

**Chemical Constituents Detected in Soil at SWMU B-2, March 1995  
Camp Stanley Storage Activity, Texas**

Constituent	Soil Comparison Criteria						Soil Sample Analytical Results <sup>a</sup>									
	Lab MDL	Lab PQL	Back-ground <sup>b</sup> Glen Rose	Back-ground <sup>b</sup> Soils	RRS2-GWP <sup>c</sup> (Ind.)	RRS2-SAI <sup>c</sup> (Ind.)	B2-SB1 Depth (ft) Soil/Rock Type Date Collected	B2-SB1 <sup>d</sup> 0.4-0.8 Soils 3/2/1995	B2-SB1 10.5-11.0 Glen Rose 3/2/1995	B2-SB1 29.0-29.5 Glen Rose 3/2/1995	B2-SB2 0.5-1.0 Soils 3/3/1995	B2-SB2 6.0-9.0 Glen Rose 3/3/1995	B2-SB2 29.0-29.5 Glen Rose 3/3/1995	B2-SB3 4.0-6.0 Glen Rose 3/3/1995	B2-SB3 11.0-11.5 Glen Rose 3/3/1995	B2-SB3 29.0-30.0 Glen Rose 3/6/1995
<b>VOCs, SW8260 (ug/kg):</b>																
Toluene	NA	0.003	--	--	100,000	2.4E+06	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	<b>0.006</b>
<b>SVOCs, SW8270 (ug/kg)<sup>e</sup>:</b>																
Butylbenzylphthalate	NA	1,000	--	--	2.E+06	2E+08	<b>1,040</b>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>
Di-n-butylphthalate	NA	1,000	--	--	1.E+06	1E+08	<b>6,200</b>	<b>4,200</b>	<b>7,010</b>	<b>5,300</b>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>
<b>Metals, SW6010 (mg/kg):</b>																
Cadmium	NA	0.25	0.1	3.0	0.50	410	1.1 U <sub>2</sub>	1.4 U <sub>2</sub>	0.47 U <sub>2</sub>	0.54 U <sub>2</sub>	2.3 U <sub>2</sub>	0.91 U <sub>2</sub>	0.48 U <sub>2</sub>	0.63 U <sub>2</sub>	0.99 U <sub>2</sub>	0.8 U <sub>2</sub>
Calcium	NA	25	--	--	--	--	205,000	204,000	278,000	262,000	79,100	176,000	286,000	267,000	134,000	296,000
Chromium	NA	0.5	8.1	40.2	10	240,000	6.7	8.4	2.1 U <sub>2</sub>	2.3 U <sub>2</sub>	14	3.7	1.9 U <sub>2</sub>	2.8 U <sub>2</sub>	4.4	2.3 U <sub>2</sub>
Copper	NA	0.5	13.1	23.2	130	74,000	3.0	4.0	1.7	1.7	8.1	2.2	1.3	1.7	3.6	4.5
Iron	NA	2.5	--	--	--	--	6,800	9,100	2,700	3,100	14,000	5,500	2,800	3,300	6,100	4,700
Lead <sup>f</sup>	NA	1.5	5.5	84.5	1.5	1,000	6.4	7.9	1.5 U <sub>1</sub>	2.0	18	2.5	1.5 U <sub>1</sub>	1.5 U <sub>1</sub>	3.8	3.3
Magnesium	NA	25	--	--	--	--	1,100	1,500	3,000	3,000	2,300	65,500	2,900	2,800	64,000	6,200
Manganese	NA	0.5	--	--	1,400	81,000	110	140	56	45	250	100	3.9	61	84	64
Nickel	NA	0.5	6.8	35.5	200	12,000	3.8	5.1	2.3	4.4	8.3	2.1	7	2	2	4.5
Potassium	NA	25	--	--	--	--	840	1,400	560	640	2,700	1,800	790	1,100	2,300	1,330

Constituent	Soil Sample Analytical Results (Continued) <sup>a</sup>							
	Sample ID Depth (ft) Soil/Rock Type Date Collected	B2-SB4 1.8-3.0 Glen Rose 3/6/1995	B2-SB4 10.0-11.0 Glen Rose 3/6/1995	B2-SB4 29.0-30.0 Glen Rose 3/6/1995	B2-SB4 <sup>d</sup> 29.0-30.0 Glen Rose 3/6/1995	B2-SB5 0.0-1.7 Soils 3/6/1995	B2-SB5 9.0-10.0 Glen Rose 3/6/1995	B2-SB5 29.0-30.0 Glen Rose 3/6/1995
<b>VOCs, SW8260 (ug/kg):</b>								
Toluene	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	<b>0.006</b>	0.003 U <sub>1</sub>	0.003 U <sub>1</sub>	<b>0.01</b>	
<b>SVOCs, SW8270 (ug/kg):</b>								
Butylbenzylphthalate	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	
Di-n-butylphthalate	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	1,000 U <sub>1</sub>	
<b>Metals, SW6010 (mg/kg):</b>								
Cadmium	1.9 U <sub>2</sub>	0.74 U <sub>2</sub>	1.5 U <sub>2</sub>	1.3 U <sub>2</sub>	0.78 U <sub>2</sub>	0.54 U <sub>2</sub>	1 U <sub>2</sub>	
Calcium	87,800	264,000	254,000	252,000	299,000	315,000	221,000	
Chromium	<b>12</b>	3.4	2.7 U <sub>2</sub>	1.3 U <sub>2</sub>	3.7	2.2 U <sub>2</sub>	3.7	
Copper	7.6	2.0	3.3	1.9	2.2	1.5	3.6	
Iron	14,200	4,400	10,900	10,800	3,900	2,800	7,000	
Lead	<b>16</b>	2.9	3.1	2.4	3.5	1.5 U <sub>1</sub>	4.7	
Magnesium	1,800	38,000	3,300	3,900	1,500	27,400	5,400	
Manganese	290	87	59	62	56	76	60	
Nickel	<b>8.0</b>	3.2	5.3	3.3	2.6	2.2	4.4	
Potassium	2,100	1,600	1,300	430	940	650	1,800	

**Abbreviations and Notes:**

- <sup>a</sup> All samples were analyzed by Chemron Inc., San Antonio, Texas. All results reported on a wet-weight basis.
  - <sup>b</sup> Background values from *Revised Evaluation of Background Metals Concentrations in Soil Types at Camp Stanley Storage Activity, February 2002*.
  - <sup>c</sup> Industrial risk reduction standards for groundwater protection (GWP), soil-air ingestion (SAI), and groundwater (GW)
  - <sup>d</sup> Duplicate sample
  - <sup>e</sup> Sixteen semivolatile analytes were not detected, but the results were rejected due to deficiencies in quality control criteria. The presence or absence of the analytes cannot be verified.
  - <sup>f</sup> The background concentration of lead is greater than the groundwater protection (GWP) standard.
- Highlighted sample concentrations exceed RRS1 Standards.
- GWP Groundwater protection standard  
MDL Method detection limit  
mg/kg Milligram per kilogram  
NA Not available  
PQL Practical quantitation limit  
SAI Soil air ingestion standard  
SVOC Semivolatile organic compound  
ug/kg Microgram per kilogram  
VOC Volatile organic compound

**Acronyms and Abbreviations**

- GWP Groundwater protection standard
- MDL Method detection limit
- mg/kg Milligram per kilogram
- NA Not available
- PQL Practical quantitation limit
- SAI Soil air ingestion standard
- SVOC Semivolatile organic compound
- ug/kg Microgram per kilogram
- VOC Volatile organic compound