

**Table 4.11. Detected VOCs and Metals in the Glen Rose Limestone**

	Sample ID							CS-MW3-GR			CS-MW3-LGR			CS-MW4-LGR			CS-MW4-LGR			CS-MW4-LGR			CS-MW5-LGR								
	Sample Date	Matrix	Sample Type	Beginning Depth	End Depth	Lab Sample ID		Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL				
Sample Comparison Criteria (mg/kg)																															
Method	APPL		OBG		Background																										
Analyte	MDL	Lab RL	MDL	Lab RL	GR <sup>a</sup>	GWP-Ind	SAI-Ind	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL				
<b>D2216 (%)</b>																															
Total Solids								89.2				86.6				90.6				93.				91.3				88.4			
<b>SW6010B (MG/KG)</b>																															
Barium	0.08	1.0	0.0012	1	10	200	59000	5.6		1	1.	1.5		1	1.	3.7		1	1.	1.7	J	1	1.	2.5	J	1	1.	1.5		1	1.
Chromium	0.1	20	0.0022	20	8.1	10	350000	5.8	F	1	20.	3.	F	1	20.	4.3	F	1	20.	3.2	F	1	20.	3.9	F	1	20.	4.6	F	1	20.
Copper	0.19	2.0	0.00045	2	13.1	130	74000	4.20		1	2.	0.20	F	1	2.	0.40	F	1	2.	0.30	F	1	2.	0.50	F	1	2.	0.30	F	1	2.
Nickel	0.12	2.0	0.0011	2	6.8	200	12000	4.3		1	2.	4.1		1	2.	2.7		1	2.	2.6	J	1	2.	5.1	J	1	2.	2.5		1	2.
Zinc	0.63	5.0	0.00093	2	11.3	3100	410000	<b>13.90</b>		1	2.	<b>92.10</b>		1	2.	6.80		1	2.	<b>12.40</b>		1	2.	<b>13.10</b>		1	2.	9.40		1	2.
<b>SW7060A (MG/KG)</b>																															
Arsenic	0.04	0.5	0.00028	0.5	3.8	1	200	2.33		1	0.5	0.63		1	0.5	0.41	F	1	0.5	0.63	J	1	0.5	1.12	J	1	0.5	0.19	F	1	0.5
<b>SW7131A (MG/KG)</b>																															
Cadmium	0.01	0.1	0.00021	0.1	0.1	0.5	1500	0.04	F	1	0.1	<b>0.89</b>		1	0.1	0.07	F	1	0.1	0.07	F	1	0.1	0.06	F	1	0.1	<b>0.13</b>		1	0.1
<b>SW7421 (MG/KG)</b>																															
Lead	0.13	0.5	0.00026	0.5	5.5	1.5	1000	3.57	J	1	0.5	0.47	F	1	0.5	0.42	F	1	0.5	1.24	J	1	0.5	0.77	J	1	0.5	0.6	J	1	0.5
<b>SW7471A (MG/KG)</b>																															
Mercury	0.01	0.1	0.0217	0.1	0.1	0.2	9.6	0.0217	U	1	0.1	0.0217	U	1	0.1	0.0217	U	1	0.1	0.0217	U	1	0.1	0.0217	U	1	0.1	0.0217	U	1	0.1
<b>SW8260 (MG/KG)</b>																															
Methylene chloride	0.0013	0.005	0.00014	0.005	-	0.5	16	0.001	F	1	0.005	0.00014	U	1	0.005	0.0008	F	1	0.005	0.00014	U	1	0.005	0.00014	U	1	0.005	0.00014	U	1	0.005
Toluene	0.0003	0.005	0.00015	0.005	-	100	2400	0.00015	U	1	0.005	0.00015	U	1	0.005	0.00015	U	1	0.005	0.0006	F	1	0.005	0.00015	U	1	0.005	0.00015	U	1	0.005
Trichloroethene	0.0012	0.01	0.0002	0.01	-	0.5	6.6	0.002	F	1	0.01	0.0002	U	1	0.01	0.0002	U	1	0.01	0.0002	U	1	0.01	0.0002	U	1	0.01	0.0002	U	1	0.01

**Abbreviations/Notes:**  
**Bolded and Highlighted samples indicate results greater than RRS1 standards**  
**Boxed samples exceed RRS2 standards when RRS1 < RRS2**  
<sup>a</sup> Background values from Revised Background Report, 2000  
APPL APPL Laboratories  
DL Dilution  
FD1 Field Duplicate  
GWP-Ind Soil MSC based upon groundwater protection  
MDL Method Detection Limit  
N1 Environmental Sample  
OBG O'Brien & Gere Laboratories  
- Not Available  
RL Reporting Limit  
SAI-Ind Industrial use MSC based on inhalation, ingestion, and dermal contact  
SQL Sample Quantitation Limit

**Data Qualifiers:**  
F- The analyte was positively identified but the associated numerical value is below the RL.  
J - The analyte was positively identified, the quantitation is an estimation.  
M - A matrix effect was present.  
U - The analyte was analyzed for, but not detected. The associated numerical value is the MDL.  
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**Table 4.11. Detected VOCs and Metals in the Glen Rose Limestone**

	Sample ID							CS-MW5-LGR			CS-MW5-LGR			CS-MW-6-LGR			CS-MW7-CC			CS-MW8-LGR			CS-MW8-LGR								
	Sample Date							01/31/01			02/01/01			02/20/01			02/18/01			04/16/01			04/21/01								
Matrix							GR			GR			GR			GR			GR			GR									
Sample Type							N			N			N			N			N			N									
Beginning Depth							284.5			452.7			368.0			359.1			109.0			177.0									
End Depth							284.8			453.0			368.5			359.6			110.0			178.0									
Lab Sample ID							R9882			R9885			AP13181			AP13085			AP15683			AP15685									
Sample Comparison Criteria (mg/kg)																															
Method	APPL		OBG		Background			Results			Results			Results			Results			Results			Results								
	Analyte	MDL	Lab RL	MDL	Lab RL	GR <sup>a</sup>	GWP-Ind	SAI-Ind	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL							
<b>D2216 (%)</b>																															
Total Solids								91.5				96.6				95.9				83.6				90.8				92.2			
<b>SW6010B (MG/KG)</b>																															
Barium	0.08	1.0	0.0012	1	10	200	59000	1.6		1	1.	3.7		1	1.	3.43		1	1.	<b>27.07</b>		1	1.	4.67	J	1	1.	4.85	J	1	1.
Chromium	0.1	20	0.0022	20	8.1	10	350000	4.	F	1	20.	5.8	F	1	20.	3.6	F	1	20.	4.8	F	1	20.	4.4	F	1	20.	4.8	F	1	20.
Copper	0.19	2.0	0.00045	2	13.1	130	74000	0.50	F	1	2.	1.10	F	1	2.	1.87	F	1	2.	3.31		1	2.	2.04		1	2.	4.61		1	2.
Nickel	0.12	2.0	0.0011	2	6.8	200	12000	3.1		1	2.	3.3		1	2.	<b>8.68</b>		1	2.	3.69		1	2.	6.49		1	2.	5.85		1	2.
Zinc	0.63	5.0	0.00093	2	11.3	3100	410000	5.70		1	2.	9.20		1	2.	7.93		1	5.	6.69		1	5.	4.29	F	1	5.	5.75		1	5.
<b>SW7060A (MG/KG)</b>																															
Arsenic	0.04	0.5	0.00028	0.5	3.8	1	200	0.46	F	1	0.5	1.76		1	0.5	2.19	J	1	0.5	1.44		1	0.5	0.74		1	0.5	0.04	U	1	0.5
<b>SW7131A (MG/KG)</b>																															
Cadmium	0.01	0.1	0.00021	0.1	0.1	0.5	1500	0.012	F	1	0.1	0.02	F	1	0.1	0.03	F	1	0.1	<b>0.12</b>		1	0.1	0.03	F	1	0.1	0.07	F	1	0.1
<b>SW7421 (MG/KG)</b>																															
Lead	0.13	0.5	0.00026	0.5	5.5	1.5	1000	0.74	J	1	0.5	3.33	J	1	0.5	1.96	J	1	0.5	4.07	J	1	0.5	1.56	J	1	0.5	1.85	J	1	0.5
<b>SW7471A (MG/KG)</b>																															
Mercury	0.01	0.1	0.0217	0.1	0.1	0.2	9.6	0.0217	U	1	0.1	0.0217	U	1	0.1	0.01	U	1	0.1	0.01	U	1	0.1	0.01	U	1	0.1	0.01	U	1	0.1
<b>SW8260 (MG/KG)</b>																															
Methylene chloride	0.0013	0.005	0.00014	0.005	-	0.5	16	0.00014	U	1	0.005	0.00014	U	1	0.005	0.0007	U	1	0.005	0.0007	U	1	0.005	0.0007	U	1	0.005	0.0007	U	1	0.005
Toluene	0.0003	0.005	0.00015	0.005	-	100	2400	0.00015	U	1	0.005	0.00015	U	1	0.005	0.0003	U	1	0.005	0.0003	U	1	0.005	0.0003	U	1	0.005	0.0003	U	1	0.005
Trichloroethene	0.0012	0.01	0.0002	0.01	-	0.5	6.6	0.0002	U	1	0.01	0.0002	U	1	0.01	0.001	U	1	0.01	0.001	U	1	0.01	0.001	U	1	0.01	0.001	U	1	0.01

**Abbreviations/Notes:**

**Bolded and Highlighted samples indicate results greater than RRS1 standards**  
 Boxed samples exceed RRS2 standards when RRS1 < RRS2

<sup>a</sup> Background values from Revised Background Report, 2000

- APPL APPL Laboratories
- DL Dilution
- FD1 Field Duplicate
- GWP-Ind Soil MSC based upon groundwater protection
- MDL Method Detection Limit
- N1 Environmental Sample
- OBG O'Brien & Gere Laboratories
- Not Available
- RL Reporting Limit
- SAI-Ind Industrial use MSC based on inhalation, ingestion, and dermal contact
- SQL Sample Quantitation Limit

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	Sample Comparison Criteria (mg/kg)							CS-MW9-CC			CS-MW9-CC			CS-MW10-CC			CS-MW10-CC						
	Sample Comparison Criteria (mg/kg)							Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL
<b>Sample ID</b>								CS-MW9-CC			CS-MW9-CC			CS-MW10-CC			CS-MW10-CC						
<b>Sample Date</b>								11/19/00			11/20/00			08/15/01			08/21/01						
<b>Matrix</b>								GR			GR			GR			GR						
<b>Sample Type</b>								N			N			N			N						
<b>Beginning Depth</b>								27.7			156.0			25.0			394.0						
<b>End Depth</b>								28.2			156.5			25.5			394.5						
<b>Lab Sample ID</b>								AP99477			AP99478			AP21008			AP21472						
<b>Method</b>	APPL		OBG		Background																		
Analyte	MDL	Lab RL	MDL	Lab RL	GR <sup>a</sup>	GWP-Ind	SAI-Ind	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL	Results	Flag	Dilution	SQL
<b>D2216 (%)</b>																							
Total Solids								81.6				90.8				90.7				94.2			
<b>SW6010B (MG/KG)</b>																							
Barium	0.08	1.0	0.0012	1	10	200	59000	5.66		1	2.	5.34		1	2.	6.43	J	1	1.	4.7		1	1.
Chromium	0.1	20	0.0022	20	8.1	10	350000	3.4	F	1	40.	43.		1	40.	4.5	F	1	20.	4.4	F	1	20.
Copper	0.19	2.0	0.00045	2	13.1	130	74000	1.04	F	1	2.	6.82		1	2.	2.66		1	2.	1.45	F	1	2.
Nickel	0.12	2.0	0.0011	2	6.8	200	12000	1.5	F	1	2.	20.68		1	2.	3.89		1	2.	12.34		1	2.
Zinc	0.63	5.0	0.00093	2	11.3	3100	410000	1.26	U	1	5.	53.04		1	5.	6.58		1	5.	10.81		1	5.
<b>SW7060A (MG/KG)</b>																							
Arsenic	0.04	0.5	0.00028	0.5	3.8	1	200	0.08	J, U	1	0.5	7.42	J	1	0.5	1.28	J	1	0.5	3.49	J	1	0.5
<b>SW7131A (MG/KG)</b>																							
Cadmium	0.01	0.1	0.00021	0.1	0.1	0.5	1500	0.02	U	1	0.1	0.28		1	0.1	0.05	F	1	0.1	0.07	F	1	0.1
<b>SW7421 (MG/KG)</b>																							
Lead	0.13	0.5	0.00026	0.5	5.5	1.5	1000	1.48		1	0.5	2.28		1	0.5	4.05		1	0.5	3.56		1	0.5
<b>SW7471A (MG/KG)</b>																							
Mercury	0.01	0.1	0.0217	0.1	0.1	0.2	9.6	0.1	F	1	0.1	0.04	F	1	0.1	0.01	U	1	0.1	0.01	U	1	0.1
<b>SW8260 (MG/KG)</b>																							
Methylene chloride	0.0013	0.005	0.00014	0.005	-	0.5	16	0.0014	U	1	0.01	0.0014	U	1	0.01	0.0014	F	1	0.005	0.0013	U	1	0.005
Toluene	0.0003	0.005	0.00015	0.005	-	100	2400	0.0006	U	1	0.01	0.0006	U	1	0.01	0.001	U	1	0.005	0.001	U	1	0.005
Trichloroethene	0.0012	0.01	0.0002	0.01	-	0.5	6.6	0.002	U	1	0.02	0.002	U	1	0.02	0.0012	U	1	0.01	0.0012	U	1	0.01

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