17	0.54	2.9	1.5	21	4.27			
RBSL Type		ECO	RES	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO			
Object Name	Sample Name	Collection Date	Sample Depth (feet bgs)	ISRA Area	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS		
APBS1039	APBS1039S002	4/1/2009	2.5-3.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.307		
APBS1045	APBS1045S001	4/1/2009	4.5-5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.154		
APBS1053	APBS1053S001	6/17/2009	0.0-0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.20		
APBS1055	APBS1055S001	6/17/2009	0.0-0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.33		
APBS1057	APBS1057S001	6/17/2009	0.0-0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.09		
APBS1058	APBS1058S001	6/17/2009	0.0-0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.737		
APBS1059	APBS1059S001	6/17/2009	0.0-0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.62		
APBS1060	APBS1060S001	6/17/2009	0.0-0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.303		
APBS1062	APBS1062S001	6/17/2009	0.0-0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.522		
APBS1086	APBS1086S001	2/8/2010	0.0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.109		
APBS1228	APBS1228S001	4/28/2010	0.0-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.878		
APWC0403	APWC0403S001	7/29/2010	0.5-1.0	--	0.93 J	5.2	100	0.62	<0.2	20	5.3	11	6.3	0.014 J	0.74 J	13	<1	<0.8	<0.8	37	59	--
APWC0602	APWC0602S001	7/29/2010	0.5-1.0	--	1.2 J	5.9	93	0.59	<0.2	21	6.2	11	5.8	0.013 J	0.86 J	13	1.2 J	<0.8	<0.8	42	53	--
APWC0603	APWC0603S001	7/29/2010	0.5-1.0	--	1.5 J	6.8	120	0.69	<0.2	26	6.8	13	6.2	<0.012	0.89 J	15	<0.99	<0.79	<0.79	47	63	--
BTBS1025	BTBS1025S001	11/2/2010	0.0-1.0	--	<1.08 J	5.43	141	0.621	0.33	22	6.12	10.6	8.49 J	<0.0029 J	0.718	13.4	0.17 J	5.26 J	0.303	37	83.9	--
BTBS1025	BTBS1025S002	11/2/2010	5.0-6.0	--	<1.04 J	6.85	107	0.709	0.155	21.8	6.41	10.1	6.22 J	<0.0029 J	0.798	13.1	0.159 J	0.543 J	0.304	42.4	59.2	--
ENBS0017	ENBS0017AS001	9/16/2008	0.5-1.0	--	0.98 J	3.5	104	0.53	0.24	20 J	6.4 J	10 J	6 J	0.0032 J	0.44 J	14.2 J	<0.519	0.05 J	0.31	37.5	61.5	0.0219
ENBS0017	ENBS0017AS002	9/16/2008	4.5-5.0	--	0.85 J	4.1	117	0.65	0.18 J	20.6 J	6.2 J	9.3 J	6.5 J	0.0083 J	0.43 J	13.7 J	<0.549	0.068 J	<0.28	41	52.7	0.0177

Data Box Information

All Result(s) Less than or equal to SRGs

ILBS0307	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	>SL

Result(s) Greater than SRGs

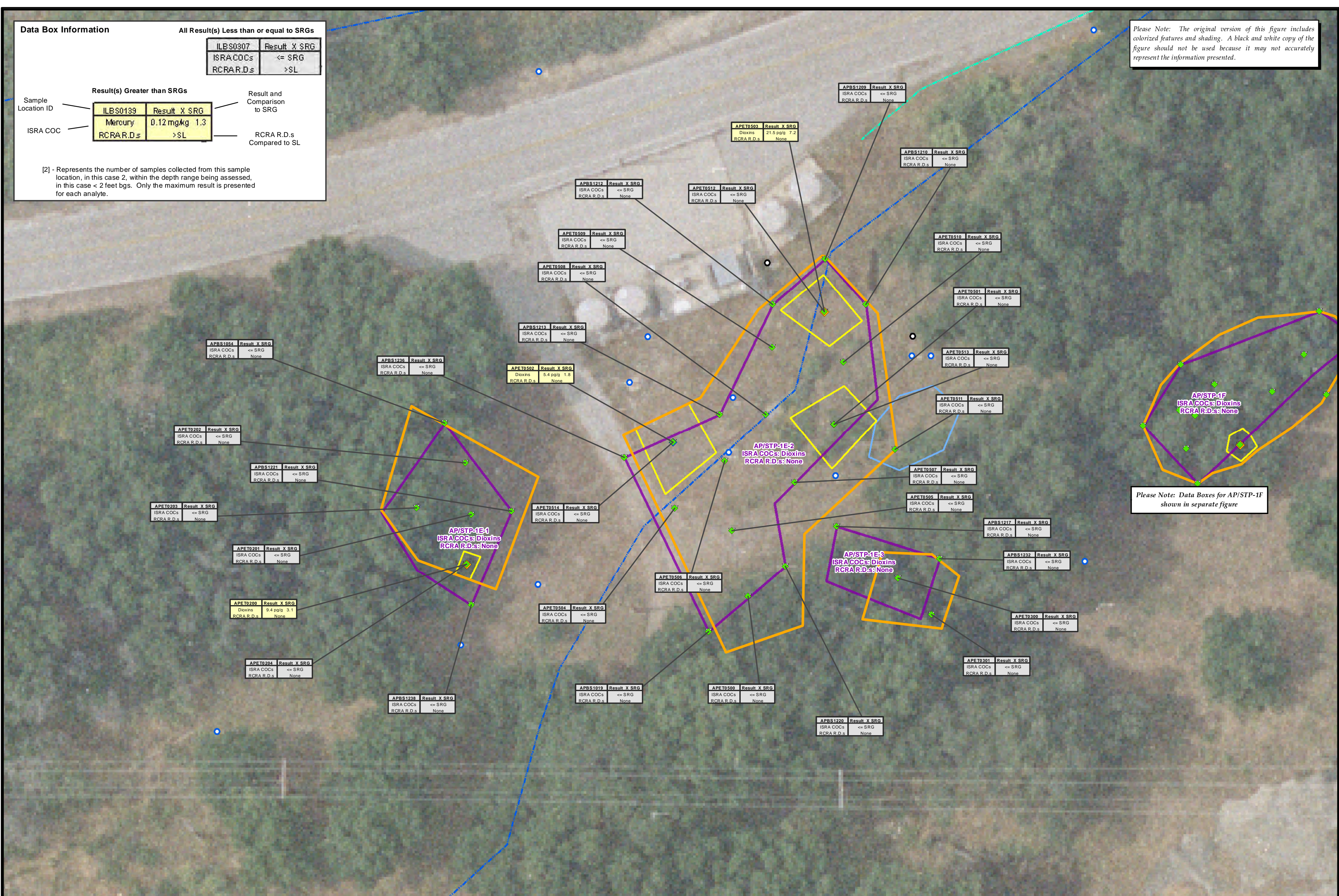
ILBS0139	Result X SRG
Mercury	0.12 mg/kg 1.3
RCRA R.D.s	>SL

Result and Comparison to SRG

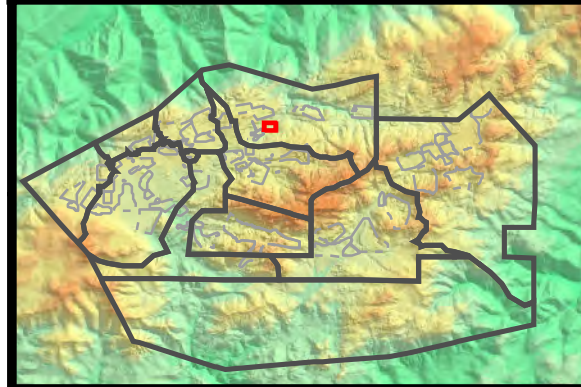
RCRA R.D.s Compared to SL

[2] - Represents the number of samples collected from this sample location, in this case 2, within the depth range being assessed, in this case < 2 feet bgs. Only the maximum result is presented for each analyte.

Please Note: The original version of this figure includes colored features and shading. A black and white copy of the figure should not be used because it may not accurately represent the information presented.



Please Note: Data Boxes for AP/STP-1F shown in separate figure



Base Map Legend

- Administrative Area Boundary
- RFI Site Boundary
- Report Group Boundary
- Drainage
- Non Jurisdictional Surface Water Pathway
- Surface Water Divide
- Previous Excavation Area

Figure Legend

- ISRA Planned Excavation
- ISRA Actual Excavation
- Additional Excavation Areas
- Swimming Pool
- Near Surface Well
- Chatsworth Well

ISRA Constituents of Concern
Cadmium, Copper, Lead, Mercury, Dioxin

Soil Remediation Goals (SRGs)
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pg/g

RCRA R.D.s = RCRA Risk Drivers
SL = Screening Level

Chemical Data Legend

Cadmium, Copper, Lead, and/or Mercury Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- >2x SRG and <= 10x SRG
- >10x SRG

Dioxin Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- > 2x SRG and <= 10x SRG
- > 10x SRG

Sample Not Analyzed for ISRA COCs

- > SL for one or more RCRA R.D.s
- <= SL for all RCRA R.D.s
- Not analyzed for RCRA R.D.s

Notes:

- Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
- Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
- Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
- Aerial imagery was collected June 2, 2010, and represents pre-excavation conditions (Sage, 2010).
- The actual ISRA excavation boundary was surveyed by Cal Vada on 10/10/2012.

Outfall 009 - ISRA Area AP/STP-1E Confirmation Sample Results

SANTA SUSANA FIELD LABORATORY

Path: T:\projects\rock3\ISRA\Figures\NASA\AP-STP-1E\APSTP-1E_Confirm.mxd Date: 12/26/2013

1 inch = 20 feet

0 20 40 Feet

MWH

Figure E-5.3

TABLE E-5.2
AP/STP-1E CONFIRMATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY

				Group			Dioxins
				Preferred Analyte			TCDD TEQ
				Result Value Units			pg/g
				Background			0.87
				ISRA SRG			3
				CMS			--
				Lowest Characterization RBSL			4.27
				RBSL Type			ECO
Object Name	Sample Name	Sample Date	Sample Depth (feet bgs)	Sample Status	Floor/Sidewall	ISRA Area	RESULTS
APBS1054	APBS1054S001	6/17/2009	0.0-0.0	In Place	Sidewall	AP/STP-1E-1	1.75
APBS1221	APBS1221S001	4/28/2010	0.0-1.0	Excavated	Sidewall	AP/STP-1E-1	1.51
APBS1238	APBS1238S001	4/28/2010	0.0-1.0	In Place	Sidewall	AP/STP-1E-1	2.78
APET0200	APET0200S001	9/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-1	9.4
APET0200	APET0200S001-RWQCB	9/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-1	10.55
APET0201	APET0201S001	9/14/2011	2.0-2.5	In Place	Floor	AP/STP-1E-1	0.24
APET0201	APET0201S001-RWQCB	9/14/2011	2.0-2.5	In Place	Floor	AP/STP-1E-1	0.21
APET0202	APET0202S001	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-1	0.18
APET0202	APET0202S001-RWQCB	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-1	0.23
APET0203	APET0203S001	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-1	0.24
APET0203	APET0203S001-RWQCB	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-1	1.92
APET0204	APET0204S001	10/12/2011	2.0-2.5	In Place	Floor	AP/STP-1E-1	0.26
APET0204	APET0204S001-RWQCB	10/12/2011	2.0-2.5	In Place	Floor	AP/STP-1E-1	0.33
APBS1019	APBS1019S01	6/3/2008	0.0-1.0	In Place	Sidewall	AP/STP-1E-2	1.57
APBS1209	APBS1209S001	4/28/2010	0.0-1.0	Excavated	Sidewall	AP/STP-1E-2	0.15
APBS1210	APBS1210S001	4/29/2010	0.0-1.0	Excavated	Sidewall	AP/STP-1E-2	1.53
APBS1212	APBS1212S001	4/28/2010	0.0-1.0	Excavated	Sidewall	AP/STP-1E-2	1.23
APBS1213	APBS1213S001	4/28/2010	0.0-1.0	Excavated	Sidewall	AP/STP-1E-2	2.74
APBS1220	APBS1220S001	4/29/2010	0.0-1.0	Excavated	Sidewall	AP/STP-1E-2	0.099
APBS1236	APBS1236S001	4/28/2010	0.0-1.0	In Place	Sidewall	AP/STP-1E-2	2.01
APET0500	APET0500S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	1.41
APET0500	APET0500S001-RWQCB	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	2.97
APET0501	APET0501S001	11/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-2	1.17
APET0501	APET0501S001-RWQCB	11/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-2	6.12
APET0502	APET0502S001	11/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-2	5.4
APET0502	APET0502S001-RWQCB	11/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-2	2.94
APET0503	APET0503S001	11/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-2	21.5
APET0503	APET0503S001-RWQCB	11/14/2011	1.0-1.5	Excavated	Floor	AP/STP-1E-2	9.57
APET0504	APET0504S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	0.45
APET0505	APET0505S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	0.13
APET0506	APET0506S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	1.61
APET0507	APET0507S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	1.72
APET0508	APET0508S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	1.7
APET0509	APET0509S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	0.76
APET0510	APET0510S001	11/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-2	0.65
APET0511	APET0511S001	11/14/2011	0.5-1.0	In Place	Sidewall	AP/STP-1E-2	0.13
APET0511	APET0511S001-RWQCB	11/14/2011	0.5-1.0	In Place	Sidewall	AP/STP-1E-2	0.465
APET0512	APET0512S001	10/1/2012	2.0-2.5	In Place	Floor	AP/STP-1E-2	1.83
APET0513	APET0513S001	10/1/2012	2.0-2.5	In Place	Floor	AP/STP-1E-2	0.09
APET0513	APET0513S001-RWQCB	10/1/2012	2.0-2.5	In Place	Floor	AP/STP-1E-2	0.227
APET0514	APET0514S001	10/1/2012	3.0-3.5	In Place	Floor	AP/STP-1E-2	0.13
APBS1217	APBS1217S001	4/29/2010	0.0-1.0	In Place	Sidewall	AP/STP-1E-3	0.037

**TABLE E-5.2
AP/STP-1E CONFIRMATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

							Group	Dioxins
							Preferred Analyte	TCDD TEQ
							Result Value Units	pg/g
							Background	0.87
							ISRA SRG	3
							CMS	--
							Lowest Characterization RBSL	4.27
							RBSL Type	ECO
Object Name	Sample Name	Sample Date	Sample Depth (feet bgs)	Sample Status	Floor/Sidewall	ISRA Area	RESULTS	
APBS1232	APBS1232S001	4/29/2010	0.0-1.0	In Place	Sidewall	AP/STP-1E-3	0.340	
APET0300	APET0300S001	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-3	0.06	
APET0300	APET0300S001-RWQCB	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-3	0.13	
APET0301	APET0301S001	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-3	0.19	
APET0301	APET0301S001-RWQCB	9/14/2011	1.0-1.5	In Place	Floor	AP/STP-1E-3	0.16	

Please Note: The original version of this figure includes colored features and shading. A black and white copy of the figure should not be used because it may not accurately represent the information presented.



Data Box Information

All Result(s) Less than or equal to SRGs

ILB30307	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	>SL

Sample Location ID: ILB30139

Result(s) Greater than SRGs

ISRA COCs	<= SRG
Mercury	0.12 mg/kg 1.3
RCRA R.D.s	>SL

Result and Comparison to SRG

RCRA R.D.s Compared to SL

[2] - Represents the number of samples collected from this sample location, in this case 2, within the depth range being assessed, in this case < 2 feet bgs. Only the maximum result is presented for each analyte.

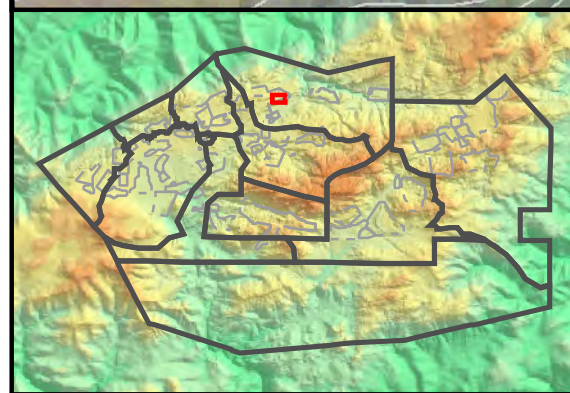


Figure Legend

- ISRA Planned Excavation
- Near Surface Well
- Chatsworth Well

Chemical Data Legend

Cadmium, Copper, Lead, and/or Mercury Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- > 2x SRG and <= 10x SRG
- > 10x SRG

Dioxin Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- > 2x SRG and <= 10x SRG
- > 10x SRG

Sample Not Analyzed for ISRA COCs

- > SL for one or more RCRA R.D.s
- <= SL for all RCRA R.D.s
- Not analyzed for RCRA R.D.s

ISRA Constituents of Concern
Cadmium, Copper, Lead, Mercury, Dioxin

Soil Remediation Goals (SRGs)
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pg/g

RCRA R.D.s = RCRA Risk Drivers
SL = Screening Level

Notes:
1. Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
2. Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
3. Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
4. Aerial imagery and topographic contours from Sage, 2010, and represents pre-excavation conditions. Topographic contours represent pre-excavation conditions.

**Outfall 009 - ISRA Area ELV-1C
Pre-Excavation Sample Results
Surface Soils (0 - 2 feet bgs)
SANTA SUSANA FIELD LABORATORY**

Path: T:\project\rock3\ISRA\Figures\Boeing\ELV-1C\ELV-1C_Shallow.mxd Date: 12/19/2013

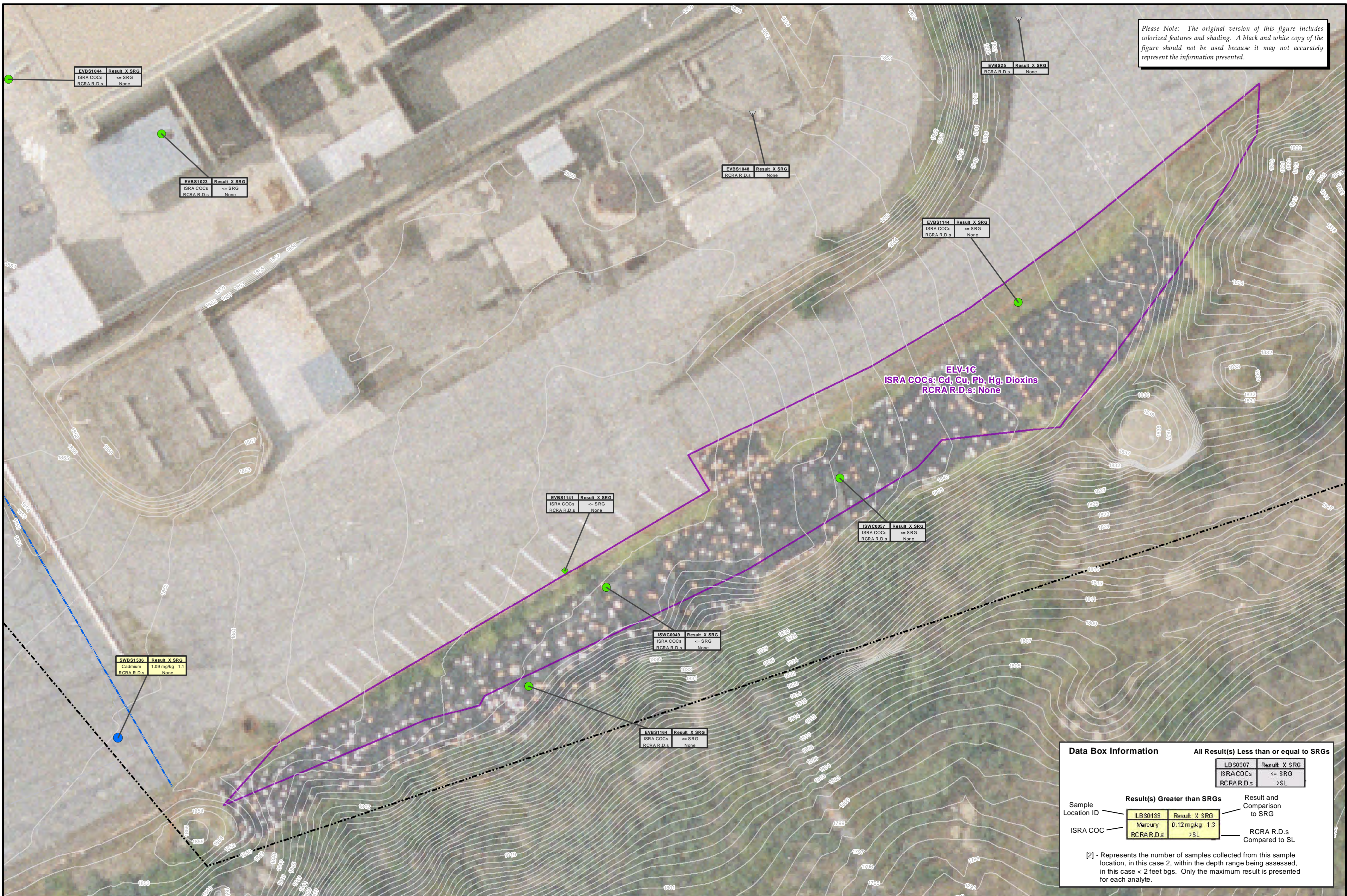
1 inch = 20 feet

0 20 40 Feet

MWH

Figure E-6.1

Please Note: The original version of this figure includes colored features and shading. A black and white copy of the figure should not be used because it may not accurately represent the information presented.



Data Box Information

All Result(s) Less than or equal to SRGs

ILB00307	Result: X SRG
ISRA COCs	<= SRG
RCRA R.D.s	> SL

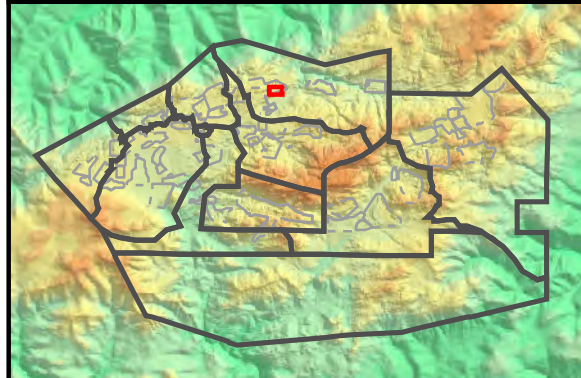
Result(s) Greater than SRGs

ILB00139	Result: X SRG
Mercury	0.12 mg/kg 1.3
RCRA R.D.s	> SL

Result and Comparison to SRG

RCRA R.D.s Compared to SL

[2] - Represents the number of samples collected from this sample location, in this case 2, within the depth range being assessed, in this case < 2 feet bgs. Only the maximum result is presented for each analyte.



Base Map Legend

- Administrative Area Boundary
- RFI Site Boundary
- Report Group Boundary
- Leach Field
- Drainage
- Non Jurisdictional Surface Water Pathway
- Surface Water Divide
- Previous Excavation Area
- Elevation Contour

Figure Legend

- ISRA Planned Excavation
- Near Surface Well
- Chatsworth Well

ISRA Constituents of Concern
Cadmium, Copper, Lead, Mercury, Dioxin

Soil Remediation Goals (SRGs)
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pg/g

RCRA R.D.s = RCRA Risk Drivers
SL = Screening Level

Notes:
1. Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
2. Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
3. Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
4. Aerial imagery and topographic contours from Sage, 2010. Aerial imagery was collected June 2, 2010, and represents pre-excavation conditions. Topographic contours represent pre-excavation conditions.

Chemical Data Legend

Cadmium, Copper, Lead, and/or Mercury Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- > 2x SRG and <= 10x SRG
- > 10x SRG

Dioxin Sample Locations

- <= SRG
- > SRG and <= 2x SRG
- > 2x SRG and <= 10x SRG
- > 10x SRG

Sample Not Analyzed for ISRA COCs

- > SL for one or more RCRA R.D.s
- <= SL for all RCRA R.D.s
- Not analyzed for RCRA R.D.s

**Outfall 009 - ISRA Area ELV-1C
Pre-Excavation Sample Results
Subsurface Soils (2 - 10 feet bgs)
SANTA SUSANA FIELD LABORATORY**

Path: T:\project\rock3\ISRA\Figures\Boeing\ELV-1C\ELV-1C_Deep.mxd Date: 12/19/2013

1 inch = 20 feet

0 20 40 Feet

MWH

Figure E-6.2

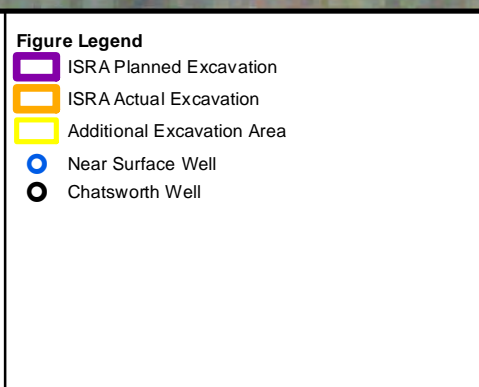
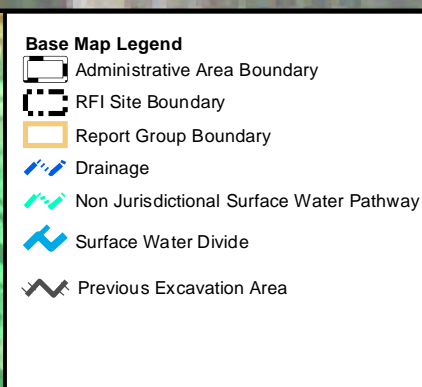
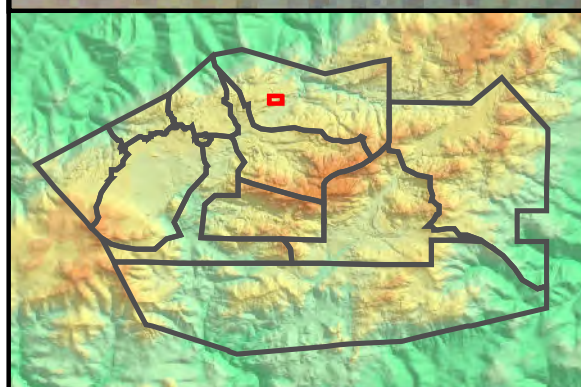
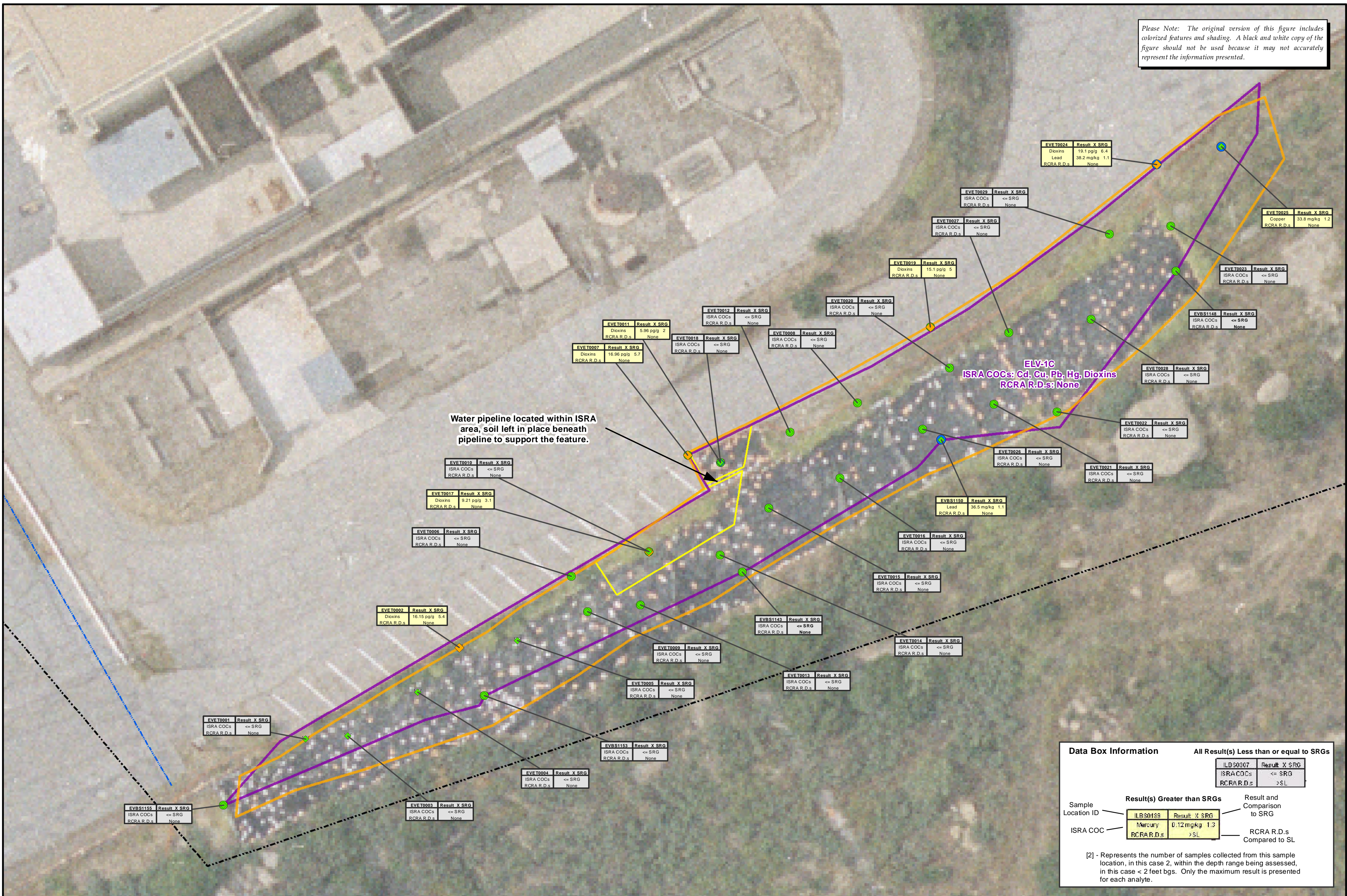
**TABLE E-6.1
ELV-1C PRE-EXCAVATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

Group					Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Dioxins			
Preferred					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	TCDD TEQ	
Result Value Units					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pg/g	
Background					8.7	15	140	1.1	1	36.8	21	29	34	0.09	5.3	29	0.655	0.79	0.46	62	110	0.87	
ISRA SRG					--	--	--	--	1	--	--	29	34	0.09	--	--	--	--	--	--	--	3	
CMS					0.77	--	--	--	--	--	--	8.2	--	0.88	--	15	--	96	--	--	26	--	
Lowest Characterization RBSL					0.095	0.095	15	5.1	0.021	930	8.9	1.1	0.063	0.1	0.11	0.1	0.17	0.54	2.9	1.5	21	4.27	
RBSL Type					ECO	RES	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO
Object Name	Sample Name	Collection Date	Sample Depth (feet bgs)	ISRA Area	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	
EVBM0039S70	EVBM0039S70	12/11/2006	0.1-0.5	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	351	
EVBS1057	EVBS1057S01	5/28/2008	0.0-1.0	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33.0	
EVBS1058	EVBS1058S01	5/28/2008	0.0-1.0	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.06	
EVBS1059	EVBS1059S01	5/28/2008	0.0-1.0	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.40	
EVBS1141	EVBS1141S001	3/24/2009	0.0-0.5	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.19	
EVBS1141	EVBS1141S002	3/24/2009	3.0-4.3	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.132	
EVBS1142	EVBS1142S001	3/24/2009	0.0-0.5	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.82	
EVBS1143	EVBS1143AS001	11/2/2012	0.0-0.5	ELV-1C	--	--	--	--	0.253	--	--	16.7 J	12.7 J	--	--	--	--	--	--	--	--	--	
EVBS1143	EVBS1143S001	3/24/2009	0.0-0.5	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.397	
EVBS1144	EVBS1144S001	3/24/2009	0.0-0.5	ELV-1C	--	--	--	--	0.174 J	--	--	--	10.3	0.017	--	--	--	--	--	--	--	--	
EVBS1144	EVBS1144S002	3/24/2009	6.0-6.5	ELV-1C	--	--	--	--	0.119 J	--	--	--	5.45	0.00387 J	--	--	--	--	--	--	--	--	
EVBS1148	EVBS1148S001	4/17/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.97	
EVBS1148	EVBS1148AS001	11/2/2012	0.0-0.5	ELV-1C	--	--	--	--	0.454	--	--	16.5 J	29 J	0.0191	--	--	--	--	--	--	--	--	
EVBS1149	EVBS1149S001	4/17/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.5	
EVBS1150	EVBS1150S001	4/17/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0720	
EVBS1150	EVBS1150AS001	11/2/2012	0.0-0.5	ELV-1C	--	--	--	--	0.403	--	--	14.6 J	36.5 J	0.0377	--	--	--	--	--	--	--	--	
EVBS1151	EVBS1151S001	4/20/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.13	
EVBS1152	EVBS1152S001	4/20/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.44	
EVBS1153	EVBS1153S001	4/20/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.497	
EVBS1153	EVBS1153AS001	11/2/2012	0.0-0.5	ELV-1C	--	--	--	--	0.237	--	--	13.2 J	16.2 J	--	--	--	--	--	--	--	--	--	
EVBS1155	EVBS1155S001	4/17/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.416	
EVBS1155	EVBS1155AS001	11/2/2012	0.0-0.5	ELV-1C	--	--	--	--	0.169 J	--	--	12.6 J	11.2 J	--	--	--	--	--	--	--	--	--	
EVBS1156	EVBS1156S001	4/20/2009	0.0-0.4	ELV-1C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12.8	
ISWC0049	ISWC0049S001	7/28/2009	1.0-2.0	ELV-1C	<0.88	5.5	77	0.50	<0.20	21	6.3	15	8.0	0.0078	<0.20	14	1.2	<0.80	<0.80	36	70	--	
ISWC0050	ISWC0050S001	7/28/2009	0.0-0.4	ELV-1C	<0.88	6.6	69	0.61	<0.20	21	5.9	22	11	0.014	0.32	14	<1.0	<0.80	<0.80	35	63	--	
ISWC0051	ISWC0051S001	7/28/2009	0.0-1.2	ELV-1C	<0.88	6.8	78	0.55	<0.20	23	7.3	15	9.3	0.007	0.33	15	1.6	<0.80	<0.80	39	60	--	
ISWC0052	ISWC0052S001	7/28/2009	0.0-0.7	ELV-1C	<0.88	7.1	77	0.55	0.57	24	6.9	32	37	0.33	0.29	18	<1.0	<0.80	<0.80	38	86	--	
ISWC0053	ISWC0053S001	7/28/2009	0.0-1.1	ELV-1C	<0.88	5.7	79	0.46	1.7	40	6.8	58	160	0.48	1.6	24	<1.0	0.96	<0.80	35	180	--	
ISWC0054	ISWC0054S001	7/28/2009	0.0-0.4	ELV-1C	<0.88	5.9	79	0.62	1.7	36	8.5	34	200	0.3	0.84	21	<1.0	<0.80	<0.80	36	180	--	
ISWC0055	ISWC0055S001	7/28/2009	0.0-0.3	ELV-1C	<0.88	6.8	77	0.54	0.39	33	6.7	22	42	0.038	0.68	25	1.7	<0.80	<0.80	38	93	--	
ISWC0056	ISWC0056S001	7/28/2009	1.0-1.5	ELV-1C	<0.88	6.0	73	0.47	<0.20	22	6.4	15	6.5	<0.0055	<0.20	15	<1.0	<0.80	<0.80	39	57	--	
ISWC0057	ISWC0057S001	7/28/2009	1.0-2.0	ELV-1C	<0.88	6.5	87	0.57	<0.20	27	7.0	17	16	0.01	0.44	17	<1.0	<0.80	<0.80	41	70	--	
ISWC0058	ISWC0058S001	7/28/2009	0.0-0.7	ELV-1C	<0.88	6.7	74	0.57	0.34	28	7.7	18	52	0.022	0.56	19	1.2	<0.80	<0.80	38	92	--	
ISWC0059	ISWC0059S001	7/28/2009	0.0-0.6	ELV-1C	<0.88	6.0	77	0.49	0.24	25	6.4	15	11	0.016	0.33	15	<1.0	<0.80	<0.80	40	83	--	
ISWC0060	ISWC0060S001	7/28/2009	0.0-0.8	ELV-1C	<0.88	5.4	68	0.55	<0.20	21	6.3	13	8.1	0.017	<0.20	13	<1.0	<0.80	<0.80	36	61	--	
ISWC0096	ISWC0096S001	8/24/2009	0.0-0.5	ELV-1C	<0.88	6.4	81	0.63	<0.20	24	6.8	18	24	0.028	<0.20	17	<1.0	<0.80	<0.80	42	76	--	
ISWC0097	ISWC0097S001	8/24/2009	0.0-0.5	ELV-1C	<0.88	8.0	91	0.75	1.3	31	7.8	40	56	0.032	0.22	21	<1.0	<0.80	<0.80	45	160	--	
ISWC0098	ISWC0098S001	8/24/2009	0.0-1.1	ELV-1C	<0.88	7.1	100	0.86	<0.20	28	8.4	20	9.7	0.018	<0.20	21	<1.0	<0.80	<0.80	48	82	--	
ISWC0099	ISWC0099S001	8/24/2009	0.0-1.3	ELV-1C	<0.88	7.5	85	0.67	<0.20	25	7.7	17	9.2	0.0079	<0.20	19	<1.0	<0.80	<0.80	44	68	--	
ISWC0100	ISWC0100S001	8/24/2009	0.0-1.2	ELV-1C	<0.88	7.6	82	0.73	0.41	39	7.3	21	18	0.019	<0.20	18	<1.0	<0.80	<0.80	43	140	--	
ISWC0101	ISWC0101S001	8/24/2009	0.0-0.8	ELV-1C	<0.88	7.8	95	0.76	1.7	32	8.2	29	32	0.022	<0.20	21	<1.0	<0.80	<0.80	49	230	--	
ISWC0102	ISWC0102S001	8/24/2009	0.0-0.5	ELV-1C	<0.88	6.9	86	0.72	<0.20	28	7.5	18	16	0.0089	<0.20	19	<1.0	<0.80	<0.80	45	80	--	
ISWC0103	ISWC0103S001	8/24/2009	0.0-0.5	ELV-1C	<0.88	4.9	85	0.65	<0.20	20	5.7	12	13	0.009	<0.20	13	<1.0	<0.80	<0.80	37	59	--	
EVBS1021	EVBS1021S01	6/4/2008	0.0-1.0	--	1.4	4.5	86	0.5	0.24	17	6.3	14.5	7.6	0.056	0.54	11.6	0.532	0.11	0.25	30.7	56.6	--	
EVBS1022	EVBS1022S01	6/4/2008	0.0-1.0	--	1.3	5.3	104	0.54	0.25	25.4	6.9	16.2	7.6	0.0097 J	0.66	16.7	<0.564	0.24	0.3	40.7	69.7	--	

**TABLE E-6.1
ELV-1C PRE-EXCAVATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

Group					Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Dioxins		
Preferred					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	TCDD TEQ	
Result Value Units					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pg/g
Background					8.7	15	140	1.1	1	36.8	21	29	34	0.09	5.3	29	0.655	0.79	0.46	62	110	0.87	
ISRA SRG					--	--	--	--	1	--	--	29	34	0.09	--	--	--	--	--	--	--	3	
CMS					0.77	--	--	--	--	--	--	8.2	--	0.88	--	15	--	96	--	--	26	--	
Lowest Characterization RBSL					0.095	0.095	15	5.1	0.021	930	8.9	1.1	0.063	0.1	0.11	0.1	0.17	0.54	2.9	1.5	21	4.27	
RBSL Type					ECO	RES	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO
Object Name	Sample Name	Collection Date	Sample Depth (feet bgs)	ISRA Area	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	
EVBS1023	EVBS1023S01	6/4/2008	0.0-1.0	--	1.5	6	208	0.55	0.29	22.8	8.5	17.9	8.3	0.012	0.57	15.1	0.551	0.19	0.31	43.9	66.8	--	
EVBS1023	EVBS1023S02	6/4/2008	3.0-4.0	--	0.92	6.1	93.8	0.6	0.25	25.6	7.8	14.9	8.8	0.0093	0.49	16.3	0.557	0.14	0.35	43.5	66.8	--	
EVBS1024	EVBS1024S01	6/4/2008	0.0-1.0	--	<0.338	9.6	89.5	1	0.3	35.1	7.3	26.2	16.8	0.0072 J	0.48	21.2	<0.557	0.16 J	0.41	58.2	120	--	
EVBS1044	EVBS1044S01	6/4/2008	0.0-1.0	--	<0.366	7.4	63.6	0.61	0.24 J	24.8	4.3	11.4	10.3	0.0097 J	0.56	9.4	<0.62	0.071 J	0.28	51	53.9	--	
EVBS1044	EVBS1044S02	6/4/2008	4.0-5.5	--	0.39 J	13	69.8	1.2	0.23	41.4	5.5	28.9	14.8	0.012	0.61	17.1	<0.534	0.062 J	0.36	60.7	80	--	
EVBS1056	EVBS1056S01	5/28/2008	0.0-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	840	
EVBS1060	EVBS1060S01	5/29/2008	0.0-1.0	--	0.52 J	7	103	0.75	3.7	33.7	9.4	28.7	57.1	0.21	0.95	21.2	<0.522	0.23	0.37	57.8	482	--	
EVBS1139	EVBS1139S001	3/24/2009	0.0-0.5	--	--	--	--	--	--	--	--	19.8	--	--	--	--	--	--	--	--	--	--	
EVBS1140	EVBS1140S001	3/24/2009	0.0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0140	
EVBS1146	EVBS1146S001	3/24/2009	0.0-0.5	--	--	--	--	--	0.0955 J	--	--	--	7.19	0.00899	--	--	--	--	--	--	--	--	
EVBS1147	EVBS1147S001	4/17/2009	0.0-0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.68	
EVBS1154	EVBS1154S001	4/17/2009	0.0-0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.5	
EVBS1157	EVBS1157S001	4/20/2009	0.0-0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	116	
EVBS1164	EVBS1164S001	11/5/2010	0.0-1.5	--	<1.04 J	11.3 J	156 J	0.913 J	4.9	41.4 J	10.3 J	29.8	27.4 J	0.0175 J	1.85	32.6 J	0.444	0.158	0.481	65.6 J	136 J	--	
EVBS1164	EVBS1164S002	11/5/2010	5.0-6.0	--	<1.04 J	9.32 J	118 J	0.734 J	0.428	31.6 J	7.76 J	16.8	14 J	0.0069 J	0.766	24.3 J	0.28 J	0.087 J	0.392	52.7 J	99.1 J	--	
SWBS1536	SWBS1536S001	1/29/2009	3.5-4.0	--	0.825	2.1	68.6	0.315	1.09	18.1	5.24	9.97	4.77	0.00755	0.346	10.9	5.45	1.09	0.128	27.9	46	--	

Please Note: The original version of this figure includes colored features and shading. A black and white copy of the figure should not be used because it may not accurately represent the information presented.



ISRA Constituents of Concern
Cadmium, Copper, Lead, Mercury, Dioxin

Soil Remediation Goals (SRGs)
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pg/g

RCRA R.D.s = RCRA Risk Drivers
SL = Screening Level

Notes:

- Dioxin represents the sum of 17 dioxin/furan congeners results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
- Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
- Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
- Aerial imagery was collected June 2, 2010, and represents pre-excavation conditions (Sage, 2010).
- The actual ISRA excavation boundary was surveyed by Cal Vada on 1/30/2013.

Outfall 009 - ISRA Area ELV-1C Confirmation Sample Results
SANTA SUSANA FIELD LABORATORY

Path: T:\project\rock3\ISRA\Figures\Boeing\ELV-1C\ELV-1C_Confirm.mxd Date: 12/19/2013

1 inch = 20 feet

0 20 40 Feet

MWH

Figure E-6.3

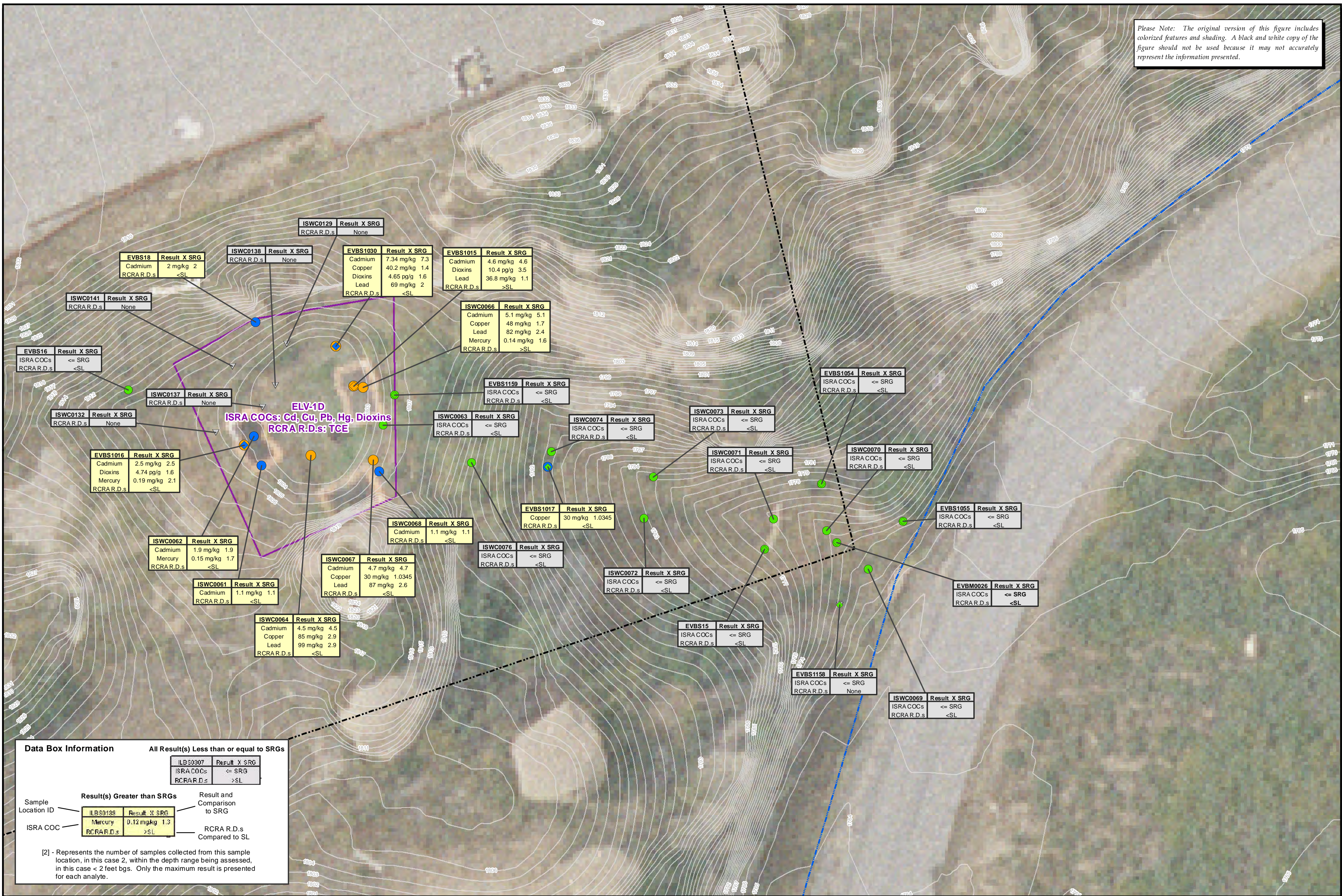
TABLE E-6.2
ELV-1C CONFIRMATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY

Group						Metals	Metals	Metals	Metals	Dioxins
Preferred Analyte						Cadmium	Copper	Lead	Mercury	TCDD TEQ
Result Value Units						mg/kg	mg/kg	mg/kg	mg/kg	pg/g
Background						1	29	34	0.09	0.87
ISRA SRG						1	29	34	0.09	3
CMS						--	8.2	--	0.88	--
Lowest Characterization RBSL						0.021	1.1	0.063	0.1	4.27
RBSL Type						ECO	ECO	ECO	ECO	ECO
Object Name	Sample Name	Sample Date	Sample Depth (feet bgs)	Sample Status	Floor/Sidewall	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
EVBS1143	EVBS1143S001	3/24/2009	0.0-0.5	Excavated	Sidewall	--	--	--	--	0.397
EVBS1143	EVBS1143AS001	11/2/2012	0.0-0.5	Excavated	Sidewall	0.253	16.7 J	12.7 J	--	--
EVBS1148	EVBS1148S001	4/17/2009	0.0-0.4	Excavated	Sidewall	--	--	--	--	1.97
EVBS1148	EVBS1148AS001	11/2/2012	0.0-0.5	Excavated	Sidewall	0.454	16.5 J	29 J	0.0191	--
EVBS1150	EVBS1150S001	4/17/2009	0.0-0.4	Excavated	Sidewall	--	--	--	--	0.0720
EVBS1150	EVBS1150AS001	11/2/2012	0.0-0.5	Excavated	Sidewall	0.403	14.6 J	36.5 J	0.0377	--
EVBS1153	EVBS1153S001	4/20/2009	0.0-0.4	Excavated	Sidewall	--	--	--	--	0.497
EVBS1153	EVBS1153AS001	11/2/2012	0.0-0.5	Excavated	Sidewall	0.237	13.2 J	16.2 J	--	--
EVBS1155	EVBS1155S001	4/17/2009	0.0-0.4	In Place	Sidewall	--	--	--	--	0.416
EVBS1155	EVBS1155AS001	11/2/2012	0.0-0.5	In Place	Sidewall	0.169 J	12.6 J	11.2 J	--	--
EVET0001	EVET0001S001	11/27/2012	1.5-2.0	In Place	Sidewall	--	--	--	--	0.16
EVET0002	EVET0002S001	11/27/2012	1.5-2.0	In Place	Sidewall	--	--	--	--	16.15
EVET0002	EVET0002S001-RWQCB	11/27/2012	1.5-2.0	In Place	Sidewall	--	--	--	--	13.10
EVET0003	EVET0003S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	--	--	0.31
EVET0004	EVET0004S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	--	--	0.17
EVET0005	EVET0005S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	--	--	0.77
EVET0006	EVET0006S001	11/27/2012	1.5-2.0	In Place	Sidewall	--	--	11.5	--	0.91
EVET0006	EVET0006D001	11/27/2012	1.5-2.0	In Place	Sidewall	--	--	16	--	1.89
EVET0006	EVET0006S001-RWQCB	11/27/2012	1.5-2.0	In Place	Sidewall	--	--	15	--	3.41
EVET0007	EVET0007S001	11/27/2012	0.5-1.0	In Place	Sidewall	--	--	7.49	--	16.96
EVET0007	EVET0007S001-RWQCB	11/27/2012	0.5-1.0	In Place	Sidewall	--	--	9.0	--	10.14
EVET0008	EVET0008S001	11/27/2012	2.0-2.5	In Place	Floor	0.254	19.4	12.2	--	1.04
EVET0008	EVET0008S001-RWQCB	11/27/2012	2.0-2.5	In Place	Floor	0.27	18	12	--	1.45
EVET0009	EVET0009S001	11/27/2012	2.0-2.5	In Place	Floor	0.242	--	10.4	--	0.29
EVET0010	EVET0010S001	11/27/2012	2.0-2.5	Excavated	Floor	--	--	10	--	0.77
EVET0011	EVET0011S001	11/27/2012	2.0-2.5	Excavated	Floor	--	--	7.1	--	5.96
EVET0012	EVET0012S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	8.83	--	0.91
EVET0013	EVET0013S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	6.63	--	0.0061
EVET0014	EVET0014S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	9.48	--	0.55
EVET0015	EVET0015S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	6.7	--	0.14
EVET0016	EVET0016S001	11/27/2012	2.0-2.5	In Place	Floor	--	--	11.6	--	0.34
EVET0017	EVET0017S001	3/11/2013	4.0-4.5	In Place	Floor	--	--	--	--	9.21
EVET0017	EVET0017S001-RWQCB	3/11/2013	4.0-4.5	In Place	Floor	--	--	--	--	2.01
EVET0018	EVET0018S001	3/11/2013	4.0-4.5	In Place	Floor	--	--	--	--	1.55
EVET0019	EVET0019S001	3/11/2013	2.5-3.0	In Place	Sidewall	--	--	14.7	--	15.1
EVET0019	EVET0019S001-RWQCB	3/11/2013	2.5-3.0	In Place	Sidewall	--	--	11	--	--
EVET0020	EVET0020S001	3/11/2013	2.5-3.0	In Place	Floor	--	--	8.29	--	0.17
EVET0021	EVET0021S001	3/11/2013	2.0-2.5	In Place	Floor	--	--	12.2	--	0.23
EVET0022	EVET0022S001	3/11/2013	2.0-2.5	In Place	Floor	0.189	19.5	10.4	--	0.156

TABLE E-6.2
ELV-1C CONFIRMATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY

						Metals	Metals	Metals	Metals	Dioxins
						Cadmium	Copper	Lead	Mercury	TCDD TEQ
						mg/kg	mg/kg	mg/kg	mg/kg	pg/g
Background						1	29	34	0.09	0.87
ISRA SRG						1	29	34	0.09	3
CMS						--	8.2	--	0.88	--
Lowest Characterization RBSL						0.021	1.1	0.063	0.1	4.27
RBSL Type						ECO	ECO	ECO	ECO	ECO
Object Name	Sample Name	Sample Date	Sample Depth (feet bgs)	Sample Status	Floor/Sidewall	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
EVET0022	EVET0022S001-RWQCB	3/11/2013	2.0-2.5	In Place	Floor	0.44	20	38	0.0224	--
EVET0023	EVET0023S001	3/11/2013	2.0-2.5	In Place	Floor	0.283 J	23.1 J	14	0.0236	57.8 *
EVET0023	EVET0023S001SP	3/11/2013	2.0-2.5	In Place	Floor	0.51	21	16	0.022	0.42
EVET0023	EVET0023AS001	10/14/2013	2.0-2.5	In Place	Floor	--	--	--	--	0.40
EVET0024	EVET0024S001	3/11/2013	2.0-2.5	In Place	Sidewall	0.406 J	17.9 J	38.2	0.0191	19.1
EVET0024	EVET0024S001-RWQCB	3/11/2013	2.0-2.5	In Place	Sidewall	0.20	18	16	0.0165	--
EVET0025	EVET0025S001	3/11/2013	2.0-2.5	In Place	Floor	0.179 J	33.8 J	10.4	0.0165 J	0.248
EVET0026	EVET0026S001	10/16/2013	2.0-2.5	In Place	Floor	--	--	7.44 J	--	0.007
EVET0027	EVET0027S001	10/16/2013	2.0-2.5	In Place	Floor	--	--	17.9 J	--	0.68
EVET0028	EVET0028S001	10/16/2013	2.0-2.5	In Place	Floor	0.173 J	26	11.8 J	0.0189 J	0.013
EVET0028	EVET0028S001-RWQCB	10/16/2013	2.0-2.5	In Place	Floor	0.250 J	19.6	9.09	0.0185 J	0.14
EVET0029	EVET0029S001	10/16/2013	2.0-2.5	In Place	Floor	0.581 J	18.6	23.9 J	0.0224 J	2.46
EVET0029	EVET0029S001-RWQCB	10/16/2013	2.0-2.5	In Place	Floor	0.384 J	17.4	16.6	0.0519 J	6.78

Please Note: The original version of this figure includes colored features and shading. A black and white copy of the figure should not be used because it may not accurately represent the information presented.



Data Box Information

All Result(s) Less than or equal to SRGs

ISWC0307	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	>SL

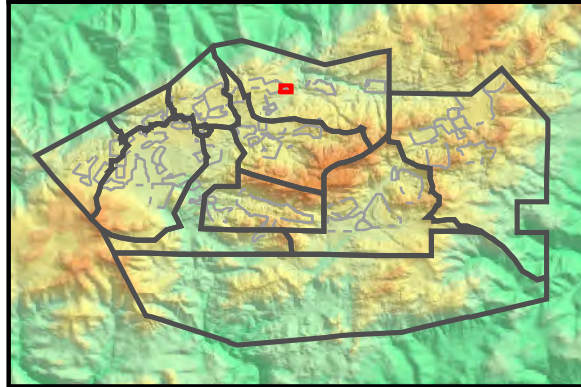
Result(s) Greater than SRGs

Sample Location ID	ILB0138	Result X SRG
ISRA COC	Mercury	0.12 mg/kg 1.3
	RCRA R.D.s	>SL

Result and Comparison to SRG

RCRA R.D.s Compared to SL

[2] - Represents the number of samples collected from this sample location, in this case 2, within the depth range being assessed, in this case < 2 feet bgs. Only the maximum result is presented for each analyte.



- Base Map Legend**
- Administrative Area Boundary
 - RFI Site Boundary
 - Report Group Boundary
 - Drainage
 - Non Jurisdictional Surface Water Pathway
 - Surface Water Divide
 - Previous Excavation Area
 - Elevation Contour

- Figure Legend**
- ISRA Planned Excavation
 - Near Surface Well
 - Chatsworth Well

- ISRA Constituents of Concern**
Cadmium, Copper, Lead, Mercury, Dioxin
- Soil Remediation Goals (SRGs)**
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pg/g
- RCRA R.D.s = RCRA Risk Drivers
SL = Screening Level
- Cadmium, Copper, Lead, and/or Mercury Sample Locations**
- <= SRG
 - > SRG and <= 2x SRG
 - > 2x SRG and <= 10x SRG
 - > 10x SRG

- Chemical Data Legend**
- Dioxin Sample Locations**
- <= SRG
 - > SRG and <= 2x SRG
 - > 2x SRG and <= 10x SRG
 - > 10x SRG
- Sample Not Analyzed for ISRA COCs**
- > SL for one or more RCRA R.D.s
 - <= SL for all RCRA R.D.s
 - Not analyzed for RCRA R.D.s

**Outfall 009 - ISRA Area ELV-1D
Pre-Excavation Sample Results
Surface Soils (0 - 2 feet bgs)
SANTA SUSANA FIELD LABORATORY**

Path: T:\projects\rock3\ISRA\Figures\Boeing\ELV-1D\ELV-1D_PreExc_Shallow.mxd Date: 12/26/2013

1 inch = 15 feet

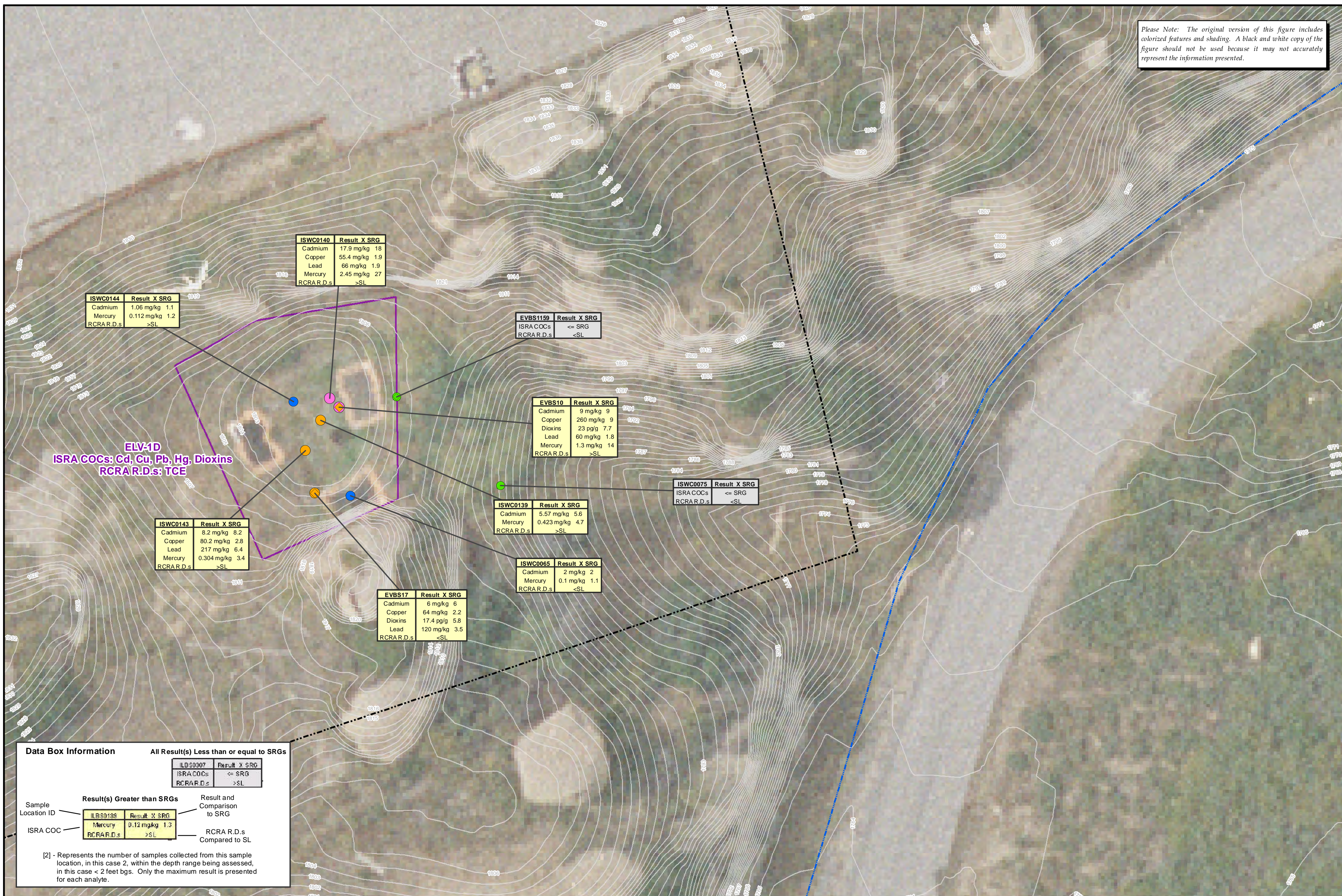
0 15 30 Feet

MWH

Figure E-7.1

Notes:
1. Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
2. Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
3. Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
4. Aerial imagery and topographic contours from Sage, 2010. Aerial imagery was collected June 2, 2010, and represents pre-excavation conditions. Topographic contours represent pre-excavation conditions.

Please Note: The original version of this figure includes colored features and shading. A black and white copy of the figure should not be used because it may not accurately represent the information presented.



ELV-1D
ISRA COCs: Cd, Cu, Pb, Hg, Dioxins
RCRA R.D.s: TCE

ISWC0144	Result X SRG
Cadmium	1.06 mg/kg 1.1
Mercury	0.112 mg/kg 1.2
RCRA R.D.s	>SL

ISWC0140	Result X SRG
Cadmium	17.9 mg/kg 18
Copper	55.4 mg/kg 1.9
Lead	66 mg/kg 1.9
Mercury	2.45 mg/kg 27
RCRA R.D.s	>SL

EVBS1159	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	<SL

EVBS10	Result X SRG
Cadmium	9 mg/kg 9
Copper	260 mg/kg 9
Dioxins	23 pg/g 7.7
Lead	60 mg/kg 1.8
Mercury	1.3 mg/kg 14
RCRA R.D.s	>SL

ISWC0075	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	<SL

ISWC0143	Result X SRG
Cadmium	8.2 mg/kg 8.2
Copper	80.2 mg/kg 2.8
Lead	217 mg/kg 6.4
Mercury	0.304 mg/kg 3.4
RCRA R.D.s	>SL

ISWC0139	Result X SRG
Cadmium	5.57 mg/kg 5.6
Mercury	0.423 mg/kg 4.7
RCRA R.D.s	>SL

ISWC0065	Result X SRG
Cadmium	2 mg/kg 2
Mercury	0.1 mg/kg 1.1
RCRA R.D.s	<SL

EVBS17	Result X SRG
Cadmium	6 mg/kg 6
Copper	64 mg/kg 2.2
Dioxins	17.4 pg/g 5.8
Lead	120 mg/kg 3.5
RCRA R.D.s	<SL

Data Box Information

All Result(s) Less than or equal to SRGs

ISB0307	Result X SRG
ISRA COCs	<= SRG
RCRA R.D.s	>SL

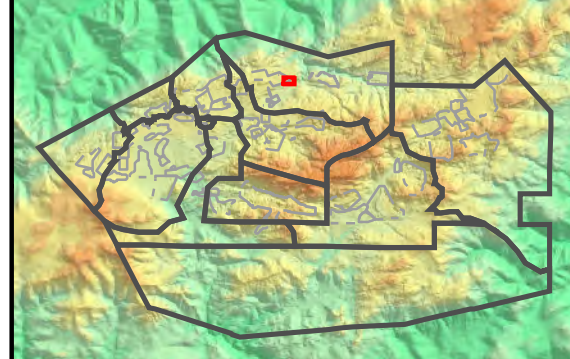
Result(s) Greater than SRGs

ISB0139	Result X SRG
Mercury	0.12 mg/kg 1.3
RCRA R.D.s	>SL

Result and Comparison to SRG

RCRA R.D.s Compared to SL

[2] - Represents the number of samples collected from this sample location, in this case 2, within the depth range being assessed, in this case < 2 feet bgs. Only the maximum result is presented for each analyte.



- Base Map Legend**
- Administrative Area Boundary
 - RFI Site Boundary
 - Report Group Boundary
 - Leach Field
 - Drainage
 - Non Jurisdictional Surface Water Pathway
 - Previous Excavation Area
 - Elevation Contour

- Figure Legend**
- ISRA Planned Excavation
 - Near Surface Well
 - Chatsworth Well

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Cadmium, Copper, Lead, Mercury, Dioxin
- Soil Remediation Goals (SRGs)**
Cadmium: 1 mg/kg
Copper: 29 mg/kg
Lead: 34 mg/kg
Mercury: 0.09 mg/kg
Dioxin: 3.0 pg/g
- RCRA R.D.s = RCRA Risk Drivers**
SL = Screening Level
- Notes:**
1. Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD-TEQ.
2. Cadmium, copper, lead, and mercury SRG is equal to the 2005 background comparison concentration, and SRG for dioxins is approximately 3 times the 2005 background comparison concentration.
3. Screening level for RCRA risk drivers is the lower of the Ecological or Residential Risk-Based Screening Level. All RCRA risk drivers identified on this figure view are evaluated at each sample location shown.
4. Aerial imagery and topographic contours from Sage, 2010. Aerial imagery was collected June 2, 2010, and represents pre-excavation conditions. Topographic contours represent pre-excavation conditions.

- Chemical Data Legend**
- Cadmium, Copper, Lead, and/or Mercury Sample Locations**
- <= SRG
 - > SRG and <= 2x SRG
 - > 2x SRG and <= 10x SRG
 - > 10x SRG
- Dioxin Sample Locations**
- <= SRG
 - > SRG and <= 2x SRG
 - > 2x SRG and <= 10x SRG
 - > 10x SRG
- Sample Not Analyzed for ISRA COCs**
- > SL for one or more RCRA R.D.s
 - <= SL for all RCRA R.D.s
 - Not analyzed for RCRA R.D.s

Outfall 009 - ISRA Area ELV-1D
Pre-Excavation Sample Results
Subsurface Soils (2 - 10 feet bgs)
SANTA SUSANA FIELD LABORATORY

Path: T:\projects\rock3\ISRA\Figures\Boeing\ELV-1D\ELV-1D_PreExc_Deep.mxd Date: 12/26/2013

1 inch = 15 feet

0 15 30 Feet

MWH

Figure E-7.2

**TABLE E-7.1
ELV-1D PRE-EXCAVATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

Group					Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Dioxins		
Preferred					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	TCDD TEQ	
Result Value Units					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pg/g	
Background					8.7	15	140	1.1	1	36.8	21	29	34	0.09	5.3	29	0.655	0.79	0.46	62	110	0.87	
ISRA SRG					--	--	--	--	1	--	--	29	34	0.09	--	--	--	--	--	--	--	3	
CMS					0.77	--	--	--	--	--	--	8.2	--	0.88	--	15	--	96	--	--	26	--	
Lowest Characterization RBSL					0.095	0.095	15	5.1	0.021	930	8.9	1.1	0.063	0.1	0.11	0.1	0.17	0.54	2.9	1.5	21	4.27	
RBSL Type					ECO	RES	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO
Object Name	Sample Name	Collection Date	Sample Depth (feet bgs)	ISRA Area	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	
EVBS10	EVBS10S01	10/17/1997	3.0-3.0	ELV-1D	25 J	<5	85	<0.6	9	35	11	260 J	60	1.3	<10	23	<5	<1	<5	36	640 J	23.0	
EVBS1015	EVBS1015S01	5/29/2008	0.0-1.0	ELV-1D	7.3	3	77.8	0.51	4.6	25.8	5.40	26 J	36.8	0.076	1.3	14.7 E	<0.50	0.40	0.21	33.4 J	816	10.4	
EVBS1016	EVBS1016S01	5/28/2008	0.0-1.0	ELV-1D	1.10	2.7	64.7	0.5	2.5	22.8	5.90 J	15.3 J	26.5	0.19 J	2.3	14.7 J	<0.50	0.30	0.20	30.9	203	4.74	
EVBS1030	EVBS1030S01	5/29/2008	0.0-1.0	ELV-1D	8.5	3.3	--	--	--	--	--	--	--	0.074	--	--	--	--	0.23	37.1 J	--	--	
EVBS1030	EVBS1030S01SP	5/29/2008	0.0-1.0	ELV-1D	--	--	86.4	0.526	7.34	39.8	5.76	40.2	69	--	1.73	23	<0.49 J	1.23	--	--	1,330	4.65	
EVBS1159	EVBS1159S001	5/26/2009	0.0-0.5	ELV-1D	--	--	--	--	<0.0253	--	--	1.78	1.19	0.0126	--	--	--	--	--	--	--	0.251	
EVBS1159	EVBS1159S002	5/26/2009	2.5-3.0	ELV-1D	--	--	--	--	<0.0244	--	--	2.17	1.2	0.0077 J	--	--	--	--	--	--	--	0.173	
EVBS17	EVBS17S01	12/4/1997	2.0-2.0	ELV-1D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EVBS17	RF994	12/4/1997	2.0-2.0	ELV-1D	<13 J	<7	89	<0.7	6	69	7	64	120	<0.3	<13	22	<7	<1	<7	40	510 J	17.4	
EVBS18	EVBS18S01	12/4/1997	0.5-0.5	ELV-1D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EVBS18	RF995	12/4/1997	0.5-0.5	ELV-1D	<11 J	<6	65	<0.6	2	22	6	16	32	<0.2	<11	14	<6	<1	<6	32	600 J	--	
ISWC0061	ISWC0061S001	7/28/2009	0.0-0.6	ELV-1D	<0.88	3.6	54	0.39	1.1	20	4.5	12	18	0.0092	0.71	11	<1.0	<0.80	<0.80	26	350	--	
ISWC0062	ISWC0062S001	7/28/2009	1.0-1.6	ELV-1D	<0.88	4.9	59	0.33	1.9	21	3.7	16	24	0.15	0.79	11	<1.0	<0.80	<0.80	29	160	--	
ISWC0063	ISWC0063S001	7/28/2009	1.0-1.7	ELV-1D	<0.88	3.0	61	0.48	0.22	22	4.4	8.3	5.6	<0.0055	<0.20	11	<1.0	<0.80	<0.80	30	57	--	
ISWC0064	ISWC0064S001	7/28/2009	1.0-1.8	ELV-1D	2.2	8.0	87	0.47	4.5	55	5.1	85	99	0.082	7.9	24	<1.0	2.4	<0.80	33	350	--	
ISWC0065	ISWC0065S001	7/28/2009	1.0-2.0	ELV-1D	<0.88	2.7	77	0.32	2.0	40	3.4	13	21	0.1	0.41	12	<1.0	<0.80	<0.80	27	440	--	
ISWC0066	ISWC0066S001	7/28/2009	0.0-0.9	ELV-1D	1.4	4.0	96	0.57	5.1	51	4.9	48	82	0.14	2.6	25	<1.0	1.9	<0.80	29	980	--	
ISWC0067	ISWC0067S001	7/28/2009	0.0-0.5	ELV-1D	5.6	3.1	110	0.52	4.7	44	5.4	30	87	0.02	2.7	22	1.6	0.82	<0.80	27	950	--	
ISWC0068	ISWC0068S001	7/28/2009	0.0-0.7	ELV-1D	<0.88	3.9	59	0.58	1.1	24	4.6	15	8.2	0.01	<0.20	14	<1.0	0.82	<0.80	32	120	--	
ISWC0139	ISWC0139S001	6/27/2013	3.0-5.0	ELV-1D	<0.322	0.634	51.8	0.636	5.57	16	6.23	8.52	7.55	0.423	0.438	11	4.23	<0.0977	<0.488	26.5	63	--	
ISWC0140	ISWC0140S001	6/27/2013	3.5-5.0	ELV-1D	20.2	9.15	100	1.14	17.9	44	11.6	55.4	66	2.450	2.22	28	4.08	0.227	13.9	51.5	464	--	
ISWC0143	ISWC0143S001	10/7/2013	3.5-4.0	ELV-1D	17.2	6.07	129	0.818	8.2	105	10.8	80.2	217	0.304	7.43	31.7	<0.491	3.98	6.93	53.6	779	--	
ISWC0144	ISWC0144S002	10/7/2013	3.5-4.0	ELV-1D	3.62	2.25	52.3	0.59	1.06	19.2	8.84	18.3	7.9	0.112	3.56	15.1	<0.477	0.226	2.58	31.5	170	--	
EVBM0026	EVBM0026S01	12/11/2006	0.0-0.8	--	<1.1 J	3.7	76 J	0.48	0.46	20	7	11 J	14	0.025	0.98	17	0.3	<0.57 J	0.44	30	76 J	0.941	
EVBS1017	EVBS1017S01	6/4/2008	0.0-1.0	--	<0.30	3.6	94.2	0.65	0.46	21.8 E	6.09 E	30	21.6	0.02	0.51	14.5 E	<0.51	0.08 J	0.24	33.2	65.3 E	0.565	
EVBS1017	EVBS1017S02	6/5/2008	0.0-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.565	
EVBS1054	EVBS1054S01	6/4/2008	0.0-1.0	--	<0.31	3.2	89.9	0.44	0.33	20.5 E	4.8 E	9	29	0.024	0.41	14.6 E	<0.50	0.08 J	0.22	32.6	66.2 E	0.356	
EVBS1055	EVBS1055S01	5/29/2008	0.0-1.0	--	--	27	--	--	0.16 J	--	--	--	27.5	0.0073 J	0.36	--	--	--	--	--	--	0	
EVBS1055	EVBS1055S01SP	5/29/2008	0.0-1.0	--	<0.125 J	--	78.6	0.487 J	--	25.4	5.61	10.5	--	--	--	18.8	<0.49 J	0.60	0.23 J	38.3	65.7	0.693	
EVBS1158	EVBS1158S001	4/20/2009	0.2-0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	
EVBS15	EVBS15S01	12/4/1997	0.5-0.5	--	<11 J	<6	78	0.6	<1	24	7	15	12	<0.2	<11	16	<6	<1	<6	34	160 J	2.24	
EVBS16	EVBS16S01	12/4/1997	0.5-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EVBS16	RF993	12/4/1997	0.5-0.5	--	<11 J	<6	50	<0.6	1	18	5	13	25	<0.2	<11	12	<6	<1	<6	26	160 J	--	
ISWC0069	ISWC0069S001	7/28/2009	1.0-1.6	--	<0.88	20	57	0.44	<0.20	16	4.1	7.3	19	<0.0055	<0.20	10	<1.0	<0.80	<0.80	25	53	--	
ISWC0070	ISWC0070S001	7/28/2009	0.0-0.5	--	<0.88	4.2	52	0.55	<0.20	26	7.7	21	4.3	0.0073	0.46	17	<1.0	<0.80	<0.80	35	40	--	
ISWC0071	ISWC0071S001	7/28/2009	0.0-0.7	--	<0.88	3.9	69	0.48	0.33	23	5.0	11	5.5	0.019	<0.20	14	1.6	<0.80	<0.80	33	63	--	
ISWC0072	ISWC0072S001	7/28/2009	0.0-0.8	--	<0.88	4.0	84	0.49	<0.20	21	5.1	8.1	6.6	<0.0055	<0.20	15	<1.0	<0.80	<0.80	33	46	--	
ISWC0073	ISWC0073S001	7/28/2009	0.0-0.4	--	<0.88	4.0	76	0.48	0.29	21	5.3	10	15	0.015	0.32	14	<1.0	<0.80	<0.80	32	82	--	
ISWC0074	ISWC0074S001	7/28/2009	1.0-1.5	--	<0.88	3.8	72	0.47	<0.20	18	4.8	8.4	6.3	0.012	<0.20	12	<1.0	<0.80	<0.80	28	44	--	
ISWC0075	ISWC0075S001	7/28/2009	1.0-2.0	--	<0.88	4.5	75	0.54	<0.20	28	5.4	10	23	0.017	<0.20	14	<1.0	<0.80	<0.80	34	66	--	
ISWC0076	ISWC0076S001	7/28/2009	0.0-0.2	--	<0.88	3.7	66	0.54	<0.20	20	5.3	10	17	0.0087	<0.20	13	<1.0	<0.80	<0.80	33	57	--	

TABLE E-7.1
ELV-1D PRE-EXCAVATION SAMPLE RESULTS - PHASE III ISRA IMPLEMENTATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY

		Group		VOCs
		Preferred		Trichloroethene
		Result Value Units		ug/kg
		Background		--
		ISRA SRG		--
		CMS		--
		Lowest Characterization RBSL		2.2
		RBSL Type		RES
Object Name	Sample Name	Collection Date	Sample Depth (feet bgs)	RESULTS
EVBS10	EVBS10S01	10/17/1997	3.0-3.0	66,000 J
EVBS1015	EVBS1015S01	5/29/2008	0.0-1.0	3.98 J
EVBS1016	EVBS1016S01	5/28/2008	0.0-1.0	<1.6
EVBS1030	EVBS1030S01	5/29/2008	0.0-1.0	--
EVBS1030	EVBS1030S01SP	5/29/2008	0.0-1.0	2 J
EVBS1159	EVBS1159S001	5/26/2009	0.0-0.5	<2.2
EVBS1159	EVBS1159S002	5/26/2009	2.5-3.0	<2
EVBS17	EVBS17S01	12/4/1997	2.0-2.0	<8
EVBS17	RF994	12/4/1997	2.0-2.0	--
EVBS18	EVBS18S01	12/4/1997	0.5-0.5	<5
EVBS18	RF995	12/4/1997	0.5-0.5	--
ISWC0061	ISWC0061S001	7/28/2009	0.0-0.6	<0.56
ISWC0062	ISWC0062S001	7/28/2009	1.0-1.6	<0.62
ISWC0063	ISWC0063S001	7/28/2009	1.0-1.7	<0.49
ISWC0064	ISWC0064S001	7/28/2009	1.0-1.8	<0.55
ISWC0065	ISWC0065S001	7/28/2009	1.0-2.0	0.96
ISWC0066	ISWC0066S001	7/28/2009	0.0-0.9	57
ISWC0067	ISWC0067S001	7/28/2009	0.0-0.5	<0.55
ISWC0068	ISWC0068S001	7/28/2009	0.0-0.7	<0.59
ISWC0139	ISWC0139S001	6/27/2013	3.0-5.0	281,000
ISWC0140	ISWC0140S001	6/27/2013	3.5-5.0	93,500
ISWC0143	ISWC0143S001	10/7/2013	3.5-4.0	3.8
ISWC0144	ISWC0144S002	10/7/2013	3.5-4.0	82
EVBM0026	EVBM0026S01	12/11/2006	0.0-0.8	<2.2
EVBS1017	EVBS1017S01	6/4/2008	0.0-1.0	<1.61
EVBS1017	EVBS1017S02	6/5/2008	0.0-1.0	--
EVBS1054	EVBS1054S01	6/4/2008	0.0-1.0	<1.3
EVBS1055	EVBS1055S01	5/29/2008	0.0-1.0	--
EVBS1055	EVBS1055S01SP	5/29/2008	0.0-1.0	<1
EVBS1158	EVBS1158S001	4/20/2009	0.2-0.4	--
EVBS15	EVBS15S01	12/4/1997	0.5-0.5	<5
EVBS16	EVBS16S01	12/4/1997	0.5-0.5	<5
EVBS16	RF993	12/4/1997	0.5-0.5	--
ISWC0069	ISWC0069S001	7/28/2009	1.0-1.6	<0.51
ISWC0070	ISWC0070S001	7/28/2009	0.0-0.5	<0.63
ISWC0071	ISWC0071S001	7/28/2009	0.0-0.7	<0.54
ISWC0072	ISWC0072S001	7/28/2009	0.0-0.8	<0.58
ISWC0073	ISWC0073S001	7/28/2009	0.0-0.4	<0.63
ISWC0074	ISWC0074S001	7/28/2009	1.0-1.5	<0.60
ISWC0075	ISWC0075S001	7/28/2009	1.0-2.0	<0.53
ISWC0076	ISWC0076S001	7/28/2009	0.0-0.2	<0.90