Weiss Associates
Environmental Science, Engineering, and Management
5801 Christie Avenue, Suite 600, Emeryville, CA 94608-1827 Fax: 510-547-5043 Phone: 510-450-6000

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August 16, 2001

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Mr. Richard Fallejo
Department of Energy
Oakland Operations Office
1301 Clay Street
Oakland, CA 94612-5208

RE: Western Dog Pen Removal Action Import Fill
Analytical Results

Dear Mr. Fallejo:

This letter describes the potential import fill material analytical results and assesses the suitability of this material for use as excavation backfill for the Western Dog Pen (WDP) Removal Action. To determine its suitability for use as backfill, representative samples of the material were collected and analyzed for specific chemical, radionuclide and physical parameters, as discussed below.

Approximately 1,200 cubic yards (cu yd) of soil will be required for backfilling the WDP Area. The identified off-site source of clean fill is located at the Teichert Aggregates site in Esparto, California which is approximately 25 miles northwest of the Laboratory for Energy-Related Health Research (LEHR) site. The fill material is overburden soil taken from ground surface to four feet below ground surface during gravel quarrying activities. The overburden soil was stockpiled between 1991 and 1994 at a separate location from the gravel quarrying operations. Prior to excavation the overburden soil was used as agricultural land. Three representative 4-point composite samples and one field duplicate (SSIBF126 and SSIBF144 through SSIBF147; SSIBF144 and SSIBF147 are field duplicates) were collected from the soil source (equivalent to a minimum frequency of one composite sample per 400 cu yd). Sample locations were selected based on a grid pattern that was laid out across the soil pile. Sample locations within the grid piles were randomly based, selected using a random number generator. These samples were analyzed for radionuclides using U.S. Environmental Protection Agency (EPA) methods and laboratory standard operating procedures; volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), pesticides/polychlorinated biphenyls (PCBs) and metals using EPA Contract Laboratory Program methods; and hexavalent chromium and nitrate using EPA methods.

In addition to the chemical and radionuclide analyses, geotechnical tests were also performed for the import fill, including hydraulic conductivity (permeability) test using American Society of Testing and Materials (ASTM) Method D-5084 and a compaction (moisture-density relationship) test using ASTM Method D-1557.

All analytical and geotechnical results are discussed below. A copy of the sample results is provided as Attachment 1 to this letter. Table 1 presents a summary of the analytes detected in the samples.

Discussion of Results

Each subsection below presents the results and the range (minimum and maximum) if there were multiple detections.

Volatile Organic Compounds

Toluene (142 micrograms per kilogram [μg/kg] - 649 μg/kg) was detected in the samples. The sample results were significantly below the toluene risk-based action standard (RBAS) value of 19,000 μg/kg. Toluene is not a designated level (DL) constituent of concern (COC) because it is readily biodegradable in soil and it's concentration was low.

No other VOCs were detected in the samples. Reporting limits ranged from 1 μg/kg to 132 μg/kg.

Semi-Volatile Organic Compounds

Bis(2-ethylhexyl)phthalate (22.7 μg/kg - 23.9 μg/kg), fluoranthene (9.8 μg/kg), and pyrene (13.8 μg/kg) were detected. Bis(2-ethylhexyl)phthalate, fluoranthene, and pyrene results were significantly below the RBAS values of 7,700 μg/kg, 1,800,000 μg/kg, and 490,000 μg/kg, respectively. These constituents are not DL COCs because they are organic compounds with soil/water partitioning coefficients (K_d) greater than 10 milliliters per gram (ml/g).

No other SVOCs were detected in the samples. Reporting limits ranged from 347 μg/kg to 876 μg/kg.

Pesticides/PCBs

4,4'-DDE (0.27 μg/kg - 1.7 μg/kg), 4,4'-DDT (1.7 μg/kg - 2.4 μg/kg), dieldrin (2.9 μg/kg - 3.7 μg/kg), and methoxychlor (2.4 μg/kg - 2.5 μg/kg) were detected. 4,4'-DDE, 4,4'-DDT, dieldrin, and methoxychlor results were below the RBAS values of 5,600 μg/kg, 5,600 μg/kg, 15.3 μg/kg, and 100,000 μg/kg, respectively. These constituents are not DL COCs because they are organic compounds with K_d greater than 10 ml/g.

No other pesticides/PCBs were detected in the samples. Reporting limits ranged from 0.67 μg/kg to 179 μg/kg.

Metals

All metal results were below the site background values except for molybdenum (0.328 milligrams per kilogram (mg/kg) - 0.335 mg/kg; background = 0.26 mg/kg), thallium (2.48 mg/kg - 4.34 mg/kg; background = 1.6 mg/kg) and zinc (74.3 mg/kg - 78.1 mg/kg; background = 72.4 mg/kg). Zinc results did not exceed the RBAS value of 3,400 mg/kg. RBAS values have not been developed for molybdenum and thallium; however, sample results were below the Residential PRGs of 390 mg/kg and 5.2 mg/kg, respectively. Designated level modeling is expected to show that

the molybdenum and zinc concentrations will not threaten ground water quality. Thallium is not a DL COCs because it's K_d is greater than 1,000 ml/g.

Hexavalent Chromium and Nitrate

Hexavalent chromium (0.16 mg/kg - 0.559 mg/kg; background = 0.054 mg/kg) was detected in the samples at concentrations below the RBAS of 3.8 mg/kg. Designated level modeling is expected to show that hexavalent chromium will not threaten ground water quality. Reporting limits for hexavalent chromium analysis ranged from 0.0736 mg/kg to 0.0739 mg/kg.

Nitrate (as N) was detected at concentrations ranging from of 2.72 mg/kg to 10 mg/kg. These results were below the background value of 36 mg/kg.

Radiochemistry

The only radionuclide detected above site background was thorium-228 in sample SSIBF145. Thorium-228 activity in the import fill is not expected to be a risk or designated level issue because the laboratory result is likely in error. We suspect the thorium-228 result is in error because it's reported activity is inconsistent with the reported activities of parent and daughter products, which were below site background in sample SSIBF145. We would expect thorium-228 to be in secular equilibrium with parent and daughter products due to its short half-life (1.91 years) and because the soil hasn't been subject to processes that would cause it to be significantly out of equilibrium.

The Laboratory is currently re-analyzing samples SSIBF144 through SSIBF147 for uranium isotopes. The reported uranium isotope data were not useable for risk and DL comparisons due to low yield. However, the available uranium isotope daughter product activities strongly suggest that the uranium activities are below site background.

Geotechnical Parameters

Cooper Testing Laboratory performed compaction (moisture-density relationship) testing by ASTM Method D-1557 and permeability testing by ASTM Method D-5084 on the import fill soil. The test results indicate that the import fill will have a hydraulic conductivity of 2×10^{-6} centimeters per second (cm/sec) at a compaction of 90%.

Recommendations for Imported Fill Material Use as Backfill

Based on a review of the analytical results, the imported fill material does not appear to contain chemicals and radionuclides at concentrations that will adversely impact ground water quality or exceed RBAS/Residential PRG levels. Therefore we conclude that the material is suitable for use as backfill at the WDPs Area.

If you have any questions regarding this memorandum, please contact me at (510) 450-6144.

Sincerely,

Robert O. Devany
Project Manager

Enclosures: Table 1. Summary of Western Dog Pens Import Fill Data
Attachment 1, Import Fill Soil Analytical Results

cc: Catherine Luu, DOE/OAK (w/o attachments)
Nerissa de Jesus, WA
Pauline Cueva, WA

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TABLE 1

SUMMARY OF WESTERN DOG PENS IMPORT FILL DATA

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
GEN	Hexavalent Chromium	SSIBF144	3.8	0.054	pass[a]	0.196			0.0739	MG/KG	J
GEN	Hexavalent Chromium	SSIBF145	3.8	0.054	pass[a]	0.16			0.0736	MG/KG	J
GEN	Hexavalent Chromium	SSIBF146	3.8	0.054	pass[a]	0.559			0.0737	MG/KG	J
GEN	Nitrogen, Nitrate	SSIBF144		36	pass[b]	10			0.106	MG/KG	
GEN	Nitrogen, Nitrate	SSIBF145		36	pass[b]	3.53			0.105	MG/KG	
GEN	Nitrogen, Nitrate	SSIBF146		36	pass[b]	2.72			0.105	MG/KG	
METAL	Antimony	SSIBF126	0.3	1.4	pass[b]		<		0.258	MG/KG	J
METAL	Antimony	SSIBF145	0.3	1.4	pass[b]	0.304			0.258	MG/KG	UJ
METAL	Antimony	SSIBF146	0.3	1.4	pass[b]	0.43			0.263	MG/KG	UJ
METAL	Antimony	SSIBF147	0.3	1.4	pass[b]	0.396			0.266	MG/KG	UJ
METAL	Arsenic	SSIBF126		8.14	pass[b]	6.24			0.227	MG/KG	
METAL	Arsenic	SSIBF145		8.14	pass[b]	6.65			0.235	MG/KG	
METAL	Arsenic	SSIBF146		8.14	pass[b]	7.03			0.245	MG/KG	
METAL	Arsenic	SSIBF147		8.14	pass[b]	7.01			0.245	MG/KG	
METAL	Barium	SSIBF126	53	211	pass[b]	96.2			0.016	MG/KG	
METAL	Barium	SSIBF145	53	211	pass[b]	192			0.016	MG/KG	
METAL	Barium	SSIBF146	53	211	pass[b]	197			0.017	MG/KG	
METAL	Barium	SSIBF147	53	211	pass[b]	193			0.017	MG/KG	
METAL	Beryllium	SSIBF126		0.564	pass[b]	0.257			0.015	MG/KG	J
METAL	Beryllium	SSIBF145		0.564	pass[b]	0.384			0.016	MG/KG	J
METAL	Beryllium	SSIBF146		0.564	pass[b]	0.396			0.017	MG/KG	J
METAL	Beryllium	SSIBF147		0.564	pass[b]	0.389			0.017	MG/KG	J
METAL	Cadmium	SSIBF126	0.38	0.51	pass[b]		<		0.026	MG/KG	
METAL	Cadmium	SSIBF145	0.38	0.51	pass[b]	0.328			0.026	MG/KG	
METAL	Cadmium	SSIBF146	0.38	0.51	pass[b]	0.322			0.027	MG/KG	
METAL	Cadmium	SSIBF147	0.38	0.51	pass[b]	0.366			0.027	MG/KG	
METAL	Chromium	SSIBF126	722	199	pass[b]	115			0.057	MG/KG	
METAL	Chromium	SSIBF144	722	199	pass[b]	91.9			0.061	MG/KG	
METAL	Chromium	SSIBF145	722	199	pass[b]	88.3			0.059	MG/KG	
METAL	Chromium	SSIBF146	722	199	pass[b]	88			0.061	MG/KG	
METAL	Cobalt	SSIBF126		31	pass[b]	13			0.041	MG/KG	
METAL	Cobalt	SSIBF145		31	pass[b]	18			0.042	MG/KG	
METAL	Cobalt	SSIBF146		31	pass[b]	18.5			0.044	MG/KG	
METAL	Cobalt	SSIBF147		31	pass[b]	18.6			0.044	MG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
METAL	Copper	SSIBF126	28	48.8	pass[b]	22.2			0.057	MG/KG	
METAL	Copper	SSIBF145	28	48.8	pass[b]	40.4			0.059	MG/KG	
METAL	Copper	SSIBF146	28	48.8	pass[b]	42.1			0.062	MG/KG	
METAL	Copper	SSIBF147	28	48.8	pass[b]	41			0.062	MG/KG	
METAL	Iron	SSIBF126		44000	pass[b]	27100			0.318	MG/KG	
METAL	Iron	SSIBF145		44000	pass[b]	30100			0.33	MG/KG	
METAL	Iron	SSIBF146		44000	pass[b]	30800			0.344	MG/KG	
METAL	Iron	SSIBF147		44000	pass[b]	30900			0.344	MG/KG	
METAL	Lead	SSIBF126	0.044	9.5	pass[b]	3.34			0.143	MG/KG	
METAL	Lead	SSIBF145	0.044	9.5	pass[b]	6.68			0.148	MG/KG	
METAL	Lead	SSIBF146	0.044	9.5	pass[b]	6.64			0.155	MG/KG	
METAL	Lead	SSIBF147	0.044	9.5	pass[b]	6.42			0.155	MG/KG	
METAL	Manganese	SSIBF126	36	750	pass[b]	477			0.033	MG/KG	
METAL	Manganese	SSIBF145	36	750	pass[b]	625			0.034	MG/KG	
METAL	Manganese	SSIBF146	36	750	pass[b]	637			0.036	MG/KG	
METAL	Manganese	SSIBF147	36	750	pass[b]	627			0.036	MG/KG	
METAL	Mercury	SSIBF126	0.22	3.94	pass[b]	0.06			0.003	MG/KG	
METAL	Mercury	SSIBF145	0.22	3.94	pass[b]	0.073			0.003	MG/KG	J
METAL	Mercury	SSIBF146	0.22	3.94	pass[b]	0.303			0.003	MG/KG	J
METAL	Mercury	SSIBF147	0.22	3.94	pass[b]	0.126			0.003	MG/KG	J
METAL	Molybdenum	SSIBF126		0.26	pass[b]	0.254			0.124	MG/KG	UJ
METAL	Molybdenum	SSIBF144		0.26	pass[k]	0.335			0.135	MG/KG	J
METAL	Molybdenum	SSIBF145		0.26	pass[k]	0.328			0.129	MG/KG	J
METAL	Molybdenum	SSIBF146		0.26	pass[b]	0.18			0.135	MG/KG	J
METAL	Nickel	SSIBF126		334	pass[b]	150			0.079	MG/KG	
METAL	Nickel	SSIBF144		334	pass[b]	154			0.086	MG/KG	
METAL	Nickel	SSIBF145		334	pass[b]	146			0.082	MG/KG	
METAL	Nickel	SSIBF146		334	pass[b]	147			0.086	MG/KG	
METAL	Selenium	SSIBF126	58	1.2	pass[b]	1.08			0.285	MG/KG	
METAL	Selenium	SSIBF144	58	1.2	pass[b]		<		0.309	MG/KG	
METAL	Selenium	SSIBF145	58	1.2	pass[b]		<		0.296	MG/KG	
METAL	Selenium	SSIBF146	58	1.2	pass[b]		<		0.309	MG/KG	
METAL	Silver	SSIBF126	3.8	0.55	pass[b]		<		0.085	MG/KG	
METAL	Silver	SSIBF144	3.8	0.55	pass[b]		<		0.092	MG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
METAL	Silver	SSIBF145	3.8	0.55	pass[b]	0.097			0.088	MG/KG	J
METAL	Silver	SSIBF146	3.8	0.55	pass[b]	0.1			0.092	MG/KG	J
METAL	Thallium	SSIBF126		1.6	pass[b]		<		0.378	MG/KG	
METAL	Thallium	SSIBF145		1.6	pass[c]	2.48			1.96	MG/KG	J
METAL	Thallium	SSIBF146		1.6	pass[c]	4.34			2.04	MG/KG	
METAL	Thallium	SSIBF147		1.6	pass[c]	2.6			2.04	MG/KG	J
METAL	Vanadium	SSIBF126		66.8	pass[b]	48.1			0.062	MG/KG	
METAL	Vanadium	SSIBF145		66.8	pass[b]	62.9			0.064	MG/KG	
METAL	Vanadium	SSIBF146		66.8	pass[b]	64.2			0.067	MG/KG	
METAL	Vanadium	SSIBF147		66.8	pass[b]	63.4			0.067	MG/KG	
METAL	Zinc	SSIBF126	3400	72.4	pass[b]	45.1			0.07	MG/KG	
METAL	Zinc	SSIBF145	3400	72.4	pass[a]	76			0.073	MG/KG	
METAL	Zinc	SSIBF146	3400	72.4	pass[a]	78.1			0.076	MG/KG	
METAL	Zinc	SSIBF147	3400	72.4	pass[a]	74.3			0.076	MG/KG	
PES	4,4'-DDD	SSIBF126	7948		pass[f]		<		3.3	UG/KG	
PES	4,4'-DDD	SSIBF144	7948		pass[f]		<		3.5	UG/KG	
PES	4,4'-DDD	SSIBF145	7948		pass[f]		<		3.5	UG/KG	
PES	4,4'-DDD	SSIBF146	7948		pass[f]		<		3.5	UG/KG	
PES	4,4'-DDE	SSIBF126	5611		pass[d]	0.27			3.3	UG/KG	J
PES	4,4'-DDE	SSIBF144	5611		pass[d]	1.7			3.5	UG/KG	J
PES	4,4'-DDE	SSIBF145	5611		pass[d]	1.6			3.5	UG/KG	J
PES	4,4'-DDE	SSIBF146	5611		pass[d]	1.5			3.5	UG/KG	J
PES	4,4'-DDT	SSIBF126	5611		pass[f]		<		3.3	UG/KG	
PES	4,4'-DDT	SSIBF145	5611		pass[d]	1.7			3.5	UG/KG	J
PES	4,4'-DDT	SSIBF146	5611		pass[d]	2.4			3.5	UG/KG	J
PES	4,4'-DDT	SSIBF147	5611		pass[d]	1.8			3.5	UG/KG	J
PES	Aldrin	SSIBF126			pass[e]		<		1.7	UG/KG	
PES	Aldrin	SSIBF144			pass[e]		<		1.8	UG/KG	
PES	Aldrin	SSIBF145			pass[e]		<		1.8	UG/KG	
PES	Aldrin	SSIBF146			pass[e]		<		1.8	UG/KG	
PES	alpha-BHC	SSIBF126	7.50		pass[f]		<		0.67	UG/KG	
PES	alpha-BHC	SSIBF144	7.50		pass[f]		<		0.7	UG/KG	
PES	alpha-BHC	SSIBF145	7.50		pass[f]		<		0.7	UG/KG	
PES	alpha-BHC	SSIBF146	7.50		pass[f]		<		0.7	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
PES	alpha-Chlordane	SSIBF126	800		pass[f]		<		1.7	UG/KG	
PES	alpha-Chlordane	SSIBF144	800		pass[f]		<		1.8	UG/KG	
PES	alpha-Chlordane	SSIBF145	800		pass[f]		<		1.8	UG/KG	
PES	alpha-Chlordane	SSIBF146	800		pass[f]		<		1.8	UG/KG	
PES	Aroclor-1016	SSIBF126			pass[e]		<		33.4	UG/KG	
PES	Aroclor-1016	SSIBF144			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1016	SSIBF145			pass[e]		<		34.7	UG/KG	
PES	Aroclor-1016	SSIBF146			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1221	SSIBF126			pass[e]		<		67.7	UG/KG	
PES	Aroclor-1221	SSIBF144			pass[e]		<		70.5	UG/KG	
PES	Aroclor-1221	SSIBF145			pass[e]		<		70.2	UG/KG	
PES	Aroclor-1221	SSIBF146			pass[e]		<		70.4	UG/KG	
PES	Aroclor-1232	SSIBF126			pass[e]		<		33.4	UG/KG	
PES	Aroclor-1232	SSIBF144			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1232	SSIBF145			pass[e]		<		34.7	UG/KG	
PES	Aroclor-1232	SSIBF146			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1242	SSIBF126			pass[e]		<		33.4	UG/KG	
PES	Aroclor-1242	SSIBF144			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1242	SSIBF145			pass[e]		<		34.7	UG/KG	
PES	Aroclor-1242	SSIBF146			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1248	SSIBF126			pass[e]		<		33.4	UG/KG	
PES	Aroclor-1248	SSIBF144			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1248	SSIBF145			pass[e]		<		34.7	UG/KG	
PES	Aroclor-1248	SSIBF146			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1254	SSIBF126			pass[e]		<		33.4	UG/KG	
PES	Aroclor-1254	SSIBF144			pass[e]		<		34.8	UG/KG	
PES	Aroclor-1254	SSIBF145			pass[e]		<		34.7	UG/KG	
PES	Aroclor-1254	SSIBF146			pass[e]		<		34.8	UG/KG	
PES	beta-BHC	SSIBF126			pass[e]		<		0.67	UG/KG	
PES	beta-BHC	SSIBF144			pass[e]		<		0.7	UG/KG	
PES	beta-BHC	SSIBF145			pass[e]		<		0.7	UG/KG	
PES	beta-BHC	SSIBF146			pass[e]		<		0.7	UG/KG	
PES	Chlordane (tech.)	SSIBF126	0.8		pass[f]		<		8.4	UG/KG	
PES	Chlordane (tech.)	SSIBF144	0.8		pass[f]		<		8.8	UG/KG	

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Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
PES	Chlordane (tech.)	SSIBF145	0.8		pass[f]		<		8.7	UG/KG	
PES	Chlordane (tech.)	SSIBF146	0.8		pass[f]		<		8.8	UG/KG	
PES	delta-BHC	SSIBF126	13		pass[f]		<		1.7	UG/KG	
PES	delta-BHC	SSIBF144	13		pass[f]		<		1.8	UG/KG	
PES	delta-BHC	SSIBF145	13		pass[f]		<		1.8	UG/KG	
PES	delta-BHC	SSIBF146	13		pass[f]		<		1.8	UG/KG	
PES	Dieldrin	SSIBF126	15.3		pass[f]		<		3.3	UG/KG	
PES	Dieldrin	SSIBF145	15.3		pass[d]	3.6			3.5	UG/KG	
PES	Dieldrin	SSIBF146	15.3		pass[d]	3.7			3.5	UG/KG	
PES	Dieldrin	SSIBF147	15.3		pass[d]	2.9			3.5	UG/KG	J
PES	Endosulfan I	SSIBF126	29000		pass[f]		<		1.7	UG/KG	
PES	Endosulfan I	SSIBF144	29000		pass[f]		<		1.8	UG/KG	
PES	Endosulfan I	SSIBF145	29000		pass[f]		<		1.8	UG/KG	
PES	Endosulfan I	SSIBF146	29000		pass[f]		<		1.8	UG/KG	
PES	Endosulfan II	SSIBF126			pass[e]		<		3.3	UG/KG	
PES	Endosulfan II	SSIBF144			pass[e]		<		3.5	UG/KG	
PES	Endosulfan II	SSIBF145			pass[e]		<		3.5	UG/KG	
PES	Endosulfan II	SSIBF146			pass[e]		<		3.5	UG/KG	
PES	Endosulfan sulfate	SSIBF126	26000		pass[f]		<		3.3	UG/KG	
PES	Endosulfan sulfate	SSIBF144	26000		pass[f]		<		3.5	UG/KG	
PES	Endosulfan sulfate	SSIBF145	26000		pass[f]		<		3.5	UG/KG	
PES	Endosulfan sulfate	SSIBF146	26000		pass[f]		<		3.5	UG/KG	
PES	Endrin	SSIBF126			pass[e]		<		3.3	UG/KG	
PES	Endrin	SSIBF144			pass[e]		<		3.5	UG/KG	
PES	Endrin	SSIBF145			pass[e]		<		3.5	UG/KG	
PES	Endrin	SSIBF146			pass[e]		<		3.5	UG/KG	
PES	Endrin aldehyde	SSIBF126			pass[e]		<		3.3	UG/KG	
PES	Endrin aldehyde	SSIBF144			pass[e]		<		3.5	UG/KG	
PES	Endrin aldehyde	SSIBF145			pass[e]		<		3.5	UG/KG	
PES	Endrin aldehyde	SSIBF146			pass[e]		<		3.5	UG/KG	
PES	Endrin ketone	SSIBF126			pass[e]		<		3.3	UG/KG	
PES	Endrin ketone	SSIBF144			pass[e]		<		3.5	UG/KG	
PES	Endrin ketone	SSIBF145			pass[e]		<		3.5	UG/KG	
PES	Endrin ketone	SSIBF146			pass[e]		<		3.5	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
PES	gamma-BHC (Lindane)	SSIBF126	30.4		pass[f]		<		1.7	UG/KG	
PES	gamma-BHC (Lindane)	SSIBF144	30.4		pass[f]		<		1.8	UG/KG	
PES	gamma-BHC (Lindane)	SSIBF145	30.4		pass[f]		<		1.8	UG/KG	
PES	gamma-BHC (Lindane)	SSIBF146	30.4		pass[f]		<		1.8	UG/KG	
PES	gamma-Chlordane	SSIBF126	810		pass[f]		<		1.7	UG/KG	
PES	gamma-Chlordane	SSIBF144	810		pass[f]		<		1.8	UG/KG	
PES	gamma-Chlordane	SSIBF145	810		pass[f]		<		1.8	UG/KG	
PES	gamma-Chlordane	SSIBF146	810		pass[f]		<		1.8	UG/KG	
PES	Heptachlor	SSIBF126	170		pass[f]		<		1.7	UG/KG	
PES	Heptachlor	SSIBF144	170		pass[f]		<		1.8	UG/KG	
PES	Heptachlor	SSIBF145	170		pass[f]		<		1.8	UG/KG	
PES	Heptachlor	SSIBF146	170		pass[f]		<		1.8	UG/KG	
PES	Heptachlor epoxide	SSIBF126	0.567		pass[f]		<		1.7	UG/KG	
PES	Heptachlor epoxide	SSIBF144	0.567		pass[f]		<		1.8	UG/KG	
PES	Heptachlor epoxide	SSIBF145	0.567		pass[f]		<		1.8	UG/KG	
PES	Heptachlor epoxide	SSIBF146	0.567		pass[f]		<		1.8	UG/KG	
PES	Methoxychlor	SSIBF126	100000		pass[f]		<		17.2	UG/KG	
PES	Methoxychlor	SSIBF144	100000		pass[f]		<		17.9	UG/KG	
PES	Methoxychlor	SSIBF145	100000		pass[d]	2.4			17.9	UG/KG	J
PES	Methoxychlor	SSIBF146	100000		pass[d]	2.5			17.9	UG/KG	J
PES	PCB-1260	SSIBF126	248		pass[f]		<		33.4	UG/KG	
PES	PCB-1260	SSIBF144	248		pass[f]		<		34.8	UG/KG	
PES	PCB-1260	SSIBF145	248		pass[f]		<		34.7	UG/KG	
PES	PCB-1260	SSIBF146	248		pass[f]		<		34.8	UG/KG	
PES	Toxaphene	SSIBF126			pass[e]		<		172	UG/KG	
PES	Toxaphene	SSIBF144			pass[e]		<		179	UG/KG	
PES	Toxaphene	SSIBF145			pass[e]		<		179	UG/KG	
PES	Toxaphene	SSIBF146			pass[e]		<		179	UG/KG	
RAD	Actinium-228	SSIBF145		0.633	pass[b]	0.472		0.0646	0.0189	PCI/G	
RAD	Actinium-228	SSIBF146		0.633	pass[b]	0.495		0.0289	0.0183	PCI/G	
RAD	Actinium-228	SSIBF147		0.633	pass[b]	0.513		0.0264	0.0179	PCI/G	
RAD	Americium-241	SSIBF144	0.092	0.014	pass[b]	0.00585		0.00527	0.00351	PCI/G	
RAD	Americium-241	SSIBF145	0.092	0.014	pass[b]	0.00406	<	0.00606	0.0104	PCI/G	
RAD	Americium-241	SSIBF146	0.092	0.014	pass[b]	0	<	2.00	0.0102	PCI/G	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
RAD	Bismuth-212	SSIBF145		0.388	pass[b]	0.318		0.0672	0.0374	PCI/G	
RAD	Bismuth-212	SSIBF146		0.388	pass[b]	0.342		0.0498	0.038	PCI/G	
RAD	Bismuth-212	SSIBF147		0.388	pass[b]	0.293		0.0432	0.0384	PCI/G	
RAD	Bismuth-214	SSIBF145		0.54	pass[b]	0.367		0.0544	0.00871	PCI/G	J
RAD	Bismuth-214	SSIBF146		0.54	pass[b]	0.366		0.0146	0.00876	PCI/G	J
RAD	Bismuth-214	SSIBF147		0.54	pass[b]	0.372		0.0162	0.00869	PCI/G	J
RAD	Carbon-14	SSIBF145	4200	0.13	pass[b]	-0.0231	<	0.0445	0.0776	PCI/G	
RAD	Carbon-14	SSIBF146	4200	0.13	pass[b]	0.0654	<	0.0477	0.079	PCI/G	
RAD	Carbon-14	SSIBF147	4200	0.13	pass[b]	0.0472	<	0.0456	0.0762	PCI/G	
RAD	Cesium-137	SSIBF144	0.1	0.102	pass[b]	0.0194		0.00508	0.00437	PCI/G	
RAD	Cesium-137	SSIBF145	0.1	0.102	pass[b]	0.0278		0.00604	0.0053	PCI/G	
RAD	Cesium-137	SSIBF146	0.1	0.102	pass[b]	0.0303		0.00505	0.00523	PCI/G	
RAD	Cobalt-60	SSIBF145	0.022	0.006	pass[b]	0.00118	<	0.00331	0.00575	PCI/G	
RAD	Cobalt-60	SSIBF146	0.022	0.006	pass[b]	-0.00187	<	0.00331	0.0056	PCI/G	
RAD	Cobalt-60	SSIBF147	0.022	0.006	pass[b]	0.00262	<	0.00339	0.00592	PCI/G	
RAD	Gross Alpha	SSIBF144		7.42	N/A	8.82		3.11	3.16	PCI/G	J
RAD	Gross Alpha	SSIBF145		7.42	N/A	6.92		0.995	0.805	PCI/G	J
RAD	Gross Alpha	SSIBF146		7.42	N/A	8.13		1.08	1.09	PCI/G	J
RAD	Gross Beta	SSIBF144		15	N/A	16.3		2.92	4.05	PCI/G	
RAD	Gross Beta	SSIBF145		15	N/A	17.5		1.06	1.33	PCI/G	
RAD	Gross Beta	SSIBF146		15	N/A	15.5		1.01	1.27	PCI/G	
RAD	Lead-210	SSIBF145	9.6	1.6	pass[b]	0.53		0.113	0.0801	PCI/G	
RAD	Lead-210	SSIBF146	9.6	1.6	pass[b]	0.533	<	0.645	0.768	PCI/G	
RAD	Lead-210	SSIBF147	9.6	1.6	pass[b]	0.673	<	0.762	0.711	PCI/G	
RAD	Lead-212	SSIBF145		0.691	pass[b]	0.482		0.0737	0.00777	PCI/G	J
RAD	Lead-212	SSIBF146		0.691	pass[b]	0.538		0.0117	0.00835	PCI/G	J
RAD	Lead-212	SSIBF147		0.691	pass[b]	0.525		0.0112	0.00813	PCI/G	J
RAD	Lead-214	SSIBF145		0.55	pass[b]	0.403		0.0594	0.00849	PCI/G	
RAD	Lead-214	SSIBF146		0.55	pass[b]	0.448		0.0158	0.00929	PCI/G	
RAD	Lead-214	SSIBF147		0.55	pass[b]	0.425		0.015	0.00953	PCI/G	
RAD	Plutonium-241	SSIBF144	3.2	0.5	pass[b]	0.135	<	0.235	0.396	PCI/G	
RAD	Plutonium-241	SSIBF145	3.2	0.5	pass[b]	0.0876	<	0.263	0.462	PCI/G	
RAD	Plutonium-241	SSIBF146	3.2	0.5	pass[b]	0.0827	<	0.248	0.436	PCI/G	
RAD	Potassium-40	SSIBF145		14	pass[b]	11.6		1.21	0.0391	PCI/G	J
RAD	Potassium-40	SSIBF146		14	pass[b]	12.2		0.190	0.0423	PCI/G	J

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
RAD	Potassium-40	SSIBF147		14	pass[b]	12.2		0.189	0.0412	PCI/G	J
RAD	Radium-223	SSIBF144			pass[g]	0.0265	<	0.0522	0.0824	PCI/G	
RAD	Radium-223	SSIBF145			pass[g]	-0.0342	<	0.0491	0.0814	PCI/G	
RAD	Radium-223	SSIBF146			pass[g]	-0.00918	<	0.0547	0.0917	PCI/G	
RAD	Radium-226	SSIBF145	0.0042	0.752	pass[b]	0.467		0.0902	0.042	PCI/G	
RAD	Radium-226	SSIBF146	0.0042	0.752	pass[b]	0.479		0.070	0.0236	PCI/G	
RAD	Radium-226	SSIBF147	0.0042	0.752	pass[b]	0.522		0.056	0.0314	PCI/G	
RAD	Radium-228	SSIBF145		0.63	pass[b]	0.472		0.0646	0.0189	PCI/G	
RAD	Radium-228	SSIBF146		0.63	pass[b]	0.495		0.0289	0.0183	PCI/G	
RAD	Radium-228	SSIBF147		0.63	pass[b]	0.513		0.0264	0.0179	PCI/G	
RAD	Strontium-90	SSIBF145	10	0.056	pass[b]	0.0143	<	0.0125	0.0236	PCI/G	
RAD	Strontium-90	SSIBF146	10	0.056	pass[b]	0.00643	<	0.0127	0.0249	PCI/G	
RAD	Strontium-90	SSIBF147	10	0.056	pass[b]	0.00951	<	0.00837	0.0139	PCI/G	
RAD	Thallium-208	SSIBF145		0.204	pass[b]	0.156		0.0222	0.00478	PCI/G	
RAD	Thallium-208	SSIBF146		0.204	pass[b]	0.16		0.00745	0.00505	PCI/G	
RAD	Thallium-208	SSIBF147		0.204	pass[b]	0.161		0.00777	0.00488	PCI/G	
RAD	Thorium-228	SSIBF144	0.032	0.627	pass[b]	0.584		0.208	0.143	PCI/G	
RAD	Thorium-228	SSIBF145	0.032	0.627	N/A[h]	1.02		0.372	0.235	PCI/G	
RAD	Thorium-228	SSIBF146	0.032	0.627	pass[b]	0.564		0.314	0.427	PCI/G	
RAD	Thorium-230	SSIBF144		1.04	pass[b]	0.585		0.209	0.156	PCI/G	
RAD	Thorium-230	SSIBF145		1.04	pass[b]	0.518		0.239	0.159	PCI/G	
RAD	Thorium-230	SSIBF146		1.04	pass[b]	0.821		0.334	0.378	PCI/G	
RAD	Thorium-232	SSIBF145	0.022	0.63	pass[b]	0.498		0.226	0.0622	PCI/G	
RAD	Thorium-232	SSIBF146	0.022	0.63	pass[b]	0.448		0.187	0.114	PCI/G	
RAD	Thorium-232	SSIBF147	0.022	0.63	pass[b]	0.559		0.203	0.043	PCI/G	
RAD	Thorium-234	SSIBF144	3.2	0.78	pass[b]	0.567		0.219	0.205	PCI/G	
RAD	Thorium-234	SSIBF145	3.2	0.78	pass[b]	0.468		0.145	0.0916	PCI/G	
RAD	Thorium-234	SSIBF146	3.2	0.78	pass[b]	0.58		0.238	0.229	PCI/G	
RAD	Tritium	SSIBF145	5.4	1.2	pass[b]	0.0994	<	0.582	0.995	PCI/G	
RAD	Tritium	SSIBF146	5.4	1.2	pass[b]	0.864	<	0.618	1.02	PCI/G	
RAD	Tritium	SSIBF147	5.4	1.2	pass[b]	0.37	<	0.468	0.787	PCI/G	
RAD	Uranium-233/234	SSIBF144		0.559	N/A[i]	16.7	<	162	41	PCI/G	
RAD	Uranium-233/234	SSIBF145		0.559	N/A[i]	0.434	<	0.679	1.11	PCI/G	
RAD	Uranium-233/234	SSIBF146		0.559	N/A[i]	0.556	<	2.57	5.33	PCI/G	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
RAD	Uranium-235	SSIBF144	0.15	0.038	N/A[i]	3.34	<	36.6	36.9	PCI/G	
RAD	Uranium-235	SSIBF145	0.15	0.038	N/A[i]	-0.29	<	0.597	1.6	PCI/G	
RAD	Uranium-235	SSIBF146	0.15	0.038	N/A[i]	-0.558	<	1.29	4.27	PCI/G	
RAD	Uranium-238	SSIBF145		0.565	N/A[i]	0.145	<	0.506	1.11	PCI/G	
RAD	Uranium-238	SSIBF146		0.565	N/A[i]	1.11	<	2.57	4.26	PCI/G	
RAD	Uranium-238	SSIBF147		0.565	N/A[i]	3.39	<	17.3	13	PCI/G	
SVOC	1,2,4-Trichlorobenzene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	1,2,4-Trichlorobenzene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	1,2,4-Trichlorobenzene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	1,2-Dichlorobenzene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	1,2-Dichlorobenzene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	1,2-Dichlorobenzene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	1,3-Dichlorobenzene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	1,3-Dichlorobenzene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	1,3-Dichlorobenzene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	1,4-Dichlorobenzene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	1,4-Dichlorobenzene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	1,4-Dichlorobenzene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2,4,5-Trichlorophenol	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	2,4,5-Trichlorophenol	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	2,4,5-Trichlorophenol	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	2,4,6-Trichlorophenol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2,4,6-Trichlorophenol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2,4,6-Trichlorophenol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2,4-Dichlorophenol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2,4-Dichlorophenol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2,4-Dichlorophenol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2,4-Dimethylphenol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2,4-Dimethylphenol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2,4-Dimethylphenol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2,4-Dinitrophenol	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	2,4-Dinitrophenol	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	2,4-Dinitrophenol	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	2,4-Dinitrotoluene	SSIBF144			pass[e]		<		348	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
SVOC	2,4-Dinitrotoluene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2,4-Dinitrotoluene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2,6-Dinitrotoluene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2,6-Dinitrotoluene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2,6-Dinitrotoluene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2-Chloronaphthalene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2-Chloronaphthalene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2-Chloronaphthalene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2-Chlorophenol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2-Chlorophenol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2-Chlorophenol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2-Methyl-4,6-dinitrophenol	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	2-Methyl-4,6-dinitrophenol	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	2-Methyl-4,6-dinitrophenol	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	2-Methylnaphthalene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2-Methylnaphthalene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2-Methylnaphthalene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	2-Nitrophenol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	2-Nitrophenol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	2-Nitrophenol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	3,3'-Dichlorobenzidine	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	3,3'-Dichlorobenzidine	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	3,3'-Dichlorobenzidine	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	4-Bromophenylphenylether	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	4-Bromophenylphenylether	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	4-Bromophenylphenylether	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	4-Chloro-3-methylphenol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	4-Chloro-3-methylphenol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	4-Chloro-3-methylphenol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	4-Chloroaniline	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	4-Chloroaniline	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	4-Chloroaniline	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	4-Chlorophenylphenylether	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	4-Chlorophenylphenylether	SSIBF145			pass[e]		<		347	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
SVOC	4-Chlorophenylphenylether	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	4-Nitrophenol	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	4-Nitrophenol	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	4-Nitrophenol	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	Acenaphthene	SSIBF144	250000		pass[f]		<		348	UG/KG	
SVOC	Acenaphthene	SSIBF145	250000		pass[f]		<		347	UG/KG	
SVOC	Acenaphthene	SSIBF146	250000		pass[f]		<		348	UG/KG	
SVOC	Acenaphthylene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Acenaphthylene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Acenaphthylene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Anthracene	SSIBF144	1400000		pass[f]		<		348	UG/KG	
SVOC	Anthracene	SSIBF145	1400000		pass[f]		<		347	UG/KG	
SVOC	Anthracene	SSIBF146	1400000		pass[f]		<		348	UG/KG	
SVOC	Benzo(a)anthracene	SSIBF144	1199		pass[f]		<		348	UG/KG	
SVOC	Benzo(a)anthracene	SSIBF145	1199		pass[f]		<		347	UG/KG	
SVOC	Benzo(a)anthracene	SSIBF146	1199		pass[f]		<		348	UG/KG	
SVOC	Benzo(a)pyrene	SSIBF144	237		pass[f]		<		348	UG/KG	
SVOC	Benzo(a)pyrene	SSIBF145	237		pass[f]		<		347	UG/KG	
SVOC	Benzo(a)pyrene	SSIBF146	237		pass[f]		<		348	UG/KG	
SVOC	Benzo(b)fluoranthene	SSIBF144	2613		pass[f]		<		348	UG/KG	
SVOC	Benzo(b)fluoranthene	SSIBF145	2613		pass[f]		<		347	UG/KG	
SVOC	Benzo(b)fluoranthene	SSIBF146	2613		pass[f]		<		348	UG/KG	
SVOC	Benzo(g,h,i)perylene	SSIBF144	9100000		pass[f]		<		348	UG/KG	
SVOC	Benzo(g,h,i)perylene	SSIBF145	9100000		pass[f]		<		347	UG/KG	
SVOC	Benzo(g,h,i)perylene	SSIBF146	9100000		pass[f]		<		348	UG/KG	
SVOC	Benzo(k)fluoranthene	SSIBF144	26132		pass[f]		<		348	UG/KG	
SVOC	Benzo(k)fluoranthene	SSIBF145	26132		pass[f]		<		347	UG/KG	
SVOC	Benzo(k)fluoranthene	SSIBF146	26132		pass[f]		<		348	UG/KG	
SVOC	bis(2-Chloroethoxy)methane	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	bis(2-Chloroethoxy)methane	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	bis(2-Chloroethoxy)methane	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	bis(2-Chloroethyl) ether	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	bis(2-Chloroethyl) ether	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	bis(2-Chloroethyl) ether	SSIBF146			pass[e]		<		348	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
SVOC	bis(2-Chloroisopropyl)ether	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	bis(2-Chloroisopropyl)ether	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	bis(2-Chloroisopropyl)ether	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	bis(2-Ethylhexyl)phthalate	SSIBF144	7700		pass[d]	22.7			348	UG/KG	
SVOC	bis(2-Ethylhexyl)phthalate	SSIBF145	7700		pass[d]	23.9			347	UG/KG	
SVOC	bis(2-Ethylhexyl)phthalate	SSIBF146	7700		pass[f]		<		348	UG/KG	
SVOC	Butylbenzylphthalate	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Butylbenzylphthalate	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Butylbenzylphthalate	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Carbazole	SSIBF144	2226		pass[f]		<		348	UG/KG	
SVOC	Carbazole	SSIBF145	2226		pass[f]		<		347	UG/KG	
SVOC	Carbazole	SSIBF146	2226		pass[f]		<		348	UG/KG	
SVOC	Chrysene	SSIBF144	20269		pass[f]		<		348	UG/KG	
SVOC	Chrysene	SSIBF145	20269		pass[f]		<		347	UG/KG	
SVOC	Chrysene	SSIBF146	20269		pass[f]		<		348	UG/KG	
SVOC	Di-n-butylphthalate	SSIBF144	890000		pass[f]		<		348	UG/KG	
SVOC	Di-n-butylphthalate	SSIBF145	890000		pass[f]		<		347	UG/KG	
SVOC	Di-n-butylphthalate	SSIBF146	890000		pass[f]		<		348	UG/KG	
SVOC	Di-n-octylphthalate	SSIBF144	4900000		pass[f]		<		348	UG/KG	
SVOC	Di-n-octylphthalate	SSIBF145	4900000		pass[f]		<		347	UG/KG	
SVOC	Di-n-octylphthalate	SSIBF146	4900000		pass[f]		<		348	UG/KG	
SVOC	Dibenzo(a,h)anthracene	SSIBF144	261		pass[f]		<		348	UG/KG	
SVOC	Dibenzo(a,h)anthracene	SSIBF145	261		pass[f]		<		347	UG/KG	
SVOC	Dibenzo(a,h)anthracene	SSIBF146	261		pass[f]		<		348	UG/KG	
SVOC	Dibenzofuran	SSIBF144	14000		pass[f]		<		348	UG/KG	
SVOC	Dibenzofuran	SSIBF145	14000		pass[f]		<		347	UG/KG	
SVOC	Dibenzofuran	SSIBF146	14000		pass[f]		<		348	UG/KG	
SVOC	Diethyl Phthalate	SSIBF144	220000		pass[f]		<		348	UG/KG	
SVOC	Diethyl Phthalate	SSIBF145	220000		pass[f]		<		347	UG/KG	
SVOC	Diethyl Phthalate	SSIBF146	220000		pass[f]		<		348	UG/KG	
SVOC	Dimethylphthalate	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Dimethylphthalate	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Dimethylphthalate	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Diphenylamine	SSIBF144			pass[e]		<		348	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
SVOC	Diphenylamine	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Diphenylamine	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Fluoranthene	SSIBF144	1800000		pass[d]	9.8			348	UG/KG	
SVOC	Fluoranthene	SSIBF145	1800000		pass[f]		<		347	UG/KG	
SVOC	Fluoranthene	SSIBF146	1800000		pass[f]		<		348	UG/KG	
SVOC	Fluorene	SSIBF144	170000		pass[f]		<		348	UG/KG	
SVOC	Fluorene	SSIBF145	170000		pass[f]		<		347	UG/KG	
SVOC	Fluorene	SSIBF146	170000		pass[f]		<		348	UG/KG	
SVOC	Hexachlorobenzene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Hexachlorobenzene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Hexachlorobenzene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Hexachlorobutadiene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Hexachlorobutadiene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Hexachlorobutadiene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Hexachlorocyclopentadiene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Hexachlorocyclopentadiene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Hexachlorocyclopentadiene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Hexachloroethane	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Hexachloroethane	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Hexachloroethane	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Indeno(1,2,3-cd)pyrene	SSIBF144	2613		pass[f]		<		348	UG/KG	
SVOC	Indeno(1,2,3-cd)pyrene	SSIBF145	2613		pass[f]		<		347	UG/KG	
SVOC	Indeno(1,2,3-cd)pyrene	SSIBF146	2613		pass[f]		<		348	UG/KG	
SVOC	Isophorone	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Isophorone	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Isophorone	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	m,p-Cresols	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	m,p-Cresols	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	m,p-Cresols	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	m-Nitroaniline	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	m-Nitroaniline	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	m-Nitroaniline	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	N-Nitrosodipropylamine	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	N-Nitrosodipropylamine	SSIBF145			pass[e]		<		347	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
SVOC	N-Nitrosodipropylamine	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Naphthalene	SSIBF144	39000		pass[f]		<		348	UG/KG	
SVOC	Naphthalene	SSIBF145	39000		pass[f]		<		347	UG/KG	
SVOC	Naphthalene	SSIBF146	39000		pass[f]		<		348	UG/KG	
SVOC	Nitrobenzene	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Nitrobenzene	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Nitrobenzene	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	o-Cresol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	o-Cresol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	o-Cresol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	o-Nitroaniline	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	o-Nitroaniline	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	o-Nitroaniline	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	p-Nitroaniline	SSIBF144			pass[e]		<		876	UG/KG	
SVOC	p-Nitroaniline	SSIBF145			pass[e]		<		872	UG/KG	
SVOC	p-Nitroaniline	SSIBF146			pass[e]		<		874	UG/KG	
SVOC	Pentachlorophenol	SSIBF144	13351		pass[f]		<		876	UG/KG	
SVOC	Pentachlorophenol	SSIBF145	13351		pass[f]		<		872	UG/KG	
SVOC	Pentachlorophenol	SSIBF146	13351		pass[f]		<		874	UG/KG	
SVOC	Phenanthrene	SSIBF144	1200000		pass[f]		<		348	UG/KG	
SVOC	Phenanthrene	SSIBF145	1200000		pass[f]		<		347	UG/KG	
SVOC	Phenanthrene	SSIBF146	1200000		pass[f]		<		348	UG/KG	
SVOC	Phenol	SSIBF144			pass[e]		<		348	UG/KG	
SVOC	Phenol	SSIBF145			pass[e]		<		347	UG/KG	
SVOC	Phenol	SSIBF146			pass[e]		<		348	UG/KG	
SVOC	Pyrene	SSIBF144	490000		pass[d]	13.8			348	UG/KG	
SVOC	Pyrene	SSIBF145	490000		pass[f]		<		347	UG/KG	
SVOC	Pyrene	SSIBF146	490000		pass[f]		<		348	UG/KG	
VOC	1,1,1-Trichloroethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	1,1,1-Trichloroethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	1,1,1-Trichloroethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	1,1,2,2-Tetrachloroethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	1,1,2,2-Tetrachloroethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	1,1,2,2-Tetrachloroethane	SSIBF146			pass[e]		<		5.3	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
VOC	1,1,2-Trichloroethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	1,1,2-Trichloroethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	1,1,2-Trichloroethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	1,1-Dichloroethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	1,1-Dichloroethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	1,1-Dichloroethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	1,1-Dichloroethylene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	1,1-Dichloroethylene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	1,1-Dichloroethylene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	1,2-Dichloroethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	1,2-Dichloroethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	1,2-Dichloroethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	1,2-Dichloropropane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	1,2-Dichloropropane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	1,2-Dichloropropane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	2-Butanone	SSIBF144	12000		pass[f]		<		5.3	UG/KG	
VOC	2-Butanone	SSIBF145	12000		pass[f]		<		10.5	UG/KG	
VOC	2-Butanone	SSIBF146	12000		pass[f]		<		26.3	UG/KG	
VOC	2-Hexanone	SSIBF144			pass[e]		<		5.3	UG/KG	
VOC	2-Hexanone	SSIBF145			pass[e]		<		10.5	UG/KG	
VOC	2-Hexanone	SSIBF146			pass[e]		<		26.3	UG/KG	
VOC	4-Methyl-2-pentanone	SSIBF144			pass[e]		<		5.3	UG/KG	
VOC	4-Methyl-2-pentanone	SSIBF145			pass[e]		<		10.5	UG/KG	
VOC	4-Methyl-2-pentanone	SSIBF146			pass[e]		<		26.3	UG/KG	
VOC	Acetone	SSIBF144	1700		pass[f]		<		26.4	UG/KG	
VOC	Acetone	SSIBF145	1700		pass[f]		<		52.5	UG/KG	
VOC	Acetone	SSIBF146	1700		pass[f]		<		132	UG/KG	
VOC	Benzene	SSIBF144	14.7		pass[f]		<		1	UG/KG	
VOC	Benzene	SSIBF145	14.7		pass[f]		<		2.1	UG/KG	
VOC	Benzene	SSIBF146	14.7		pass[f]		<		5.3	UG/KG	
VOC	Bromoform	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Bromoform	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Bromoform	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Bromomethane	SSIBF144			pass[e]		<		1	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
VOC	Bromomethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Bromomethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Carbon disulfide	SSIBF144			pass[e]		<		5.3	UG/KG	
VOC	Carbon disulfide	SSIBF145			pass[e]		<		10.5	UG/KG	
VOC	Carbon disulfide	SSIBF146			pass[e]		<		26.3	UG/KG	
VOC	Carbon tetrachloride	SSIBF144	55.3		pass[f]		<		1	UG/KG	
VOC	Carbon tetrachloride	SSIBF145	55.3		pass[f]		<		2.1	UG/KG	
VOC	Carbon tetrachloride	SSIBF146	55.3		pass[f]		<		5.3	UG/KG	
VOC	Chlorobenzene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Chlorobenzene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Chlorobenzene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Chloroethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Chloroethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Chloroethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Chloroform	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Chloroform	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Chloroform	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Chloromethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Chloromethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Chloromethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	cis-1,2-Dichloroethylene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	cis-1,2-Dichloroethylene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	cis-1,2-Dichloroethylene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	cis-1,3-Dichloropropylene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	cis-1,3-Dichloropropylene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	cis-1,3-Dichloropropylene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Dibromochloromethane	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Dibromochloromethane	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Dibromochloromethane	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Ethylbenzene	SSIBF144	10000		pass[f]		<		1	UG/KG	
VOC	Ethylbenzene	SSIBF145	10000		pass[f]		<		2.1	UG/KG	
VOC	Ethylbenzene	SSIBF146	10000		pass[f]		<		5.3	UG/KG	
VOC	Methylene chloride	SSIBF144	132		pass[f]		<		5.3	UG/KG	
VOC	Methylene chloride	SSIBF145	132		pass[f]		<		10.5	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Analysis Class	Constituent	Sample ID	RBAS	Background	Risk/DL Comparison	Concentration	DL_FLAG	Error	Detection Limit	Units	ER_Q
VOC	Methylene chloride	SSIBF146	132		pass[f]		<		26.3	UG/KG	
VOC	Styrene	SSIBF144	76000		pass[f]		<		1	UG/KG	
VOC	Styrene	SSIBF145	76000		pass[f]		<		2.1	UG/KG	
VOC	Styrene	SSIBF146	76000		pass[f]		<		5.3	UG/KG	
VOC	Tetrachloroethylene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Tetrachloroethylene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Tetrachloroethylene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Toluene	SSIBF145	19000		pass[j]	182			2.1	UG/KG	
VOC	Toluene	SSIBF146DL	19000		pass[j]	649			105	UG/KG	
VOC	Toluene	SSIBF147	19000		pass[j]	142			2.1	UG/KG	
VOC	trans-1,2-Dichloroethylene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	trans-1,2-Dichloroethylene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	trans-1,2-Dichloroethylene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	trans-1,3-Dichloropropylene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	trans-1,3-Dichloropropylene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	trans-1,3-Dichloropropylene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Trichloroethylene	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Trichloroethylene	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Trichloroethylene	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Vinyl chloride	SSIBF144			pass[e]		<		1	UG/KG	
VOC	Vinyl chloride	SSIBF145			pass[e]		<		2.1	UG/KG	
VOC	Vinyl chloride	SSIBF146			pass[e]		<		5.3	UG/KG	
VOC	Xylenes (total)	SSIBF144	700000		pass[f]		<		2.1	UG/KG	
VOC	Xylenes (total)	SSIBF145	700000		pass[f]		<		4.2	UG/KG	
VOC	Xylenes (total)	SSIBF146	700000		pass[f]		<		10.5	UG/KG	

Table 1. Summary of Western Dog Pens Import Fill Data with Comparisons to Background and RBAS, LEHR Site, UC Davis

Notes

a = Concentration is below RBAS but above background, DL modeling expected to show constituent is not a threat to ground water.

b = Concentration/activity is below background, constituent passes risk and DL screening.

c = Not a risk COPC, concentration/activity above background, Kd > 1000 ml/g (inorganics) - not a DL COPC.

d = Concentration is below RBAS. Background is unavailable because COPC is not naturally occurring, Kd > 10 ml/g (organics) - not a DL COPC.

e = Not a risk COPC. Background is unavailable because COPC is not naturally occurring. COPC is ND - not a DL COPC.

f = Concentration is below RBAS. Background is unavailable because COPC is not naturally occurring. Constituent not detected - not a DL COPC.

g = Not a risk COPC. Background is not available. Activity is below MDA - not a DL COPC.

h = Activity is above RBAS and background. However, thorium-228 half life is 1.91 years and parent and daughter products are below background. Laboratory result appears anomalous because thorium-228 should be in equilibrium with parent and daughter products.

i = Laboratory is re-analyzing soil for uranium isotopes. Data were not useable for risk and DL comparisons due to low yield.

j = Concentration is below RBAS. Background is unavailable because COPC is not naturally occurring. Concentration is low and constituent is readily biodegradable - not a DL COPC.

k = Not a risk COPC. Concentration is above background, DL modeling expected to show constituent is not a threat to ground water.

J = Constituent is present in sample but reported concentration may lack accuracy.

UJ = Constituent was not detected in sample but reported detection limit may lack accuracy.

Abbreviations

RBAS = Risk Based Action Standard

Background = 80 % lower confidence limit on the 95th quantile of background sample data

Risk/DL Comparison = Screening evaluation to determine whether data indicate unacceptable risk or potential ground water impact from import fill.

DL Flag = < flag applied if constituent was not detected or below the MDA.

ER_Q = Expert review qualifier of laboratory data

GEN = General chemistry analysis

PES = Pesticide analysis

RAD = Radiochemistry analysis

SVOC = Semivolatile organic compound analysis

VOC = Volatile organic compound analysis

COPC = constituent of potential concern

DL = Designated Level

ND = Not detected

N/A = Not Applicable

MDA = Minimum Detectable Activity

ATTACHMENT 1

IMPORT FILL SOIL ANALYTICAL RESULTS

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Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF144
Sample ID: 45174001
Matrix: Soil
Collect Date: 05-JUL-01
Receive Date: 06-JUL-01
Collector: Client

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec												
Alphaspec Am241, Cm, solid												
Americium-241		0.00585	+/-0.00527	0.00351	0.010	pCi/g		MMT	08/01/01	1156	93655	1
Alphaspec Th, solid												
Thorium-228		0.584	+/-0.208	0.143	0.100	pCi/g		JLE	07/24/01	2207	93654	2
Thorium-230		0.585	+/-0.209	0.156	0.050	pCi/g						
Thorium-232		0.546	+/-0.189	0.0381	0.050	pCi/g						
Alphaspec U, solid												
Uranium-233/234	U	16.7	+/-162	41.0	0.025	pCi/g		MMT	08/03/01	2027	93656	3
Uranium-235/236	U	3.34	+/-36.6	36.9	0.010	pCi/g						
Uranium-238	U	3.33	+/-34.0	25.5	0.025	pCi/g						
Liquid Scint Pu241, solid												
Plutonium-241	U	0.135	+/-0.235	0.396	0.500	pCi/g		SWM	08/04/01	0556	93649	4
Rad Gamma Spec												
Gamma, Ra226, Solid												
Radium-226		0.514	+/-0.0583	0.0408	0.100	pCi/g		CRB	07/28/01	1857	98192	5
Gammaspec, Gamma, solid												
Actinium-228		0.458	+/-0.027	0.0166	0.100	pCi/g		CRB	07/30/01	1753	90270	6
Bismuth-212		0.288	+/-0.0471	0.0351	0.100	pCi/g						
Bismuth-214		0.345	+/-0.0133	0.00784	0.100	pCi/g						
Cesium-137		0.0194	+/-0.00508	0.00437	0.010	pCi/g						
Cobalt-60	U	0.00183	+/-0.00307	0.0054	0.005	pCi/g						
Lead-210	U	0.565	+/-0.565	0.654	0.500	pCi/g						
Lead-212		0.479	+/-0.0105	0.00745	0.100	pCi/g						
Lead-214		0.397	+/-0.0137	0.00848	0.100	pCi/g						
Potassium-40		11.1	+/-0.163	0.0373	1.00	pCi/g						
Radium-223	U	0.0265	+/-0.0522	0.0824	2.00	pCi/g						
Radium-228		0.458	+/-0.027	0.0166	0.100	pCi/g						
Thallium-208		0.146	+/-0.00749	0.00433	0.050	pCi/g						
Thorium-234		0.567	+/-0.219	0.205	0.500	pCi/g						
Rad Gas Flow												
GFPC, Gross A/B, solid												
Alpha		8.82	+/-3.11	3.16	1.00	pCi/g		BFI	07/16/01	1056	90373	7
Beta		16.3	+/-2.92	4.05	1.00	pCi/g						
GFPC, Sr90, solid												
Strontium-90	U	-0.00223	+/-0.0123	0.0248	0.050	pCi/g		LOM1	07/30/01	1535	90466	8
Rad Liquid Scint												

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Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF144
Sample ID: 45174001

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Liquid Scint											
LSC, Tritium Dist, solid											
Tritium	U	-0.0454	+/-0.581	0.999	1.00	pCi/g		HOB1 07/21/01	1740	93552	9
Liquid Scint C14, solid											
Carbon-14	U	0.0342	+/-0.0455	0.0766	0.100	pCi/g		HOB1 07/21/01	0544	93551	10

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep RAD A-021,A-021B,A-026	KM1	07/09/01	1112	90417
Dry Soil Prep	Dry Soil Prep RAD A-021,A-021B,A-026	KM1	07/06/01	1357	90225

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL 300	
2	DOE EML HASL 300	
3	DOE EML HASL 300	
4	DOE EML HASL 300	
5	DOE EML HASL 300	
6	DOE EML HASL 300	
7	EPA 900.0	
8	EPA 905.0	
9	EPA 906.0	
10	EPA EERF C-01	

Notes:
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> Actual result is greater than amount reported
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Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF144
Sample ID: 45174001

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

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Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF145
Sample ID: 45174002
Matrix: Soil
Collect Date: 05-JUL-01
Receive Date: 06-JUL-01
Collector: Client

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec												
Alphaspec Am241, Cm, solid												
Americium-241	U	0.00406	+/-0.00606	0.0104	0.010	pCi/g		MMT	08/01/01	1156	93655	1
Alphaspec Th, solid												
Thorium-228		1.02	+/-0.372	0.235	0.100	pCi/g		JLE	07/27/01	1703	93654	2
Thorium-230		0.518	+/-0.239	0.159	0.050	pCi/g						
Thorium-232		0.498	+/-0.226	0.0622	0.050	pCi/g						
Alphaspec U, solid												
Uranium-233/234	U	0.434	+/-0.679	1.11	0.025	pCi/g		MMT	08/03/01	2027	93656	3
Uranium-235/236	U	-0.29	+/-0.597	1.60	0.010	pCi/g						
Uranium-238	U	0.145	+/-0.506	1.11	0.025	pCi/g						
Liquid Scint Pu241, solid												
Plutonium-241	U	0.0876	+/-0.263	0.462	0.500	pCi/g		SWM	08/04/01	0902	93649	4
Rad Gamma Spec												
Gamma, Ra226, Solid												
Radium-226		0.467	+/-0.0902	0.042	0.100	pCi/g		CRB	07/28/01	1148	98192	5
Gammaspec, Gamma, solid												
Actinium-228		0.472	+/-0.0646	0.0189	0.100	pCi/g		CRB	07/30/01	1755	90270	6
Bismuth-212		0.318	+/-0.0672	0.0374	0.100	pCi/g						
Bismuth-214		0.367	+/-0.0544	0.00871	0.100	pCi/g						
Cesium-137		0.0278	+/-0.00604	0.0053	0.010	pCi/g						
Cobalt-60	U	0.00118	+/-0.00331	0.00575	0.005	pCi/g						
Lead-210		0.530	+/-0.113	0.0801	0.500	pCi/g						
Lead-212		0.482	+/-0.0737	0.00777	0.100	pCi/g						
Lead-214		0.403	+/-0.0594	0.00849	0.100	pCi/g						
Potassium-40		11.6	+/-1.21	0.0391	1.00	pCi/g						
Radium-223	U	-0.0342	+/-0.0491	0.0814	2.00	pCi/g						
Radium-228		0.472	+/-0.0646	0.0189	0.100	pCi/g						
Thallium-208		0.156	+/-0.0222	0.00478	0.050	pCi/g						
Thorium-234		0.468	+/-0.145	0.0916	0.500	pCi/g						
Rad Gas Flow												
GFPC, Gross A/B, solid												
Alpha		6.92	+/-0.995	0.805	1.00	pCi/g		BF1	07/12/01	0734	90373	7
Beta		17.5	+/-1.06	1.33	1.00	pCi/g						
GFPC, Sr90, solid												
Strontium-90	U	0.0143	+/-0.0125	0.0236	0.050	pCi/g		LOM1	07/30/01	1535	90466	8
Rad Liquid Scint												
LSC, Tritium Dist, solid												

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Address : 5801 Christie Ave
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Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF145
Sample ID: 45174002

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Liquid Scint											
LSC, Tritium Dist, solid											
Tritium	U	0.0994	+/-0.582	0.995	1.00	pCi/g		HOB1 07/21/01	1944	93552	9
Liquid Scint C14, solid											
Carbon-14	U	-0.0231	+/-0.0445	0.0776	0.100	pCi/g		HOB1 07/21/01	0646	93551	10

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep RAD A-021,A-021B,A-026	KM1	07/09/01	1112	90417
Dry Soil Prep	Dry Soil Prep RAD A-021,A-021B,A-026	KM1	07/06/01	1357	90225

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL 300	
2	DOE EML HASL 300	
3	DOE EML HASL 300	
4	DOE EML HASL 300	
5	DOE EML HASL 300	
6	DOE EML HASL 300	
7	EPA 900.0	
8	EPA 905.0	
9	EPA 906.0	
10	EPA EERF C-01	

Notes:
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Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF145
Sample ID: 45174002

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

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Company : Weiss Associates
Address : 5801 Christie Ave
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Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF146
Sample ID: 45174003
Matrix: Soil
Collect Date: 05-JUL-01
Receive Date: 06-JUL-01
Collector: Client

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec												
Alphaspec Am241, Cm, solid												
Americium-241	U	0.00	+/-2.00	0.0102	0.010	pCi/g		MMT	08/01/01	1156	93655	1
Alphaspec Th, solid												
Thorium-228		0.564	+/-0.314	0.427	0.100	pCi/g		JLE	07/24/01	2207	93654	2
Thorium-230		0.821	+/-0.334	0.378	0.050	pCi/g						
Thorium-232		0.448	+/-0.187	0.114	0.050	pCi/g						
Alphaspec U, solid												
Uranium-233/234	U	0.556	+/-2.57	5.33	0.025	pCi/g		MMT	08/03/01	2027	93656	3
Uranium-235/236	U	-0.558	+/-1.29	4.27	0.010	pCi/g						
Uranium-238	U	1.11	+/-2.57	4.26	0.025	pCi/g						
Liquid Scint Pu241, solid												
Plutonium-241	U	0.0827	+/-0.248	0.436	0.500	pCi/g		SWM	08/04/01	1207	93649	4
Rad Gamma Spec												
Gamma, Ra226, Solid												
Radium-226		0.479	+/-0.070	0.0236	0.100	pCi/g		CRB	07/28/01	1148	98192	5
Gammaspec, Gamma, solid												
Actinium-228		0.495	+/-0.0289	0.0183	0.100	pCi/g		CRB	07/30/01	2124	90270	6
Bismuth-212		0.342	+/-0.0498	0.038	0.100	pCi/g						
Bismuth-214		0.366	+/-0.0146	0.00876	0.100	pCi/g						
Cesium-137		0.0303	+/-0.00505	0.00523	0.010	pCi/g						
Cobalt-60	U	-0.00187	+/-0.00331	0.0056	0.005	pCi/g						
Lead-210	U	0.533	+/-0.645	0.768	0.500	pCi/g						
Lead-212		0.538	+/-0.0117	0.00835	0.100	pCi/g						
Lead-214		0.448	+/-0.0158	0.00929	0.100	pCi/g						
Potassium-40		12.2	+/-0.190	0.0423	1.00	pCi/g						
Radium-223	U	-0.00918	+/-0.0547	0.0917	2.00	pCi/g						
Radium-228		0.495	+/-0.0289	0.0183	0.100	pCi/g						
Thallium-208		0.160	+/-0.00745	0.00505	0.050	pCi/g						
Thorium-234		0.580	+/-0.238	0.229	0.500	pCi/g						
Rad Gas Flow												
GFPC, Gross A/B, solid												
Alpha		8.13	+/-1.08	1.09	1.00	pCi/g		BF1	07/12/01	0734	90373	7
Beta		15.5	+/-1.01	1.27	1.00	pCi/g						
GFPC, Sr90, solid												
Strontium-90	U	0.00643	+/-0.0127	0.0249	0.050	pCi/g		LOM1	07/30/01	1535	90466	8
Rad Liquid Scint												
LSC, Tritium Dist, solid												

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Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF146 Project: WEIS00299
Sample ID: 45174003 Client ID: WEIS001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Liquid Scint											
LSC, Tritium Dist, solid											
Tritium	U	0.864	+/-0.618	1.02	1.00	pCi/g		HOB1 07/21/01	2148	93552	9
Liquid Scint C14, solid											
Carbon-14	U	0.0654	+/-0.0477	0.079	0.100	pCi/g		HOB1 07/21/01	0748	93551	10

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep RAD A-021,A-021B,A-026	KM1	07/09/01	1112	90417
Dry Soil Prep	Dry Soil Prep RAD A-021,A-021B,A-026	KM1	07/06/01	1357	90225

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL 300	
2	DOE EML HASL 300	
3	DOE EML HASL 300	
4	DOE EML HASL 300	
5	DOE EML HASL 300	
6	DOE EML HASL 300	
7	EPA 900.0	
8	EPA 905.0	
9	EPA 906.0	
10	EPA EERF C-01	

Notes:
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Client Sample ID: SSIBF146
Sample ID: 45174003

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

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Address : 5801 Christie Ave
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Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID:	SSIBF147	Project:	WEIS00299
Sample ID:	45174004	Client ID:	WEIS001
Matrix:	Soil		
Collect Date:	05-JUL-01		
Receive Date:	06-JUL-01		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec												
Alphaspec Am241, Cm, solid												
Americium-241	U	0.00226	+/-0.00453	0.00679	0.010	pCi/g		MMT	08/03/01	2036	93655	1
Alphaspec Th, solid												
Thorium-228		0.322	+/-0.193	0.248	0.100	pCi/g		JLE	07/24/01	2207	93654	2
Thorium-230		0.530	+/-0.201	0.110	0.050	pCi/g						
Thorium-232		0.559	+/-0.203	0.043	0.050	pCi/g						
Alphaspec U, solid												
Uranium-233/234	U	-5.09	+/-26.4	26.0	0.025	pCi/g		MMT	08/03/01	2027	93656	3
Uranium-235/236	U	-6.81	+/-32.7	20.9	0.010	pCi/g						
Uranium-238	U	3.39	+/-17.3	13.0	0.025	pCi/g						
Liquid Scint Pu241, solid												
Plutonium-241	U	-0.127	+/-0.283	0.501	0.500	pCi/g		SWM	08/04/01	1512	93649	4
Rad Gamma Spec												
Gamma, Ra226, Solid												
Radium-226		0.522	+/-0.056	0.0314	0.100	pCi/g		CRB	07/29/01	1502	98192	5
Gammaspec, Gamma, solid												
Actinium-228		0.513	+/-0.0264	0.0179	0.100	pCi/g		CRB	07/30/01	2125	90270	6
Bismuth-212		0.293	+/-0.0432	0.0384	0.100	pCi/g						
Bismuth-214		0.372	+/-0.0162	0.00869	0.100	pCi/g						
Cesium-137		0.0148	+/-0.00429	0.00552	0.010	pCi/g						
Cobalt-60	U	0.00262	+/-0.00339	0.00592	0.005	pCi/g						
Lead-210	U	0.673	+/-0.762	0.711	0.500	pCi/g						
Lead-212		0.525	+/-0.0112	0.00813	0.100	pCi/g						
Lead-214		0.425	+/-0.015	0.00953	0.100	pCi/g						
Potassium-40		12.2	+/-0.189	0.0412	1.00	pCi/g						
Radium-223	U	-0.0301	+/-0.0555	0.091	2.00	pCi/g						
Radium-228		0.513	+/-0.0264	0.0179	0.100	pCi/g						
Thallium-208		0.161	+/-0.00777	0.00488	0.050	pCi/g						
Thorium-234		0.501	+/-0.252	0.225	0.500	pCi/g						
Rad Gas Flow												
GFPC, Gross A/B, solid												
Alpha		6.39	+/-0.931	0.577	1.00	pCi/g		BF1	07/12/01	0734	90373	7
Beta		16.3	+/-1.01	1.23	1.00	pCi/g						
GFPC, Sr90, solid												
Strontium-90	U	0.00951	+/-0.00837	0.0139	0.050	pCi/g		LOM1	07/31/01	2003	90466	8
Rad Liquid Scint												
LSC, Tritium Dist, solid												

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GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Radiochemistry)

Report Date: August 5, 2001

Client Sample ID: SSIBF147
Sample ID: 45174004

Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Liquid Scint											
LSC, Tritium Dist, solid											
Tritium	U	0.370	+/-0.468	0.787	1.00	pCi/g		HOB1 07/26/01	0849	93552	9
Liquid Scint C14, solid											
Carbon-14	U	0.0472	+/-0.0456	0.0762	0.100	pCi/g		HOB1 07/21/01	0850	93551	10

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep RAD A-021,A-021B,A-026	KM1	07/09/01	1112	90417
Dry Soil Prep	Dry Soil Prep RAD A-021,A-021B,A-026	KM1	07/06/01	1357	90225

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL 300	
2	DOE EML HASL 300	
3	DOE EML HASL 300	
4	DOE EML HASL 300	
5	DOE EML HASL 300	
6	DOE EML HASL 300	
7	EPA 900.0	
8	EPA 905.0	
9	EPA 906.0	
10	EPA EERF C-01	

Notes:
The Qualifiers in this report are defined as follows :

** Indicates the analyte is a surrogate compound.
< Actual result is less than amount reported
> Actual result is greater than amount reported
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on an "as received" basis.

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Project: WEIS00299
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

M. Moore

Reviewed by

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF144

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1R308

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: not dec. 5 Date Analyzed: 07/11/01

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	26.4	U
75-15-0	Carbon disulfide	5.3	U
75-09-2	Methylene chloride	5.3	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.3	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.3	U
108-88-3	Toluene	41.2	
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.3	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
1330-20-7	Xylenes (total)	2.1	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF145

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173002

Sample wt/vol: 2.5 (g/mL) G Lab File ID: 1R309

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: not dec. 5 Date Analyzed: 07/11/01

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	2.1	U
75-01-4	Vinyl chloride	2.1	U
74-83-9	Bromomethane	2.1	U
75-00-3	Chloroethane	2.1	U
75-35-4	1,1-Dichloroethylene	2.1	U
67-64-1	Acetone	52.5	U
75-15-0	Carbon disulfide	10.5	U
75-09-2	Methylene chloride	10.5	U
156-60-5	trans-1,2-Dichloroethylene	2.1	U
75-34-3	1,1-Dichloroethane	2.1	U
78-93-3	2-Butanone	10.5	U
156-59-2	cis-1,2-Dichloroethylene	2.1	U
67-66-3	Chloroform	2.1	U
71-55-6	1,1,1-Trichloroethane	2.1	U
56-23-5	Carbon tetrachloride	2.1	U
107-06-2	1,2-Dichloroethane	2.1	U
71-43-2	Benzene	2.1	U
79-01-6	Trichloroethylene	2.1	U
78-87-5	1,2-Dichloropropane	2.1	U
10061-01-5	cis-1,3-Dichloropropylene	2.1	U
108-10-1	4-Methyl-2-pentanone	10.5	U
108-88-3	Toluene	182	
10061-02-6	trans-1,3-Dichloropropylene	2.1	U
79-00-5	1,1,2-Trichloroethane	2.1	U
591-78-6	2-Hexanone	10.5	U
127-18-4	Tetrachloroethylene	2.1	U
124-48-1	Dibromochloromethane	2.1	U
108-90-7	Chlorobenzene	2.1	U
100-41-4	Ethylbenzene	2.1	U
1330-20-7	Xylenes (total)	4.2	U
100-42-5	Styrene	2.1	U
75-25-2	Bromoform	2.1	U
79-34-5	1,1,2,2-Tetrachloroethane	2.1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF146

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173003

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 1R310

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: not dec. 5 Date Analyzed: 07/11/01

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5.3	U
75-01-4	Vinyl chloride	5.3	U
74-83-9	Bromomethane	5.3	U
75-00-3	Chloroethane	5.3	U
75-35-4	1,1-Dichloroethylene	5.3	U
67-64-1	Acetone	132	U
75-15-0	Carbon disulfide	26.3	U
75-09-2	Methylene chloride	26.3	U
156-60-5	trans-1,2-Dichloroethylene	5.3	U
75-34-3	1,1-Dichloroethane	5.3	U
78-93-3	2-Butanone	26.3	U
156-59-2	cis-1,2-Dichloroethylene	5.3	U
67-66-3	Chloroform	5.3	U
71-55-6	1,1,1-Trichloroethane	5.3	U
56-23-5	Carbon tetrachloride	5.3	U
107-06-2	1,2-Dichloroethane	5.3	U
71-43-2	Benzene	5.3	U
79-01-6	Trichloroethylene	5.3	U
78-87-5	1,2-Dichloropropane	5.3	U
10061-01-5	cis-1,3-Dichloropropylene	5.3	U
108-10-1	4-Methyl-2-pentanone	26.3	U
108-88-3	Toluene	676	E
10061-02-6	trans-1,3-Dichloropropylene	5.3	U
79-00-5	1,1,2-Trichloroethane	5.3	U
591-78-6	2-Hexanone	26.3	U
127-18-4	Tetrachloroethylene	5.3	U
124-48-1	Dibromochloromethane	5.3	U
108-90-7	Chlorobenzene	5.3	U
100-41-4	Ethylbenzene	5.3	U
1330-20-7	Xylenes (total)	10.5	U
100-42-5	Styrene	5.3	U
75-25-2	Bromoform	5.3	U
79-34-5	1,1,2,2-Tetrachloroethane	5.3	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF146DL

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1R313

Level: (low/med) MED Date Received: 07/06/01

% Moisture: not dec. 5 Date Analyzed: 07/11/01

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	105	U
75-01-4	Vinyl chloride	105	U
74-83-9	Bromomethane	105	U
75-00-3	Chloroethane	105	U
75-35-4	1,1-Dichloroethylene	105	U
67-64-1	Acetone	2630	U
75-15-0	Carbon disulfide	527	U
75-09-2	Methylene chloride	527	U
156-60-5	trans-1,2-Dichloroethylene	105	U
75-34-3	1,1-Dichloroethane	105	U
78-93-3	2-Butanone	527	U
156-59-2	cis-1,2-Dichloroethylene	105	U
67-66-3	Chloroform	105	U
71-55-6	1,1,1-Trichloroethane	105	U
56-23-5	Carbon tetrachloride	105	U
107-06-2	1,2-Dichloroethane	105	U
71-43-2	Benzene	105	U
79-01-6	Trichloroethylene	105	U
78-87-5	1,2-Dichloropropane	105	U
10061-01-5	cis-1,3-Dichloropropylene	105	U
108-10-1	4-Methyl-2-pentanone	527	U
108-88-3	Toluene	649	D
10061-02-6	trans-1,3-Dichloropropylene	105	U
79-00-5	1,1,2-Trichloroethane	105	U
591-78-6	2-Hexanone	527	U
127-18-4	Tetrachloroethylene	105	U
124-48-1	Dibromochloromethane	105	U
108-90-7	Chlorobenzene	105	U
100-41-4	Ethylbenzene	105	U
1330-20-7	Xylenes (total)	211	U
100-42-5	Styrene	105	U
75-25-2	Bromoform	105	U
79-34-5	1,1,2,2-Tetrachloroethane	105	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF147

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173004

Sample wt/vol: 2.5 (g/mL) G Lab File ID: 1R311

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: not dec. 5 Date Analyzed: 07/11/01

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	2.1	U
75-01-4	Vinyl chloride	2.1	U
74-83-9	Bromomethane	2.1	U
75-00-3	Chloroethane	2.1	U
75-35-4	1,1-Dichloroethylene	2.1	U
67-64-1	Acetone	52.7	U
75-15-0	Carbon disulfide	10.5	U
75-09-2	Methylene chloride	10.5	U
156-60-5	trans-1,2-Dichloroethylene	2.1	U
75-34-3	1,1-Dichloroethane	2.1	U
78-93-3	2-Butanone	10.5	U
156-59-2	cis-1,2-Dichloroethylene	2.1	U
67-66-3	Chloroform	2.1	U
71-55-6	1,1,1-Trichloroethane	2.1	U
56-23-5	Carbon tetrachloride	2.1	U
107-06-2	1,2-Dichloroethane	2.1	U
71-43-2	Benzene	2.1	U
79-01-6	Trichloroethylene	2.1	U
78-87-5	1,2-Dichloropropane	2.1	U
10061-01-5	cis-1,3-Dichloropropylene	2.1	U
108-10-1	4-Methyl-2-pentanone	10.5	U
108-88-3	Toluene	142	
10061-02-6	trans-1,3-Dichloropropylene	2.1	U
79-00-5	1,1,2-Trichloroethane	2.1	U
591-78-6	2-Hexanone	10.5	U
127-18-4	Tetrachloroethylene	2.1	U
124-48-1	Dibromochloromethane	2.1	U
108-90-7	Chlorobenzene	2.1	U
100-41-4	Ethylbenzene	2.1	U
1330-20-7	Xylenes (total)	4.2	U
100-42-5	Styrene	2.1	U
75-25-2	Bromoform	2.1	U
79-34-5	1,1,2,2-Tetrachloroethane	2.1	U

FORM I VOA OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF144

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C318

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/11/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	348	U
111-44-4	bis(2-Chloroethyl) ether	348	U
95-57-8	2-Chlorophenol	348	U
541-73-1	1,3-Dichlorobenzene	348	U
106-46-7	1,4-Dichlorobenzene	348	U
95-50-1	1,2-Dichlorobenzene	348	U
108-60-1	bis(2-Chloroisopropyl)ether	348	U
95-48-7	o-Cresol	348	U
621-64-7	N-Nitrosodipropylamine	348	U
106-44-5	m,p-Cresols	348	U
67-72-1	Hexachloroethane	348	U
98-95-3	Nitrobenzene	348	U
78-59-1	Isophorone	348	U
88-75-5	2-Nitrophenol	348	U
105-67-9	2,4-Dimethylphenol	348	U
111-91-1	bis(2-Chloroethoxy)methane	348	U
120-83-2	2,4-Dichlorophenol	348	U
120-82-1	1,2,4-Trichlorobenzene	348	U
91-20-3	Naphthalene	348	U
106-47-8	4-Chloroaniline	876	U
87-68-3	Hexachlorobutadiene	348	U
59-50-7	4-Chloro-3-methylphenol	348	U
91-57-6	2-Methylnaphthalene	348	U
77-47-4	Hexachlorocyclopentadiene	348	U
88-06-2	2,4,6-Trichlorophenol	348	U
95-95-4	2,4,5-Trichlorophenol	876	U
91-58-7	2-Chloronaphthalene	348	U
88-74-4	o-Nitroaniline	876	U
99-09-2	m-Nitroaniline	876	U
131-11-3	Dimethylphthalate	348	U
606-20-2	2,6-Dinitrotoluene	348	U
208-96-8	Acenaphthylene	348	U
83-32-9	Acenaphthene	348	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF144

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C318

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 07/11/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	876	U
132-64-9	Dibenzofuran	348	U
121-14-2	2,4-Dinitrotoluene	348	U
84-66-2	Diethylphthalate	348	U
100-02-7	4-Nitrophenol	876	U
86-73-7	Fluorene	348	U
7005-72-3	4-Chlorophenylphenylether	348	U
534-52-1	2-Methyl-4,6-dinitrophenol	876	U
100-01-6	p-Nitroaniline	876	U
122-39-4	Diphenylamine	348	U
101-55-3	4-Bromophenylphenylether	348	U
118-74-1	Hexachlorobenzene	348	U
87-86-5	Pentachlorophenol	876	U
85-01-8	Phenanthrene	348	U
120-12-7	Anthracene	348	U
84-74-2	Di-n-butylphthalate	348	U
206-44-0	Fluoranthene	9.8	J
129-00-0	Pyrene	13.8	J
85-68-7	Butylbenzylphthalate	348	U
56-55-3	Benzo(a)anthracene	348	U
91-94-1	3,3'-Dichlorobenzidine	348	U
218-01-9	Chrysene	348	U
117-81-7	bis(2-Ethylhexyl)phthalate	22.7	J
117-84-0	Di-n-octylphthalate	348	U
205-99-2	Benzo(b)fluoranthene	348	U
207-08-9	Benzo(k)fluoranthene	348	U
50-32-8	Benzo(a)pyrene	348	U
193-39-5	Indeno(1,2,3-cd)pyrene	348	U
53-70-3	Dibenzo(a,h)anthracene	348	U
191-24-2	Benzo(ghi)perylene	348	U
86-74-8	Carbazole	348	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF145

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C319

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 07/11/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	347	U
111-44-4	bis(2-Chloroethyl) ether	347	U
95-57-8	2-Chlorophenol	347	U
541-73-1	1,3-Dichlorobenzene	347	U
106-46-7	1,4-Dichlorobenzene	347	U
95-50-1	1,2-Dichlorobenzene	347	U
108-60-1	bis(2-Chloroisopropyl)ether	347	U
95-48-7	o-Cresol	347	U
621-64-7	N-Nitrosodipropylamine	347	U
106-44-5	m,p-Cresols	347	U
67-72-1	Hexachloroethane	347	U
98-95-3	Nitrobenzene	347	U
78-59-1	Isophorone	347	U
88-75-5	2-Nitrophenol	347	U
105-67-9	2,4-Dimethylphenol	347	U
111-91-1	bis(2-Chloroethoxy)methane	347	U
120-83-2	2,4-Dichlorophenol	347	U
120-82-1	1,2,4-Trichlorobenzene	347	U
91-20-3	Naphthalene	347	U
106-47-8	4-Chloroaniline	872	U
87-68-3	Hexachlorobutadiene	347	U
59-50-7	4-Chloro-3-methylphenol	347	U
91-57-6	2-Methylnaphthalene	347	U
77-47-4	Hexachlorocyclopentadiene	347	U
88-06-2	2,4,6-Trichlorophenol	347	U
95-95-4	2,4,5-Trichlorophenol	872	U
91-58-7	2-Chloronaphthalene	347	U
88-74-4	o-Nitroaniline	872	U
99-09-2	m-Nitroaniline	872	U
131-11-3	Dimethylphthalate	347	U
606-20-2	2,6-Dinitrotoluene	347	U
208-96-8	Acenaphthylene	347	U
83-32-9	Acenaphthene	347	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF145

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C319

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/11/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	872	U
132-64-9	Dibenzofuran	347	U
121-14-2	2,4-Dinitrotoluene	347	U
84-66-2	Diethylphthalate	347	U
100-02-7	4-Nitrophenol	872	U
86-73-7	Fluorene	347	U
7005-72-3	4-Chlorophenylphenylether	347	U
534-52-1	2-Methyl-4,6-dinitrophenol	872	U
100-01-6	p-Nitroaniline	872	U
122-39-4	Diphenylamine	347	U
101-55-3	4-Bromophenylphenylether	347	U
118-74-1	Hexachlorobenzene	347	U
87-86-5	Pentachlorophenol	872	U
85-01-8	Phenanthrene	347	U
120-12-7	Anthracene	347	U
84-74-2	Di-n-butylphthalate	347	U
206-44-0	Fluoranthene	347	U
129-00-0	Pyrene	347	U
85-68-7	Butylbenzylphthalate	347	U
56-55-3	Benzo(a)anthracene	347	U
91-94-1	3,3'-Dichlorobenzidine	347	U
218-01-9	Chrysene	347	U
117-81-7	bis(2-Ethylhexyl)phthalate	23.9	J
117-84-0	Di-n-octylphthalate	347	U
205-99-2	Benzo(b)fluoranthene	347	U
207-08-9	Benzo(k)fluoranthene	347	U
50-32-8	Benzo(a)pyrene	347	U
193-39-5	Indeno(1,2,3-cd)pyrene	347	U
53-70-3	Dibenzo(a,h)anthracene	347	U
191-24-2	Benzo(ghi)perylene	347	U
86-74-8	Carbazole	347	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF146

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C320

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/11/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	348	U
111-44-4	bis(2-Chloroethyl) ether	348	U
95-57-8	2-Chlorophenol	348	U
541-73-1	1,3-Dichlorobenzene	348	U
106-46-7	1,4-Dichlorobenzene	348	U
95-50-1	1,2-Dichlorobenzene	348	U
108-60-1	bis(2-Chloroisopropyl)ether	348	U
95-48-7	o-Cresol	348	U
621-64-7	N-Nitrosodipropylamine	348	U
106-44-5	m,p-Cresols	348	U
67-72-1	Hexachloroethane	348	U
98-95-3	Nitrobenzene	348	U
78-59-1	Isophorone	348	U
88-75-5	2-Nitrophenol	348	U
105-67-9	2,4-Dimethylphenol	348	U
111-91-1	bis(2-Chloroethoxy)methane	348	U
120-83-2	2,4-Dichlorophenol	348	U
120-82-1	1,2,4-Trichlorobenzene	348	U
91-20-3	Naphthalene	348	U
106-47-8	4-Chloroaniline	874	U
87-68-3	Hexachlorobutadiene	348	U
59-50-7	4-Chloro-3-methylphenol	348	U
91-57-6	2-Methylnaphthalene	348	U
77-47-4	Hexachlorocyclopentadiene	348	U
88-06-2	2,4,6-Trichlorophenol	348	U
95-95-4	2,4,5-Trichlorophenol	874	U
91-58-7	2-Chloronaphthalene	348	U
88-74-4	o-Nitroaniline	874	U
99-09-2	m-Nitroaniline	874	U
131-11-3	Dimethylphthalate	348	U
606-20-2	2,6-Dinitrotoluene	348	U
208-96-8	Acenaphthylene	348	U
83-32-9	Acenaphthene	348	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF146

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C320

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/11/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	874	U
132-64-9	Dibenzofuran	348	U
121-14-2	2,4-Dinitrotoluene	348	U
84-66-2	Diethylphthalate	348	U
100-02-7	4-Nitrophenol	874	U
86-73-7	Fluorene	348	U
7005-72-3	4-Chlorophenylphenylether	348	U
534-52-1	2-Methyl-4,6-dinitrophenol	874	U
100-01-6	p-Nitroaniline	874	U
122-39-4	Diphenylamine	348	U
101-55-3	4-Bromophenylphenylether	348	U
118-74-1	Hexachlorobenzene	348	U
87-86-5	Pentachlorophenol	874	U
85-01-8	Phenanthrene	348	U
120-12-7	Anthracene	348	U
84-74-2	Di-n-butylphthalate	348	U
206-44-0	Fluoranthene	348	U
129-00-0	Pyrene	348	U
85-68-7	Butylbenzylphthalate	348	U
56-55-3	Benzo(a)anthracene	348	U
91-94-1	3,3'-Dichlorobenzidine	348	U
218-01-9	Chrysene	348	U
117-81-7	bis(2-Ethylhexyl)phthalate	348	U
117-84-0	Di-n-octylphthalate	348	U
205-99-2	Benzo(b)fluoranthene	348	U
207-08-9	Benzo(k)fluoranthene	348	U
50-32-8	Benzo(a)pyrene	348	U
193-39-5	Indeno(1,2,3-cd)pyrene	348	U
53-70-3	Dibenzo(a,h)anthracene	348	U
191-24-2	Benzo(ghi)perylene	348	U
86-74-8	Carbazole	348	U

FORM I SV-2 OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF147

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C321

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/11/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	348	U
111-44-4	bis(2-Chloroethyl) ether	348	U
95-57-8	2-Chlorophenol	348	U
541-73-1	1,3-Dichlorobenzene	348	U
106-46-7	1,4-Dichlorobenzene	348	U
95-50-1	1,2-Dichlorobenzene	348	U
108-60-1	bis(2-Chloroisopropyl)ether	348	U
95-48-7	o-Cresol	348	U
621-64-7	N-Nitrosodipropylamine	348	U
106-44-5	m,p-Cresols	348	U
67-72-1	Hexachloroethane	348	U
98-95-3	Nitrobenzene	348	U
78-59-1	Isophorone	348	U
88-75-5	2-Nitrophenol	348	U
105-67-9	2,4-Dimethylphenol	348	U
111-91-1	bis(2-Chloroethoxy)methane	348	U
120-83-2	2,4-Dichlorophenol	348	U
120-82-1	1,2,4-Trichlorobenzene	348	U
91-20-3	Naphthalene	348	U
106-47-8	4-Chloroaniline	874	U
87-68-3	Hexachlorobutadiene	348	U
59-50-7	4-Chloro-3-methylphenol	348	U
91-57-6	2-Methylnaphthalene	348	U
77-47-4	Hexachlorocyclopentadiene	348	U
88-06-2	2,4,6-Trichlorophenol	348	U
95-95-4	2,4,5-Trichlorophenol	874	U
91-58-7	2-Chloronaphthalene	348	U
88-74-4	o-Nitroaniline	874	U
99-09-2	m-Nitroaniline	874	U
131-11-3	Dimethylphthalate	348	U
606-20-2	2,6-Dinitrotoluene	348	U
208-96-8	Acenaphthylene	348	U
83-32-9	Acenaphthene	348	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF147

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7C321

Level: (low/med) LOW Date Received: 07/06/01

% Moisture: 5 decanted: (Y/N) N Date Extracted: 07/10/01

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/11/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	874	U
132-64-9	Dibenzofuran	348	U
121-14-2	2,4-Dinitrotoluene	348	U
84-66-2	Diethylphthalate	348	U
100-02-7	4-Nitrophenol	874	U
86-73-7	Fluorene	348	U
7005-72-3	4-Chlorophenylphenylether	348	U
534-52-1	2-Methyl-4,6-dinitrophenol	874	U
100-01-6	p-Nitroaniline	874	U
122-39-4	Diphenylamine	348	U
101-55-3	4-Bromophenylphenylether	348	U
118-74-1	Hexachlorobenzene	348	U
87-86-5	Pentachlorophenol	874	U
85-01-8	Phenanthrene	348	U
120-12-7	Anthracene	348	U
84-74-2	Di-n-butylphthalate	348	U
206-44-0	Fluoranthene	348	U
129-00-0	Pyrene	348	U
85-68-7	Butylbenzylphthalate	348	U
56-55-3	Benzo(a)anthracene	348	U
91-94-1	3,3'-Dichlorobenzidine	348	U
218-01-9	Chrysene	348	U
117-81-7	bis(2-Ethylhexyl)phthalate	348	U
117-84-0	Di-n-octylphthalate	348	U
205-99-2	Benzo(b)fluoranthene	348	U
207-08-9	Benzo(k)fluoranthene	348	U
50-32-8	Benzo(a)pyrene	348	U
193-39-5	Indeno(1,2,3-cd)pyrene	348	U
53-70-3	Dibenzo(a,h)anthracene	348	U
191-24-2	Benzo(ghi)perylene	348	U
86-74-8	Carbazole	348	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF144

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 026B2601

% Moisture: 5 decanted: (Y/N) N Date Received: 07/06/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 07/12/01

Concentrated Extract Volume: 5.00(mL) Date Analyzed: 07/24/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.70	U
319-85-7	beta-BHC	0.70	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	2.6	JP
72-55-9	4,4'-DDE	1.7	J
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	1.6	J
72-43-5	Methoxychlor	17.9	U
53494-70-5	Endrin ketone	3.5	U
7421-93-4	Endrin aldehyde	3.5	U
8001-35-2	Toxaphene	179	U
12674-11-2	Aroclor-1016	34.8	U
11104-28-2	Aroclor-1221	70.5	U
11141-16-5	Aroclor-1232	34.8	U
53469-21-9	Aroclor-1242	34.8	U
12672-29-6	Aroclor-1248	34.8	U
11097-69-1	Aroclor-1254	34.8	U
11096-82-5	Aroclor-1260	34.8	U
57-74-9	Chlordane (tech.)	8.8	U
5103-74-2	gamma-Chlordane	1.8	U
5103-71-9	alpha-Chlordane	1.8	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF145

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 027B2701

% Moisture: 5 decanted: (Y/N) N Date Received: 07/06/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 07/12/01

Concentrated Extract Volume: 5.00(mL) Date Analyzed: 07/24/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.70	U
319-85-7	beta-BHC	0.70	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	3.6	
72-55-9	4,4'-DDE	1.6	J
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	1.7	J
72-43-5	Methoxychlor	2.4	J
53494-70-5	Endrin ketone	3.5	U
7421-93-4	Endrin aldehyde	3.5	U
8001-35-2	Toxaphene	179	U
12674-11-2	Aroclor-1016	34.7	U
11104-28-2	Aroclor-1221	70.2	U
11141-16-5	Aroclor-1232	34.7	U
53469-21-9	Aroclor-1242	34.7	U
12672-29-6	Aroclor-1248	34.7	U
11097-69-1	Aroclor-1254	34.7	U
11096-82-5	Aroclor-1260	34.7	U
57-74-9	Chlordane (tech.)	8.7	U
5103-74-2	gamma-Chlordane	1.8	U
5103-71-9	alpha-Chlordane	1.8	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF146

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 028B2801

% Moisture: 5 decanted: (Y/N) N Date Received: 07/06/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 07/12/01

Concentrated Extract Volume: 5.00(mL) Date Analyzed: 07/24/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.70	U
319-85-7	beta-BHC	0.70	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	3.7	
72-55-9	4,4'-DDE	1.5	J
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	2.4	J
72-43-5	Methoxychlor	2.5	J
53494-70-5	Endrin ketone	3.5	U
7421-93-4	Endrin aldehyde	3.5	U
8001-35-2	Toxaphene	179	U
12674-11-2	Aroclor-1016	34.8	U
11104-28-2	Aroclor-1221	70.4	U
11141-16-5	Aroclor-1232	34.8	U
53469-21-9	Aroclor-1242	34.8	U
12672-29-6	Aroclor-1248	34.8	U
11097-69-1	Aroclor-1254	34.8	U
11096-82-5	Aroclor-1260	34.8	U
57-74-9	Chlordane (tech.)	8.8	U
5103-74-2	gamma-Chlordane	1.8	U
5103-71-9	alpha-Chlordane	1.8	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF147

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 45173

Matrix: (soil/water) SOIL Lab Sample ID: 45173004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 029B2901

% Moisture: 5 decanted: (Y/N) N Date Received: 07/06/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 07/12/01

Concentrated Extract Volume: 5.00 (mL) Date Analyzed: 07/24/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.70	U
319-85-7	beta-BHC	0.70	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	2.9	JP
72-55-9	4,4'-DDE	1.6	J
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	1.8	J
72-43-5	Methoxychlor	17.9	U
53494-70-5	Endrin ketone	3.5	U
7421-93-4	Endrin aldehyde	3.5	U
8001-35-2	Toxaphene	179	U
12674-11-2	Aroclor-1016	34.8	U
11104-28-2	Aroclor-1221	70.4	U
11141-16-5	Aroclor-1232	34.8	U
53469-21-9	Aroclor-1242	34.8	U
12672-29-6	Aroclor-1248	34.8	U
11097-69-1	Aroclor-1254	34.8	U
11096-82-5	Aroclor-1260	34.8	U
57-74-9	Chlordane (tech.)	8.8	U
5103-74-2	gamma-Chlordane	1.8	U
5103-71-9	alpha-Chlordane	1.8	U

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 45173 Method Type: SW-846

Sample ID: 45173001 Client ID: SSIBF144

Contract: WEIS00199 Lab Code: GEL Case No.: GEL SAS No.:

Matrix: SOIL Date Received: 7/6/2001 Level: LOW % Solids: 94.80

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.266	mg/kg	U	N	P	0.266	TJA61 Trace ICP2	72501
7440-38-2	Arsenic	6.630	mg/kg			P	0.246	TJA61 Trace ICP2	72001
7440-39-3	Barium	187	mg/kg			P	0.017	TJA61 Trace ICP2	72001
7440-41-7	Beryllium	0.377	mg/kg	B		P	0.017	TJA61 Trace ICP2	72001
7440-43-9	Cadmium	0.252	mg/kg			P	0.027	TJA61 Trace ICP2	72501
7440-47-3	Chromium	91.9	mg/kg			P	0.061	TJA61 Trace ICP2	72001
7440-48-4	Cobalt	18.4	mg/kg			P	0.044	TJA61 Trace ICP2	72001
7440-50-8	Copper	39.4	mg/kg			P	0.062	TJA61 Trace ICP2	72001
7439-89-6	Iron	29700	mg/kg			P	0.344	TJA61 Trace ICP2	72001
7439-92-1	Lead	6.200	mg/kg			P	0.155	TJA61 Trace ICP2	72001
7439-96-5	Manganese	615	mg/kg			P	0.036	TJA61 Trace ICP2	72001
7439-97-6	Mercury	0.102	mg/kg		N	AV	0.003	PE CVAA	73001spHg
7439-98-7	Molybdenum	0.335	mg/kg	B		P	0.135	TJA61 Trace ICP2	72001
7440-02-0	Nickel	154	mg/kg			P	0.086	TJA61 Trace ICP2	72001
7782-49-2	Selenium	0.309	mg/kg	U		P	0.309	TJA61 Trace ICP2	72001
7440-22-4	Silver	0.092	mg/kg	U		P	0.092	TJA61 Trace ICP2	72001
7440-28-0	Thallium	2.280	mg/kg	B		P	2.050	TJA61 Trace ICP2	72301
7440-62-2	Vanadium	62.0	mg/kg			P	0.067	TJA61 Trace ICP2	72001
7440-66-6	Zinc	72.3	mg/kg			P	0.076	TJA61 Trace ICP2	72001

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 45173 Method Type: SW-846

Sample ID: 45173002 Client ID: SSIBF145

Contract: WEIS00199 Lab Code: GEL Case No.: GEL SAS No.:

Matrix: SOIL Date Received: 7/6/2001 Level: LOW % Solids: 95.20

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.304	mg/kg	B	N	P	0.258	TJA61 Trace ICP2	72501
7440-38-2	Arsenic	6.650	mg/kg			P	0.235	TJA61 Trace ICP2	72001
7440-39-3	Barium	192	mg/kg			P	0.016	TJA61 Trace ICP2	72001
7440-41-7	Beryllium	0.384	mg/kg	B		P	0.016	TJA61 Trace ICP2	72001
7440-43-9	Cadmium	0.328	mg/kg			P	0.026	TJA61 Trace ICP2	72501
7440-47-3	Chromium	88.3	mg/kg			P	0.059	TJA61 Trace ICP2	72001
7440-48-4	Cobalt	18.0	mg/kg			P	0.042	TJA61 Trace ICP2	72001
7440-50-8	Copper	40.4	mg/kg			P	0.059	TJA61 Trace ICP2	72001
7439-89-6	Iron	30100	mg/kg			P	0.330	TJA61 Trace ICP2	72001
7439-92-1	Lead	6.680	mg/kg			P	0.148	TJA61 Trace ICP2	72001
7439-96-5	Manganese	625	mg/kg			P	0.034	TJA61 Trace ICP2	72001
7439-97-6	Mercury	0.073	mg/kg		N	AV	0.003	PE CVAA	73001spHg
7439-98-7	Molybdenum	0.328	mg/kg	B		P	0.129	TJA61 Trace ICP2	72001
7440-02-0	Nickel	146	mg/kg			P	0.082	TJA61 Trace ICP2	72001
7782-49-2	Selenium	0.296	mg/kg	U		P	0.296	TJA61 Trace ICP2	72001
7440-22-4	Silver	0.097	mg/kg	B		P	0.088	TJA61 Trace ICP2	72001
7440-28-0	Thallium	2.480	mg/kg	B		P	1.960	TJA61 Trace ICP2	72301
7440-62-2	Vanadium	62.9	mg/kg			P	0.064	TJA61 Trace ICP2	72001
7440-66-6	Zinc	76.0	mg/kg			P	0.073	TJA61 Trace ICP2	72001

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 45173 Method Type: SW-846

Sample ID: 45173003 Client ID: SSIBF146

Contract: WEIS00199 Lab Code: GEL Case No.: GEL SAS No.:

Matrix: SOIL Date Received: 7/6/2001 Level: LOW % Solids: 94.90

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.430	mg/kg	B	N	P	0.263	TJA61 Trace ICP2	72501
7440-38-2	Arsenic	7.030	mg/kg			P	0.245	TJA61 Trace ICP2	72001
7440-39-3	Barium	197	mg/kg			P	0.017	TJA61 Trace ICP2	72001
7440-41-7	Beryllium	0.396	mg/kg	B		P	0.017	TJA61 Trace ICP2	72001
7440-43-9	Cadmium	0.322	mg/kg			P	0.027	TJA61 Trace ICP2	72501
7440-47-3	Chromium	88.0	mg/kg			P	0.061	TJA61 Trace ICP2	72001
7440-48-4	Cobalt	18.5	mg/kg			P	0.044	TJA61 Trace ICP2	72001
7440-50-8	Copper	42.1	mg/kg			P	0.062	TJA61 Trace ICP2	72001
7439-89-6	Iron	30800	mg/kg			P	0.344	TJA61 Trace ICP2	72001
7439-92-1	Lead	6.640	mg/kg			P	0.155	TJA61 Trace ICP2	72001
7439-96-5	Manganese	637	mg/kg			P	0.036	TJA61 Trace ICP2	72001
7439-97-6	Mercury	0.303	mg/kg		N	AV	0.003	PE CVAA	73001spHg
7439-98-7	Molybdenum	0.180	mg/kg	B		P	0.135	TJA61 Trace ICP2	72001
7440-02-0	Nickel	147	mg/kg			P	0.086	TJA61 Trace ICP2	72001
7782-49-2	Selenium	0.309	mg/kg	U		P	0.309	TJA61 Trace ICP2	72001
7440-22-4	Silver	0.100	mg/kg	B		P	0.092	TJA61 Trace ICP2	72001
7440-28-0	Thallium	4.340	mg/kg			P	2.040	TJA61 Trace ICP2	72301
7440-62-2	Vanadium	64.2	mg/kg			P	0.067	TJA61 Trace ICP2	72001
7440-66-6	Zinc	78.1	mg/kg			P	0.076	TJA61 Trace ICP2	72001

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 45173 Method Type: SW-846

Sample ID: 45173004 Client ID: SSIBF147

Contract: WEIS00199 Lab Code: GEL Case No.: GEL SAS No.:

Matrix: SOIL Date Received: 7/6/2001 Level: LOW % Solids: 94.90

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.396	mg/kg	B	N	P	0.266	TJA61 Trace ICP2	72501
7440-38-2	Arsenic	7.010	mg/kg			P	0.245	TJA61 Trace ICP2	72001
7440-39-3	Barium	193	mg/kg			P	0.017	TJA61 Trace ICP2	72001
7440-41-7	Beryllium	0.389	mg/kg	B		P	0.017	TJA61 Trace ICP2	72001
7440-43-9	Cadmium	0.366	mg/kg			P	0.027	TJA61 Trace ICP2	72501
7440-47-3	Chromium	91.0	mg/kg			P	0.061	TJA61 Trace ICP2	72001
7440-48-4	Cobalt	18.6	mg/kg			P	0.044	TJA61 Trace ICP2	72001
7440-50-8	Copper	41.0	mg/kg			P	0.062	TJA61 Trace ICP2	72001
7439-89-6	Iron	30900	mg/kg			P	0.344	TJA61 Trace ICP2	72001
7439-92-1	Lead	6.420	mg/kg			P	0.155	TJA61 Trace ICP2	72001
7439-96-5	Manganese	627	mg/kg			P	0.036	TJA61 Trace ICP2	72001
7439-97-6	Mercury	0.126	mg/kg		N	AV	0.003	PE CVAA	73001spHg
7439-98-7	Molybdenum	0.219	mg/kg	B		P	0.135	TJA61 Trace ICP2	72001
7440-02-0	Nickel	151	mg/kg			P	0.086	TJA61 Trace ICP2	72001
7782-49-2	Selenium	0.309	mg/kg	U		P	0.309	TJA61 Trace ICP2	72001
7440-22-4	Silver	0.092	mg/kg	U		P	0.092	TJA61 Trace ICP2	72001
7440-28-0	Thallium	2.600	mg/kg	B		P	2.040	TJA61 Trace ICP2	72301
7440-62-2	Vanadium	63.4	mg/kg			P	0.067	TJA61 Trace ICP2	72001
7440-66-6	Zinc	74.3	mg/kg			P	0.076	TJA61 Trace ICP2	72001

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID:	SSIBF144	Project:	WEIS00199
Sample ID:	45173001	Client ID:	WEIS001
Matrix:	Soil		
Collect Date:	05-JUL-01		
Receive Date:	06-JUL-01		
Collector:	Client		
Moisture:	5.22%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Nitrate in Soil											
Nitrate		10.0	0.106	1.00	mg/kg	1	RWS	07/06/01	1223	90204	1
Spectrometric Analysis Federal											
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	J	0.196	0.0739	0.211	mg/kg	1	AAT	07/27/01	1621	97221	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3550B	3550B BNA Soil Prep-8270C Analysis Fed	RDH	07/10/01	1134	90483
SW846 3550B	3550B PCB Prep Soil	RDH	07/12/01	1100	91669
SW846 3050B	846 3050BS PREP	AJM	07/19/01	1445	94992
SW846 3050B	846 3050BS PREP	AJM	07/25/01	1520	97410
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	07/06/01	1000	90203
SW846 7471A	EPA 7471A Mercury Prep Soil	ARD	07/27/01	1715	97504
SW846 3060A	SW846_7196A Hexavalent Chromium in Soil	AAT	07/24/01	0837	97219
SW846 5030	Volatile 5030 Solid Prep	RMB	07/11/01	1209	90624

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7196A	

Notes:
The Qualifiers in this report are defined as follows :

** Indicates the analyte is a surrogate compound.
< Actual result is less than amount reported
> Actual result is greater than amount reported
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID: SSIBF144
Sample ID: 45173001

Project: WEIS00199
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID:	SSIBF145	Project:	WEIS00199
Sample ID:	45173002	Client ID:	WEIS001
Matrix:	Soil		
Collect Date:	05-JUL-01		
Receive Date:	06-JUL-01		
Collector:	Client		
Moisture:	4.84%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
EPA 300.0 Nitrate in Soil										
Nitrate		3.53	0.105	1.00	mg/kg	1	RWS 07/06/01	1308	90204	1
Spectrometric Analysis Federal										
SW846_7196A Hexavalent Chromiu										
Hexavalent Chromium	J	0.160	0.0736	0.210	mg/kg	1	AAT 07/27/01	1621	97221	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3550B	3550B BNA Soil Prep-8270C Analysis Fed	RDH	07/10/01	1134	90483
SW846 3550B	3550B PCB Prep Soil	RDH	07/12/01	1100	91669
SW846 3050B	846 3050BS PREP	AJM	07/19/01	1445	94992
SW846 3050B	846 3050BS PREP	AJM	07/25/01	1520	97410
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	07/06/01	1000	90203
SW846 7471A	EPA 7471A Mercury Prep Soil	ARD	07/27/01	1715	97504
SW846 3060A	SW846_7196A Hexavalent Chromium in Soil	AAT	07/24/01	0837	97219
SW846 5030	Volatile 5030 Solid Prep	RMB	07/11/01	1209	90624

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7196A	

Notes:
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Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID: SSIBF145
Sample ID: 45173002

Project: WEIS00199
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID:	SSIBF146	Project:	WEIS00199
Sample ID:	45173003	Client ID:	WEIS001
Matrix:	Soil		
Collect Date:	05-JUL-01		
Receive Date:	06-JUL-01		
Collector:	Client		
Moisture:	5.05%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Nitrate in Soil											
Nitrate		2.72	0.105	1.00	mg/kg	1	RWS	07/06/01	1322	90204	1
Spectrometric Analysis Federal											
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium		0.559	0.0737	0.211	mg/kg	1	AAT	07/27/01	1621	97221	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3550B	3550B BNA Soil Prep-8270C Analysis Fed	RDH	07/10/01	1134	90483
SW846 3550B	3550B PCB Prep Soil	RDH	07/12/01	1100	91669
SW846 3050B	846 3050BS PREP	AJM	07/19/01	1445	94992
SW846 3050B	846 3050BS PREP	AJM	07/25/01	1520	97410
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	07/06/01	1000	90203
SW846 7471A	EPA 7471A Mercury Prep Soil	ARD	07/27/01	1715	97504
SW846 3060A	SW846_7196A Hexavalent Chromium in Soil	AAT	07/24/01	0837	97219
SW846 5030	Volatile 5030 Solid Prep	RMB	07/11/01	1209	90624

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7196A	

Notes:
The Qualifiers in this report are defined as follows :

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U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID: SSIBF146
Sample ID: 45173003

Project: WEIS00199
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID: SSIBF147
Sample ID: 45173004
Matrix: Soil
Collect Date: 05-JUL-01
Receive Date: 06-JUL-01
Collector: Client
Moisture: 5.06%

Project: WEIS00199
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Nitrate in Soil											
Nitrate		3.20	0.105	1.00	mg/kg	1	RWS	07/06/01	1337	90204	1
Spectrometric Analysis Federal											
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	J	0.196	0.0737	0.211	mg/kg	1	AAT	07/27/01	1621	97221	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3550B	3550B BNA Soil Prep-8270C Analysis Fed	RDH	07/10/01	1134	90483
SW846 3550B	3550B PCB Prep Soil	RDH	07/12/01	1100	91669
SW846 3050B	846 3050BS PREP	AJM	07/19/01	1445	94992
SW846 3050B	846 3050BS PREP	AJM	07/25/01	1520	97410
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	07/06/01	1000	90203
SW846 7471A	EPA 7471A Mercury Prep Soil	ARD	07/27/01	1715	97504
SW846 3060A	SW846_7196A Hexavalent Chromium in Soil	AAT	07/24/01	0837	97219
SW846 5030	Volatile 5030 Solid Prep	RMB	07/11/01	1209	90624

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7196A	

Notes:
The Qualifiers in this report are defined as follows :

** Indicates the analyte is a surrogate compound.
< Actual result is less than amount reported
> Actual result is greater than amount reported
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Certificate of Analysis

Company : Weiss Associates
Address : 5801 Christie Ave
Suite 600
Emeryville, California 94608
Contact: Tim Utterback
Project: Routine Analytical (Non-radiochem)

Report Date: July 30, 2001

Client Sample ID: SSIBF147
Sample ID: 45173004

Project: WEIS00199
Client ID: WEIS001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSIBF126

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 44098

Matrix: (soil/water) SOIL Lab Sample ID: 44098001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 016B1601

% Moisture: 1 decanted: (Y/N) N Date Received: 06/15/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/22/01

Concentrated Extract Volume: 5.00 (mL) Date Analyzed: 06/26/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.67	U
319-85-7	beta-BHC	0.67	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	0.27	JP
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17.2	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
8001-35-2	Toxaphene	172	U
12674-11-2	Aroclor-1016	33.4	U
11104-28-2	Aroclor-1221	67.7	U
11141-16-5	Aroclor-1232	33.4	U
53469-21-9	Aroclor-1242	33.4	U
12672-29-6	Aroclor-1248	33.4	U
11097-69-1	Aroclor-1254	33.4	U
11096-82-5	Aroclor-1260	33.4	U
57-74-9	Chlordane (tech.)	8.4	U
5103-74-2	gamma-Chlordane	1.7	U
5103-71-9	alpha-Chlordane	1.7	U

TOTAL METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 44098 Method Type: SW-846

Sample ID: 44098001 Client ID: SSIBF126

Contract: WEIS00199 Lab Code: GEL Case No.: GEL SAS No.:

Matrix: SOIL Date Received: 6/15/2001 Level: LOW % Solids: 98.80

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.258	mg/kg	U	N	P	0.258	TJA61 Trace ICP2	62001
7440-38-2	Arsenic	6.240	mg/kg			P	0.227	TJA61 Trace ICP2	62001
7440-39-3	Barium	96.2	mg/kg			P	0.016	TJA61 Trace ICP2	62001
7440-41-7	Beryllium	0.257	mg/kg	B		P	0.015	TJA61 Trace ICP2	62001
7440-43-9	Cadmium	0.026	mg/kg	U		P	0.026	TJA61 Trace ICP2	62001
7440-47-3	Chromium	115	mg/kg			P	0.057	TJA61 Trace ICP2	62001
7440-48-4	Cobalt	13.0	mg/kg			P	0.041	TJA61 Trace ICP2	62001
7440-50-8	Copper	22.2	mg/kg			P	0.057	TJA61 Trace ICP2	62001
7439-89-6	Iron	27100	mg/kg			P	0.318	TJA61 Trace ICP2	62001
7439-92-1	Lead	3.340	mg/kg			P	0.143	TJA61 Trace ICP2	62701
7439-96-5	Manganese	477	mg/kg			P	0.033	TJA61 Trace ICP2	62001
7439-97-6	Mercury	0.060	mg/kg			AV	0.003	PE CVAA	62001SPHg
7439-95-7	Molybdenum	0.254	mg/kg	B		P	0.124	TJA61 Trace ICP2	62001
7440-02-0	Nickel	150	mg/kg			P	0.079	TJA61 Trace ICP2	62001
7782-49-2	Selenium	1.080	mg/kg			P	0.285	TJA61 Trace ICP2	62001
7440-22-4	Silver	0.085	mg/kg	U		P	0.085	TJA61 Trace ICP2	62001
7440-28-0	Thallium	0.378	mg/kg	U		P	0.378	TJA61 Trace ICP2	62001
7440-62-2	Vanadium	48.1	mg/kg			P	0.062	TJA61 Trace ICP2	62001
7440-66-6	Zinc	45.1	mg/kg			P	0.070	TJA61 Trace ICP2	62001

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments: