

## Final Report - Soil / Hazardous Waste PT

### Study: HW1011

Opening Date: October 17, 2011 - Closing Date: December 1, 2011

Laboratory: Chemsolutions  
7388 S. Revere Parkway #806  
Centennial, CO 80112

Contact: John Graves  
303-771-5570

EPA Lab ID: CO01058

### Volatiles (PT-VOA-SOIL)

Lot #: 7046-12

NELAC Code	Analyte	Analysis Date	Analyst	Method Code	Method Description	Units	Assigned Value	Result	Acceptance Limits	Evaluation
4315	Acetone	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	227	496	40.0 - 773	Acceptable
4375	Benzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	41.8	41.7	23.5 - 58.7	Acceptable
4395	Bromodichloromethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	143	138	93.9 - 197	Acceptable
4400	Bromoform	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<9.3	<5		Acceptable
4410	2-Butanone (MEK)	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	275	411	40.0 - 835	Acceptable
4455	Carbon tetrachloride	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	163	170	79.6 - 241	Acceptable
4475	Chlorobenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	133	128	74.8 - 183	Acceptable
4575	Chlorodibromomethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	180	172	111 - 247	Acceptable
4505	Chloroform	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	131	138	79.6 - 183	Acceptable
4610	1,2-Dichlorobenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	42.4	44.0	19.8 - 60.5	Acceptable
4615	1,3-Dichlorobenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	137	136	53.0 - 202	Acceptable
4620	1,4-Dichlorobenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	79.5	79.5	27.5 - 113	Acceptable
4630	1,1-Dichloroethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	76.3	80.1	43.0 - 110	Acceptable
4635	1,2-Dichloroethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	75.0	76.8	43.9 - 105	Acceptable
4655	1,2-Dichloropropane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	183	172	107 - 244	Acceptable
4765	Ethylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	57.8	58.4	31.1 - 84.6	Acceptable
4975	Methylene chloride	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	37.1	40.0	17.0 - 56.9	Acceptable
5000	Methyl-tert-butyl ether (MTBE)	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<7.8	<5		Acceptable
4995	4-Methyl-2-pentanone (MIBK)	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	284	280	126 - 410	Acceptable
5005	Naphthalene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	70.7	62.1	17.1 - 140	Acceptable
5105	1,1,1,2-Tetrachloroethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<12	<5		Acceptable
5110	1,1,2,2-Tetrachloroethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	79.6	78.6	40.6 - 117	Acceptable
5115	Tetrachloroethene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	133	119	60.0 - 193	Acceptable
5140	Toluene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<11	<5		Acceptable
5155	1,2,4-Trichlorobenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	78.8	71.2	43.8 - 122	Acceptable
5160	1,1,1-Trichloroethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	47.2	52.0	25.0 - 66.9	Acceptable
5165	1,1,2-Trichloroethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	179	171	104 - 245	Acceptable
5170	Trichloroethene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	105	103	53.8 - 150	Acceptable
5180	1,2,3-Trichloropropane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	67.2	66.2	28.7 - 109	Acceptable
5260	Xylenes, total	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	154	155	75.3 - 228	Acceptable

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### Volatiles (PT-VOA-SOIL) cont'd

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NELAC Code	Analyte	Analysis Date	Analyst	Method Code	Method Description	Units	Assigned Value	Result	Acceptance Limits	Evaluation
<b>Additional State Specific Analytes</b>										
4320	Acetonitrile					µg/kg	<50			NR
4325	Acrolein					µg/kg	<20			NR
4340	Acrylonitrile	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4385	Bromobenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<40	<5		Acceptable
4390	Bromochloromethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4950	Bromomethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	130	90.2	0.00 - 197	Acceptable
4435	n-Butylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4440	sec-Butylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4445	tert-Butylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4450	Carbon disulfide	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4465	Chloroacetaldehyde					µg/kg	<20			NR
4485	Chloroethane					µg/kg	100		39.0 - 137	NR
5765	bis(2-Chloroethyl)ether					µg/kg	<20			NR
5760	bis(2-Chloroethoxy)methane					µg/kg	<20			NR
5780	bis(2-Chloroisopropyl)ether					µg/kg	<20			NR
4500	2-Chloroethylvinylether	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4960	Chloromethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	111	102	24.3 - 159	Acceptable
4535	2-Chlorotoluene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4540	4-Chlorotoluene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	44.1	48.2	30.9 - 57.3	Acceptable
4570	1,2-Dibromo-3-chloropropane (DBCP)	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<40	<5		Acceptable
4585	1,2-Dibromoethane (EDB)	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	150	144	97.0 - 234	Acceptable
4595	Dibromomethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4625	Dichlorodifluoromethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<80	<5		Acceptable
4640	1,1-Dichloroethene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	59.0	60.7	37.5 - 87.4	Acceptable
4645	cis-1,2-Dichloroethene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	157	162	124 - 226	Acceptable
4700	trans-1,2-Dichloroethene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	164	166	101 - 246	Acceptable
4660	1,3-Dichloropropane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4665	2,2-Dichloropropane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4670	1,1-Dichloropropene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	30.9	34.2	21.7 - 40.2	Acceptable

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NELAC Code	Analyte	Analysis Date	Analyst	Method Code	Method Description	Units	Assigned Value	Result	Acceptance Limits	Evaluation
<b>Additional State Specific Analytes cont'd</b>										
4680	cis-1,3-Dichloropropene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<40	<5		Acceptable
4685	trans-1,3-Dichloropropene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	87.7	85.0	42.6 - 151	Acceptable
9375	DIPE					µg/kg	<20			NR
4840	Hexachloroethane					µg/kg	<20			NR
4835	Hexachlorobutadiene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
4860	2-Hexanone	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<160	<5		Acceptable
4900	Isopropylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<40	<5		Acceptable
4910	p-Isopropyltoluene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
5090	n-Propylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
5100	Styrene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	48.8	48.1	29.5 - 82.1	Acceptable
4370	TAME					µg/kg	<20			NR
5150	1,2,3-Trichlorobenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	148	128	104 - 193	Acceptable
5175	Trichlorofluoromethane	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	89.7	97.5	26.3 - 164	Acceptable
5210	1,2,4-Trimethylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
5215	1,3,5-Trimethylbenzene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
5225	Vinyl acetate	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	<20	<5		Acceptable
5235	Vinyl chloride	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	90.0	77.0	12.0 - 145	Acceptable
5250	o-Xylene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	50.5	51.2	10.1 - 70.7	Acceptable
5240	m+p-Xylene	11/8/2011	John Graves	10184802	EPA 8260B 1996	µg/kg	104	104	20.8 - 145	Acceptable

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## PT Study Score Report

EPA ID: CO01058  
Laboratory: Chemsolutions  
7388 S. Revere Parkway #806  
Centennial, CO 80112

Study Number	Number of Reported Results	Number of Passing Results	Percent Passing
HW1011	68	68	100%

### **Report Definitions:**

- Number of Reported Results***      The number of results reported which could be evaluated. Results receiving an evaluation of "NR" or "No Evaluation" are not included.
- Number of Passing Results***      The number of results reported receiving an evaluation of "Acceptable" or "Check for Error".
- Percent Passing***      The percentage of results reported receiving an evaluation of "Acceptable" or "Check for Error".