GW - 73

MONITORING REPORTS

DATE:

1998 - 1996

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	3638.52	10/25/96	84	70.22	3568.30		13.78
		11/21/96		70.17	3568.35	0.05	13.83
		01/22/97		70.44	3568.08	-0.27	13.56
Abandoned		05/22/97					
MW-2	3637.26	10/25/96	85	70.03	3567.23		14.97
		11/21/96		70.03	3567.23	0.00	14.97
		01/22/97		70.26	3567.00	-0.23	14.74
		05/21/97		70.53	3566.73	-0.27	14.47
		07/28/97		70.69	3566.57	-0.16	14.31
		10/15/97		70.80	3566.46	-0.11	14.20
		01/05/98		71.05	3566.21	-0.25	13.95
		04/16/98		71.27	3565.99	-0.22	13.73
		07/16/98		71.61	3565.65	-0.34	13.39
		10/25/98		71.84	3565.42	-0.23	13.16
		02/10/99		72.02	3565.24	-0.18	12.98
		04/21/99		72.25	3565.01	-0.23	12.75
		07/13/99		72.50	3564.76	-0.25	12.50
		10/21/99		72.76	3564.50	-0.26	12.24
		01/25/00		72.92	3564.34	-0.16	12.08
		04/17/00		73.35	3563.91	-0.43	11.65
MW-3	3638.28	10/25/96	85	72.88	3565.40		12.12
		11/21/96		72.89	3565.39	-0.01	12.11
		01/22/97		73.10	3565.18	-0.21	11.90
		05/21/97		73.40	3564.88	-0.30	11.60
		07/28/97		73.54	3564.74	-0.14	11.46
		10/15/97		73.67	3564.61	-0.13	11.33
		01/05/98		73.92	3564.36	-0.25	11.08
		04/16/98		74.13	3564.15	-0.21	10.87
		07/16/98		74.46	3563.82	-0.33	10.54
		10/25/98		74.74	3563.54	-0.28	10.26
		02/10/99		75.00	3563.28	-0.26	10.00
		04/21/99		75.21	3563.07	-0.21	9.79
		07/13/99		75.50	3562.78	-0.29	9.50
		10/20/99		75.67	3562.61	-0.17	9.33
		01/25/00		75.95	3562.33	-0.28	9.05
		04/17/00		76.26	3562.02	-0.31	8.74
MW-4	3639.20	10/25/96	85	72.41	3566.79		12.59
		11/21/96		72.37	3566.83	0.04	12.63
		01/22/97		72.60	3566.60	-0.23	12.40
		05/21/97		72.87	3566.33	-0.27	12.13
		07/28/97		72.93	3566.27	-0.06	12.07
		10/15/97		73.03	3566.17	-0.10	11.97
		01/05/98		73.24	3565.96	-0.21	11.76
		04/16/98		73.67	3565.53	-0.43	11.33
		07/16/98		73.68	3565.52	-0.01	11.32
		10/25/98		74.21	3564.99	-0.53	10.79
		02/10/99		74.32	3564.88	-0.11	10.68
		04/21/99		74.58	3564.62	-0.26	10.42
		07/13/99		74.87	3564.33	-0.29	10.13
		10/21/99		75.08	3564.12	-0.21	9.92
		01/25/00		75.31	3563.89	-0.23	9.69
		04/17/00		75.75	3563.45	-0.44	9.25

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-5	3637.70	01/22/97	85	71.90	3565.80		13.10
		05/21/97		72.21	3565.49	-0.31	12.79
		07/28/97		72.36	3565.34	-0.15	12.64
		10/15/97		72.44	3565.26	-0.08	12.56
		01/05/98		72.71	3564.99	-0.27	12.29
		04/16/98		72.92	3564.78	-0.21	12.08
		07/16/98		73.25	3564.45	-0.33	11.75
		10/25/98		73.53	3564.17	-0.28	11.47
		02/10/99		73.77	3563.93	-0.24	11.23
		04/21/99		73.98	3563.72	-0.21	11.02
		07/13/99		74.15	3563.55	-0.17	10.85
		10/20/99		74.46	3563.24	-0.31	10.54
		01/25/00		74.72	3562.98	-0.26	10.28
		04/17/00		75.03	3562.67	-0.31	9.97
MW-6	3637.52	01/22/97	85	72.88	3564.64		12.12
		05/21/97		73.22	3564.30	-0.34	11.78
		07/28/97		73.44	3564.08	-0.22	11.56
		10/15/97		73.48	3564.04	-0.04	11.52
		01/05/98		73.72	3563.80	-0.24	11.28
		04/16/98		73.94	3563.58	-0.22	11.06
		07/16/98		74.26	3563.26	-0.32	10.74
		10/25/98		74.55	3562.97	-0.29	10.45
		02/10/99		74.78	3562.74	-0.23	10.22
		04/21/99		75.04	3562.48	-0.26	9.96
		07/13/99		75.22	3562.30	-0.18	9.78
		10/20/99		75.46	3562.06	-0.24	9.54
		01/25/00		75.80	3561.72	-0.34	9.20
		04/17/00		76.06	3561.46	-0.26	8.94
MW-7	3638.62	01/22/97	85	73.31	3565.31		11.69
		05/21/97		73.63	3564.99	-0.32	11.37
		07/28/97		73.80	3564.82	-0.17	11.20
		10/15/97		73.93	3564.69	-0.13	11.07
		01/05/98		74.17	3564.45	-0.24	10.83
		04/16/98		74.39	3564.23	-0.22	10.61
		07/16/98		74.71	3563.91	-0.32	10.29
		10/25/98		74.98	3563.64	-0.27	10.02
		02/10/99		75.22	3563.40	-0.24	9.78
		04/21/99		75.47	3563.15	-0.25	9.53
		07/13/99		75.68	3562.94	-0.21	9.32
		10/20/99		75.94	3562.68	-0.26	9.06
		01/25/00		76.23	3562.39	-0.29	8.77
		04/17/00		76.53	3562.09	-0.30	8.47
MW-8	3638.71	01/22/97	85	72.78	3565.93		12.22
		05/21/97		73.12	3565.59	-0.34	11.88
		07/28/97		73.31	3565.40	-0.19	11.69
		10/15/97		73.44	3565.27	-0.13	11.56
		01/05/98		73.63	3565.08	-0.19	11.37
		04/16/98		74.00	3564.71	-0.37	11.00
		07/16/98		74.21	3564.50	-0.21	10.79
		10/25/98		74.48	3564.23	-0.27	10.52
		02/10/99		74.72	3563.99	-0.24	10.28
		04/21/99		74.95	3563.76	-0.23	10.05
		07/13/99		75.19	3563.52	-0.24	9.81
		10/21/99		75.48	3563.23	-0.29	9.52
		01/25/00		75.76	3562.95	-0.28	9.24
		04/17/00		76.09	3562.62	-0.33	8.91

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-9	3638.76	01/22/97	85	72.57	3566.19		12.43
		05/21/97		72.89	3565.87	-0.32	12.11
		07/28/97		73.08	3565.68	-0.19	11.92
		10/15/97		73.24	3565.52	-0.16	11.76
		01/05/98		73.47	3565.29	-0.23	11.53
		04/16/98		73.70	3565.06	-0.23	11.30
		07/16/98		73.99	3564.77	-0.29	11.01
		10/25/98		74.27	3564.49	-0.28	10.73
		02/10/99		74.52	3564.24	-0.25	10.48
		04/21/99		74.74	3564.02	-0.22	10.26
		07/13/99		74.98	3563.78	-0.24	10.02
		10/21/99		75.30	3563.46	-0.32	9.70
		01/25/00		75.56	3563.20	-0.26	9.44
		04/17/00		75.90	3562.86	-0.34	9.10
MW-10	3638.86	05/27/97	130.5	73.33	3565.53		57.17
		07/28/97		73.49	3565.37	-0.16	57.01
		10/15/97		73.61	3565.25	-0.12	56.89
		01/05/98		73.83	3565.03	-0.22	56.67
		04/16/98		74.08	3564.78	-0.25	56.42
		07/16/98		74.38	3564.48	-0.30	56.12
		10/25/98		74.64	3564.22	-0.26	55.86
		02/10/99		74.92	3563.94	-0.28	55.58
		04/21/99		75.14	3563.72	-0.22	55.36
		07/13/99		75.31	3563.55	-0.17	55.19
		10/18/99		75.65	3563.21	-0.34	54.85
		01/25/00		75.93	3562.93	-0.28	54.57
		04/17/00		76.26	3562.60	-0.33	54.24
MW-11	3638.55	05/26/97	208	70.70	3567.85		137.30
		07/28/97		70.89	3567.66	-0.19	137.11
		10/15/97		70.85	3567.70	0.04	137.15
		01/05/98		71.21	3567.34	-0.36	136.79
		04/16/98		71.45	3567.10	-0.24	136.55
		07/16/98		71.76	3566.79	-0.31	136.24
		10/25/98		71.95	3566.60	-0.19	136.05
		02/10/99		72.22	3566.33	-0.27	135.78
		04/21/99		72.47	3566.08	-0.25	135.53
		07/13/99		72.74	3565.81	-0.27	135.26
		10/18/99		73.03	3565.52	-0.29	134.97
		01/25/00		73.34	3565.21	-0.31	134.66
		04/17/00		73.65	3564.90	-0.31	134.35
MW-12	3636.15	05/26/97	85	68.05	3568.10		16.95
		07/28/97		68.14	3568.01	-0.09	16.86
		10/15/97		68.24	3567.91	-0.10	16.76
		01/05/98		68.52	3567.63	-0.28	16.48
		04/16/98		68.78	3567.37	-0.26	16.22
		07/16/98		69.10	3567.05	-0.32	15.90
		10/25/98		69.26	3566.89	-0.16	15.74
		02/10/99		69.53	3566.62	-0.27	15.47
		04/21/99		69.76	3566.39	-0.23	15.24
		07/13/99		69.95	3566.20	-0.19	15.05
		10/18/99		70.29	3565.86	-0.34	14.71
		01/25/00		70.57	3565.58	-0.28	14.43
		04/17/00		70.87	3565.28	-0.30	14.13

Table 1. **Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico**

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-13	3635.39	05/21/97	84	72.31	3563.08		11.69
		07/28/97		72.39	3563.00	-0.08	11.61
		10/15/97		72.63	3562.76	-0.24	11.37
		01/05/98		72.79	3562.60	-0.16	11.21
		04/16/98		72.93	3562.46	-0.14	11.07
		07/16/98		73.32	3562.07	-0.39	10.68
		10/25/98		73.62	3561.77	-0.30	10.38
		02/10/99		73.88	3561.51	-0.26	10.12
		04/21/99		74.11	3561.28	-0.23	9.89
		07/12/99		74.17	3561.22	-0.06	9.83
		10/20/99		73.88	3561.51	0.29	10.12
	3634.76	01/26/00		74.18	3560.58	-0.93	9.82
		04/17/00		74.43	3560.33	-0.25	9.57
MW-14	3637.19	05/21/97	85	74.86	3562.33		10.14
		07/28/97		75.06	3562.13	-0.20	9.94
		10/15/97		75.28	3561.91	-0.22	9.72
		01/05/98		75.44	3561.75	-0.16	9.56
		04/16/98		75.61	3561.58	-0.17	9.39
		07/16/98		75.98	3561.21	-0.37	9.02
		10/25/98		76.26	3560.93	-0.28	8.74
		02/10/99		76.57	3560.62	-0.31	8.43
		04/21/99		76.81	3560.38	-0.24	8.19
		07/12/99		77.08	3560.11	-0.27	7.92
		10/20/99		77.35	3559.84	-0.27	7.65
		01/26/00		77.67	3559.52	-0.32	7.33
		04/17/00		77.94	3559.25	-0.27	7.06
MW-15	3636.57	05/21/97	85	72.09	3564.48		12.91
		07/28/97		72.28	3564.29	-0.19	12.72
		10/15/97		72.52	3564.05	-0.24	12.48
		01/05/98		72.70	3563.87	-0.18	12.30
		04/16/98		72.87	3563.70	-0.17	12.13
		07/16/98		73.24	3563.33	-0.37	11.76
		10/25/98		73.47	3563.10	-0.23	11.53
		02/10/99		73.76	3562.81	-0.29	11.24
		04/21/99		74.00	3562.57	-0.24	11.00
		07/12/99		74.27	3562.30	-0.27	10.73
		10/20/99		74.58	3561.99	-0.31	10.42
		01/26/00		74.92	3561.65	-0.34	10.08
		04/17/00		75.19	3561.38	-0.27	9.81
Shell Station MW-4	3637.69	05/25/97	82.6	75.97	3561.72		6.63
		07/28/97		76.15	3561.54	-0.18	6.45
		10/15/97		76.26	3561.43	-0.11	6.34
		01/05/98		76.52	3561.17	-0.26	6.08
		04/16/98		76.67	3561.02	-0.15	5.93
		07/16/98		78.03	3559.66	-1.36	4.57
		10/25/98		77.33	3560.36	0.70	5.27
		02/10/99		77.62	3560.07	-0.29	4.98
		04/21/99		77.48	3560.21	0.14	5.12
		07/12/99		78.08	3559.61	-0.60	4.52
		10/21/99		78.36	3559.33	-0.28	4.24
		01/26/00		78.65	3559.04	-0.29	3.95
		04/17/00		78.92	3558.77	-0.27	3.68

Note: Top of casing survey elevations are based on the "City of Hobbs Control Datum" and the North American Vertical Datum

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.015
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.008
abandoned														
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007	0.134	0.331
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006	0.135	0.353
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008	0.193	0.648
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)	0.058	0.193
	05/23/97	0.039	ND(0.001)	0.007	0.014	0.057	ND(0.001)	0.009	0.004	0.003	0.005	0.001	0.021	0.117
	06/25/97	0.590	ND(0.002)	0.009	0.027	0.180	ND(0.002)	0.011	0.005	0.007	0.007	*0.001*	0.030	0.806
	07/28/97	0.031	ND(0.002)	0.004	0.011	0.097	ND(0.002)	0.004	*0.001*	*0.001*	*0.001*	ND(0.002)	0.007	0.143
	10/16/97	0.012	ND(0.002)	*0.002*	0.012	0.023	ND(0.002)	0.002	*0.001*	*0.001*	*0.001*	ND(0.002)	0.005	0.049
	01/06/98	0.023	ND(0.002)	0.002	0.007	0.043	ND(0.002)	0.004	*0.002*	*0.001*	*0.001*	ND(0.002)	0.008	0.075
	04/16/98	0.053	ND(0.002)	0.008	0.058	0.130	ND(0.002)	0.010	ND(0.002)	*0.002*	*0.001*	ND(0.002)	0.013	0.249
duplicate	04/16/98	0.058	ND(0.01)	0.008	0.064	0.142	ND(0.01)	0.010	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.010	0.272
	07/17/98	0.006	ND(0.002)	*0.001*	0.034	0.013	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.054
	10/27/98	0.020	ND(0.002)	0.003	0.018	0.011	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.052
	02/10/99	0.018	ND(0.001)	0.003	0.035	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.060
	02/10/99	0.016	ND(0.001)	0.003	0.034	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.002	0.000	0.057
	04/21/99	0.037	ND(0.001)	0.005	0.094	0.007	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.144
	07/13/99	0.011	ND(0.001)	0.002	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.034
	10/21/99	0.006	ND(0.001)	0.001	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.028
	01/25/00	0.013	ND(0.001)	0.003	0.041	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.057
	04/18/00	0.008	ND(0.001)	0.001	0.023	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.032
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006	0.002	0.049
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	0.000	0.071
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.067
	05/22/97	0.026	0.001	0.015	0.016	0.015	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004	0.002	0.073
	07/28/97	0.033	*0.002*	0.012	0.012	0.008	ND(0.002)	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.005	0.003	0.067
	10/16/97	0.022	ND(0.002)	0.008	0.022	0.011	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.001	0.063
	01/06/98	0.023	ND(0.002)	0.023	0.026	0.031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.103
	04/16/98	0.030	ND(0.002)	0.014	0.025	0.012	0.003	0.003	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.003	0.084
	07/17/98	0.034	ND(0.002)	0.015	0.026	0.013	0.003	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.091
	10/27/98	0.035	ND(0.002)	0.012	0.016	0.005	*0.002*	0.002	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.070
	10/20/99	0.025	ND(0.001)	0.023	0.020	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.002	ND(0.002)	ND(0.001)	0.004	0.068
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	4.294
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	5.200
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.902
	01/22/97	0.089	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	4.292
	05/23/97	0.062	0.022	0.423	1.720	0.550	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.777
	06/25/97	0.047	*0.017*	0.175	1.250	0.349	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.838
	06/25/97	0.044	*0.017*	0.167	1.190	0.332	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.750
	07/28/97	0.037	*0.015*	0.124	1.060	0.267	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.503
	10/16/97	0.031	*0.011*	0.103	1.170	0.225	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.540
	01/06/98	0.021	ND(0.02)	0.087	0.970	0.148	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	0.024	0.000	1.226
	01/06/98	0.021	*0.006*	0.077	0.907	0.138	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.019	0.000	1.149
	04/16/98	*0.019*	ND(0.05)	0.116	0.651	0.114	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	0.900
	07/17/98	0.031	ND(0.01)	0.206	1.120	0.194	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.551
duplicate	07/17/98	0.031	ND(0.02)	0.240	0.843	0.216	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.330
	10/27/98	*0.031*	ND(0.05)	0.201	1.080	0.209	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	1.521
	02/10/99	0.019	ND(0.01)	0.118	0.511	0.090	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.738
	04/21/99	0.031	ND(0.01)	0.151	0.875	0.166	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.223
	07/13/99	0.014	ND(0.01)	0.081	0.386	0.058	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.539
duplicate	07/13/99	0.015	0.004	0.084	0.350	0.055	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.508
	10/21/99	0.059	0.027	0.149	0.977	0.155	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.367
	01/25/00	0.013	ND(0.01)	0.044	0.249	0.030	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.336
duplicate	01/25/00	0.015	ND(0.01)	0.054	0.282	0.036	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.387
	04/18/00	0.013	ND(0.0025)	0.038	0.252	0.021	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.324

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	*0.001*	0.018	0.004	ND(0.001)	*0.001*	ND(0.001)	0.023	0.251
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	*0.001*	0.018	0.004	ND(0.001)	0.001	0.004	0.023	0.254
	05/23/97	0.191	0.003	0.055	0.079	0.059	*0.002*	0.029	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.029	0.389
	07/28/97	0.241	0.004	0.072	0.058	0.051	0.002	0.051	0.023	ND(0.002)	0.007	0.009	0.081	0.428
duplicate	07/28/97	0.258	*0.004*	0.069	0.052	0.050	ND(0.005)	0.052	0.023	ND(0.005)	*0.007*	0.011	0.082	0.433
	10/16/97	0.214	*0.004*	0.066	0.070	0.039	ND(0.01)	0.059	0.027	ND(0.01)	0.008	0.011	0.094	0.393
	01/06/98	0.215	*0.004*	0.060	0.055	0.029	ND(0.01)	0.048	0.016	ND(0.01)	*0.006*	*0.005*	0.070	0.363
	04/16/98	0.136	*0.002*	0.033	0.031	0.008	ND(0.005)	0.034	0.011	ND(0.005)	ND(0.01)	0.009	0.045	0.210
	07/17/98	0.106	*0.002*	0.023	0.029	0.007	0.002	0.025	0.007	ND(0.002)	*0.001*	*0.005*	0.033	0.169
	10/27/98	0.080	ND(0.01)	0.042	0.033	0.016	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.171
duplicate	10/27/98	0.053	ND(0.002)	0.011	0.011	0.002	ND(0.002)	0.011	0.002	ND(0.002)	ND(0.004)	0.002	0.013	0.077
	10/20/99	0.113	ND(0.0025)	0.022	0.005	ND(0.0025)	ND(0.0025)	0.027	0.009	ND(0.0025)	ND(0.005)	ND(0.0025)	0.036	0.140
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	*0.001*	0.001	0.053
	05/22/97	0.085	0.002	0.034	0.023	0.017	*0.002*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.004	0.163
	07/28/97	0.081	*0.002*	0.027	0.021	0.008	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.004	0.003	0.141
	10/16/97	0.082	*0.002*	0.025	0.019	0.006	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.136
	01/06/98	0.113	*0.003*	0.038	0.024	0.012	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.192
	04/16/98	0.088	0.003	0.027	0.017	0.008	*0.002*	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.002	0.145
	07/17/98	0.091	0.004	0.051	0.032	0.022	0.002	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.202
	10/26/98	0.055	ND(0.01)	0.011	0.011	ND(0.01)	ND(0.01)	0.011	*0.002*	ND(0.01)	ND(0.02)	*0.002*	0.013	0.077
	02/10/99	0.113	0.005	0.056	0.039	0.016	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.232
	04/21/99	0.133	0.006	0.061	0.047	0.023	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.273
	07/13/99	0.108	0.004	0.068	0.062	0.021	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.263
	10/20/99	0.066	0.003	0.058	0.046	0.032	ND(0.0025)	ND(0.0025)	ND(0.0025)	*0.002*	ND(0.005)	ND(0.0025)	0.002	0.205
	01/25/00	0.093	0.003	0.049	0.048	0.015	ND(0.0025)	*0.002*	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.002	0.208
	04/18/00	0.082	ND(0.0025)	0.036	0.033	0.009	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.160
MW-7	01/23/97	0.047	*0.001*	0.009	0.014	ND(0.001)	0.004	*0.001*	ND(0.001)	ND(0.001)	0.001	0.013	0.002	0.075
	05/22/97	0.087	*0.002*	0.066	0.116	*0.002*	0.014	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.062	0.003	0.287
	07/28/97	0.073	*0.002*	0.061	0.110	ND(0.002)	0.021	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.055	0.004	0.267
	10/16/97	0.065	ND(0.005)	0.050	0.091	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.058	0.003	0.224
	01/06/98	0.076	ND(0.005)	0.054	0.111	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.048	0.003	0.259
	04/16/98	0.055	ND(0.005)	0.035	0.078	ND(0.005)	0.020	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.040	0.003	0.188
	07/17/98	0.065	ND(0.005)	0.038	0.073	ND(0.005)	0.024	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.010	0.003	0.200
	10/26/98	0.047	ND(0.005)	0.030	0.073	ND(0.005)	0.019	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	0.014	0.000	0.169
	02/10/99	0.050	ND(0.001)	0.032	0.066	0.002	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.006	0.002	0.164
	04/21/99	0.047	ND(0.001)	0.029	0.071	0.002	0.011	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.160
	07/13/99	0.034	ND(0.001)	0.027	0.066	ND(0.001)	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.134
	10/20/99	0.046	ND(0.001)	0.035	0.081	ND(0.001)	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.002)	ND(0.001)	0.002	0.168
	01/25/00	0.025	ND(0.0025)	0.020	0.061	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.109
	04/18/00	0.022	ND(0.0025)	0.020	0.069	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.114
MW-8	01/23/97	0.068	*0.005*	0.280	0.810	0.460	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.623
	05/23/97	0.082	ND(0.01)	1.360	4.150	0.805	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	6.397
	06/25/97	0.077	ND(0.02)	0.975	3.600	0.774	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.426
	07/28/97	ND(0.1)	ND(0.1)	1.120	4.520	0.798	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	6.438
	10/16/97	ND(0.2)	ND(0.2)	0.858	4.570	0.596	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	6.024
	01/06/98	ND(0.2)	ND(0.2)	1.230	4.650	0.798	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.166*	0.000	6.678
	04/16/98	ND(0.2)	ND(0.2)	1.050	4.620	0.658	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.142*	0.000	6.328
	07/17/98	ND(0.2)	ND(0.2)	1.200	5.090	0.740	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	7.030
	10/27/98	*0.060*	ND(0.2)	0.780	4.160	0.522	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	5.522
	02/10/99	0.083	ND(0.025)	0.936	3.870	0.569	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.458
	04/21/99	0.080	ND(0.025)	0.808	3.900	0.600	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.388
	07/13/99	0.058	ND(0.025)	0.634	2.970	0.341	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.003
	10/21/99	0.081	ND(0.025)	0.857	3.610	0.447	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.995
	01/25/00	0.076	ND(0.025)	0.687	3.190	0.349	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.302
	04/18/00	0.053	ND(0.01)	0.412	2.420	0.219	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	3.104
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.209
	05/23/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.045
	06/25/97	0.033	ND(0.02)	0.326	1.130	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.489

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-9 Cont.	07/28/97	0.021	ND(0.02)	0.278	1.020	0.121	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.440
	10/16/97	*0.019*	ND(0.02)	0.278	1.160	0.104	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.561
duplicate	10/16/97	0.023	ND(0.02)	0.321	1.160	0.141	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.645
	01/06/98	*0.033*	ND(0.1)	0.502	1.350	0.174	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.059
	04/16/98	*0.029*	ND(0.05)	0.444	1.290	0.144	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.1)	ND(0.05)	0.000	1.907
	07/17/98	*0.042*	ND(0.1)	0.690	1.770	0.242	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.744
	10/27/98	*0.030*	ND(0.1)	0.507	1.740	0.193	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.470
	02/10/99	0.031	ND(0.01)	0.487	1.400	0.159	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.077
	04/21/99	0.026	ND(0.01)	0.368	1.320	0.161	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.875
	07/13/99	0.021	ND(0.01)	0.353	1.100	0.110	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.584
	10/21/99	0.018	ND(0.01)	0.261	1.090	0.085	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.454
	01/25/00	0.013	ND(0.01)	0.145	0.556	0.048	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.762
	04/18/00	0.006	ND(0.0025)	0.046	0.235	0.015	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.302
MW-10	05/26/97	0.004	ND(0.002)	0.007	0.026	ND(0.002)	*0.001*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.004	0.038
duplicate	05/26/97	ND(0.002)	ND(0.002)	0.008	0.028	ND(0.002)	*0.001*	0.007	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.007	0.037
	07/28/97	0.003	ND(0.002)	0.009	0.014	*0.002*	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.028
	10/16/97	ND(0.002)	ND(0.002)	*0.002*	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	01/06/98	ND(0.002)	ND(0.002)	*0.002*	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	04/16/98	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.002
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.003	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.003	0.002
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
duplicate	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
MW-11	05/24/97	*0.001*	ND(0.001)	*0.007*	0.002	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.010
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.003	*0.001*	ND(0.001)	0.006	ND(0.001)	0.010	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	*0.001*	ND(0.001)	*0.003*	ND(0.001)	0.006	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.003*	ND(0.002)	0.005	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	*0.002*	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.004	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.000
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.000
	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	0.001	ND(0.001)	ND(0.002)	ND(0.001)	0.003	0.000
duplicate	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001	0.001	ND(0.001)	ND(0.002)	ND(0.001)	0.002	0.000
MW-12	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	*0.006*	*0.005*	*0.003*	ND(0.001)	0.014	0.001
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.001
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	10/18/99	ND(0.001)	ND(0.001)	0.002	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.005
MW-13	05/24/97	ND(0.001)	ND(0.001)	0.012	0.010	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.023
	07/28/97	ND(0.001)	ND(0.001)	0.012	0.009	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.022
	10/16/97	ND(0.001)	ND(0.001)	0.015	0.013	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
duplicate	10/16/97	ND(0.002)	ND(0.002)	0.011	0.013	*0.001*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.025
	01/06/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
	04/16/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
duplicate	04/16/98	ND(0.001)	ND(0.001)	0.016	0.010	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
	07/17/98	ND(0.002)	ND(0.002)	0.019	0.016	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.037
	10/26/98	ND(0.002)	ND(0.002)	0.019	0.020	0.002	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.041
	02/10/99	*0.001*	ND(0.001)	0.016	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.033
	04/21/99	ND(0.001)	ND(0.001)	0.017	0.018	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.037
	07/12/99	ND(0.001)	ND(0.001)	0.012	0.012	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.025
	10/20/99	ND(0.001)	ND(0.001)	0.018	0.015	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.035
	01/26/00	0.002	ND(0.001)	0.022	0.021	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.047
	04/18/00	0.001	ND(0.001)	0.025	0.027	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.055
duplicate	04/18/00	0.001	ND(0.001)	0.023	0.026	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.052

ENERGY LABORATORIES
Billings • Casper • Gillette
Helena • Rapid City

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	07:45
Sample ID:	93007-14.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-1	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.00
74-87-3	Chloromethane	ND	1.00
75-01-4	Vinyl chloride (Chloroethene)	ND	1.00
74-83-9	Bromomethane	ND	1.00
75-00-3	Chloroethane	ND	1.00
75-69-4	Trichlorofluoromethane	ND	1.00
75-35-4	1,1 - Dichloroethene	ND	1.00
75-09-2	Methylene chloride (Dichloromethane)	ND	1.00
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.00
75-34-3	1,1 - Dichloroethane	ND	1.00
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.00
74-97-5	Bromochloromethane	ND	1.00
67-66-3	Chloroform (Trichloromethane)	ND	1.00
594-20-7	2,2 - Dichloropropane	ND	1.00
71-55-6	1,1,1 - Trichloroethane	ND	1.00
107-06-2	1,2 - Dichloroethane	ND	1.00
563-58-6	1,1 - Dichloropropene	ND	1.00
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.00
71-43-2	Benzene	ND	1.00
74-95-3	Dibromomethane	ND	1.00
78-87-5	1,2 - Dichloropropane	ND	1.00
79-01-6	Trichloroethene	ND	1.00
75-27-4	Bromodichloromethane	ND	1.00
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.00
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.00
79-00-5	1,1,2 - Trichloroethane	ND	1.00
108-88-3	Toluene	ND	1.00
106-93-4	1,2 - Dibromoethane	ND	1.00
142-28-9	1,3 - Dichloropropane	ND	1.00
124-48-1	Dibromochloromethane	ND	1.00
127-18-4	Tetrachloroethene	ND	1.00
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.00
108-90-7	Chlorobenzene	ND	1.00
100-41-4	Ethylbenzene	ND	1.00
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.00
75-25-2	Bromoform (Tribromomethane)	ND	1.00
100-42-5	Styrene (Ethenylbenzene)	ND	1.00
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.00
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.00
96-18-4	1,2,3 - Trichloropropane	ND	1.00

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO
92157300001

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-14.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-1	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.00
108-86-1	Bromobenzene	ND	1.00
103-65-1	n - Propylbenzene	ND	1.00
95-49-8	2 - Chlorotoluene	ND	1.00
106-43-4	4 - Chlorotoluene	ND	1.00
108-67-8	1,3,5 - Trimethylbenzene	ND	1.00
98-06-6	tert - Butylbenzene	ND	1.00
95-63-6	1,2,4 - Trimethylbenzene	ND	1.00
135-98-8	sec - Butylbenzene	ND	1.00
541-73-1	1,3 - Dichlorobenzene	ND	1.00
106-46-7	1,4 - Dichlorobenzene	ND	1.00
99-87-6	4-Isopropyltoluene	ND	1.00
95-50-1	1,2 - Dichlorobenzene	ND	1.00
104-51-8	n - Butylbenzene	ND	1.00
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.00
120-82-1	1,2,4 - Trichlorobenzene	ND	1.00
91-20-3	Naphthalene	ND	1.00
87-68-3	Hexachlorobutadiene	ND	1.00
87-61-6	1,2 3 - Trichlorobenzene	ND	1.00

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	451176	524356	86.0%	50 - 200 %
Fluorobenzene	586775	736973	79.6%	50 - 200 %
1,4 - Difluorobenzene	560898	694020	80.8%	50 - 200 %
Chlorobenzene - d5	405414	488513	83.0%	50 - 200 %
1,4 - Dichlorobenzene - d4	179554	236854	75.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.18	91.8%	86 - 118 %
Toluene - d8	9.92	99.2%	88 - 110 %
4 - Bromofluorobenzene	9.35	93.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.82	98.2%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO.

32107R06002

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	08:00
Sample ID:	93007-15.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-2	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	2		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.00
74-87-3	Chloromethane	ND	1.00
75-01-4	Vinyl chloride (Chloroethene)	ND	1.00
74-83-9	Bromomethane	ND	1.00
75-00-3	Chloroethane	ND	1.00
75-69-4	Trichlorofluoromethane	ND	1.00
75-35-4	1,1 - Dichloroethene	ND	1.00
75-09-2	Methylene chloride (Dichloromethane)	ND	1.00
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.00
75-34-3	1,1 - Dichloroethane	ND	1.00
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.00
74-97-5	Bromochloromethane	ND	1.00
67-66-3	Chloroform (Trichloromethane)	ND	1.00
594-20-7	2,2 - Dichloropropane	ND	1.00
71-55-6	1,1,1 - Trichloroethane	ND	1.00
107-06-2	1,2 - Dichloroethane	ND	1.00
563-58-6	1,1 - Dichloropropene	ND	1.00
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.00
71-43-2	Benzene	ND	1.00
74-95-3	Dibromomethane	ND	1.00
78-87-5	1,2 - Dichloropropane	ND	1.00
79-01-6	Trichloroethene	ND	1.00
75-27-4	Bromodichloromethane	ND	1.00
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.00
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.00
79-00-5	1,1,2 - Trichloroethane	ND	1.00
108-88-3	Toluene	ND	1.00
106-93-4	1,2 - Dibromoethane	ND	1.00
142-28-9	1,3 - Dichloropropane	ND	1.00
124-48-1	Dibromochloromethane	ND	1.00
127-18-4	Tetrachloroethene	ND	1.00
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.00
108-90-7	Chlorobenzene	ND	1.00
100-41-4	Ethylbenzene	ND	1.00
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.00
75-25-2	Bromoform (Tribromomethane)	ND	1.00
100-42-5	Styrene (Ethenylbenzene)	ND	1.00
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.00
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.00
96-18-4	1,2,3 - Trichloropropane	ND	1.00

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.
32107301 003

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-15.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-2	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.00
108-86-1	Bromobenzene	ND	1.00
103-65-1	n - Propylbenzene	ND	1.00
95-49-8	2 - Chlorotoluene	ND	1.00
106-43-4	4 - Chlorotoluene	ND	1.00
108-67-8	1,3,5 - Trimethylbenzene	ND	1.00
98-06-6	tert - Butylbenzene	ND	1.00
95-63-6	1,2,4 - Trimethylbenzene	ND	1.00
135-98-8	sec - Butylbenzene	ND	1.00
541-73-1	1,3 - Dichlorobenzene	ND	1.00
106-46-7	1,4 - Dichlorobenzene	ND	1.00
99-87-6	4-Isopropyltoluene	ND	1.00
95-50-1	1,2 - Dichlorobenzene	ND	1.00
104-51-8	n - Butylbenzene	ND	1.00
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.00
120-82-1	1,2,4 - Trichlorobenzene	ND	1.00
91-20-3	Naphthalene	ND	1.00
87-68-3	Hexachlorobutadiene	ND	1.00
87-61-6	1,2 3 - Trichlorobenzene	ND	1.00

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	449721	524356	85.8%	50 - 200 %
Fluorobenzene	584802	736973	79.4%	50 - 200 %
1,4 - Difluorobenzene	560058	694020	80.7%	50 - 200 %
Chlorobenzene - d5	405103	488513	82.9%	50 - 200 %
1,4 - Dichlorobenzene - d4	175699	236854	74.2%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.10	91.0%	86 - 118 %
Toluene - d8	9.77	97.7%	88 - 110 %
4 - Bromofluorobenzene	9.20	92.0%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.88	98.8%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO

32107300001

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	08:45
Sample ID:	93007-504.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-3	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	5		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.50
74-87-3	Chloromethane	ND	2.50
75-01-4	Vinyl chloride (Chloroethene)	ND	2.50
74-83-9	Bromomethane	ND	2.50
75-00-3	Chloroethane	ND	2.50
75-69-4	Trichlorofluoromethane	ND	2.50
75-35-4	**1,1 - Dichloroethene**	**88.8**	2.50
75-09-2	Methylene chloride (Dichloromethane)	ND	2.50
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.50
75-34-3	**1,1 - Dichloroethane**	**57.1**	2.50
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	**cis - 1,2 - Dichloroethene**	**4.35**	2.50
74-97-5	Bromochloromethane	ND	2.50
67-66-3	Chloroform (Trichloromethane)	ND	2.50
594-20-7	2,2 - Dichloropropane	ND	2.50
71-55-6	**1,1,1 - Trichloroethane**	**7.65**	2.50
107-06-2	1,2 - Dichloroethane	ND	2.50
563-58-6	1,1 - Dichloropropene	ND	2.50
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.50
71-43-2	Benzene	ND	2.50
74-95-3	Dibromomethane	ND	2.50
78-87-5	1,2 - Dichloropropane	ND	2.50
79-01-6	Trichloroethene	ND	2.50
75-27-4	Bromodichloromethane	ND	2.50
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.50
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.50
79-00-5	1,1,2 - Trichloroethane	ND	2.50
108-88-3	Toluene	ND	2.50
106-93-4	1,2 - Dibromoethane	ND	2.50
142-28-9	1,3 - Dichloropropane	ND	2.50
124-48-1	Dibromochloromethane	ND	2.50
127-18-4	**Tetrachloroethene**	**5.60**	2.50
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.50
108-90-7	Chlorobenzene	ND	2.50
100-41-4	Ethylbenzene	ND	2.50
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.00
75-25-2	Bromoform (Tribromomethane)	ND	2.50
100-42-5	Styrene (Ethenylbenzene)	ND	2.50
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.50
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.50
96-18-4	1,2,3 - Trichloropropane	ND	2.50

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE N
3[illegible]

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-504.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-3	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.50
108-86-1	Bromobenzene	ND	2.50
103-65-1	n - Propylbenzene	ND	2.50
95-49-8	2 - Chlorotoluene	ND	2.50
106-43-4	4 - Chlorotoluene	ND	2.50
108-67-8	1,3,5 - Trimethylbenzene	ND	2.50
98-06-6	tert - Butylbenzene	ND	2.50
95-63-6	1,2,4 - Trimethylbenzene	ND	2.50
135-98-8	sec - Butylbenzene	ND	2.50
541-73-1	1,3 - Dichlorobenzene	ND	2.50
106-46-7	1,4 - Dichlorobenzene	ND	2.50
99-87-6	4-Isopropyltoluene	ND	2.50
95-50-1	1,2 - Dichlorobenzene	ND	2.50
104-51-8	n - Butylbenzene	ND	2.50
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.50
91-20-3	Naphthalene	ND	2.50
87-68-3	Hexachlorobutadiene	ND	2.50
87-61-6	1,2 3 - Trichlorobenzene	ND	2.50

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	437862	524356	83.5%	50 - 200 %
Fluorobenzene	574888	736973	78.0%	50 - 200 %
1,4 - Difluorobenzene	555178	694020	80.0%	50 - 200 %
Chlorobenzene - d5	397740	488513	81.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	179684	236854	75.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.34	93.4%	86 - 118 %
Toluene - d8	9.72	97.2%	88 - 110 %
4 - Bromofluorobenzene	9.26	92.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.48	94.8%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO.

32107800006

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	09:20
Sample ID:	93007-13.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-4	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.00
74-87-3	Chloromethane	ND	1.00
75-01-4	Vinyl chloride (Chloroethene)	ND	1.00
74-83-9	Bromomethane	ND	1.00
75-00-3	Chloroethane	ND	1.00
75-69-4	Trichlorofluoromethane	ND	1.00
75-35-4	**1,1 - Dichloroethene**	**24.6**	1.00
75-09-2	Methylene chloride (Dichloromethane)	ND	1.00
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.00
75-34-3	**1,1 - Dichloroethane**	**1.44**	1.00
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.00
74-97-5	Bromochloromethane	ND	1.00
67-66-3	Chloroform (Trichloromethane)	ND	1.00
594-20-7	2,2 - Dichloropropane	ND	1.00
71-55-6	**1,1,1 - Trichloroethane**	**2.00**	1.00
107-06-2	1,2 - Dichloroethane	ND	1.00
563-58-6	1,1 - Dichloropropene	ND	1.00
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.00
71-43-2	Benzene	ND	1.00
74-95-3	Dibromomethane	ND	1.00
78-87-5	1,2 - Dichloropropane	ND	1.00
79-01-6	Trichloroethene	ND	1.00
75-27-4	Bromodichloromethane	ND	1.00
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.00
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.00
79-00-5	1,1,2 - Trichloroethane	ND	1.00
108-88-3	Toluene	ND	1.00
106-93-4	1,2 - Dibromoethane	ND	1.00
142-28-9	1,3 - Dichloropropane	ND	1.00
124-48-1	Dibromochloromethane	ND	1.00
127-18-4	**Tetrachloroethene**	**26.9**	1.00
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.00
108-90-7	Chlorobenzene	ND	1.00
100-41-4	Ethylbenzene	ND	1.00
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.00
75-25-2	Bromoform (Tribromomethane)	ND	1.00
100-42-5	Styrene (Ethenylbenzene)	ND	1.00
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.00
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.00
96-18-4	1,2,3 - Trichloropropane	ND	1.00

ND - Analyte not detected at stated limit of detection

TRACKING NO. FRONTIER

32107X00007

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-13.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-4	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.00
108-86-1	Bromobenzene	ND	1.00
103-65-1	n - Propylbenzene	ND	1.00
95-49-8	2 - Chlorotoluene	ND	1.00
106-43-4	4 - Chlorotoluene	ND	1.00
108-67-8	1,3,5 - Trimethylbenzene	ND	1.00
98-06-6	tert - Butylbenzene	ND	1.00
95-63-6	1,2,4 - Trimethylbenzene	ND	1.00
135-98-8	sec - Butylbenzene	ND	1.00
541-73-1	1,3 - Dichlorobenzene	ND	1.00
106-46-7	1,4 - Dichlorobenzene	ND	1.00
99-87-6	4-Isopropyltoluene	ND	1.00
95-50-1	1,2 - Dichlorobenzene	ND	1.00
104-51-8	n - Butylbenzene	ND	1.00
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.00
120-82-1	1,2,4 - Trichlorobenzene	ND	1.00
91-20-3	Naphthalene	ND	1.00
87-68-3	Hexachlorobutadiene	ND	1.00
87-61-6	1,2 3 - Trichlorobenzene	ND	1.00

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	447441	524356	85.3%	50 - 200 %
Fluorobenzene	594674	736973	80.7%	50 - 200 %
1,4 - Difluorobenzene	558936	694020	80.5%	50 - 200 %
Chlorobenzene - d5	405696	488513	83.0%	50 - 200 %
1,4 - Dichlorobenzene - d4	180209	236854	76.1%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.40	94.0%	86 - 118 %
Toluene - d8	9.93	99.3%	88 - 110 %
4 - Bromofluorobenzene	9.23	92.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO.

32107-01-08

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	10:00
Sample ID:	93007-2.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-5	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	2		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.00
74-87-3	Chloromethane	ND	1.00
75-01-4	Vinyl chloride (Chloroethene)	ND	1.00
74-83-9	Bromomethane	ND	1.00
75-00-3	Chloroethane	ND	1.00
75-69-4	Trichlorofluoromethane	ND	1.00
75-35-4	**1,1 - Dichloroethene**	**1.42**	1.00
75-09-2	Methylene chloride (Dichloromethane)	ND	1.00
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.00
75-34-3	**1,1 - Dichloroethane**	**7.78**	1.00
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.00
74-97-5	Bromochloromethane	ND	1.00
67-66-3	Chloroform (Trichloromethane)	ND	1.00
594-20-7	2,2 - Dichloropropane	ND	1.00
71-55-6	1,1,1 - Trichloroethane	ND	1.00
107-06-2	1,2 - Dichloroethane	ND	1.00
563-58-6	1,1 - Dichloropropene	ND	1.00
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.00
71-43-2	Benzene	ND	1.00
74-95-3	Dibromomethane	ND	1.00
78-87-5	1,2 - Dichloropropane	ND	1.00
79-01-6	Trichloroethene	ND	1.00
75-27-4	Bromodichloromethane	ND	1.00
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.00
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.00
79-00-5	1,1,2 - Trichloroethane	ND	1.00
108-88-3	Toluene	ND	1.00
106-93-4	1,2 - Dibromoethane	ND	1.00
142-28-9	1,3 - Dichloropropane	ND	1.00
124-48-1	Dibromochloromethane	ND	1.00
127-18-4	**Tetrachloroethene**	**23.0**	1.00
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.00
108-90-7	Chlorobenzene	ND	1.00
100-41-4	Ethylbenzene	ND	1.00
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.00
75-25-2	Bromoform (Tribromomethane)	ND	1.00
100-42-5	Styrene (Ethenylbenzene)	ND	1.00
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.00
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.00
96-18-4	1,2,3 - Trichloropropane	ND	1.00

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-2.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-5	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.00
108-86-1	Bromobenzene	ND	1.00
103-65-1	n - Propylbenzene	ND	1.00
95-49-8	2 - Chlorotoluene	ND	1.00
106-43-4	4 - Chlorotoluene	ND	1.00
108-67-8	1,3,5 - Trimethylbenzene	ND	1.00
98-06-6	tert - Butylbenzene	ND	1.00
95-63-6	1,2,4 - Trimethylbenzene	ND	1.00
135-98-8	sec - Butylbenzene	ND	1.00
541-73-1	1,3 - Dichlorobenzene	ND	1.00
106-46-7	1,4 - Dichlorobenzene	ND	1.00
99-87-6	4-Isopropyltoluene	ND	1.00
95-50-1	1,2 - Dichlorobenzene	ND	1.00
104-51-8	n - Butylbenzene	ND	1.00
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.00
120-82-1	1,2,4 - Trichlorobenzene	ND	1.00
91-20-3	Naphthalene	ND	1.00
87-68-3	Hexachlorobutadiene	ND	1.00
87-61-6	1,2 3 - Trichlorobenzene	ND	1.00

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	438578	524356	83.6%	50 - 200 %
Fluorobenzene	579391	736973	78.6%	50 - 200 %
1,4 - Difluorobenzene	550391	694020	79.3%	50 - 200 %
Chlorobenzene - d5	401999	488513	82.3%	50 - 200 %
1,4 - Dichlorobenzene - d4	173677	236854	73.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.24	92.4%	86 - 118 %
Toluene - d8	9.86	98.6%	88 - 110 %
4 - Bromofluorobenzene	9.07	90.7%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO.

32107300010

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	10:15
Sample ID:	93007-6.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-6	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	5		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.50
74-87-3	Chloromethane	ND	2.50
75-01-4	**Vinyl chloride (Chloroethene)**	**2.65**	2.50
74-83-9	Bromomethane	ND	2.50
75-00-3	Chloroethane	ND	2.50
75-69-4	Trichlorofluoromethane	ND	2.50
75-35-4	**1,1 - Dichloroethene**	**35.8**	2.50
75-09-2	Methylene chloride (Dichloromethane)	ND	2.50
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.50
75-34-3	**1,1 - Dichloroethane**	**81.5**	2.50
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	**cis - 1,2 - Dichloroethene**	**2.55**	2.50
74-97-5	Bromochloromethane	ND	2.50
67-66-3	**Chloroform (Trichloromethane)**	**4.90**	2.50
594-20-7	2,2 - Dichloropropane	ND	2.50
71-55-6	**1,1,1 - Trichloroethane**	**8.90**	2.50
107-06-2	1,2 - Dichloroethane	ND	2.50
563-58-6	1,1 - Dichloropropene	ND	2.50
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.50
71-43-2	Benzene	ND	2.50
74-95-3	Dibromomethane	ND	2.50
78-87-5	1,2 - Dichloropropane	ND	2.50
79-01-6	Trichloroethene	ND	2.50
75-27-4	Bromodichloromethane	ND	2.50
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.50
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.50
79-00-5	1,1,2 - Trichloroethane	ND	2.50
108-88-3	Toluene	ND	2.50
106-93-4	1,2 - Dibromoethane	ND	2.50
142-28-9	1,3 - Dichloropropane	ND	2.50
124-48-1	Dibromochloromethane	ND	2.50
127-18-4	**Tetrachloroethene**	**32.8**	2.50
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.50
108-90-7	Chlorobenzene	ND	2.50
100-41-4	Ethylbenzene	ND	2.50
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.00
75-25-2	Bromoform (Tribromomethane)	ND	2.50
100-42-5	Styrene (Ethenylbenzene)	ND	2.50
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.50
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.50
96-18-4	1,2,3 - Trichloropropane	ND	2.50

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.
93107R0611

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-6.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-6	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.50
108-86-1	Bromobenzene	ND	2.50
103-65-1	n - Propylbenzene	ND	2.50
95-49-8	2 - Chlorotoluene	ND	2.50
106-43-4	4 - Chlorotoluene	ND	2.50
108-67-8	1,3,5 - Trimethylbenzene	ND	2.50
98-06-6	tert - Butylbenzene	ND	2.50
95-63-6	1,2,4 - Trimethylbenzene	ND	2.50
135-98-8	sec - Butylbenzene	ND	2.50
541-73-1	1,3 - Dichlorobenzene	ND	2.50
106-46-7	1,4 - Dichlorobenzene	ND	2.50
99-87-6	4-Isopropyltoluene	ND	2.50
95-50-1	1,2 - Dichlorobenzene	ND	2.50
104-51-8	n - Butylbenzene	ND	2.50
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.50
91-20-3	Naphthalene	ND	2.50
87-68-3	Hexachlorobutadiene	ND	2.50
87-61-6	1,2 3 - Trichlorobenzene	ND	2.50

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	436843	524356	83.3%	50 - 200 %
Fluorobenzene	574196	736973	77.9%	50 - 200 %
1,4 - Difluorobenzene	555746	694020	80.1%	50 - 200 %
Chlorobenzene - d5	403135	488513	82.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	176558	236854	74.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.43	94.3%	86 - 118 %
Toluene - d8	9.81	98.1%	88 - 110 %
4 - Bromofluorobenzene	8.96	89.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.92	99.2%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO

32107200012

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	10:45
Sample ID:	93007-7.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-7	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	5		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.50
74-87-3	Chloromethane	ND	2.50
75-01-4	Vinyl chloride (Chloroethene)	ND	2.50
74-83-9	Bromomethane	ND	2.50
75-00-3	Chloroethane	ND	2.50
75-69-4	Trichlorofluoromethane	ND	2.50
75-35-4	**1,1 - Dichloroethene**	**20.0**	2.50
75-09-2	Methylene chloride (Dichloromethane)	ND	2.50
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.50
75-34-3	**1,1 - Dichloroethane**	**21.6**	2.50
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.50
74-97-5	Bromochloromethane	ND	2.50
67-66-3	Chloroform (Trichloromethane)	ND	2.50
594-20-7	2,2 - Dichloropropane	ND	2.50
71-55-6	1,1,1 - Trichloroethane	ND	2.50
107-06-2	1,2 - Dichloroethane	ND	2.50
563-58-6	1,1 - Dichloropropene	ND	2.50
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.50
71-43-2	Benzene	ND	2.50
74-95-3	Dibromomethane	ND	2.50
78-87-5	1,2 - Dichloropropane	ND	2.50
79-01-6	**Trichloroethene**	**2.70**	2.50
75-27-4	Bromodichloromethane	ND	2.50
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.50
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.50
79-00-5	1,1,2 - Trichloroethane	ND	2.50
108-88-3	Toluene	ND	2.50
106-93-4	1,2 - Dibromoethane	ND	2.50
142-28-9	1,3 - Dichloropropane	ND	2.50
124-48-1	Dibromochloromethane	ND	2.50
127-18-4	**Tetrachloroethene**	**69.2**	2.50
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.50
108-90-7	Chlorobenzene	ND	2.50
100-41-4	Ethylbenzene	ND	2.50
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.00
75-25-2	Bromoform (Tribromomethane)	ND	2.50
100-42-5	Styrene (Ethenylbenzene)	ND	2.50
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.50
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.50
96-18-4	1,2,3 - Trichloropropane	ND	2.50

ND - Analyte not detected at stated limit of detection

TRADING PO. PAGE NO.
32 187 2010 13

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-7.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-7	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.50
108-86-1	Bromobenzene	ND	2.50
103-65-1	n - Propylbenzene	ND	2.50
95-49-8	2 - Chlorotoluene	ND	2.50
106-43-4	4 - Chlorotoluene	ND	2.50
108-67-8	1,3,5 - Trimethylbenzene	ND	2.50
98-06-6	tert - Butylbenzene	ND	2.50
95-63-6	1,2,4 - Trimethylbenzene	ND	2.50
135-98-8	sec - Butylbenzene	ND	2.50
541-73-1	1,3 - Dichlorobenzene	ND	2.50
106-46-7	1,4 - Dichlorobenzene	ND	2.50
99-87-6	4-Isopropyltoluene	ND	2.50
95-50-1	1,2 - Dichlorobenzene	ND	2.50
104-51-8	n - Butylbenzene	ND	2.50
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.50
91-20-3	Naphthalene	ND	2.50
87-68-3	Hexachlorobutadiene	ND	2.50
87-61-6	1,2 3 - Trichlorobenzene	ND	2.50

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	422041	524356	80.5%	50 - 200 %
Fluorobenzene	551662	736973	74.9%	50 - 200 %
1,4 - Difluorobenzene	531144	694020	76.5%	50 - 200 %
Chlorobenzene - d5	386881	488513	79.2%	50 - 200 %
1,4 - Dichlorobenzene - d4	166405	236854	70.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.31	93.1%	86 - 118 %
Toluene - d8	9.96	99.6%	88 - 110 %
4 - Bromofluorobenzene	9.21	92.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.4	104%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO.
32107B01-14

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	11:00
Sample ID:	93007-4.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-8	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	5		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.50
74-87-3	Chloromethane	ND	2.50
75-01-4	Vinyl chloride (Chloroethene)	ND	2.50
74-83-9	Bromomethane	ND	2.50
75-00-3	Chloroethane	ND	2.50
75-69-4	Trichlorofluoromethane	ND	2.50
75-35-4	**1,1 - Dichloroethene**	**37.6**	2.50
75-09-2	Methylene chloride (Dichloromethane)	ND	2.50
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.50
75-34-3	**1,1 - Dichloroethane**	**13.2**	2.50
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.50
74-97-5	Bromochloromethane	ND	2.50
67-66-3	**Chloroform (Trichloromethane)**	**6.50**	2.50
594-20-7	2,2 - Dichloropropane	ND	2.50
71-55-6	**1,1,1 - Trichloroethane**	**21.2**	2.50
107-06-2	1,2 - Dichloroethane	ND	2.50
563-58-6	1,1 - Dichloropropene	ND	2.50
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.50
71-43-2	Benzene	ND	2.50
74-95-3	Dibromomethane	ND	2.50
78-87-5	1,2 - Dichloropropane	ND	2.50
79-01-6	Trichloroethene	ND	2.50
75-27-4	Bromodichloromethane	ND	2.50
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.50
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.50
79-00-5	1,1,2 - Trichloroethane	ND	2.50
108-88-3	Toluene	ND	2.50
106-93-4	1,2 - Dibromoethane	ND	2.50
142-28-9	1,3 - Dichloropropane	ND	2.50
124-48-1	Dibromochloromethane	ND	2.50
127-18-4	**Tetrachloroethene**	**252**	2.50
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.50
108-90-7	Chlorobenzene	ND	2.50
100-41-4	Ethylbenzene	ND	2.50
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.00
75-25-2	Bromoform (Tribromomethane)	ND	2.50
100-42-5	Styrene (Ethenylbenzene)	ND	2.50
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.50
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.50
96-18-4	1,2,3 - Trichloropropane	ND	2.50

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE
32107R0011

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-4.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-8	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.50
108-86-1	Bromobenzene	ND	2.50
103-65-1	n - Propylbenzene	ND	2.50
95-49-8	2 - Chlorotoluene	ND	2.50
106-43-4	4 - Chlorotoluene	ND	2.50
108-67-8	1,3,5 - Trimethylbenzene	ND	2.50
98-06-6	tert - Butylbenzene	ND	2.50
95-63-6	1,2,4 - Trimethylbenzene	ND	2.50
135-98-8	sec - Butylbenzene	ND	2.50
541-73-1	1,3 - Dichlorobenzene	ND	2.50
106-46-7	1,4 - Dichlorobenzene	ND	2.50
99-87-6	4-Isopropyltoluene	ND	2.50
95-50-1	1,2 - Dichlorobenzene	ND	2.50
104-51-8	n - Butylbenzene	ND	2.50
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.50
91-20-3	Naphthalene	ND	2.50
87-68-3	Hexachlorobutadiene	ND	2.50
87-61-6	1,2 3 - Trichlorobenzene	ND	2.50

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	420000	524356	80.1%	50 - 200 %
Fluorobenzene	565889	736973	76.8%	50 - 200 %
1,4 - Difluorobenzene	543034	694020	78.2%	50 - 200 %
Chlorobenzene - d5	382850	488513	78.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	172637	236854	72.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.53	95.3%	86 - 118 %
Toluene - d8	9.69	96.9%	88 - 110 %
4 - Bromofluorobenzene	9.12	91.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.86	98.6%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO
32 07R0015

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	11:30
Sample ID:	93007-9.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-9	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	5		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.50
74-87-3	Chloromethane	ND	2.50
75-01-4	Vinyl chloride (Chloroethene)	ND	2.50
74-83-9	Bromomethane	ND	2.50
75-00-3	Chloroethane	ND	2.50
75-69-4	Trichlorofluoromethane	ND	2.50
75-35-4	**1,1 - Dichloroethene**	**45.6**	2.50
75-09-2	Methylene chloride (Dichloromethane)	ND	2.50
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.50
75-34-3	**1,1 - Dichloroethane**	**5.75**	2.50
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.50
74-97-5	Bromochloromethane	ND	2.50
67-66-3	Chloroform (Trichloromethane)	ND	2.50
594-20-7	2,2 - Dichloropropane	ND	2.50
71-55-6	**1,1,1 - Trichloroethane**	**15.1**	2.50
107-06-2	1,2 - Dichloroethane	ND	2.50
563-58-6	1,1 - Dichloropropene	ND	2.50
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.50
71-43-2	Benzene	ND	2.50
74-95-3	Dibromomethane	ND	2.50
78-87-5	1,2 - Dichloropropane	ND	2.50
79-01-6	Trichloroethene	ND	2.50
75-27-4	Bromodichloromethane	ND	2.50
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.50
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.50
79-00-5	1,1,2 - Trichloroethane	ND	2.50
108-88-3	Toluene	ND	2.50
106-93-4	1,2 - Dibromoethane	ND	2.50
142-28-9	1,3 - Dichloropropane	ND	2.50
124-48-1	Dibromochloromethane	ND	2.50
127-18-4	**Tetrachloroethene**	**235**	2.50
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.50
108-90-7	Chlorobenzene	ND	2.50
100-41-4	Ethylbenzene	ND	2.50
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.00
75-25-2	Bromoform (Tribromomethane)	ND	2.50
100-42-5	Styrene (Ethenylbenzene)	ND	2.50
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.50
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.50
96-18-4	1,2,3 - Trichloropropane	ND	2.50

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE N
32107[illegible]

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-9.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-9	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.50
108-86-1	Bromobenzene	ND	2.50
103-65-1	n - Propylbenzene	ND	2.50
95-49-8	2 - Chlorotoluene	ND	2.50
106-43-4	4 - Chlorotoluene	ND	2.50
108-67-8	1,3,5 - Trimethylbenzene	ND	2.50
98-06-6	tert - Butylbenzene	ND	2.50
95-63-6	1,2,4 - Trimethylbenzene	ND	2.50
135-98-8	sec - Butylbenzene	ND	2.50
541-73-1	1,3 - Dichlorobenzene	ND	2.50
106-46-7	1,4 - Dichlorobenzene	ND	2.50
99-87-6	4-Isopropyltoluene	ND	2.50
95-50-1	1,2 - Dichlorobenzene	ND	2.50
104-51-8	n - Butylbenzene	ND	2.50
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.50
91-20-3	Naphthalene	ND	2.50
87-68-3	Hexachlorobutadiene	ND	2.50
87-61-6	1,2 3 - Trichlorobenzene	ND	2.50

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	410943	524356	78.4%	50 - 200 %
Fluorobenzene	552632	736973	75.0%	50 - 200 %
1,4 - Difluorobenzene	534537	694020	77.0%	50 - 200 %
Chlorobenzene - d5	399810	488513	81.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	177876	236854	75.1%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	9.81	98.1%	88 - 110 %
4 - Bromofluorobenzene	9.46	94.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.5	105%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE
32107009 1

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	11:45
Sample ID:	93007-8.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-10	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	20		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**412**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**52.6**	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	**Chloroform (Trichloromethane)**	**13.0**	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**219**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**2,420**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. [illegible]
[illegible]

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-8.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-10	Date Reported:	May 2, 2000

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	421050	524356	80.3%	50 - 200 %
Fluorobenzene	559861	736973	76.0%	50 - 200 %
1,4 - Difluorobenzene	533478	694020	76.9%	50 - 200 %
Chlorobenzene - d5	389579	488513	79.7%	50 - 200 %
1,4 - Dichlorobenzene - d4	172816	236854	73.0%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.46	94.6%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	9.27	92.7%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. CASE NO.

32107R00020

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Project:	93007L.4	Time Sampled:	15:00
Sample ID:	93007-A.4/00	Date Received:	04-18-00
Laboratory ID:	00-32107-11	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.00
74-87-3	Chloromethane	ND	1.00
75-01-4	Vinyl chloride (Chloroethene)	ND	1.00
74-83-9	Bromomethane	ND	1.00
75-00-3	Chloroethane	ND	1.00
75-69-4	Trichlorofluoromethane	ND	1.00
75-35-4	**1,1 - Dichloroethene**	**23.0**	1.00
75-09-2	Methylene chloride (Dichloromethane)	ND	1.00
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.00
75-34-3	**1,1 - Dichloroethane**	**1.32**	1.00
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.00
74-97-5	Bromochloromethane	ND	1.00
67-66-3	Chloroform (Trichloromethane)	ND	1.00
594-20-7	2,2 - Dichloropropane	ND	1.00
71-55-6	**1,1,1 - Trichloroethane**	**2.02**	1.00
107-06-2	1,2 - Dichloroethane	ND	1.00
563-58-6	1,1 - Dichloropropene	ND	1.00
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.00
71-43-2	Benzene	ND	1.00
74-95-3	Dibromomethane	ND	1.00
78-87-5	1,2 - Dichloropropane	ND	1.00
79-01-6	Trichloroethene	ND	1.00
75-27-4	Bromodichloromethane	ND	1.00
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.00
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.00
79-00-5	1,1,2 - Trichloroethane	ND	1.00
108-88-3	Toluene	ND	1.00
106-93-4	1,2 - Dibromoethane	ND	1.00
142-28-9	1,3 - Dichloropropane	ND	1.00
124-48-1	Dibromochloromethane	ND	1.00
127-18-4	**Tetrachloroethene**	**26.1**	1.00
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.00
108-90-7	Chlorobenzene	ND	1.00
100-41-4	Ethylbenzene	ND	1.00
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.00
75-25-2	Bromoform (Tribromomethane)	ND	1.00
100-42-5	Styrene (Ethenylbenzene)	ND	1.00
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.00
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.00
96-18-4	1,2,3 - Trichloropropane	ND	1.00

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.
32107300021

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample ID:	93007-A.4/00	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-11	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.00
108-86-1	Bromobenzene	ND	1.00
103-65-1	n - Propylbenzene	ND	1.00
95-49-8	2 - Chlorotoluene	ND	1.00
106-43-4	4 - Chlorotoluene	ND	1.00
108-67-8	1,3,5 - Trimethylbenzene	ND	1.00
98-06-6	tert - Butylbenzene	ND	1.00
95-63-6	1,2,4 - Trimethylbenzene	ND	1.00
135-98-8	sec - Butylbenzene	ND	1.00
541-73-1	1,3 - Dichlorobenzene	ND	1.00
106-46-7	1,4 - Dichlorobenzene	ND	1.00
99-87-6	4-Isopropyltoluene	ND	1.00
95-50-1	1,2 - Dichlorobenzene	ND	1.00
104-51-8	n - Butylbenzene	ND	1.00
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.00
120-82-1	1,2,4 - Trichlorobenzene	ND	1.00
91-20-3	Naphthalene	ND	1.00
87-68-3	Hexachlorobutadiene	ND	1.00
87-61-6	1,2 3 - Trichlorobenzene	ND	1.00

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	421990	524356	80.5%	50 - 200 %
Fluorobenzene	562396	736973	76.3%	50 - 200 %
1,4 - Difluorobenzene	539623	694020	77.8%	50 - 200 %
Chlorobenzene - d5	385886	488513	79.0%	50 - 200 %
1,4 - Dichlorobenzene - d4	176571	236854	74.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.54	95.4%	86 - 118 %
Toluene - d8	9.73	97.3%	88 - 110 %
4 - Bromofluorobenzene	9.43	94.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_1-w.xls

Analyst: wen

TRACKING #: PAGE #:
32107100022

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-06-00
Project:	93007L.4	Time Sampled:	10:00
Sample ID:	TRIP BLANK	Date Received:	04-18-00
Laboratory ID:	00-32107-12	Date Analyzed:	04-19-00
Matrix:	Liquid - TRIP BLANK	Date Reported:	May 2, 2000
Dilution Factor:	1		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.00
74-87-3	Chloromethane	ND	1.00
75-01-4	Vinyl chloride (Chloroethene)	ND	1.00
74-83-9	Bromomethane	ND	1.00
75-00-3	Chloroethane	ND	1.00
75-69-4	Trichlorofluoromethane	ND	1.00
75-35-4	1,1 - Dichloroethene	ND	1.00
75-09-2	Methylene chloride (Dichloromethane)	ND	1.00
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.00
75-34-3	1,1 - Dichloroethane	ND	1.00
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.00
74-97-5	Bromochloromethane	ND	1.00
67-66-3	Chloroform (Trichloromethane)	ND	1.00
594-20-7	2,2 - Dichloropropane	ND	1.00
71-55-6	1,1,1 - Trichloroethane	ND	1.00
107-06-2	1,2 - Dichloroethane	ND	1.00
563-58-6	1,1 - Dichloropropene	ND	1.00
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.00
71-43-2	Benzene	ND	1.00
74-95-3	Dibromomethane	ND	1.00
78-87-5	1,2 - Dichloropropane	ND	1.00
79-01-6	Trichloroethene	ND	1.00
75-27-4	Bromodichloromethane	ND	1.00
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.00
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.00
79-00-5	1,1,2 - Trichloroethane	ND	1.00
108-88-3	Toluene	ND	1.00
106-93-4	1,2 - Dibromoethane	ND	1.00
142-28-9	1,3 - Dichloropropane	ND	1.00
124-48-1	Dibromochloromethane	ND	1.00
127-18-4	Tetrachloroethene	ND	1.00
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.00
108-90-7	Chlorobenzene	ND	1.00
100-41-4	Ethylbenzene	ND	1.00
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.00
75-25-2	Bromoform (Tribromomethane)	ND	1.00
100-42-5	Styrene (Ethenylbenzene)	ND	1.00
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.00
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.00
96-18-4	1,2,3 - Trichloropropane	ND	1.00

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO
[illegible]

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	04-06-00
Sample ID:	TRIP BLANK	Date Analyzed:	04-19-00
Laboratory ID:	00-32107-12	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.00
108-86-1	Bromobenzene	ND	1.00
103-65-1	n - Propylbenzene	ND	1.00
95-49-8	2 - Chlorotoluene	ND	1.00
106-43-4	4 - Chlorotoluene	ND	1.00
108-67-8	1,3,5 - Trimethylbenzene	ND	1.00
98-06-6	tert - Butylbenzene	ND	1.00
95-63-6	1,2,4 - Trimethylbenzene	ND	1.00
135-98-8	sec - Butylbenzene	ND	1.00
541-73-1	1,3 - Dichlorobenzene	ND	1.00
106-46-7	1,4 - Dichlorobenzene	ND	1.00
99-87-6	4-Isopropyltoluene	ND	1.00
95-50-1	1,2 - Dichlorobenzene	ND	1.00
104-51-8	n - Butylbenzene	ND	1.00
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.00
120-82-1	1,2,4 - Trichlorobenzene	ND	1.00
91-20-3	Naphthalene	ND	1.00
87-68-3	Hexachlorobutadiene	ND	1.00
87-61-6	1,2 3 - Trichlorobenzene	ND	1.00

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	430245	524356	82.1%	50 - 200 %
Fluorobenzene	563115	736973	76.4%	50 - 200 %
1,4 - Difluorobenzene	539206	694020	77.7%	50 - 200 %
Chlorobenzene - d5	384163	488513	78.6%	50 - 200 %
1,4 - Dichlorobenzene - d4	168850	236854	71.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.20	92.0%	86 - 118 %
Toluene - d8	9.84	98.4%	88 - 110 %
4 - Bromofluorobenzene	9.23	92.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.95	99.5%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE 1

32107R0012

ENERGY LABORATORIES
Billings • Casper • Gillette
Helena • Rapid City

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	N/A
Project:	93007L.4	Time Sampled:	N/A
Sample ID:	Method Blank	Date Received:	N/A
Laboratory ID:	MB0419	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000
Dilution Factor:	1		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORTING LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.00
74-87-3	Chloromethane	ND	1.00
75-01-4	Vinyl chloride (Chloroethene)	ND	1.00
74-83-9	Bromomethane	ND	1.00
75-00-3	Chloroethane	ND	1.00
75-69-4	Trichlorofluoromethane	ND	1.00
75-35-4	1,1 - Dichloroethene	ND	1.00
75-09-2	Methylene chloride (Dichloromethane)	ND	1.00
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.00
75-34-3	1,1 - Dichloroethane	ND	1.00
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.00
74-97-5	Bromochloromethane	ND	1.00
67-66-3	Chloroform (Trichloromethane)	ND	1.00
594-20-7	2,2 - Dichloropropane	ND	1.00
71-55-6	1,1,1 - Trichloroethane	ND	1.00
107-06-2	1,2 - Dichloroethane	ND	1.00
563-58-6	1,1 - Dichloropropene	ND	1.00
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.00
71-43-2	Benzene	ND	1.00
74-95-3	Dibromomethane	ND	1.00
78-87-5	1,2 - Dichloropropane	ND	1.00
79-01-6	Trichloroethene	ND	1.00
75-27-4	Bromodichloromethane	ND	1.00
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.00
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.00
79-00-5	1,1,2 - Trichloroethane	ND	1.00
108-88-3	Toluene	ND	1.00
106-93-4	1,2 - Dibromoethane	ND	1.00
142-28-9	1,3 - Dichloropropane	ND	1.00
124-48-1	Dibromochloromethane	ND	1.00
127-18-4	Tetrachloroethene	ND	1.00
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.00
108-90-7	Chlorobenzene	ND	1.00
100-41-4	Ethylbenzene	ND	1.00
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.00
75-25-2	Bromoform (Tribromomethane)	ND	1.00
100-42-5	Styrene (Ethenylbenzene)	ND	1.00
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.00
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.00
96-18-4	1,2,3 - Trichloropropane	ND	1.00

ND - Analyte not detected at stated limit of detection

TRACKING NO. [illegible]
[illegible]

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	N/A
Sample ID:	Method Blank	Date Analyzed:	04-19-00
Laboratory ID:	MB0419	Date Reported:	May 2, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORTING LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.00
108-86-1	Bromobenzene	ND	1.00
103-65-1	n - Propylbenzene	ND	1.00
95-49-8	2 - Chlorotoluene	ND	1.00
106-43-4	4 - Chlorotoluene	ND	1.00
108-67-8	1,3,5 - Trimethylbenzene	ND	1.00
98-06-6	tert - Butylbenzene	ND	1.00
95-63-6	1,2,4 - Trimethylbenzene	ND	1.00
135-98-8	sec - Butylbenzene	ND	1.00
541-73-1	1,3 - Dichlorobenzene	ND	1.00
106-46-7	1,4 - Dichlorobenzene	ND	1.00
99-87-6	4-Isopropyltoluene	ND	1.00
95-50-1	1,2 - Dichlorobenzene	ND	1.00
104-51-8	n - Butylbenzene	ND	1.00
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.00
120-82-1	1,2,4 - Trichlorobenzene	ND	1.00
91-20-3	Naphthalene	ND	1.00
87-68-3	Hexachlorobutadiene	ND	1.00
87-61-6	1,2 3 - Trichlorobenzene	ND	1.00

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	496933	524356	94.8%	50 - 200 %
Fluorobenzene	657526	736973	89.2%	50 - 200 %
1,4 - Difluorobenzene	623430	694020	89.8%	50 - 200 %
Chlorobenzene - d5	433549	488513	88.7%	50 - 200 %
1,4 - Dichlorobenzene - d4	193658	236854	81.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.23	92.3%	86 - 118 %
Toluene - d8	9.78	97.8%	88 - 110 %
4 - Bromofluorobenzene	9.39	93.9%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

Analyst: wen

TRACKING NO. PAGE NO
32107R0025

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

QC RESULTS - MATRIX SPIKE (MS), MATRIX SPIKE DUPLICATE (MSD)

Client:	**Western Water Consultants**	Date Sampled:	04-17-00
Sample Set:	00-32107-1 through 00-32107-12	Date Received:	04-18-00
Laboratory ID:	00-32107-1 S	Date Analyzed:	04-19-00
Matrix:	Liquid - WATER	Date Reported:	May 2, 2000

INTERNAL STANDARDS

	ICAL / CCAL AREA	SPIKED SAMPLE AREA	%	SPIKE DUPLICATE AREA	%	ACCEPTANCE RANGE
Pentafluorobenzene	524356	441251	84.2%	503233	96.0%	50 - 200 %
Fluorobenzene	736973	588821	79.9%	676029	91.7%	50 - 200 %
1,4 - Difluorobenzene	694020	551959	79.5%	640093	92.2%	50 - 200 %
Chlorobenzene - d5	488513	389141	79.7%	447584	91.6%	50 - 200 %
1,4 - Dichlorobenzene-d4	236854	173979	73.5%	198187	83.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS

	SPIKED SAMPLE CONCENTRATION	PERCENT RECOVERY	SPIKE DUPLICATE CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.43	94.3%	9.34	93.4%	86 - 118 %
Toluene - d8	9.83	98.3%	9.61	96.1%	88 - 110 %
4 - Bromofluorobenzene	9.33	93.3%	9.48	94.8%	86 - 115 %
1,2 - Dichlorobenzene-d4	10.2	102%	9.98	99.8%	80 - 120 %

SPIKED SAMPLE RESULTS

	SPIKED SAMPLE CONCENTRATION	ORIG. CONC. (µg/L) *	SPIKE AMOUNT (µg/L)	PERCENT RECOVERY	ACCEPTANCE RANGE
Vinyl chloride	8.53	ND	10.0	85.3%	80 - 120 %
1,1 - Dichloroethene	9.28	ND	10.0	92.8%	80 - 120 %
2 - Butanone (MEK)	9.37	ND	10.0	93.7%	80 - 120 %
Chloroform	9.48	ND	10.0	94.8%	80 - 120 %
1,2 - Dichloroethane	9.49	ND	10.0	94.9%	80 - 120 %
Carbon tetrachloride	9.71	ND	10.0	97.1%	80 - 120 %
Benzene	9.63	ND	10.0	96.3%	80 - 120 %
Trichloroethene	10.1	ND	10.0	101%	80 - 120 %
Tetrachloroethene	10.2	ND	10.0	102%	80 - 120 %
Chlorobenzene	9.83	ND	10.0	98.3%	80 - 120 %
1,4 - Dichlorobenzene	9.57	ND	10.0	95.7%	80 - 120 %

SPIKE DUPLICATE SAMPLE RESULTS

*** Concentration does not include dilution correction**

	SPIKE DUP CONCENTRATION	ORIG. CONC. (µg/L) *	SPIKE (µg/L)	PERCENT RECOVERY	RPD	RPD LIMITS
Vinyl chloride	8.87	ND	10.0	88.7%	4.0%	10 %
1,1 - Dichloroethene	9.67	ND	10.0	96.7%	4.2%	10 %
2 - Butanone (MEK)	9.34	ND	10.0	93.4%	0.3%	10 %
Chloroform	9.95	ND	10.0	99.5%	5.0%	10 %
1,2 - Dichloroethane	9.94	ND	10.0	99.4%	4.7%	10 %
Carbon tetrachloride	10.2	ND	10.0	102%	5.0%	10 %
Benzene	10.1	ND	10.0	101%	4.5%	10 %
Trichloroethene	10.4	ND	10.0	104%	3.2%	10 %
Tetrachloroethene	10.3	ND	10.0	103%	1.5%	10 %
Chlorobenzene	10.4	ND	10.0	104%	5.4%	10 %
1,4 - Dichlorobenzene	10.4	ND	10.0	104%	9.1%	10 %

MATRIX SPIKE: **0** of 22 Matrix Spike results are outside of established QC Limits
MATRIX SPIKE DUPLICATE: **0** of 11 Matrix Spike Duplicate results are outside of established QC Limits

Report Approved By: STEVEN W. CONLING, DATA VALIDATOR

Analyst: wen

Reviewed: STEVEN E. CAMPBELL, ORGANICS SUPERVISOR

sec: r:\reports\clients2000\western_water_consultants\casper_org\32107-1-12_8260b_std_l-w.xls

TRACKING NO. PAGE NO.
32107R00027

COMPLETE ANALYTICAL SERVICES

ENERGY LABORATORIES

• Billings
• Casper
• Gillette
• Rapid City

ENERGY LABORATORIES, INC.'S CHAIN OF CUSTODY RECORD

Mail Only: PO Box 3258 • Casper, WY • 82602-3258
UPS/FedEx Deliveries: 2393 Salt Creek Highway • Casper, WY • 82601

toll free 1-888-235-0515
voice 307-235-0515
fax 307-234-1639

For Sample Tracking Purposes, Please Provide Contact Name and Telephone #'s as Indicated *(SEE BACK OF FORM FOR EXAMPLES AND INSTRUCTIONS)*

Project Name / Location / Purchase Order # / Bid #

93007L.4

Name / Phone # / Fax #

Western Water Consultants, Inc.
611 Skyline Road, Laramie, WY 82070
(307) 742-0031

Send Invoice to: Western Water Consultants, Inc. As above

Send Report to: As above

Date	Time	composite	grab sample	Sample I.D.	Number of containers (W) S V U O Sample Type: A Air Water Soils/solids Vegetation Urine Other	Type of Analyses Requested: EPA Method 8260	Special Requests / Comments, Special Instructions, etc.
4/17/00	0745		X	93007-14.4/00	3	3	If there are any questions contact Rick Denell at (307) 742-0031. Samples kept on ice and shipped w/ice to Energy Labs Casper WY. WBS.
"	0800		X	93007-15.4/00	3	3	
"	0845		X	93007-504.4/00	3	3	
"	0920		X	93007-13.4/00	3	3	
"	1000		X	93007-2.4/00	3	3	
"	1015		X	93007-6.4/00	3	3	
"	1045		X	93007-7.4/00	3	3	
"	1100		X	93007-4.4/00	3	3	
"	1130		X	93007-9.4/00	3	3	
"	1145		X	93007-8.4/00	3	3	
"	1500		X	93007-A.4/00	3	3	
4/6/00	1000		X	Trip Blank	1	~~3~~	

1. Sampler: (signature)	Date	Time	Received by: (signature)	2. Relinquished by: (signature)	Date	Time	Received by: (signature)
Kevin Mathes	4/17/00	1430					
3. Relinquished by: (signature)	**Date**	**Time**	**Received by: (signature)**	**4. Relinquished by: (signature)**	**Date**	**Time**	**Received at Laboratory by: (signature)**
					4.18.00	10:00	Isabella Jaramillo

ENERGY LABORATORIES, INC.'S CHAIN OF CUSTODY RECORD

Mail Only: PO Box 3258 • Casper, WY • 82602-3258 voice 307-235-0515
UPS/FedEx Deliveries: 2393 Salt Creek Highway • Casper, WY • 82602 fax 307-234-1639

For Sample Tracking Purposes, Please Provide Contact Name and Telephone #'S As Indicated (SEE BACK OF FORM FOR EXAMPLES AND INSTRUCTIONS)

Project Name / Location / Purchase Order #
Thunderbasin Town of Hope No PO #

Name / Phone # / Fax #
Jeff Jones @ (307) 555-1515, (307) 555-5555 fax

Send Invoice to: Jeff Jones
PO Box Nowhere
Hope, WY 80000

Send Report to: Bob Brown
PO Box Somewhere
USA, WY 81111

Sample I.D.

Date	Time	composite	grab sample	Number of containers (Sample Type: A W S V U O — Air Water Soils/Solids Vegetation Urine Other)	Asbestos - TEM	IOC's - RADs	NO_2, NO_3, F	VOCs - 502.2	SOCs - 504, 505, 508	SOCs - 515, 531.1	Comments, Special Instructions, etc.
1995											
5/28	11:35		X	4	X			X			Phase II SDWA Primary
5/28	11:45		X	9		X	X		X	X	"

Special Requests: Please fax results as soon as possible Thank you.

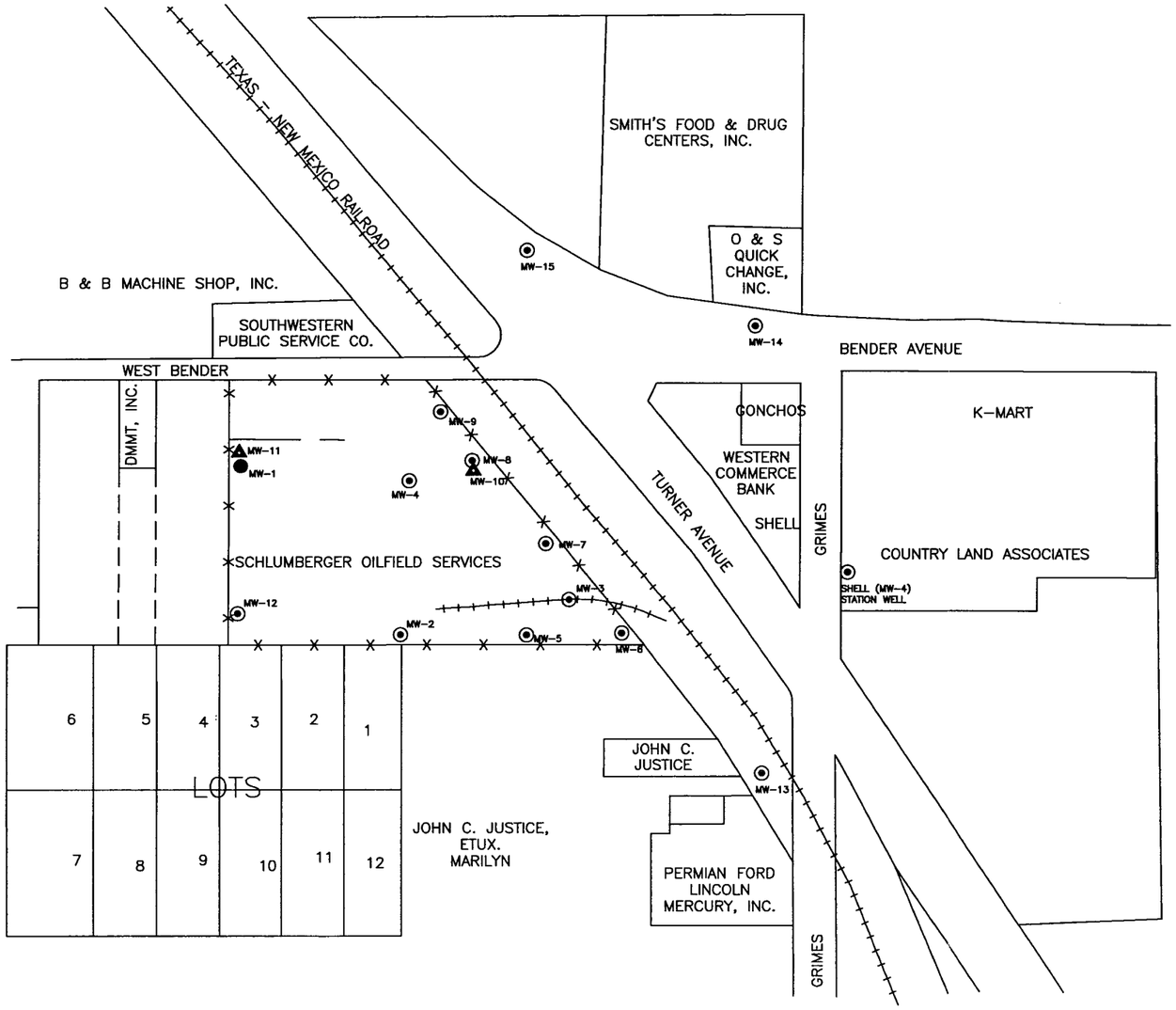
Type of Analyses Requested

1. Sampler: (signature)	Date	Time	Received by: (signature)	2. Relinquished by: (signature)	Date	Time	Received by: (signature)
Jeff Jones	5-28-95	12:05p	Harry Truckers	Harry Truckers	5-28-95	13:15p	Sheryl A. Garling
3. Relinquished by: (signature)	Date	Time	Received by: (signature)	4. Relinquished by: (signature)	Date	Time	Received at Laboratory by:
N/A	N/A	N/A	N/A	Sheryl A. Garling	5-28-95	14:00p	Roger A. Garling

Instructions:

(1) A completed Chain-of-Custody must be submitted with all samples
(2) Special Requests area can include (but not limited to) the following:
- Turnaround status, Rush status, Due Date, etc.
- Special mailing instructions:
  - send copy of Report and/or Invoice to a second party
  - send copy of Report to a Government Agencies (EPA, etc.)
- Public Water System (PWS) Number
- Do you want samples returned to you or disposed of?

K:\93-007\CAD\2000\FULLSITE_00.dwg 05/24/00 14:53



EXPLANATION

MW-4 ◉ SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION

MW-1 ● ABANDONED MONITORING WELL

MW-11 ▲ DEEP MONITORING WELL LOCATION

NOTE:

WELLS MW-3, MW-5, MW-10, MW-11, AND M2-12 SAMPLED DURING FOURTH QUARTER ONLY.

0 300 ft.

SCALE

FIGURE 1

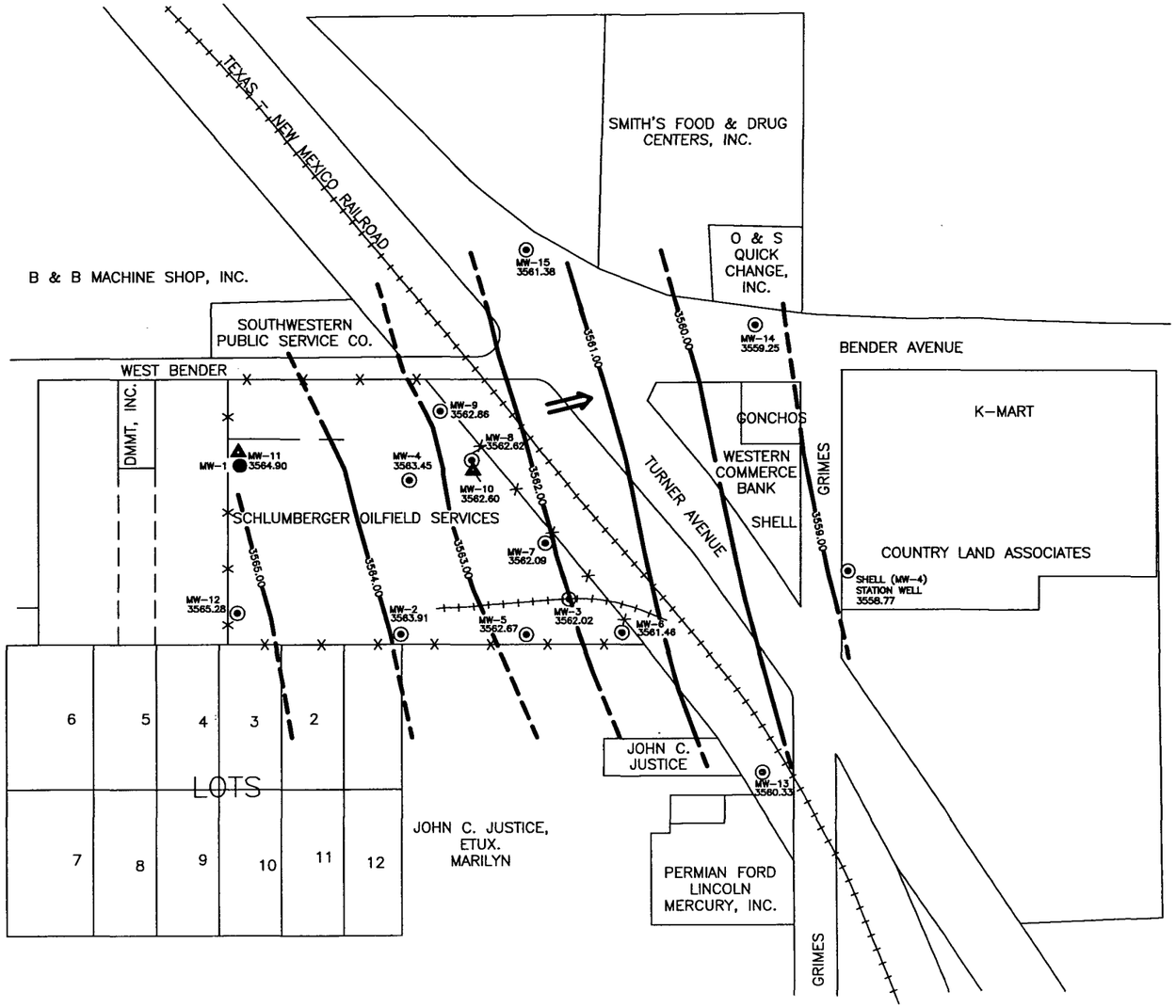
SITE MAP AND MONITORING WELL LOCATIONS

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\93-007L\CADD\2000\pa-0400.dwg 05/24/00 11:09



EXPLANATION

- MW-14 3560.62 — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- MW-1 — ABANDONED MONITORING WELL
- MW-11 3566.33 — DEEP MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- 3563.00 — POTENTIOMETRIC SURFACE CONTOURS AND ELEVATION (DASHED WHERE INFERRED)
- GROUND-WATER FLOW DIRECTION

0 300 ft.
SCALE

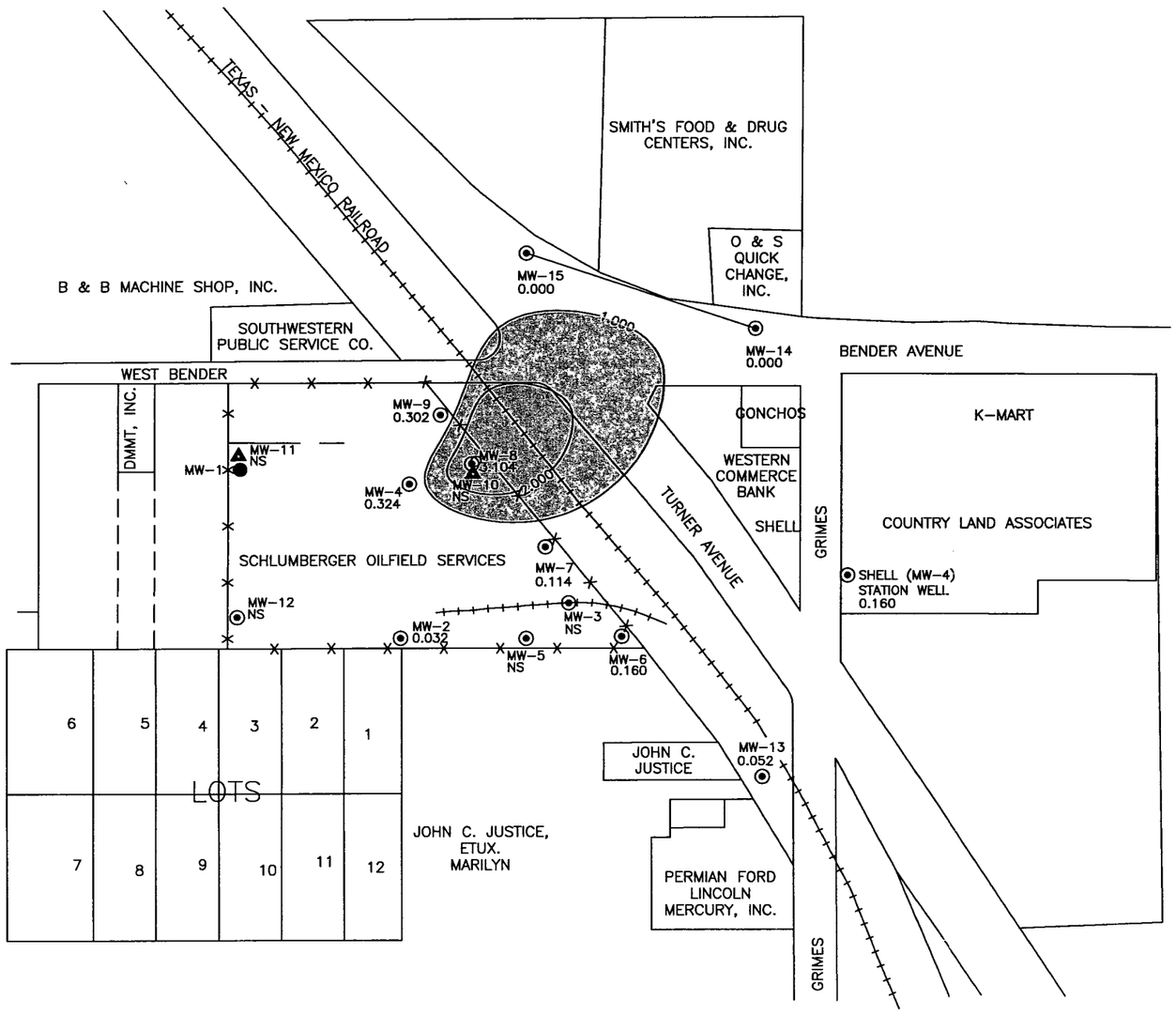
FIGURE 2

POTENTIOMETRIC SURFACE MAP
04/17/00

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

K:\93-007L\CADD\2000\Hale0100.dwg 05/24/00 11:32



EXPLANATION

- MW-8 3.104 — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- MW-1 — ABANDONED MONITORING WELL
- MW-11 NS — DEEP MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- 1.00 — TOTAL HALOCARBONS CONTOURS
- NS — NOT SAMPLED

TOTAL HALOCARBONS CONCENTRATIONS (mg/L)

3.00
2.00
1.00

0 300 ft.
SCALE

FIGURE 3

TOTAL HALOCARBONS CONCENTRATION MAP
04/17/00

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	3638.52	10/25/96	84	70.22	3568.30		13.78
		11/21/96		70.17	3568.35	0.05	13.83
		01/22/97		70.44	3568.08	-0.27	13.56
Abandoned		05/22/97					
MW-2	3637.26	10/25/96	85	70.03	3567.23		14.97
		11/21/96		70.03	3567.23	0.00	14.97
		01/22/97		70.26	3567.00	-0.23	14.74
		05/21/97		70.53	3566.73	-0.27	14.47
		07/28/97		70.69	3566.57	-0.16	14.31
		10/15/97		70.80	3566.46	-0.11	14.20
		01/05/98		71.05	3566.21	-0.25	13.95
		04/16/98		71.27	3565.99	-0.22	13.73
		07/16/98		71.61	3565.65	-0.34	13.39
		10/25/98		71.84	3565.42	-0.23	13.16
		02/10/99		72.02	3565.24	-0.18	12.98
		04/21/99		72.25	3565.01	-0.23	12.75
		07/13/99		72.50	3564.76	-0.25	12.50
		10/21/99		72.76	3564.50	-0.26	12.24
		01/25/00		72.92	3564.34	-0.16	12.08
MW-3	3638.28	10/25/96	85	72.88	3565.40		12.12
		11/21/96		72.89	3565.39	-0.01	12.11
		01/22/97		73.10	3565.18	-0.21	11.90
		05/21/97		73.40	3564.88	-0.30	11.60
		07/28/97		73.54	3564.74	-0.14	11.46
		10/15/97		73.67	3564.61	-0.13	11.33
		01/05/98		73.92	3564.36	-0.25	11.08
		04/16/98		74.13	3564.15	-0.21	10.87
		07/16/98		74.46	3563.82	-0.33	10.54
		10/25/98		74.74	3563.54	-0.28	10.26
		02/10/99		75.00	3563.28	-0.26	10.00
		04/21/99		75.21	3563.07	-0.21	9.79
		07/13/99		75.50	3562.78	-0.29	9.50
		10/20/99		75.67	3562.61	-0.17	9.33
		01/25/00		75.95	3562.33	-0.28	9.05
MW-4	3639.20	10/25/96	85	72.41	3566.79		12.59
		11/21/96		72.37	3566.83	0.04	12.63
		01/22/97		72.60	3566.60	-0.23	12.40
		05/21/97		72.87	3566.33	-0.27	12.13
		07/28/97		72.93	3566.27	-0.06	12.07
		10/15/97		73.03	3566.17	-0.10	11.97
		01/05/98		73.24	3565.96	-0.21	11.76
		04/16/98		73.67	3565.53	-0.43	11.33
		07/16/98		73.68	3565.52	-0.01	11.32
		10/25/98		74.21	3564.99	-0.53	10.79
		02/10/99		74.32	3564.88	-0.11	10.68
		04/21/99		74.58	3564.62	-0.26	10.42
		07/13/99		74.87	3564.33	-0.29	10.13
		10/21/99		75.08	3564.12	-0.21	9.92
		01/25/00		75.31	3563.89	-0.23	9.69
MW-5	3637.70	01/22/97	85	71.90	3565.80		13.10
		05/21/97		72.21	3565.49	-0.31	12.79
		07/28/97		72.36	3565.34	-0.15	12.64
		10/15/97		72.44	3565.26	-0.08	12.56
		01/05/98		72.71	3564.99	-0.27	12.29
		04/16/98		72.92	3564.78	-0.21	12.08
		07/16/98		73.25	3564.45	-0.33	11.75

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-5 Cont.		10/25/98		73.53	3564.17	-0.28	11.47
		02/10/99		73.77	3563.93	-0.24	11.23
		04/21/99		73.98	3563.72	-0.21	11.02
		07/13/99		74.15	3563.55	-0.17	10.85
		10/20/99		74.46	3563.24	-0.31	10.54
		01/25/00		74.72	3562.98	-0.26	10.28
MW-6	3637.52	01/22/97	85	72.88	3564.64		12.12
		05/21/97		73.22	3564.30	-0.34	11.78
		07/28/97		73.44	3564.08	-0.22	11.56
		10/15/97		73.48	3564.04	-0.04	11.52
		01/05/98		73.72	3563.80	-0.24	11.28
		04/16/98		73.94	3563.58	-0.22	11.06
		07/16/98		74.26	3563.26	-0.32	10.74
		10/25/98		74.55	3562.97	-0.29	10.45
		02/10/99		74.78	3562.74	-0.23	10.22
		04/21/99		75.04	3562.48	-0.26	9.96
		07/13/99		75.22	3562.30	-0.18	9.78
		10/20/99		75.46	3562.06	-0.24	9.54
		01/25/00		75.80	3561.72	-0.34	9.20
MW-7	3638.62	01/22/97	85	73.31	3565.31		11.69
		05/21/97		73.63	3564.99	-0.32	11.37
		07/28/97		73.80	3564.82	-0.17	11.20
		10/15/97		73.93	3564.69	-0.13	11.07
		01/05/98		74.17	3564.45	-0.24	10.83
		04/16/98		74.39	3564.23	-0.22	10.61
		07/16/98		74.71	3563.91	-0.32	10.29
		10/25/98		74.98	3563.64	-0.27	10.02
		02/10/99		75.22	3563.40	-0.24	9.78
		04/21/99		75.47	3563.15	-0.25	9.53
		07/13/99		75.68	3562.94	-0.21	9.32
		10/20/99		75.94	3562.68	-0.26	9.06
		01/25/00		76.23	3562.39	-0.29	8.77
MW-8	3638.71	01/22/97	85	72.78	3565.93		12.22
		05/21/97		73.12	3565.59	-0.34	11.88
		07/28/97		73.31	3565.40	-0.19	11.69
		10/15/97		73.44	3565.27	-0.13	11.56
		01/05/98		73.63	3565.08	-0.19	11.37
		04/16/98		74.00	3564.71	-0.37	11.00
		07/16/98		74.21	3564.50	-0.21	10.79
		10/25/98		74.48	3564.23	-0.27	10.52
		02/10/99		74.72	3563.99	-0.24	10.28
		04/21/99		74.95	3563.76	-0.23	10.05
		07/13/99		75.19	3563.52	-0.24	9.81
		10/21/99		75.48	3563.23	-0.29	9.52
		01/25/00		75.76	3562.95	-0.28	9.24
MW-9	3638.76	01/22/97	85	72.57	3566.19		12.43
		05/21/97		72.89	3565.87	-0.32	12.11
		07/28/97		73.08	3565.68	-0.19	11.92
		10/15/97		73.24	3565.52	-0.16	11.76
		01/05/98		73.47	3565.29	-0.23	11.53
		04/16/98		73.70	3565.06	-0.23	11.30
		07/16/98		73.99	3564.77	-0.29	11.01
		10/25/98		74.27	3564.49	-0.28	10.73
		02/10/99		74.52	3564.24	-0.25	10.48
		04/21/99		74.74	3564.02	-0.22	10.26
		07/13/99		74.98	3563.78	-0.24	10.02

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-9 Cont.		10/21/99		75.30	3563.46	-0.32	9.70
		01/25/00		75.56	3563.20	-0.26	9.44
MW-10	3638.86	05/27/97	130.5	73.33	3565.53		57.17
		07/28/97		73.49	3565.37	-0.16	57.01
		10/15/97		73.61	3565.25	-0.12	56.89
		01/05/98		73.83	3565.03	-0.22	56.67
		04/16/98		74.08	3564.78	-0.25	56.42
		07/16/98		74.38	3564.48	-0.30	56.12
		10/25/98		74.64	3564.22	-0.26	55.86
		02/10/99		74.92	3563.94	-0.28	55.58
		04/21/99		75.14	3563.72	-0.22	55.36
		07/13/99		75.31	3563.55	-0.17	55.19
		10/18/99		75.65	3563.21	-0.34	54.85
		01/25/00		75.93	3562.93	-0.28	54.57
MW-11	3638.55	05/26/97	208	70.70	3567.85		137.30
		07/28/97		70.89	3567.66	-0.19	137.11
		10/15/97		70.85	3567.70	0.04	137.15
		01/05/98		71.21	3567.34	-0.36	136.79
		04/16/98		71.45	3567.10	-0.24	136.55
		07/16/98		71.76	3566.79	-0.31	136.24
		10/25/98		71.95	3566.60	-0.19	136.05
		02/10/99		72.22	3566.33	-0.27	135.78
		04/21/99		72.47	3566.08	-0.25	135.53
		07/13/99		72.74	3565.81	-0.27	135.26
		10/18/99		73.03	3565.52	-0.29	134.97
		01/25/00		73.34	3565.21	-0.31	134.66
MW-12	3636.15	05/26/97	85	68.05	3568.10		16.95
		07/28/97		68.14	3568.01	-0.09	16.86
		10/15/97		68.24	3567.91	-0.10	16.76
		01/05/98		68.52	3567.63	-0.28	16.48
		04/16/98		68.78	3567.37	-0.26	16.22
		07/16/98		69.10	3567.05	-0.32	15.90
		10/25/98		69.26	3566.89	-0.16	15.74
		02/10/99		69.53	3566.62	-0.27	15.47
		04/21/99		69.76	3566.39	-0.23	15.24
		07/13/99		69.95	3566.20	-0.19	15.05
		10/18/99		70.29	3565.86	-0.34	14.71
		01/25/00		70.57	3565.58	-0.28	14.43
MW-13	3635.39	05/21/97	84	72.31	3563.08		11.69
		07/28/97		72.39	3563.00	-0.08	11.61
		10/15/97		72.63	3562.76	-0.24	11.37
		01/05/98		72.79	3562.60	-0.16	11.21
		04/16/98		72.93	3562.46	-0.14	11.07
		07/16/98		73.32	3562.07	-0.39	10.68
		10/25/98		73.62	3561.77	-0.30	10.38
		02/10/99		73.88	3561.51	-0.26	10.12
		04/21/99		74.11	3561.28	-0.23	9.89
		07/12/99		74.17	3561.22	-0.06	9.83
		10/20/99		73.88	3561.51	0.29	10.12
	3634.76	01/26/00		74.18	3560.58		9.82
MW-14	3637.19	05/21/97	85	74.86	3562.33		10.14
		07/28/97		75.06	3562.13	-0.20	9.94
		10/15/97		75.28	3561.91	-0.22	9.72
		01/05/98		75.44	3561.75	-0.16	9.56
		04/16/98		75.61	3561.58	-0.17	9.39

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-14 Cont.		07/16/98		75.98	3561.21	-0.37	9.02
		10/25/98		76.26	3560.93	-0.28	8.74
		02/10/99		76.57	3560.62	-0.31	8.43
		04/21/99		76.81	3560.38	-0.24	8.19
		07/12/99		77.08	3560.11	-0.27	7.92
		10/20/99		77.35	3559.84	-0.27	7.65
		01/26/00		77.67	3559.52	-0.32	7.33
MW-15	3636.57	05/21/97	85	72.09	3564.48		12.91
		07/28/97		72.28	3564.29	-0.19	12.72
		10/15/97		72.52	3564.05	-0.24	12.48
		01/05/98		72.70	3563.87	-0.18	12.30
		04/16/98		72.87	3563.70	-0.17	12.13
		07/16/98		73.24	3563.33	-0.37	11.76
		10/25/98		73.47	3563.10	-0.23	11.53
		02/10/99		73.76	3562.81	-0.29	11.24
		04/21/99		74.00	3562.57	-0.24	11.00
		07/12/99		74.27	3562.30	-0.27	10.73
		10/20/99		74.58	3561.99	-0.31	10.42
		01/26/00		74.92	3561.65	-0.34	10.08
Shell Station MW-4	3637.69	05/25/97	82.6	75.97	3561.72		6.63
		07/28/97		76.15	3561.54	-0.18	6.45
		10/15/97		76.26	3561.43	-0.11	6.34
		01/05/98		76.52	3561.17	-0.26	6.08
		04/16/98		76.67	3561.02	-0.15	5.93
		07/16/98		78.03	3559.66	-1.36	4.57
		10/25/98		77.33	3560.36	0.70	5.27
		02/10/99		77.62	3560.07	-0.29	4.98
		04/21/99		77.48	3560.21	0.14	5.12
		07/12/99		78.08	3559.61	-0.60	4.52
		10/21/99		78.36	3559.33	-0.28	4.24
		01/26/00		78.65	3559.04	-0.29	3.95

Note: Top of casing survey elevations are based on the "City of Hobbs Control Datum" and the North American Vertical Datum

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.015
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.008
abandoned														
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007	0.134	0.331
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006	0.135	0.353
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008	0.193	0.648
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)	0.058	0.193
	05/23/97	0.039	ND(0.001)	0.007	0.014	0.057	ND(0.001)	0.009	0.004	0.003	0.005	0.001	0.021	0.117
	06/25/97	0.590	ND(0.002)	0.009	0.027	0.180	ND(0.002)	0.011	0.005	0.007	0.007	*0.001*	0.030	0.806
	07/28/97	0.031	ND(0.002)	0.004	0.011	0.097	ND(0.002)	0.004	*0.001*	*0.001*	*0.001*	ND(0.002)	0.007	0.143
	10/16/97	0.012	ND(0.002)	*0.002*	0.012	0.023	ND(0.002)	0.002	*0.001*	*0.001*	*0.001*	ND(0.002)	0.005	0.049
	01/06/98	0.023	ND(0.002)	0.002	0.007	0.043	ND(0.002)	0.004	*0.002*	*0.001*	*0.001*	ND(0.002)	0.008	0.075
	04/16/98	0.053	ND(0.002)	0.008	0.058	0.130	ND(0.002)	0.010	ND(0.002)	*0.002*	*0.001*	ND(0.002)	0.013	0.249
duplicate	04/16/98	0.058	ND(0.01)	0.008	0.064	0.142	ND(0.01)	0.010	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.010	0.272
	07/17/98	0.006	ND(0.002)	*0.001*	0.034	0.013	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.054
	10/27/98	0.020	ND(0.002)	0.003	0.018	0.011	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.052
	02/10/99	0.018	ND(0.001)	0.003	0.035	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.060
	02/10/99	0.016	ND(0.001)	0.003	0.034	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.002	0.000	0.057
	04/21/99	0.037	ND(0.001)	0.005	0.094	0.007	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.144
	07/13/99	0.011	ND(0.001)	0.002	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.034
	10/21/99	0.006	ND(0.001)	0.001	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.028
	01/25/00	0.013	ND(0.001)	0.003	0.041	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.057
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006	0.002	0.049
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	0.000	0.071
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.067
	05/22/97	0.026	0.001	0.015	0.016	0.015	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004	0.002	0.073
	07/28/97	0.033	*0.002*	0.012	0.012	0.008	ND(0.002)	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.005	0.003	0.067
	10/16/97	0.022	ND(0.002)	0.008	0.022	0.011	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.001	0.063
	01/06/98	0.023	ND(0.002)	0.023	0.026	0.031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.103
	04/16/98	0.030	ND(0.002)	0.014	0.025	0.012	0.003	0.003	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.003	0.084
	07/17/98	0.034	ND(0.002)	0.015	0.026	0.013	0.003	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.091
	10/27/98	0.035	ND(0.002)	0.012	0.016	0.005	*0.002*	0.002	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.070
	10/20/99	0.025	ND(0.001)	0.023	0.020	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.002	ND(0.002)	ND(0.001)	0.004	0.068
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	4.294
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	5.200
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.902
	01/22/97	0.089	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	4.292
	05/23/97	0.062	0.022	0.423	1.720	0.550	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.777
	06/25/97	0.047	*0.017*	0.175	1.250	0.349	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.838
	06/25/97	0.044	*0.017*	0.167	1.190	0.332	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.750
	07/28/97	0.037	*0.015*	0.124	1.060	0.267	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.503
	10/16/97	0.031	*0.011*	0.103	1.170	0.225	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.540
	01/06/98	0.021	ND(0.02)	0.087	0.970	0.148	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	0.024	0.000	1.226
	01/06/98	0.021	*0.006*	0.077	0.907	0.138	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.019	0.000	1.149
	04/16/98	*0.019*	ND(0.05)	0.116	0.651	0.114	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	0.900
	07/17/98	0.031	ND(0.01)	0.206	1.120	0.194	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.551
duplicate	07/17/98	0.031	ND(0.02)	0.240	0.843	0.216	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.330
	10/27/98	*0.031*	ND(0.05)	0.201	1.080	0.209	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	1.521
	02/10/99	0.019	ND(0.01)	0.118	0.511	0.090	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.738
	04/21/99	0.031	ND(0.01)	0.151	0.875	0.166	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.223
	07/13/99	0.014	ND(0.01)	0.081	0.386	0.058	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.539
duplicate	07/13/99	0.015	0.004	0.084	0.350	0.055	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.508
	10/21/99	0.059	0.027	0.149	0.977	0.155	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.367
	01/25/00	0.013	ND(0.01)	0.044	0.249	0.030	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.336
duplicate	01/25/00	0.015	ND(0.01)	0.054	0.282	0.036	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.387

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	*0.001*	0.018	0.004	ND(0.001)	*0.001*	ND(0.001)	0.023	0.251
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	*0.001*	0.018	0.004	ND(0.001)	0.001	0.004	0.023	0.254
	05/23/97	0.191	0.003	0.055	0.079	0.059	*0.002*	0.029	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.029	0.389
	07/28/97	0.241	0.004	0.072	0.058	0.051	0.002	0.051	0.023	ND(0.002)	0.007	0.009	0.081	0.428
duplicate	07/28/97	0.258	0.004	0.069	0.052	0.050	ND(0.005)	0.052	0.023	ND(0.005)	0.007	0.011	0.082	0.433
	10/16/97	0.214	*0.004*	0.066	0.070	0.039	ND(0.01)	0.059	0.027	ND(0.01)	0.008	0.011	0.094	0.393
	01/06/98	0.215	*0.004*	0.060	0.055	0.029	ND(0.01)	0.048	0.016	ND(0.01)	*0.006*	*0.005*	0.070	0.363
	04/16/98	0.136	*0.002*	0.033	0.031	0.008	ND(0.005)	0.034	0.011	ND(0.005)	ND(0.01)	0.009	0.045	0.210
	07/17/98	0.106	*0.002*	0.023	0.029	0.007	0.002	0.025	0.007	ND(0.002)	*0.001*	*0.005*	0.033	0.169
	10/27/98	0.080	ND(0.01)	0.042	0.033	0.016	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.171
duplicate	10/27/98	0.053	ND(0.002)	0.011	0.011	0.002	ND(0.002)	0.011	0.002	ND(0.002)	ND(0.004)	0.002	0.013	0.077
	10/20/99	0.113	ND(0.0025)	0.022	0.005	ND(0.0025)	ND(0.0025)	0.027	0.009	ND(0.0025)	ND(0.005)	ND(0.0025)	0.036	0.140
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	*0.001*	0.001	0.053
	05/22/97	0.085	0.002	0.034	0.023	0.017	*0.002*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.004	0.163
	07/28/97	0.081	*0.002*	0.027	0.021	0.008	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.004	0.003	0.141
	10/16/97	0.082	*0.002*	0.025	0.019	0.006	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.136
	01/06/98	0.113	*0.003*	0.038	0.024	0.012	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.192
	04/16/98	0.088	0.003	0.027	0.017	0.008	*0.002*	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.002	0.145
	07/17/98	0.091	0.004	0.051	0.032	0.022	0.002	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.202
	10/26/98	0.055	ND(0.01)	0.011	0.011	ND(0.01)	ND(0.01)	0.011	*0.002*	ND(0.01)	ND(0.02)	*0.002*	0.013	0.077
	02/10/99	0.113	0.005	0.056	0.039	0.016	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.232
	04/21/99	0.133	0.006	0.061	0.047	0.023	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.273
	07/13/99	0.108	0.004	0.068	0.062	0.021	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.263
	10/20/99	0.066	0.003	0.058	0.046	0.032	ND(0.0025)	ND(0.0025)	ND(0.0025)	*0.002*	ND(0.005)	ND(0.0025)	0.002	0.205
	01/25/00	0.093	0.003	0.049	0.048	0.015	ND(0.0025)	*0.002*	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.002	0.208
MW-7	01/23/97	0.047	*0.001*	0.009	0.014	ND(0.001)	0.004	*0.001*	ND(0.001)	ND(0.001)	0.001	0.013	0.002	0.075
	05/22/97	0.087	*0.002*	0.066	0.116	*0.002*	0.014	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.062	0.003	0.287
	07/28/97	0.073	*0.002*	0.061	0.110	ND(0.002)	0.021	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.055	0.004	0.267
	10/16/97	0.065	ND(0.005)	0.050	0.091	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.058	0.003	0.224
	01/06/98	0.076	ND(0.005)	0.054	0.111	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.048	0.003	0.259
	04/16/98	0.055	ND(0.005)	0.035	0.078	ND(0.005)	0.020	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.040	0.003	0.188
	07/17/98	0.065	ND(0.005)	0.038	0.073	ND(0.005)	0.024	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.010	0.003	0.200
	10/26/98	0.047	ND(0.005)	0.030	0.073	ND(0.005)	0.019	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	0.014	0.000	0.169
	02/10/99	0.050	ND(0.001)	0.032	0.066	0.002	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.006	0.002	0.164
	04/21/99	0.047	ND(0.001)	0.029	0.071	0.002	0.011	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.160
	07/13/99	0.034	ND(0.001)	0.027	0.066	ND(0.001)	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.134
	10/20/99	0.046	ND(0.001)	0.035	0.081	ND(0.001)	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.002)	ND(0.001)	0.002	0.168
	01/25/00	0.025	ND(0.0025)	0.020	0.061	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.109
MW-8	01/23/97	0.068	*0.005*	0.280	0.810	0.460	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.623
	05/23/97	0.082	ND(0.01)	1.360	4.150	0.805	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	6.397
	06/25/97	0.077	ND(0.02)	0.975	3.600	0.774	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.426
	07/28/97	ND(0.1)	ND(0.1)	1.120	4.520	0.798	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	6.438
	10/16/97	ND(0.2)	ND(0.2)	0.858	4.570	0.596	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	6.024
	01/06/98	ND(0.2)	ND(0.2)	1.230	4.650	0.798	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.166*	0.000	6.678
	04/16/98	ND(0.2)	ND(0.2)	1.050	4.620	0.658	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.142*	0.000	6.328
	07/17/98	ND(0.2)	ND(0.2)	1.200	5.090	0.740	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	7.030
	10/27/98	*0.060*	ND(0.2)	0.760	4.160	0.522	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	5.522
	02/10/99	0.083	ND(0.025)	0.936	3.870	0.569	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.458
	04/21/99	0.080	ND(0.025)	0.808	3.900	0.600	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.388
	07/13/99	0.058	ND(0.025)	0.634	2.970	0.341	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.003
	10/21/99	0.081	ND(0.025)	0.857	3.610	0.447	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.995
	01/25/00	0.076	ND(0.025)	0.687	3.190	0.349	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.302
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.209
	05/23/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.045
	06/25/97	0.033	ND(0.02)	0.326	1.130	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.489
	07/28/97	0.021	ND(0.02)	0.278	1.020	0.121	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.440
	10/16/97	*0.019*	ND(0.02)	0.278	1.160	0.104	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.561
duplicate	10/16/97	0.023	ND(0.02)	0.321	1.160	0.141	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.645

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-9 Cont.	01/06/98	*0.033*	ND(0.1)	0.502	1.350	0.174	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.059
	04/16/98	*0.029*	ND(0.05)	0.444	1.290	0.144	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.1)	ND(0.05)	0.000	1.907
	07/17/98	*0.042*	ND(0.1)	0.690	1.770	0.242	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.744
	10/27/98	*0.030*	ND(0.1)	0.507	1.740	0.193	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.470
	02/10/99	0.031	ND(0.01)	0.487	1.400	0.159	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.077
	04/21/99	0.026	ND(0.01)	0.368	1.320	0.161	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.875
	07/13/99	0.021	ND(0.01)	0.353	1.100	0.110	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.584
	10/21/99	0.018	ND(0.01)	0.261	1.090	0.085	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.454
	01/25/00	0.013	ND(0.01)	0.145	0.556	0.048	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.762
MW-10	05/26/97	0.004	ND(0.002)	0.007	0.026	ND(0.002)	*0.001*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.004	0.038
duplicate	05/26/97	ND(0.002)	ND(0.002)	0.008	0.028	ND(0.002)	*0.001*	0.007	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.007	0.037
	07/28/97	0.003	ND(0.002)	0.009	0.014	*0.002*	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.028
	10/16/97	ND(0.002)	ND(0.002)	0.002	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	01/06/98	ND(0.002)	ND(0.002)	*0.002*	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	04/16/98	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.002
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.003	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.003	0.002
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
duplicate	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
MW-11	05/24/97	*0.001*	ND(0.001)	*0.007*	0.002	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.010
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.003	*0.001*	ND(0.001)	0.006	ND(0.001)	0.010	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	*0.001*	ND(0.001)	*0.003*	ND(0.001)	0.006	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.003*	ND(0.002)	0.005	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	*0.002*	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.004	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.000
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.000
	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	0.001	ND(0.001)	ND(0.002)	ND(0.001)	0.003	0.000
duplicate	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001	0.001	ND(0.001)	ND(0.002)	ND(0.001)	0.002	0.000
MW-12	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	*0.006*	*0.005*	*0.003*	ND(0.001)	0.014	0.001
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.001
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	10/18/99	ND(0.001)	ND(0.001)	0.002	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.005
MW-13	05/24/97	ND(0.001)	ND(0.001)	0.012	0.010	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.023
	07/28/97	ND(0.001)	ND(0.001)	0.012	0.009	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.022
	10/16/97	ND(0.001)	ND(0.001)	0.015	0.013	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
duplicate	10/16/97	ND(0.002)	ND(0.002)	0.011	0.013	*0.001*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.025
	01/06/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
	04/16/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
duplicate	04/16/98	ND(0.001)	ND(0.001)	0.016	0.010	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
	07/17/98	ND(0.002)	ND(0.002)	0.019	0.016	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.037
	10/26/98	ND(0.002)	ND(0.002)	0.019	0.020	0.002	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.041
	02/10/99	*0.001*	ND(0.001)	0.016	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.033
	04/21/99	ND(0.001)	ND(0.001)	0.017	0.018	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.037
	07/12/99	ND(0.001)	ND(0.001)	0.012	0.012	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.025
	10/20/99	ND(0.001)	ND(0.001)	0.018	0.015	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.035
	01/26/00	0.002	ND(0.001)	0.022	0.021	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.047
MW-14	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000

Table 2. **Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico**

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
duplicate	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
MW-14 Cont.	10/26/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	02/10/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	<0.001	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	04/21/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
duplicate	04/21/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/12/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.008	0.000	0.000
duplicate	10/18/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.006	0.000	0.000
	01/25/00	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
MW-15	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/26/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	02/10/99	ND(0.0005)	ND(0.0005)	<0.001	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	02/10/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	04/21/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	07/12/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/20/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.002)	ND(0.001)	0.001	0.000
	01/25/00	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/25/00	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
*SO4	05/25/97	0.021	ND(0.01)	0.024	ND(0.01)	*0.005*	ND(0.01)	ND(0.01)	0.469	0.470	1.936	0.107	2.875	0.050
	07/28/97	0.020	ND(0.02)	0.020	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.411	0.138	0.905	0.125	1.454	0.040
	10/16/97	*0.018*	ND(0.02)	0.022	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.322	0.039	0.713	0.102	1.074	0.040
	01/06/98	0.051	ND(0.002)	0.075	0.004	0.014	ND(0.002)	0.002	0.042	*0.001*	0.019	0.024	0.064	0.144
	04/16/98	0.049	ND(0.005)	0.087	0.005	0.015	ND(0.005)	*0.002*	0.008	ND(0.005)	ND(0.01)	0.024	0.010	0.156
	07/17/98	0.038	ND(0.005)	0.075	0.005	0.015	ND(0.005)	ND(0.005)	0.016	ND(0.005)	ND(0.01)	0.026	0.016	0.133
	10/26/98	0.010	ND(0.002)	0.024	*0.002*	0.005	ND(0.002)	ND(0.002)	0.003	ND(0.002)	ND(0.004)	0.004	0.003	0.041
	02/10/99	0.025	ND(0.001)	0.079	0.005	0.016	ND(0.001)	*0.001*	0.013	ND(0.001)	ND(0.002)	0.013	0.014	0.125
	04/21/99	0.025	ND(0.001)	0.089	0.006	0.026	ND(0.001)	ND(0.001)	0.006	ND(0.001)	ND(0.002)	0.004	0.006	0.146
	07/12/99	0.021	ND(0.0025)	0.096	0.008	0.021	ND(0.0025)	ND(0.0025)	0.003	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.146
	10/21/99	0.025	ND(0.0025)	0.073	0.005	0.012	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.115
	01/25/00	0.048	ND(0.0025)	0.096	0.007	0.013	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.164

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parentheses.
italicized value - is below the method detection limit
< - analyte detected above the method detection limit but table is reported only to 1 part per billion
*SO4 = Shell Service Station monitoring well MW-4
1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethane
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	01-25-00
Project:	None	Time Sampled:	11:30
Sample ID:	93007-2.1/00 MW-2	Date Received:	01-28-00
Laboratory ID:	00-30496-1	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	2		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**2.48**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**13.3**	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**41.1**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-2.1/00	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-1 mw-2	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1
87-68-3	Hexachlorobutadiene	ND	1
87-61-6	1,2 3 - Trichlorobenzene	ND	1

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1414393	1269011	111%	50 - 200 %
Fluorobenzene	2665067	2553367	104%	50 - 200 %
1,4 - Difluorobenzene	2201307	2071601	106%	50 - 200 %
Chlorobenzene - d5	1429275	1342360	106%	50 - 200 %
1,4 - Dichlorobenzene - d4	512311	470705	109%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.80	98.0%	86 - 118 %
Toluene - d8	9.82	98.2%	88 - 110 %
4 - Bromofluorobenzene	9.76	97.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.91	99.1%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO

30496R00002

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Project:	None	Time Sampled:	13:00
Sample ID:	93007-4.1/00 MW-4	Date Received:	01-28-00
Laboratory ID:	00-30496-2	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	20		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**44.2**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**13.2**	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	ND	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**30.4**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**249**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

TRACKING ID. PAGE N(
30496R00003

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-4.1/00	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-2 MW-4	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1350428	1269011	106%	50 - 200 %
Fluorobenzene	2646473	2553367	104%	50 - 200 %
1,4 - Difluorobenzene	2140616	2071601	103%	50 - 200 %
Chlorobenzene - d5	1414681	1342360	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	515846	470705	110%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	9.99	99.9%	88 - 110 %
4 - Bromofluorobenzene	9.91	99.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00004

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Project:	None	Time Sampled:	16:45
Sample ID:	93007-A.1/00	Date Received:	01-28-00
Laboratory ID:	00-30496-11	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	20		

duplicate of MW-4

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**53.8**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**14.8**	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	ND	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**36.0**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**282**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-A.1/00	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-11	Date Reported:	February 10, 2000

duplicate of MW-4

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1266088	1269011	99.8%	50 - 200 %
Fluorobenzene	2583510	2553367	101%	50 - 200 %
1,4 - Difluorobenzene	2036547	2071601	98.3%	50 - 200 %
Chlorobenzene - d5	1334649	1342360	99.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	477011	470705	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00022

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	01-25-00
Project:	None	Time Sampled:	10:50
Sample ID:	93007-6.1/00 MW-6	Date Received:	01-28-00
Laboratory ID:	00-30496-3	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	5		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND		2.5
74-87-3	Chloromethane	ND		2.5
75-01-4	Vinyl chloride (Chloroethene)	ND		2.5
74-83-9	Bromomethane	ND		2.5
75-00-3	Chloroethane	ND		2.5
75-69-4	Trichlorofluoromethane	ND		2.5
75-35-4	**1,1 - Dichloroethene**	**49.4**		2.5
75-09-2	Methylene chloride (Dichloromethane)	ND		2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.5
75-34-3	**1,1 - Dichloroethane**	**93.1**		2.5
78-93-3	2 -Butanone (MEK)	ND		50
156-59-2	cis - 1,2 - Dichloroethene	ND		2.5
74-97-5	Bromochloromethane	ND		2.5
67-66-3	**Chloroform (Trichloromethane)**	**7.75**		2.5
594-20-7	2,2 - Dichloropropane	ND		2.5
71-55-6	**1,1,1 - Trichloroethane**	**14.9**		2.5
107-06-2	**1,2 - Dichloroethane**	**2.80**		2.5
563-58-6	1,1 - Dichloropropene	ND		2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.5
71-43-2	**Benzene**	**2.30**	J	2.5
74-95-3	Dibromomethane	ND		2.5
78-87-5	1,2 - Dichloropropane	ND		2.5
79-01-6	Trichloroethene	ND		2.5
75-27-4	Bromodichloromethane	ND		2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.5
79-00-5	**1,1,2 - Trichloroethane**	**2.70**		2.5
108-88-3	Toluene	ND		2.5
106-93-4	1,2 - Dibromoethane	ND		2.5
142-28-9	1,3 - Dichloropropane	ND		2.5
124-48-1	Dibromochloromethane	ND		2.5
127-18-4	**Tetrachloroethene**	**47.5**		2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.5
108-90-7	Chlorobenzene	ND		2.5
100-41-4	Ethylbenzene	ND		2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		5.0
75-25-2	Bromoform (Tribromomethane)	ND		2.5
100-42-5	Styrene (Ethenylbenzene)	ND		2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.5
96-18-4	1,2,3 - Trichloropropane	ND		2.5

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

TRACKING NO. PAGE NO

30496R00005

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-6.1/00 MW-6	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-3	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1356978	1269011	107%	50 - 200 %
Fluorobenzene	2624939	2553367	103%	50 - 200 %
1,4 - Difluorobenzene	2152917	2071601	104%	50 - 200 %
Chlorobenzene - d5	1418720	1342360	106%	50 - 200 %
1,4 - Dichlorobenzene - d4	513574	470705	109%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.92	99.2%	86 - 118 %
Toluene - d8	9.85	98.5%	88 - 110 %
4 - Bromofluorobenzene	9.94	99.4%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO

30496R00006

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	01-25-00
Project:	None	Time Sampled:	11:15
Sample ID:	93007-7.1/00 mw-7	Date Received:	01-28-00
Laboratory ID:	00-30496-4	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	5		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	**1,1 - Dichloroethene**	**20.2**	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	**1,1 - Dichloroethane**	**25.4**	2.5
78-93-3	2 -Butanone (MEK)	ND	50
156-59-2	cis - 1,2 - Dichloroethene	ND	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	Chloroform (Trichloromethane)	ND	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	1,1,1 - Trichloroethane	ND	2.5
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	**Trichloroethene**	**3.05**	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	**Tetrachloroethene**	**60.7**	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO
30496R00007

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-7.1/00 MW-7	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-4	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1346742	1269011	106%	50 - 200 %
Fluorobenzene	2637763	2553367	103%	50 - 200 %
1,4 - Difluorobenzene	2137144	2071601	103%	50 - 200 %
Chlorobenzene - d5	1407236	1342360	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	513043	470705	109%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	9.97	99.7%	88 - 110 %
4 - Bromofluorobenzene	9.95	99.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00008

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	01-25-00
Project:	None	Time Sampled:	13:45
Sample ID:	93007-8.1/00 MW-8	Date Received:	01-28-00
Laboratory ID:	00-30496-5	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	50		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	25.0
74-87-3	Chloromethane	ND	25.0
75-01-4	Vinyl chloride (Chloroethene)	ND	25.0
74-83-9	Bromomethane	ND	25.0
75-00-3	Chloroethane	ND	25.0
75-69-4	Trichlorofluoromethane	ND	25.0
75-35-4	**1,1 - Dichloroethene**	**687**	25.0
75-09-2	Methylene chloride (Dichloromethane)	ND	25.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	25.0
75-34-3	**1,1 - Dichloroethane**	**75.5**	25.0
78-93-3	2 -Butanone (MEK)	ND	500
156-59-2	cis - 1,2 - Dichloroethene	ND	25.0
74-97-5	Bromochloromethane	ND	25.0
67-66-3	Chloroform (Trichloromethane)	ND	25.0
594-20-7	2,2 - Dichloropropane	ND	25.0
71-55-6	**1,1,1 - Trichloroethane**	**349**	25.0
107-06-2	1,2 - Dichloroethane	ND	25.0
563-58-6	1,1 - Dichloropropene	ND	25.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	25.0
71-43-2	Benzene	ND	25.0
74-95-3	Dibromomethane	ND	25.0
78-87-5	1,2 - Dichloropropane	ND	25.0
79-01-6	Trichloroethene	ND	25.0
75-27-4	Bromodichloromethane	ND	25.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	25.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	25.0
79-00-5	1,1,2 - Trichloroethane	ND	25.0
108-88-3	Toluene	ND	25.0
106-93-4	1,2 - Dibromoethane	ND	25.0
142-28-9	1,3 - Dichloropropane	ND	25.0
124-48-1	Dibromochloromethane	ND	25.0
127-18-4	**Tetrachloroethene**	**3,190**	25.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	25.0
108-90-7	Chlorobenzene	ND	25.0
100-41-4	Ethylbenzene	ND	25.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	50.0
75-25-2	Bromoform (Tribromomethane)	ND	25.0
100-42-5	Styrene (Ethenylbenzene)	ND	25.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	25.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	25.0
96-18-4	1,2,3 - Trichloropropane	ND	25.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.
30496R00009

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-8.1/00 MW-8	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-5	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	25.0
108-86-1	Bromobenzene	ND	25.0
103-65-1	n - Propylbenzene	ND	25.0
95-49-8	2 - Chlorotoluene	ND	25.0
106-43-4	4 - Chlorotoluene	ND	25.0
108-67-8	1,3,5 - Trimethylbenzene	ND	25.0
98-06-6	tert - Butylbenzene	ND	25.0
95-63-6	1,2,4 - Trimethylbenzene	ND	25.0
135-98-8	sec - Butylbenzene	ND	25.0
541-73-1	1,3 - Dichlorobenzene	ND	25.0
106-46-7	1,4 - Dichlorobenzene	ND	25.0
99-87-6	4-Isopropyltoluene	ND	25.0
95-50-1	1,2 - Dichlorobenzene	ND	25.0
104-51-8	n - Butylbenzene	ND	25.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	125
120-82-1	1,2,4 - Trichlorobenzene	ND	25.0
91-20-3	Naphthalene	ND	25.0
87-68-3	Hexachlorobutadiene	ND	25.0
87-61-6	1,2 3 - Trichlorobenzene	ND	25.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1280257	1269011	101%	50 - 200 %
Fluorobenzene	2602837	2553367	102%	50 - 200 %
1,4 - Difluorobenzene	2053554	2071601	99.1%	50 - 200 %
Chlorobenzene - d5	1337770	1342360	99.7%	50 - 200 %
1,4 - Dichlorobenzene - d4	485769	470705	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	10.2	102%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.96	99.6%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00010

ENERGY LABORATORIES
Billings • Casper • Gillette
Helena • Rapid City

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	*Western Water Consultants*	Date Sampled:	01-25-00
Project:	None	Time Sampled:	13:30
Sample ID:	93007-9.1/00 MW-9	Date Received:	01-28-00
Laboratory ID:	00-30496-6	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	20		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**145**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**12.6**	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	ND	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**47.6**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**556**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.
30496R00011

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-9.1/00 MW-9	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-6	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1266088	1269011	99.8%	50 - 200 %
Fluorobenzene	2583510	2553367	101%	50 - 200 %
1,4 - Difluorobenzene	2036547	2071601	98.3%	50 - 200 %
Chlorobenzene - d5	1334649	1342360	99.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	477011	470705	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00012

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-26-00
Project:	None	Time Sampled:	07:45
Sample ID:	93007-13.1/00 MW-13	Date Received:	01-28-00
Laboratory ID:	00-30496-7	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	2		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**21.5**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**1.46**	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**2.14**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**21.3**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.
30496R00013

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-26-00
Sample ID:	93007-13.1/00 MW-13	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-7	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1326343	1269011	105%	50 - 200 %
Fluorobenzene	2630036	2553367	103%	50 - 200 %
1,4 - Difluorobenzene	2101279	2071601	101%	50 - 200 %
Chlorobenzene - d5	1388294	1342360	103%	50 - 200 %
1,4 - Dichlorobenzene - d4	506467	470705	108%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00014

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Project:	None	Time Sampled:	09:15
Sample ID:	93007-14.1/00 MW-14	Date Received:	01-28-00
Laboratory ID:	00-30496-8	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	2		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO.
30496R00015

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-14.1/00 MW-14	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-8	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1297163	1269011	102%	50 - 200 %
Fluorobenzene	2606233	2553367	102%	50 - 200 %
1,4 - Difluorobenzene	2065933	2071601	99.7%	50 - 200 %
Chlorobenzene - d5	1360133	1342360	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	492528	470705	105%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.2	102%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO

30496R00016

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Project:	None	Time Sampled:	09:40
Sample ID:	93007-15.1/00 MW-15	Date Received:	01-28-00
Laboratory ID:	00-30496-9	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	2		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-15.1/00 mw-15	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-9	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1285273	1269011	101%	50 - 200 %
Fluorobenzene	2586276	2553367	101%	50 - 200 %
1,4 - Difluorobenzene	2058755	2071601	99.4%	50 - 200 %
Chlorobenzene - d5	1350179	1342360	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	486572	470705	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.0	100%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING ID. PAGE NO.

30496R00018

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Project:	None	Time Sampled:	16:30
Sample ID:	93007-B.1/00	Date Received:	01-28-00
Laboratory ID:	00-30496-12	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	2		

duplicate of MW-15

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-25-00
Sample ID:	93007-B.1/00	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-12	Date Reported:	February 10, 2000

Duplicate of MW-15

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1286345	1269011	101%	50 - 200 %
Fluorobenzene	2425863	2553367	95.0%	50 - 200 %
1,4 - Difluorobenzene	2022327	2071601	97.6%	50 - 200 %
Chlorobenzene - d5	1297039	1342360	96.6%	50 - 200 %
1,4 - Dichlorobenzene - d4	476891	470705	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.98	99.8%	86 - 118 %
Toluene - d8	9.74	97.4%	88 - 110 %
4 - Bromofluorobenzene	9.86	98.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00024

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	01-25-00
Project:	None	Time Sampled:	10:00
Sample ID:	93007-SO4.1/00	Date Received:	01-28-00
Laboratory ID:	00-30496-10	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	5		

shell station (mw-4)

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	**1,1 - Dichloroethene**	**96.4**	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	**1,1 - Dichloroethane**	**48.0**	2.5
78-93-3	2 -Butanone (MEK)	ND	50
156-59-2	**cis - 1,2 - Dichloroethene**	**3.40**	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	Chloroform (Trichloromethane)	ND	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	**1,1,1 - Trichloroethane**	**13.4**	2.5
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	**Tetrachloroethene**	**6.90**	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO
30496R00019

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-SO4.1/00
Laboratory ID: 00-30496-10

Shell Station (mw-4)

Date Sampled: 01-25-00
Date Analyzed: 02-02-00
Date Reported: February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1258836	1269011	99.2%	50 - 200 %
Fluorobenzene	2545186	2553367	99.7%	50 - 200 %
1,4 - Difluorobenzene	2005985	2071601	96.8%	50 - 200 %
Chlorobenzene - d5	1329238	1342360	99.0%	50 - 200 %
1,4 - Dichlorobenzene - d4	474331	470705	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.96	99.6%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

METHODS USED IN THIS ANALYSIS:
EPA 5030B, EPA 8260B

sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO
30496R00020

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639
PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette
Helena • Rapid City

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-19-00
Project:	None	Time Sampled:	08:20
Sample ID:	TRIP BLANK	Date Received:	01-28-00
Laboratory ID:	00-30496-13	Date Analyzed:	02-02-00
Matrix:	Water	Date Reported:	February 10, 2000
Dilution Factor:	1		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01-19-00
Sample ID:	TRIP BLANK	Date Analyzed:	02-02-00
Laboratory ID:	00-30496-13	Date Reported:	February 10, 2000

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*REPORT LIMIT (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1327028	1269011	105%	50 - 200 %
Fluorobenzene	2621398	2553367	103%	50 - 200 %
1,4 - Difluorobenzene	2091440	2071601	101%	50 - 200 %
Chlorobenzene - d5	1383318	1342360	103%	50 - 200 %
1,4 - Dichlorobenzene - d4	504263	470705	107%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	10.0	100%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.92	99.2%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

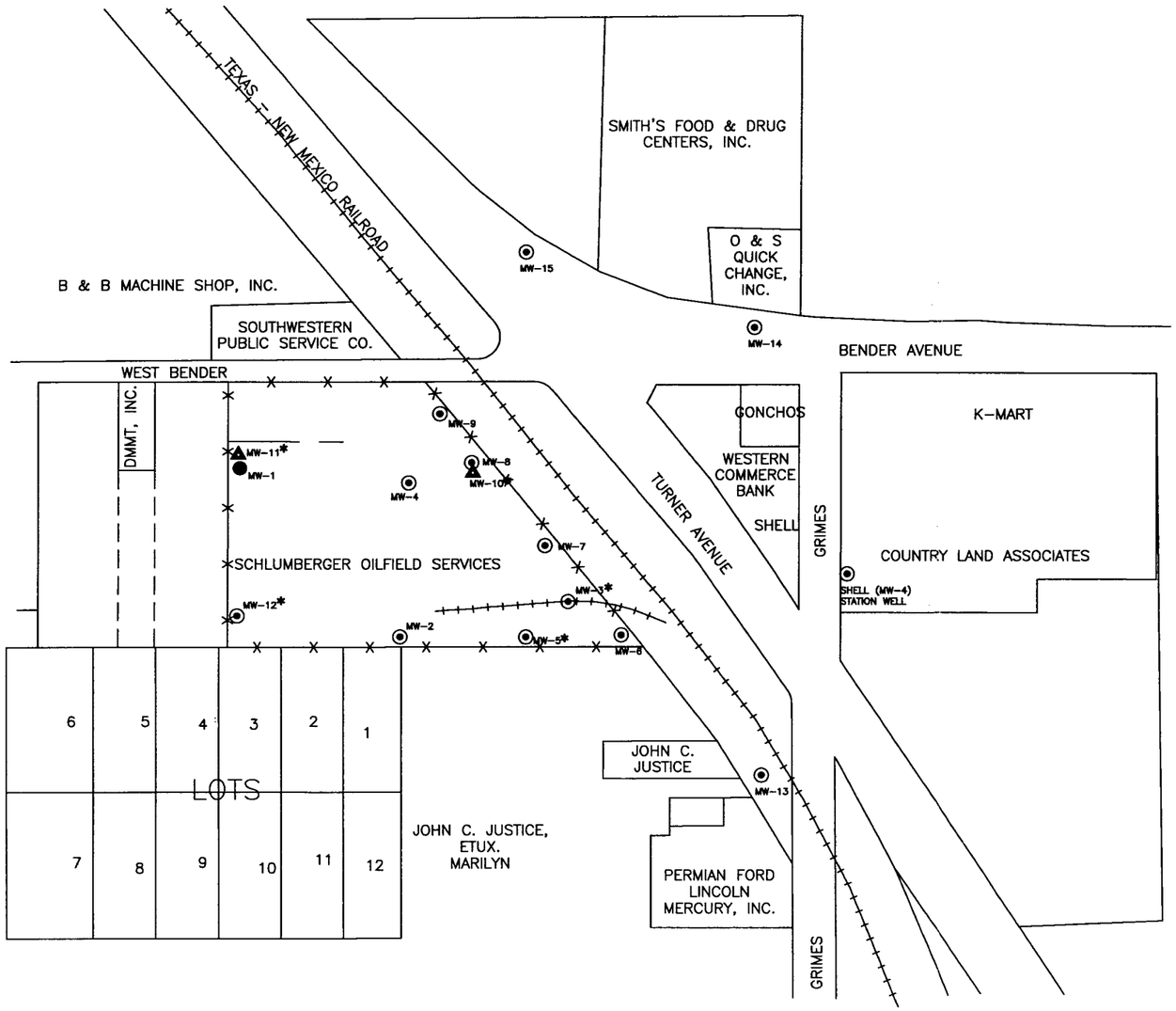
sec: r:\reports\clients2000\western_water_consultants\casper_org\30496-1-13_8260_w.xls

Analyst: wen

TRACKING NO. PAGE NO.

30496R00026

K:\93-097\A2000\Working2.dwg 01/28/00 08:45



EXPLANATION

- MW-4 ⊙ SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 ▲ DEEP MONITORING WELL LOCATION
- MW-5* ⊙ SAMPLED DURING 4TH QUARTER ONLY

0 300 ft.

SCALE

FIGURE 1

MONITORING WELL LOCATIONS

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\83-007\2000\98NEWBAS.DWG 01/28/00 09:49

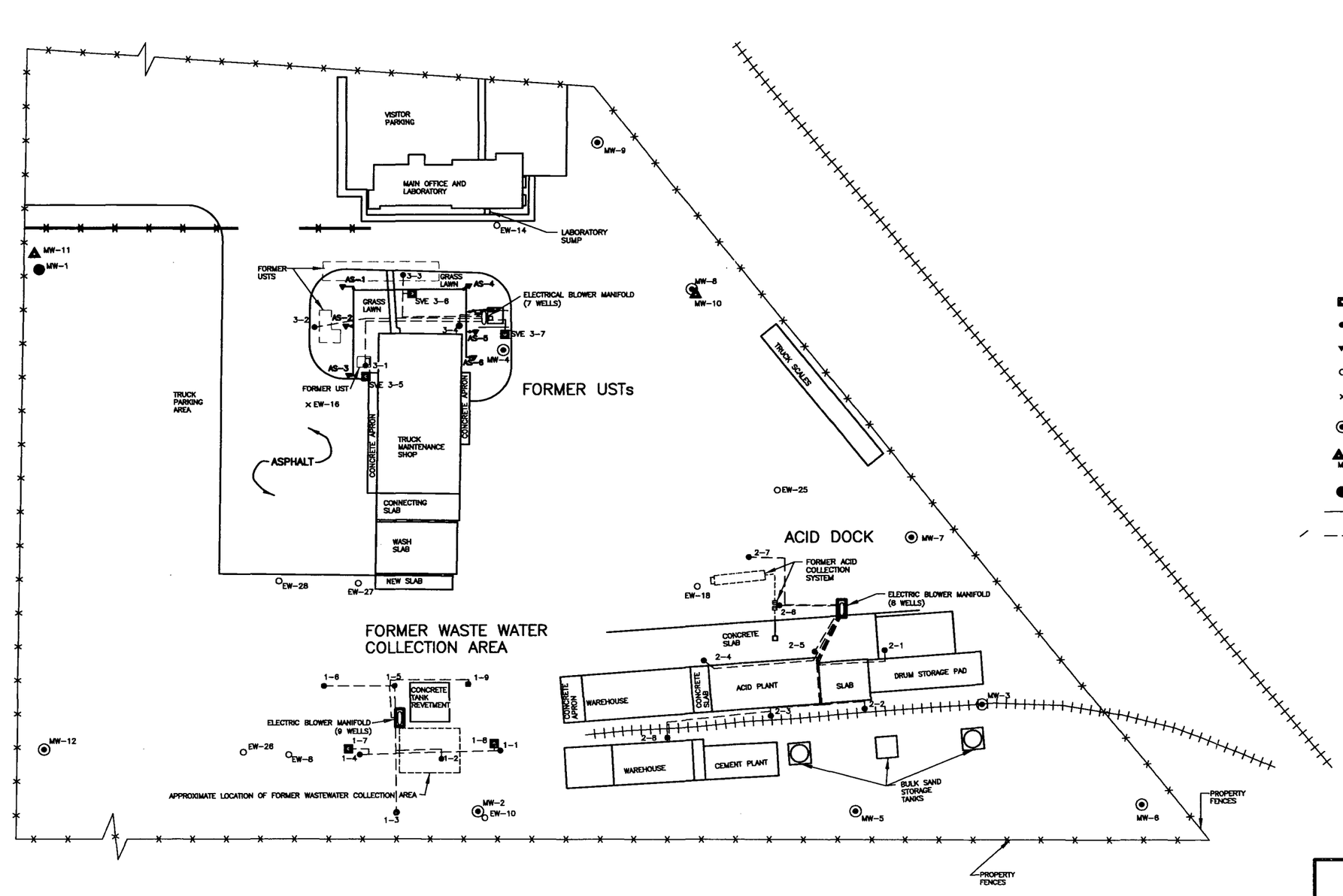


FIGURE 2

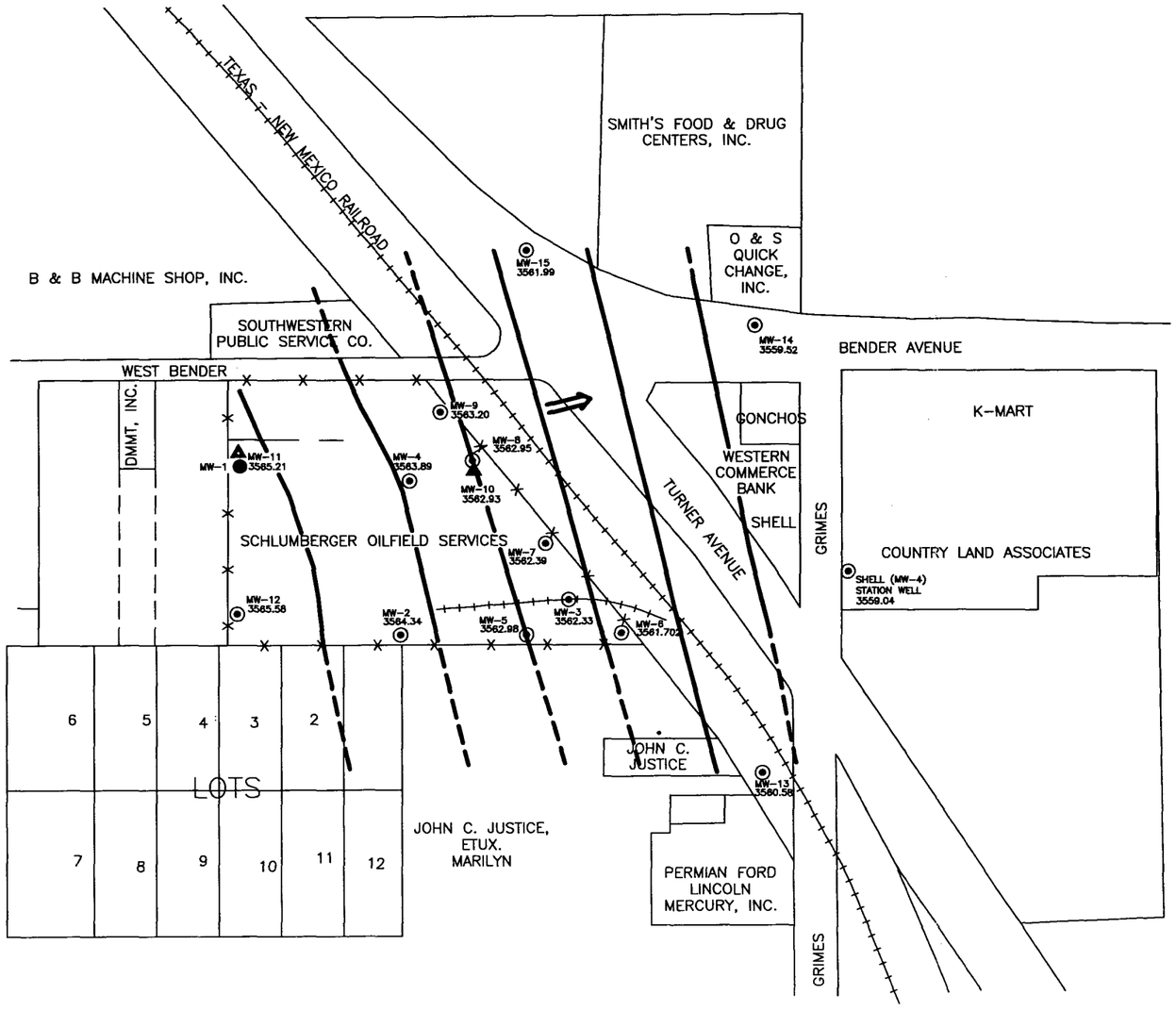
SITE MAP AND LOCATION OF MONITORING AND REMEDIATION WELLS

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\93-007L\2000\pa-0100.dwg 03/29/00 10:31



EXPLANATION

- MW-14 3560.62 ◉ — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- MW-1 ● — ABANDONED MONITORING WELL
- MW-11 3566.33 ▲ — DEEP MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- 3563.00 — POTENTIOMETRIC SURFACE CONTOURS AND ELEVATION (DASHED WHERE INFERRED)
- ⟸ — GROUND-WATER FLOW DIRECTION

0 300 ft.
SCALE

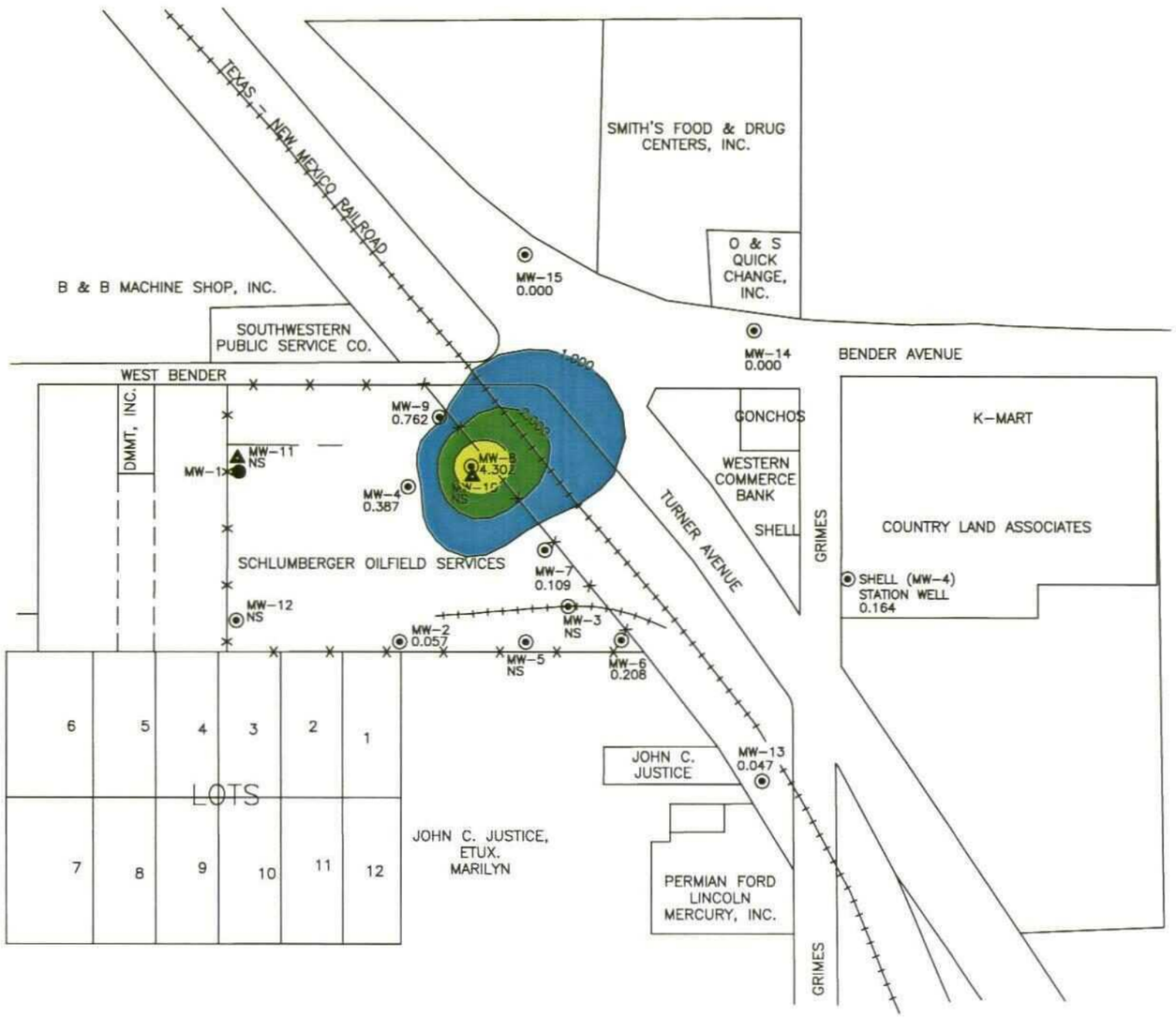
FIGURE 3

POTENTIOMETRIC SURFACE MAP
01/26/00

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

K:\93-007L\2000\Hdlo0100.dwg 03/29/00 10:57



EXPLANATION

- MW-8 5.388 ⊙ — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- MW-1 ● — ABANDONED MONITORING WELL
- MW-11 NS ▲ — DEEP MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- 1.00 — TOTAL HALOCARBONS CONTOURS
- NS — NOT SAMPLED

TOTAL HALOCARBONS CONCENTRATIONS (mg/L)

- 3.00
- 2.00
- 1.00

0 300 ft.
SCALE

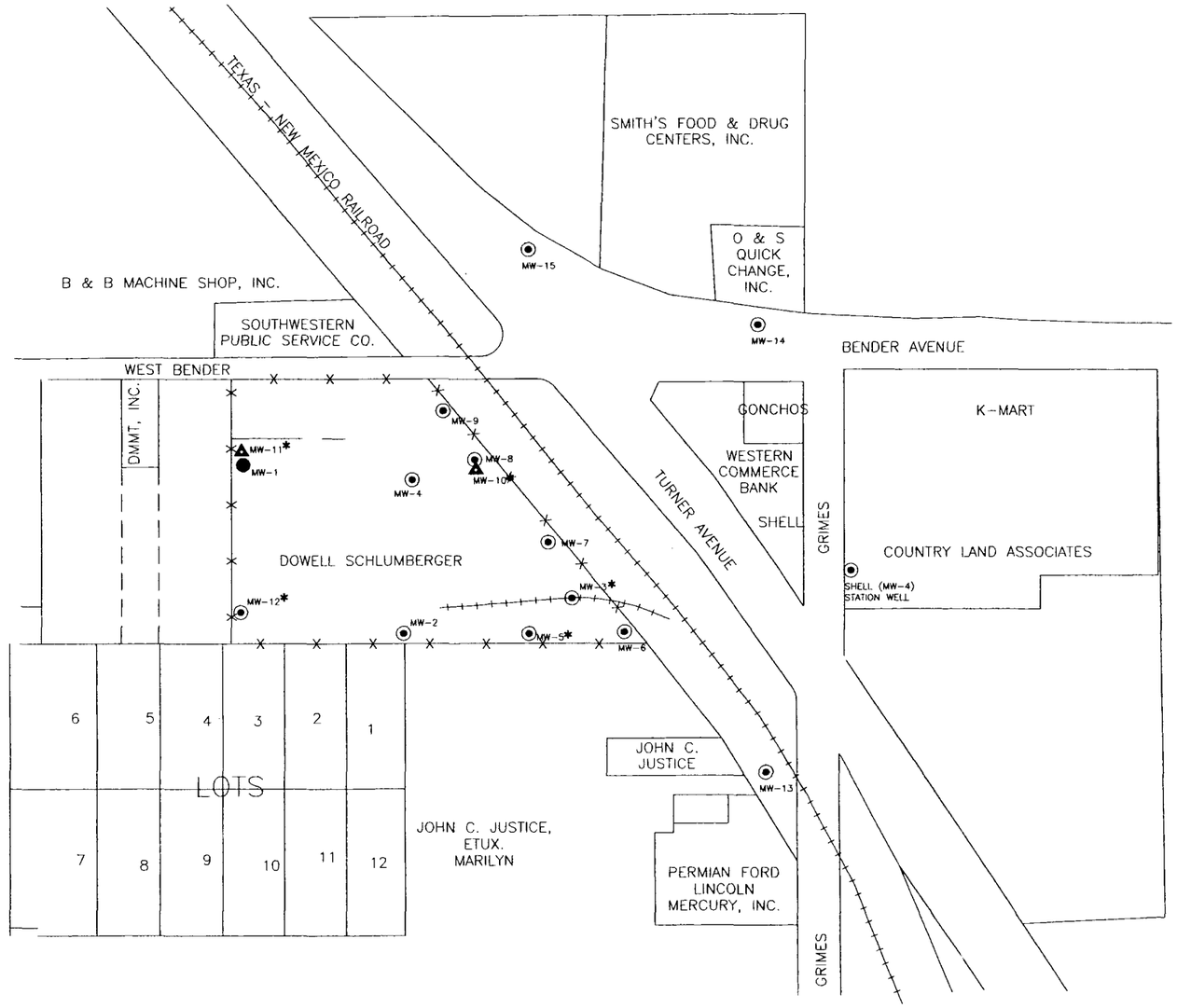
FIGURE 4

TOTAL HALOCARBONS CONCENTRATION MAP
01/25/00

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

K:\93-007\CADD\93\Newhose2.dwg 03/15/99 08:43



EXPLANATION

- MW-4 ◉ SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 ▲ DEEP MONITORING WELL LOCATIONS
- MW-5* ◉ SAMPLED DURING 4TH QUARTER ONLY

0 300 ft.

SCALE

FIGURE 1

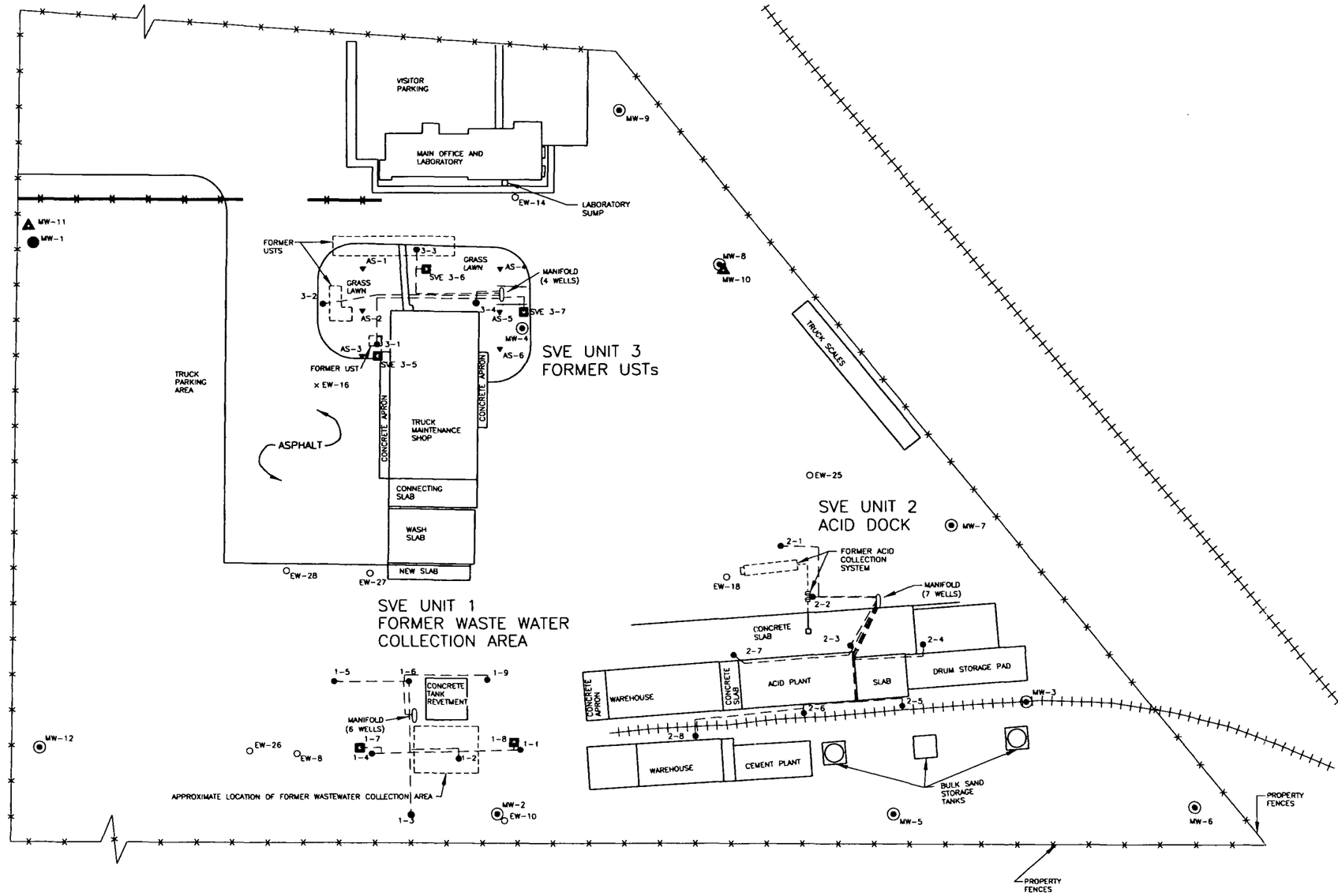
MONITORING WELL LOCATIONS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\72040\93-007L\NEWBASE 07/28/97 08:37



0 80 FT.

SCALE

EXPLANATION

- 1-8 DEEP SVE WELL
- SHALLOW SVE WELL
- AS-5 AIR SPARGING WELL
- SOIL BORING
- × COMPLETED AS A FUTURE SVE WELL
- MW-3 SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-11 DEEP MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ABANDONED MONITORING WELL
- FENCED ENCLOSURE
- 2" PVC PIPING

FIGURE 2

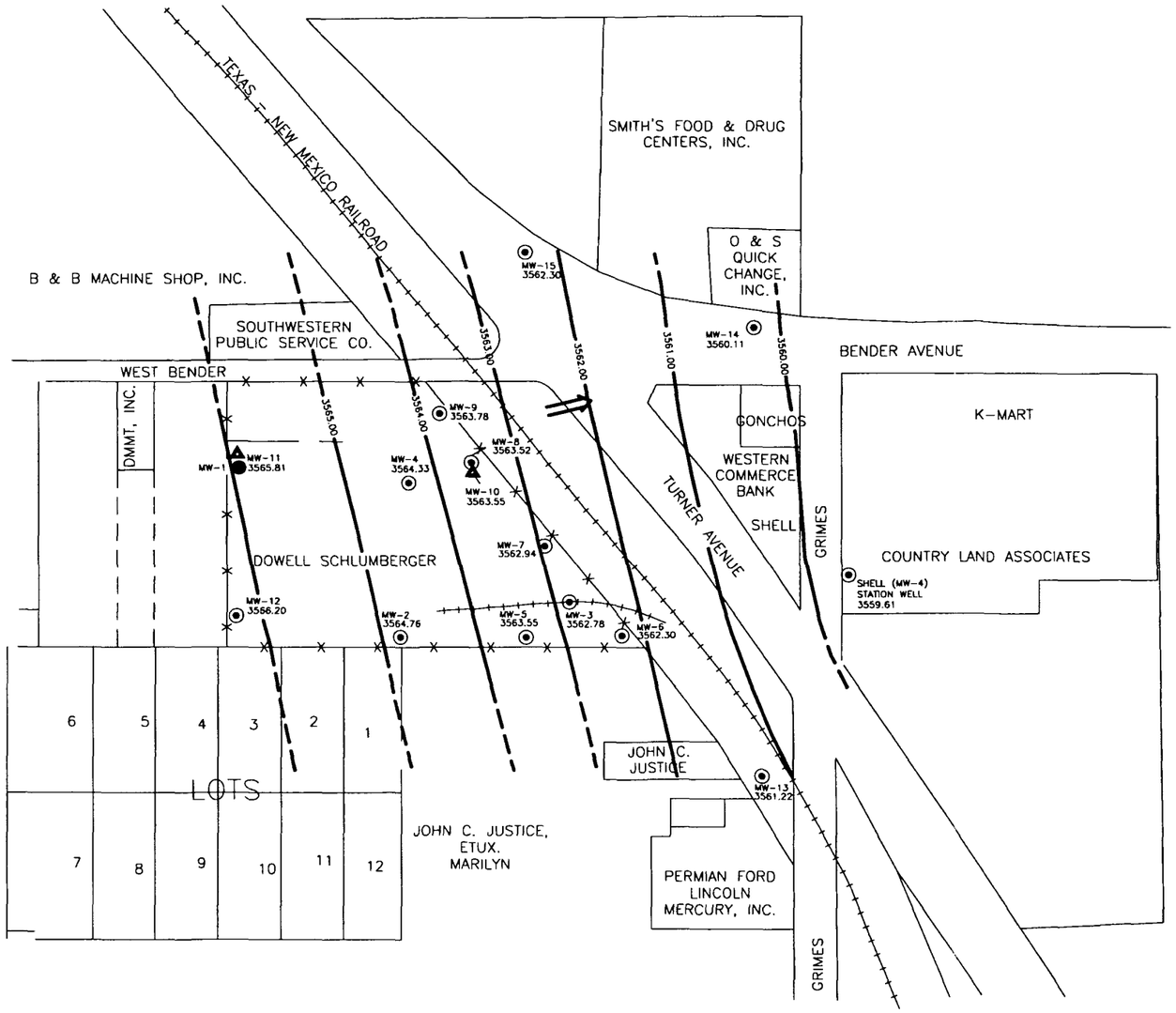
SITE MAP AND LOCATION OF MONITORING AND REMEDIATION WELLS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\93-007L\CADD\99\ps-0799.dwg 09/02/99 10:17



EXPLANATION

- MW-14 3560.62 ◉ — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- MW-1 ● — ABANDONED MONITORING WELL
- MW-11 3566.33 ▲ — DEEP MONITORING WELL LOCATION IDENTIFICATION AND POTENTIOMETRIC SURFACE ELEVATION
- 3563.00 — POTENTIOMETRIC SURFACE CONTOURS AND ELEVATION (DASHED WHERE INFERRED)
- ⟸ — GROUND-WATER FLOW DIRECTION

0 300 ft.
SCALE

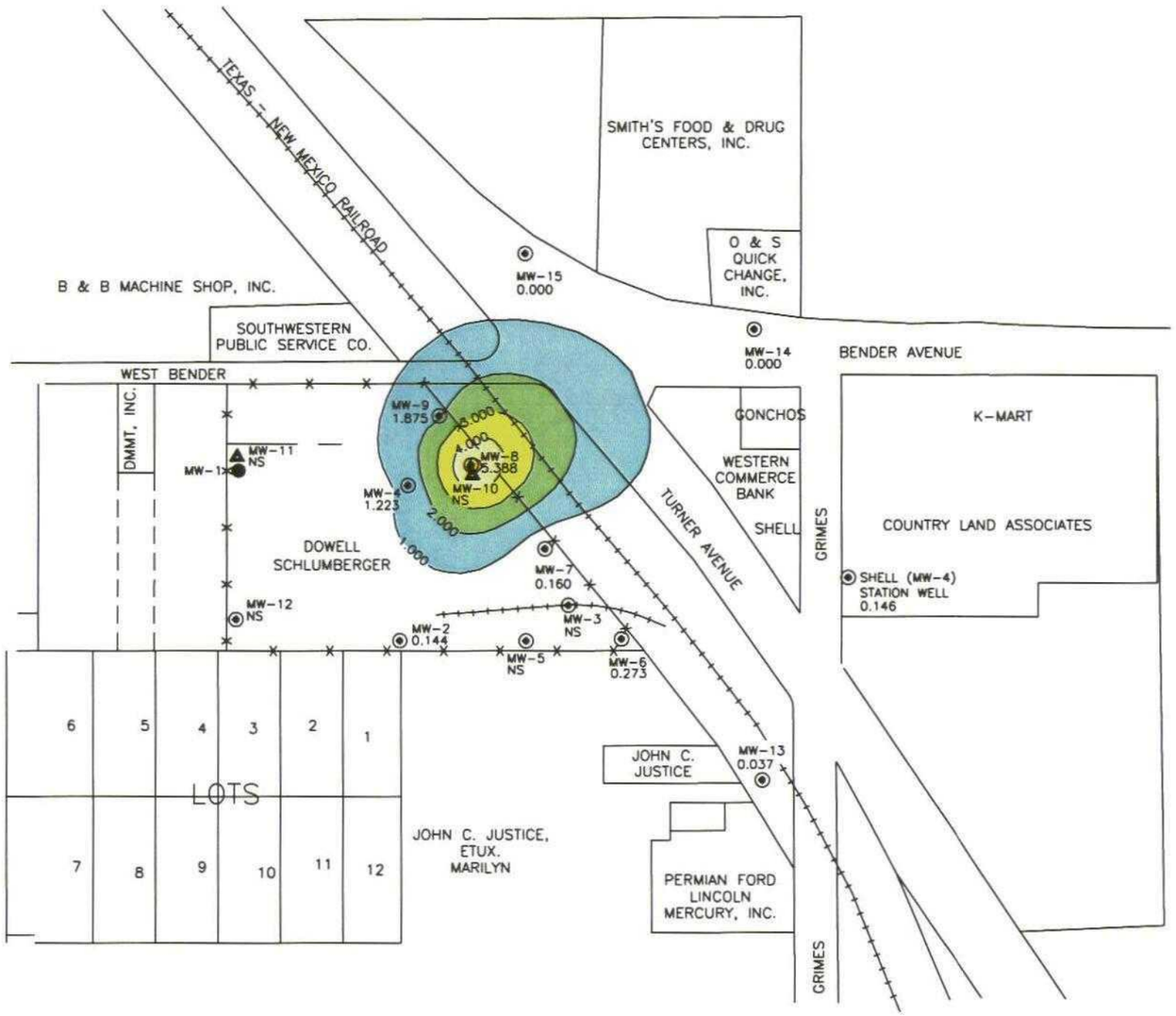
FIGURE 3

POTENTIOMETRIC SURFACE MAP
(07/13/99)

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

K:\93-007L\CADD\99Yoko0499.dwg 05/11/99 15:56



EXPLANATION

MW-8 5.388 — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS

MW-1 — ABANDONED MONITORING WELL

MW-11 NS — DEEP MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS

1.00 — TOTAL HALOCARBONS CONTOURS

NS — NOT SAMPLED

TOTAL HALOCARBONS CONCENTRATIONS (mg/L)

6.00
5.00
4.00
3.00
2.00
1.00

0 300 ft.

SCALE

FIGURE 4

TOTAL HALOCARBONS CONCENTRATION MAP
04/21/99

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	3638.52	10/25/96	84	70.22	3568.30		13.78
		11/21/96		70.17	3568.35	0.05	13.83
		01/22/97		70.44	3568.08	-0.27	13.56
Abandoned		05/22/97					
MW-2	3637.26	10/25/96	85	70.03	3567.23		14.97
		11/21/96		70.03	3567.23	0.00	14.97
		01/22/97		70.26	3567.00	-0.23	14.74
		05/21/97		70.53	3566.73	-0.27	14.47
		07/28/97		70.69	3566.57	-0.16	14.31
		10/15/97		70.80	3566.46	-0.11	14.20
		01/05/98		71.05	3566.21	-0.25	13.95
		04/16/98		71.27	3565.99	-0.22	13.73
		07/16/98		71.61	3565.65	-0.34	13.39
		10/25/98		71.84	3565.42	-0.23	13.16
		02/10/99		72.02	3565.24	-0.18	12.98
		04/21/99		72.25	3565.01	-0.23	12.75
		07/13/99		72.50	3564.76	-0.25	12.50
MW-3	3638.28	10/25/96	85	72.88	3565.40		12.12
		11/21/96		72.89	3565.39	-0.01	12.11
		01/22/97		73.10	3565.18	-0.21	11.90
		05/21/97		73.40	3564.88	-0.30	11.60
		07/28/97		73.54	3564.74	-0.14	11.46
		10/15/97		73.67	3564.61	-0.13	11.33
		01/05/98		73.92	3564.36	-0.25	11.08
		04/16/98		74.13	3564.15	-0.21	10.87
		07/16/98		74.46	3563.82	-0.33	10.54
		10/25/98		74.74	3563.54	-0.28	10.26
		02/10/99		75.00	3563.28	-0.26	10.00
		04/21/99		75.21	3563.07	-0.21	9.79
		07/13/99		75.50	3562.78	-0.29	9.50
MW-4	3639.20	10/25/96	85	72.41	3566.79		12.59
		11/21/96		72.37	3566.83	0.04	12.63
		01/22/97		72.60	3566.60	-0.23	12.40
		05/21/97		72.87	3566.33	-0.27	12.13
		07/28/97		72.93	3566.27	-0.06	12.07
		10/15/97		73.03	3566.17	-0.10	11.97
		01/05/98		73.24	3565.96	-0.21	11.76
		04/16/98		73.67	3565.53	-0.43	11.33
		07/16/98		73.68	3565.52	-0.01	11.32
		10/25/98		74.21	3564.99	-0.53	10.79
		02/10/99		74.32	3564.88	-0.11	10.68
		04/21/99		74.58	3564.62	-0.26	10.42
		07/13/99		74.87	3564.33	-0.29	10.13
MW-5	3637.70	01/22/97	85	71.90	3565.80		13.10
		05/21/97		72.21	3565.49	-0.31	12.79
		07/28/97		72.36	3565.34	-0.15	12.64
		10/15/97		72.44	3565.26	-0.08	12.56
		01/05/98		72.71	3564.99	-0.27	12.29
		04/16/98		72.92	3564.78	-0.21	12.08
		07/16/98		73.25	3564.45	-0.33	11.75
		10/25/98		73.53	3564.17	-0.28	11.47
		02/10/99		73.77	3563.93	-0.24	11.23
		04/21/99		73.98	3563.72	-0.21	11.02
		07/13/99		74.15	3563.55	-0.17	10.85

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-6	3637.52	01/22/97	85	72.88	3564.64		12.12
		05/21/97		73.22	3564.30	-0.34	11.78
		07/28/97		73.44	3564.08	-0.22	11.56
		10/15/97		73.48	3564.04	-0.04	11.52
		01/05/98		73.72	3563.80	-0.24	11.28
		04/16/98		73.94	3563.58	-0.22	11.06
		07/16/98		74.26	3563.26	-0.32	10.74
		10/25/98		74.55	3562.97	-0.29	10.45
		02/10/99		74.78	3562.74	-0.23	10.22
		04/21/99		75.04	3562.48	-0.26	9.96
		07/13/99		75.22	3562.30	-0.18	9.78
MW-7	3638.62	01/22/97	85	73.31	3565.31		11.69
		05/21/97		73.63	3564.99	-0.32	11.37
		07/28/97		73.80	3564.82	-0.17	11.20
		10/15/97		73.93	3564.69	-0.13	11.07
		01/05/98		74.17	3564.45	-0.24	10.83
		04/16/98		74.39	3564.23	-0.22	10.61
		07/16/98		74.71	3563.91	-0.32	10.29
		10/25/98		74.98	3563.64	-0.27	10.02
		02/10/99		75.22	3563.40	-0.24	9.78
		04/21/99		75.47	3563.15	-0.25	9.53
		07/13/99		75.68	3562.94	-0.21	9.32
MW-8	3638.71	01/22/97	85	72.78	3565.93		12.22
		05/21/97		73.12	3565.59	-0.34	11.88
		07/28/97		73.31	3565.40	-0.19	11.69
		10/15/97		73.44	3565.27	-0.13	11.56
		01/05/98		73.63	3565.08	-0.19	11.37
		04/16/98		74.00	3564.71	-0.37	11.00
		07/16/98		74.21	3564.50	-0.21	10.79
		10/25/98		74.48	3564.23	-0.27	10.52
		02/10/99		74.72	3563.99	-0.24	10.28
		04/21/99		74.95	3563.76	-0.23	10.05
		07/13/99		75.19	3563.52	-0.24	9.81
MW-9	3638.76	01/22/97	85	72.57	3566.19		12.43
		05/21/97		72.89	3565.87	-0.32	12.11
		07/28/97		73.08	3565.68	-0.19	11.92
		10/15/97		73.24	3565.52	-0.16	11.76
		01/05/98		73.47	3565.29	-0.23	11.53
		04/16/98		73.70	3565.06	-0.23	11.30
		07/16/98		73.99	3564.77	-0.29	11.01
		10/25/98		74.27	3564.49	-0.28	10.73
		02/10/99		74.52	3564.24	-0.25	10.48
		04/21/99		74.74	3564.02	-0.22	10.26
		07/13/99		74.98	3563.78	-0.24	10.02
MW-10	3638.86	05/27/97	130.5	73.33	3565.53		57.17
		07/28/97		73.49	3565.37	-0.16	57.01
		10/15/97		73.61	3565.25	-0.12	56.89
		01/05/98		73.83	3565.03	-0.22	56.67
		04/16/98		74.08	3564.78	-0.25	56.42
		07/16/98		74.38	3564.48	-0.30	56.12
		10/25/98		74.64	3564.22	-0.26	55.86
		02/10/99		74.92	3563.94	-0.28	55.58
		04/21/99		75.14	3563.72	-0.22	55.36
		07/13/99		75.31	3563.55	-0.17	55.19

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-11	3638.55	05/26/97	208	70.70	3567.85		137.30
		07/28/97		70.89	3567.66	-0.19	137.11
		10/15/97		70.85	3567.70	0.04	137.15
		01/05/98		71.21	3567.34	-0.36	136.79
		04/16/98		71.45	3567.10	-0.24	136.55
		07/16/98		71.76	3566.79	-0.31	136.24
		10/25/98		71.95	3566.60	-0.19	136.05
		02/10/99		72.22	3566.33	-0.27	135.78
		04/21/99		72.47	3566.08	-0.25	135.53
		07/13/99		72.74	3565.81	-0.27	135.26
MW-12	3636.15	05/26/97	85	68.05	3568.10		16.95
		07/28/97		68.14	3568.01	-0.09	16.86
		10/15/97		68.24	3567.91	-0.10	16.76
		01/05/98		68.52	3567.63	-0.28	16.48
		04/16/98		68.78	3567.37	-0.26	16.22
		07/16/98		69.10	3567.05	-0.32	15.90
		10/25/98		69.26	3566.89	-0.16	15.74
		02/10/99		69.53	3566.62	-0.27	15.47
		04/21/99		69.76	3566.39	-0.23	15.24
		07/13/99		69.95	3566.20	-0.19	15.05
MW-13	3635.39	05/21/97	84	72.31	3563.08		11.69
		07/28/97		72.39	3563.00	-0.08	11.61
		10/15/97		72.63	3562.76	-0.24	11.37
		01/05/98		72.79	3562.60	-0.16	11.21
		04/16/98		72.93	3562.46	-0.14	11.07
		07/16/98		73.32	3562.07	-0.39	10.68
		10/25/98		73.62	3561.77	-0.30	10.38
		02/10/99		73.88	3561.51	-0.26	10.12
		04/21/99		74.11	3561.28	-0.23	9.89
		07/12/99		74.17	3561.22	-0.06	9.83
MW-14	3637.19	05/21/97	85	74.86	3562.33		10.14
		07/28/97		75.06	3562.13	-0.20	9.94
		10/15/97		75.28	3561.91	-0.22	9.72
		01/05/98		75.44	3561.75	-0.16	9.56
		04/16/98		75.61	3561.58	-0.17	9.39
		07/16/98		75.98	3561.21	-0.37	9.02
		10/25/98		76.26	3560.93	-0.28	8.74
		02/10/99		76.57	3560.62	-0.31	8.43
		04/21/99		76.81	3560.38	-0.24	8.19
		07/12/99		77.08	3560.11	-0.27	7.92
MW-15	3636.57	05/21/97	85	72.09	3564.48		12.91
		07/28/97		72.28	3564.29	-0.19	12.72
		10/15/97		72.52	3564.05	-0.24	12.48
		01/05/98		72.70	3563.87	-0.18	12.30
		04/16/98		72.87	3563.70	-0.17	12.13
		07/16/98		73.24	3563.33	-0.37	11.76
		10/25/98		73.47	3563.10	-0.23	11.53
		02/10/99		73.76	3562.81	-0.29	11.24
		04/21/99		74.00	3562.57	-0.24	11.00
		07/12/99		74.27	3562.30	-0.27	10.73

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
Shell Station MW-4	3637.69	05/25/97	82.6	75.97	3561.72		6.63
		07/28/97		76.15	3561.54	-0.18	6.45
		10/15/97		76.26	3561.43	-0.11	6.34
		01/05/98		76.52	3561.17	-0.26	6.08
		04/16/98		76.67	3561.02	-0.15	5.93
		07/16/98		78.03	3559.66	-1.36	4.57
		10/25/98		77.33	3560.36	0.70	5.27
		02/10/99		77.62	3560.07	-0.29	4.98
		04/21/99		77.48	3560.21	0.14	5.12
		07/12/99		78.08	3559.61	-0.60	4.52

Note: Top of casing survey elevations are based on the "City of Hobbs Control Datum" and the North American Vertical Datum

checked OK

Table 2: Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.015
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.008
abandoned														
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007	0.134	0.331
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006	0.135	0.353
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008	0.193	0.648
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)	0.058	0.193
	05/23/97	0.039	ND(0.001)	0.007	0.014	0.057	ND(0.001)	0.009	0.004	0.003	0.005	0.001	0.021	0.117
	06/25/97	0.590	ND(0.002)	0.009	0.027	0.180	ND(0.002)	0.011	0.005	0.007	0.007	*0.001*	0.030	0.806
	07/28/97	0.031	ND(0.002)	0.004	0.011	0.097	ND(0.002)	0.004	*0.001*	*0.001*	*0.001*	ND(0.002)	0.007	0.143
	10/16/97	0.012	ND(0.002)	*0.002*	0.012	0.023	ND(0.002)	0.002	*0.001*	*0.001*	*0.001*	ND(0.002)	0.005	0.049
	01/06/98	0.023	ND(0.002)	0.002	0.007	0.043	ND(0.002)	0.004	*0.002*	*0.001*	*0.001*	ND(0.002)	0.008	0.075
	04/16/98	0.053	ND(0.002)	0.008	0.058	0.130	ND(0.002)	0.010	ND(0.002)	*0.002*	*0.001*	ND(0.002)	0.013	0.249
duplicate	04/16/98	0.058	ND(0.01)	0.008	0.064	0.142	ND(0.01)	0.010	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.010	0.272
	07/17/98	0.006	ND(0.002)	*0.001*	0.034	0.013	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.054
	10/27/98	0.020	ND(0.002)	0.003	0.018	0.011	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.052
	02/10/99	0.018	ND(0.001)	0.003	0.035	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.060
	02/10/99	0.016	ND(0.001)	0.003	0.034	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.002	0.000	0.057
	04/21/99	0.037	ND(0.001)	0.005	0.094	0.007	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.144
	07/13/99	0.011	ND(0.001)	0.002	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.034
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006	0.002	0.049
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	0.000	0.071
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.067
	05/22/97	0.026	0.001	0.015	0.016	0.015	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004	0.002	0.073
	07/28/97	0.033	*0.002*	0.012	0.012	0.008	ND(0.002)	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.005	0.003	0.067
	10/16/97	0.022	ND(0.002)	0.008	0.022	0.011	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.001	0.063
	01/06/98	0.023	ND(0.002)	0.023	0.026	0.031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.103
	04/16/98	0.030	ND(0.002)	0.014	0.025	0.012	0.003	0.003	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.003	0.084
	07/17/98	0.034	ND(0.002)	0.015	0.026	0.013	0.003	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.091
	10/27/98	0.035	ND(0.002)	0.012	0.016	0.005	*0.002*	0.002	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.070
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	4.294
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	5.200
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.902
	01/22/97	0.089	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	4.292
	05/23/97	0.062	0.022	0.423	1.720	0.550	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.777
	06/25/97	0.047	*0.017*	0.175	1.250	0.349	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.838
	06/25/97	0.044	*0.017*	0.167	1.190	0.332	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.750
	07/28/97	0.037	*0.015*	0.124	1.060	0.267	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.503
	10/16/97	0.031	*0.011*	0.103	1.170	0.225	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.540
	01/06/98	0.021	ND(0.02)	0.087	0.970	0.148	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	0.024	0.000	1.226
	01/06/98	0.021	*0.006*	0.077	0.907	0.138	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.019	0.000	1.149
	04/16/98	*0.019*	ND(0.05)	0.116	0.651	0.114	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	0.900
	07/17/98	0.031	ND(0.01)	0.206	1.120	0.194	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.551
duplicate	07/17/98	0.031	ND(0.02)	0.240	0.843	0.216	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.330
	10/27/98	*0.031*	ND(0.05)	0.201	1.080	0.209	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	1.521
	02/10/99	0.019	ND(0.01)	0.118	0.511	0.090	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.738
	04/21/99	0.031	ND(0.01)	0.151	0.875	0.166	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.223
	07/13/99	0.014	ND(0.01)	0.081	0.386	0.058	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.539
duplicate	07/13/99	0.015	0.004	0.084	0.350	0.055	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.508

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	*0.001*	0.018	0.004	ND(0.001)	*0.001*	ND(0.001)	0.023	0.251
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	*0.001*	0.018	0.004	ND(0.001)	0.001	0.004	0.023	0.254
	05/23/97	0.191	0.003	0.055	0.079	0.059	*0.002*	0.029	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.029	0.389
	07/28/97	0.241	0.004	0.072	0.058	0.051	0.002	0.051	0.023	ND(0.002)	0.007	0.009	0.081	0.428
duplicate	07/28/97	0.258	*0.004*	0.069	0.052	0.050	ND(0.005)	0.052	0.023	ND(0.005)	*0.007*	0.011	0.082	0.433
	10/16/97	0.214	*0.004*	0.066	0.070	0.039	ND(0.01)	0.059	0.027	ND(0.01)	0.008	0.011	0.094	0.393
	01/06/98	0.215	*0.004*	0.060	0.055	0.029	ND(0.01)	0.048	0.016	ND(0.01)	*0.006*	*0.005*	0.070	0.363
	04/16/98	0.136	*0.002*	0.033	0.031	0.008	ND(0.005)	0.034	0.011	ND(0.005)	ND(0.01)	0.009	0.045	0.210
	07/17/98	0.106	*0.002*	0.023	0.029	0.007	0.002	0.025	0.007	ND(0.002)	*0.001*	*0.005*	0.033	0.169
	10/27/98	0.080	ND(0.01)	0.042	0.033	0.016	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.171
duplicate	10/27/98	0.053	ND(0.002)	0.011	0.011	0.002	ND(0.002)	0.011	0.002	ND(0.002)	ND(0.004)	0.002	0.013	0.077
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	*0.001*	0.001	0.053
	05/22/97	0.085	0.002	0.034	0.023	0.017	*0.002*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.004	0.163
	07/28/97	0.081	*0.002*	0.027	0.021	0.008	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.004	0.003	0.141
	10/16/97	0.082	*0.002*	0.025	0.019	0.006	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.136
	01/06/98	0.113	*0.003*	0.038	0.024	0.012	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.192
	04/16/98	0.088	0.003	0.027	0.017	0.008	*0.002*	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.002	0.145
	07/17/98	0.091	0.004	0.051	0.032	0.022	0.002	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.202
	10/26/98	0.055	ND(0.01)	0.011	0.011	ND(0.01)	ND(0.01)	0.011	*0.002*	ND(0.01)	ND(0.02)	*0.002*	0.013	0.077
	02/10/99	0.113	0.005	0.056	0.039	0.016	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.232
	04/21/99	0.133	0.006	0.061	0.047	0.023	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.273
	07/13/99	0.108	0.004	0.068	0.062	0.021	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.263
MW-7	01/23/97	0.047	*0.001*	0.009	0.014	ND(0.001)	0.004	*0.001*	ND(0.001)	ND(0.001)	0.001	0.013	0.002	0.075
	05/22/97	0.087	*0.002*	0.066	0.116	*0.002*	0.014	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.062	0.003	0.287
	07/28/97	0.073	*0.002*	0.061	0.110	ND(0.002)	0.021	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.055	0.004	0.267
	10/16/97	0.065	ND(0.005)	0.050	0.091	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.058	0.003	0.224
	01/06/98	0.076	ND(0.005)	0.054	0.111	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.048	0.003	0.259
	04/16/98	0.055	ND(0.005)	0.035	0.078	ND(0.005)	0.020	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.040	0.003	0.188
	07/17/98	0.065	ND(0.005)	0.038	0.073	ND(0.005)	0.024	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.010	0.003	0.200
	10/26/98	0.047	ND(0.005)	0.030	0.073	ND(0.005)	0.019	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	0.014	0.000	0.169
	02/10/99	0.050	ND(0.001)	0.032	0.066	0.002	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.006	0.002	0.164
	04/21/99	0.047	ND(0.001)	0.029	0.071	0.002	0.011	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.160
	07/13/99	0.034	ND(0.001)	0.027	0.066	ND(0.001)	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.134
MW-8	01/23/97	0.068	*0.005*	0.280	0.810	0.460	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.623
	05/23/97	0.082	ND(0.01)	1.360	4.150	0.805	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	6.397
	06/25/97	0.077	ND(0.02)	0.975	3.600	0.774	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.426
	07/28/97	ND(0.1)	ND(0.1)	1.120	4.520	0.798	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	6.438
	10/16/97	ND(0.2)	ND(0.2)	0.858	4.570	0.596	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	6.024
	01/06/98	ND(0.2)	ND(0.2)	1.230	4.650	0.798	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.166*	0.000	6.678
	04/16/98	ND(0.2)	ND(0.2)	1.050	4.620	0.658	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.142*	0.000	6.328
	07/17/98	ND(0.2)	ND(0.2)	1.200	5.090	0.740	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	7.030
	10/27/98	*0.060*	ND(0.2)	0.780	4.160	0.522	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	5.522
	02/10/99	0.083	ND(0.025)	0.936	3.870	0.569	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.458
	04/21/99	0.080	ND(0.025)	0.808	3.900	0.600	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.388
	07/13/99	0.058	ND(0.025)	0.634	2.970	0.341	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.003
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.209
	05/23/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.045
	06/25/97	0.033	ND(0.02)	0.326	1.130	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.489
	07/28/97	0.021	ND(0.02)	0.278	1.020	0.121	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.440
	10/16/97	*0.019*	ND(0.02)	0.278	1.160	0.104	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.561
duplicate	10/16/97	0.023	ND(0.02)	0.321	1.160	0.141	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.645

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-9 Cont.	01/06/98	*0.033*	ND(0.1)	0.502	1.350	0.174	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.059
	04/16/98	*0.029*	ND(0.05)	0.444	1.290	0.144	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.1)	ND(0.05)	0.000	1.907
	07/17/98	*0.042*	ND(0.1)	0.690	1.770	0.242	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.744
	10/27/98	*0.030*	ND(0.1)	0.507	1.740	0.193	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.470
	02/10/99	0.031	ND(0.01)	0.487	1.400	0.159	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.077
	04/21/99	0.026	ND(0.01)	0.368	1.320	0.161	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.875
	07/13/99	0.021	ND(0.01)	0.353	1.100	0.110	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.584
MW-10	05/26/97	0.004	ND(0.002)	0.007	0.026	ND(0.002)	*0.001*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.004	0.038
duplicate	05/26/97	ND(0.002)	ND(0.002)	0.008	0.028	ND(0.002)	*0.001*	0.007	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.007	0.037
	07/28/97	0.003	ND(0.002)	0.009	0.014	*0.002*	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.028
	10/16/97	ND(0.002)	ND(0.002)	*0.002*	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	01/06/98	ND(0.002)	ND(0.002)	*0.002*	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	04/16/98	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.002
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.003	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.003	0.002
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
duplicate	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
MW-11	05/24/97	*0.001*	ND(0.001)	*0.007*	0.002	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.010
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.003	*0.001*	ND(0.001)	0.006	ND(0.001)	0.010	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	*0.001*	ND(0.001)	*0.003*	ND(0.001)	0.006	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.003*	ND(0.002)	0.005	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	*0.002*	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.004	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.000
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.000
MW-12	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	*0.006*	*0.005*	*0.003*	ND(0.001)	0.014	0.001
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.001
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
MW-13	05/24/97	ND(0.001)	ND(0.001)	0.012	0.010	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.023
	07/28/97	ND(0.001)	ND(0.001)	0.012	0.009	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.022
	10/16/97	ND(0.001)	ND(0.001)	0.015	0.013	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
duplicate	10/16/97	ND(0.002)	ND(0.002)	0.011	0.013	*0.001*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.025
	01/06/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
	04/16/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
duplicate	04/16/98	ND(0.001)	ND(0.001)	0.016	0.010	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
	07/17/98	ND(0.002)	ND(0.002)	0.019	0.016	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.037
	10/26/98	ND(0.002)	ND(0.002)	0.019	0.020	0.002	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.041
	02/10/99	*0.001*	ND(0.001)	0.016	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.033
	04/21/99	ND(0.001)	ND(0.001)	0.017	0.018	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.037
	07/12/99	ND(0.001)	ND(0.001)	0.012	0.012	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.025
MW-14	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-14 Cont.	10/26/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	02/10/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	<0.001	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	04/21/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
duplicate	04/21/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/12/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
MW-15	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/26/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	02/10/99	ND(0.0005)	ND(0.0005)	<0.001	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	02/10/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	04/21/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	07/12/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
*SO4	05/25/97	0.021	ND(0.01)	0.024	ND(0.01)	*0.005*	ND(0.01)	ND(0.01)	0.469	0.470	1.936	0.107	2.875	0.050
	07/28/97	0.020	ND(0.02)	0.020	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.411	0.138	0.905	0.125	1.454	0.040
	10/16/97	*0.018*	ND(0.02)	0.022	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.322	0.039	0.713	0.102	1.074	0.040
	01/06/98	0.051	ND(0.002)	0.075	0.004	0.014	ND(0.002)	0.002	0.042	*0.001*	0.019	0.024	0.064	0.144
	04/16/98	0.049	ND(0.005)	0.087	0.005	0.015	ND(0.005)	*0.002*	0.008	ND(0.005)	ND(0.01)	0.024	0.010	0.156
	07/17/98	0.038	ND(0.005)	0.075	0.005	0.015	ND(0.005)	ND(0.005)	0.016	ND(0.005)	ND(0.01)	0.026	0.016	0.133
	10/26/98	0.010	ND(0.002)	0.024	*0.002*	0.005	ND(0.002)	ND(0.002)	0.003	ND(0.002)	ND(0.004)	0.004	0.003	0.041
	02/10/99	0.025	ND(0.001)	0.079	0.005	0.016	ND(0.001)	*0.001*	0.013	ND(0.001)	ND(0.002)	0.013	0.014	0.125
	04/21/99	0.025	ND(0.001)	0.089	0.006	0.026	ND(0.001)	ND(0.001)	0.006	ND(0.001)	ND(0.002)	0.004	0.006	0.146
	07/12/99	0.021	ND(0.0025)	0.096	0.008	0.021	ND(0.0025)	ND(0.0025)	0.003	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.146

Notes.

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parentheses.
italicized value - is below the method detection limit
< - analyte detected above the method detection limit but table is reported only to 1 part per billion
*SO4 = Shell Service Station monitoring well MW-4
1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethane
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Project:	93007.6	Time Sampled:	07:45
Sample ID:	93007-2.7/99 MW-2	Date Received:	07-16-99
Laboratory ID:	99-35481	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**1.68**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**10.9**	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**20.5**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Sample ID:	93007-2.7/99	Date Analyzed:	07-17-99
Laboratory ID:	99-35481	Date Reported:	July 26, 1999

MW-2

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1561702	1573170	99.3%	50 - 200 %
Fluorobenzene	2406091	2415965	99.6%	50 - 200 %
1,4 - Difluorobenzene	2349794	2388750	98.4%	50 - 200 %
Chlorobenzene - d5	1628520	1675772	97.2%	50 - 200 %
1,4 - Dichlorobenzene - d4	612139	642008	95.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.26	92.6%	86 - 118 %
Toluene - d8	9.90	99.0%	88 - 110 %
4 - Bromofluorobenzene	9.52	95.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.99	99.9%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	07-13-99
Project:	93007.6	Time Sampled:	09:00
Sample ID:	93007-4.7/99 MW-4	Date Received:	07-16-99
Laboratory ID:	99-35482	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	20		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**81.2**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**14.4**	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	ND	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**58.2**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**386**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Sample ID:	93007-4.7/99 MW-DX	Date Analyzed:	07-17-99
Laboratory ID:	99-35482	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1500381	1573170	95.4%	50 - 200 %
Fluorobenzene	2281864	2415965	94.4%	50 - 200 %
1,4 - Difluorobenzene	2231369	2388750	93.4%	50 - 200 %
Chlorobenzene - d5	1550476	1675772	92.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	575763	642008	89.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.24	92.4%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	9.46	94.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.92	99.2%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	07-13-99
Project:	93007.6	Time Sampled:	10:30
Sample ID:	93007-A.7/99	Date Received:	07-16-99
Laboratory ID:	99-35492	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	2		

Duplicate of MW-4

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**84.0**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**15.3**	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	**Chloroform (Trichloromethane)**	**6.26**	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**55.0**	1.0
107-06-2	**1,2 - Dichloroethane**	**3.96**	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**350**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Sample ID:	93007-A.7/99	Date Analyzed:	07-17-99
Laboratory ID:	99-35492	Date Reported:	July 26, 1999

Duplicate of MW-4

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1462987	1573170	93.0%	50 - 200 %
Fluorobenzene	2238714	2415965	92.7%	50 - 200 %
1,4 - Difluorobenzene	2213232	2388750	92.7%	50 - 200 %
Chlorobenzene - d5	1581456	1675772	94.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	598470	642008	93.2%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.95	99.5%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.71	97.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.85	98.5%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Project:	93007.6	Time Sampled:	08:15
Sample ID:	93007-6.7/99	Date Received:	07-16-99
Laboratory ID:	99-35483	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	5		

MW-6

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	**1,1 - Dichloroethene**	**67.9**	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	**1,1 - Dichloroethane**	**108**	2.5
78-93-3	2 -Butanone (MEK)	ND	50
156-59-2	cis - 1,2 - Dichloroethene	ND	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	**Chloroform (Trichloromethane)**	**9.90**	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	**1,1,1 - Trichloroethane**	**21.2**	2.5
107-06-2	**1,2 - Dichloroethane**	**4.10**	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	**Benzene**	**2.75**	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	**Tetrachloroethene**	**62.3**	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Sample ID:	93007-6.7/99	Date Analyzed:	07-17-99
Laboratory ID:	99-35483	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1537042	1573170	97.7%	50 - 200 %
Fluorobenzene	2354032	2415965	97.4%	50 - 200 %
1,4 - Difluorobenzene	2329720	2388750	97.5%	50 - 200 %
Chlorobenzene - d5	1616439	1675772	96.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	609935	642008	95.0%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.38	93.8%	86 - 118 %
Toluene - d8	9.92	99.2%	88 - 110 %
4 - Bromofluorobenzene	9.48	94.8%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.93	99.3%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Project:	93007.6	Time Sampled:	08:40
Sample ID:	93007-7.7/99	Date Received:	07-16-99
Laboratory ID:	99-35484	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**27.2**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**33.5**	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	**cis - 1,2 - Dichloroethene**	**1.08**	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	**Trichloroethene**	**6.62**	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**65.8**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Sample ID:	93007-7.7/99 MW-7	Date Analyzed:	07-17-99
Laboratory ID:	99-35484	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1517336	1573170	96.5%	50 - 200 %
Fluorobenzene	2369159	2415965	98.1%	50 - 200 %
1,4 - Difluorobenzene	2243898	2388750	93.9%	50 - 200 %
Chlorobenzene - d5	1574698	1675772	94.0%	50 - 200 %
1,4 - Dichlorobenzene - d4	588355	642008	91.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.40	94.0%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.52	95.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.97	99.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Project:	93007.6	Time Sampled:	10:00
Sample ID:	93007-8.7/99	Date Received:	07-16-99
Laboratory ID:	99-35485	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	50		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	25.0
74-87-3	Chloromethane	ND	25.0
75-01-4	Vinyl chloride (Chloroethene)	ND	25.0
74-83-9	Bromomethane	ND	25.0
75-00-3	Chloroethane	ND	25.0
75-69-4	Trichlorofluoromethane	ND	25.0
75-35-4	**1,1 - Dichloroethene**	**634**	25.0
75-09-2	Methylene chloride (Dichloromethane)	ND	25.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	25.0
75-34-3	**1,1 - Dichloroethane**	**58.0**	25.0
78-93-3	2 -Butanone (MEK)	ND	500
156-59-2	cis - 1,2 - Dichloroethene	ND	25.0
74-97-5	Bromochloromethane	ND	25.0
67-66-3	Chloroform (Trichloromethane)	ND	25.0
594-20-7	2,2 - Dichloropropane	ND	25.0
71-55-6	**1,1,1 - Trichloroethane**	**341**	25.0
107-06-2	1,2 - Dichloroethane	ND	25.0
563-58-6	1,1 - Dichloropropene	ND	25.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	25.0
71-43-2	Benzene	ND	25.0
74-95-3	Dibromomethane	ND	25.0
78-87-5	1,2 - Dichloropropane	ND	25.0
79-01-6	Trichloroethene	ND	25.0
75-27-4	Bromodichloromethane	ND	25.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	25.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	25.0
79-00-5	1,1,2 - Trichloroethane	ND	25.0
108-88-3	Toluene	ND	25.0
106-93-4	1,2 - Dibromoethane	ND	25.0
142-28-9	1,3 - Dichloropropane	ND	25.0
124-48-1	Dibromochloromethane	ND	25.0
127-18-4	**Tetrachloroethene**	**2,970**	25.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	25.0
108-90-7	Chlorobenzene	ND	25.0
100-41-4	Ethylbenzene	ND	25.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	50.0
75-25-2	Bromoform (Tribromomethane)	ND	25.0
100-42-5	Styrene (Ethenylbenzene)	ND	25.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	25.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	25.0
96-18-4	1,2,3 - Trichloropropane	ND	25.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Sample ID:	93007-8.7/99 MW-5	Date Analyzed:	07-17-99
Laboratory ID:	99-35485	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	25.0
108-86-1	Bromobenzene	ND	25.0
103-65-1	n - Propylbenzene	ND	25.0
95-49-8	2 - Chlorotoluene	ND	25.0
106-43-4	4 - Chlorotoluene	ND	25.0
108-67-8	1,3,5 - Trimethylbenzene	ND	25.0
98-06-6	tert - Butylbenzene	ND	25.0
95-63-6	1,2,4 - Trimethylbenzene	ND	25.0
135-98-8	sec - Butylbenzene	ND	25.0
541-73-1	1,3 - Dichlorobenzene	ND	25.0
106-46-7	1,4 - Dichlorobenzene	ND	25.0
99-87-6	4-Isopropyltoluene	ND	25.0
95-50-1	1,2 - Dichlorobenzene	ND	25.0
104-51-8	n - Butylbenzene	ND	25.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	125
120-82-1	1,2,4 - Trichlorobenzene	ND	25.0
91-20-3	Naphthalene	ND	25.0
87-68-3	Hexachlorobutadiene	ND	25.0
87-61-6	1,2 3 - Trichlorobenzene	ND	25.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1562786	1573170	99.3%	50 - 200 %
Fluorobenzene	2471439	2415965	102%	50 - 200 %
1,4 - Difluorobenzene	2348660	2388750	98.3%	50 - 200 %
Chlorobenzene - d5	1623140	1675772	96.9%	50 - 200 %
1,4 - Dichlorobenzene - d4	600650	642008	93.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.28	92.8%	86 - 118 %
Toluene - d8	9.90	99.0%	88 - 110 %
4 - Bromofluorobenzene	9.50	95.0%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Project:	93007.6	Time Sampled:	09:30
Sample ID:	93007-9.7/99	Date Received:	07-16-99
Laboratory ID:	99-35486	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	20		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**353**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**20.6**	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	ND	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**110**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**1,100**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-13-99
Sample ID:	93007-9.7/99 MW-9	Date Analyzed:	07-17-99
Laboratory ID:	99-35486	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1402860	1573170	89.2%	50 - 200 %
Fluorobenzene	2158767	2415965	89.4%	50 - 200 %
1,4 - Difluorobenzene	2157004	2388750	90.3%	50 - 200 %
Chlorobenzene - d5	1500781	1675772	89.6%	50 - 200 %
1,4 - Dichlorobenzene - d4	552838	642008	86.1%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.68	96.8%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	9.47	94.7%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.98	99.8%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-12-99
Project:	93007.6	Time Sampled:	18:05
Sample ID:	93007-13.7/99 MW-13	Date Received:	07-16-99
Laboratory ID:	99-35487	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**12.4**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**1.18**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**11.6**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-12-99
Sample ID:	93007-13.7/99 MW-13	Date Analyzed:	07-17-99
Laboratory ID:	99-35487	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1453112	1573170	92.4%	50 - 200 %
Fluorobenzene	2185280	2415965	90.5%	50 - 200 %
1,4 - Difluorobenzene	2152506	2388750	90.1%	50 - 200 %
Chlorobenzene - d5	1519434	1675772	90.7%	50 - 200 %
1,4 - Dichlorobenzene - d4	562797	642008	87.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.43	94.3%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.40	94.0%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-12-99
Project:	93007.6	Time Sampled:	08:50
Sample ID:	93007-14.7/99	Date Received:	07-16-99
Laboratory ID:	99-35488	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-12-99
Sample ID:	93007-14.7/99 MW-14	Date Analyzed:	07-17-99
Laboratory ID:	99-35488	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	**AREA**	**ICAL / CCAL AREA**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Pentafluorobenzene	1510186	1573170	96.0%	50 - 200 %
Fluorobenzene	2296972	2415965	95.1%	50 - 200 %
1,4 - Difluorobenzene	2245697	2388750	94.0%	50 - 200 %
Chlorobenzene - d5	1578407	1675772	94.2%	50 - 200 %
1,4 - Dichlorobenzene - d4	586453	642008	91.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	**CONCENTRATION**	**PERCENT RECOVERY**	**ACCEPTANCE RANGE**
Dibromofluoromethane	9.32	93.2%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.43	94.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-12-99
Project:	93007.6	Time Sampled:	09:25
Sample ID:	93007-15.7/99	Date Received:	07-16-99
Laboratory ID:	99-35489	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	2		

MW-15

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants** MW-15	Date Sampled:	07-12-99
Sample ID:	93007-15.7/99	Date Analyzed:	07-17-99
Laboratory ID:	99-35489	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1488321	1573170	94.6%	50 - 200 %
Fluorobenzene	2266098	2415965	93.8%	50 - 200 %
1,4 - Difluorobenzene	2243614	2388750	93.9%	50 - 200 %
Chlorobenzene - d5	1560062	1675772	93.1%	50 - 200 %
1,4 - Dichlorobenzene - d4	583178	642008	90.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.37	93.7%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.51	95.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	07-12-99
Project:	93007.6	Time Sampled:	10:05
Sample ID:	93007-SO4.7/99	Date Received:	07-16-99
Laboratory ID:	99-35490	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	5		

Shell Station Well (MW-4)

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	**1,1 - Dichloroethene**	**96.2**	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	**1,1 - Dichloroethane**	**20.9**	2.5
78-93-3	2 -Butanone (MEK)	ND	50
156-59-2	cis - 1,2 - Dichloroethene	ND	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	Chloroform (Trichloromethane)	ND	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	**1,1,1 - Trichloroethane**	**20.6**	2.5
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	**Tetrachloroethene**	**8.20**	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	**Ethylbenzene**	**2.80**	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	07-12-99
Sample ID:	93007-SO4.7/99	Date Analyzed:	07-17-99
Laboratory ID:	99-35490	Date Reported:	July 26, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1391519	1573170	88.5%	50 - 200 %
Fluorobenzene	2226226	2415965	92.1%	50 - 200 %
1,4 - Difluorobenzene	2192664	2388750	91.8%	50 - 200 %
Chlorobenzene - d5	1483666	1675772	88.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	549986	642008	85.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.87	98.7%	86 - 118 %
Toluene - d8	9.70	97.0%	88 - 110 %
4 - Bromofluorobenzene	9.43	94.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	07-09-99
Project:	93007.6	Time Sampled:	16:10
Sample ID:	TRIP BLANK	Date Received:	07-16-99
Laboratory ID:	99-35493	Date Analyzed:	07-17-99
Matrix:	Water	Date Reported:	July 26, 1999
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07-09-99
Sample ID:	TRIP BLANK	Date Analyzed:	07-17-99
Laboratory ID:	99-35493	Date Reported:	July 26, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1370387	1573170	87.1%	50 - 200 %
Fluorobenzene	2191804	2415965	90.7%	50 - 200 %
1,4 - Difluorobenzene	2177403	2388750	91.2%	50 - 200 %
Chlorobenzene - d5	1650726	1675772	98.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	629896	642008	98.1%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.5	105%	86 - 118 %
Toluene - d8	10.5	105%	88 - 110 %
4 - Bromofluorobenzene	9.93	99.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.86	98.6%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_35481_8260_w.xls

Analyst: wen
Reviewed: sec

Schlumberger Oilfield Services

Oilfield Services Shared Resources
P.O. Box 2727, Houston, Texas 77252-2727
(713) 275-8700

Via Fedex

September 8, 1998

Mr. Jack Ford
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Third Quarter Ground-water Monitoring Results for the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico.

Dear Mr. Ford:

Enclosed are the results of the third quarter ground-water monitoring event for the Dowell, a division of Schlumberger Technology Corporation facility in Hobbs, New Mexico. Included in the report are a site, potentiometric surface, and isoconcentration maps (1, 2, and 3), water quality and static water level data (Tables 1 and 2), and laboratory data reports.

The fourth quarter ground-water monitoring event is tentatively scheduled for October, 1998. If you have any questions concerning these results, please feel free to contact me at (281) 285-8498.

Sincerely,

John A. Miller

cc: WWC

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:15
Sample ID:	93007-2.7/98 MW-2	Date Received:	07/21/98
Laboratory ID:	C98-45020	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**1.30**	**J**	2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**6.20**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	Chloroform (Trichloromethane)	ND		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**13.2**		2.0
107-06-2	1,2 - Dichloroethane	ND		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**0.84**	**J**	2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	Trichloroethene	ND		2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**34.4**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-2.7/98 MW-2
Laboratory ID: C98-45020

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2109415	2109040	100%	50 - 200 %
Fluorobenzene	3839294	3955299	97.1%	50 - 200 %
1,4 - Difluorobenzene	3244866	3210665	101%	50 - 200 %
Chlorobenzene - d5	2468020	2425222	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	1031502	997468	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.2	102%	86 - 118 %
Toluene - d8	9.95	99.5%	88 - 110 %
4 - Bromofluorobenzene	10.6	106%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:35
Sample ID:	93007-3.7/98 MW-3	Date Received:	07/21/98
Laboratory ID:	C98-45021	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	2		

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**15.1**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**33.8**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	**cis - 1,2 - Dichloroethene**	**1.26**	J	2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	**Chloroform (Trichloromethane)**	**2.22**		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**13.2**		2.0
107-06-2	1,2 - Dichloroethane	ND		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**1.94**	J	2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**2.88**		2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**26.2**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-3.7/98
Laboratory ID: C98-45021 MW-3

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2068075	2109040	98.1%	50 - 200 %
Fluorobenzene	3860256	3955299	97.6%	50 - 200 %
1,4 - Difluorobenzene	3275499	3210665	102%	50 - 200 %
Chlorobenzene - d5	2474372	2425222	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	1049829	997468	105%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.5	105%	86 - 118 %
Toluene - d8	9.88	98.8%	88 - 110 %
4 - Bromofluorobenzene	10.8	108%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	09:05
Sample ID:	93007-4.7/98 MW-4	Date Received:	07/21/98
Laboratory ID:	C98-45022	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	10		

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**206**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**30.6**	10.0
78-93-3	2 -Butanone (MEK)	ND	100
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	**Chloroform (Trichloromethane)**	**14.2**	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**194**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**1,120**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-4.7/98 MW-4
Laboratory ID: C98-45022

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1980262	2109040	93.9%	50 - 200 %
Fluorobenzene	3705551	3955299	93.7%	50 - 200 %
1,4 - Difluorobenzene	3180219	3210665	99.1%	50 - 200 %
Chlorobenzene - d5	2412572	2425222	99.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	1002477	997468	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.9	109%	86 - 118 %
Toluene - d8	9.93	99.3%	88 - 110 %
4 - Bromofluorobenzene	10.8	108%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.4	104%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	09:10
Sample ID:	93007-A.7/98	Date Received:	07/21/98
Laboratory ID:	C98-45035	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	20		

Duplicate of MW-4

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		20.0
74-87-3	Chloromethane	ND		20.0
75-01-4	Vinyl chloride (Chloroethene)	ND		20.0
74-83-9	Bromomethane	ND		20.0
75-00-3	Chloroethane	ND		20.0
75-69-4	Trichlorofluoromethane	ND		20.0
75-35-4	**1,1 - Dichloroethene**	**240**		20.0
75-09-2	Methylene chloride (Dichloromethane)	ND		20.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		20.0
75-34-3	**1,1 - Dichloroethane**	**31.2**		20.0
78-93-3	2 -Butanone (MEK)	ND		200
156-59-2	cis - 1,2 - Dichloroethene	ND		20.0
74-97-5	Bromochloromethane	ND		20.0
67-66-3	**Chloroform (Trichloromethane)**	**14.2**	J	20.0
594-20-7	2,2 - Dichloropropane	ND		20.0
71-55-6	**1,1,1 - Trichloroethane**	**216**		20.0
107-06-2	1,2 - Dichloroethane	ND		20.0
563-58-6	1,1 - Dichloropropene	ND		20.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		20.0
71-43-2	Benzene	ND		20.0
74-95-3	Dibromomethane	ND		20.0
78-87-5	1,2 - Dichloropropane	ND		20.0
79-01-6	Trichloroethene	ND		20.0
75-27-4	Bromodichloromethane	ND		20.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		20.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		20.0
79-00-5	1,1,2 - Trichloroethane	ND		20.0
108-88-3	Toluene	ND		20.0
106-93-4	1,2 - Dibromoethane	ND		20.0
142-28-9	1,3 - Dichloropropane	ND		20.0
124-48-1	Dibromochloromethane	ND		20.0
127-18-4	**Tetrachloroethene**	**843**		20.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		20.0
108-90-7	Chlorobenzene	ND		20.0
100-41-4	Ethylbenzene	ND		20.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		40.0
75-25-2	Bromoform (Tribromomethane)	ND		20.0
100-42-5	Styrene (Ethenylbenzene)	ND		20.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		20.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		20.0
96-18-4	1,2,3 - Trichloropropane	ND		20.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants** Duplicate of MW-4
Sample ID: 93007-A.7/98
Laboratory ID: C98-45035

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	20.0
108-86-1	Bromobenzene	ND	20.0
103-65-1	n - Propylbenzene	ND	20.0
95-49-8	2 - Chlorotoluene	ND	20.0
106-43-4	4 - Chlorotoluene	ND	20.0
108-67-8	1,3,5 - Trimethylbenzene	ND	20.0
98-06-6	tert - Butylbenzene	ND	20.0
95-63-6	1,2,4 - Trimethylbenzene	ND	20.0
135-98-8	sec - Butylbenzene	ND	20.0
541-73-1	1,3 - Dichlorobenzene	ND	20.0
106-46-7	1,4 - Dichlorobenzene	ND	20.0
99-87-6	4-Isopropyltoluene	ND	20.0
95-50-1	1,2 - Dichlorobenzene	ND	20.0
104-51-8	n - Butylbenzene	ND	20.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	100
120-82-1	1,2,4 - Trichlorobenzene	ND	20.0
91-20-3	Naphthalene	ND	20.0
87-68-3	Hexachlorobutadiene	ND	20.0
87-61-6	1,2 3 - Trichlorobenzene	ND	20.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2111797	2109040	100%	50 - 200 %
Fluorobenzene	3950731	3955299	99.9%	50 - 200 %
1,4 - Difluorobenzene	3287016	3210665	102%	50 - 200 %
Chlorobenzene - d5	2335867	2425222	96.3%	50 - 200 %
1,4 - Dichlorobenzene - d4	951199	997468	95.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.97	99.7%	86 - 118 %
Toluene - d8	9.78	97.8%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw
Reviewed: sec

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:20
Sample ID:	93007-5.7/98 MW-5	Date Received:	07/21/98
Laboratory ID:	C98-45023	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**22.6**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**106**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	Chloroform (Trichloromethane)	ND		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**7.20**		2.0
107-06-2	**1,2 - Dichloroethane**	**1.80**	J	2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**24.7**		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**2.00**		2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**28.9**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	**Ethylbenzene**	**7.42**		2.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**1.34**	J	4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Sample ID:	93007-5.7/98 MW-5	Date Analyzed:	07/27/98
Laboratory ID:	C98-45023	Date Reported:	August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		2.0
108-86-1	Bromobenzene	ND		2.0
103-65-1	n - Propylbenzene	ND		2.0
95-49-8	2 - Chlorotoluene	ND		2.0
106-43-4	4 - Chlorotoluene	ND		2.0
108-67-8	1,3,5 - Trimethylbenzene	ND		2.0
98-06-6	tert - Butylbenzene	ND		2.0
95-63-6	**1,2,4 - Trimethylbenzene**	**5.20**		2.0
135-98-8	sec - Butylbenzene	ND		2.0
541-73-1	1,3 - Dichlorobenzene	ND		2.0
106-46-7	1,4 - Dichlorobenzene	ND		2.0
99-87-6	4-Isopropyltoluene	ND		2.0
95-50-1	1,2 - Dichlorobenzene	ND		2.0
104-51-8	n - Butylbenzene	ND		2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		10.0
120-82-1	1,2,4 - Trichlorobenzene	ND		2.0
91-20-3	**Naphthalene**	**4.50**	J	2.0
87-68-3	Hexachlorobutadiene	ND		2.0
87-61-6	1,2 3 - Trichlorobenzene	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2083242	2109040	98.8%	50 - 200 %
Fluorobenzene	3987773	3955299	101%	50 - 200 %
1,4 - Difluorobenzene	3190894	3210665	99.4%	50 - 200 %
Chlorobenzene - d5	2445725	2425222	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	1026519	997468	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.98	99.8%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	10.5	105%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:25
Sample ID:	93007-6.7/98 mw-6	Date Received:	07/21/98
Laboratory ID:	C98-45024	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	**Chloromethane**	**1.04**	J	2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**51.2**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**91.2**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	**cis - 1,2 - Dichloroethene**	**5.58**		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	**Chloroform (Trichloromethane)**	**8.24**		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**21.8**		2.0
107-06-2	**1,2 - Dichloroethane**	**3.86**		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**1.88**	J	2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**2.20**		2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	**1,1,2 - Trichloroethane**	**2.48**		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**31.9**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-6.7/98
Laboratory ID: C98-45024

MW-6

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1964245	2109040	93.1%	50 - 200 %
Fluorobenzene	3755215	3955299	94.9%	50 - 200 %
1,4 - Difluorobenzene	3217095	3210665	100%	50 - 200 %
Chlorobenzene - d5	2439508	2425222	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	1014846	997468	102%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.2	112%	86 - 118 %
Toluene - d8	9.86	98.6%	88 - 110 %
4 - Bromofluorobenzene	10.8	108%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:40
Sample ID:	93007-7.7/98 mw-7	Date Received:	07/21/98
Laboratory ID:	C98-45025	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	5		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND		5.0
74-87-3	Chloromethane	ND		5.0
75-01-4	Vinyl chloride (Chloroethene)	ND		5.0
74-83-9	Bromomethane	ND		5.0
75-00-3	Chloroethane	ND		5.0
75-69-4	Trichlorofluoromethane	ND		5.0
75-35-4	**1,1 - Dichloroethene**	**38.4**		5.0
75-09-2	Methylene chloride (Dichloromethane)	ND		5.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		5.0
75-34-3	**1,1 - Dichloroethane**	**64.7**		5.0
78-93-3	2 -Butanone (MEK)	ND		50.0
156-59-2	cis - 1,2 - Dichloroethene	ND		5.0
74-97-5	Bromochloromethane	ND		5.0
67-66-3	Chloroform (Trichloromethane)	ND		5.0
594-20-7	2,2 - Dichloropropane	ND		5.0
71-55-6	1,1,1 - Trichloroethane	ND		5.0
107-06-2	1,2 - Dichloroethane	ND		5.0
563-58-6	1,1 - Dichloropropene	ND		5.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		5.0
71-43-2	**Benzene**	**3.15**	J	5.0
74-95-3	Dibromomethane	ND		5.0
78-87-5	1,2 - Dichloropropane	ND		5.0
79-01-6	**Trichloroethene**	**23.9**		5.0
75-27-4	Bromodichloromethane	ND		5.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		5.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		5.0
79-00-5	1,1,2 - Trichloroethane	ND		5.0
108-88-3	Toluene	ND		5.0
106-93-4	1,2 - Dibromoethane	ND		5.0
142-28-9	1,3 - Dichloropropane	ND		5.0
124-48-1	Dibromochloromethane	ND		5.0
127-18-4	**Tetrachloroethene**	**73.2**		5.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		5.0
108-90-7	Chlorobenzene	ND		5.0
100-41-4	Ethylbenzene	ND		5.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		10.0
75-25-2	Bromoform (Tribromomethane)	ND		5.0
100-42-5	Styrene (Ethenylbenzene)	ND		5.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		5.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		5.0
96-18-4	1,2,3 - Trichloropropane	ND		5.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Sample ID:	93007-7.7/98 MW-7	Date Analyzed:	07/27/98
Laboratory ID:	C98-45025	Date Reported:	August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	5.0
108-86-1	Bromobenzene	ND	5.0
103-65-1	n - Propylbenzene	ND	5.0
95-49-8	2 - Chlorotoluene	ND	5.0
106-43-4	4 - Chlorotoluene	ND	5.0
108-67-8	1,3,5 - Trimethylbenzene	ND	5.0
98-06-6	tert - Butylbenzene	ND	5.0
95-63-6	1,2,4 - Trimethylbenzene	ND	5.0
135-98-8	sec - Butylbenzene	ND	5.0
541-73-1	1,3 - Dichlorobenzene	ND	5.0
106-46-7	1,4 - Dichlorobenzene	ND	5.0
99-87-6	4-Isopropyltoluene	ND	5.0
95-50-1	1,2 - Dichlorobenzene	ND	5.0
104-51-8	n - Butylbenzene	ND	5.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	25.0
120-82-1	1,2,4 - Trichlorobenzene	ND	5.0
91-20-3	**Naphthalene**	**10.2**	5.0
87-68-3	Hexachlorobutadiene	ND	5.0
87-61-6	1,2 3 - Trichlorobenzene	ND	5.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1977193	2109040	93.7%	50 - 200 %
Fluorobenzene	3748825	3955299	94.8%	50 - 200 %
1,4 - Difluorobenzene	3219410	3210665	100%	50 - 200 %
Chlorobenzene - d5	2471307	2425222	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	1033362	997468	104%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.2	112%	86 - 118 %
Toluene - d8	9.86	98.6%	88 - 110 %
4 - Bromofluorobenzene	10.8	108%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.4	104%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:50
Sample ID:	93007-8.7/98 MW-8	Date Received:	07/21/98
Laboratory ID:	C98-45026	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	200		

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	200
74-87-3	Chloromethane	ND	200
75-01-4	Vinyl chloride (Chloroethene)	ND	200
74-83-9	Bromomethane	ND	200
75-00-3	Chloroethane	ND	200
75-69-4	Trichlorofluoromethane	ND	200
75-35-4	**1,1 - Dichloroethene**	**1,200**	200
75-09-2	Methylene chloride (Dichloromethane)	ND	200
156-60-5	trans - 1, 2 - Dichloroethene	ND	200
75-34-3	1,1 - Dichloroethane	ND	200
78-93-3	2 -Butanone (MEK)	ND	2,000
156-59-2	cis - 1,2 - Dichloroethene	ND	200
74-97-5	Bromochloromethane	ND	200
67-66-3	Chloroform (Trichloromethane)	ND	200
594-20-7	2,2 - Dichloropropane	ND	200
71-55-6	**1,1,1 - Trichloroethane**	**740**	200
107-06-2	1,2 - Dichloroethane	ND	200
563-58-6	1,1 - Dichloropropene	ND	200
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	200
71-43-2	Benzene	ND	200
74-95-3	Dibromomethane	ND	200
78-87-5	1,2 - Dichloropropane	ND	200
79-01-6	Trichloroethene	ND	200
75-27-4	Bromodichloromethane	ND	200
10061-01-5	cis - 1,3 - Dichloropropene	ND	200
10061-02-6	trans - 1,3 - Dichloropropene	ND	200
79-00-5	1,1,2 - Trichloroethane	ND	200
108-88-3	Toluene	ND	200
106-93-4	1,2 - Dibromoethane	ND	200
142-28-9	1,3 - Dichloropropane	ND	200
124-48-1	Dibromochloromethane	ND	200
127-18-4	**Tetrachloroethene**	**5,090**	200
630-20-6	1,1,1,2 - Tetrachloroethane	ND	200
108-90-7	Chlorobenzene	ND	200
100-41-4	Ethylbenzene	ND	200
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	400
75-25-2	Bromoform (Tribromomethane)	ND	200
100-42-5	Styrene (Ethenylbenzene)	ND	200
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	200
79-34-5	1,1,2,2 - Tetrachloroethane	ND	200
96-18-4	1,2,3 - Trichloropropane	ND	200

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-8.7/98
Laboratory ID: C98-45026

MW-8

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	200
108-86-1	Bromobenzene	ND	200
103-65-1	n - Propylbenzene	ND	200
95-49-8	2 - Chlorotoluene	ND	200
106-43-4	4 - Chlorotoluene	ND	200
108-67-8	1,3,5 - Trimethylbenzene	ND	200
98-06-6	tert - Butylbenzene	ND	200
95-63-6	1,2,4 - Trimethylbenzene	ND	200
135-98-8	sec - Butylbenzene	ND	200
541-73-1	1,3 - Dichlorobenzene	ND	200
106-46-7	1,4 - Dichlorobenzene	ND	200
99-87-6	4-Isopropyltoluene	ND	200
95-50-1	1,2 - Dichlorobenzene	ND	200
104-51-8	n - Butylbenzene	ND	200
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1,000
120-82-1	1,2,4 - Trichlorobenzene	ND	200
91-20-3	Naphthalene	ND	200
87-68-3	Hexachlorobutadiene	ND	200
87-61-6	1,2 3 - Trichlorobenzene	ND	200

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2115723	2109040	100%	50 - 200 %
Fluorobenzene	4042366	3955299	102%	50 - 200 %
1,4 - Difluorobenzene	3254694	3210665	101%	50 - 200 %
Chlorobenzene - d5	2475165	2425222	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	1028994	997468	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	9.96	99.6%	88 - 110 %
4 - Bromofluorobenzene	10.5	105%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:55
Sample ID:	93007-9.7/98 MW-9	Date Received:	07/21/98
Laboratory ID:	C98-45027	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	100		

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		100
74-87-3	Chloromethane	ND		100
75-01-4	Vinyl chloride (Chloroethene)	ND		100
74-83-9	Bromomethane	ND		100
75-00-3	Chloroethane	ND		100
75-69-4	Trichlorofluoromethane	ND		100
75-35-4	**1,1 - Dichloroethene**	**690**		100
75-09-2	Methylene chloride (Dichloromethane)	ND		100
156-60-5	trans - 1, 2 - Dichloroethene	ND		100
75-34-3	**1,1 - Dichloroethane**	**42.0**	J	100
78-93-3	2 -Butanone (MEK)	ND		1,000
156-59-2	cis - 1,2 - Dichloroethene	ND		100
74-97-5	Bromochloromethane	ND		100
67-66-3	Chloroform (Trichloromethane)	ND		100
594-20-7	2,2 - Dichloropropane	ND		100
71-55-6	**1,1,1 - Trichloroethane**	**242**		100
107-06-2	1,2 - Dichloroethane	ND		100
563-58-6	1,1 - Dichloropropene	ND		100
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		100
71-43-2	Benzene	ND		100
74-95-3	Dibromomethane	ND		100
78-87-5	1,2 - Dichloropropane	ND		100
79-01-6	Trichloroethene	ND		100
75-27-4	Bromodichloromethane	ND		100
10061-01-5	cis - 1,3 - Dichloropropene	ND		100
10061-02-6	trans - 1,3 - Dichloropropene	ND		100
79-00-5	1,1,2 - Trichloroethane	ND		100
108-88-3	Toluene	ND		100
106-93-4	1,2 - Dibromoethane	ND		100
142-28-9	1,3 - Dichloropropane	ND		100
124-48-1	Dibromochloromethane	ND		100
127-18-4	**Tetrachloroethene**	**1,770**		100
630-20-6	1,1,1,2 - Tetrachloroethane	ND		100
108-90-7	Chlorobenzene	ND		100
100-41-4	Ethylbenzene	ND		100
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		200
75-25-2	Bromoform (Tribromomethane)	ND		100
100-42-5	Styrene (Ethenylbenzene)	ND		100
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		100
79-34-5	1,1,2,2 - Tetrachloroethane	ND		100
96-18-4	1,2,3 - Trichloropropane	ND		100

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-9.7/98 MW-9
Laboratory ID: C98-45027

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	100
108-86-1	Bromobenzene	ND	100
103-65-1	n - Propylbenzene	ND	100
95-49-8	2 - Chlorotoluene	ND	100
106-43-4	4 - Chlorotoluene	ND	100
108-67-8	1,3,5 - Trimethylbenzene	ND	100
98-06-6	tert - Butylbenzene	ND	100
95-63-6	1,2,4 - Trimethylbenzene	ND	100
135-98-8	sec - Butylbenzene	ND	100
541-73-1	1,3 - Dichlorobenzene	ND	100
106-46-7	1,4 - Dichlorobenzene	ND	100
99-87-6	4-Isopropyltoluene	ND	100
95-50-1	1,2 - Dichlorobenzene	ND	100
104-51-8	n - Butylbenzene	ND	100
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	500
120-82-1	1,2,4 - Trichlorobenzene	ND	100
91-20-3	Naphthalene	ND	100
87-68-3	Hexachlorobutadiene	ND	100
87-61-6	1,2 3 - Trichlorobenzene	ND	100

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2133637	2109040	101%	50 - 200 %
Fluorobenzene	4052805	3955299	102%	50 - 200 %
1,4 - Difluorobenzene	3350344	3210665	104%	50 - 200 %
Chlorobenzene - d5	2452815	2425222	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	1029843	997468	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	9.68	96.8%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:45
Sample ID:	93007-10.7/98 MW-10	Date Received:	07/21/98
Laboratory ID:	C98-45028	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	1		

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	**Benzene**	**3.05**	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**2.02**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: **Western Water Consultants** MW-10 Date Sampled: 07/17/98
Sample ID: 93007-10.7/98 Date Analyzed: 07/27/98
Laboratory ID: C98-45028 Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2137094	2109040	101%	50 - 200 %
Fluorobenzene	4031509	3955299	102%	50 - 200 %
1,4 - Difluorobenzene	3291552	3210665	103%	50 - 200 %
Chlorobenzene - d5	2547007	2425222	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	1073190	997468	108%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	10.6	106%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:00
Sample ID:	93007-11.7/98 MW-11	Date Received:	07/21/98
Laboratory ID:	C98-45029	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	1		

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	1,1 - Dichloroethene	ND		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	1,1 - Dichloroethane	ND		1.0
78-93-3	2 -Butanone (MEK)	ND		10.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	ND		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	1,1,1 - Trichloroethane	ND		1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	**Benzene**	**1.61**		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	ND		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	Tetrachloroethene	ND		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**0.91**	**J**	2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants** Date Sampled: 07/17/98
Sample ID: 93007-11.7/98 MW-11 Date Analyzed: 07/27/98
Laboratory ID: C98-45029 Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	**Isopropylbenzene (1-Methylethylbenzene)**	**3.54**	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	**1,2,4 - Trimethylbenzene**	**8.44**	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	**4-Isopropyltoluene**	**1.11**	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2126174	2109040	101%	50 - 200 %
Fluorobenzene	4061950	3955299	103%	50 - 200 %
1,4 - Difluorobenzene	3304621	3210665	103%	50 - 200 %
Chlorobenzene - d5	2504229	2425222	103%	50 - 200 %
1,4 - Dichlorobenzene - d4	1058893	997468	106%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103%	86 - 118 %
Toluene - d8	9.96	99.6%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	08:07
Sample ID:	93007-12.7/98 MW-12	Date Received:	07/21/98
Laboratory ID:	C98-45030	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	1		

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**1.03**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Sample ID:	93007-12.7/98 MW-12	Date Analyzed:	07/27/98
Laboratory ID:	C98-45030	Date Reported:	August 14, 1998

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2149417	2109040	102%	50 - 200 %
Fluorobenzene	4079669	3955299	103%	50 - 200 %
1,4 - Difluorobenzene	3320408	3210665	103%	50 - 200 %
Chlorobenzene - d5	2524570	2425222	104%	50 - 200 %
1,4 - Dichlorobenzene - d4	1058085	997468	106%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.2	102%	86 - 118 %
Toluene - d8	9.92	99.2%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	07:18
Sample ID:	93007-13.7/98 MW-13	Date Received:	07/21/98
Laboratory ID:	C98-45031	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**19.3**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	1,1 - Dichloroethane	ND		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	Chloroform (Trichloromethane)	ND		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	1.94	J	2.0
107-06-2	1,2 - Dichloroethane	ND		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	Benzene	ND		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	Trichloroethene	ND		2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**16.3**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: **Western Water Consultants** MW-13 Date Sampled: 07/17/98
Sample ID: 93007-13.7/98 Date Analyzed: 07/27/98
Laboratory ID: C98-45031 Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2160725	2109040	102%	50 - 200 %
Fluorobenzene	4068576	3955299	103%	50 - 200 %
1,4 - Difluorobenzene	3383150	3210665	105%	50 - 200 %
Chlorobenzene - d5	2422455	2425222	99.9%	50 - 200 %
1,4 - Dichlorobenzene - d4	1000219	997468	100%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	9.72	97.2%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	07:40
Sample ID:	93007-14.7/98 MW-14	Date Received:	07/21/98
Laboratory ID:	C98-45032	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	1		

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: **Western Water Consultants** Date Sampled: 07/17/98
Sample ID: 93007-14.7/98 MW-14 Date Analyzed: 07/27/98
Laboratory ID: C98-45032 Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2176339	2109040	103%	50 - 200 %
Fluorobenzene	4084392	3955299	103%	50 - 200 %
1,4 - Difluorobenzene	3398547	3210665	106%	50 - 200 %
Chlorobenzene - d5	2459447	2425222	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	1002409	997468	100%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	9.72	97.2%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	09:00
Sample ID:	93007-B.7/98	Date Received:	07/21/98
Laboratory ID:	C98-45036	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	1		

Duplicate of MW-14

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-B.7/98
Laboratory ID: C98-45036

Duplicate of MW-14

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2084113	2109040	96.8%	50 - 200 %
Fluorobenzene	3954916	3955299	100.0%	50 - 200 %
1,4 - Difluorobenzene	3193926	3210665	99.5%	50 - 200 %
Chlorobenzene - d5	2339245	2425222	96.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	970072	997468	97.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.77	97.7%	86 - 118 %
Toluene - d8	9.85	98.5%	88 - 110 %
4 - Bromofluorobenzene	10.5	105%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	07:50
Sample ID:	93007-15.7/98	Date Received:	07/21/98
Laboratory ID:	C98-45033	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	1		

MW-15

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: **Western Water Consultants** Date Sampled: 07/17/98
Sample ID: 93007-15.7/98 MW-15 Date Analyzed: 07/27/98
Laboratory ID: C98-45033 Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2204273	2109040	105%	50 - 200 %
Fluorobenzene	4113555	3955299	104%	50 - 200 %
1,4 - Difluorobenzene	3413066	3210665	106%	50 - 200 %
Chlorobenzene - d5	2473720	2425222	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	1018548	997468	102%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.99	99.9%	86 - 118 %
Toluene - d8	9.76	97.6%	88 - 110 %
4 - Bromofluorobenzene	10.3	103%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/17/98
Project:	93007L.7	Time Sampled:	07:35
Sample ID:	93007-S04.7/98	Date Received:	07/21/98
Laboratory ID:	C98-45034	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	5		

Shell station (mw-4)

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		5.0
74-87-3	Chloromethane	ND		5.0
75-01-4	Vinyl chloride (Chloroethene)	ND		5.0
74-83-9	Bromomethane	ND		5.0
75-00-3	Chloroethane	ND		5.0
75-69-4	Trichlorofluoromethane	ND		5.0
75-35-4	**1,1 - Dichloroethene**	**75.1**		5.0
75-09-2	Methylene chloride (Dichloromethane)	ND		5.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		5.0
75-34-3	**1,1 - Dichloroethane**	**38.4**		5.0
78-93-3	2 -Butanone (MEK)	ND		50.0
156-59-2	**cis - 1,2 - Dichloroethene**	**2.80**	J	5.0
74-97-5	Bromochloromethane	ND		5.0
67-66-3	Chloroform (Trichloromethane)	ND		5.0
594-20-7	2,2 - Dichloropropane	ND		5.0
71-55-6	**1,1,1 - Trichloroethane**	**15.3**		5.0
107-06-2	1,2 - Dichloroethane	ND		5.0
563-58-6	1,1 - Dichloropropene	ND		5.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		5.0
71-43-2	Benzene	ND		5.0
74-95-3	Dibromomethane	ND		5.0
78-87-5	1,2 - Dichloropropane	ND		5.0
79-01-6	Trichloroethene	ND		5.0
75-27-4	Bromodichloromethane	ND		5.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		5.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		5.0
79-00-5	1,1,2 - Trichloroethane	ND		5.0
108-88-3	Toluene	ND		5.0
106-93-4	1,2 - Dibromoethane	ND		5.0
142-28-9	1,3 - Dichloropropane	ND		5.0
124-48-1	Dibromochloromethane	ND		5.0
127-18-4	**Tetrachloroethene**	**5.30**		5.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		5.0
108-90-7	Chlorobenzene	ND		5.0
100-41-4	**Ethylbenzene**	**15.6**		5.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		10.0
75-25-2	Bromoform (Tribromomethane)	ND		5.0
100-42-5	Styrene (Ethenylbenzene)	ND		5.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		5.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		5.0
96-18-4	1,2,3 - Trichloropropane	ND		5.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants** (Shell Station (MW-4))
Sample ID: 93007-S04.7/98
Laboratory ID: C98-45034

Date Sampled: 07/17/98
Date Analyzed: 07/27/98
Date Reported: August 14, 1998

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
98-82-8	**Isopropylbenzene (1-Methylethylbenzene)**	**2.85**	**J**	5.0
108-86-1	Bromobenzene	ND		5.0
103-65-1	**n - Propylbenzene**	**5.15**		5.0
95-49-8	2 - Chlorotoluene	ND		5.0
106-43-4	4 - Chlorotoluene	ND		5.0
108-67-8	1,3,5 - Trimethylbenzene	ND		5.0
98-06-6	tert - Butylbenzene	ND		5.0
95-63-6	**1,2,4 - Trimethylbenzene**	**79.3**		5.0
135-98-8	sec - Butylbenzene	ND		5.0
541-73-1	1,3 - Dichlorobenzene	ND		5.0
106-46-7	1,4 - Dichlorobenzene	ND		5.0
99-87-6	4-Isopropyltoluene	ND		5.0
95-50-1	1,2 - Dichlorobenzene	ND		5.0
104-51-8	n - Butylbenzene	ND		5.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		25.0
120-82-1	1,2,4 - Trichlorobenzene	ND		5.0
91-20-3	**Naphthalene**	**25.7**		5.0
87-68-3	Hexachlorobutadiene	ND		5.0
87-61-6	1,2 3 - Trichlorobenzene	ND		5.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2169241	2109040	103%	50 - 200 %
Fluorobenzene	4031721	3955299	102%	50 - 200 %
1,4 - Difluorobenzene	3404030	3210665	106%	50 - 200 %
Chlorobenzene - d5	2407748	2425222	99.3%	50 - 200 %
1,4 - Dichlorobenzene - d4	986471	997468	98.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.91	99.1%	86 - 118 %
Toluene - d8	9.61	96.1%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/14/98
Project:	93007L.7	Time Sampled:	11:10
Sample ID:	TRIP BLANK	Date Received:	07/21/98
Laboratory ID:	C98-45037	Date Analyzed:	07/27/98
Matrix:	Water	Date Reported:	August 14, 1998
Dilution Factor:	1		

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	07/14/98
Sample ID:	TRIP BLANK	Date Analyzed:	07/27/98
Laboratory ID:	C98-45037	Date Reported:	August 14, 1998

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2126102	2109040	101%	50 - 200 %
Fluorobenzene	3987286	3955299	101%	50 - 200 %
1,4 - Difluorobenzene	3281863	3210665	102%	50 - 200 %
Chlorobenzene - d5	2526053	2425222	104%	50 - 200 %
1,4 - Dichlorobenzene - d4	1060464	997468	106%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.7	107%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

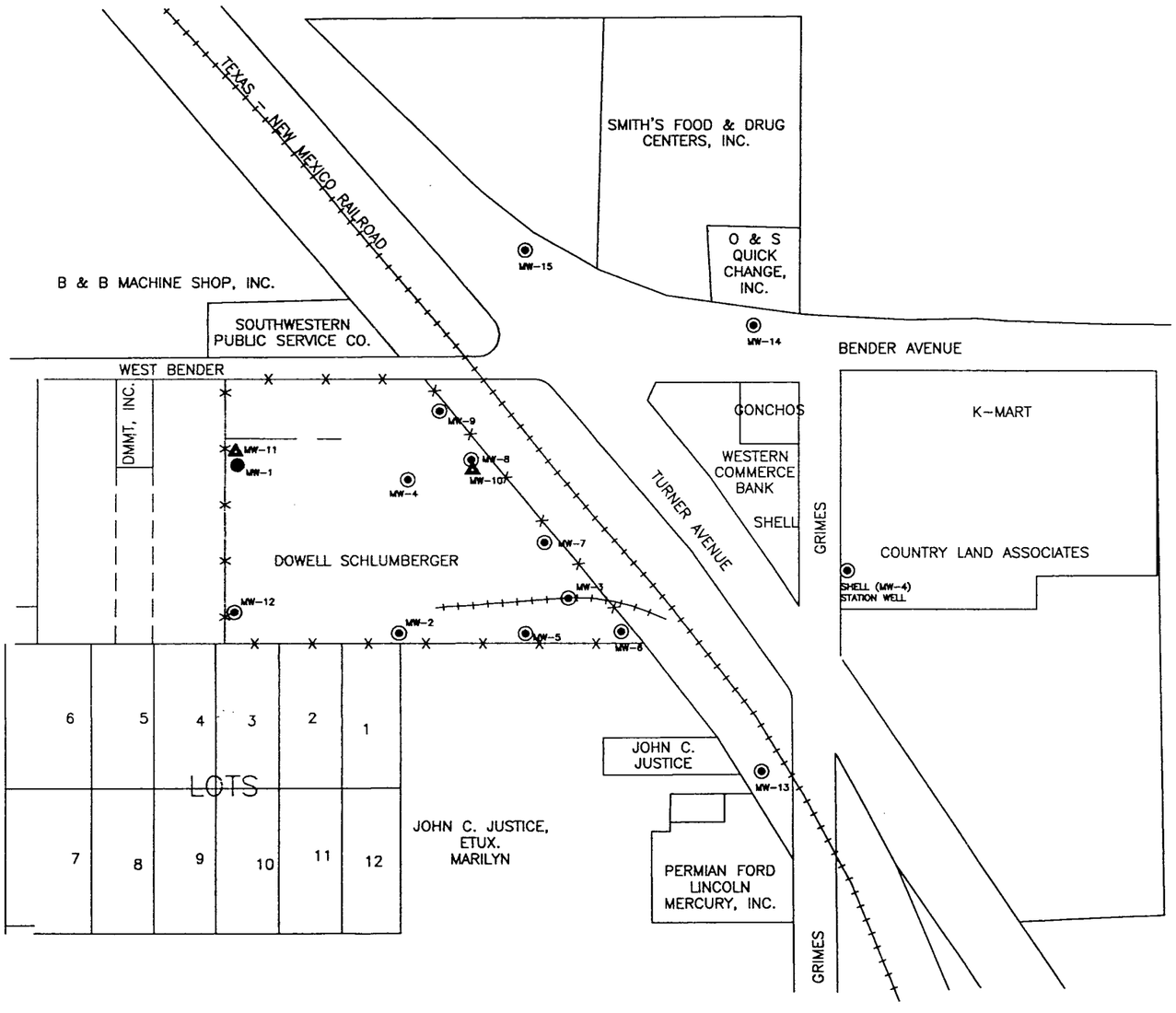
REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec r:\reports\clients98\western_water_consultants\98_45020_8260.xls

Analyst: yw
Reviewed: sec

K:\172040\83-007\NEWBASE2 07/02/93 10:01



EXPLANATION

- MW-4 ◉ SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 ▲ DEEP MONITORING WELL LOCATIONS

0 300 ft.

SCALE

FIGURE 1

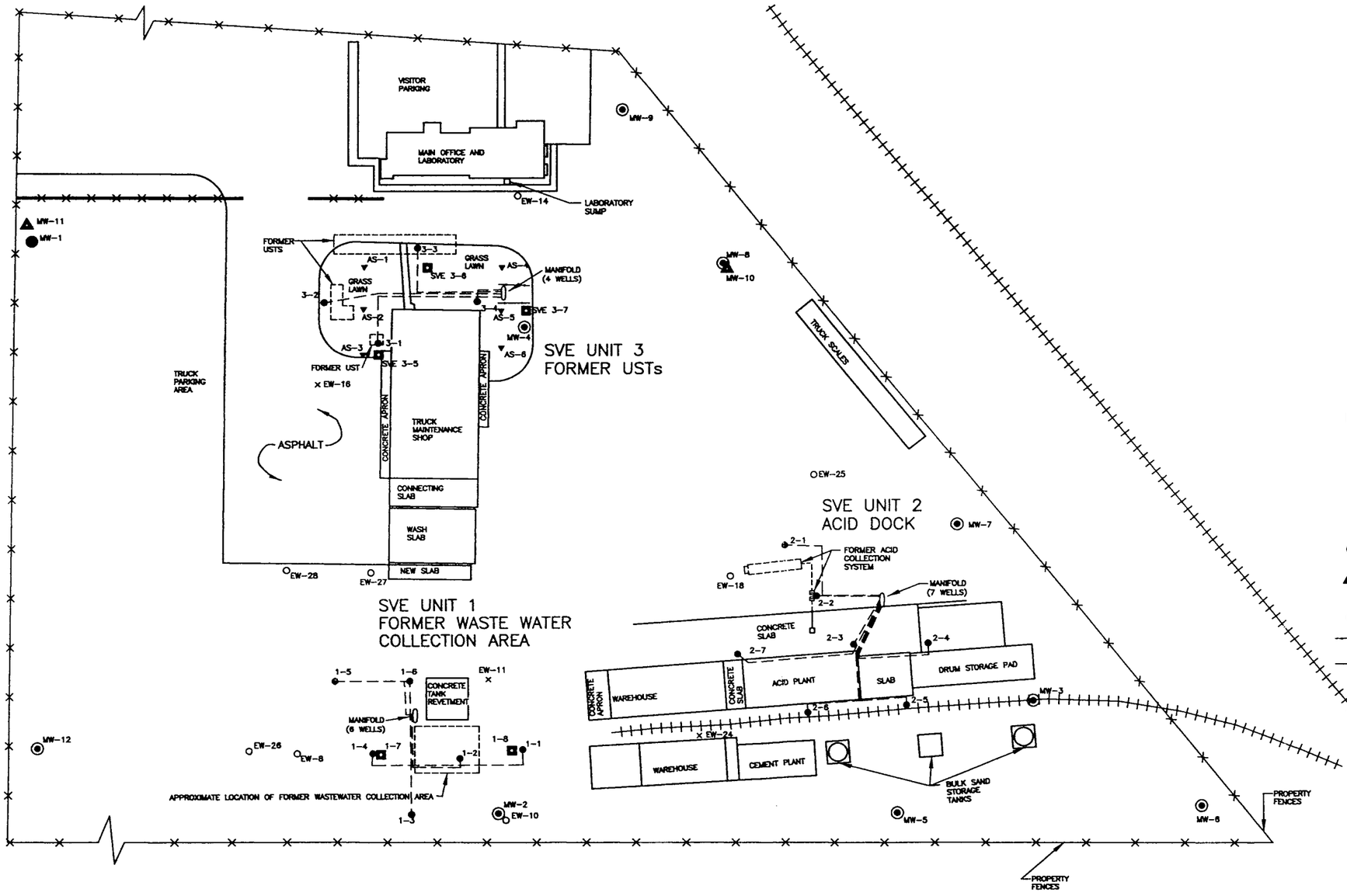
MONITORING WELL LOCATIONS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\172040\93-007L\NEWBASE 07/02/97 10:32



0 80 FT.

SCALE

EXPLANATION

- 1-8 DEEP SVE WELL
- SHALLOW SVE WELL
- AS-5 AIR SPARGING WELL
- SOIL BORING
- × COMPLETED AS A FUTURE SVE WELL
- MW-3 SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-11 DEEP MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ABANDONED MONITORING WELL
- FENCED ENCLOSURE
- 2" PVC PIPING

FIGURE 2

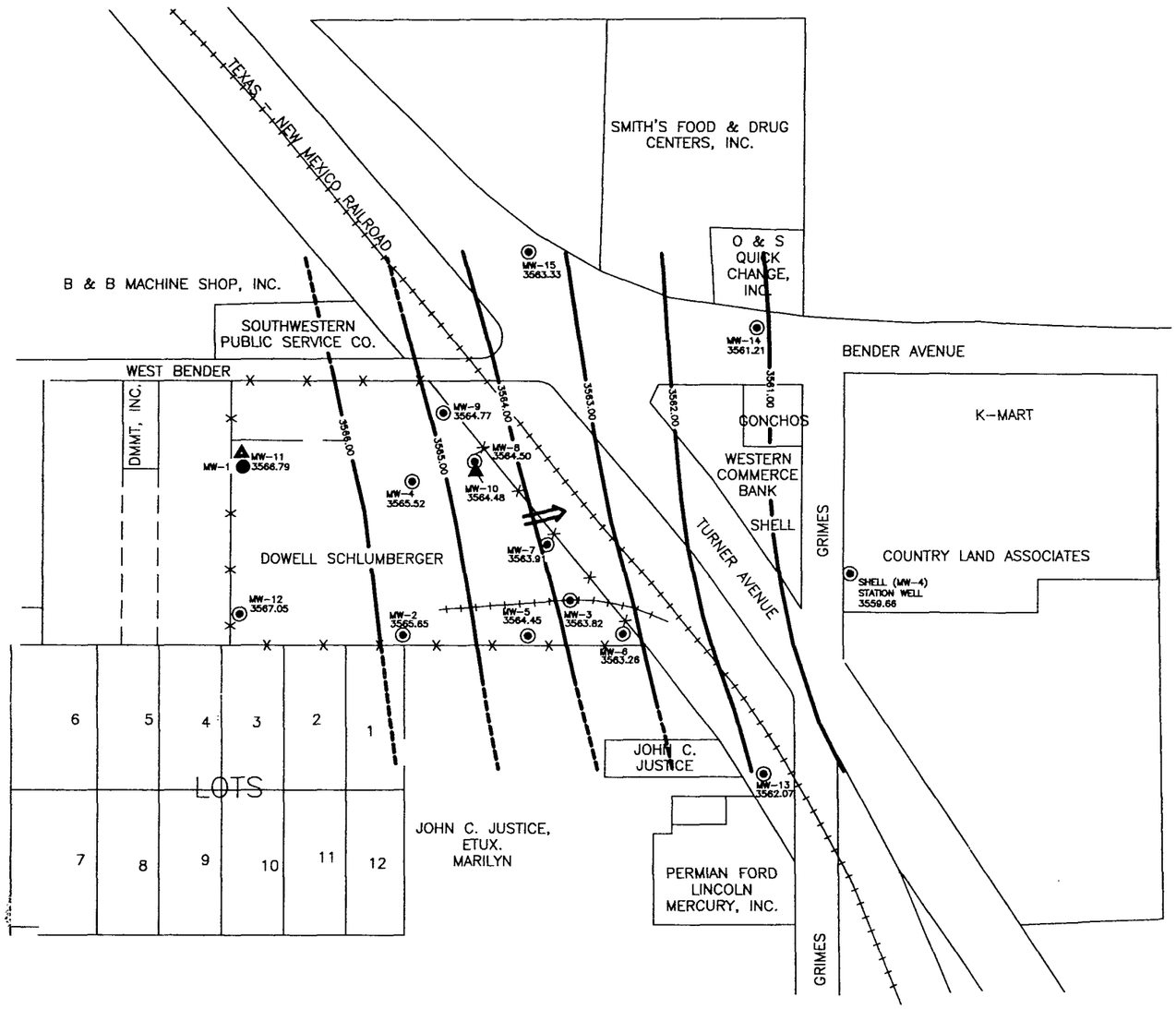
SITE MAP AND LOCATION OF MONITORING AND REMEDIATION WELLS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\172040\93-007L\CADD\98\PS-798.DWG 09/10/98 14:19



EXPLANATION

- MW-14 3561.21 ◉ — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- MW-1 ● — ABANDONED MONITORING WELL
- MW-11 3566.79 ▲ — DEEP MONITORING WELL LOCATION IDENTIFICATION AND POTENTIOMETRIC SURFACE ELEVATION
- 3563.00 — POTENTIOMETRIC SURFACE CONTOURS AND ELEVATION (DASHED WHERE INFERRED)
- ⟸ — GROUND-WATER FLOW DIRECTION

0 300 ft.
SCALE

FIGURE 3

POTENTIOMETRIC SURFACE MAP (7/16/98)

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	3638.52	10/25/96	84	70.22	3568.30		13.78
		11/21/96		70.17	3568.35	0.05	13.83
		01/22/97		70.44	3568.08	-0.27	13.56
Abandoned		05/22/97					
MW-2	3637.26	10/25/96	85	70.03	3567.23		14.97
		11/21/96		70.03	3567.23	0.00	14.97
		01/22/97		70.26	3567.00	-0.23	14.74
		05/21/97		70.53	3566.73	-0.27	14.47
		07/28/97		70.69	3566.57	-0.16	14.31
		10/15/97		70.80	3566.46	-0.11	14.20
		01/05/98		71.05	3566.21	-0.25	13.95
		04/16/98		71.27	3565.99	-0.22	13.73
		07/16/98		71.61	3565.65	-0.34	13.39
MW-3	3638.28	10/25/96	85	72.88	3565.40		12.12
		11/21/96		72.89	3565.39	-0.01	12.11
		01/22/97		73.10	3565.18	-0.21	11.90
		05/21/97		73.40	3564.88	-0.30	11.60
		07/28/97		73.54	3564.74	-0.14	11.46
		10/15/97		73.67	3564.61	-0.13	11.33
		01/05/98		73.92	3564.36	-0.25	11.08
		04/16/98		74.13	3564.15	-0.21	10.87
		07/16/98		74.46	3563.82	-0.33	10.54
MW-4	3639.20	10/25/96	85	72.41	3566.79		12.59
		11/21/96		72.37	3566.83	0.04	12.63
		01/22/97		72.60	3566.60	-0.23	12.40
		05/21/97		72.87	3566.33	-0.27	12.13
		07/28/97		72.93	3566.27	-0.06	12.07
		10/15/97		73.03	3566.17	-0.10	11.97
		01/05/98		73.24	3565.96	-0.21	11.76
		04/16/98		73.67	3565.53	-0.43	11.33
		07/16/98		73.68	3565.52	-0.01	11.32
MW-5	3637.70	01/22/97	85	71.90	3565.80		13.10
		05/21/97		72.21	3565.49	-0.31	12.79
		07/28/97		72.36	3565.34	-0.15	12.64
		10/15/97		72.44	3565.26	-0.08	12.56
		01/05/98		72.71	3564.99	-0.27	12.29
		04/16/98		72.92	3564.78	-0.21	12.08
		07/16/98		73.25	3564.45	-0.33	11.75
MW-6	3637.52	01/22/97	85	72.88	3564.64		12.12
		05/21/97		73.22	3564.30	-0.34	11.78
		07/28/97		73.44	3564.08	-0.22	11.56
		10/15/97		73.48	3564.04	-0.04	11.52
		01/05/98		73.72	3563.80	-0.24	11.28
		04/16/98		73.94	3563.58	-0.22	11.06
		07/16/98		74.26	3563.26	-0.32	10.74
MW-7	3638.62	01/22/97	85	73.31	3565.31		11.69
		05/21/97		73.63	3564.99	-0.32	11.37
		07/28/97		73.80	3564.82	-0.17	11.20
		10/15/97		73.93	3564.69	-0.13	11.07
		01/05/98		74.17	3564.45	-0.24	10.83
		04/16/98		74.39	3564.23	-0.22	10.61
		07/16/98		74.71	3563.91	-0.32	10.29

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-8	3638.71	01/22/97	85	72.78	3565.93		12.22
		05/21/97		73.12	3565.59	-0.34	11.88
		07/28/97		73.31	3565.40	-0.19	11.69
		10/15/97		73.44	3565.27	-0.13	11.56
		01/05/98		73.63	3565.08	-0.19	11.37
		04/16/98		74.00	3564.71	-0.37	11.00
		07/16/98		74.21	3564.50	-0.21	10.79
MW-9	3638.76	01/22/97	85	72.57	3566.19		12.43
		05/21/97		72.89	3565.87	-0.32	12.11
		07/28/97		73.08	3565.68	-0.19	11.92
		10/15/97		73.24	3565.52	-0.16	11.76
		01/05/98		73.47	3565.29	-0.23	11.53
		04/16/98		73.70	3565.06	-0.23	11.30
		07/16/98		73.99	3564.77	-0.29	11.01
MW-10	3638.86	05/27/97	130.5	73.33	3565.53		57.17
		07/28/97		73.49	3565.37	-0.16	57.01
		10/15/97		73.61	3565.25	-0.12	56.89
		01/05/98		73.83	3565.03	-0.22	56.67
		04/16/98		74.08	3564.78	-0.25	56.42
		07/16/98		74.38	3564.48	-0.30	56.12
MW-11	3638.55	05/26/97	208	70.70	3567.85		137.30
		07/28/97		70.89	3567.66	-0.19	137.11
		10/15/97		70.85	3567.70	0.04	137.15
		01/05/98		71.21	3567.34	-0.36	136.79
		04/16/98		71.45	3567.10	-0.24	136.55
		07/16/98		71.76	3566.79	-0.31	136.24
MW-12	3636.15	05/26/97	85	68.05	3568.10		16.95
		07/28/97		68.14	3568.01	-0.09	16.86
		10/15/97		68.24	3567.91	-0.10	16.76
		01/05/98		68.52	3567.63	-0.28	16.48
		04/16/98		68.78	3567.37	-0.26	16.22
		07/16/98		69.10	3567.05	-0.32	15.90
MW-13	3635.39	05/21/97	84	72.31	3563.08		11.69
		07/28/97		72.39	3563.00	-0.08	11.61
		10/15/97		72.63	3562.76	-0.24	11.37
		01/05/98		72.79	3562.60	-0.16	11.21
		04/16/98		72.93	3562.46	-0.14	11.07
		07/16/98		73.32	3562.07	-0.39	10.68
MW-14	3637.19	05/21/97	85	74.86	3562.33		10.14
		07/28/97		75.06	3562.13	-0.20	9.94
		10/15/97		75.28	3561.91	-0.22	9.72
		01/05/98		75.44	3561.75	-0.16	9.56
		04/16/98		75.61	3561.58	-0.17	9.39
		07/16/98		75.98	3561.21	-0.37	9.02
MW-15	3636.57	05/21/97	85	72.09	3564.48		12.91
		07/28/97		72.28	3564.29	-0.19	12.72
		10/15/97		72.52	3564.05	-0.24	12.48
		01/05/98		72.70	3563.87	-0.18	12.30
		04/16/98		72.87	3563.70	-0.17	12.13
		07/16/98		73.24	3563.33	-0.37	11.76

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
Shell Station MW-4	3637.69	05/25/97	82.6	75.97	3561.72		6.63
		07/28/97		76.15	3561.54	-0.18	6.45
		10/15/97		76.26	3561.43	-0.11	6.34
		01/05/98		76.52	3561.17	-0.26	6.08
		04/16/98		76.67	3561.02	-0.15	5.93
		07/16/98		78.03	3559.66	-1.36	4.57

Note: Top of casing survey elevations are based on the "City of Hobbs Control Datum" and the North American Vertical Datum

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.015
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.008
abandoned														
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007	0.134	0.331
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006	0.135	0.353
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008	0.193	0.648
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)	0.058	0.193
	05/23/97	0.039	ND(0.001)	0.007	0.014	0.057	ND(0.001)	0.009	0.004	0.003	0.005	0.001	0.021	0.117
	06/25/97	0.590	ND(0.002)	0.009	0.027	0.180	ND(0.002)	0.011	0.005	0.007	0.007	0.001J	0.030	0.806
	07/28/97	0.031	ND(0.002)	0.004	0.011	0.097	ND(0.002)	0.004	0.001J	0.001J	0.001J	ND(0.002)	0.004	0.143
	10/16/97	0.012	ND(0.002)	0.002J	0.012	0.023	ND(0.002)	0.002	0.001J	0.001J	0.001J	ND(0.002)	0.002	0.047
	01/06/98	0.023	ND(0.002)	0.002	0.007	0.043	ND(0.002)	0.004	0.002J	0.001J	0.001J	ND(0.002)	0.004	0.075
	04/16/98	0.053	ND(0.002)	0.008	0.058	0.130	ND(0.002)	0.010	ND(0.002)	0.002J	0.001J	ND(0.002)	0.010	0.249
duplicate	04/16/98	0.058	ND(0.01)	0.008	0.064	0.142	ND(0.01)	0.010	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.010	0.272
	07/17/98	0.006	ND(0.002)	0.001J	0.034	0.013	ND(0.002)	0.001J	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.053
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006	0.002	0.049
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.001J	0.000	0.071
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.067
	05/22/97	0.026	0.001	0.015	0.016	0.015	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004	0.002	0.073
	07/28/97	0.033	0.002J	0.012	0.012	0.008	ND(0.002)	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.005	0.003	0.065
	10/16/97	0.022	ND(0.002)	0.008	0.022	0.011	ND(0.002)	0.001J	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.000	0.063
	01/06/98	0.023	ND(0.002)	0.023	0.026	0.031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.103
	04/16/98	0.030	ND(0.002)	0.014	0.025	0.012	0.003	0.003	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.003	0.084
	07/17/98	0.034	ND(0.002)	0.015	0.026	0.013	0.003	0.002J	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.091
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	4.294
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	5.200
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.902
	01/22/97	0.089	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	4.292
	05/23/97	0.062	0.022	0.423	1.720	0.550	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.777
	06/25/97	0.047	0.017J	0.175	1.250	0.349	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.821
	06/25/97	0.044	0.017J	0.167	1.190	0.332	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.733
	07/28/97	0.037	0.015J	0.124	1.060	0.267	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.488
	10/16/97	0.031	0.011J	0.103	1.170	0.225	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.529
	01/06/98	0.021	ND(0.02)	0.087	0.970	0.148	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	0.024	0.000	1.226
	01/06/98	0.021	0.0060J	0.077	0.907	0.138	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.019	0.000	1.143
	04/16/98	0.019J	ND(0.05)	0.116	0.651	0.114	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	0.881
	07/17/98	0.031	ND(0.01)	0.206	1.120	0.194	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.551
duplicate	07/17/98	0.031	ND(0.02)	0.240	0.843	0.216	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.330
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	0.001J	0.018	0.004	ND(0.001)	0.001J	ND(0.001)	0.022	0.250
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	0.001J	0.018	0.004	ND(0.001)	0.001	0.004	0.023	0.253
	05/23/97	0.191	0.003	0.055	0.079	0.059	0.002J	0.029	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.029	0.387
	07/28/97	0.241	0.004	0.072	0.058	0.051	0.002	0.051	0.023	ND(0.002)	0.007	0.009	0.081	0.428
duplicate	07/28/97	0.258	0.004J	0.069	0.052	0.050	ND(0.005)	0.052	0.023	ND(0.005)	0.007J	0.011	0.075	0.429
	10/16/97	0.214	0.004J	0.066	0.070	0.039	ND(0.01)	0.059	0.027	ND(0.01)	0.008	0.011	0.094	0.389
	01/06/98	0.215	0.004J	0.060	0.055	0.029	ND(0.01)	0.048	0.016	ND(0.01)	0.006J	0.005J	0.064	0.359
	04/16/98	0.136	0.002J	0.033	0.031	0.008	ND(0.005)	0.034	0.011	ND(0.005)	ND(0.01)	0.009	0.045	0.208
	07/17/98	0.106	0.002J	0.023	0.029	0.007	0.002	0.025	0.007	ND(0.002)	0.001J	0.005J	0.032	0.167
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	0.001J	ND(0.001)	ND(0.001)	ND(0.002)	0.001J	0.000	0.053
	05/22/97	0.085	0.002	0.034	0.023	0.017	0.002J	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.004	0.161
	07/28/97	0.081	0.002J	0.027	0.021	0.008	0.002J	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.004	0.003	0.137
	10/16/97	0.082	0.002J	0.025	0.019	0.006	0.002J	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.132
	01/06/98	0.113	0.003J	0.038	0.024	0.012	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.189
	04/16/98	0.088	0.003	0.027	0.017	0.008	0.002J	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.002	0.143
	07/17/98	0.091	0.004	0.051	0.032	0.022	0.002	0.002J	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.202

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-7	01/23/97	0.047	0.001J	0.009	0.014	ND(0.001)	0.004	0.001J	ND(0.001)	ND(0.001)	0.001	0.013	0.001	0.074
	05/22/97	0.087	0.002J	0.066	0.116	0.002J	0.014	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.062	0.003	0.283
	07/28/97	0.073	0.002J	0.061	0.110	ND(0.002)	0.021	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.055	0.004	0.265
	10/16/97	0.065	ND(0.005)	0.050	0.091	ND(0.005)	0.018	0.003J	ND(0.005)	ND(0.005)	ND(0.01)	0.058	0.000	0.224
	01/06/98	0.076	ND(0.005)	0.054	0.111	ND(0.005)	0.018	0.003J	ND(0.005)	ND(0.005)	ND(0.01)	0.048	0.000	0.259
	04/16/98	0.055	ND(0.005)	0.035	0.078	ND(0.005)	0.020	0.003J	ND(0.005)	ND(0.005)	ND(0.01)	0.040	0.000	0.188
	07/17/98	0.065	ND(0.005)	0.038	0.073	ND(0.005)	0.024	0.003J	ND(0.005)	ND(0.005)	ND(0.01)	0.010	0.000	0.200
MW-8	01/23/97	0.068	0.005J	0.280	0.810	0.460	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.618
	05/23/97	0.082	ND(0.01)	1.360	4.150	0.805	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	6.397
	06/25/97	0.077	ND(0.02)	0.975	3.600	0.774	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.426
	07/28/97	ND(0.1)	ND(0.1)	1.120	4.520	0.798	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	6.438
	10/16/97	ND(0.2)	ND(0.2)	0.858	4.570	0.596	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	6.024
	01/06/98	ND(0.2)	ND(0.2)	1.230	4.650	0.798	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	0.166J	0.000	6.678
	04/16/98	ND(0.2)	ND(0.2)	1.050	4.620	0.658	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	0.142J	0.000	6.328
	07/17/98	ND(0.2)	ND(0.2)	1.200	5.090	0.740	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	7.030
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.209
	05/23/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.045
	06/25/97	0.033	ND(0.02)	0.326	1.130	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.489
	07/28/97	0.021	ND(0.02)	0.278	1.020	0.121	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.440
	10/16/97	0.019J	ND(0.02)	0.278	1.160	0.104	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.542
duplicate	10/16/97	0.023	ND(0.02)	0.321	1.160	0.141	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.645
	01/06/98	0.033J	ND(0.1)	0.502	1.350	0.174	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.026
	04/16/98	0.029J	ND(0.05)	0.444	1.290	0.144	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.1)	ND(0.05)	0.000	1.878
	07/17/98	0.042J	ND(0.1)	0.690	1.770	0.242	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.702
MW-10	05/26/97	0.004	ND(0.002)	0.007	0.026	ND(0.002)	0.001J	0.004	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.004	0.037
duplicate	05/26/97	ND(0.002)	ND(0.002)	0.008	0.028	ND(0.002)	0.001J	0.007	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.007	0.036
	07/28/97	0.003	ND(0.002)	0.009	0.014	0.002J	ND(0.002)	0.002J	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.026
	10/16/97	ND(0.002)	ND(0.002)	0.002J	0.008	ND(0.002)	ND(0.002)	0.001J	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.008
	01/06/98	ND(0.002)	ND(0.002)	0.002J	0.008	ND(0.002)	ND(0.002)	0.001J	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.008
	04/16/98	ND(0.002)	ND(0.002)	ND(0.002)	0.002J	ND(0.002)	ND(0.002)	0.002J	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.003	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.003	0.002
MW-11	05/24/97	0.001J	ND(0.001)	0.007J	0.002	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.001J	ND(0.001)	0.002	0.002
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.003	0.001J	ND(0.001)	0.006	ND(0.001)	0.009	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	0.001J	ND(0.001)	0.003J	ND(0.001)	0.002	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.002J	ND(0.002)	ND(0.002)	0.003J	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002J	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.002	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.001J	ND(0.001)	0.002	0.000
MW-12	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	0.006J	0.005J	0.003J	ND(0.001)	0.000	0.001
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.001
MW-13	05/24/97	ND(0.001)	ND(0.001)	0.012	0.010	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.023
	07/28/97	ND(0.001)	ND(0.001)	0.012	0.009	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.022
	10/16/97	ND(0.001)	ND(0.001)	0.015	0.013	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
	10/16/97	ND(0.002)	ND(0.002)	0.011	0.013	0.001J	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.024
	01/06/98	ND(0.002)	ND(0.002)	0.017	0.011	0.002J	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.028
	04/16/98	ND(0.002)	ND(0.002)	0.017	0.011	0.002J	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.028
duplicate	04/16/98	ND(0.001)	ND(0.001)	0.016	0.010	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
	07/17/98	ND(0.002)	ND(0.002)	0.019	0.016	0.002J	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.035
MW-14	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-14 Cont.	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
MW-15	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
*SO4	05/25/97	0.021	ND(0.01)	0.024	ND(0.01)	0.005J	ND(0.01)	ND(0.01)	0.469	0.470	1.936	0.107	2.875	0.045
	07/28/97	0.020	ND(0.02)	0.020	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.411	0.138	0.905	0.125	1.454	0.040
	10/16/97	0.018J	ND(0.02)	0.022	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.322	0.039	0.713	0.102	1.074	0.022
	01/06/98	0.051	ND(0.002)	0.075	0.004	0.014	ND(0.002)	0.002	0.042	0.001J	0.019	0.024	0.063	0.144
	04/16/98	0.049	ND(0.005)	0.087	0.005	0.015	ND(0.005)	0.002J	0.008	ND(0.005)	ND(0.01)	0.024	0.008	0.156
	07/17/98	0.038	ND(0.005)	0.075	0.005	0.015	ND(0.005)	ND(0.005)	0.016	ND(0.005)	ND(0.01)	0.026	0.016	0.133

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parentheses.
J - Detected at concentration below the method detection limit.
*SO4 = Shell Service Station monitoring well MW-4

1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethane
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

Schlumberger Oilfield Services

Oilfield Services Shared Resources
P.O. Box 2727, Houston, Texas 77252-2727
(713) 275-8700

Via FedEx

March 24, 1999

Mr. Jack Ford
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: First Quarter Monitoring Results for the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico.

Dear Mr. Ford:

Enclosed are two copies of the first quarter monitoring results for the Dowell, a division of Schlumberger Technology Corporation facility in Hobbs, New Mexico for 1999. Included in the report are site, potentiometric surface, and isoconcentration maps (Figures 1, 2, 3, and 4), water quality and static water level data (Tables 1 and 2), and laboratory data reports. We are heartened by the drop in chlorinated hydrocarbons in MW-4 and attribute the reduction in concentrations to our SVE and air sparge system. We will continue to analyze this trend.

Per the recommendations in our 1998 Annual Report, ground-water samples were not collected from monitoring wells MW-3, MW-5, MW-10, MW-11, and MW-12 but will be sampled in the future during the fourth quarter annual monitoring event. The second quarter ground-water monitoring event for 1999 is tentatively scheduled for April 1999. If you have any questions concerning the results, please feel free to contact me at (281) 285-8498.

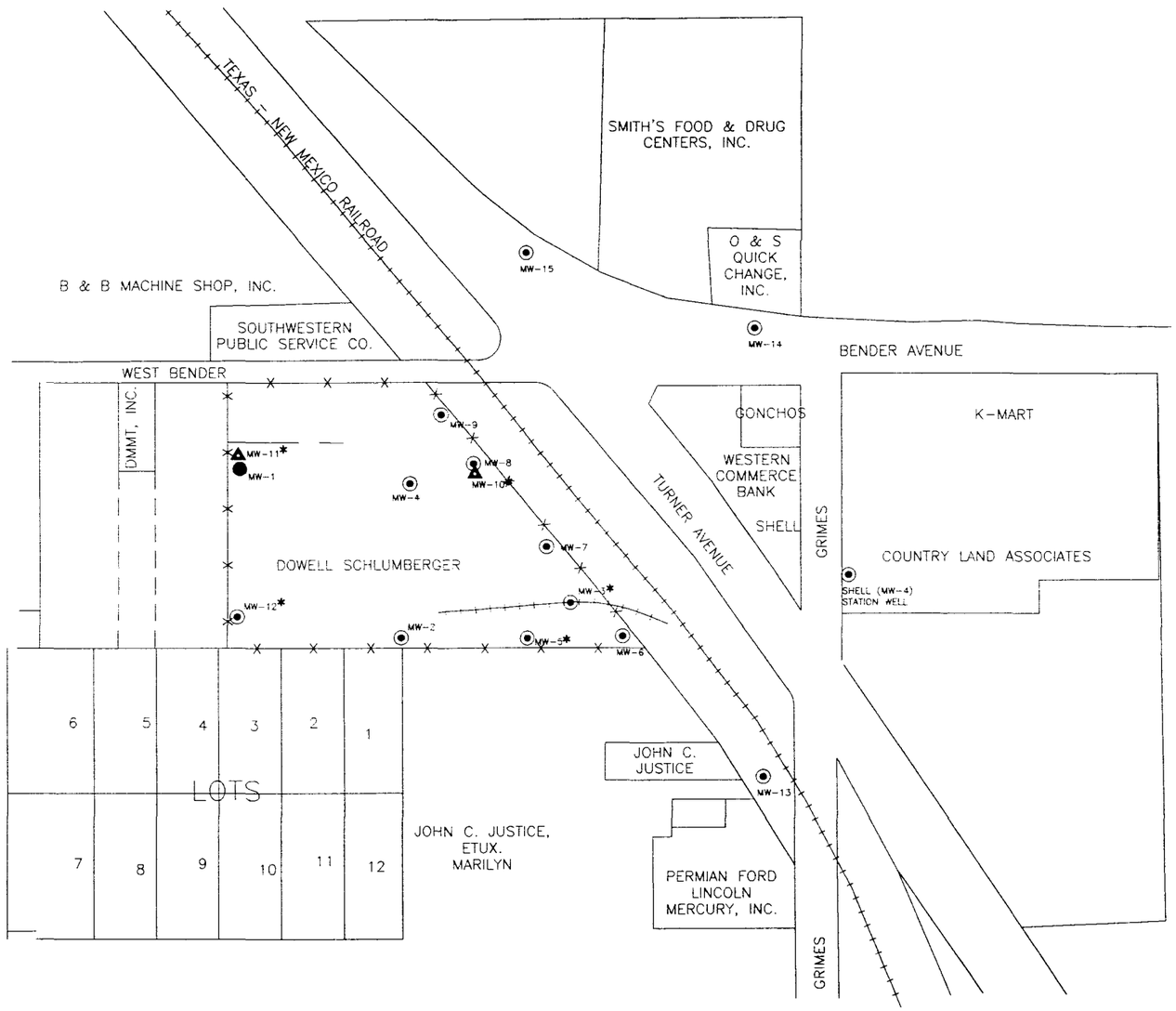
Sincerely,

John A. Miller
Remediation Manager

cc: Western Water Consultants

Wayne Price
New Mexico Oil Conservation Division
Hobbs District Office
P.O. Box 1980
Hobbs, New Mexico 88240

K:\93-007L\CADD\99\Newpage2.dwg 03/15/99 08:43



EXPLANATION

- MW-4 ◉ SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 ▲ DEEP MONITORING WELL LOCATIONS
- MW-5* ◉* SAMPLED DURING 4TH QUARTER ONLY

0 300 ft.

SCALE

FIGURE 1

MONITORING WELL LOCATIONS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\172040\93-007L\NEWBASE 07/02/97 10:32

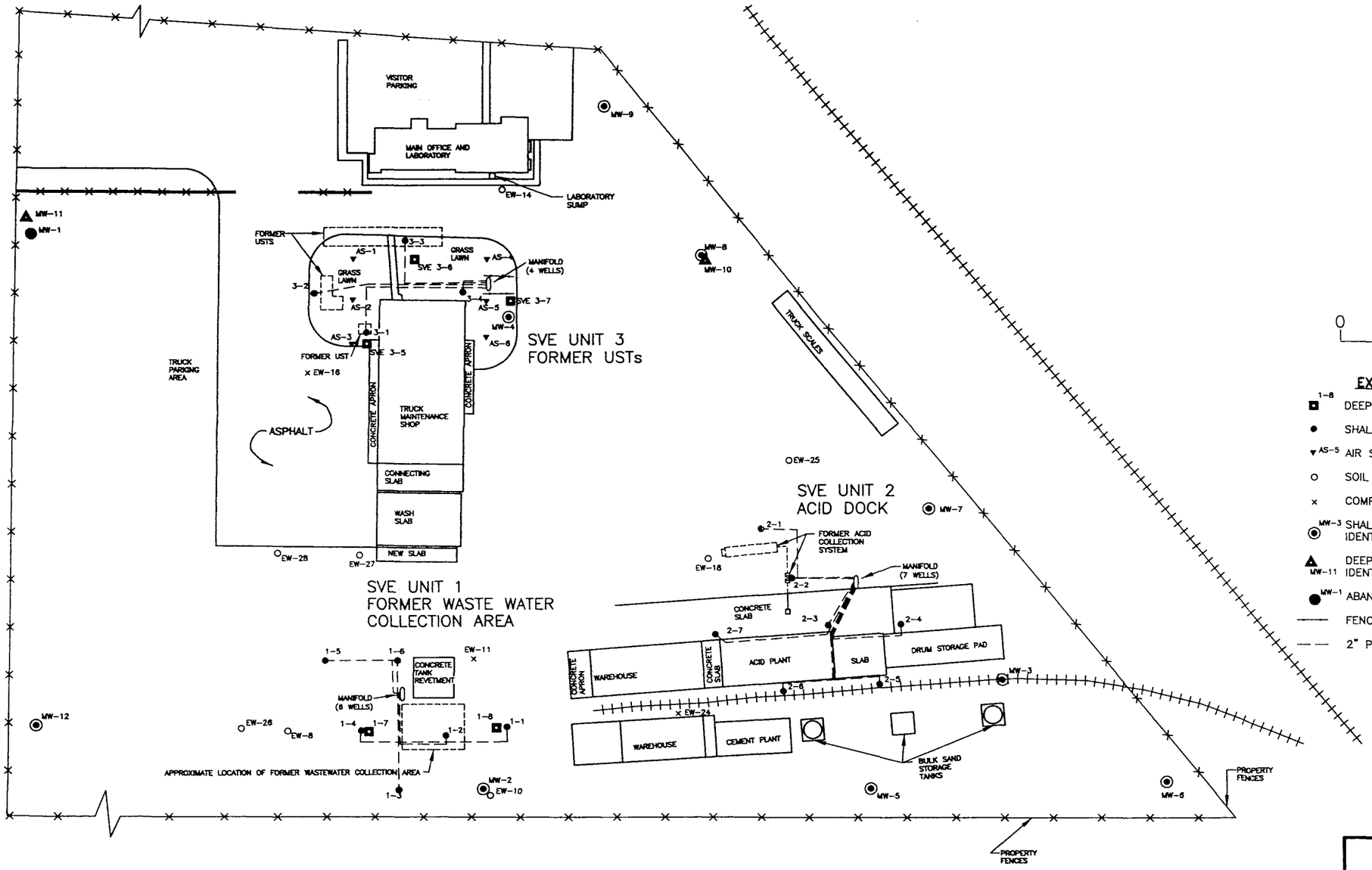


FIGURE 2

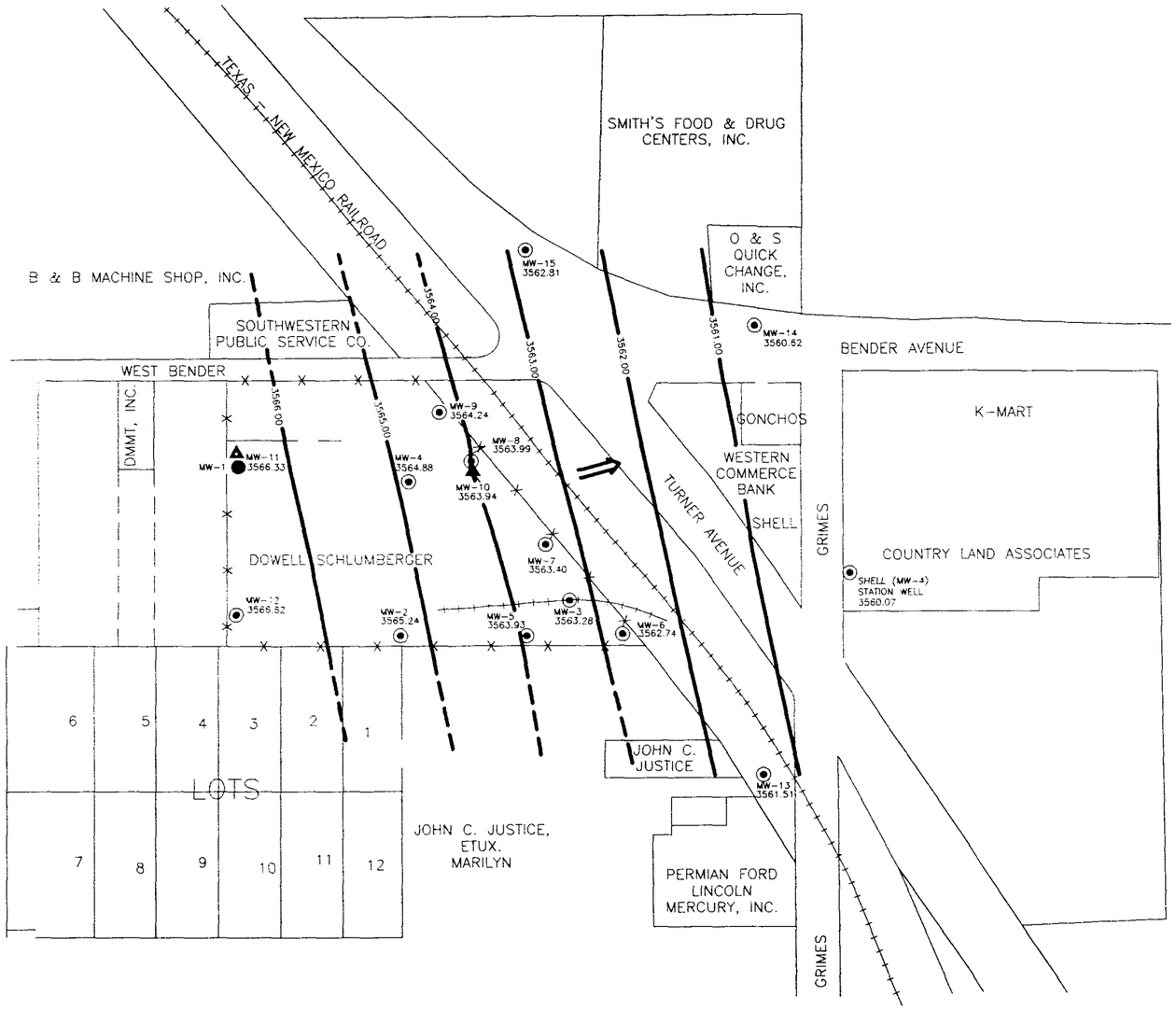
SITE MAP AND
LOCATION OF MONITORING AND
REMEDIATION WELLS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\93-007L\CADD\99\Ps-0299.dwg 03/15/99 08:52



EXPLANATION

- MW-14 3560.62 ◉ — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- MW-1 ● — ABANDONED MONITORING WELL
- MW-11 3566.33 ▲ — DEEP MONITORING WELL LOCATION IDENTIFICATION AND POTENTIOMETRIC SURFACE ELEVATION
- 3563.00 — POTENTIOMETRIC SURFACE CONTOURS AND ELEVATION (DASHED WHERE INFERRED)
- ⇐ — GROUND-WATER FLOW DIRECTION

0 300 ft.
SCALE

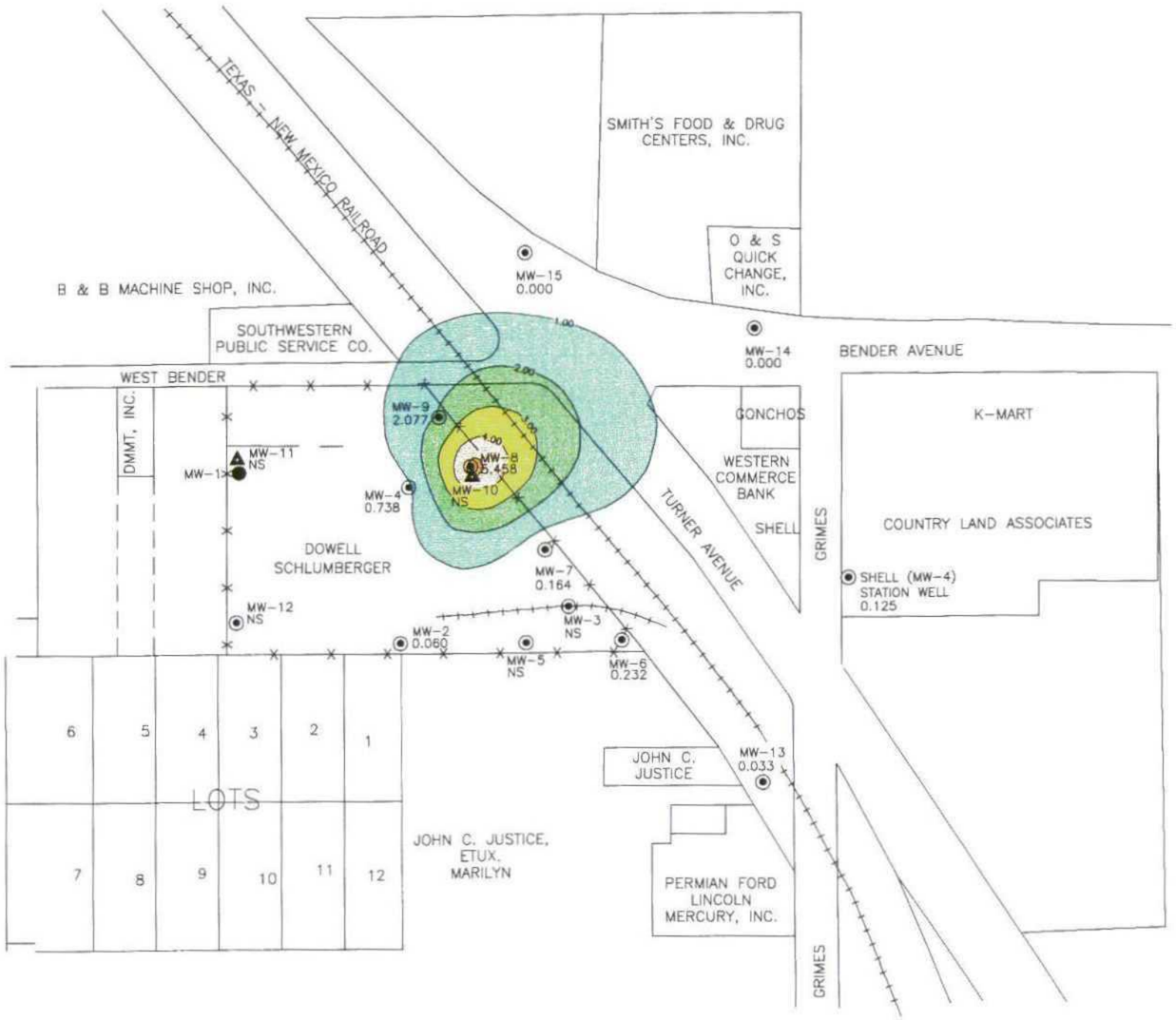
FIGURE 3

POTENTIOMETRIC SURFACE MAP
(02/10/99)

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

K:\93-007L\CADD\99\HAL00299.DWG 03/08/99 14:24



EXPLANATION

- MW-8 5.462 ◉ — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- MW-1 ● — ABANDONED MONITORING WELL
- MW-11 0.000 ▲ — DEEP MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- 1.00 — TOTAL HALOCARBONS CONTOURS
- NS — NOT SAMPLED

TOTAL HALOCARBONS CONCENTRATIONS (mg/L)

- 6.00
- 5.00
- 4.00
- 3.00
- 2.00
- 1.00

0 300 ft.
SCALE

FIGURE 4

TOTAL HALOCARBONS CONCENTRATION MAP

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	3638.52	10/25/96	84	70.22	3568.30		13.78
		11/21/96		70.17	3568.35	0.05	13.83
		01/22/97		70.44	3568.08	-0.27	13.56
Abandoned		05/22/97					
MW-2	3637.26	10/25/96	85	70.03	3567.23		14.97
		11/21/96		70.03	3567.23	0.00	14.97
		01/22/97		70.26	3567.00	-0.23	14.74
		05/21/97		70.53	3566.73	-0.27	14.47
		07/28/97		70.69	3566.57	-0.16	14.31
		10/15/97		70.80	3566.46	-0.11	14.20
		01/05/98		71.05	3566.21	-0.25	13.95
		04/16/98		71.27	3565.99	-0.22	13.73
		07/16/98		71.61	3565.65	-0.34	13.39
		10/25/98		71.84	3565.42	-0.23	13.16
		02/10/99		72.02	3565.24	-0.18	12.98
MW-3	3638.28	10/25/96	85	72.88	3565.40		12.12
		11/21/96		72.89	3565.39	-0.01	12.11
		01/22/97		73.10	3565.18	-0.21	11.90
		05/21/97		73.40	3564.88	-0.30	11.60
		07/28/97		73.54	3564.74	-0.14	11.46
		10/15/97		73.67	3564.61	-0.13	11.33
		01/05/98		73.92	3564.36	-0.25	11.08
		04/16/98		74.13	3564.15	-0.21	10.87
		07/16/98		74.46	3563.82	-0.33	10.54
		10/25/98		74.74	3563.54	-0.28	10.26
		02/10/99		75.00	3563.28	-0.26	10.00
MW-4	3639.20	10/25/96	85	72.41	3566.79		12.59
		11/21/96		72.37	3566.83	0.04	12.63
		01/22/97		72.60	3566.60	-0.23	12.40
		05/21/97		72.87	3566.33	-0.27	12.13
		07/28/97		72.93	3566.27	-0.06	12.07
		10/15/97		73.03	3566.17	-0.10	11.97
		01/05/98		73.24	3565.96	-0.21	11.76
		04/16/98		73.67	3565.53	-0.43	11.33
		07/16/98		73.68	3565.52	-0.01	11.32
		10/25/98		74.21	3564.99	-0.53	10.79
		02/10/99		74.32	3564.88	-0.11	10.68
MW-5	3637.70	01/22/97	85	71.90	3565.80		13.10
		05/21/97		72.21	3565.49	-0.31	12.79
		07/28/97		72.36	3565.34	-0.15	12.64
		10/15/97		72.44	3565.26	-0.08	12.56
		01/05/98		72.71	3564.99	-0.27	12.29
		04/16/98		72.92	3564.78	-0.21	12.08
		07/16/98		73.25	3564.45	-0.33	11.75
		10/25/98		73.53	3564.17	-0.28	11.47
		02/10/99		73.77	3563.93	-0.24	11.23
MW-6	3637.52	01/22/97	85	72.88	3564.64		12.12
		05/21/97		73.22	3564.30	-0.34	11.78
		07/28/97		73.44	3564.08	-0.22	11.56
		10/15/97		73.48	3564.04	-0.04	11.52
		01/05/98		73.72	3563.80	-0.24	11.28
		04/16/98		73.94	3563.58	-0.22	11.06
		07/16/98		74.26	3563.26	-0.32	10.74
		10/25/98		74.55	3562.97	-0.29	10.45
		02/10/99		74.78	3562.74	-0.23	10.22

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-7	3638.62	01/22/97	85	73.31	3565.31		11.69
		05/21/97		73.63	3564.99	-0.32	11.37
		07/28/97		73.80	3564.82	-0.17	11.20
		10/15/97		73.93	3564.69	-0.13	11.07
		01/05/98		74.17	3564.45	-0.24	10.83
		04/16/98		74.39	3564.23	-0.22	10.61
		07/16/98		74.71	3563.91	-0.32	10.29
		10/25/98		74.98	3563.64	-0.27	10.02
		02/10/99		75.22	3563.40	-0.24	9.78
MW-8	3638.71	01/22/97	85	72.78	3565.93		12.22
		05/21/97		73.12	3565.59	-0.34	11.88
		07/28/97		73.31	3565.40	-0.19	11.69
		10/15/97		73.44	3565.27	-0.13	11.56
		01/05/98		73.63	3565.08	-0.19	11.37
		04/16/98		74.00	3564.71	-0.37	11.00
		07/16/98		74.21	3564.50	-0.21	10.79
		10/25/98		74.48	3564.23	-0.27	10.52
		02/10/99		74.72	3563.99	-0.24	10.28
MW-9	3638.76	01/22/97	85	72.57	3566.19		12.43
		05/21/97		72.89	3565.87	-0.32	12.11
		07/28/97		73.08	3565.68	-0.19	11.92
		10/15/97		73.24	3565.52	-0.16	11.76
		01/05/98		73.47	3565.29	-0.23	11.53
		04/16/98		73.70	3565.06	-0.23	11.30
		07/16/98		73.99	3564.77	-0.29	11.01
		10/25/98		74.27	3564.49	-0.28	10.73
		02/10/99		74.52	3564.24	-0.25	10.48
MW-10	3638.86	05/27/97	130.5	73.33	3565.53		57.17
		07/28/97		73.49	3565.37	-0.16	57.01
		10/15/97		73.61	3565.25	-0.12	56.89
		01/05/98		73.83	3565.03	-0.22	56.67
		04/16/98		74.08	3564.78	-0.25	56.42
		07/16/98		74.38	3564.48	-0.30	56.12
		10/25/98		74.64	3564.22	-0.26	55.86
		02/10/99		74.92	3563.94	-0.28	55.58
MW-11	3638.55	05/26/97	208	70.70	3567.85		137.30
		07/28/97		70.89	3567.66	-0.19	137.11
		10/15/97		70.85	3567.70	0.04	137.15
		01/05/98		71.21	3567.34	-0.36	136.79
		04/16/98		71.45	3567.10	-0.24	136.55
		07/16/98		71.76	3566.79	-0.31	136.24
		10/25/98		71.95	3566.60	-0.19	136.05
		02/10/99		72.22	3566.33	-0.27	135.78
MW-12	3636.15	05/26/97	85	68.05	3568.10		16.95
		07/28/97		68.14	3568.01	-0.09	16.86
		10/15/97		68.24	3567.91	-0.10	16.76
		01/05/98		68.52	3567.63	-0.28	16.48
		04/16/98		68.78	3567.37	-0.26	16.22
		07/16/98		69.10	3567.05	-0.32	15.90
		10/25/98		69.26	3566.89	-0.16	15.74
		02/10/99		69.53	3566.62	-0.27	15.47

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-13	3635.39	05/21/97	84	72.31	3563.08		11.69
		07/28/97		72.39	3563.00	-0.08	11.61
		10/15/97		72.63	3562.76	-0.24	11.37
		01/05/98		72.79	3562.60	-0.16	11.21
		04/16/98		72.93	3562.46	-0.14	11.07
		07/16/98		73.32	3562.07	-0.39	10.68
		10/25/98		73.62	3561.77	-0.30	10.38
		02/10/99		73.88	3561.51	-0.26	10.12
MW-14	3637.19	05/21/97	85	74.86	3562.33		10.14
		07/28/97		75.06	3562.13	-0.20	9.94
		10/15/97		75.28	3561.91	-0.22	9.72
		01/05/98		75.44	3561.75	-0.16	9.56
		04/16/98		75.61	3561.58	-0.17	9.39
		07/16/98		75.98	3561.21	-0.37	9.02
		10/25/98		76.26	3560.93	-0.28	8.74
		02/10/99		76.57	3560.62	-0.31	8.43
MW-15	3636.57	05/21/97	85	72.09	3564.48		12.91
		07/28/97		72.28	3564.29	-0.19	12.72
		10/15/97		72.52	3564.05	-0.24	12.48
		01/05/98		72.70	3563.87	-0.18	12.30
		04/16/98		72.87	3563.70	-0.17	12.13
		07/16/98		73.24	3563.33	-0.37	11.76
		10/25/98		73.47	3563.10	-0.23	11.53
		02/10/99		73.76	3562.81	-0.29	11.24
Shell Station MW-4	3637.69	05/25/97	82.6	75.97	3561.72		6.63
		07/28/97		76.15	3561.54	-0.18	6.45
		10/15/97		76.26	3561.43	-0.11	6.34
		01/05/98		76.52	3561.17	-0.26	6.08
		04/16/98		76.67	3561.02	-0.15	5.93
		07/16/98		78.03	3559.66	-1.36	4.57
		10/25/98		77.33	3560.36	0.70	5.27
		02/10/99		77.62	3560.07	-0.29	4.98

Note: Top of casing survey elevations are based on the "City of Hobbs Control Datum" and the North American Vertical Datum

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.015
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.008
abandoned														
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007	0.134	0.331
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006	0.135	0.353
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008	0.193	0.648
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)	0.058	0.193
	05/23/97	0.039	ND(0.001)	0.007	0.014	0.057	ND(0.001)	0.009	0.004	0.003	0.005	0.001	0.021	0.117
	06/25/97	0.590	ND(0.002)	0.009	0.027	0.180	ND(0.002)	0.011	0.005	0.007	0.007	*0.001*	0.030	0.806
	07/28/97	0.031	ND(0.002)	0.004	0.011	0.097	ND(0.002)	0.004	*0.001*	*0.001*	*0.001*	ND(0.002)	0.007	0.143
	10/16/97	0.012	ND(0.002)	*0.002*	0.012	0.023	ND(0.002)	0.002	*0.001*	*0.001*	*0.001*	ND(0.002)	0.005	0.049
	01/06/98	0.023	ND(0.002)	0.002	0.007	0.043	ND(0.002)	0.004	*0.002*	*0.001*	*0.001*	ND(0.002)	0.008	0.075
	04/16/98	0.053	ND(0.002)	0.008	0.058	0.130	ND(0.002)	0.010	ND(0.002)	*0.002*	*0.001*	ND(0.002)	0.013	0.249
duplicate	04/16/98	0.058	ND(0.01)	0.008	0.064	0.142	ND(0.01)	0.010	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.010	0.272
	07/17/98	0.006	ND(0.002)	*0.001*	0.034	0.013	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.054
	10/27/98	0.020	ND(0.002)	0.003	0.018	0.011	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.052
	02/10/99	0.018	ND(0.001)	0.003	0.035	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.060
	02/10/99	0.016	ND(0.001)	0.003	0.034	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.002	0.000	0.057
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006	0.002	0.049
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	0.000	0.071
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.067
	05/22/97	0.026	0.001	0.015	0.016	0.015	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004	0.002	0.073
	07/28/97	0.033	*0.002*	0.012	0.012	0.008	ND(0.002)	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.005	0.003	0.067
	10/16/97	0.022	ND(0.002)	0.008	0.022	0.011	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.001	0.063
	01/06/98	0.023	ND(0.002)	0.023	0.026	0.031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.103
	04/16/98	0.030	ND(0.002)	0.014	0.025	0.012	0.003	0.003	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.003	0.084
	07/17/98	0.034	ND(0.002)	0.015	0.026	0.013	0.003	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.091
	10/27/98	0.035	ND(0.002)	0.012	0.016	0.005	0.002	0.002	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.070
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	4.294
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	5.200
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.902
	01/22/97	0.089	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	4.292
	05/23/97	0.062	0.022	0.423	1.720	0.550	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.777
	06/25/97	0.047	*0.017*	0.175	1.250	0.349	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.838
	06/25/97	0.044	*0.017*	0.167	1.190	0.332	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.750
	07/28/97	0.037	*0.015*	0.124	1.060	0.267	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.503
	10/16/97	0.031	*0.011*	0.103	1.170	0.225	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.540
	01/06/98	0.021	ND(0.02)	0.087	0.970	0.148	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	0.024	0.000	1.226
	01/06/98	0.021	*0.006*	0.077	0.907	0.138	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.019	0.000	1.149
	04/16/98	*0.019*	ND(0.05)	0.116	0.651	0.114	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	0.900
	07/17/98	0.031	ND(0.01)	0.206	1.120	0.194	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.551
duplicate	07/17/98	0.031	ND(0.02)	0.240	0.843	0.216	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.330
	10/27/98	*0.031*	ND(0.05)	0.201	1.080	0.209	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	1.521
	02/10/99	0.019	ND(0.01)	0.118	0.511	0.090	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.738
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	*0.001*	0.018	0.004	ND(0.001)	*0.001*	ND(0.001)	0.023	0.251
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	*0.001*	0.018	0.004	ND(0.001)	0.001	0.004	0.023	0.254
	05/23/97	0.191	0.003	0.055	0.079	0.059	*0.002*	0.029	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.029	0.389
	07/28/97	0.241	0.004	0.072	0.058	0.051	0.002	0.051	0.023	ND(0.002)	0.007	0.009	0.081	0.428
duplicate	07/28/97	0.258	*0.004*	0.069	0.052	0.050	ND(0.005)	0.052	0.023	ND(0.005)	*0.007*	0.011	0.082	0.433
	10/16/97	0.214	*0.004*	0.066	0.070	0.039	ND(0.01)	0.059	0.027	ND(0.01)	0.008	0.011	0.094	0.393
	01/06/98	0.215	*0.004*	0.060	0.055	0.029	ND(0.01)	0.048	0.016	ND(0.01)	0.006	*0.005*	0.070	0.363
	04/16/98	0.136	*0.002*	0.033	0.031	0.008	ND(0.005)	0.034	0.011	ND(0.005)	ND(0.01)	0.009	0.045	0.210
	07/17/98	0.106	*0.002*	0.023	0.029	0.007	0.002	0.025	0.007	ND(0.002)	*0.001*	*0.005*	0.033	0.169
	10/27/98	0.080	ND(0.01)	0.042	0.033	0.016	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.171
duplicate	10/27/98	0.053	ND(0.002)	0.011	0.011	0.002	ND(0.002)	0.011	0.002	ND(0.002)	ND(0.004)	0.002	0.013	0.077

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	*0.001*	0.001	0.053
	05/22/97	0.085	0.002	0.034	0.023	0.017	*0.002*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.004	0.163
	07/28/97	0.081	*0.002*	0.027	0.021	0.008	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.004	0.003	0.141
	10/16/97	0.082	*0.002*	0.025	0.019	0.006	*0.002*	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.136
	01/06/98	0.113	*0.003*	0.038	0.024	0.012	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.192
	04/16/98	0.088	0.003	0.027	0.017	0.008	*0.002*	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.002	0.145
	07/17/98	0.091	0.004	0.051	0.032	0.022	0.002	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.202
	10/26/98	0.055	ND(0.01)	0.011	0.011	ND(0.01)	ND(0.01)	0.011	*0.002*	ND(0.01)	ND(0.02)	*0.002*	0.013	0.077
	02/10/99	0.113	0.005	0.056	0.039	0.016	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.232
MW-7	01/23/97	0.047	*0.001*	0.009	0.014	ND(0.001)	0.004	*0.001*	ND(0.001)	ND(0.001)	0.001	0.013	0.002	0.075
	05/22/97	0.087	0.002	0.066	0.116	*0.002*	0.014	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.062	0.003	0.287
	07/28/97	0.073	*0.002*	0.061	0.110	ND(0.002)	0.021	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.055	0.004	0.267
	10/16/97	0.065	ND(0.005)	0.050	0.091	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.058	0.003	0.224
	01/06/98	0.076	ND(0.005)	0.054	0.111	ND(0.005)	0.018	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.048	0.003	0.259
	04/16/98	0.055	ND(0.005)	0.035	0.078	ND(0.005)	0.020	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.040	0.003	0.188
	07/17/98	0.065	ND(0.005)	0.038	0.073	ND(0.005)	0.024	*0.003*	ND(0.005)	ND(0.005)	ND(0.01)	0.010	0.003	0.200
	10/26/98	0.047	ND(0.005)	0.030	0.073	ND(0.005)	0.019	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	0.014	0.000	0.169
	02/10/99	0.050	ND(0.001)	0.032	0.066	0.002	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.006	0.002	0.164
MW-8	01/23/97	0.068	0.005	0.280	0.810	0.460	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.623
	05/23/97	0.082	ND(0.01)	1.360	4.150	0.805	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	6.397
	06/25/97	0.077	ND(0.02)	0.975	3.600	0.774	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.426
	07/28/97	ND(0.1)	ND(0.1)	1.120	4.520	0.798	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	6.438
	10/16/97	ND(0.2)	ND(0.2)	0.858	4.570	0.596	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	6.024
	01/06/98	ND(0.2)	ND(0.2)	1.230	4.650	0.798	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.166*	0.000	6.678
	04/16/98	ND(0.2)	ND(0.2)	1.050	4.620	0.658	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	*0.142*	0.000	6.328
	07/17/98	ND(0.2)	ND(0.2)	1.200	5.090	0.740	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	7.030
	10/27/98	*0.060*	ND(0.2)	0.780	4.160	0.522	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	5.522
	02/10/99	0.083	ND(0.025)	0.936	3.870	0.569	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.458
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.209
	05/23/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.045
	06/25/97	0.033	ND(0.02)	0.326	1.130	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.489
	07/28/97	0.021	ND(0.02)	0.278	1.020	0.121	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.440
	10/16/97	*0.019*	ND(0.02)	0.278	1.160	0.104	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.561
duplicate	10/16/97	0.023	ND(0.02)	0.321	1.160	0.141	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.645
	01/06/98	*0.033*	ND(0.1)	0.502	1.350	0.174	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.059
	04/16/98	*0.029*	ND(0.05)	0.444	1.290	0.144	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.1)	ND(0.05)	0.000	1.907
	07/17/98	*0.042*	ND(0.1)	0.690	1.770	0.242	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.744
	10/27/98	*0.030*	ND(0.1)	0.507	1.740	0.193	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.470
	02/10/99	0.031	ND(0.01)	0.487	1.400	0.159	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.077
MW-10	05/26/97	0.004	ND(0.002)	0.007	0.026	ND(0.002)	*0.001*	0.004	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.004	0.038
duplicate	05/26/97	ND(0.002)	ND(0.002)	0.008	0.028	ND(0.002)	*0.001*	0.007	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.007	0.037
	07/28/97	0.003	ND(0.002)	0.009	0.014	*0.002*	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.028
	10/16/97	ND(0.002)	ND(0.002)	*0.002*	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	01/06/98	ND(0.002)	ND(0.002)	*0.002*	0.008	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.010
	04/16/98	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.002
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.003	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.003	0.002
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
duplicate	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.000
MW-11	05/24/97	*0.001*	ND(0.001)	*0.007*	0.002	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.010
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.003	*0.001*	ND(0.001)	0.006	ND(0.001)	0.010	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	*0.001*	ND(0.001)	*0.003*	ND(0.001)	0.006	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	*0.003*	ND(0.002)	0.005	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	*0.002*	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.004	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	0.003	0.000
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	*0.002*	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.000

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-12	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	*0.006*	*0.005*	*0.003*	ND(0.001)	0.014	0.001
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.001
	10/26/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
MW-13	05/24/97	ND(0.001)	ND(0.001)	0.012	0.010	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.023
	07/28/97	ND(0.001)	ND(0.001)	0.012	0.009	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.022
	10/16/97	ND(0.001)	ND(0.001)	0.015	0.013	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
duplicate	10/16/97	ND(0.002)	ND(0.002)	0.011	0.013	*0.001*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.025
	01/06/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
	04/16/98	ND(0.002)	ND(0.002)	0.017	0.011	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.030
duplicate	04/16/98	ND(0.001)	ND(0.001)	0.016	0.010	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.029
	07/17/98	ND(0.002)	ND(0.002)	0.019	0.016	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.037
	10/26/98	ND(0.002)	ND(0.002)	0.019	0.020	0.002	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.041
	02/10/99	*0.001*	ND(0.001)	0.016	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.033
MW-14	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/26/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	02/10/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	<0.001	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
MW-15	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/16/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
duplicate	01/06/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/26/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	02/10/99	ND(0.0005)	ND(0.0005)	<0.001	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	02/10/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
*SO4	05/25/97	0.021	ND(0.01)	0.024	ND(0.01)	*0.005*	ND(0.01)	ND(0.01)	0.469	0.470	1.936	0.107	2.875	0.050
	07/28/97	0.020	ND(0.02)	0.020	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.411	0.138	0.905	0.125	1.454	0.040
	10/16/97	*0.018*	ND(0.02)	0.022	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.322	0.039	0.713	0.102	1.074	0.040
	01/06/98	0.051	ND(0.002)	0.075	0.004	0.014	ND(0.002)	0.002	0.042	*0.001*	0.019	0.024	0.064	0.144
	04/16/98	0.049	ND(0.005)	0.087	0.005	0.015	ND(0.005)	*0.002*	0.008	ND(0.005)	ND(0.01)	0.024	0.010	0.156
	07/17/98	0.038	ND(0.005)	0.075	0.005	0.015	ND(0.005)	ND(0.005)	0.016	ND(0.005)	ND(0.01)	0.026	0.016	0.133
	10/26/98	0.010	ND(0.002)	0.024	*0.002*	0.005	ND(0.002)	ND(0.002)	0.003	ND(0.002)	ND(0.004)	0.004	0.003	0.041
	02/10/99	0.025	ND(0.001)	0.079	0.005	0.016	ND(0.001)	*0.001*	0.013	ND(0.001)	ND(0.002)	0.013	0.014	0.125

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parentheses.
italicized value - is below the method detection limit.
< - analyte detected above the method detection limit but table is reported only to 1 part per billion
*SO4 = Shell Service Station monitoring well MW-4
1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethane
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	14:00
Sample ID:	93007-2.2/99 MW-2	Date Received:	02-11-99
Laboratory ID:	C99-15554	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	2		

C.A.S. #	**TARGET COMPOUNDS**	***CONCENTRATION (µg/L)***	***LIMIT OF DETECTION (µg/L)***
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**2.86**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**17.8**	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**4.16**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**34.8**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants MW-2	Date Sampled:	02-10-99
Sample ID:	93007-2.2/99	Date Analyzed:	02-11-99
Laboratory ID:	C99-15554	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1759664	1905745	92.3%	50 - 200 %
Fluorobenzene	2983855	3212696	92.9%	50 - 200 %
1,4 - Difluorobenzene	2362144	2422189	97.5%	50 - 200 %
Chlorobenzene - d5	1706466	1715238	99.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	796524	818870	97.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	9.96	99.6%	88 - 110 %
4 - Bromofluorobenzene	9.74	97.4%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.98	99.8%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	15:30
Sample ID:	93007-A.2/99	Date Received:	02-11-99
Laboratory ID:	C99-15564	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	2		

Duplicate of MW-7

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**2.62**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**16.2**	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**3.96**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**33.7**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-A.2/99
Laboratory ID: C99-15564

Duplicate of MW-2

Date Sampled: 02-10-99
Date Analyzed: 02-11-99
Date Reported: February 17, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	**Naphthalene**	**1.72**	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1814646	1905745	95.2%	50 - 200 %
Fluorobenzene	3033085	3212696	94.4%	50 - 200 %
1,4 - Difluorobenzene	2357840	2422189	97.3%	50 - 200 %
Chlorobenzene - d5	1733930	1715238	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	806144	818870	98.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.65	96.5%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.61	96.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	14:25
Sample ID:	93007-4.2/99 MW-4	Date Received:	02-11-99
Laboratory ID:	C99-15555	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	20		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**118**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**19.4**	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	ND	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**89.8**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**511**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-4.2/99 MW-4	Date Analyzed:	02-11-99
Laboratory ID:	C99-15555	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1766816	1905745	92.7%	50 - 200 %
Fluorobenzene	3061291	3212696	95.3%	50 - 200 %
1,4 - Difluorobenzene	2397489	2422189	99.0%	50 - 200 %
Chlorobenzene - d5	1751690	1715238	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	807293	818870	98.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.98	99.8%	86 - 118 %
Toluene - d8	9.97	99.7%	88 - 110 %
4 - Bromofluorobenzene	9.62	96.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	13:35
Sample ID:	93007-6.2/99 MW-6	Date Received:	02-11-99
Laboratory ID:	C99-15556	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	5		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	**1,1 - Dichloroethene**	**56.1**	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	**1,1 - Dichloroethane**	**113**	2.5
78-93-3	2 -Butanone (MEK)	ND	50
156-59-2	**cis - 1,2 - Dichloroethene**	**7.65**	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	Chloroform (Trichloromethane)	**8.85**	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	**1,1,1 - Trichloroethane**	**16.3**	2.5
107-06-2	**1,2 - Dichloroethane**	**4.60**	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	**Benzene**	**2.80**	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	**Trichloroethene**	**2.50**	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	**1,1,2 - Trichloroethane**	**2.90**	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	**Tetrachloroethene**	**38.8**	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-6.2/99	Date Analyzed:	02-11-99
Laboratory ID:	C99-15556	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1761199	1905745	92.4%	50 - 200 %
Fluorobenzene	3038657	3212696	94.6%	50 - 200 %
1,4 - Difluorobenzene	2436330	2422189	101%	50 - 200 %
Chlorobenzene - d5	1741581	1715238	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	807931	818870	98.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103%	86 - 118 %
Toluene - d8	9.88	98.8%	88 - 110 %
4 - Bromofluorobenzene	9.65	96.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	13:15
Sample ID:	93007-7.2/99 mw-7	Date Received:	02-11-99
Laboratory ID:	C99-15557	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	2		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**31.9**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**49.7**	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	**cis - 1,2 - Dichloroethene**	**1.52**	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**1.84**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	**Benzene**	**1.62**	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	**Trichloroethene**	**14.2**	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**65.5**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-7.2/99	Date Analyzed:	02-11-99
Laboratory ID:	C99-15557	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	6.20	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1785911	1905745	93.7%	50 - 200 %
Fluorobenzene	2998700	3212696	93.3%	50 - 200 %
1,4 - Difluorobenzene	2347298	2422189	96.9%	50 - 200 %
Chlorobenzene - d5	1712712	1715238	99.9%	50 - 200 %
1,4 - Dichlorobenzene - d4	804182	818870	98.2%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.87	98.7%	86 - 118 %
Toluene - d8	9.97	99.7%	88 - 110 %
4 - Bromofluorobenzene	9.69	96.9%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	15:15
Sample ID:	93007-8.2/99 MW-3	Date Received:	02-11-99
Laboratory ID:	C99-15558	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	50		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	25.0
74-87-3	Chloromethane	ND	25.0
75-01-4	Vinyl chloride (Chloroethene)	ND	25.0
74-83-9	Bromomethane	ND	25.0
75-00-3	Chloroethane	ND	25.0
75-69-4	Trichlorofluoromethane	ND	25.0
75-35-4	**1,1 - Dichloroethene**	**936**	25.0
75-09-2	Methylene chloride (Dichloromethane)	ND	25.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	25.0
75-34-3	**1,1 - Dichloroethane**	**82.5**	25.0
78-93-3	2 -Butanone (MEK)	ND	500
156-59-2	cis - 1,2 - Dichloroethene	ND	25.0
74-97-5	Bromochloromethane	ND	25.0
67-66-3	Chloroform (Trichloromethane)	ND	25.0
594-20-7	2,2 - Dichloropropane	ND	25.0
71-55-6	**1,1,1 - Trichloroethane**	**569**	25.0
107-06-2	1,2 - Dichloroethane	ND	25.0
563-58-6	1,1 - Dichloropropene	ND	25.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	25.0
71-43-2	Benzene	ND	25.0
74-95-3	Dibromomethane	ND	25.0
78-87-5	1,2 - Dichloropropane	ND	25.0
79-01-6	Trichloroethene	ND	25.0
75-27-4	Bromodichloromethane	ND	25.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	25.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	25.0
79-00-5	1,1,2 - Trichloroethane	ND	25.0
108-88-3	Toluene	ND	25.0
106-93-4	1,2 - Dibromoethane	ND	25.0
142-28-9	1,3 - Dichloropropane	ND	25.0
124-48-1	Dibromochloromethane	ND	25.0
127-18-4	**Tetrachloroethene**	**3,870**	25.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	25.0
108-90-7	Chlorobenzene	ND	25.0
100-41-4	Ethylbenzene	ND	25.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	50.0
75-25-2	Bromoform (Tribromomethane)	ND	25.0
100-42-5	Styrene (Ethenylbenzene)	ND	25.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	25.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	25.0
96-18-4	1,2,3 - Trichloropropane	ND	25.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-8.2/99	Date Analyzed:	02-11-99
Laboratory ID:	C99-15558	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	25.0
108-86-1	Bromobenzene	ND	25.0
103-65-1	n - Propylbenzene	ND	25.0
95-49-8	2 - Chlorotoluene	ND	25.0
106-43-4	4 - Chlorotoluene	ND	25.0
108-67-8	1,3,5 - Trimethylbenzene	ND	25.0
98-06-6	tert - Butylbenzene	ND	25.0
95-63-6	1,2,4 - Trimethylbenzene	ND	25.0
135-98-8	sec - Butylbenzene	ND	25.0
541-73-1	1,3 - Dichlorobenzene	ND	25.0
106-46-7	1,4 - Dichlorobenzene	ND	25.0
99-87-6	4-Isopropyltoluene	ND	25.0
95-50-1	1,2 - Dichlorobenzene	ND	25.0
104-51-8	n - Butylbenzene	ND	25.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	125
120-82-1	1,2,4 - Trichlorobenzene	ND	25.0
91-20-3	Naphthalene	ND	25.0
87-68-3	Hexachlorobutadiene	ND	25.0
87-61-6	1,2 3 - Trichlorobenzene	ND	25.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1806644	1905745	94.8%	50 - 200 %
Fluorobenzene	3074475	3212696	95.7%	50 - 200 %
1,4 - Difluorobenzene	2394943	2422189	98.9%	50 - 200 %
Chlorobenzene - d5	1743468	1715238	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	799062	818870	97.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.67	96.7%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.57	95.7%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	14:45
Sample ID:	93007-9.2/99	Date Received:	02-11-99
Laboratory ID:	C99-15559	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	20		

MW-9

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		10.0
74-87-3	Chloromethane	ND		10.0
75-01-4	Vinyl chloride (Chloroethene)	ND		10.0
74-83-9	Bromomethane	ND		10.0
75-00-3	Chloroethane	ND		10.0
75-69-4	Trichlorofluoromethane	ND		10.0
75-35-4	**1,1 - Dichloroethene**	**487**		10.0
75-09-2	Methylene chloride (Dichloromethane)	ND		10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		10.0
75-34-3	**1,1 - Dichloroethane**	**30.6**		10.0
78-93-3	2 -Butanone (MEK)	ND		200
156-59-2	cis - 1,2 - Dichloroethene	ND		10.0
74-97-5	Bromochloromethane	ND		10.0
67-66-3	Chloroform (Trichloromethane)	9.40	J	10.0
594-20-7	2,2 - Dichloropropane	ND		10.0
71-55-6	**1,1,1 - Trichloroethane**	**159**		10.0
107-06-2	1,2 - Dichloroethane	ND		10.0
563-58-6	1,1 - Dichloropropene	ND		10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		10.0
71-43-2	Benzene	ND		10.0
74-95-3	Dibromomethane	ND		10.0
78-87-5	1,2 - Dichloropropane	ND		10.0
79-01-6	Trichloroethene	ND		10.0
75-27-4	Bromodichloromethane	ND		10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		10.0
79-00-5	1,1,2 - Trichloroethane	ND		10.0
108-88-3	Toluene	ND		10.0
106-93-4	1,2 - Dibromoethane	ND		10.0
142-28-9	1,3 - Dichloropropane	ND		10.0
124-48-1	Dibromochloromethane	ND		10.0
127-18-4	**Tetrachloroethene**	**1,400**		10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		10.0
108-90-7	Chlorobenzene	ND		10.0
100-41-4	Ethylbenzene	ND		10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		20.0
75-25-2	Bromoform (Tribromomethane)	ND		10.0
100-42-5	Styrene (Ethenylbenzene)	ND		10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		10.0
96-18-4	1,2,3 - Trichloropropane	ND		10.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-9.2/99 mw-4	Date Analyzed:	02-11-99
Laboratory ID:	C99-15559	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1768279	1905745	92.8%	50 - 200 %
Fluorobenzene	3071462	3212696	95.6%	50 - 200 %
1,4 - Difluorobenzene	2362380	2422189	97.5%	50 - 200 %
Chlorobenzene - d5	1745150	1715238	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	798488	818870	97.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.65	96.5%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	9.44	94.4%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	12:40
Sample ID:	93007-13.2/99	Date Received:	02-11-99
Laboratory ID:	C99-15560	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	2		

MW-13

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**16.1**		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**0.64**	J	1.0
78-93-3	2 -Butanone (MEK)	ND		20
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	ND		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	**1,1,1 - Trichloroethane**	**1.52**		1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	Benzene	ND		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	ND		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**14.1**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-13.2/99 mw-13	Date Analyzed:	02-11-99
Laboratory ID:	C99-15560	Date Reported:	February 17, 1999

C.A.S. #	**TARGET COMPOUNDS**	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1725709	1905745	90.6%	50 - 200 %
Fluorobenzene	3093855	3212696	96.3%	50 - 200 %
1,4 - Difluorobenzene	2333386	2422189	96.3%	50 - 200 %
Chlorobenzene - d5	1731931	1715238	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	777065	818870	94.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.88	98.8%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.37	93.7%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	11:05
Sample ID:	93007-14.2/99	Date Received:	02-11-99
Laboratory ID:	C99-15561	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	1		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	0.5
74-87-3	Chloromethane	ND	0.5
75-01-4	Vinyl chloride (Chloroethene)	ND	0.5
74-83-9	Bromomethane	ND	0.5
75-00-3	Chloroethane	ND	0.5
75-69-4	Trichlorofluoromethane	ND	0.5
75-35-4	1,1 - Dichloroethene	ND	0.5
75-09-2	Methylene chloride (Dichloromethane)	ND	0.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.5
75-34-3	1,1 - Dichloroethane	ND	0.5
78-93-3	2 -Butanone (MEK)	ND	10
156-59-2	cis - 1,2 - Dichloroethene	ND	0.5
74-97-5	Bromochloromethane	ND	0.5
67-66-3	Chloroform (Trichloromethane)	ND	0.5
594-20-7	2,2 - Dichloropropane	ND	0.5
71-55-6	1,1,1 - Trichloroethane	ND	0.5
107-06-2	1,2 - Dichloroethane	ND	0.5
563-58-6	1,1 - Dichloropropene	ND	0.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.5
71-43-2	Benzene	ND	0.5
74-95-3	Dibromomethane	ND	0.5
78-87-5	1,2 - Dichloropropane	ND	0.5
79-01-6	Trichloroethene	ND	0.5
75-27-4	Bromodichloromethane	ND	0.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.5
79-00-5	1,1,2 - Trichloroethane	ND	0.5
108-88-3	Toluene	ND	0.5
106-93-4	1,2 - Dibromoethane	ND	0.5
142-28-9	1,3 - Dichloropropane	ND	0.5
124-48-1	Dibromochloromethane	ND	0.5
127-18-4	**Tetrachloroethene**	**0.56**	0.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.5
108-90-7	Chlorobenzene	ND	0.5
100-41-4	Ethylbenzene	ND	0.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	1.0
75-25-2	Bromoform (Tribromomethane)	ND	0.5
100-42-5	Styrene (Ethenylbenzene)	ND	0.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.5
96-18-4	1,2,3 - Trichloropropane	ND	0.5

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-14.2/99 MW-14	Date Analyzed:	02-11-99
Laboratory ID:	C99-15561	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.5
108-86-1	Bromobenzene	ND	0.5
103-65-1	n - Propylbenzene	ND	0.5
95-49-8	2 - Chlorotoluene	ND	0.5
106-43-4	4 - Chlorotoluene	ND	0.5
108-67-8	1,3,5 - Trimethylbenzene	ND	0.5
98-06-6	tert - Butylbenzene	ND	0.5
95-63-6	1,2,4 - Trimethylbenzene	ND	0.5
135-98-8	sec - Butylbenzene	ND	0.5
541-73-1	1,3 - Dichlorobenzene	ND	0.5
106-46-7	1,4 - Dichlorobenzene	ND	0.5
99-87-6	4-Isopropyltoluene	ND	0.5
95-50-1	1,2 - Dichlorobenzene	ND	0.5
104-51-8	n - Butylbenzene	ND	0.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	2.5
120-82-1	1,2,4 - Trichlorobenzene	ND	0.5
91-20-3	Naphthalene	ND	0.5
87-68-3	Hexachlorobutadiene	ND	0.5
87-61-6	1,2 3 - Trichlorobenzene	ND	0.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1737723	1905745	91.2%	50 - 200 %
Fluorobenzene	3081498	3212696	95.9%	50 - 200 %
1,4 - Difluorobenzene	2339567	2422189	96.6%	50 - 200 %
Chlorobenzene - d5	1731698	1715238	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	784211	818870	95.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.66	96.6%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	9.35	93.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	11:45
Sample ID:	93007-15.2/99 MW-15	Date Received:	02-11-99
Laboratory ID:	C99-15562	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	1		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	0.5
74-87-3	Chloromethane	ND	0.5
75-01-4	Vinyl chloride (Chloroethene)	ND	0.5
74-83-9	Bromomethane	ND	0.5
75-00-3	Chloroethane	ND	0.5
75-69-4	Trichlorofluoromethane	ND	0.5
75-35-4	**1,1 - Dichloroethene**	**0.54**	0.5
75-09-2	Methylene chloride (Dichloromethane)	ND	0.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.5
75-34-3	1,1 - Dichloroethane	ND	0.5
78-93-3	2 -Butanone (MEK)	ND	10
156-59-2	cis - 1,2 - Dichloroethene	ND	0.5
74-97-5	Bromochloromethane	ND	0.5
67-66-3	Chloroform (Trichloromethane)	ND	0.5
594-20-7	2,2 - Dichloropropane	ND	0.5
71-55-6	1,1,1 - Trichloroethane	ND	0.5
107-06-2	1,2 - Dichloroethane	ND	0.5
563-58-6	1,1 - Dichloropropene	ND	0.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.5
71-43-2	Benzene	ND	0.5
74-95-3	Dibromomethane	ND	0.5
78-87-5	1,2 - Dichloropropane	ND	0.5
79-01-6	Trichloroethene	ND	0.5
75-27-4	Bromodichloromethane	ND	0.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.5
79-00-5	1,1,2 - Trichloroethane	ND	0.5
108-88-3	Toluene	ND	0.5
106-93-4	1,2 - Dibromoethane	ND	0.5
142-28-9	1,3 - Dichloropropane	ND	0.5
124-48-1	Dibromochloromethane	ND	0.5
127-18-4	Tetrachloroethene	ND	0.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.5
108-90-7	Chlorobenzene	ND	0.5
100-41-4	Ethylbenzene	ND	0.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	1.0
75-25-2	Bromoform (Tribromomethane)	ND	0.5
100-42-5	Styrene (Ethenylbenzene)	ND	0.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.5
96-18-4	1,2,3 - Trichloropropane	ND	0.5

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-15.2/99	Date Analyzed:	02-11-99
Laboratory ID:	C99-15562	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.5
108-86-1	Bromobenzene	ND	0.5
103-65-1	n - Propylbenzene	ND	0.5
95-49-8	2 - Chlorotoluene	ND	0.5
106-43-4	4 - Chlorotoluene	ND	0.5
108-67-8	1,3,5 - Trimethylbenzene	ND	0.5
98-06-6	tert - Butylbenzene	ND	0.5
95-63-6	1,2,4 - Trimethylbenzene	ND	0.5
135-98-8	sec - Butylbenzene	ND	0.5
541-73-1	1,3 - Dichlorobenzene	ND	0.5
106-46-7	1,4 - Dichlorobenzene	ND	0.5
99-87-6	4-Isopropyltoluene	ND	0.5
95-50-1	1,2 - Dichlorobenzene	ND	0.5
104-51-8	n - Butylbenzene	ND	0.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	2.5
120-82-1	1,2,4 - Trichlorobenzene	ND	0.5
91-20-3	Naphthalene	ND	0.5
87-68-3	Hexachlorobutadiene	ND	0.5
87-61-6	1,2 3 - Trichlorobenzene	ND	0.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1717364	1905745	90.1%	50 - 200 %
Fluorobenzene	3133143	3212696	97.5%	50 - 200 %
1,4 - Difluorobenzene	2353755	2422189	97.2%	50 - 200 %
Chlorobenzene - d5	1754042	1715238	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	784881	818870	95.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.92	99.2%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	9.26	92.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.81	98.1%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	12:00
Sample ID:	93007-B.2/99	Date Received:	02-11-99
Laboratory ID:	C99-15565	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	2		

Duplicate of MW-15

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Sample ID:	93007-B.2/99	Date Analyzed:	02-11-99
Laboratory ID:	C99-15565	Date Reported:	February 17, 1999

duplicate of MW-15

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1691850	1905745	88.8%	50 - 200 %
Fluorobenzene	3109768	3212696	96.8%	50 - 200 %
1,4 - Difluorobenzene	2361736	2422189	97.5%	50 - 200 %
Chlorobenzene - d5	1724024	1715238	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	761095	818870	92.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.2	102%	86 - 118 %
Toluene - d8	9.91	99.1%	88 - 110 %
4 - Bromofluorobenzene	9.16	91.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.92	99.2%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-10-99
Project:	93007L	Time Sampled:	12:10
Sample ID:	93007-S04.2/99	Date Received:	02-11-99
Laboratory ID:	C99-15563	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	2		

Shell station well (mw-4)

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**79.0**		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**25.2**		1.0
78-93-3	2 -Butanone (MEK)	ND		20
156-59-2	**cis - 1,2 - Dichloroethene**	**2.06**		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	ND		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	**1,1,1 - Trichloroethane**	**15.8**		1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	**Benzene**	**0.84**	J	1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	ND		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**4.60**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	**Ethylbenzene**	**12.5**		1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated limit of detection

EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-S04.2/99
Laboratory ID: C99-15563

Shell Station (Conoco)

Date Sampled: 02-10-99
Date Analyzed: 02-11-99
Date Reported: February 17, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	**Isopropylbenzene (1-Methylethylbenzene)**	**1.74**	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	**n - Propylbenzene**	**3.46**	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	**1,2,4 - Trimethylbenzene**	**26.9**	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	**Naphthalene**	**13.1**	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1682328	1905745	88.3%	50 - 200 %
Fluorobenzene	3075774	3212696	95.7%	50 - 200 %
1,4 - Difluorobenzene	2432509	2422189	100%	50 - 200 %
Chlorobenzene - d5	1741141	1715238	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	782911	818870	95.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103%	86 - 118 %
Toluene - d8	9.78	97.8%	88 - 110 %
4 - Bromofluorobenzene	9.53	95.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515
Billings • Casper • Gillette • Rapid City

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-04-99
Project:	93007L	Time Sampled:	14:30
Sample ID:	TRIP BLANK	Date Received:	02-11-99
Laboratory ID:	C99-15566	Date Analyzed:	02-11-99
Matrix:	Water	Date Reported:	February 17, 1999
Dilution Factor:	1		

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	0.5
74-87-3	Chloromethane	ND	0.5
75-01-4	Vinyl chloride (Chloroethene)	ND	0.5
74-83-9	Bromomethane	ND	0.5
75-00-3	Chloroethane	ND	0.5
75-69-4	Trichlorofluoromethane	ND	0.5
75-35-4	1,1 - Dichloroethene	ND	0.5
75-09-2	Methylene chloride (Dichloromethane)	ND	0.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.5
75-34-3	1,1 - Dichloroethane	ND	0.5
78-93-3	2 -Butanone (MEK)	ND	10
156-59-2	cis - 1,2 - Dichloroethene	ND	0.5
74-97-5	Bromochloromethane	ND	0.5
67-66-3	Chloroform (Trichloromethane)	ND	0.5
594-20-7	2,2 - Dichloropropane	ND	0.5
71-55-6	1,1,1 - Trichloroethane	ND	0.5
107-06-2	1,2 - Dichloroethane	ND	0.5
563-58-6	1,1 - Dichloropropene	ND	0.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.5
71-43-2	Benzene	ND	0.5
74-95-3	Dibromomethane	ND	0.5
78-87-5	1,2 - Dichloropropane	ND	0.5
79-01-6	Trichloroethene	ND	0.5
75-27-4	Bromodichloromethane	ND	0.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.5
79-00-5	1,1,2 - Trichloroethane	ND	0.5
108-88-3	Toluene	ND	0.5
106-93-4	1,2 - Dibromoethane	ND	0.5
142-28-9	1,3 - Dichloropropane	ND	0.5
124-48-1	Dibromochloromethane	ND	0.5
127-18-4	Tetrachloroethene	ND	0.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.5
108-90-7	Chlorobenzene	ND	0.5
100-41-4	Ethylbenzene	ND	0.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	1.0
75-25-2	Bromoform (Tribromomethane)	ND	0.5
100-42-5	Styrene (Ethenylbenzene)	ND	0.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.5
96-18-4	1,2,3 - Trichloropropane	ND	0.5

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	02-04-99
Sample ID:	TRIP BLANK	Date Analyzed:	02-11-99
Laboratory ID:	C99-15566	Date Reported:	February 17, 1999

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.5
108-86-1	Bromobenzene	ND	0.5
103-65-1	n - Propylbenzene	ND	0.5
95-49-8	2 - Chlorotoluene	ND	0.5
106-43-4	4 - Chlorotoluene	ND	0.5
108-67-8	1,3,5 - Trimethylbenzene	ND	0.5
98-06-6	tert - Butylbenzene	ND	0.5
95-63-6	1,2,4 - Trimethylbenzene	ND	0.5
135-98-8	sec - Butylbenzene	ND	0.5
541-73-1	1,3 - Dichlorobenzene	ND	0.5
106-46-7	1,4 - Dichlorobenzene	ND	0.5
99-87-6	4-Isopropyltoluene	ND	0.5
95-50-1	1,2 - Dichlorobenzene	ND	0.5
104-51-8	n - Butylbenzene	ND	0.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	2.5
120-82-1	1,2,4 - Trichlorobenzene	ND	0.5
91-20-3	Naphthalene	ND	0.5
87-68-3	Hexachlorobutadiene	ND	0.5
87-61-6	1,2 3 - Trichlorobenzene	ND	0.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1692389	1905745	88.8%	50 - 200 %
Fluorobenzene	3118605	3212696	97.1%	50 - 200 %
1,4 - Difluorobenzene	2345346	2422189	96.8%	50 - 200 %
Chlorobenzene - d5	1726090	1715238	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	746552	818870	91.2%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	9.88	98.8%	88 - 110 %
4 - Bromofluorobenzene	9.15	91.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw
Reviewed: sec

sec: r:\reports\clients99\western_water_consultants\99_15554_8260_w.xls

Schlumberger Oilfield Services

January 25, 1999

Mr. Jack Ford
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Annual Report for the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico.

Dear Mr. Ford:

Enclosed are two copies of the annual report for the Dowell, a division of Schlumberger Technology Corporation facility in Hobbs, New Mexico. Included in the report are the fourth quarter air and water quality results for 1998.

The first quarter ground-water monitoring event for 1999 is tentatively scheduled for January, 1999. If you have any questions concerning the annual report please feel free to contact me at (281) 285-8498.

Sincerely,

John Miller
Remediation Manager

cc: WWC
file: 93007-A

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 24, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-357-870-024

Mr. John Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, TX 77478

RE: Minor Modification
GW-073, Dowell Schlumberger - Artesia
Soil Vapor Extraction System

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received **Dowell Schlumberger's (DS)** letter dated September 21, 1998 requesting modifications to the existing acid dock and former waste water collection pond soil vapor extraction (SVE) systems at the Hobbs Service facility. Based upon the information supplied with the **DS** request the OCD considers the changes as a minor modification to the above referenced discharge plan and public notice will not be issued. **The requested minor modification is hereby approved**, with the following conditions:

1. **DS** will notify the Santa Fe Division office in writing of any changes in air quality which may require an air quality permit from the New Mexico Environment Department Air Quality Bureau.

The Application for modification was submitted pursuant to Water Quality Control Commission (WQCC) Regulation 3107.C and is approved pursuant to WQCC Regulation 3109.

Please note that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan". Pursuant to Section 3107.C **DS** is required to notify the Director of any facility expansion, production increase or process modification that would result in a significant modification in the discharge of potential ground water contaminants.

Note, that OCD approval does not relieve **DS** of liability should **DS'** operation result in contamination of surface waters, ground waters or the environment. Also, OCD approval does not relieve **DS** from responsibility to comply with other Federal, State, and Local rules/regulations that may apply to this project.

If you have any questions please feel free to call Jack Ford at (505)-827-7156.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/wjf

cc: OCD Hobbs Office

Z 357 870 024

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to John Miller	
Street & Number 5J	
Post Office, State, & ZIP Code Sugarland, TX	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date GW-073	

PS Form **3800**, April 1995

Schlumberger Oilfield Services

Oilfield Services Shared Resources
P.O. Box 2727, Houston, Texas 77252-2727
(713) 275-8700

Via Fedex
September 21, 1998

Mr. Jack Ford
New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

RE: Workplan for the Modification of the Acid Dock and Former Waste Water Collection Pond Soil Vapor Extraction (SVE) Systems at the Dowell, a division of Schlumberger Technology Corporation Facility, in Hobbs, New Mexico.

Dear Mr. Ford:

This document and the enclosed workplan are provided to request authorization to make modifications to the existing acid dock and former waste water collection pond SVE systems at the Dowell facility in Hobbs, New Mexico. Enclosed with the workplan are site and electrical diagrams (Figures 1 and 2), and air quality data (Table 3).

Since Dowell would like to make these modifications during the fall of 1998, an early review would be greatly appreciated. If you have any questions, please feel free to contact me at (281) 285 - 8498.

Sincerely,

John A. Miller
Remediation Manager

Enclosure
cc: WWC, Laramie

Former Waste Water Collection Area and Acid Dock
Blower Replacement Work Plan
Dowell Schlumberger Facility
Hobbs, NM

September 14, 1998

History

Pilot studies for engine/blower SVE units were performed on three areas, the Former Waste Water Collection Area, the Acid Dock and the Former USTs, in the Dowell Schlumberger Hobbs, NM, Facility in November 1994. Engine/blower SVE units were then installed in all three areas in August 1995. The engine/blower units extract air containing volatile organic compounds (VOCs) from the soil and burn these compounds in the combustion process in the engine and in the catalytic converter in the exhaust system. Maintenance difficulties with the engine/blower unit in the Former USTs area necessitated its replacement with an electric blower in June 1997. The discharge from the electric blower, combined with the discharges from the two remaining engine/blower units, did not contain sufficient contaminants to trigger either an emissions inventory or an air quality permit. The concentrations and species of VOCs contained in the samples from the three units are shown in the attached table.

Although the air flow rates vary over time, the engine/blower units appear to extract air at an average rate of approximately 50, 25 and 40 cubic feet per minute (CFM) for the three areas respectively. If the engine/blower units operated 100% of the time, the units would have performed as shown in the following table for the period from installation until replacement of the Former USTs unit with an electric blower.

Engine/blower units on all areas, Aug. 95 – Jun. 97

	Average VOC Rate Removed Tons/ yr	Average VOC Rate Emitted Tons/ yr	Maximum VOC Rate Removed ib/hr	Maximum VOC Rate Emitted Lb/hr	Total VOC Removed Tons
Former WW Area	0.36	0.01	0.21	0.01	0.71
Acid Dock	0.02	0.00	0.01	0.00	0.04
Former USTs	0.48	0.03	0.26	0.03	0.95
Site Total	0.87	0.05	0.48	0.04	1.70

The new electric blower increased the average air flow rate from the Former USTs area from approximately 40 CFM to 200 CFM. However, even though the air flow rate increased about five times, the average VOC removal rate did not quite double due to lower VOC concentrations in the air stream. After the Former USTs area engine/blower unit was replaced by the electric blower, the performance of the three units to date is as follows assuming 100% operation:

Electric Blower on Former USTs area, Jun. 97 – Sep. 98

	Average VOC Rate Removed Tons/ yr	Average VOC Rate Emitted Tons/ yr	Maximum VOC Rate Removed Lb/hr	Maximum VOC Rate Emitted lb/hr	Total VOC Removed Tons
Former WW Area	0.36	0.00	0.13	0.00	0.43
Acid Dock	0.01	0.00	0.00	0.00	0.01
Former USTs	0.71	0.71	0.40	0.40	0.86
Site Total	1.07	0.71	0.54	0.40	1.30

Proposed Modification

After receiving permission for the proposed modifications from the appropriate New Mexico regulatory agencies, WWC will replace the remaining two engine/blower units with electric blowers, both discharging approximately 200 CFM and both discharged directly to the atmosphere. The average VOC concentrations in the air streams from the Former Waste Water Collection Area and the Acid Dock area are expected to decrease similarly to the decrease seen at the Former USTs area when the air flow rate increased. However, to conservatively estimate average and peak emission rates, the concentrations are assumed to remain constant with the increased airflow rate. 100% operation is also assumed, even though actual operation is significantly less. With these assumptions and using the concentrations from August 1997 to the present, the future emissions from the site are estimated as follows:

Electric Blower on Former UST area, Jun. 97 – Sep. 98

	Average VOC Rate Removed Tons/yr	Average VOC Rate Emitted Tons/ yr	Maximum VOC Rate Removed Lb/hr	Maximum VOC Rate Emitted lb/hr
Former WW Area	1.43	1.43	0.52	0.52
Acid Dock	0.05	0.05	0.03	0.03
Former USTs	0.71	0.71	0.40	0.40
Site Total	2.19	2.19	0.95	0.95

These modifications will reduce the operation and maintenance costs of the SVE systems and at the same time will increase the rate of contaminant removal from the site. The maximum expected emissions from the site will be less than a tenth of that needed to either require an emission inventory or an air quality permit.

Procedure

WWC personnel will remove the existing engine/blower units from the Former Waste Water Collection Area and the Acid Dock area. Pre-fabricated structures, similar to the structure for the Former USTs area, will be placed inside the existing Accuvac fenced areas. The buildings will be wired for the blowers and the associated controls with the electrical systems sized to accommodate future addition of air-sparging blowers. WWC personnel will install the new electrically driven regenerative blowers and appurtenances in the buildings and the blower suctions will be attached to the existing SVE system piping. A schematic of the proposed electrical blower systems and an electrical one-line diagram are attached.

K:\172040\93-007L\CADD\98\98NEWBAS.DWG 09/15/98 13:44

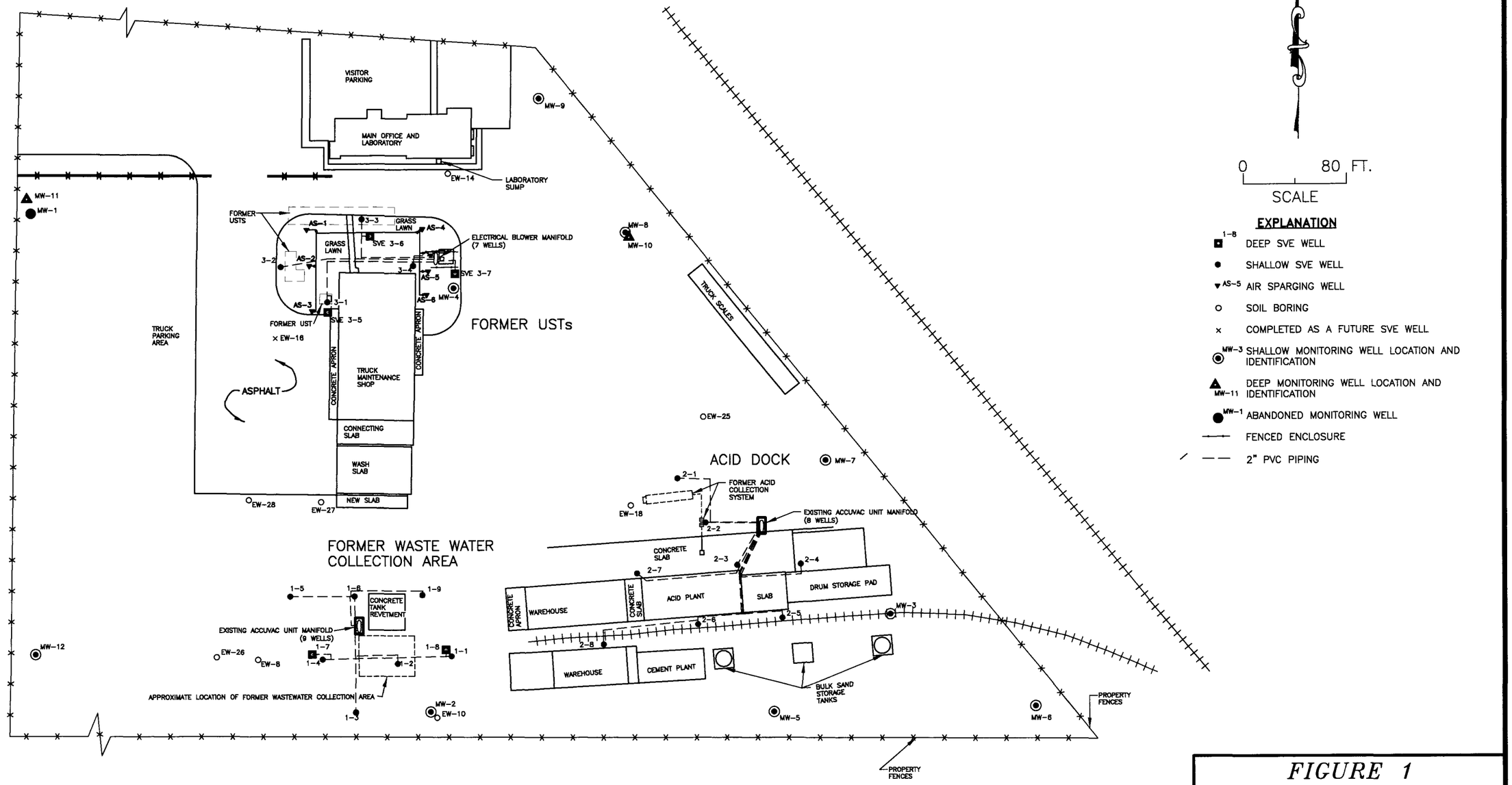


FIGURE 1

SITE MAP AND LOCATION OF MONITORING AND REMEDIATION WELLS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NEW MEXICO

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

August 8, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-639

Mr. John Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, TX 77478

RE: GW-073, Dowell Schlumberger (DS) - Hobbs
Groundwater Contamination Remediation - Pilot Test Approval

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received the **DS** letter dated June 18, 1997, and the DS letter dated July 30, 1997 requesting that the above mentioned facility be allowed to run a "Pilot Test" to evaluate the enhanced SVE and IAS(insitu Air Sparging) remediation system for six (6) months. **Based upon review of the information provided, OCD approves of the "Pilot Test" with the following conditions:**

1. All field work and sampling/reporting will be prepared and submitted as outlined in the letter from OCD dated October 7, 1996.

NOTE: All analytical reporting will include the original signed data sheets from the laboratory performing the analysis as well as the appropriate chain of custody information and QA/QC documentation.

2. On or before February 8, 1998 DS will submit the actual Remedation Plan and submit the Modification request for discharge plan GW-073. Please include the $50 filing fee made out to NMED-Water Quality Management with the Modification Application.

Please be advised that the OCD approval to "Pilot Test" the SVE/IAS on the contamination of groundwater at the Hobbs facility does not relieve **DS** of liability should **DS** fail to adequately determine the extent of contamination. Also, this OCD approval does not relieve **DS** from responsibility to comply with other federal, state, and local rules/regulations that may apply to this project.

Sincerely,

Patricio W. Sanchez
Petroleum Engineering Specialist

c: Mr. Wayne Price - Environmental Engineer, OCD Hobbs

P 326 936 639

US Postal Service

Receipt for Certified Mail

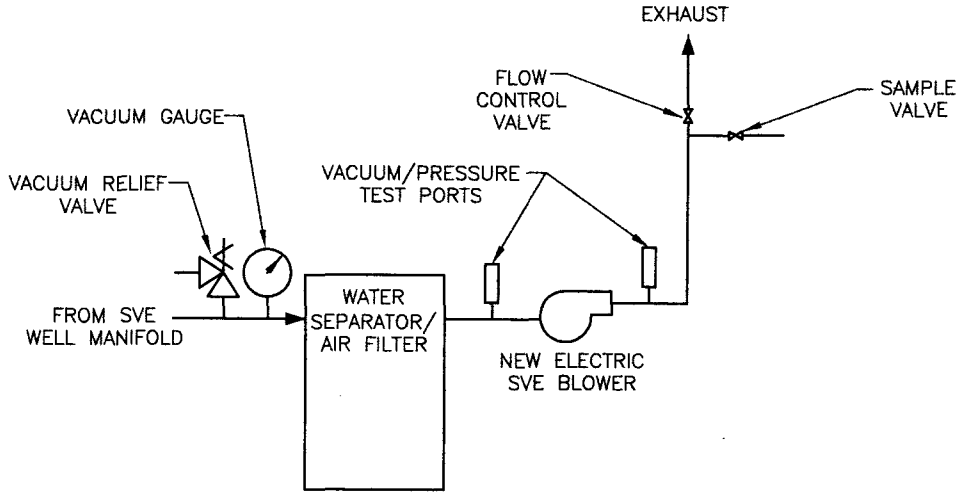
No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to DS Hobbs – Mr. Miller	
Street & Number Delineation – June 18, 1997	
Post Office, State, & ZIP Code Letter to OD.	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

K:\MAILBOX\121021\PID.DWG 09/15/98 15:51



PANEL BOARD
240/120 V. 3ø 4W (SOLID NEUTRAL)
200 AMP MAINS, 200 AMP M.B.
NEMA 3R ENCLOSURE

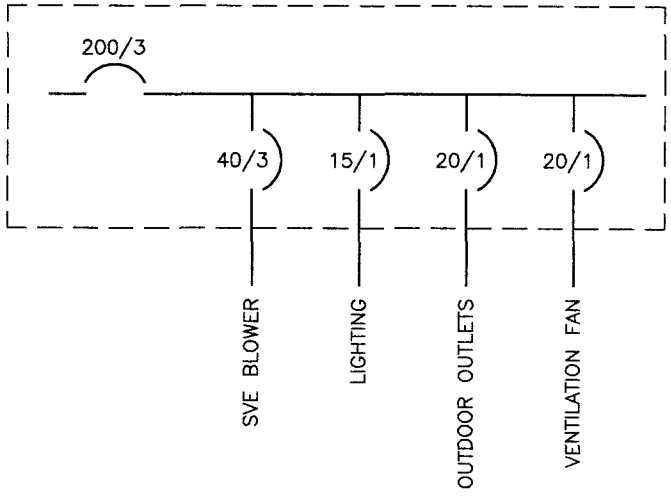


FIGURE 2

REPLACEMENT SVE UNIT SCHEMATIC AND ELECTRICAL ONE-LINE DIAGRAM

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NEW MEXICO

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

TABLE 3. SVE System Air Sample Data from the Dowell Schlumberger Facility, Hobbs, New Mexico.

Sample I.D.	Date Sampled	Sample Location	Benzene (mg/m3)	Toluene (mg/m3)	Ethyl-Benzene (mg/m3)	Total Xylene (mg/m3)	1,1-DCE (mg/m3)	1,1-DCA (mg/m3)	Chloromethane (mg/m3)	1,1,1-TCA (mg/m3)	Vinyl Chloride (mg/m3)	TCE (mg/m3)	PCE (mg/m3)	Total Input BTEX (mg/m3)	Total Output BTEX (mg/m3)	Total Input Halocarbons (mg/m3)	Total Output Halocarbons (mg/m3)
FORMER LAGOON																	
007-AREA 1	11/02/94	Pilot	ND(0.1)	1	0.35		29.80	0.487		20.7			36.5				
Unit 1 (7/95) Input	07/13/95	Input	28	256	30.6	111.2	46.2	48.3	ND(0.2)	450	ND(0.2)	1.23	135	425.8		680.73	
Unit 1 (7/95) Exhaust		Exhaust	0.83	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0.83		0
Unit 1 (8/95) Input	08/12/95	Input	18.3	46.4	20	51.4	23.9	35.2	ND(0.2)	216.6	ND(0.2)	1.3	19	136.1		296	
Unit 1 (8/95) Exhaust		Exhaust	1.9	ND(0.2)	ND(0.2)	ND(0.2)	5	ND(0.2)	12.8	ND(0.2)	35.7	ND(0.2)	3.7		1.9		57.2
Unit 1 Input 9/95-1	09/07/95	Input	19.1	118.3	16.6	91.2	56.7	34.8	ND(0.2)	283	ND(0.2)	2.73	111.8	245.2		489.03	
Unit 1 Output9/95-1		Exhaust	6.5	2.9	0.6	3.4	ND(0.2)	ND(0.2)	6.8	ND(0.2)	8.6	ND(0.2)	6		13.4		21.4
Unit 1 Output 9/95-2		Exhaust 2	1.3	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		1.3		0
Unit 1 Int	11/29/95	Before Cat	1.01	ND(0.43)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	1.01		0	
Unit 1 Output		After Cat	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	15.3	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0		15.3
93007-WatPDinput	04/11/96	Input	ND(0.2)	114	19.1	81.5	9.7	11.4	ND(0.2)	116	ND(0.2)	ND(0.2)	120	214.6		257.1	
93007-WatPDExh.4/96		Exhaust	1	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	4.1	ND(0.2)	1.2	ND(0.2)	0.5		1		5.8
93007WPINPUT.7/96	07/23/96	Input	2.8	49.5	2.6	11.2	6.9	6.1	ND(0.5)	64.6	ND(0.5)	0.4	17.9	66.1		95.9	
93007WPEXHST.7/96		Exhaust	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	2.4	ND(0.3)	0.7	ND(0.3)	0.6		0		3.7
WP-INPUT-10/96	10/24/96	Input	2.07	44	12.1	77.1	4.9	ND(0.2)	ND(0.2)	74.4	ND(0.2)	1.02	51.9	135.27		132.22	
WP-OUTPUT-10/96		Exhaust	1.02	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	ND(0.2)	3.02	ND(0.2)	2.97	ND(0.2)	0.832		1.02		6.822
93-007.WP-INP.5/97	05/13/97	Input	5.7	95.5	19.7	109.4	9.1	10.2	ND(5.0)	74.1	ND(5.0)	ND(5.0)	66.3	230.3		148.4	
93-007.WP-INP.6/97	06/25/97	Input	18.7	104	33.9	176.3	17	22	ND(5.0)	156	ND(5.0)	ND(5.0)	97.3	332.9		249.2	
93007-WP.7/97	07/29/97	Input	5.90J	33	5.50J	24.3	6.10J	6.90J	ND(10.0)	76.1	ND(10.0)	ND(10.0)	25.5	57.3		24.3	
93007-WP.10/97	10/14/97	Input	10.6	90.2	26.4	150.4	5.4	9.05	ND(5.0)	125	ND(5.0)	ND(5.0)	81	277.6		220.45	
93007-WP.1/98	01/06/98	Input	8.92	58	19.2	103.3	4.86	8.54	ND(2.0)	125	ND(2.0)	ND(2.0)	68.4	189.42		206.8	
93007-WP.4/98	04/28/98	Input	10.9	73.6	20.7	114.6	7.2	12.6	ND(5.0)	228	ND(5.0)	ND(5.0)	117	219.8		364.8	
93007-WP.7/98	07/16/98	Input	8.40j	66.5	19.5	116.3	ND(0.10)	7.80J	ND(0.10)	175	ND(0.10)	ND(0.10)	105	202.3		280	
ACID PLANT																	
007-AREA 2	11/02/94	Pilot	4.5	23.2	11.4		4.4	12.2		88.5			30.5				
Unit 2 (7/95) Input	07/13/95	Input	3.13	27.2	12.9	46.18	1.52	1.53	ND(0.2)	3.39	ND(0.2)	ND(0.2)	6.91	89.41		13.35	
Unit 2 (7/95) Exhaust		Exhaust	ND(0.2)	0.26	ND(0.2)	1.5	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		1.76		0
Unit 2 (8/95) Input	08/12/95	Input	1.42	24.8	10.4	48.5	5.1	1.6	ND(0.2)	7	ND(0.2)	ND(0.2)	8.9	85.12		22.6	
Unit 2 (8/95) Exhaust		Exhaust	ND(0.2)	0.5	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0.5		0
Unit 2 Output 9/95	09/07/95	Exhaust	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0		0
93007-ACDKINPT.4/96	04/11/96	Input	0.7	17.7	5.6	30.3	1.9	0.6	ND(0.2)	5.5	ND(0.2)	0.3	19	54.3		27.3	
93007-ACDKExh.4/96		Exhaust	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0		0
93007ADINPUT.7/96	07/23/96	Input	ND(0.3)	1	ND(0.3)	1.1	0.8	ND(0.3)	ND(0.5)	0.9	ND(0.5)	ND(0.3)	1.6	2.1		3.3	
93007ADEXHST.7/96		Exhaust	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.5)	ND(0.3)	ND(0.5)	ND(0.3)	ND(0.3)		0		0
AD-INPUT-10/96	10/24/96	Input	0.61	4.51	0.88	5.62	1.69	0.55	ND(0.2)	1.48	ND(0.2)	ND(0.2)	3.33	11.62		7.05	
AD-OUTPUT-10/96		Exhaust	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	ND(0.2)	0.477	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0		0.477
93007-AD-INP-1/97	01/21/97	Input	ND(1.0)	5.67	ND(1.0)	2.38	ND(1.0)	ND(1.0)	ND(1.0)	1.34	ND(1.0)	ND(1.0)	8.86	8.05		10.2	
93007-AD-EXH-1/97		Exhaust	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)		0		0
93-007.AD-INP.5/97	05/13/97	Input	ND(1.0)	4.06	ND(1.0)	3.88	2.19	ND(1.0)	ND(1.0)	2.09	ND(1.0)	ND(1.0)	10.3	7.94		14.58	
93-007.AD-INP.6/97	06/25/97	Input	ND(1.0)	4.2	1.66	11.88	1.25	0.46J	ND(1.0)	2.39	ND(1.0)	ND(1.0)	6.15	17.74		9.79	
93007-AD.7/97	07/29/97	Input	ND(1.0)	3.46	0.71J	4.5	ND(1.0)	ND(1.0)	ND(1.0)	1.45	ND(1.0)	ND(1.0)	2.88	7.96		4.33	
93007-AD.10/97	10/14/97	Input	ND(1.0)	1.31	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	1.74	1.31		1.74	
93007-AD.1/98	01/06/98	Input	ND(1.0)	6.4	2.46	16.36	ND(1.0)	ND(1.0)	ND(1.0)	3.98	ND(1.0)	ND(1.0)	7.29	25.22		11.27	
93007-AD.4/98	04/28/98	Input	ND(1.0)	ND(1.0)	ND(1.0)	0.75J	ND(1.0)	ND(1.0)	ND(1.0)	0.56J	ND(1.0)	ND(1.0)	1.4	0		1.4	
93007-AD.7/98	07/16/98	Input	ND(1.0)	2.08	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)	ND(1.0)	0.69J	ND(1.0)	ND(1.0)	2.26	2.08		2.26	

TABLE 3. SVE System Air Sample Data from the Dowell Schlumberger Facility, Hobbs, New Mexico.

Sample I.D.	Date Sampled	Sample Location	Benzene (mg/m3)	Toluene (mg/m3)	Ethyl-Benzene (mg/m3)	Total Xylene (mg/m3)	1,1-DCE (mg/m3)	1,1-DCA (mg/m3)	Chloromethane (mg/m3)	1,1,1-TCA (mg/m3)	Vinyl Chloride (mg/m3)	TCE (mg/m3)	PCE (mg/m3)	Total Input BTEX (mg/m3)	Total Output BTEX (mg/m3)	Total Input Halocarbons (mg/m3)	Total Output Halocarbons (mg/m3)
FORMER UST																	
007-AREA 3	11/02/94	Pilot	1.2	5.7	5.5		ND(0.1)	ND(0.1)		ND(0.1)			0.49				
Unit 3 (7/95) Input	7/13/95	Input	2.08	5.95	1.17	6.64	281	10.9	ND(0.2)	215	ND(0.2)	2.68	870	15.84		1379.58	
Unit 3 (7/95) Exhaust		Exhaust	2.89	1.41	0.72	7.88	0.27	ND(0.2)	17.2	ND(0.2)	0.87	ND(0.2)	2.76		12.9		21.1
Unit 3 (8/95) Input	8/12/95	Input	0.4	1.9	0.9	4.9	506	15.6	ND(0.2)	579	ND(0.2)	2.1	636	8.1		1738.7	
Unit 3 (8/95) Exhaust		Exhaust	4.9	ND(0.2)	ND(0.2)	ND(0.2)	2.8	ND(0.2)	48	ND(0.2)	35	0.8	21.5		4.9		108.1
Unit 3 Input 9/95-1	09/07/95	Input	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	593.4	13.3	ND(0.2)	492	ND(0.2)	2	444.4	0		1545.1	
Unit 3 Output 9/95-1		Exhaust	1.1	0.5	ND(0.2)	ND(0.2)	56.2	ND(0.2)	ND(0.2)	31.9	ND(0.2)	0.9	81.4		1.6		170.4
Unit 3 Int	11/29/95	Before Cat	1.01	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	13	ND(0.2)	35.6	ND(0.2)	9.7	1.01		58.3	
Unit 3 Output		After Cat	1.01	ND(0.2)	ND(0.2)	ND(0.2)	3.21	ND(0.2)	13	ND(0.2)	10.5	ND(0.2)	14.5		1.01		41.21
93007-TKShpinpt	04/11/96	Input	ND(0.2)	0.9	0.5	3.4	99.4	ND(0.2)	ND(0.2)	254	ND(0.2)	1	611	4.8		965.4	
93007-TKShpExh.4/96		Exhaust	0.6	ND(0.2)	ND(0.2)	ND(0.2)	0.9	ND(0.2)	10.1	ND(0.2)	6.8	0.4	8.5		0.6		26.7
93007TSINPUT.7/96	07/23/96	Input	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	47.1	4.8	ND(0.5)	ND(0.3)	ND(0.5)	0.5	46.2	0		98.6	
93007TSEXHST.7/96		Exhaust	0.4	ND(0.3)	ND(0.3)	ND(0.3)	1.3	ND(0.3)	6.6	ND(0.3)	2.2	ND(0.3)	2.8		0.4		12.9
UST-INPUT-10/96	10/24/96	Input	0.35	0.35	0.24	1.01	57.6	4.37	ND(0.2)	97.7	ND(0.2)	ND(0.2)	179	1.95		338.67	
UST-OUTPUT-10/96		Exhaust	4.83	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	ND(0.2)	4.66	ND(0.2)	2.59	ND(0.2)	1.62		4.83		8.87
93007-UST-INP-1/97	1/21/97	Input	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	30	2.8	ND(1.0)	63.3	ND(1.0)	0.58J	205	0		301.1	
93007-UST-EXH-1/97		Exhaust	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	2.5	ND(1.0)	ND(1.0)	ND(1.0)	6.19		0		8.69
93-007.UST-INP.5/97	05/13/97	Input	ND(25.0)	ND(25.0)	ND(25.0)	ND(25.0)	21.3J	ND(25.0)	ND(25.0)	41.8	ND(25.0)	ND(25.0)	155	0		196.8	
93-007.USTCOMP.6/97	06/25/97	Input	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	68.2	10.5	ND(1.0)	125	ND(1.0)	1.11	335	0		539.81	
93007-UST.7/97	07/29/97	Input	ND(10.0)	ND(10.0)	ND(10.0)	ND(20.0)	10.4	ND(10.0)	ND(10.0)	30	ND(10.0)	ND(10.0)	148	0		188.4	
93007-UST.1/98	01/06/98	Input	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	3.85J	ND(5.0)	ND(5.0)	8.25	ND(5.0)	ND(5.0)	102	0		110.25	
93007-UST.4/98	04/28/98	Input	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	2.15J	ND(5.0)	ND(5.0)	4.15J	ND(5.0)	ND(5.0)	121	0		121	
93007-UST.4/98	04/28/98	Input	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	2.15J	ND(5.0)	ND(5.0)	4.15J	ND(5.0)	ND(5.0)	121	0		121	
INDIVIDUAL SVE WELLS																	
93007.3-1.7/98	7/16/98	3-1	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)	ND(1.0)	4.49	ND(1.0)	ND(1.0)	238	0		242.49	
93007.3-2.7/98	7/16/98	3-2	ND(5.0)	ND(5.0)	ND(5.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	5.2	0		5.2	
93007.3-3.7/98	7/16/98	3-3	ND(2.5)	ND(2.5)	ND(2.5)	ND(10.0)	ND(5.0)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	2.6	0		2.6	
93007.3-4.7/98	7/16/98	3-4	ND(2.5)	ND(2.5)	ND(2.5)	ND(5.0)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	2.08J	0		0	
93-007.USTDP3.6/97	06/05/97	3-5	ND(10.0)	ND(10.0)	ND(10.0)	ND(20.0)	79.8	25.1	ND(10.0)	441	ND(10.0)	ND(10.0)	871	0		1416.9	
93007.3-5.7/98	7/16/98	3-5	ND(10.0)	ND(10.0)	ND(10.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	346	0		346	
93-007.USTDP2.6/97	06/25/97	3-6	ND(10.0)	ND(10.0)	ND(10.0)	ND(20.0)	120	13.2	ND(10.0)	114	ND(10.0)	ND(10.0)	368	0		615.2	
93007.3-6.7/98	07/16/98	3-6	ND(2.5)	ND(2.5)	ND(2.5)	ND(5.0)	3.95	ND(2.5)	ND(2.5)	2.00J	ND(2.5)	ND(2.5)	8.18	0		12.13	
93-007.USTDP1.6/97	06/25/97	3-7	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	82.8	7.31	ND(1.0)	60.2	ND(1.0)	ND(1.0)	226	0		376.31	
93007.3-7.7/98	07/16/98	3-7	ND(5.0)	ND(5.0)	ND(5.0)	ND(10.0)	2.90J	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	12.5	0		12.5	

Notes: mg\m3 = milligrams per cubic meter
ND=Not Detected at detection limit shown in parentheses.
DCA=Dichloroethane
DCE= Dichloroethene

Schlumberger

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

RECEIVED
FEB 2 1998
OIL CONSERVATION DIV.

January 30, 1998

Mr. Roger C. Anderson
Chief, Environment Bureau
Oil Conservation Division
New Mexico Energy Minerals & Natural Resources Department
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: GW-073, Dowell - Hobbs
Groundwater Contamination Remediation - Pilot Test
(Re: NMOCD August 8, 1997 letter)

Dear Mr. Anderson:

As we discussed today, the Soil Vapor Extraction (SVE) and In Site Air Sparging (IAS) pilot test was interrupted when the blower motor failed. It was removed on October 14, 1997 and replaced on November 20, 1997 at which time, the IAS system commenced operation. This 37 day period of inactivity extended the completion of our six-month Pilot Test from December 25, 1997 to January 31, 1998.

The SVE/IAS system is producing very good remedial results. Our Quarterly and Annual Report for 1997 which shows the progress to date will be prepared and submitted shortly. We will also sample the groundwater monitor wells and prepare a Remediation Plan after we complete the test period. At this time, we plan to continue operating the SVE/IAS system.

In order to complete the necessary groundwater sampling, we request the Remediation Plan due date be extended to May 1, 1998.

Sincerely,

John A. Miller

JAM:slw

cc: Mr. Wayne Price, OCD Hobbs
Rick Dewell, WWC

2-2-98
Approved by Roger

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(281) 285-8498 (281) 285-8526 (fax)

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

July 30, 1997

Pat Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

RECEIVED
JUL 31 1997
Environmental Bureau
Oil Conservation Division

RE: Soil Vapor Extraction (SVE) / Insitu Air Sparging (IAS) Pilot Test Dowell Facility Hobbs, New Mexico

Dear Mr. Sanchez:

Dowell had installed an Internal Combination (IC) engine to test soil vapor extraction capabilities in the former UST area at Hobbs, New Mexico. The IC engine test indicated that soil vapor extraction is a viable technology that will significantly reduce soil and groundwater contamination from volatile organic compounds. Data from the pilot testing indicated that a 200 cubic feet per minute blower would be more effective than the IC engine. This data was submitted to the New Mexico Environment Department Air Quality Bureau (NMED/AQB). In a letter dated May 22, 1997, NMED/AQB responded to permit application No. 1949 by stating that no permit is required (NPR). Accordingly, we purchased the new blower. During the period May 12-26, 1997, Western Water Consultants (WWC) installed three deeper SVE wells (SVE 3-5 to 3-7) that are screened from approximately 50 to 70 feet below ground level. We sampled the monitor wells on May 22/23, 1997 to establish a baseline and their turned on the new blower on June 25, 1997.

WWC also installed six air sparging wells in the former UST area during the May drilling. Because we are extracting from a deeper zone with the 200 CFM SVE system, we plan to operate the SVE for two months before initiating sparging. As we discussed in our April 11, 1997 meeting at Hobbs, Dowell intends to accomplish a six month combined SVE/IAS pilot test. In addition to the groundwater monitoring we provide for discharge plan GW-073, Dowell will sample monitor wells MW-4, MW-8, MW-9, and MW-7 by EPA Method 8260 in early September 1997 prior to commencing the SVE/IAS pilot test. Similar sampling will occur at three and six months. Upon completion of the six month pilot test, a comprehensive report on system performance, to include laboratory data sheets, will be prepared and submitted.

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(281) 285-8498 (281) 285-8526 (fax)

If you have any questions or comments on the proposed testing, please call me at 281-285-8498.

Sincerely,

John A. Miller
Remediation Manager

cc: R. Deuell, WWC
S. Thoen, Hobbs DTM

Schlumberger Oilfield Services

File Copy

(see report in brown accordian file.)

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

June 18, 1997

RECEIVED
JUL 16 1997
Environmental Bureau
Oil Conservation Division

JUL 16 1997

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Results of the Second Quarter Ground-water Monitoring, Additional Investigation, and Remedial Activities at the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico.

Dear Mr. Sanchez:

This letter presents the results of the second quarter ground-water monitoring for 1997 and a summary of additional investigation and remedial activities work performed at the Dowell, a division of Schlumberger Technology Corporation facility in Hobbs, New Mexico. Authorization for the fieldwork was granted by the New Mexico Oil Conservation Division (NMOCD) per a letter to Dowell dated May 14, 1997. The following is a brief summary of the fieldwork performed and proposed additional fieldwork.

1.0 Drilling Activities

On May 12-26, 1997, Western Water Consultants, Inc. (WWC) supervised the drilling and installation of 6 monitoring wells, 5 deep soil vapor extraction (SVE) wells (1-7, 1-8, and 3-5 to 3-7), and 6 air sparging wells (AS-1 to AS-6) with an air rotary drill rig (Figures 1 and 2).

1.1 Monitoring Wells

Shallow monitoring wells (MW-12 to MW-15) were installed to define the horizontal extent of contamination in the upper most section of the Ogallala Aquifer. Deeper monitoring wells (MW-10 and 11) were installed to investigate the lithology of the Ogallala aquifer down to the triassic "red beds" and define the vertical extent of contamination. MW-11 was drilled to a total depth of 208 feet below ground surface which was the contact with the "red beds". MW-10 had a total depth of 130.5 feet and was completed to determine if contaminant concentrations decreased with depth.

The lithology encountered to 85 feet below ground-water surface was consistent with other areas of the site. From 85 feet to 208 feet below ground-surface the lithology consisted of sand with interbeds of weakly indurated sandstones to 131 feet, a well indurated siliceous sandstone from 131-133 feet, sand, sandy clay and sandstone to 179 feet, poorly sorted sand and gravel to 208, and red clay at 208-209 feet.

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(281) 285-8498 (281) 285-8526 (fax)

All monitoring wells were completed and developed according to NMOCD guidelines. Monitoring wells were developed by purging 10 to 20 well volumes of ground-water from each well. Top of casing elevations were surveyed into "The City of Hobbs Control Datum" and the North American Vertical Datum. Well completion and lithologic logs are provided as enclosures.

1.2 Deep SVE and Air Sparge Well Installation

Remediation activities performed at the Hobbs facility involved the installation of deep SVE and air sparging wells to remediate the former UST and waste-water collection pond areas. Five 2-inch diameter SVE wells were installed into the sand underlying the caliche at a total depth of 70 feet. Two SVE wells were installed in the former waste water collection pond area and 3 in the former UST area. Six 1-inch diameter air sparging wells were installed in the former UST area and completed with a total depth of 85 feet. Well completion and lithologic logs are included as enclosures.

2.0 Soil Sample Collection

Soil samples were collected for laboratory analysis by EPA Method 8260 from the 5 deep SVE wells and MW-12. Soil sample results are presented as Table 3 and laboratory data sheets included as enclosures.

3.0 Ground-Water Monitoring

Static water levels were measured in all monitoring wells from the top of the PVC casing and presented as Table 1. Depth to ground-water varies from 70 to 73 feet below ground surface. A potientiometric surface map (Figure 3.) constructed from the static water levels indicates ground-water continues to flow to the east-northeast across the site.

Ground-water samples were collected from all monitoring wells according to WWC protocol and analyzed for volatile organic compounds by EPA Method 8260. Results of ground-water samples for volatile organics are presented as Table 2 and an isoconcentration map (Figure 4.). Additional samples were collected from all monitoring wells for polynuclear aromatic hydrocarbons (PAH's), total petroleum hydrocarbons (GRO and DRO), RCRA metals, and major cations and anions as requested by the NMOCD. Results for the additional water quality parameters are presented as Tables 4, 5, and 6. Laboratory data sheets for all samples are included as enclosures.

4.0 Drill Cuttings and Drill Fluids Characterization

Water generated during drilling, well development, and ground-water sampling was collected and stored in a frac tank onsite. Drill cuttings were stockpiled on plastic onsite. The water and cuttings were sampled and characterized for volatile organics, semi-volatile organics, and RCRA metals by the toxicity characteristic leaching procedure and RCRA characteristics (ignitability, reactivity, and corrosivity). Pending the results of the analyses the soil and water will be properly disposed following authorization from the NMOCD.

5.0 Recommendations

As indicated on the isoconcentration map for total halocarbons (Figure 4.), contaminants were low to nondetectable in monitoring wells MW-13 to MW-15. Contaminant concentrations in MW-10 are also significantly lower than those in MW-8. For this reason, Dowell proposes that no further drilling be performed until after the third quarter ground-water monitoring event has been completed in July, 1997 and the new data interpreted. A proposal for future fieldwork would be presented to the NMOCD in the third quarter report.

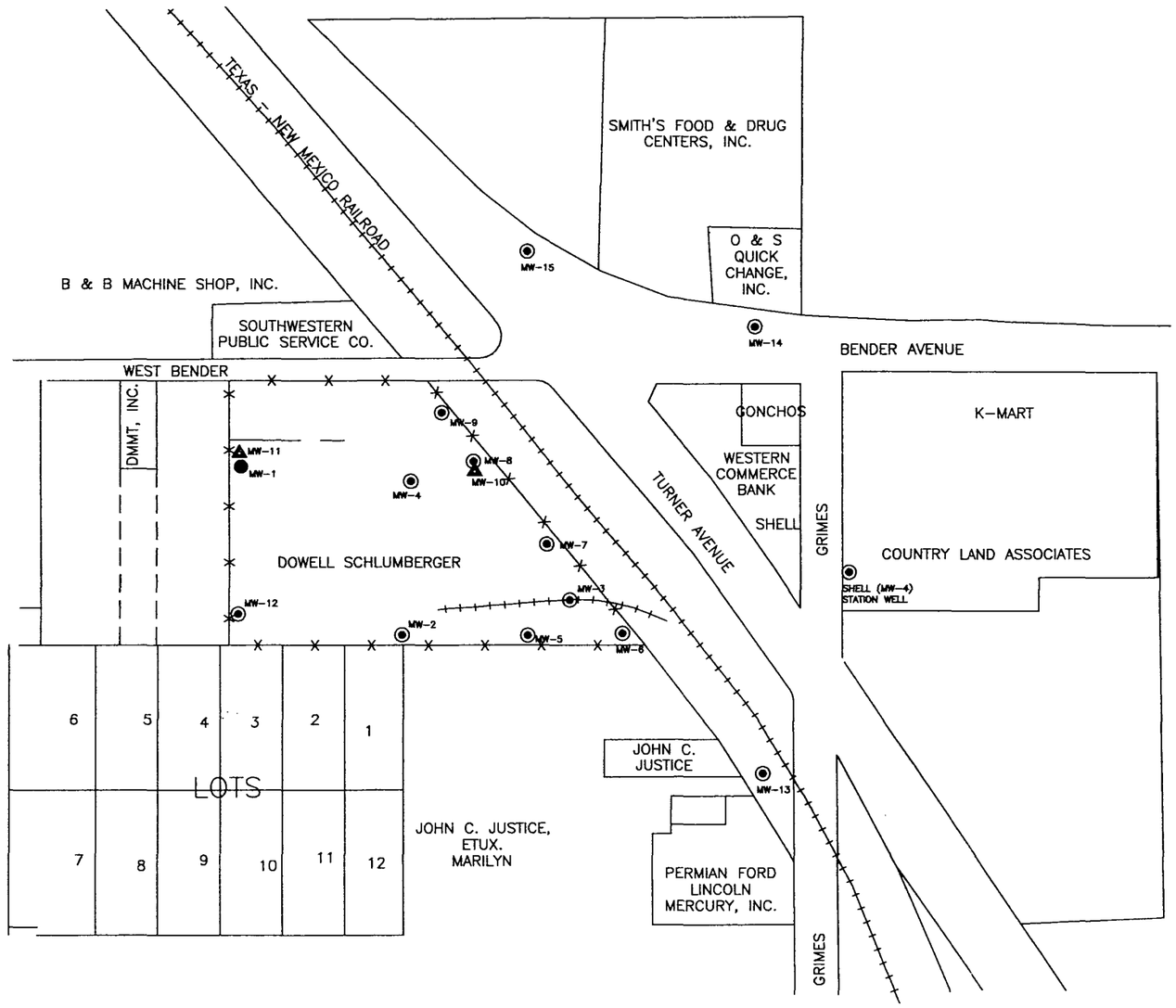
If you have any questions concerning this report, please feel free to contact me.

Sincerely,

John A. Miller
Remediation Manager

File Copy

RECEIVED
JUL 16 1997
Environmental Bureau
Oil Conservation Division



EXPLANATION

- MW-4 ◉ SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 ▲ DEEP MONITORING WELL LOCATIONS

0 300 ft.
SCALE

FIGURE 1
MONITORING WELL LOCATIONS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

K:\17200\93-007\NEWBASE2 07/07/97 10:03

K:\172040\93-007L\NEWBASE 07/02/97 10:32

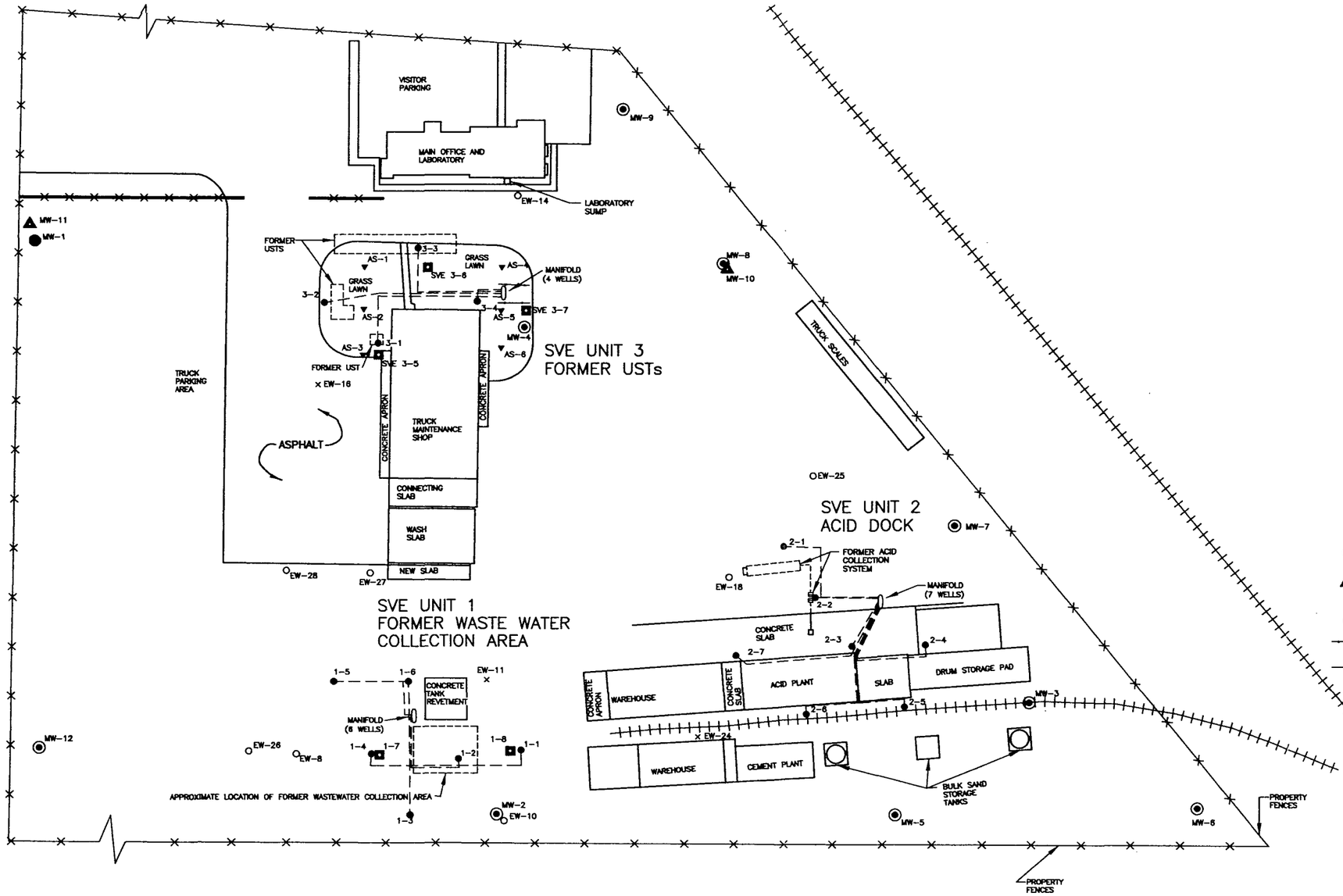


FIGURE 2

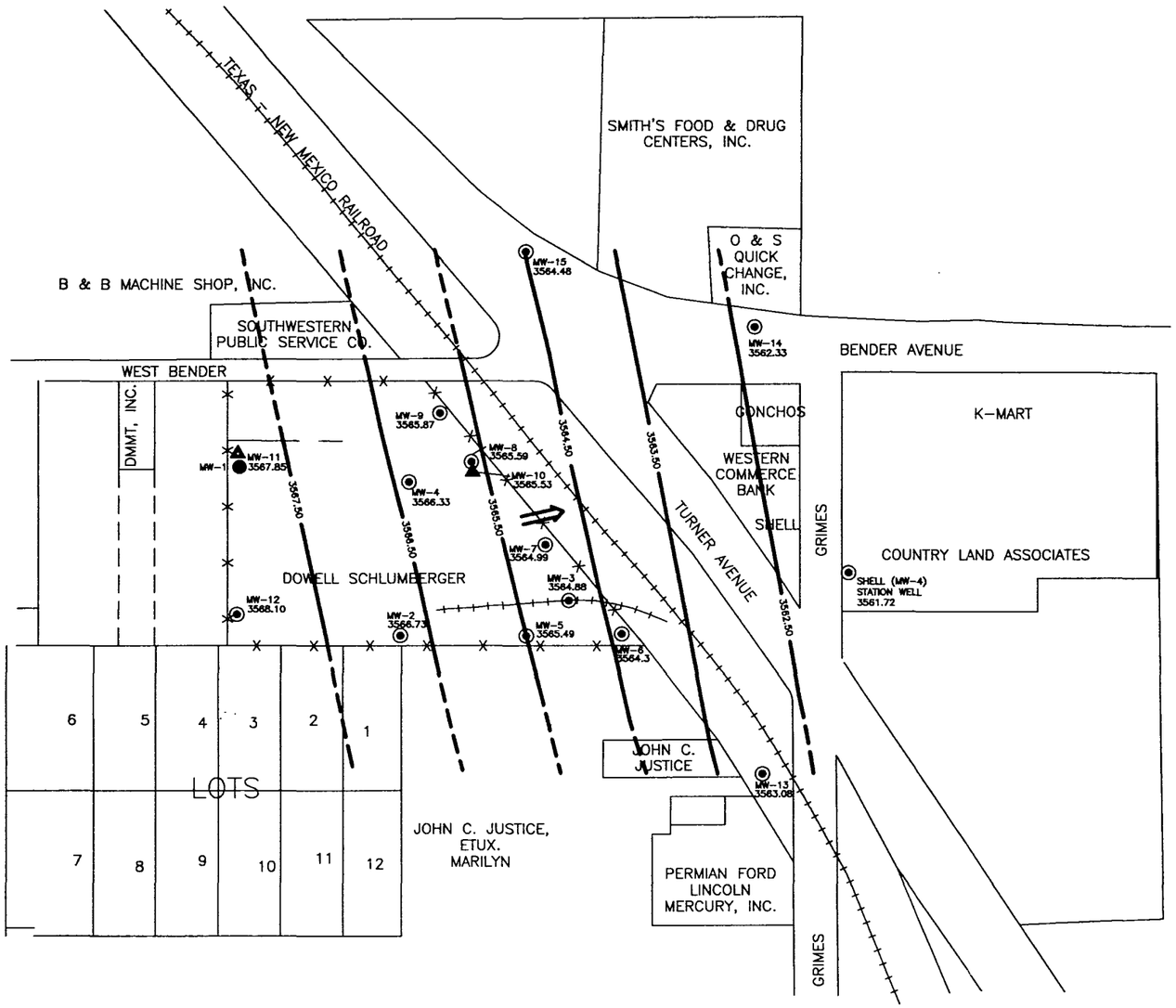
SITE MAP AND LOCATION OF MONITORING AND REMEDIATION WELLS

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

K:\172040\93-007\MS_597 07/02/97 10:41



EXPLANATION

- MW-14 3562.33 ◉ — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- MW-1 ● — ABANDONED MONITORING WELL
- MW-11 3567.85 ▲ — DEEP MONITORING WELL LOCATION IDENTIFICATION AND POTENTIOMETRIC SURFACE ELEVATION
- 3563.50 — POTENTIOMETRIC SURFACE CONTOURS AND ELEVATION (DASHED WHERE INFERRED)
- ⇐ — GROUND-WATER FLOW DIRECTION

0 300 ft.
SCALE

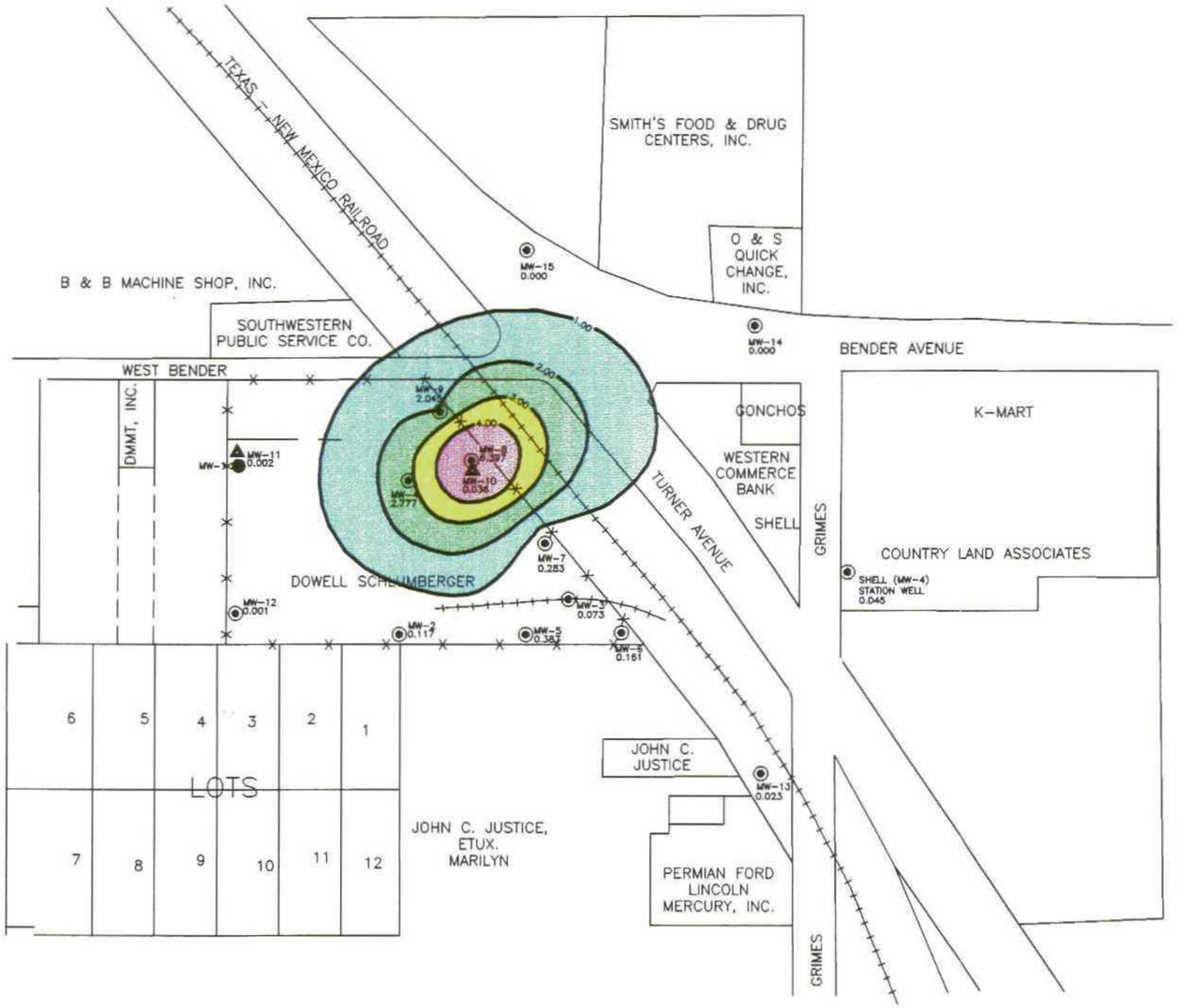
FIGURE 3

POTENTIOMETRIC SURFACE MAP
(5-21-97)

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc. WWC Engineering
Engineering Environmental Mining Water Resources

K:\1720\003.01-007\HALO-597 07/02/97 11:08



EXPLANATION

MW-8 6.397 — SHALLOW MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS

MW-1 — ABANDONED MONITORING WELL

MW-11 0.283 — DEEP MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS

1.00 — TOTAL HALOCARBONS CONTOURS

TOTAL HALOCARBONS CONCENTRATIONS (mg/L)

4.00
3.00
2.00
1.00

0 300 ft.

SCALE

FIGURE 4

TOTAL HALOCARBONS CONCENTRATION MAP (5-22-97)

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION HOBBS, NM

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources

TABLES

Table 1. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	3638.52	10/25/96	84	70.22	3568.30		13.78
		11/21/96		70.17	3568.35	0.05	13.83
		01/22/97		70.44	3568.08	0.27	13.56
Abandoned		05/22/97					
MW-2	3637.26	10/25/96	85	70.03	3567.23		14.97
		11/21/96		70.03	3567.23	0.00	14.97
		01/22/97		70.26	3567.00	0.23	14.74
		05/21/97		70.53	3566.73	-	14.47
MW-3	3638.28	10/25/96	85	72.88	3565.40		12.12
		11/21/96		72.89	3565.39	0.01	12.11
		01/22/97		73.10	3565.18	0.21	11.90
		05/21/97		73.40	3564.88	-	11.60
MW-4	3639.20	10/25/96	85	72.41	3566.79		12.59
		11/21/96		72.37	3566.83	0.04	12.63
		01/22/97		72.60	3566.60	0.23	12.40
		05/21/97		72.87	3566.33	-	12.13
MW-5	3637.70	01/22/97	85	71.90	3565.80		13.10
		05/21/97		72.21	3565.49	-	12.79
MW-6	3637.52	01/22/97	85	72.88	3564.64		12.12
		05/21/97		73.22	3564.30	-	11.78
MW-7	3638.62	01/22/97	85	73.31	3565.31		11.69
		05/21/97		73.63	3564.99	-	11.37
MW-8	3638.71	01/22/97	85	72.78	3565.93		12.22
		05/21/97		73.12	3565.59	-	11.88
MW-9	3638.76	01/22/97	85	72.57	3566.19		12.43
		05/21/97		72.89	3565.87	-	12.11
MW-10	3638.86	05/27/97	130.5	73.33	3565.53	-	57.17
MW-11	3638.55	05/26/97	208	70.70	3567.85	-	137.30
MW-12	3636.15	05/26/97	85	68.05	3568.10	-	16.95
MW-13	3635.39	05/21/97	84	72.31	3563.08	-	11.69
MW-14	3637.19	05/21/97	85	74.86	3562.33	-	10.14
MW-15	3636.57	05/21/97	85	72.09	3564.48	-	12.91
Shell Station MW-4	3637.69	05/25/97	82.6	75.97	3561.72	-	6.63

Note: Top of casing survey elevations are based on the "City of Hobbs Control Datum" and the North American Vertical Datum

Table 2. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
abandoned												
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)
	05/23/97	0.039	ND(0.001)	0.007	0.014	0.057	ND(0.001)	0.009	0.004	0.003	0.005	0.001
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.001J
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
	05/22/97	0.026	0.001	0.015	0.016	0.015	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)
	01/22/97	0.089	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)
	05/23/97	0.062	0.022	0.423	1.720	0.550	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	0.0008J	0.018	0.004	ND(0.001)	0.0008J	ND(0.001)
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	0.0007J	0.018	0.004	ND(0.001)	0.001	0.004
	05/23/97	0.191	0.003	0.055	0.079	0.059	0.0017J	0.029	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	0.0008J	ND(0.001)	ND(0.001)	ND(0.002)	0.0009J
	05/22/97	0.085	0.002	0.034	0.023	0.017	0.00196J	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.002
MW-7	01/23/97	0.047	0.0009J	0.009	0.014	ND(0.001)	0.004	0.0006J	ND(0.001)	ND(0.001)	0.001	0.013
	05/22/97	0.087	0.00166J	0.066	0.116	0.00164J	0.014	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.062
MW-8	01/23/97	0.068	0.005J	0.280	0.810	0.460	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)
	05/23/97	0.082	ND(0.01)	1.360	4.150	0.805	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	0.0004J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
	05/23/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)
MW-10	05/26/97	0.004	ND(0.002)	0.007	0.026	ND(0.002)	0.0012J	0.004	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
duplicate	05/26/97	ND(0.002)	ND(0.002)	0.008	0.028	ND(0.002)	0.0013J	0.007	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
MW-11	05/24/97	0.0008J	ND(0.001)	0.0069J	0.002	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.0010J	ND(0.001)
MW-12	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	0.0056J	0.0052J	0.0027J	ND(0.001)
MW-13	05/24/97	ND(0.001)	ND(0.001)	0.012	0.010	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
MW-14	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
MW-15	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
*SO4	05/25/97	0.021	ND(0.01)	0.024	ND(0.01)	0.005J	ND(0.01)	ND(0.01)	0.469	0.470	1.936	0.107

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parentheses.
J - Detected at concentration below the method detection limit.
*SO4 = Shell Service Station monitoring well MW-4

1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethane
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

Table 3. Soil data from the Dowell Facility in Hobbs, New Mexico

Sample Location	Sample ID	Sample Depth	Date Sampled	1,1-DCA (mg/kg)	1,2-DCA (mg/kg)	1,1-DCE (mg/kg)	PCE (mg/kg)	1,1,1-TCA (mg/kg)	TCE (mg/kg)	BENZENE (mg/kg)	ETHYL-BENZENE (mg/kg)	TOLUENE (mg/kg)	TOTAL XYLENES (mg/kg)	NAPHTHA-LENE (mg/kg)
*1-7	93007-1-7.5/97	72-74'	05/12/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	0.11J	2.17	1.55	3.78	1
1-8	93007-1-8.5/97	72-74'	05/12/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
3-5	93007-3-5.5/97	72-74'	05/12/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
3-6	93007-3-6.68-70.5/97	68-70	05/25/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
3-7	93007-3-7.68-70.5/97	68-70	05/24/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
MW-12	93007-12.68-70.5/97	68-70	05/23/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)

Notes:
ND = not detected at concentrations specified in parentheses.
1,1-DCA = 1,1-dichloroethane
1,2-DCA = 1,2-dichloroethane
1,1-DCE = 1,1-dichloroethene
PCE = tetrachloroethene
1,1,1-TCA = 1,1,1-trichloroethane
TCE = trichloroethene
*other analytes detected, see laboratory data sheets

TABLE 4. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, TOTAL PETROLEUM HYDROCARBONS AND BASE-NEUTRAL POLYAROMATIC HYDROCARBONS, DOWELL FACILITY, HOBBS, NEW MEXICO

		TOTAL PETROLEUM HYDROCARBONS		*BASE-NEUTRAL POLYAROMATIC HYDROCARBONS*		
WELL NUMBER	*SAMPLE DATE*	*GRO (mg/L)*	*DRO (mg/L)*	*NAPTHALENE (mg/L)*	*PHENANTHRENE (mg/L)*	*PYRENE (mg/L)*
MW-1 abandoned	01/22/97	ND(0.02)	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
MW-2	01/22/97	0.213	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
	05/26/97	0.100	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-3	01/22/97	0.057	1.200	ND(0.011)	ND(0.011)	ND(0.011)
	ND(1)	0.050	1.600	ND(0.010)	ND(0.010)	ND(0.010)
MW-4	01/22/97	0.672	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
	05/26/97	0.530	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-5	01/22/97	0.146	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
duplicate	01/22/97	0.136	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)
	05/26/97	0.150	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-6	01/22/97	0.033	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)
	ND(1)	0.060	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-7	01/22/97	0.089	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
	05/22/97	0.190	1.500	0.030	ND(0.010)	ND(0.010)
MW-8	01/22/97	0.369	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)
	05/26/97	1.010	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)

TABLE 4. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, TOTAL PETROLEUM HYDROCARBONS AND BASE-NEUTRAL POLYAROMATIC HYDROCARBONS, DOWELL FACILITY, HOBBS, NEW MEXICO

		TOTAL PETROLEUM HYDROCARBONS		*BASE-NEUTRAL POLYAROMATIC HYDROCARBONS*		
WELL NUMBER	*SAMPLE DATE*	*GRO (mg/L)*	*DRO (mg/L)*	*NAPTHALENE (mg/L)*	*PHENANTHRENE (mg/L)*	*PYRENE (mg/L)*
MW-9	01/22/97	0.055	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)
	05/23/97	0.260	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-10	05/26/97	0.040	1.800	ND(0.010)	ND(0.010)	ND(0.010)
duplicate	05/26/97	0.040	1.300	ND(0.010)	ND(0.010)	ND(0.010)
MW-11	05/26/97	0.040	6.200	ND(0.010)	ND(0.010)	ND(0.010)
MW-12	05/26/97	ND(0.02)	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-13	05/26/97	ND(0.02)	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-14	05/26/97	ND(0.02)	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
MW-15	05/26/97	ND(0.02)	ND(1)	ND(0.010)	ND(0.010)	ND(0.010)
Shell Station	05/26/97	6.980	3.100	0.051	ND(0.010)	ND(0.010)

Notes:
GRO = gasoline range organics
DRO = diesel range organics
mg/L = milligrams per liter (equivalent to parts per million)
ND(1) = constituent not detected at concentration above method detection limit in parentheses

TABLE 5. **RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, MAJOR CATIONS AND ANIONS (DISSOLVED), DOWELL FACILITY, HOBBS, NEW MEXICO**

WELL NUMBER	SAMPLE DATE	MAJOR CATIONS				MAJOR ANIONS			
		CALCIUM (mg/L)	SODIUM (mg/L)	POTASSIUM (mg/L)	MAGNESIUM (mg/L)	CARBONATE (mg/L)	BICARBONATE (mg/L)	SULFATE (mg/L)	CHLORIDE (mg/L)
MW-1 abandoned	01/22/97	382.00	121.00	2.50	34.70	ND(0.1)	426.00	224.00	133.00
MW-2	1/22/97	173.00	80.40	12.30	12.50	ND(0.1)	342.00	132.00	134.00
	5/23/97	125.00	73.50	11.50	9.40	ND(0.1)	326.00	102.00	99.00
MW-3	1/22/97	263.00	94.50	3.00	29.50	ND(0.1)	643.00	123.00	197.00
	5/22/97	308.00	126.00	3.00	38.00	ND(0.1)	581.00	149.00	327.00
MW-4	1/22/97	205.00	130.00	2.60	32.30	ND(0.1)	466.00	154.00	219.00
	5/23/97	156.00	123.00	2.50	29.50	ND(0.1)	442.00	114.00	207.00
MW-5	1/23/97	244.00	152.00	5.00	69.00	ND(0.1)	405.00	120.00	570.00
duplicate	1/23/97	238.00	147.00	4.60	67.30	ND(0.1)	367.00	134.00	565.00
	5/23/97	260.00	164.00	3.60	78.90	ND(0.1)	525.00	142.00	595.00
MW-6	1/22/97	264.00	127.00	5.80	56.90	ND(0.1)	281.00	145.00	604.00
	5/22/97	361.00	141.00	4.10	60.60	ND(0.1)	465.00	148.00	627.00
MW-7	1/22/97	181.00	232.00	5.30	69.40	ND(0.1)	411.00	39.00	666.00
	5/22/97	250.00	276.00	4.20	130.00	ND(0.1)	572.00	47.00	814.00
MW-8	1/22/97	204.00	76.30	3.90	42.50	ND(0.1)	434.00	234.00	199.00
	5/23/97	252.00	79.30	3.10	45.60	ND(0.1)	595.00	258.00	230.00
MW-9	01/22/97	150.00	72.30	4.60	32.20	ND(0.1)	245.00	131.00	229.00
	05/23/97	183.00	82.90	3.20	36.90	ND(0.1)	372.00	128.00	243.00
MW-10	05/26/97	112.00	61.50	2.30	29.50	ND(0.1)	368.00	84.00	83.00
duplicate	05/26/97	110.00	60.20	2.10	28.90	ND(0.1)	346.00	101.00	87.00
MW-11	05/24/97	108.00	56.60	3.60	21.90	ND(0.1)	162.00	174.00	96.00
MW-12	05/25/97	77.40	76.00	3.50	17.40	ND(0.1)	265.00	144.00	50.00
MW-13	05/24/97	198.00	95.00	4.00	40.60	ND(0.1)	287.00	217.00	284.00
MW-14	05/25/97	143.00	94.70	2.40	28.30	ND(0.1)	331.00	126.00	211.00
MW-15	05/25/97	163.00	82.20	2.50	33.00	ND(0.1)	946.00	176.00	196.00
Shell Station MW4	5/25/97	295.00	169.00	3.50	56.10	ND(0.1)	470.00	325.00	471.00

Notes:
mg/L = milligrams per liter (equivalent to parts per million)
ND(0.1) = not detected at concentration above method detection limit in parentheses

TABLE 6. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, RCRA METALS (DISSOLVED), DOWELL FACILITY, HOBBS, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BARIUM (mg/L)	CADMIUM (mg/L)	CHROMIUM (mg/L)	LEAD (mg/L)	SILVER (mg/L)	ARSENIC (mg/L)	SELENIUM (mg/L)	MERCURY (mg/L)
MW-1 abandoned	01/22/97	0.110	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.017	ND(0.001)	ND(0.001)
MW-2	1/22/97	0.740	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.151	ND(0.001)	ND(0.001)
	5/23/97	0.380	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.066	ND(0.005)	ND(0.001)
MW-3	1/22/97	0.140	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.267	ND(0.001)	ND(0.001)
	5/22/97	0.140	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.219	0.026	ND(0.001)
MW-4	1/22/97	0.130	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.029	0.002	ND(0.001)
	5/23/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.032	0.007	ND(0.001)
MW-5	1/23/97	0.210	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.144	ND(0.001)	ND(0.001)
duplicate	1/22/97	0.200	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.137	ND(0.001)	ND(0.001)
	5/23/97	0.210	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.768	ND(0.005)	ND(0.001)
MW-6	1/22/97	0.140	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.047	ND(0.001)	ND(0.001)
	5/22/97	0.140	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.343	ND(0.005)	ND(0.001)
MW-7	1/22/97	0.220	ND(0.01)	ND(0.05)	0.160	ND(0.01)	0.007	ND(0.001)	ND(0.001)
	5/22/97	0.340	ND(0.01)	ND(0.05)	0.160	ND(0.01)	0.018	ND(0.005)	ND(0.001)
MW-8	1/22/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.004	ND(0.001)	ND(0.001)
	5/23/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.007	0.008	ND(0.001)
MW-9	01/22/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.006	0.003	ND(0.001)
	05/23/97	0.100	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.010	0.013	ND(0.001)
MW-10	05/26/97	0.130	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.040	0.006	ND(0.001)
duplicate	05/26/97	0.120	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.038	0.006	ND(0.001)
MW-11	05/24/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.007	0.014	ND(0.001)
MW-12	05/25/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.009	ND(0.005)	ND(0.001)
MW-13	05/24/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.007	0.020	ND(0.001)
MW-14	05/25/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.023	0.013	ND(0.001)
MW-15	05/25/97	ND(0.10)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.009	0.016	ND(0.001)
Shell Station MW-4	5/25/97	0.210	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.046	0.032	ND(0.001)

Notes:
mg/L = milligrams per liter (equivalent to parts per million)
ND(0.05) = ion not detected at concentration above method detection limit in parentheses

WELL COMPLETION
AND LITHOLOGIC LOGS

MONITORING WELL 93007 MW-10

LOCATION: Dowell Facility, Hobbs, New Mexico
Next to MW-8
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Matteson)
DRILLER: Eodee Drilling (Allen Eodee)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 24, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand
TOP OF CASING ELEVATION: 3638.86 Feet
(Reference Datum: Mean Sea Level = 0.00 Feet)

DESCRIPTIONS

Depth (Ft)

0 — SAND AND GRAVEL: lt brn, gravel to 1" dia., dry, no odor or staining

SILTY SAND: mod orange pink, poorly sorted, subangular-subrounded grains, no odor or staining, easy drilling, lst clasts

CALICHE: very pale orange (10YR 8/2), lst clasts, minor chips, easy drilling 13'-19', soft interbeds of light brown fine grained sand, from 26-34', minor lst chips, dry, no odor or staining

35 — SAND: mod orange pink, vf-f grained, mod sorted, subangular-subrounded, lst clasts, no odor or staining

40 — SAND: lt brown (5YR 6/4) fine grained, poor-mod sorting, subangular-subrounded, lst clasts & chips, no odor or staining, minor lst gravel to 3/4"

50 — SAND: same as above - lt brown (5YR 5/6), minor fine grained sst frags, predom qtz with mafics, minor lst gravel clasts, no odor or staining

55

60

65

70 — SAND: as above with increase in sst chips, damp

75

80

85 — SAND: as above, fine grained, poor-mod sorted, subangular- subrounded, weak-mod, indurated, minor gravel to 1/4", minor cream colored clay, no sheen on water, hard/soft layers (sst hard, sand soft), easy drilling

90

95

100

105

110

115

120

125 — SAND: as above, thin hard layer at @ 127', hard sst at @ 131'

130

LITHOLOGY

CORE

Laboratory

No Soil Sample Collected

WELL CONSTRUCTION DIAGRAM

Depth (Ft) / Elevation

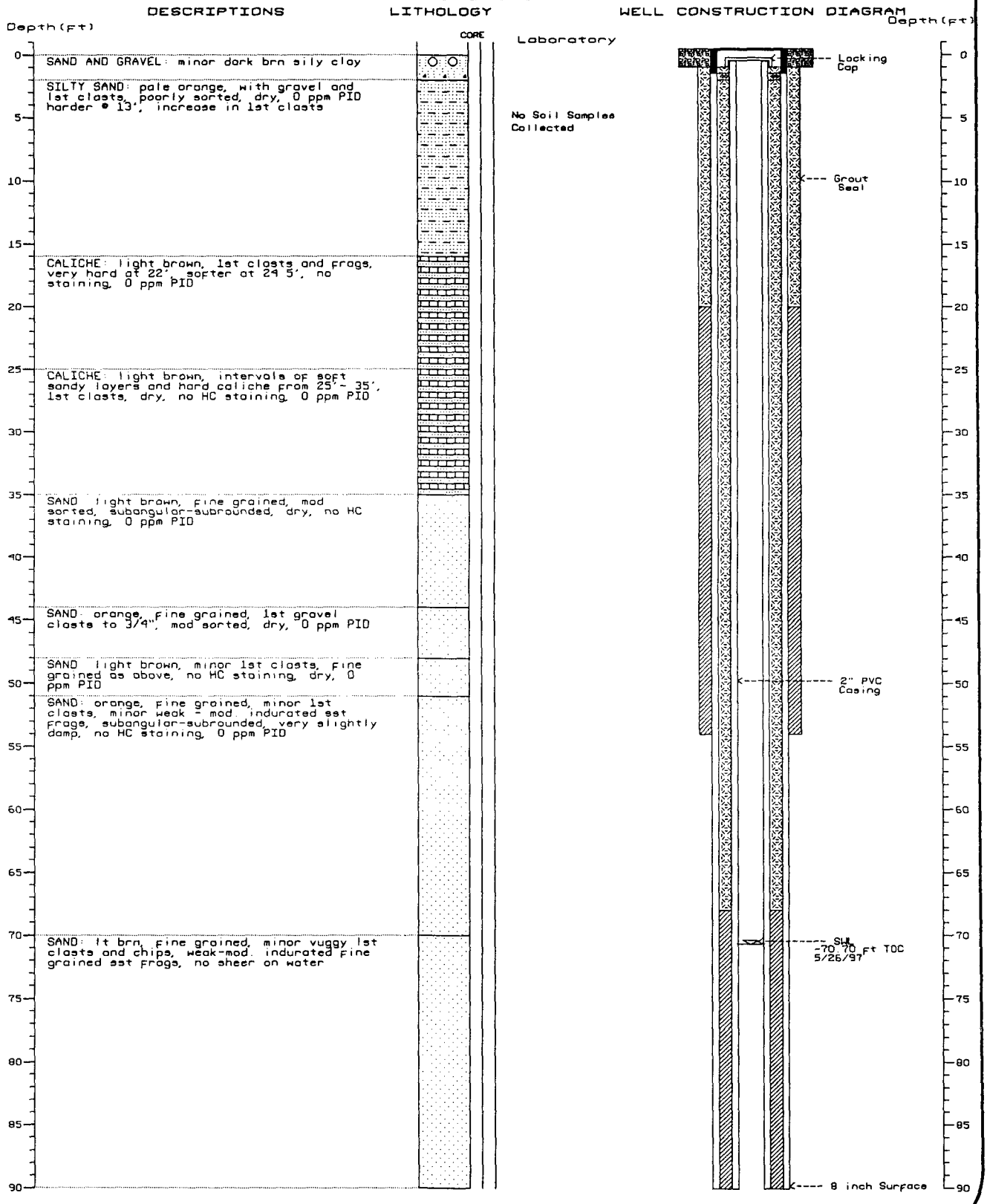
- Locking Cap
- Grout Seal
- 2" PVC Casing
- SWL -73.33 Ft TOC 5/27/97
- Bentonite Seal
- Filter Pack
- 2" PVC Screen
- TD 131.0 Ft
- Bottom Cap

Western Water Consultants, Inc.

MONITORING WELL 93007 MW-11

LOCATION: Dowell Facility, Hobbs, New Mexico
Next to MW-1
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 14, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand
TOP OF CASING ELEVATION: 3638.55 feet
(Reference Datum: Mean Sea Level = 0.00 feet)

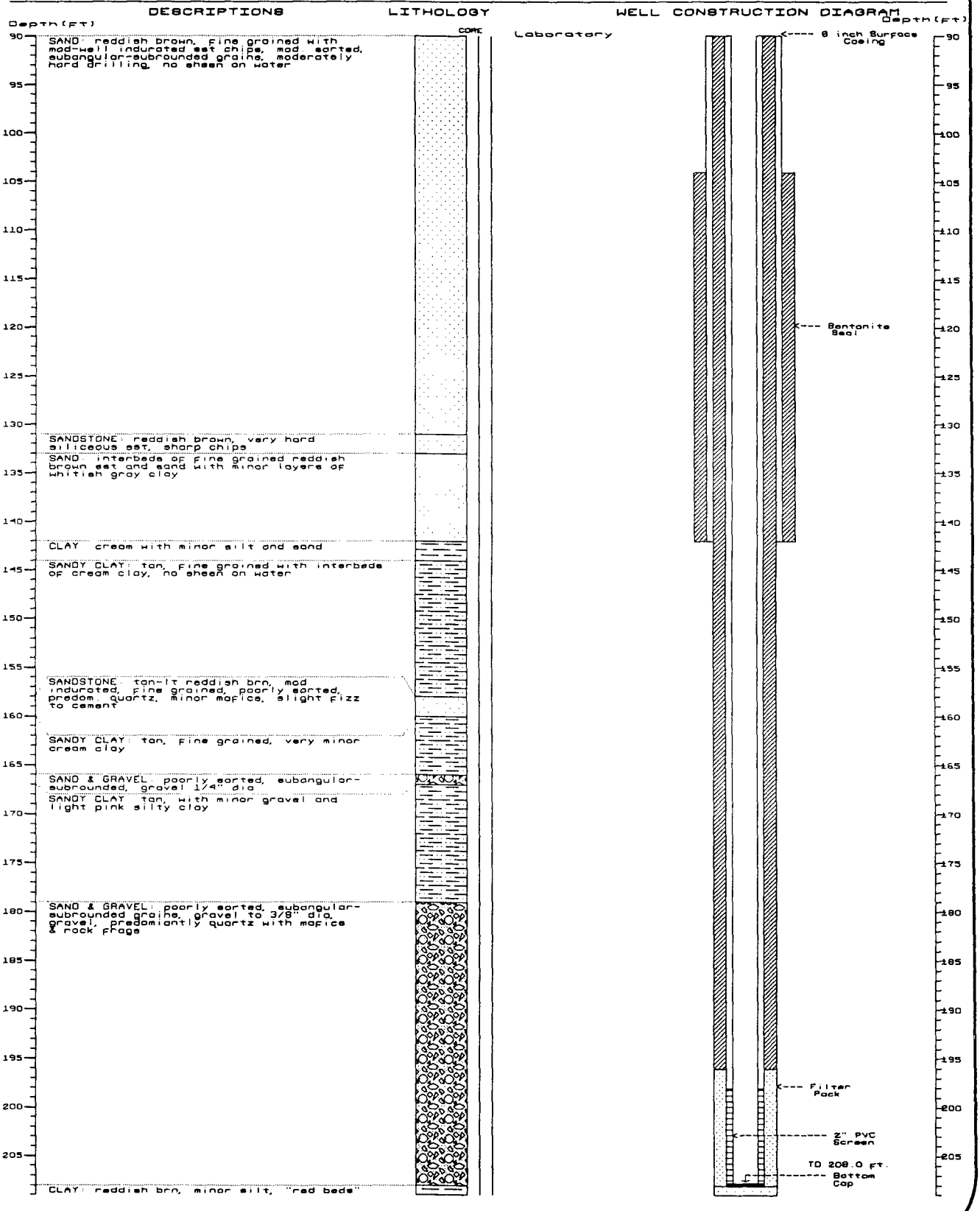


Western Water Consultants, Inc.

MONITORING WELL 93007 MW-11 Continued

LOCATION: Dowell Facility, Hobbs, New Mexico
Next to MW-1
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Matteson)
DRILLER: Eodes Drilling (Allen Eodes)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 14, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand
TOP OF CASING ELEVATION: 3638.55 feet
(Reference Datum: Mean Sea Level = 0.00 feet)

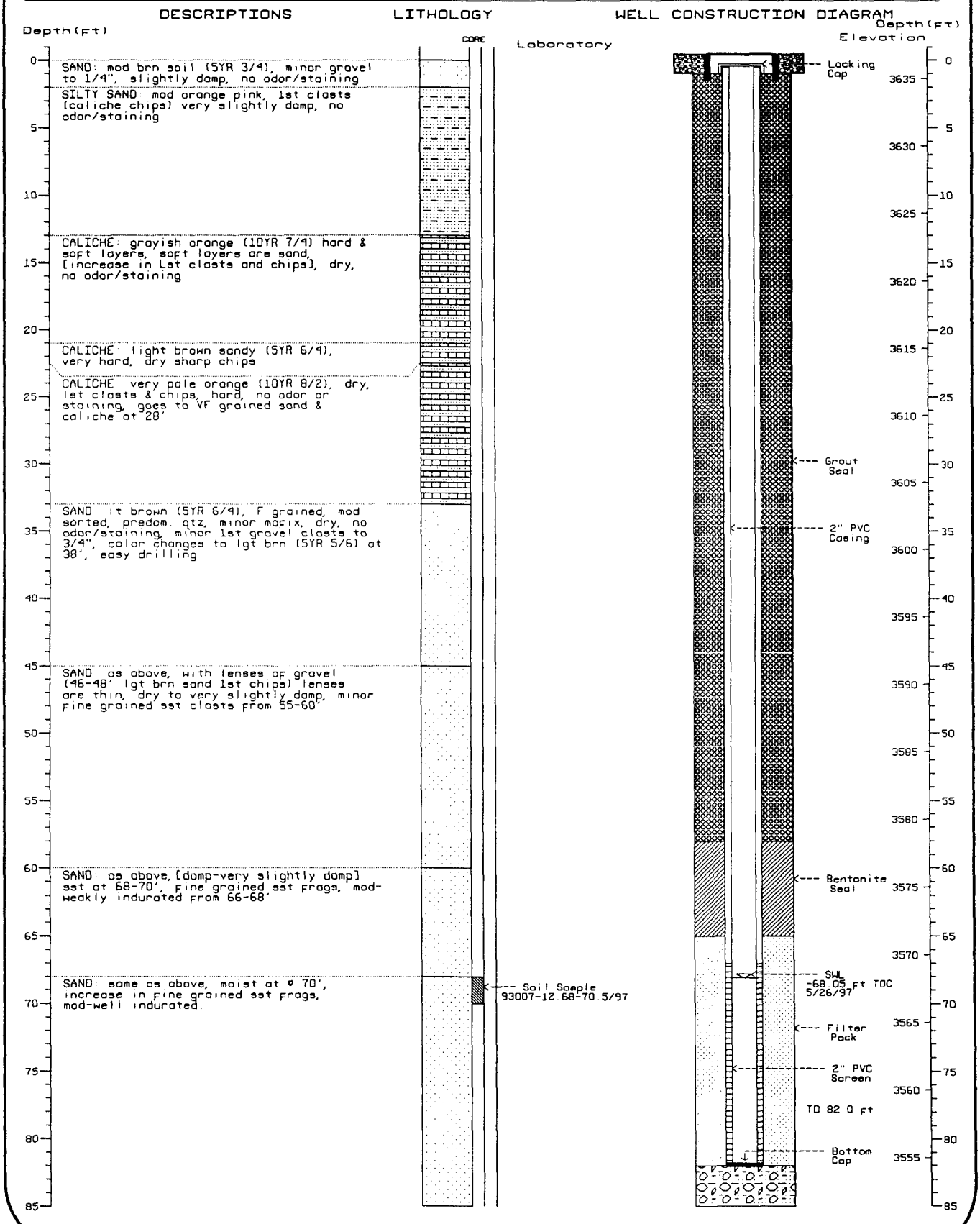


Western Water Consultants, Inc.

MONITORING WELL 93007 MW-12

LOCATION: Dowell Facility, Hobbs, New Mexico
SW corner of yard
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 23, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand
TOP OF CASING ELEVATION: 3636.15 feet
(Reference Datum: Mean Sea Level = 0.00 feet)



Western Water Consultants, Inc.

MONITORING WELL 93007 MW-13

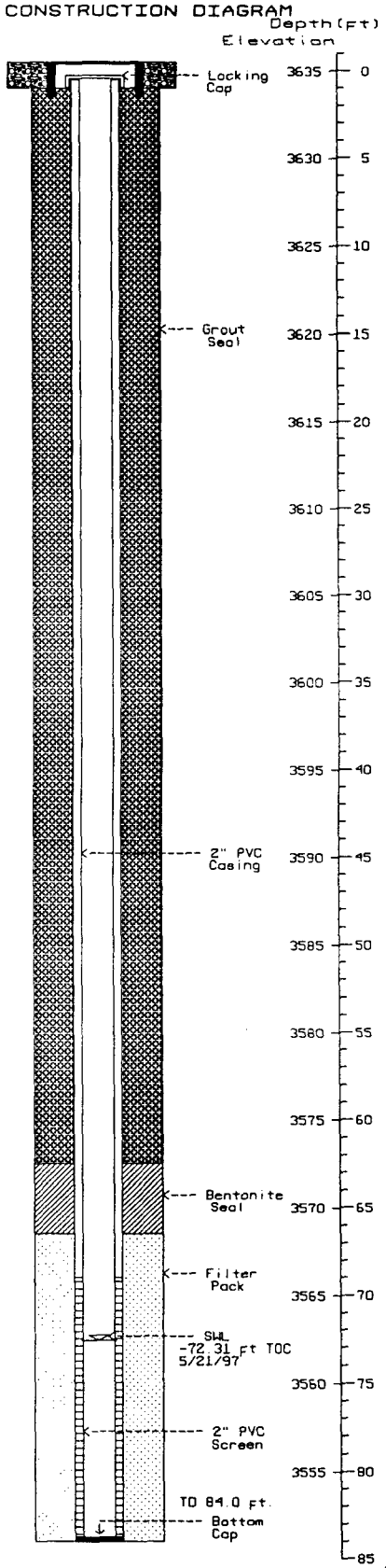
LOCATION: Dowell Facility, Hobbs, New Mexico
T18S, R38E, Sec 21, SE1/4

LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 14, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand
TOP OF CASING ELEVATION: 3635.39 feet
(Reference Datum: Mean Sea Level = 0.00 feet)

Depth (ft)	DESCRIPTIONS	LITHOLOGY	Laboratory
0	SILTY CLAY: dark brn soil, 0 ppm PID	CORE	No Soil Sample Collected
5	SILTY SAND: lt brn, very pale orange, lst clasts, poorly sorted, very slightly damp, no hydrocarbon staining, 0 ppm PID		
10	SAND: pale orange, poorly sorted, hematite stained, no hydrocarbon staining, 0 ppm PID		
15			
20	CALICHE: light brown, lst clasts, dry, powdery, no hydrocarbon staining and soft intervals, dry, no staining, 0 ppm PID		
25			
30	CALICHE: light pinkish white, lst clasts dry CALICHE: lt brown, lst clasts, hard at 32', dry, 0 ppm PID		
35	SAND: light brown, VF-F grained, lst clasts, minor sst clasts, mod sorted, subangular-subrounded grains, dry, 0 ppm PID		
40			
45	SAND: pale orange, fine grained, mod sorted, subangular-subrounded grains, dry no hydrocarbon staining, 0 ppm PID SAND: lt brn as above, no hydrocarbon staining, dry, 0 ppm PID		
50	SAND: pale orange, lst gravel to 1" diameter, dry		
55	SAND: orange, fine grained, mod sorted, subangular-subrounded, minor weakly indurated sst frags, very slightly damp, 0 ppm PID, very slight fizz w/HCl on the grains		
60	SAND: orange as above, very slightly damp, slightly more damp towards 70', 0 ppm PID, no hydrocarbon staining		
65			
70	SAND: pale orange, as above but increase in fine grained, mod. sorted, sst frags, moist, mod. indurated, 0 ppm PID, no hydrocarbon staining		
75			
80			
85			

WELL CONSTRUCTION DIAGRAM



Western Water Consultants, Inc.

MONITORING WELL 93007 MW-14

LOCATION: Dowell Facility, Hobbs, New Mexico
T18S, R38E, Sec. 21, SE.

LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 14, 1997

WELL OWNER: Dowell Schlumberger (JN 93007 2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand
TOP OF CASING ELEVATION: 3637.19 feet
(Reference Datum: Mean Sea Level = 0.00 feet)

DESCRIPTIONS

Depth(ft)

0 — SAND AND GRAVEL:

5 — SILTY SAND: mod. orange pink, fine grained, dry, 0 ppm PID

10 — CALICHE: lt brn, hard drilling, lst clasts and chips, dry, no staining or odor

15 — CALICHE: very pale orange, abundant lst clasts and chips, fine grained sand, hard and soft intervals, dry, no staining, 0 ppm PID

20 — CALICHE: mod. orange pink, powdery, lst clasts, dry, no odor or staining

25 — SAND: lt brown (5YR 6/4), vf-f grained, mod. sorted, subangular-subrounded grains, dry, no staining, 0 ppm PID

30

35

40 — SAND: pale orange, well-mod. sorted, fine grained, hard at 45', interbeds of lst gravel, very slightly damp, 0 ppm PID, no HC staining

45 — SAND: lt brn, as above, minor lst clasts, chips, and fine grained weakly indurated sst clasts, 0 ppm PID

50

55

60 — SAND: lt brn, fine grained, mod sorted, minor sst frags to 71', increasing sst from 71' down, damp at 71', moist by 75', no staining, 0 ppm PID

65

70

75

80

85

LITHOLOGY

CORE

Laboratory

No Soil Sample Collected

WELL CONSTRUCTION DIAGRAM

Depth(ft) | Elevation

0 — 3635
5 — 3630
10 — 3625
15 — 3620
20 — 3615
25 — 3610
30 — 3605
35 — 3600
40 — 3595
45 — 3590
50 — 3585
55 — 3580
60 — 3575
65 — 3570
70 — 3565
75 — 3560
80 — 3555
85

Locking Cap

Grout Seal

2" PVC Casing

Bentonite Seal

Filter Pack

SWL -74.86 ft TOC 5/21/97

2" PVC Screen

TD 85.0 ft.

Bottom Cap

Western Water Consultants, Inc.

MONITORING WELL 93007 MW-15

LOCATION: Dowell Facility, Hobbs, New Mexico
T18S, R38E, Sec. 21, SE.

LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 13, 1997

WELL OWNER: Dowell Schlumberger (JN 93007 2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand
TOP OF CASING ELEVATION: 3636.57 feet
(Reference Datum: Mean Sea Level = 0.00 feet)

DESCRIPTIONS

Depth (ft)

0 — SILTY CLAY: dark brn soil
SILTY SAND: lt brn, fine grained, lst clasts, mod sorted, dry, no odor or staining

5 — SILTY SAND: pale orange, mod.-poorly sorted, fine grained, lst clasts

10 — CALICHE: as above, pale pinkish orange, lots of clasts & minor frags, quiet to 19', no odor or staining, harder at 19'

15

20 — CALICHE: pale orange -lt brn at 19.5', fine grained, interbeds of hard caliche and soft fine grained sand

25 — CALICHE: as above but pinkish white caliche
CALICHE: pale orange, as above

30

35 — SAND: lt brn, thin interbeds of hard lst, fine grained sand, mod. sorted, subangular-subrounded, no odor/staining

40 — SAND: as above but orange
SAND: as with the lt brn sand above, small clasts of weakly indurated sst

45

50 — SAND: pale orange, fine grained, mod sorted, subangular-subrounded grains, minor mod-well indurated sst clasts, no odor or staining, slighlty damp, sand interval is unconsolidated and with thin interbeds of lst clast gravels and sst

55

60 — SAND: lt brn, as above, harder at 71', increase in sst

65

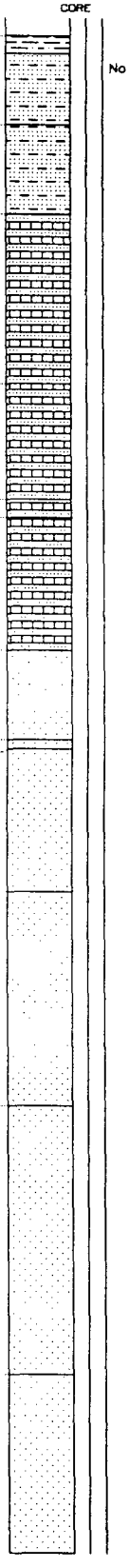
70

75 — SAND: lt brn-pale orange, weak-mod indurated sst clasts, fine grained, mod sorted, no odor or staining, hard at

80

85

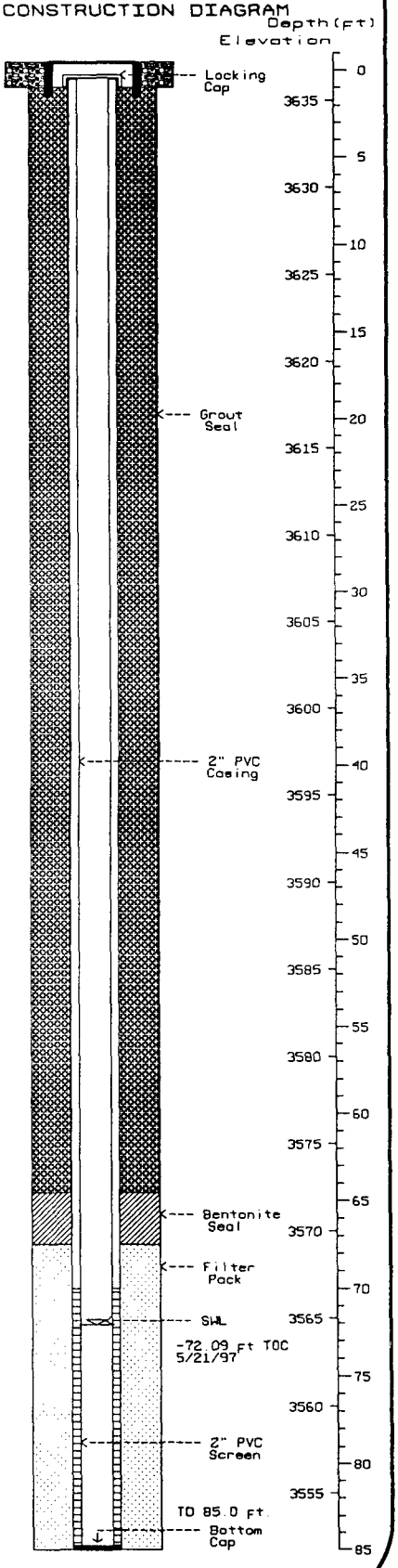
LITHOLOGY



Laboratory

No Soil Sample Collected

WELL CONSTRUCTION DIAGRAM



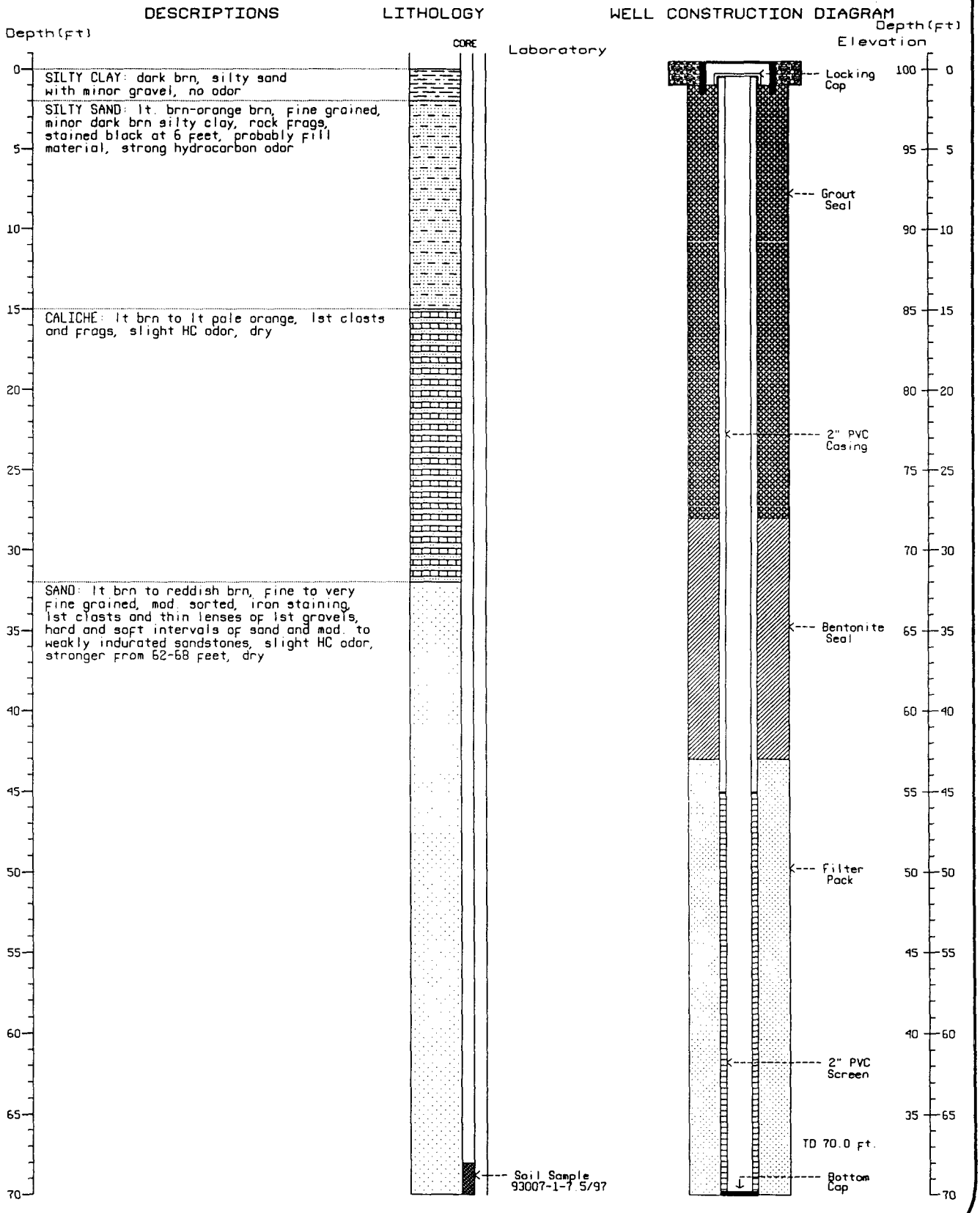
Western Water Consultants, Inc.

SOIL VAPOR EXTRACTION WELL 1-7

LOCATION: Dowell Schlumberger facility, Hobbs, NM
1105 West Bender Boulevard

LOG: Western Water Consultants Inc (Kevin Mattson)
DRILLER: Eades Drilling (Alan Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 12, 1997

WELL OWNER Dowell Schlumberger (JN 93007)
DRILLING METHOD Ingersoll Rand, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand



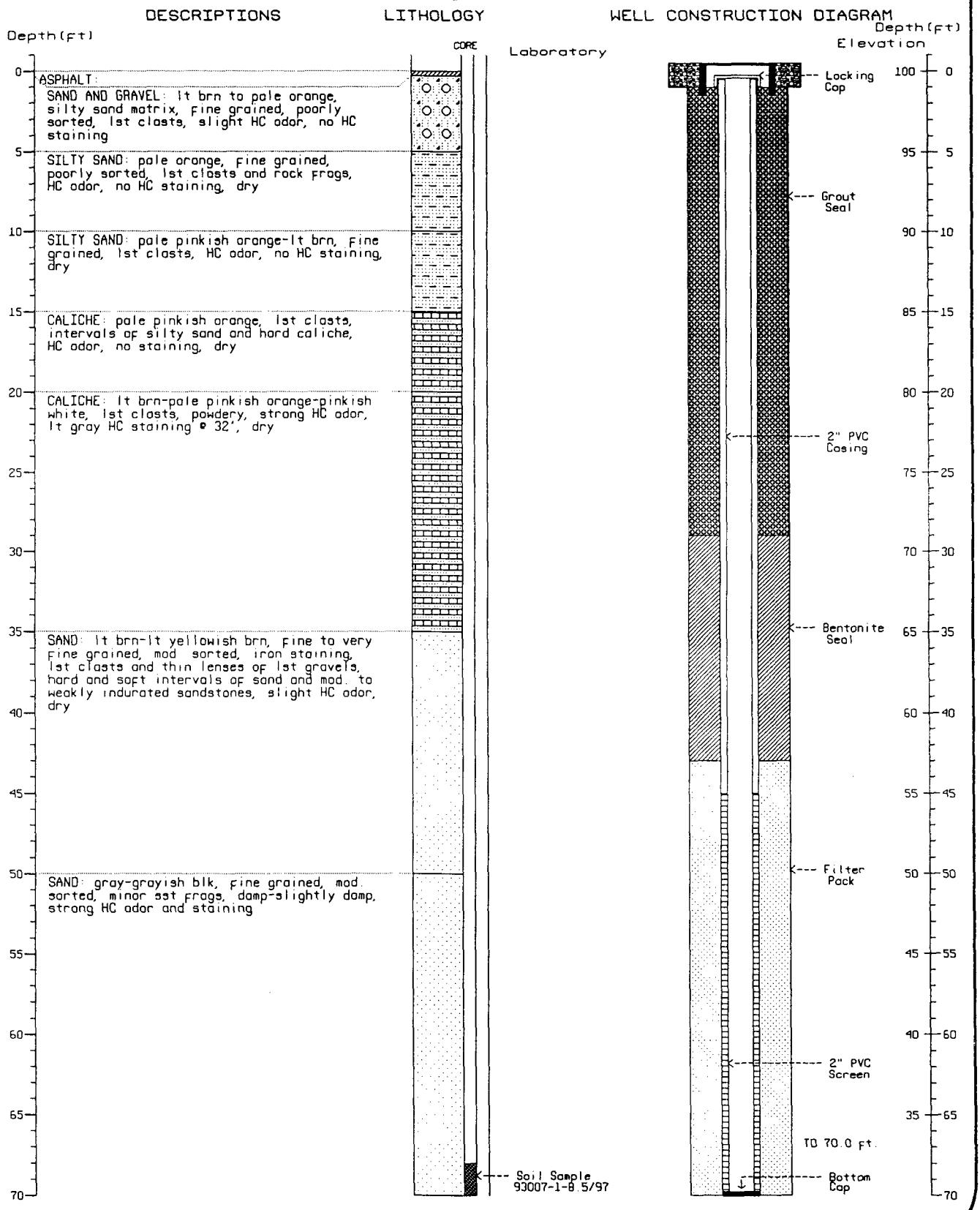
Western Water Consultants, Inc.

SOIL VAPOR EXTRACTION WELL 1-8

LOCATION: Dowell Schlumberger facility, Hobbs, NM
1105 West Bender Boulevard

LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Alan Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 12, 1997

WELL OWNER: Dowell Schlumberger (JN 93007)
DRILLING METHOD: Ingersoll Rand, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand



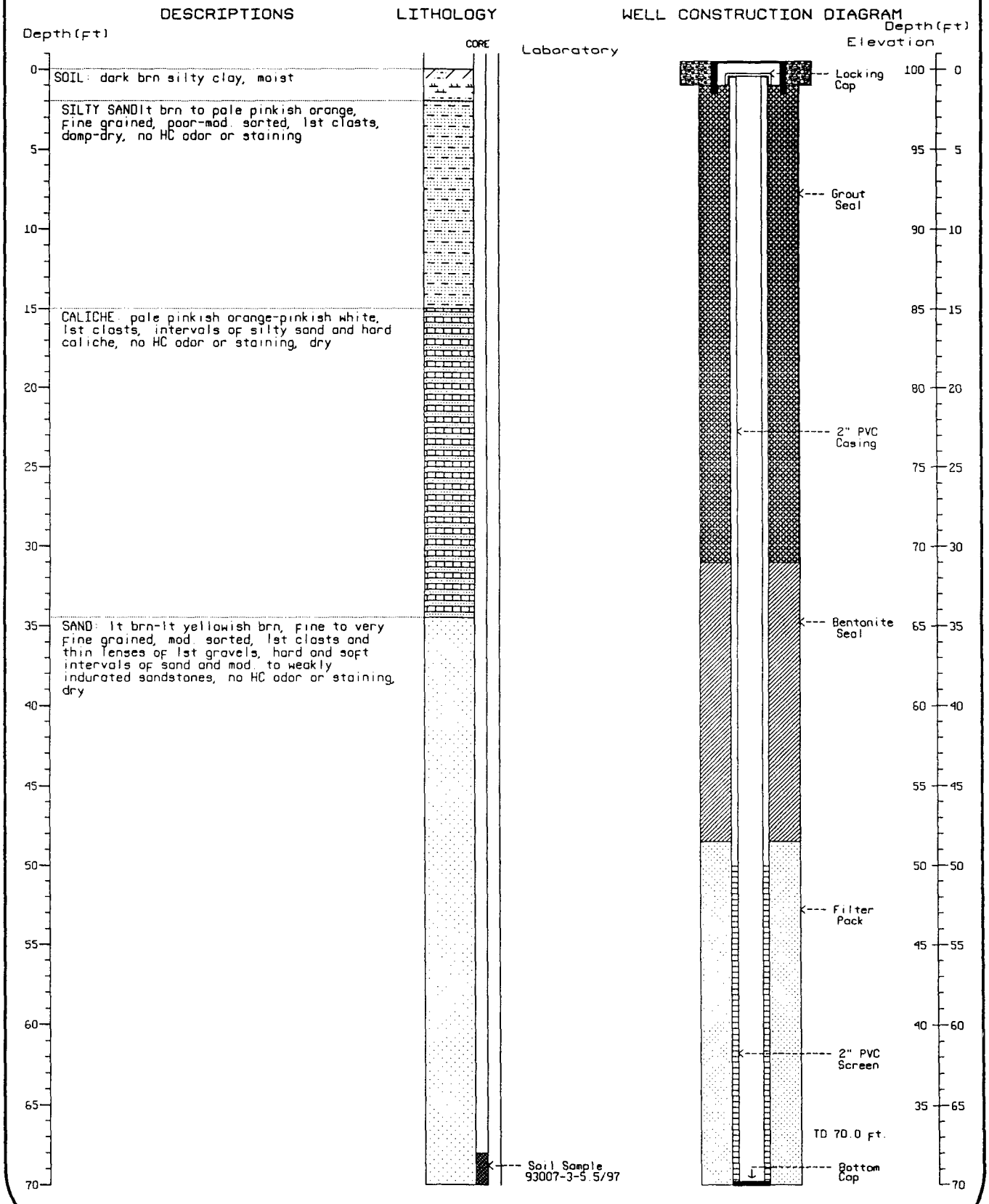
Western Water Consultants, Inc.

SOIL VAPOR EXTRACTION WELL 3-5

LOCATION: Dowell Schlumberger facility, Hobbs, NM
1105 West Bender Boulevard

LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Alan Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 12, 1997

WELL OWNER: Dowell Schlumberger (JN 93007)
DRILLING METHOD: Ingersoll Rand, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand



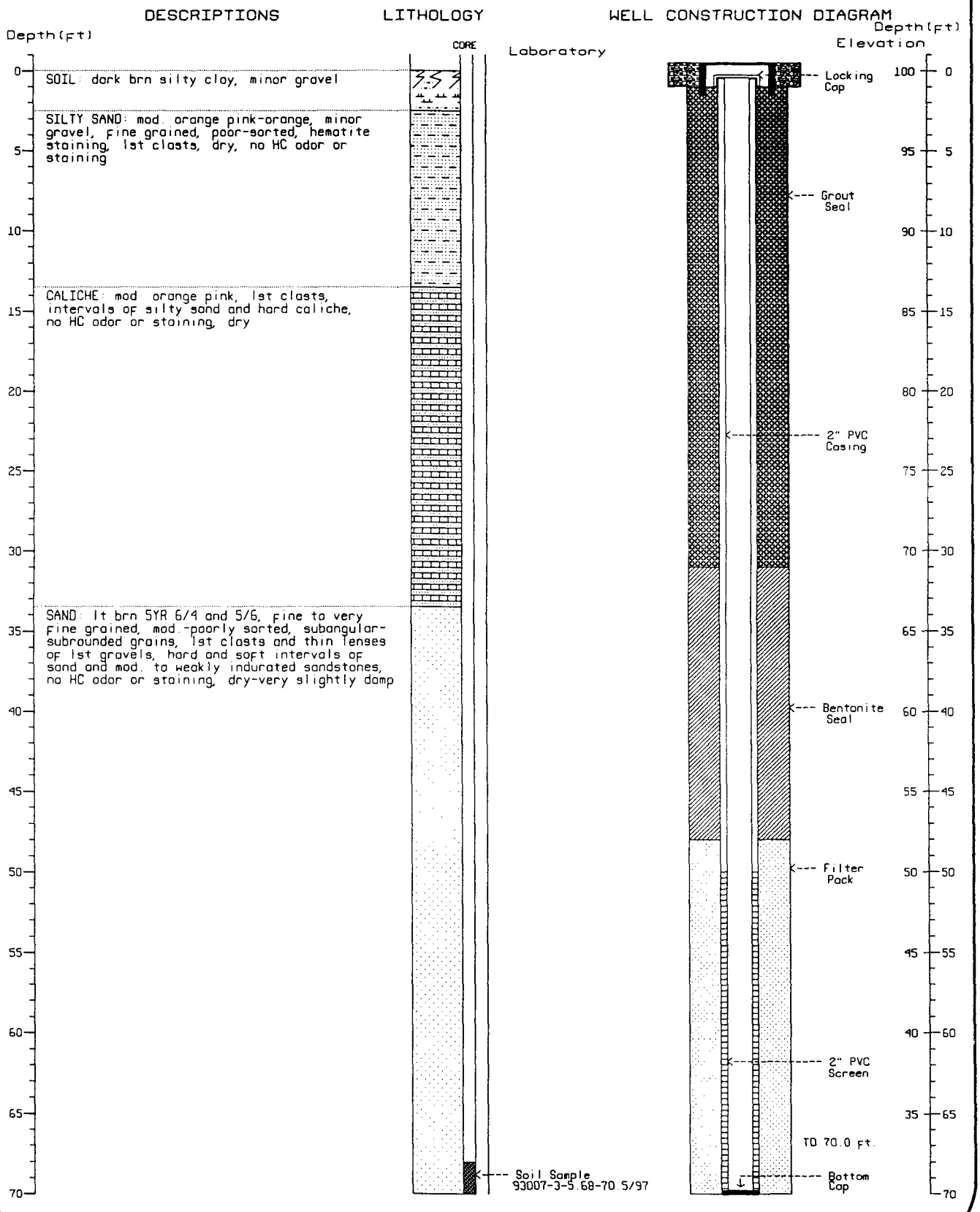
Western Water Consultants, Inc.

SOIL VAPOR EXTRACTION WELL 3-6

LOCATION: Dowell Schlumberger facility, Hobbs, NM
1105 West Bender Boulevard

LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Alan Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 25, 1997

WELL OWNER: Dowell Schlumberger (JN 93007)
DRILLING METHOD: Ingersoll Rand, 6 1/8 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 12/20 Mesh Silica Sand



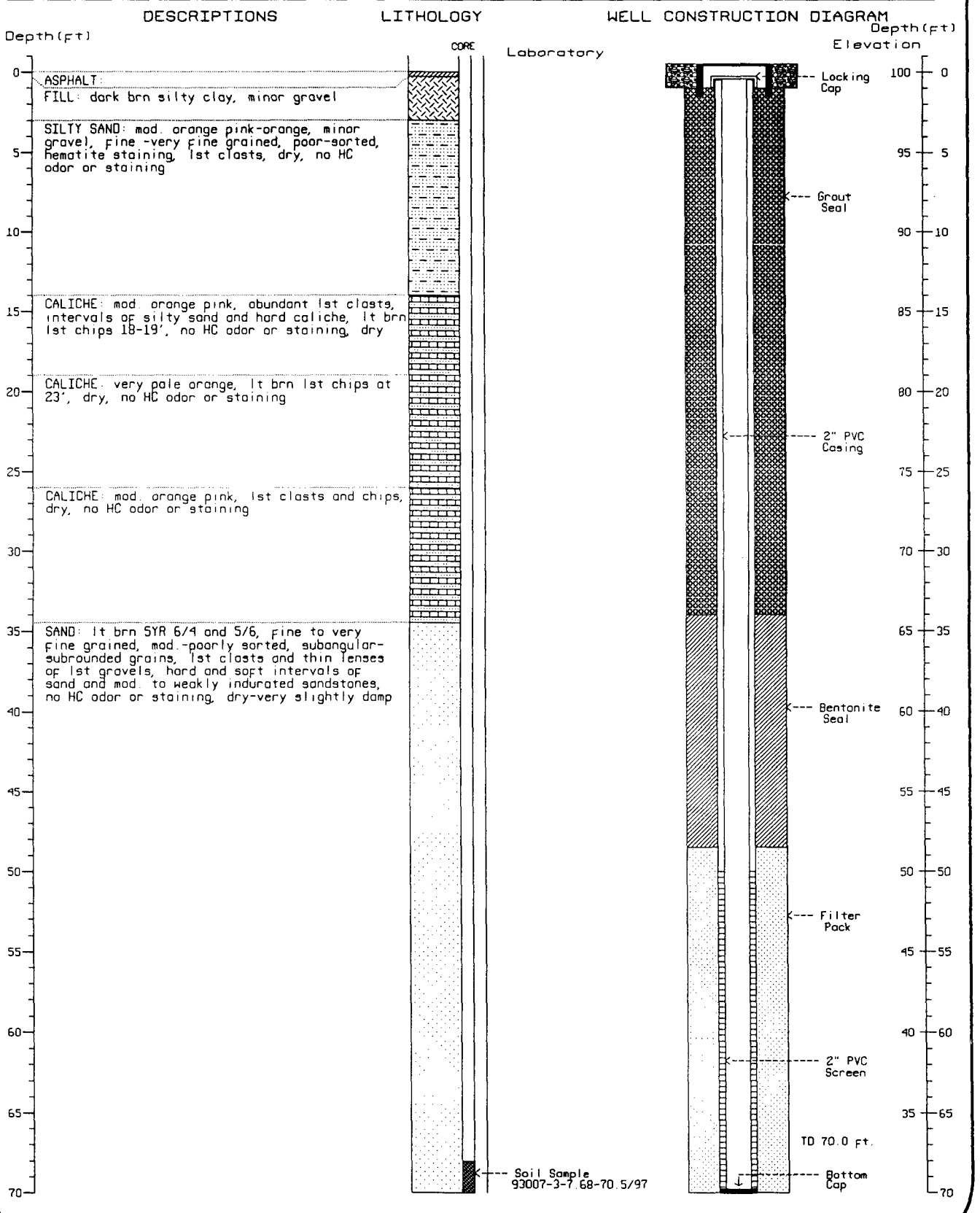
Western Water Consultants, Inc.

SOIL VAPOR EXTRACTION WELL 3-7

LOCATION: Dowell Schlumberger facility, Hobbs, NM
1105 West Bender Boulevard

LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Alan Eades)
DRILLERS LICENSE No. NA
INSTALLATION DATE May 24, 1997

WELL OWNER: Dowell Schlumberger (JN 93007)
DRILLING METHOD Ingersoll Rand, 6 1/8 in. OD
CASING: 2 in Dia Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in
FILTER PACK 12/20 Mesh Silica Sand



Western Water Consultants, Inc.

AIR SPARGING WELL 93007 AS-1

LOCATION: Dowell Facility, Hobbs, New Mexico
Former UST area
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 25, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in OD
CASING: 1 in Dia Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand

DESCRIPTIONS | LITHOLOGY | WELL CONSTRUCTION DIAGRAM

Depth (ft)

0 – SILTY CLAY: drk brn with gravel, damp.

SILTY SAND: mod. orange pink, VF-F grained, minor gravel, poorly sorted, 1st clasts, dry, no odor/staining throughout.

5

SILTY SAND: mod. orange pink, hematite staining, fine-VF grained, poorly sorted, 1st clasts & minor rock frags, dry, hematite staining not as prominent as in other areas (probably disturbed from USTs)

10

15

CALICHE: mod orange pink, silty sand fine grained, 1st clasts and chips, hard from 16-25', hard/soft intervals 25-34'.

20

25

30

SAND: lt brn (5YR 6/4 to 5/6), hard and soft intervals of sand with thin lenses of sandy lst gravels and sst, sand is VF-F grained, mod-poorly sorted, subangular-subrounded, dry.

35

40

45

50

55

60

SAND: lt brn (5YR 5/6), as above, getting minor rounded fine grained sst chips, weak-mod indurated from 62-72', damp to slightly damp 62-72', moist-wet at 72' with increase in sst chips, easy drilling to 72', slightly harder 72' down.

65

70

75

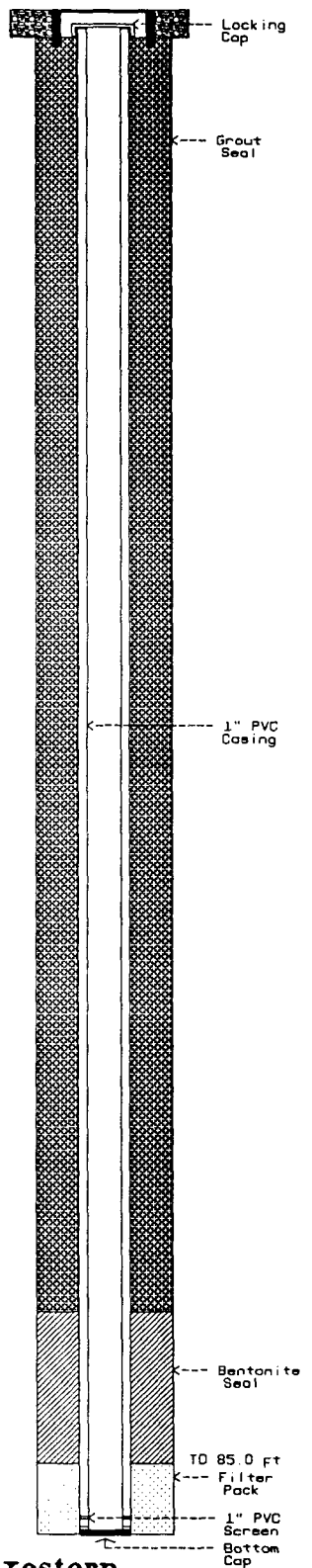
80

85

CORE

Laboratory

No Soil Sample Collected



Depth (ft) Elevation

100 0
95 5
90 10
85 15
80 20
75 25
70 30
65 35
60 40
55 45
50 50
45 55
40 60
35 65
30 70
25 75
20 80
15 85

Western Water Consultants, Inc.

AIR SPARGING WELL 93007 AS-2

LOCATION: Dowell Facility, Hobbs, New Mexico
Former UST area
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 26, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 1 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand

DESCRIPTIONS | LITHOLOGY | WELL CONSTRUCTION DIAGRAM

Depth (ft)

0 — SILTY CLAY: dark brown.

SILTY SAND: mod. orange pink, fine grained, poorly sorted, 1st clasts, dry, no odor/staining throughout.

5

SILTY SAND: mod. orange pink - orange, hematite stained, fine grained, poorly sorted, 1st clasts & minor gravel, dry.

10

CALICHE: mod orange pink, 1st clasts, chips, fine grained silty sand, dry.

15

20

25

30

35 — SAND: lt brn (5YR 5/6 to 6/4), F-VF grained, mod-poorly sorted, subangular-subrounded, 1st clasts & chips, thin lenses of sandy Lst or sst, easy drilling to 70', minor thin gravels and sst's but nothing hard, dry very slightly damp to 70'.

40

45

50

55

60

65

70 — SAND: as above, fine grained weak-mod indurated sst chips, moist-wet at 71-72'.

75

80

85

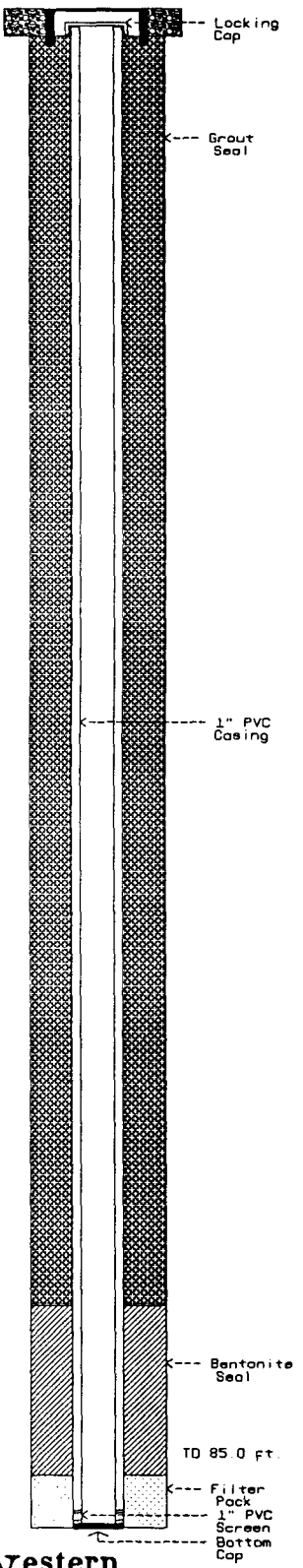
CORE

Laboratory

No Soil Sample Collected

Depth (ft) Elevation

100 — 0
95 — 5
90 — 10
85 — 15
80 — 20
75 — 25
70 — 30
65 — 35
60 — 40
55 — 45
50 — 50
45 — 55
40 — 60
35 — 65
30 — 70
25 — 75
20 — 80
15 — 85



Western Water Consultants, Inc.

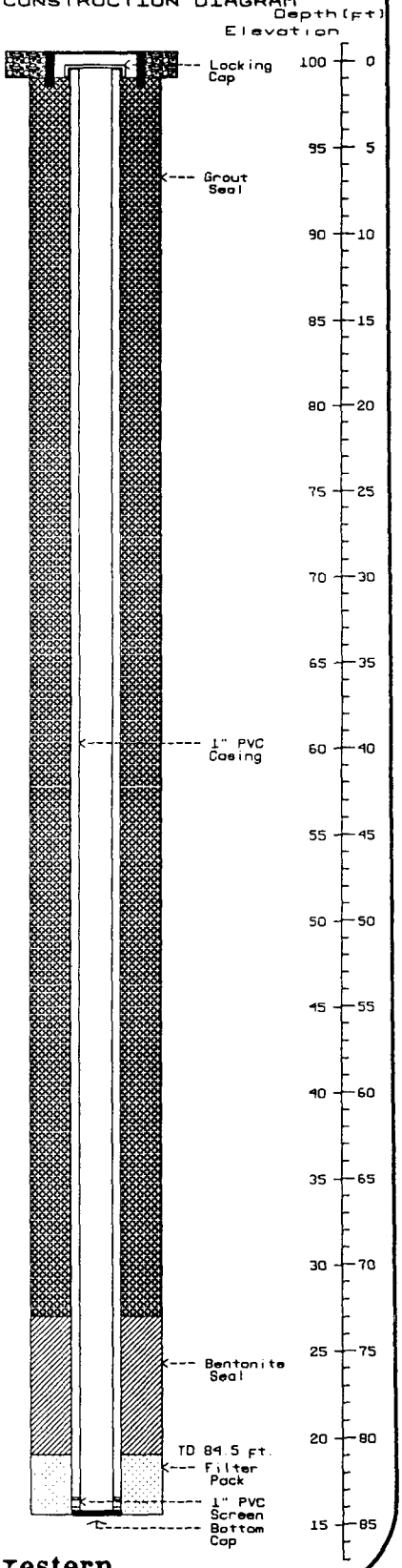
AIR SPARGING WELL 93007 AS-3

LOCATION: Dowell Facility, Hobbs, New Mexico
Former UST area
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 26, 1997

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 1 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand

Depth (ft)	DESCRIPTIONS	LITHOLOGY	Laboratory
0–5	SILTY CLAY: drk brn with gravel.	CORE	No Soil Sample Collected
5–10	SILTY SAND: mod. orange pink, fine grained, poorly sorted w/ lst clasts, dry, no odor/staining throughout.		
10–15	SILTY SAND: mod. orange pink - orange, hematite staining, fine grained, poorly sorted, dry.		
15–20	SILTY SAND: mod orange pink as above with lst clasts, dry.		
20–35	CALICHE: mod. orange pink, lst clasts & chips, fine grained silty sand, dry.		
35–70	SAND: lt brn (5YR 6/4-5/6), VF-F grained, mod-poorly sorted, subangular-subrounded grains, lst clasts & chips, thin hard lenses of lst gravels & sandy Lst's or sst's, hard 39', caliche gravel at 44', easy drilling 44-70'		
70–85	SAND: lt brn (5/6), fine grained as above, slightly harder drilling, increase in weak to mod. indurated fine grained sst chips, damp		

WELL CONSTRUCTION DIAGRAM

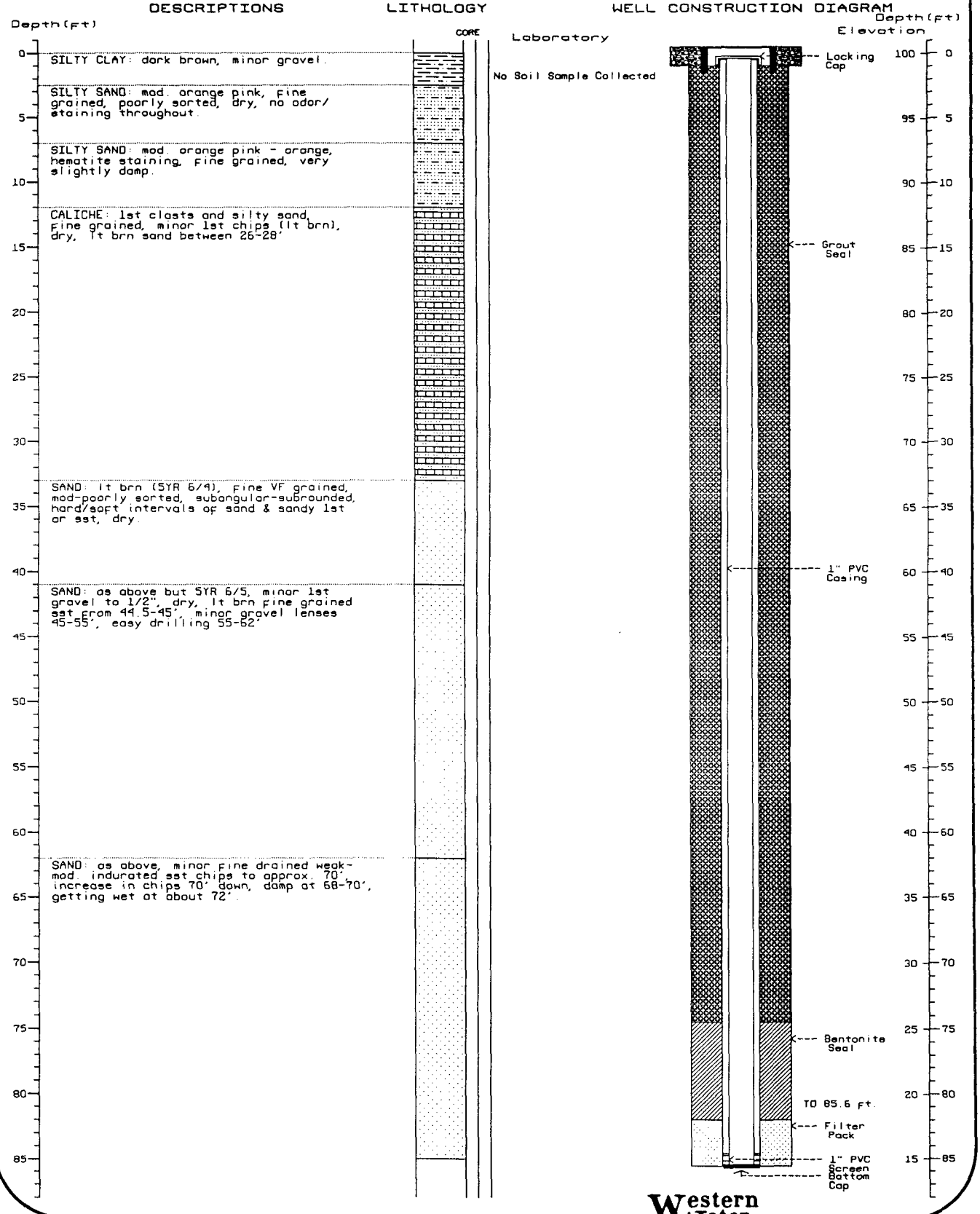


Western Water Consultants, Inc.

AIR SPARGING WELL 93007 AS-4

LOCATION: Dowell Facility, Hobbs, New Mexico
Former UST area
1105 West Bender Boulevard
LOG: Western Water Consultants Inc (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 25, 1997

WELL OWNER Dowell Schlumberger (JN 93007.2)
DRILLING METHOD Air Rotary, 6 1/8 in. OD
CASING: 1 in Dia Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in
FILTER PACK 8/16 Mesh Silica Sand



Western Water Consultants, Inc.

AIR SPARGING WELL 93007 AS-5

LOCATION: Dowell Facility, Hobbs, New Mexico
Former UST area
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 24, 1997

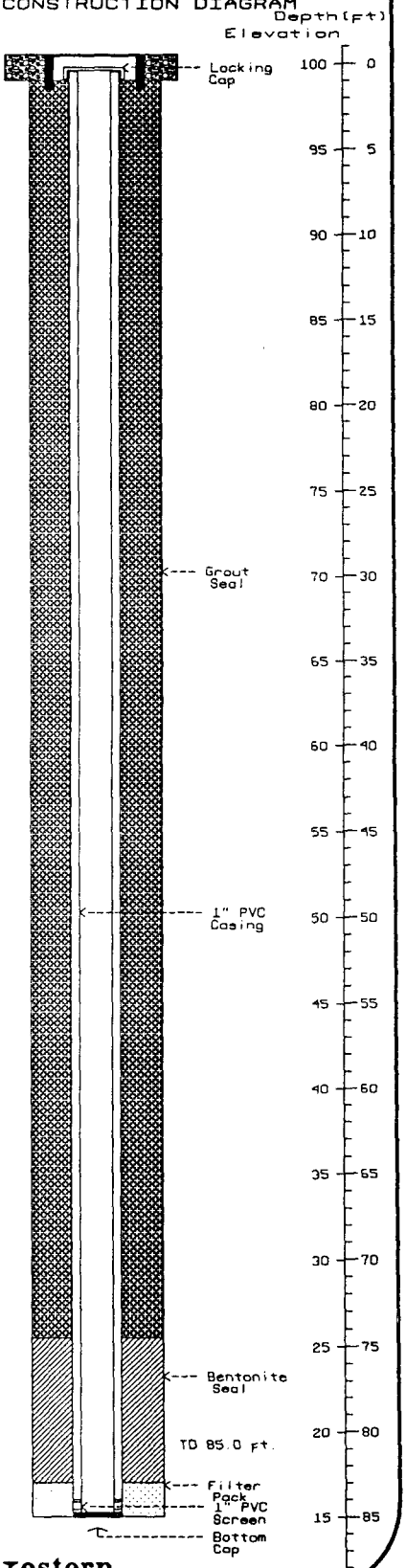
WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 1 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand

Depth (ft)	DESCRIPTIONS	LITHOLOGY
0	ASPHALT.	CORE
	SAND AND GRAVEL: Fill.	
5	SILTY SAND: mod. orange pink, poorly sorted, fine VF grained, dry, no odor/ staining throughout.	
10	SILTY SAND: light brown (5YR 5/6) as above, dry.	
15	CALICHE: harder drilling, mod orange pink, Lst clasts, dry.	
20	CALICHE: very pale orange, hard at about 23', increase in Lst chips, sand (lt brn) interbed at about 25<.5'	
25	CALICHE: mod orange pink, dry, lst clasts, & chips, hard/soft layers, makes fine powder from 28-34'	
30		
35	SAND: lt brn (5YR 6/4), fine VF grained mod-poorly sorted, subangular-subrounded grains, dry, hard/soft layers, lst clasts, occasional chips	
40		
45	SAND: lt brown (5YR 5/6), fine grained as above, occasional gravel, lst clasts & chips, mod-poorly sorted, dry, thin gravel lenses between 45-50'	
50		
55		
60		
65	SAND: lgt brn varies from (5YR 5/6 to 6/4) fine grained, mod-poorly sorted, minor lst clasts & chips, damp-moist between 70-75', increase in sst chips 70' down.	
70		
75		
80		
85		

Laboratory

No Soil Sample Collected

WELL CONSTRUCTION DIAGRAM



Western Water Consultants, Inc.

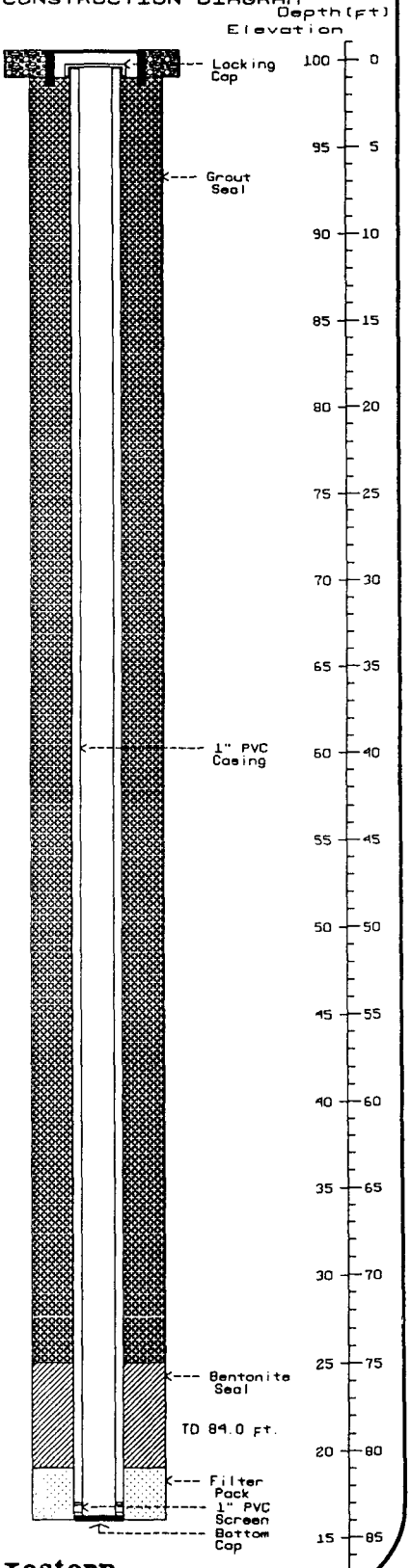
AIR SPARGING WELL 93007 AS-6

LOCATION: Dowell Facility, Hobbs, New Mexico
Former UST area
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Eades Drilling (Allen Eades)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: May 24, 1997

WELL OWNER: Dowell Schlumberger (JN 93007 2)
DRILLING METHOD: Air Rotary, 6 1/8 in. OD
CASING: 1 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand

Depth (ft)	DESCRIPTIONS	LITHOLOGY	Laboratory
0	ASPHALT:	CORE	
	SAND AND GRAVEL: Fill with dark brown silty clay.		No Soil Sample Collected
5	SILTY SAND: mod. orange pink, fine grained, poorly sorted, lst clasts, minor gravel rock frags, dry, no odor/ staining throughout, gets hard at 12.5'		
10			
15	CALICHE: mod orange pink, silty sand w/ lst clasts, fine grained, dry lots of lt brn Lst chips from 15-19'.		
20	CALICHE: mod orange pink, silty sand w/ lst clasts & chips, hard 22'-24'.		
25	CALICHE: mod pale orange as above, lt brn sand & caliche 26-28', fine grained, hard/ soft intervals.		
30			
35	SAND: lt brn (5YR 6/4) very fine-fine grained, mod-poorly sorted, subangular-subrounded grains, interbeds of caliche, lst clasts & chips.		
40	SAND: lt brn (5YR 5/6) as above, thin lt brn sandy lst & sst interbeds, dry-very slightly damp, hard and soft interbeds between 40-55'		
45			
50			
55	SAND: lt brn as above, easy drilling, minor sst chips, fine grained, weakly indurated, dry.		
60			
65			
70	SAND: lgt brn as above, damp at about 70', moist-wet at about 73', increase in fine grained, weak-mod indurated sst chips from 71' down.		
75			
80			
85			

WELL CONSTRUCTION DIAGRAM



Western Water Consultants, Inc.

LABORATORY DATA

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-2.5/97 MW-2	Date Sampled:	05/23/97
Laboratory ID:	C97-28027	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	1	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**6.65**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**38.6**	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**56.7**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	**Benzene**	**9.12**	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	**Toluene**	**3.33**	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**13.6**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	**Ethylbenzene**	**3.75**	1.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**2.57**	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**2.40**	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/23/97
Sample ID:	93007-2.5/97 MW-2	Date Analyzed:	05/28/97
Laboratory ID:	C97-28027	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	**1,3,5 - Trimethylbenzene**	**1.33**	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	**1,2,4 - Trimethylbenzene**	**1.57**	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	**Naphthalene**	**1.26**	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1932846	2458502	78.6%	50 - 200 %
Fluorobenzene	3369573	3891648	86.6%	50 - 200 %
1,4 - Difluorobenzene	2804467	3258594	86.1%	50 - 200 %
Chlorobenzene - d5	1942326	2243736	86.6%	50 - 200 %
1,4 - Dichlorobenzene - d4	901859	1048182	86.0%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.6	116%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.4	104%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-3.5/97 mw-3	Date Sampled:	05/22/97
Laboratory ID:	C97-27914	Date Received:	05/23/97
Matrix:	Water	Date Analyzed:	05/27/97
Dilution Factor:	1	Date Reported:	June 1, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	**Chloroethane**	**1.52**	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**14.8**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**26.2**	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	**cis - 1,2 - Dichloroethene**	**2.80**	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	**Chloroform (Trichloromethane)**	**2.10**	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**15.3**	1.0
107-06-2	**1,2 - Dichloroethane**	**1.41**	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	**Benzene**	**2.27**	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**16.4**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/22/97
Sample ID:	93007-3.5/97 MW-3	Date Analyzed:	05/27/97
Laboratory ID:	C97-27914	Date Reported:	June 1, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	**Naphthalene**	**4.23**	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2298372	2301942	99.8%	50 - 200 %
Fluorobenzene	3573831	3485427	103%	50 - 200 %
1,4 - Difluorobenzene	3072271	3008301	102%	50 - 200 %
Chlorobenzene - d5	2198833	2107415	104%	50 - 200 %
1,4 - Dichlorobenzene - d4	1088328	988750	110%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.8	108%	86 - 118 %
Toluene - d8	9.82	98.2%	88 - 110 %
4 - Bromofluorobenzene	10.2	102%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.87	98.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27914.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-4.5/97 MW-4	Date Sampled:	05/23/97
Laboratory ID:	C97-28029	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	10	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**423**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**61.9**	10.0
78-93-3	2 -Butanone (MEK)	ND	100
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	**Chloroform (Trichloromethane)**	**23.4**	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**550**	10.0
107-06-2	**1,2 - Dichloroethane**	**21.9**	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**1,720**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/23/97
Sample ID:	93007-4.5/97 MW-4	Date Analyzed:	05/28/97
Laboratory ID:	C97-28029	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2400336	2458502	97.6%	50 - 200 %
Fluorobenzene	3605412	3891648	92.6%	50 - 200 %
1,4 - Difluorobenzene	3091941	3258594	94.9%	50 - 200 %
Chlorobenzene - d5	2170117	2243736	96.7%	50 - 200 %
1,4 - Dichlorobenzene - d4	1032966	1048182	98.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.73	97.3%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.85	98.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-5.5/97 MW-5	Date Sampled:	05/23/97
Laboratory ID:	C97-28030	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	2	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**54.7**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**191**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	**Chloroform (Trichloromethane)**	**4.66**		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**58.7**		2.0
107-06-2	**1,2 - Dichloroethane**	**2.84**		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**28.8**		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**1.74**	J	2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	**1,1,2 - Trichloroethane**	**2.66**		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**79.1**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/23/97
Sample ID:	93007-5.5/97 MW-5	Date Analyzed:	05/28/97
Laboratory ID:	C97-28030	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2275187	2458502	92.5%	50 - 200 %
Fluorobenzene	3685507	3891648	94.7%	50 - 200 %
1,4 - Difluorobenzene	3121463	3258594	95.8%	50 - 200 %
Chlorobenzene - d5	2127541	2243736	94.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	996874	1048182	95.1%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104%	86 - 118 %
Toluene - d8	9.90	99.0%	88 - 110 %
4 - Bromofluorobenzene	9.76	97.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-6.5/97 mw-6	Date Sampled:	05/22/97
Laboratory ID:	C97-27915	Date Received:	05/23/97
Matrix:	Water	Date Analyzed:	05/27/97
Dilution Factor:	2	Date Reported:	June 1, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**33.7**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**84.5**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	**cis - 1,2 - Dichloroethene**	**2.12**		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	**Chloroform (Trichloromethane)**	**4.38**		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**17.1**		2.0
107-06-2	**1,2 - Dichloroethane**	**2.10**		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**3.52**		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**1.96**	J	2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**22.8**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/22/97
Sample ID:	93007-6.5/97 MW-16	Date Analyzed:	05/27/97
Laboratory ID:	C97-27915	Date Reported:	June 1, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	**Naphthalene**	**2.12**	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2485022	2301942	108%	50 - 200 %
Fluorobenzene	3830011	3485427	110%	50 - 200 %
1,4 - Difluorobenzene	3228453	3008301	107%	50 - 200 %
Chlorobenzene - d5	2248884	2107415	107%	50 - 200 %
1,4 - Dichlorobenzene - d4	1070355	988750	108%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	9.97	99.7%	88 - 110 %
4 - Bromofluorobenzene	9.85	98.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.88	98.8%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27914.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-7.5/97 mw-7	Date Sampled:	05/22/97
Laboratory ID:	C97-27916	Date Received:	05/23/97
Matrix:	Water	Date Analyzed:	05/27/97
Dilution Factor:	2	Date Reported:	June 1, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**66.2**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**86.7**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	Chloroform (Trichloromethane)	ND		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**1.64**	J	2.0
107-06-2	**1,2 - Dichloroethane**	**1.66**	J	2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**3.16**		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**14.4**		2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	**1,1,2 - Trichloroethane**	**3.06**		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**116**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	**Chlorobenzene**	**2.34**		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/22/97
Sample ID:	93007-7.5/97 mw-7	Date Analyzed:	05/27/97
Laboratory ID:	C97-27916	Date Reported:	June 1, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	**Naphthalene**	**62.3**	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2455560	2301942	107%	50 - 200 %
Fluorobenzene	3789911	3485427	109%	50 - 200 %
1,4 - Difluorobenzene	3205811	3008301	107%	50 - 200 %
Chlorobenzene - d5	2231717	2107415	106%	50 - 200 %
1,4 - Dichlorobenzene - d4	1084790	988750	110%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.2	102%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	10.0	100%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.99	99.9%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27914.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-8.5/97 MW-8
Laboratory ID: C97-28033
Matrix: Water
Dilution Factor: 10

Date Sampled: 05/23/97
Date Received: 05/28/97
Date Analyzed: 05/28/97
Date Reported: June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**1,360**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**81.8**	10.0
78-93-3	2 -Butanone (MEK)	ND	100
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	**Chloroform (Trichloromethane)**	**9.90**	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**805**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**4,150**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/23/97
Sample ID:	93007-8.5/97 MW-8	Date Analyzed:	05/28/97
Laboratory ID:	C97-28033	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2269903	2458502	92.3%	50 - 200 %
Fluorobenzene	3468433	3891648	89.1%	50 - 200 %
1,4 - Difluorobenzene	3005819	3258594	92.2%	50 - 200 %
Chlorobenzene - d5	2028814	2243736	90.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	949104	1048182	90.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.80	98.0%	86 - 118 %
Toluene - d8	9.77	97.7%	88 - 110 %
4 - Bromofluorobenzene	9.73	97.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-9.5/97 MW-9	Date Sampled:	05/23/97
Laboratory ID:	C97-28028	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	10	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	**1,1 - Dichloroethene**	**322**	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	**1,1 - Dichloroethane**	**26.3**	10.0
78-93-3	2 -Butanone (MEK)	ND	100.0
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	ND	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	**1,1,1 - Trichloroethane**	**147**	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	**Tetrachloroethene**	**1,550**	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/23/97
Sample ID:	93007-9.5/97 MW-9	Date Analyzed:	05/28/97
Laboratory ID:	C97-28028	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2408279	2458502	98.0%	50 - 200 %
Fluorobenzene	3692072	3891648	94.9%	50 - 200 %
1,4 - Difluorobenzene	3147247	3258594	96.6%	50 - 200 %
Chlorobenzene - d5	2143104	2243736	95.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	1025125	1048182	97.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.75	97.5%	86 - 118 %
Toluene - d8	9.90	99.0%	88 - 110 %
4 - Bromofluorobenzene	9.69	96.9%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.88	98.8%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-10.5/97 MW-10	Date Sampled:	05/26/97
Laboratory ID:	C97-28023	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	2	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**6.80**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**3.64**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	Chloroform (Trichloromethane)	ND		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	1,1,1 - Trichloroethane	ND		2.0
107-06-2	1,2 - Dichloroethane	ND		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**3.64**		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**1.20**	J	2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**25.9**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/26/97
Sample ID:	93007-10.5/97 MW-10	Date Analyzed:	05/28/97
Laboratory ID:	C97-28023	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		2.0
108-86-1	Bromobenzene	ND		2.0
103-65-1	n - Propylbenzene	ND		2.0
95-49-8	2 - Chlorotoluene	ND		2.0
106-43-4	4 - Chlorotoluene	ND		2.0
108-67-8	1,3,5 - Trimethylbenzene	ND		2.0
98-06-6	tert - Butylbenzene	ND		2.0
95-63-6	**1,2,4 - Trimethylbenzene**	**1.52**	J	2.0
135-98-8	sec - Butylbenzene	ND		2.0
541-73-1	1,3 - Dichlorobenzene	ND		2.0
106-46-7	1,4 - Dichlorobenzene	ND		2.0
99-87-6	4-Isopropyltoluene	ND		2.0
95-50-1	1,2 - Dichlorobenzene	ND		2.0
104-51-8	n - Butylbenzene	ND		2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		10.0
120-82-1	1,2,4 - Trichlorobenzene	ND		2.0
91-20-3	Naphthalene	ND		2.0
87-68-3	Hexachlorobutadiene	ND		2.0
87-61-6	1,2 3 - Trichlorobenzene	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2302434	2458502	93.7%	50 - 200 %
Fluorobenzene	3671363	3891648	94.3%	50 - 200 %
1,4 - Difluorobenzene	3053913	3258594	93.7%	50 - 200 %
Chlorobenzene - d5	2094648	2243736	93.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	982743	1048182	93.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-DUP.5/97 (Duplicate of MW-10)
Laboratory ID: C97-28024
Matrix: Water
Dilution Factor: 2

Date Sampled: 05/26/97
Date Received: 05/28/97
Date Analyzed: 05/28/97
Date Reported: June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**8.20**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	1,1 - Dichloroethane	ND		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	Chloroform (Trichloromethane)	ND		2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	1,1,1 - Trichloroethane	ND		2.0
107-06-2	1,2 - Dichloroethane	ND		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	**Benzene**	**6.72**		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	**Trichloroethene**	**1.26**	J	2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**28.2**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/26/97
Sample ID:	93007-DUP.5/97	Date Analyzed:	05/28/97
Laboratory ID:	C97-28024	Date Reported:	June 3, 1997

Duplicate of MW-10

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		2.0
108-86-1	Bromobenzene	ND		2.0
103-65-1	n - Propylbenzene	ND		2.0
95-49-8	2 - Chlorotoluene	ND		2.0
106-43-4	4 - Chlorotoluene	ND		2.0
108-67-8	1,3,5 - Trimethylbenzene	ND		2.0
98-06-6	tert - Butylbenzene	ND		2.0
95-63-6	**1,2,4 - Trimethylbenzene**	**1.64**	**J**	2.0
135-98-8	sec - Butylbenzene	ND		2.0
541-73-1	1,3 - Dichlorobenzene	ND		2.0
106-46-7	1,4 - Dichlorobenzene	ND		2.0
99-87-6	4-Isopropyltoluene	ND		2.0
95-50-1	1,2 - Dichlorobenzene	ND		2.0
104-51-8	n - Butylbenzene	ND		2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		10.0
120-82-1	1,2,4 - Trichlorobenzene	ND		2.0
91-20-3	Naphthalene	ND		2.0
87-68-3	Hexachlorobutadiene	ND		2.0
87-61-6	1,2 3 - Trichlorobenzene	ND		2.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2190427	2458502	89.1%	50 - 200 %
Fluorobenzene	3603623	3891648	92.6%	50 - 200 %
1,4 - Difluorobenzene	2973075	3258594	91.2%	50 - 200 %
Chlorobenzene - d5	2047930	2243736	91.3%	50 - 200 %
1,4 - Dichlorobenzene - d4	977666	1048182	93.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.0	110%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.3	103%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-11.5/97 mw-11	Date Sampled:	05/24/97
Laboratory ID:	C97-28031	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	1	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**0.69**	**J**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**0.80**	**J**	1.0
78-93-3	2 -Butanone (MEK)	ND		10.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	ND		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	1,1,1 - Trichloroethane	ND		1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	**Benzene**	**1.68**		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	ND		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**1.90**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**1.03**	**J**	2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants** MW-11	Date Sampled:	05/24/97
Sample ID:	93007-11.5/97	Date Analyzed:	05/28/97
Laboratory ID:	C97-28031	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	**1,3,5 - Trimethylbenzene**	**1.37**	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	**1,2,4 - Trimethylbenzene**	**2.83**	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1969725	2458502	80.1%	50 - 200 %
Fluorobenzene	3523771	3891648	90.5%	50 - 200 %
1,4 - Difluorobenzene	2948596	3258594	90.5%	50 - 200 %
Chlorobenzene - d5	2003984	2243736	89.3%	50 - 200 %
1,4 - Dichlorobenzene - d4	908453	1048182	86.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.7	117%	86 - 118 %
Toluene - d8	9.78	97.8%	88 - 110 %
4 - Bromofluorobenzene	9.85	98.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.7	107%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-12.5/97 mw-12	Date Sampled:	05/25/97
Laboratory ID:	C97-28026	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	1	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	1,1 - Dichloroethene	ND		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	1,1 - Dichloroethane	ND		1.0
78-93-3	2 -Butanone (MEK)	ND		10.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	ND		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	1,1,1 - Trichloroethane	ND		1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	Benzene	ND		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	ND		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	**Toluene**	**0.52**	**J**	1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**1.09**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	**Ethylbenzene**	**0.56**	**J**	1.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**1.60**	**J**	2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**1.12**		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/25/97
Sample ID:	93007-12.5/97 MW-12	Date Analyzed:	05/28/97
Laboratory ID:	C97-28026	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		1.0
108-86-1	Bromobenzene	ND		1.0
103-65-1	n - Propylbenzene	ND		1.0
95-49-8	2 - Chlorotoluene	ND		1.0
106-43-4	4 - Chlorotoluene	ND		1.0
108-67-8	1,3,5 - Trimethylbenzene	ND		1.0
98-06-6	tert - Butylbenzene	ND		1.0
95-63-6	**1,2,4 - Trimethylbenzene**	**0.58**	**J**	1.0
135-98-8	sec - Butylbenzene	ND		1.0
541-73-1	1,3 - Dichlorobenzene	ND		1.0
106-46-7	1,4 - Dichlorobenzene	ND		1.0
99-87-6	4-Isopropyltoluene	ND		1.0
95-50-1	1,2 - Dichlorobenzene	ND		1.0
104-51-8	n - Butylbenzene	ND		1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		5.0
120-82-1	1,2,4 - Trichlorobenzene	ND		1.0
91-20-3	Naphthalene	ND		1.0
87-68-3	Hexachlorobutadiene	ND		1.0
87-61-6	1,2 3 - Trichlorobenzene	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2103084	2458502	85.5%	50 - 200 %
Fluorobenzene	3727443	3891648	95.8%	50 - 200 %
1,4 - Difluorobenzene	3087943	3258594	94.8%	50 - 200 %
Chlorobenzene - d5	2152017	2243736	95.9%	50 - 200 %
1,4 - Dichlorobenzene - d4	991370	1048182	94.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.8	118%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.98	99.8%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-13.5/97 MW-13	Date Sampled:	05/24/97
Laboratory ID:	C97-28032	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	1	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	**1,1 - Dichloroethene**	**12.3**	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**1.30**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**9.54**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/24/97
Sample ID:	93007-13.5/97 mw-13	Date Analyzed:	05/28/97
Laboratory ID:	C97-28032	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1984975	2458502	80.7%	50 - 200 %
Fluorobenzene	3408104	3891648	87.6%	50 - 200 %
1,4 - Difluorobenzene	2826057	3258594	86.7%	50 - 200 %
Chlorobenzene - d5	1960022	2243736	87.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	904885	1048182	86.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.2	112%	86 - 118 %
Toluene - d8	9.96	99.6%	88 - 110 %
4 - Bromofluorobenzene	9.85	98.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-14.5/97 MW-14	Date Sampled:	05/25/97
Laboratory ID:	C97-28034	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	1	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/25/97
Sample ID:	93007-14.5/97	Date Analyzed:	05/28/97
Laboratory ID:	C97-28034	Date Reported:	June 3, 1997

MW-14

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2081543	2458502	84.7%	50 - 200 %
Fluorobenzene	3375906	3891648	86.7%	50 - 200 %
1,4 - Difluorobenzene	2935163	3258594	90.1%	50 - 200 %
Chlorobenzene - d5	1982607	2243736	88.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	930248	1048182	88.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.8	108%	86 - 118 %
Toluene - d8	9.24	92.4%	88 - 110 %
4 - Bromofluorobenzene	10.0	100%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.77	97.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-15.5/97	Date Sampled:	05/25/97
Laboratory ID:	C97-28035	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	1	Date Reported:	June 3, 1997

MW-15

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/25/97
Sample ID:	93007-15.5/97 MW-15	Date Analyzed:	05/28/97
Laboratory ID:	C97-28035	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2081235	2458502	84.7%	50 - 200 %
Fluorobenzene	3419410	3891648	87.9%	50 - 200 %
1,4 - Difluorobenzene	2871023	3258594	88.1%	50 - 200 %
Chlorobenzene - d5	1991532	2243736	88.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	926790	1048182	88.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.6	106%	86 - 118 %
Toluene - d8	9.95	99.5%	88 - 110 %
4 - Bromofluorobenzene	9.92	99.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Shell Station Well

Client:	**Western Water Consultants**		
Sample ID:	93007-S04.5/97	Date Sampled:	05/25/97
Laboratory ID:	C97-28025	Date Received:	05/28/97
Matrix:	Water	Date Analyzed:	05/28/97
Dilution Factor:	10	Date Reported:	June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		10.0
74-87-3	Chloromethane	ND		10.0
75-01-4	Vinyl chloride (Chloroethene)	ND		10.0
74-83-9	Bromomethane	ND		10.0
75-00-3	Chloroethane	ND		10.0
75-69-4	Trichlorofluoromethane	ND		10.0
75-35-4	**1,1 - Dichloroethene**	**23.5**		10.0
75-09-2	Methylene chloride (Dichloromethane)	ND		10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		10.0
75-34-3	**1,1 - Dichloroethane**	**21.0**		10.0
78-93-3	2 -Butanone (MEK)	ND		100.0
156-59-2	cis - 1,2 - Dichloroethene	ND		10.0
74-97-5	Bromochloromethane	ND		10.0
67-66-3	Chloroform (Trichloromethane)	ND		10.0
594-20-7	2,2 - Dichloropropane	ND		10.0
71-55-6	**1,1,1 - Trichloroethane**	**5.00**	J	10.0
107-06-2	1,2 - Dichloroethane	ND		10.0
563-58-6	1,1 - Dichloropropene	ND		10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		10.0
71-43-2	Benzene	ND		10.0
74-95-3	Dibromomethane	ND		10.0
78-87-5	1,2 - Dichloropropane	ND		10.0
79-01-6	Trichloroethene	ND		10.0
75-27-4	Bromodichloromethane	ND		10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		10.0
79-00-5	1,1,2 - Trichloroethane	ND		10.0
108-88-3	**Toluene**	**470**		10.0
106-93-4	1,2 - Dibromoethane	ND		10.0
142-28-9	1,3 - Dichloropropane	ND		10.0
124-48-1	Dibromochloromethane	ND		10.0
127-18-4	Tetrachloroethene	ND		10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		10.0
108-90-7	Chlorobenzene	ND		10.0
100-41-4	**Ethylbenzene**	**469**		10.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**1,040**		20.0
75-25-2	Bromoform (Tribromomethane)	ND		10.0
100-42-5	Styrene (Ethenylbenzene)	ND		10.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**896**		10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		10.0
96-18-4	1,2,3 - Trichloropropane	ND		10.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-S04.5/97
Laboratory ID: C97-28025

Shell station well

Date Sampled: 05/25/97
Date Analyzed: 05/28/97
Date Reported: June 3, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	**Isopropylbenzene (1-Methylethylbenzene)**	**10.5**	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	**n - Propylbenzene**	**48.1**	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	**1,3,5 - Trimethylbenzene**	**126**	10.0
98-06-6	**tert - Butylbenzene**	**51.5**	10.0
95-63-6	**1,2,4 - Trimethylbenzene**	**660**	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	**Naphthalene**	**107**	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2395701	2458502	97.4%	50 - 200 %
Fluorobenzene	3625380	3891648	93.2%	50 - 200 %
1,4 - Difluorobenzene	3112884	3258594	95.5%	50 - 200 %
Chlorobenzene - d5	2195656	2243736	97.9%	50 - 200 %
1,4 - Dichlorobenzene - d4	1021751	1048182	97.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.69	96.9%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.55	95.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.93	99.3%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: [redacted]3 SALT CREEK HIGHWAY • CASPER, W[redacted]601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	mw-2
Laboratory ID:	**97-28027**
Sample Matrix:	**Water**
Sample Date:	**05-23-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	125
Magnesium	Mg	mg/L	1.0	9.4
Sodium	Na	mg/L	1.0	73.5
Potassium	K	mg/L	1.0	11.5
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	326
Sulfate	SO_4	mg/L	1.0	102
Chloride	Cl	mg/L	1.0	99.0

Trace Metals				
Arsenic	As	mg/L	0.001	0.066
Barium	Ba	mg/L	0.10	0.38
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	< 0.005
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

93007-D

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS, INC.

Sample ID:	93007-3.5/97
Laboratory ID:	97-27914
Sample Matrix:	Water
Sample Date:	05-22-97
Report Date:	June 11, 1997

mw-3

Major Ions (Dissolved)		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	308
Magnesium	Mg	mg/L	1.0	38.0
Sodium	Na	mg/L	1.0	126
Potassium	K	mg/L	1.0	3.0
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	581
Sulfate	SO_4	mg/L	1.0	149
Chloride	Cl	mg/L	1.0	327

Trace Metals (Dissolved)				
Arsenic	As	mg/L	0.001	0.219
Barium	Ba	mg/L	0.10	0.14
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.026
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_water\water\27914.xls

ENERGY LABORATORIES, INC.
SHIPPING: [redacted]3 SALT CREEK HIGHWAY • CASPER, WY [redacted]601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	**93007-4.5/97**
Laboratory ID:	**97-28029**
Sample Matrix:	**Water**
Sample Date:	**05-23-97**
Report Date:	**June 12, 1997**

mw-4

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	156
Magnesium	Mg	mg/L	1.0	29.5
Sodium	Na	mg/L	1.0	123
Potassium	K	mg/L	1.0	2.5
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	442
Sulfate	SO_4	mg/L	1.0	114
Chloride	Cl	mg/L	1.0	207

Trace Metals				
Arsenic	As	mg/L	0.001	0.032
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.007
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: [redacted]93 SALT CREEK HIGHWAY • CASPER, WY [redacted]601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	**93007-5.5/97**
Laboratory ID:	**97-28030**
Sample Matrix:	**Water**
Sample Date:	**05-23-97**
Report Date:	**June 12, 1997**

MW-5

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	260
Magnesium	Mg	mg/L	1.0	78.9
Sodium	Na	mg/L	1.0	164
Potassium	K	mg/L	1.0	3.6
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	525
Sulfate	SO_4	mg/L	1.0	142
Chloride	Cl	mg/L	1.0	595

Trace Metals				
Arsenic	As	mg/L	0.001	0.768
Barium	Ba	mg/L	0.10	0.21
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	< 0.005
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS, INC.

Sample ID:	**93007-6.5/97**
Laboratory ID:	**97-27915**
Sample Matrix:	**Water**
Sample Date:	**05-22-97**
Report Date:	**June 11, 1997**

mw-6

Major Ions (Dissolved)		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	361
Magnesium	Mg	mg/L	1.0	60.6
Sodium	Na	mg/L	1.0	141
Potassium	K	mg/L	1.0	4.1
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	465
Sulfate	SO_4	mg/L	1.0	148
Chloride	Cl	mg/L	1.0	627

Trace Metals (Dissolved)				
Arsenic	As	mg/L	0.001	0.343
Barium	Ba	mg/L	0.10	0.14
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	< 0.005
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_water\water\27914.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS, INC.

Sample ID:	93007-7.5/97
Laboratory ID:	97-27916
Sample Matrix:	Water
Sample Date:	05-22-97
Report Date:	June 11, 1997

MW-7

Major Ions (Dissolved)		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	250
Magnesium	Mg	mg/L	1.0	130
Sodium	Na	mg/L	1.0	276
Potassium	K	mg/L	1.0	4.2
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	572
Sulfate	SO_4	mg/L	1.0	47.0
Chloride	Cl	mg/L	1.0	814

Trace Metals (Dissolved)				
Arsenic	As	mg/L	0.001	0.018
Barium	Ba	mg/L	0.10	0.34
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	0.16
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	< 0.005
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_water\water\27914.xls

ENERGY LABORATORIES, INC.
SHIPPING: 1393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	93007-8.5/97 (mw-8)
Laboratory ID:	97-28033
Sample Matrix:	Water
Sample Date:	05-23-97
Report Date:	June 12, 1997

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	252
Magnesium	Mg	mg/L	1.0	45.6
Sodium	Na	mg/L	1.0	79.3
Potassium	K	mg/L	1.0	3.1
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	595
Sulfate	SO_4	mg/L	1.0	258
Chloride	Cl	mg/L	1.0	230

Trace Metals				
Arsenic	As	mg/L	0.001	0.007
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.008
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 93 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	**93007-9.5/97**
Laboratory ID:	**97-28028**
Sample Matrix:	**Water**
Sample Date:	**05-23-97**
Report Date:	**June 12, 1997**

MW-9

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	183
Magnesium	Mg	mg/L	1.0	36.9
Sodium	Na	mg/L	1.0	82.9
Potassium	K	mg/L	1.0	3.2
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	372
Sulfate	SO_4	mg/L	1.0	128
Chloride	Cl	mg/L	1.0	243

Trace Metals				
Arsenic	As	mg/L	0.001	0.010
Barium	Ba	mg/L	0.10	0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.013
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: [redacted]3 SALT CREEK HIGHWAY • CASPER, WY [redacted]01
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	mw-10
Laboratory ID:	**97-28023**
Sample Matrix:	**Water**
Sample Date:	**05-26-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	112
Magnesium	Mg	mg/L	1.0	29.5
Sodium	Na	mg/L	1.0	61.5
Potassium	K	mg/L	1.0	2.3
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	368
Sulfate	SO_4	mg/L	1.0	84.0
Chloride	Cl	mg/L	1.0	83.0

Trace Metals				
Arsenic	As	mg/L	0.001	0.040
Barium	Ba	mg/L	0.10	0.13
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.006
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 93 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	Duplicate of MW-10
Laboratory ID:	**97-28024**
Sample Matrix:	**Water**
Sample Date:	**05-26-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	110
Magnesium	Mg	mg/L	1.0	28.9
Sodium	Na	mg/L	1.0	60.2
Potassium	K	mg/L	1.0	2.1
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	346
Sulfate	SO_4	mg/L	1.0	101
Chloride	Cl	mg/L	1.0	87.0

Trace Metals				
Arsenic	As	mg/L	0.001	0.038
Barium	Ba	mg/L	0.10	0.12
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.006
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: [redacted]3 SALT CREEK HIGHWAY • CASPER, WY [redacted]501
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	mw-11
Laboratory ID:	**97-28031**
Sample Matrix:	**Water**
Sample Date:	**05-24-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	108
Magnesium	Mg	mg/L	1.0	21.9
Sodium	Na	mg/L	1.0	56.6
Potassium	K	mg/L	1.0	3.6
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	162
Sulfate	SO_4	mg/L	1.0	174
Chloride	Cl	mg/L	1.0	96.0

Trace Metals				
Arsenic	As	mg/L	0.001	0.007
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.014
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 893 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	**93001-12.5/97**
Laboratory ID:	**97-28026**
Sample Matrix:	**Water**
Sample Date:	**05-25-97**
Report Date:	**June 12, 1997**

MW-12

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	77.4
Magnesium	Mg	mg/L	1.0	17.4
Sodium	Na	mg/L	1.0	76.0
Potassium	K	mg/L	1.0	3.5
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	265
Sulfate	SO_4	mg/L	1.0	144
Chloride	Cl	mg/L	1.0	50.0

Trace Metals				
Arsenic	As	mg/L	0.001	0.009
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	< 0.005
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	MW-13
Laboratory ID:	**97-28032**
Sample Matrix:	**Water**
Sample Date:	**05-24-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	198
Magnesium	Mg	mg/L	1.0	40.6
Sodium	Na	mg/L	1.0	95.0
Potassium	K	mg/L	1.0	4.0
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	287
Sulfate	SO_4	mg/L	1.0	217
Chloride	Cl	mg/L	1.0	284

Trace Metals				
Arsenic	As	mg/L	0.001	0.007
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.020
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	MW-14
Laboratory ID:	**97-28034**
Sample Matrix:	**Water**
Sample Date:	**05-25-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	143
Magnesium	Mg	mg/L	1.0	28.3
Sodium	Na	mg/L	1.0	94.7
Potassium	K	mg/L	1.0	2.4
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	331
Sulfate	SO_4	mg/L	1.0	126
Chloride	Cl	mg/L	1.0	211

Trace Metals				
Arsenic	As	mg/L	0.001	0.023
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.013
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Sample ID:	mw-15
Laboratory ID:	**97-28035**
Sample Matrix:	**Water**
Sample Date:	**05-25-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	163
Magnesium	Mg	mg/L	1.0	33.0
Sodium	Na	mg/L	1.0	82.2
Potassium	K	mg/L	1.0	2.5
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	946
Sulfate	SO_4	mg/L	1.0	176
Chloride	Cl	mg/L	1.0	196

Trace Metals				
Arsenic	As	mg/L	0.001	0.009
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.016
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - WESTERN WATER CONSULTANTS

Shell station well

Sample ID:	**93007-S04.5/97**
Laboratory ID:	**97-28025**
Sample Matrix:	**Water**
Sample Date:	**05-25-97**
Report Date:	**June 12, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	295
Magnesium	Mg	mg/L	1.0	56.1
Sodium	Na	mg/L	1.0	169
Potassium	K	mg/L	1.0	3.5
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	470
Sulfate	SO_4	mg/L	1.0	325
Chloride	Cl	mg/L	1.0	471

Trace Metals				
Arsenic	As	mg/L	0.001	0.046
Barium	Ba	mg/L	0.10	0.21
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.005	0.032
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\westwater\water\28023.XLS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

MW-2

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-2.5/97	Date Sampled:	5/23/97 17:30
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28027	Date Analyzed:	6/6/97 19:47
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	44.2	44	35--114
2-Fluorobiphenyl	100	43.9	44	43--116
Terphenyl-d14	100	63.3	63	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Client:	**Western Water Consultants** mw-3	Date Reported:	06/10/97
Sample ID:	93007-3.5/97	Date Sampled:	5/22/97 13:45
Project Info:		Date Received:	05/23/97
Laboratory ID:	97-27914	Date Analyzed:	6/4/97 3:45
Matrix:	WATER	Date Extracted:	05/28/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	62.4	62	35--114
2-Fluorobiphenyl	100	71.1	71	43--116
Terphenyl-d14	100	96.3	96	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

MW-4

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-4.5/97	Date Sampled:	5/23/97 18:00
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28029	Date Analyzed:	6/6/97 21:10
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	46	46	35--114
2-Fluorobiphenyl	100	46.3	46	43--116
Terphenyl-d14	100	72.8	73	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

MW-5

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-5.5/97	Date Sampled:	5/23/97 8:30
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28030	Date Analyzed:	6/6/97 21:52
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY		ACCEPTANCE RANGE
Nitrobenzene-d5	100	36.2	36		35--114
2-Fluorobiphenyl	100	38.5	38	*	43--116
Terphenyl-d14	100	70	70		33--141

**Value Outside QC Advisory Limits*

REPORT COMMENTS: Because of low surrogate recoveries, the sample was re-extracted and re-analyzed to confirm the original results. See also the report for laboratory I.D. number 97-28030 Re-extract.

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Client:	**Western Water Consultants**	mw-6	Date Reported: 06/10/97
Sample ID:	93007-6.5/97		Date Sampled: 5/22/97 14:45
Project Info:			Date Received: 05/23/97
Laboratory ID:	97-27915		Date Analyzed: 6/4/97 4:27
Matrix:	WATER		Date Extracted: 05/28/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	67.3	67	35--114
2-Fluorobiphenyl	100	72.5	72	43--116
Terphenyl-d14	100	97.4	97	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

EPA METHOD 8270B

Client:	**Western Water Consultants**		Date Reported: 06/10/97
Sample ID:	93007-7.5/97	mw-7	Date Sampled: 5/22/97 16:00
Project Info:			Date Received: 05/23/97
Laboratory ID:	97-27916		Date Analyzed: 6/4/97 5:09
Matrix:	WATER		Date Extracted: 05/28/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	**Naphthalene**	**30**	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	61.1	61	35--114
2-Fluorobiphenyl	100	49.6	50	43--116
Terphenyl-d14	100	82.1	82	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Client:	**Western Water Consultants**		Date Reported: 06/18/97
Sample ID:	93007-8.5/97	MW-8	Date Sampled: 5/23/97 9:00
Project Info:	93007.2		Date Received: 05/28/97
Laboratory ID:	97-28033		Date Analyzed: 6/6/97 11:37
Matrix:	WATER		Date Extracted: 05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	74.6	75	35--114
2-Fluorobiphenyl	100	77.5	78	43--116
Terphenyl-d14	100	67.2	67	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Client:	**Western Water Consultants**		Date Reported: 06/18/97
Sample ID:	93007-9.5/97	MW-9	Date Sampled: 5/23/97 9:25
Project Info:	93007.2		Date Received: 05/28/97
Laboratory ID:	97-28028		Date Analyzed: 6/6/97 20:28
Matrix:	WATER		Date Extracted: 05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	45.9	46	35--114
2-Fluorobiphenyl	100	46.4	46	43--116
Terphenyl-d14	100	67.7	68	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

File 93007-D

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Client:	**Western Water Consultants**		Date Reported: 06/18/97
Sample ID:	93007-10.5/97	MW-10	Date Sampled: 5/26/97 13:00
Project Info:	93007.2		Date Received: 05/28/97
Laboratory ID:	97-28023		Date Analyzed: 6/6/97 16:58
Matrix:	WATER		Date Extracted: 05/29/97

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY		ACCEPTANCE RANGE
Nitrobenzene-d5	100	33.9	34	*	35--114
2-Fluorobiphenyl	100	37.9	38	*	43--116
Terphenyl-d14	100	51.1	51		33--141

**Value Outside QC Advisory Limits*

REPORT COMMENTS: Because of low surrogate recoveries, the sample was re-extracted and re-analyzed to confirm the original results. See also the report for laboratory I.D. number 97-28023 Re-extract.

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Client:	**Western Water Consultants**		Date Reported: 06/18/97
Sample ID:	93007-DUP.5/97	Duplicate of MW-10	Date Sampled: 5/26/97 12:00
Project Info:	93007.2		Date Received: 05/28/97
Laboratory ID:	97-28024		Date Analyzed: 6/6/97 17:41
Matrix:	WATER		Date Extracted: 05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	44.8	45	35--114
2-Fluorobiphenyl	100	49.2	49	43--116
Terphenyl-d14	100	52	52	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

MW-11

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-11.5/97	Date Sampled:	5/24/97 18:00
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28031	Date Analyzed:	6/6/97 22:34
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE
SYSTEM MONITORING COMPOUNDS	ADDED	MEASURED	RECOVERY	RANGE
Nitrobenzene-d5	100	40.2	40	35--114
2-Fluorobiphenyl	100	43.3	43	43--116
Terphenyl-d14	100	45.1	45	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Client:	**Western Water Consultants**		Date Reported: 06/18/97
Sample ID:	93007-12.5/97	MW-12	Date Sampled: 5/25/97 19:00
Project Info:	93007.2		Date Received: 05/28/97
Laboratory ID:	97-28026		Date Analyzed: 6/6/97 19:05
Matrix:	WATER		Date Extracted: 05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY		ACCEPTANCE RANGE
Nitrobenzene-d5	100	30.7	31	*	35--114
2-Fluorobiphenyl	100	31.1	31	*	43--116
Terphenyl-d14	100	43	43		33--141

**Value Outside QC Advisory Limits*

REPORT COMMENTS: Because of low surrogate recoveries, the sample was re-extracted and re-analyzed to confirm the original results. See also the report for laboratory I.D. number 97-28026 Re-extract.

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

MW-13

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-13.5/97	Date Sampled:	5/24/97 19:00
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28032	Date Analyzed:	6/6/97 23:17
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE
SYSTEM MONITORING COMPOUNDS	ADDED	MEASURED	RECOVERY	RANGE
Nitrobenzene-d5	100	44.5	44	35--114
2-Fluorobiphenyl	100	51.1	51	43--116
Terphenyl-d14	100	56.8	57	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

MW-14

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-14.5/97	Date Sampled:	5/25/97 13:30
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28034	Date Analyzed:	6/6/97 12:19
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	73.3	73	35--114
2-Fluorobiphenyl	100	73.3	73	43--116
Terphenyl-d14	100	68.1	68	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

MW-15

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-15.5/97	Date Sampled:	5/25/97 14:30
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28035	Date Analyzed:	6/6/97 13:02
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	Naphthalene	ND	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	73.6	74	35--114
2-Fluorobiphenyl	100	74.3	74	43--116
Terphenyl-d14	100	64.6	65	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8270B

Shell Station Well

Client:	**Western Water Consultants**	Date Reported:	06/18/97
Sample ID:	93007-504.5/97	Date Sampled:	5/25/97 18:00
Project Info:	93007.2	Date Received:	05/28/97
Laboratory ID:	97-28025	Date Analyzed:	6/6/97 18:23
Matrix:	WATER	Date Extracted:	05/29/97

C.A.S. #	*TARGET COMPOUNDS*	*CONCENTRATION (µg/L)*	*LIMIT OF QUANTITATION(µg/L)*
83-32-9	Acenaphthene	ND	10
208-96-8	Acenaphthylene	ND	10
120-12-7	Anthracene	ND	10
56-55-3	Benzo(a)Anthracene	ND	10
205-99-2	Benzo(b)fluoranthene	ND	10
207-08-9	Benzo(k)fluoranthene	ND	10
191-24-2	Benzo(g,h,i)perylene	ND	10
50-32-8	Benzo(a)pyrene	ND	10
218-01-9	Chrysene	ND	10
53-70-3	Dibenzo(a,h)anthracene	ND	10
206-44-0	Fluoranthene	ND	10
86-73-7	Fluorene	ND	10
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	10
91-20-3	**Naphthalene**	**51**	10
85-01-8	Phenanthrene	ND	10
129-00-0	Pyrene	ND	10

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L) ADDED	MEASURED	PERCENT RECOVERY	ACCEPTANCE RANGE
Nitrobenzene-d5	100	46.4	46	35--114
2-Fluorobiphenyl	100	44.6	45	43--116
Terphenyl-d14	100	61.4	61	33--141

REPORT COMMENTS: None

Analyst: dsm
Reviewed: eli blgs

ENERGY LABORATORIES, INC.
SHIPPING: 593 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

TPH AS DIESEL FUEL
EPA 8015 - MODIFIED CALIFORNIA METHOD
ANALYTICAL RESULTS

Client: **Western Water Consultants**
Project: N/A
Matrix: Water

Date Sampled: 05/26/97
Date Received: 05/28/97
Date Reported: June 7, 1997

TPH AS DIESEL FUEL

Date of sample(s) extraction : 06/03/97 ***Extraction by:*** WD

Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
mw-10 C97 - 28023	93007-10.5/97	**1.8**	1	06/03/97
Dup. of mw-10 C97 - 28024	93007-DUP.5/97	**1.3**	1	06/03/97
Shell Station C97 - 28025	93007-S04.5/97	**3.1**	1	06/03/97
mw-12 C97 - 28026	93007-12.5/97	< 1.0	1	06/03/97
mw-2 C97 - 28027	93007-2.5/97	< 1.0	1	06/03/97
mw-9 C97 - 28028	93007-9.5/97	< 1.0	1	06/03/97
mw-4 C97 - 28029	93007-4.5/97	< 1.0	1	06/03/97
mw-5 C97 - 28030	93007-5.5/97	< 1.0	1	06/03/97
mw-11 C97 - 28031	93007-11.5/97	**6.2**	1	06/03/97
mw-13 C97 - 28032	93007-13.5/97	< 1.0	1	06/05/97
mw-8 C97 - 28033	93007-8.5/97	< 1.0	1	06/05/97
mw-14 C97 - 28034	93007-14.5/97	< 1.0	1	06/05/97
mw-15 C97 - 28035	93007-15.5/97	< 1.0	1	06/05/97

QUALITY ASSURANCE REPORT

Standard Addition Analysis (spike):

Laboratory ID	Sample ID	Spike amount, mg/L	Original Response, mg/L	Result Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
C97 - 28031 S	Spike	2003	446	2405	**120%**	60 - 140	06/03/97
C97 - 28031 S	Spike Dup	2003	446	2234	**112%**	60 - 140	06/03/97
Duplicate RPD:					**7%**	0 - 20	
C97 - 28035 S	Spike	2003	10	1827	**91%**	60 - 140	06/05/97
C97 - 28035 S	Spike Dup	2003	10	1871	**93%**	60 - 140	06/05/97
Duplicate RPD:					**2%**	0 - 20	

CCAL / QCS Standards:

Laboratory ID	Sample ID	Observed Response, mg/L	Expected Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
5000 QCS	Restek 5000 Std.	4987	5000	**99.7**	60 - 140	06/03/97
2000 CCAL	DRO STD	2120	2000	**106**	70 - 130	06/03/97
5000 QCS	Restek 5000 Std.	5035	5000	**100.7**	60 - 140	06/04/97
2000 CCAL	DRO STD	2115	2000	**106**	70 - 130	06/04/97

Method 8015 Blank Analysis:

Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
MB0603	Method Blank	**ND**	1	06/03/97
MB0604	Method Blank	**ND**	1	06/04/97

ND - Analyte not detected at stated limit of detection

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_28023.xls

Analyst: wd
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

TPH AS DIESEL FUEL
EPA 8015 - MODIFIED CALIFORNIA METHOD
ANALYTICAL RESULTS

Client:	**Western Water Consultants**	Date Sampled:	05/22/97
Project:	N/A	Date Received:	05/23/97
Matrix:	Water	Date Reported:	June 2, 1997

TPH AS DIESEL FUEL

Date of sample(s) extraction : 05/28/97 *Extraction by:* WD

	Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
mw-3	C97 - 27914	93007-3.5/97	**1.6**	1	05/30/97
mw-6	C97 - 27915	93007-6.5/97	< 1.0	1	05/30/97
mw-7	C97 - 27916	93007-7.5/97	**1.5**	1	05/30/97

QUALITY ASSURANCE REPORT

Standard Addition Analysis (spike):

Laboratory ID	Sample ID	Spike amount, mg/L	Original Response, mg/L	Result Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
C97 - 27982 S	Spike	2003	< 10	2334	**117%**	60 - 140	05/30/97
C97 - 27982 S	Spike Dup	2003	< 10	1952	**97%**	60 - 140	05/30/97
Duplicate RPD:					***18%***	0 - 20	

CCAL / QCS Standards:

Laboratory ID	Sample ID	Observed Response, mg/L	Expected Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
5000 QCS	Restek 5000 Std.	4923	5000	**98.5**	60 - 140	05/30/97
2000 CCAL	DRO STD	2061	2000	**103**	70 - 130	05/30/97

Method 8015 Blank Analysis:

Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
MB0528	Method Blank	ND	1	05/30/97

ND - Analyte not detected at stated limit of detection

Report Approved By: *A. Lee Ling*

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27914.xls

Analyst: wd
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 593 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8015 (Modified),TPH GRO
ANALYTICAL RESULTS

Client: **Western Water Consultants** | Date Sampled: 05/26/97
Project: N/A | Date Received: 05/28/97
Matrix: Water | Date Reported: June 2, 1997

GASOLINE RANGE ORGANICS CONCENTRATION: 8015 TPH GRO

Laboratory ID	Sample ID	GRO mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
mw-10 C97 - 28023	93007-10.5/97	**0.04**	90	80 - 120 %	05/29/97
Duplicate = mw-10 C97 - 28024	93007-DUP.5/97	**0.04**	94	80 - 120 %	05/29/97
Well stat C97 - 28025	93007-S04.5/97	**6.98**	96	80 - 120 %	05/29/97
w-12 C97 - 28026	93007-12.5/97	< 0.02	88	80 - 120 %	05/29/97
mw-2 C97 - 28027	93007-2.5/97	**0.10**	82	80 - 120 %	05/29/97
mw-9 C97 - 28028	93007-9.5/97	**0.26**	92	80 - 120 %	05/30/97
mw-4 C97 - 28029	93007-4.5/97	**0.53**	93	80 - 120 %	05/30/97
mw-5 C97 - 28030	93007-5.5/97	**0.15**	81	80 - 120 %	05/29/97
mw-11 C97 - 28031	93007-11.5/97	**0.04**	94	80 - 120 %	05/30/97
mw-13 C97 - 28032	93007-13.5/97	< 0.02	81	80 - 120 %	05/29/97
mw-8 C97 - 28033	93007-8.5/97	**1.01**	92	80 - 120 %	05/30/97
mw-14 C97 - 28034	93007-14.5/97	< 0.02	87	80 - 120 %	05/29/97
mw-15 C97 - 28035	93007-15.5/97	< 0.02	95	80 - 120 %	05/29/97
C97 - 28035TB	Trip Blank	< 0.02	91	80 - 120 %	05/29/97

QUALITY ASSURANCE REPORT: 8015 GRO

MATRIX SPIKE ANALYSIS

Laboratory ID	GRO Recovery, %	GRO Dup Recovery, %	Acceptance range, %	RPD, %	Acceptance range, %	Date Analyzed
C97 - 28025 S	62%	63%	40 - 80 %	1.7%	0 - 10 %	05/29/97
C97 - 28035 S	62%	61%	40 - 80 %	2.3%	0 - 10 %	05/30/97

METHOD BLANK

Laboratory ID	Sample ID	GRO mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
MB0529	Blank	**< 0.02**	98	80 - 120 %	05/29/97
MB0530	Blank	**< 0.02**	93	80 - 120 %	05/30/97

Continuing Calibration and Second Source Checks

Laboratory ID	GRO Recovery, %	Acceptance range, %	Date Analyzed	Laboratory ID	GRO Recovery, %	Acceptance range, %
cc GRO CK STD	99%	75 - 125 %	05/29/97	lc GRO CK STD	62%	40 - 80 %
cc GRO CK STD	98%	75 - 125 %	05/30/97	lc GRO CK STD	61%	40 - 80 %

ND - Analyte not detected at stated limit of detection

Report Approved By:
Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_28023.xls

Analyst: wd
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8015 (Modified),TPH GRO
ANALYTICAL RESULTS

Client:	**Western Water Consultants**	Date Sampled:	05/22/97
Project:	N/A	Date Received:	05/23/97
Matrix:	Water	Date Reported:	June 1, 1997

GASOLINE RANGE ORGANICS CONCENTRATION: 8015 TPH GRO

	Laboratory ID	Sample ID	GRO mg/L	Detection Limit, mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
mw-3	C97 - 27914	93007-3.5/97	**0.05**	0.02	92	80 - 120 %	05/27/97
mw-6	C97 - 27915	93007-6.5/97	**0.06**	0.02	94	80 - 120 %	05/27/97
mw-7	C97 - 27916	93007-7.5/97	**0.19**	0.02	98	80 - 120 %	05/27/97

QUALITY ASSURANCE REPORT: 8015 GRO

MATRIX SPIKE ANALYSIS

Laboratory ID	GRO Recovery, %	GRO Dup Recovery, %	Acceptance range, %	RPD, %	Acceptance range, %	Date Analyzed
C97 - 27916 S	63%	65%	40 - 80 %	**3.3%**	0 - 10 %	05/27/97

METHOD BLANK

Laboratory ID	Sample ID	GRO mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
MB0527	Blank	< 2.0	97	80 - 120 %	05/27/97

Continuing Calibration and Second Source Checks

Laboratory ID	GRO Recovery, %	Acceptance range, %	Date Analyzed	Laboratory ID	GRO Recovery, %	Acceptance range, %
cc GRO CK STD	100%	75 - 125 %	05/27/97	lc GRO CK STD	62%	40 - 80 %

ND - Analyte not detected at stated limit of detection

Report Approved By: R.A. Starling

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27914.xls

Analyst: wd
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 1393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Deep SVE Well
3-6

Client:	**Western Water Consultants**	Date Sampled:	05/25/97
Sample ID:	93007-3-6.68-70.5/97	Date Received:	05/28/97
Laboratory ID:	C97-28037	Date Extracted:	05/29/97
Matrix:	Soil	Date Analyzed:	05/29/97
Dilution Factor:	200	Date Reported:	June 4,1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Deep SVE well 3-6

Client:	**Western Water Consultants**	Date Sampled:	05/25/97
Sample ID:	93007-3-6.68-70.5/97	Date Analyzed:	05/29/97
Laboratory ID:	C97-28037	Date Reported:	June 4,1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2699479	2348015	115%	50 - 200 %
Fluorobenzene	4358410	3685808	118%	50 - 200 %
1,4 - Difluorobenzene	3614202	3101660	117%	50 - 200 %
Chlorobenzene - d5	2444596	2167871	113%	50 - 200 %
1,4 - Dichlorobenzene - d4	1120429	1031509	109%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.42	94.2%	86 - 118 %
Toluene - d8	9.93	99.3%	88 - 110 %
4 - Bromofluorobenzene	9.54	95.4%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.90	99.0%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28036s.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: [redacted]3 SALT CREEK HIGHWAY • CASPER, WY [redacted]601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/24/97
Sample ID:	93007-3-7.68-70.5/97	Date Received:	05/28/97
Laboratory ID:	C97-28036	Date Extracted:	05/29/97
Matrix:	Soil	Date Analyzed:	05/29/97
Dilution Factor:	200	Date Reported:	June 4,1997

Deep SVE Well 3-7

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane (EDB)	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes	ND	0.40
75-25-2	Bromoform	ND	0.20
100-42-5	Styrene	ND	0.20
95-47-6	o - Xylene	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/24/97
Sample ID:	93007-3-7.68-70.5/97	Date Analyzed:	05/29/97
Laboratory ID:	C97-28036	Date Reported:	June 4,1997

Deep SVE Well 3-7

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
98-82-8	Isopropylbenzene	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane (DBCP)	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2684071	2348015	114%	50 - 200 %
Fluorobenzene	4361745	3685808	118%	50 - 200 %
1,4 - Difluorobenzene	3621667	3101660	117%	50 - 200 %
Chlorobenzene - d5	2461954	2167871	114%	50 - 200 %
1,4 - Dichlorobenzene - d4	1093561	1031509	106%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.48	94.8%	86 - 118 %
Toluene - d8	9.86	98.6%	88 - 110 %
4 - Bromofluorobenzene	9.41	94.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.88	98.8%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28036s.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/23/97
Sample ID:	93007-12.68-70.5/97 mw-12	Date Received:	05/28/97
Laboratory ID:	C97-28038	Date Extracted:	05/29/97
Matrix:	Soil	Date Analyzed:	05/29/97
Dilution Factor:	200	Date Reported:	June 4,1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/23/97
Sample ID:	93007-12.68-70.5/97 MW-12	Date Analyzed:	05/29/97
Laboratory ID:	C97-28038	Date Reported:	June 4,1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2612055	2348015	111%	50 - 200 %
Fluorobenzene	4252526	3685808	115%	50 - 200 %
1,4 - Difluorobenzene	3536848	3101660	114%	50 - 200 %
Chlorobenzene - d5	2386855	2167871	110%	50 - 200 %
1,4 - Dichlorobenzene - d4	1092681	1031509	106%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.49	94.9%	86 - 118 %
Toluene - d8	9.92	99.2%	88 - 110 %
4 - Bromofluorobenzene	9.65	96.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.81	98.1%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\28036s.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/12/97
Sample ID:	93007-1-7.5/97 SVE Well 1-7	Date Received:	05/20/97
Laboratory ID:	C97-27703	Date Extracted:	05/21/97
Matrix:	Soil	Date Analyzed:	05/21/97
Dilution Factor:	200	Date Reported:	May 23,1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)		LIMIT OF DETECTION (mg/kg)
75-71-8	Dichlorodifluoromethane	ND		0.20
74-87-3	Chloromethane	ND		0.20
75-01-4	Vinyl chloride	ND		0.20
74-83-9	Bromomethane	ND		0.20
75-00-3	Chloroethane	ND		0.20
75-69-4	Trichlorofluoromethane	ND		0.20
75-35-4	1,1 - Dichloroethene	ND		0.20
75-09-2	Methylene chloride	ND		0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND		0.20
75-34-3	1,1 - Dichloroethane	ND		0.20
156-59-2	cis - 1,2 - Dichloroethene	ND		0.20
74-97-5	Bromochloromethane	ND		0.20
67-66-3	Chloroform	ND		0.20
594-20-7	2,2 - Dichloropropane	ND		0.20
71-55-6	1,1,1 - Trichloroethane	ND		0.20
107-06-2	1,2 - Dichloroethane	ND		0.20
563-58-6	1,1 - Dichloropropene	ND		0.20
56-23-5	Carbon tetrachloride	ND		0.20
71-43-2	**Benzene**	**0.11**	J	0.20
74-95-3	Dibromomethane	ND		0.20
78-87-5	1,2 - Dichloropropane	ND		0.20
79-01-6	Trichloroethene	ND		0.20
75-27-4	Bromodichloromethane	ND		0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND		0.20
10061-02-6	trans - 1.3 - Dichloropropene	ND		0.20
79-00-5	1,1,2 - Trichloroethane	ND		0.20
108-88-3	**Toluene**	**1.55**		0.20
106-93-4	1,2 - Dibromoethane (EDB)	ND		0.20
142-28-9	1,3 - Dichloropropane	ND		0.20
124-48-1	Dibromochloromethane	ND		0.20
127-18-4	Tetrachloroethene	ND		0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND		0.20
108-90-7	Chlorobenzene	ND		0.20
100-41-4	**Ethylbenzene**	**2.17**		0.20
108-38-3	**m,p - Xylenes**	**2.57**		0.40
75-25-2	Bromoform	ND		0.20
100-42-5	Styrene	ND		0.20
95-47-6	**o - Xylene**	**1.21**		0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND		0.20
96-18-4	1,2,3 - Trichloropropane	ND		0.20

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/12/97
Sample ID:	93007-1-7.5/97	Date Analyzed:	05/21/97
Laboratory ID:	C97-27703	Date Reported:	May 23,1997

SVE Well 1-7

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
98-82-8	**Isopropylbenzene**	**0.50**	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	**n - Propylbenzene**	**1.01**	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	**1,3,5 - Trimethylbenzene**	**3.37**	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	**1,2,4 - Trimethylbenzene**	**3.25**	0.20
135-98-8	**sec - Butylbenzene**	**0.58**	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	**4-Isopropyltoluene**	**0.65**	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	**n - Butylbenzene**	**1.41**	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane (DBCP)	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	**Naphthalene**	**1.00**	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2349889	2125582	111%	50 - 200 %
Fluorobenzene	3530732	3225498	109%	50 - 200 %
1,4 - Difluorobenzene	3041531	2749094	111%	50 - 200 %
Chlorobenzene - d5	2176536	1972814	110%	50 - 200 %
1,4 - Dichlorobenzene - d4	1021590	941949	108%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.71	97.1%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.61	96.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.27	92.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27703.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/12/97
Sample ID:	93007-1-8.5/97	Date Received:	05/20/97
Laboratory ID:	C97-27704	Date Extracted:	05/21/97
Matrix:	Soil	Date Analyzed:	05/21/97
Dilution Factor:	200	Date Reported:	May 23,1997

SVE well 1-8

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/12/97
Sample ID:	93007-1-8.5/97	Date Analyzed:	05/21/97
Laboratory ID:	C97-27704	Date Reported:	May 23,1997

SVE Well 1-8

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2236367	2125582	105%	50 - 200 %
Fluorobenzene	3346460	3225498	104%	50 - 200 %
1,4 - Difluorobenzene	2915255	2749094	106%	50 - 200 %
Chlorobenzene - d5	1988195	1972814	101%	50 - 200 %
1,4 - Dichlorobenzene - d4	948699	941949	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.58	95.8%	86 - 118 %
Toluene - d8	9.61	96.1%	88 - 110 %
4 - Bromofluorobenzene	9.93	99.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.87	98.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27703.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/12/97
Sample ID:	93007-3-5.5/97	Date Received:	05/20/97
Laboratory ID:	C97-27705	Date Extracted:	05/21/97
Matrix:	Soil	Date Analyzed:	05/21/97
Dilution Factor:	200	Date Reported:	May 23,1997

SVE Well 3-5

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	05/12/97
Sample ID:	93007-3-5.5/97	Date Analyzed:	05/21/97
Laboratory ID:	C97-27705	Date Reported:	May 23,1997

SVE well 3-5

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	2272586	2125582	107%	50 - 200 %
Fluorobenzene	3513760	3225498	109%	50 - 200 %
1,4 - Difluorobenzene	2986901	2749094	109%	50 - 200 %
Chlorobenzene - d5	2108640	1972814	107%	50 - 200 %
1,4 - Dichlorobenzene - d4	998433	941949	106%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.89	98.9%	86 - 118 %
Toluene - d8	9.89	98.9%	88 - 110 %
4 - Bromofluorobenzene	10.0	100%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_27703.xls

Analyst: yw
Reviewed: sec

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

May 14, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-377

Mr. John Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, TX 77478

RE: GW-073, Dowell Schlumberger (DS) - Hobbs
Deep Monitor Well Installation Approval
Groundwater Contamination Delineation

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received **DS** letter (via Fax with hardcopy to follow) dated May 7, 1997 and the report dated March 31, 1997 prepared by Western Water Consultants on behalf of DS. **Upon review of the information provided OCD approves of the DS proposal to install five additional groundwater monitor wells, and two deep groundwater monitor wells with the following conditions:**

1. All field work and sampling/reporting will be prepared and submitted as outlined in the letter from OCD dated October 7, 1996.

2. The new monitor wells will be sampled for the entire suite of WQCC parameters in 20 NMAC 6.2.3103. **(See October 7, 1996 letter from OCD.)**

3. A report with the findings of the further delineation and sampling will be submitted to the OCD Santa Fe Office in duplicate with a copy to the OCD Hobbs District Office by July 14, 1997.

Please be advised that the OCD approval to further investigate the contamination of groundwater at the Hobbs facility does not relieve **DS** of liability should **DS** fail to adequately determine the extent of lateral and vertical contamination. Also, this OCD approval does not relieve **DS** from responsibility to comply with other federal, state, and local rules/regulations that may apply to this project.

Sincerely,

Patricio W. Sanchez
Petroleum Engineering Specialist

c: Mr. Wayne Price - Environmental Engineer, OCD Hobbs

P 410 431 377

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

5-19-97
#See May 14, 1997
letter from OCD. PWS

May 7, 1997

RECEIVED
MAY 19 1997
OIL CONSERVATION DIVISION

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

RE: Installation of 2 Deep Ground-water Monitoring Wells at the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico

Dear Pat:

This document is to request authorization to install 2 deep ground-water monitoring wells at the Dowell Facility in Hobbs, New Mexico. The purpose of the deep wells is to investigate the lithology of the Ogallala Aquifer, which underlies the facility.

Data gathered from other sites in Hobbs indicates that the Ogallala Aquifer has vertical stratification. The saturated portion of the Ogallala Aquifer consists of three distinct stratigraphic layers which are, from top to bottom, poorly graded fine sand, 10 to 15 feet of well indurated sand, and well graded coarse sand and gravel. The indurated sand that separates the upper fine sand from the lower sand and gravel apparently has lower hydraulic conductivity and may act as an aquitard. If this indurated sand is present at the Dowell facility it may provide a barrier to vertical migration. Because of these lithologic characteristics, Dowell believes the deep monitoring wells will be beneficial to better understanding the Ogallala stratigraphy which will help guide subsequent investigations at the site.

The two deep monitoring wells are proposed at the locations of existing wells MW-1 and MW-8 (See Figure 1). MW-1 is the upgradient well and essentially clean. This is a good location to drill a well through the entire aquifer without providing a path for vertical migration of contaminants. The well would be drilled to the indurated sand, cased and cemented to the surface. Drilling would then proceed to the base of the Ogallala and the well completed in the lower sand and gravel. This would allow definition of the entire stratigraphy of the aquifer and provide for up-gradient sampling of the sand and gravel layer.

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(281) 285-8498 (281) 285-8526 (fax)

If the indurated sand were encountered at MW-1 a second well would be drilled at MW-8, which is believed to be near the center of the contaminant plume. This well would be drilled to the top of the indurated sand and completed to allow water quality sampling of the lower portion of the fine sand layer.

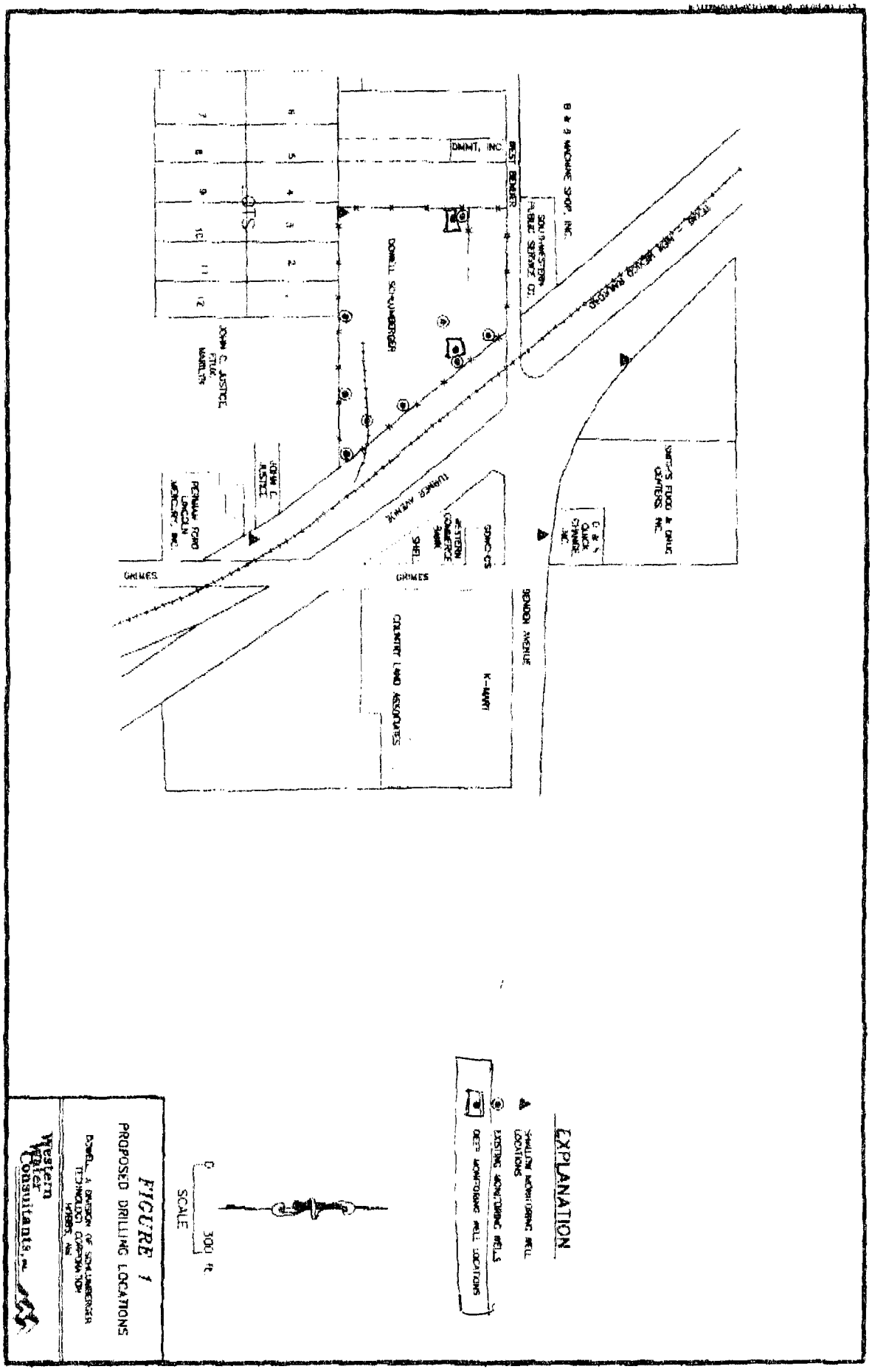
If the indurated sand were not encountered during at MW-1 the second well would not be drilled. It is our feeling that drilling a well the entire thickness of the aquifer could provide a pathway by which contaminants could impact previously unaffected areas of the aquifer.

This plan for deeper monitoring wells is presented for your consideration. Data collected from these wells could provide a better understanding of the Hobbs site. Please give me a call if there are any questions.

Sincerely,

John Miller
Remediation Manager

cc: WWC, Laramie


DMMT, INC
DOWELL SCHLUMBERGER
JOHN C. JUSTICE
FITCH MARTIN
JOHN C. JUSTICE
PERMIAN FORD LINCOLN MERCURY, INC.
WESTERN COMMERCE BANK
SHELL
SONICS
GRIMES
GRIMES
COUNTRY LAND ASSOCIATES
K-MART
BRIDGE AVENUE
SONICS
D & L QUICK STOP, INC.
SWIFT'S FOOD & DRUG CENTERS, INC.
B & B MACHINE SHOP, INC.
EXPLANATION
SPARGING MONITORING WELL LOCATIONS
EXISTING MONITORING WELLS
DEEP MONITORING WELL LOCATIONS
0
300 ft
SCALE
FIGURE 1
PROPOSED DRILLING LOCATIONS
DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
CASPER, WY
Western Water Consultants, Inc.

Schlumberger

HEALTH, SAFETY & ENVIRONMENT
OILFIELD SERVICES SHARED RESOURCES

DATE: 5/13/97

NO. PAGES (Including Cover): 4

TO: PAT SANCHEZ

FROM: John A. Miller
Remediation Manager

FAX NO: 505-827-8177

FAX: (281) 285-8526

LOCATION:

PHONE: (281) 285-8498

MESSAGE: DEEP WELLS AT HOBBS
SPoke w/ John Miller by telephone
on 5-14-97, He said an original
would follow by mail.

RECEIVED
MAY 14 1997
Environmental Bureau
Oil Conservation Division

☐ RESPONSE REQUESTED BY (DATE):

300 Schlumberger Drive, Sugar Land, Texas 77478

RECEIVED
MAY 14 1997
Environmental Bureau
Oil Conservation Division

May 7, 1997

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

RE: Installation of 2 Deep Ground-water Monitoring Wells at the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico

Dear Pat:

This document is to request authorization to install 2 deep ground-water monitoring wells at the Dowell facility in Hobbs, New Mexico. The purpose of the deep wells is to investigate the lithology of the Ogallala Aquifer, which underlies the facility.

Data gathered from other sites in Hobbs indicates that the Ogallala Aquifer has vertical stratification. The saturated portion of the Ogallala Aquifer consists of three distinct stratigraphic layers which are, from top to bottom, poorly graded fine sand, 10 to 15 feet of well indurated sand, and well graded coarse sand and gravel. The indurated sand that separates the upper fine sand from the lower sand and gravel apparently has lower hydraulic conductivity and may act as an aquitard. If this indurated sand is present at the Dowell facility it may provide a barrier to vertical migration. Because of these lithologic characteristics, Dowell believes the deep monitoring wells will be beneficial to better understanding the Ogallala stratigraphy which will help guide subsequent investigations at the site.

The two deep monitoring wells are proposed at the locations of existing wells MW-1 and MW-8 (See Figure 1). MW-1 is the upgradient well and is essentially clean. This is a good location to drill a well through the entire aquifer without providing a path for vertical migration of contaminants. The well would be drilled to the indurated sand, cased and cemented to the surface. Drilling would then proceed to the base of the Ogallala and the well completed in the lower sand and gravel. This would allow definition of the entire stratigraphy of the aquifer and provide for up-gradient sampling of the sand and gravel layer.

If the indurated sand were encountered at MW-1 a second well would be drilled at MW-8, which is believed to be near the center of the contaminant plume. This well would be drilled to the top of the indurated sand and completed to allow water quality sampling of the lower portion of the fine sand layer.

If the indurated sand were not encountered during at MW-1 the second well would not be drilled. It is our feeling that drilling a well the entire thickness of the aquifer could provide a pathway by which contaminants could impact previously unaffected areas of the aquifer.

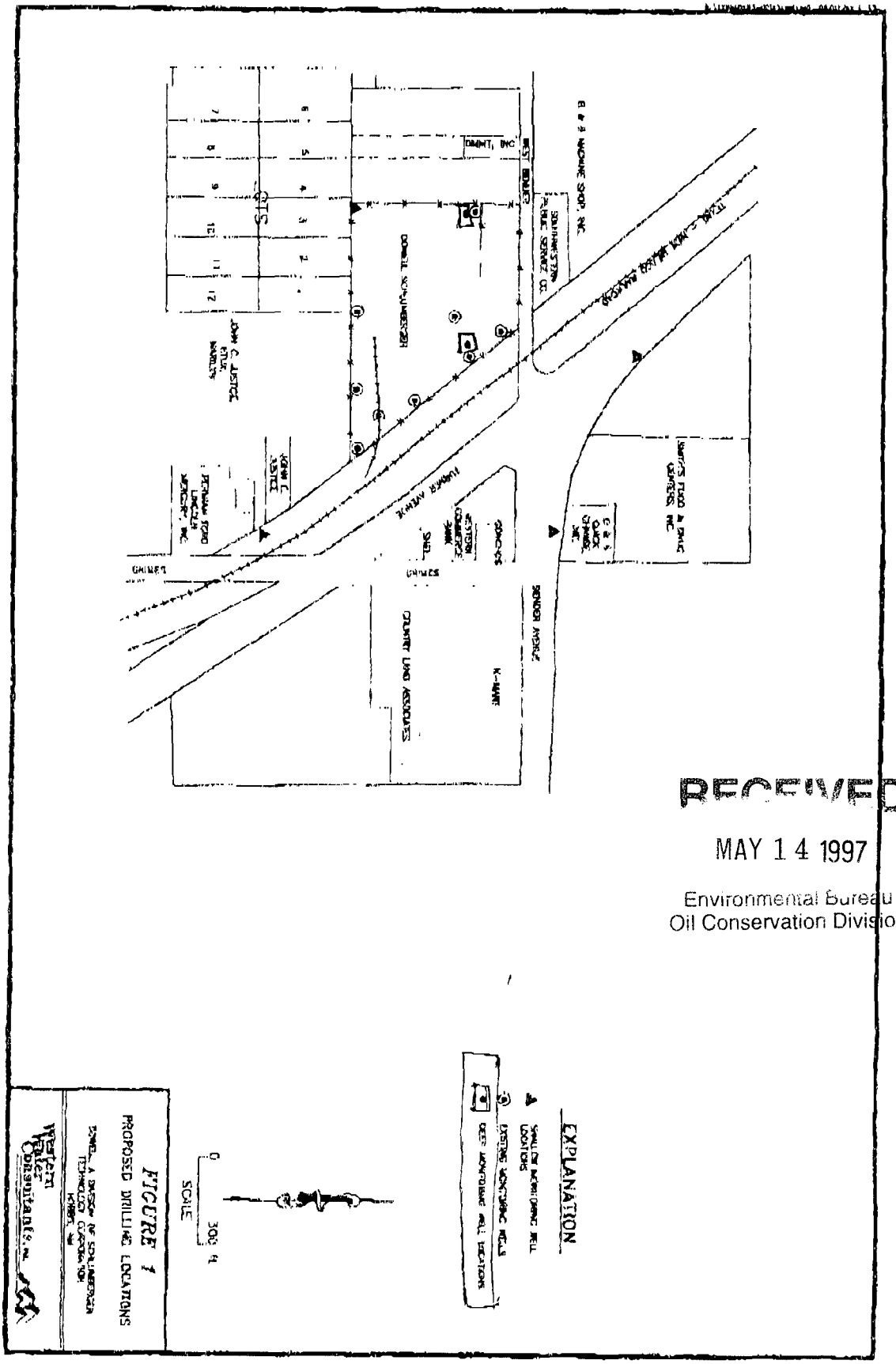
This plan for deeper monitoring wells is presented for your consideration. Data collected from these wells could provide a better understanding of the Hobbs site. Please give me a call if there are any questions.

Sincerely,

John Miller
Remediation Manager

cc: WWC, Laramie

RECEIVED
MAY 14 1997
Environmental Bureau
Oil Conservation Division



RECEIVED

MAY 14 1997

Environmental Bureau
Oil Conservation Division

FIGURE 1
PROPOSED DRILLING LOCATIONS

File - copy

Serving Our Clients Since 1980

WESTERN WATER CONSULTANTS, INC.

Engineering • Hydrology • Hydrogeology • Waste Management • Construction Administration

611 SKYLINE ROAD, P.O. BOX 4128 • LARAMIE, WYOMING 82071 • (307) 742-0031 • FAX (307) 721-2913

March 31, 1997

RECEIVED

APR 03 1997

Environmental Bureau
Oil Conservation Division

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Results of Ground-water Monitoring and Additional Investigation at the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico.

Dear Pat:

This letter presents the results of the first quarter ground-water monitoring for 1997 and a summary of additional investigation work performed at the Dowell, a division of Schlumberger Technology Corporation facility in Hobbs, New Mexico. Authorization for the fieldwork was granted by the New Mexico Oil Conservation Division (NMOCD) per a letter to Dowell dated December 18, 1996. The following is a brief summary of the fieldwork performed and proposed additional fieldwork.

1.0 MONITORING WELL INSTALLATION

On January 23-25, 1997, Western Water Consultants, Inc. (WWC) supervised the drilling and installation of 5 two-inch diameter monitoring wells (MW-5 to MW-9) with an air rotary drill rig (Figure 1-1). Lithology encountered during drilling was consistent with what was observed in other areas of the site. The monitoring wells were completed and developed according to NMOCD guidelines. The top of casing elevations were surveyed using an arbitrary benchmark of 100 feet. Well completion and lithologic logs are provided as enclosures.

One soil sample was collected for laboratory analysis from each soil boring as close as possible to the soil/water interface for laboratory analysis by EPA Method 8260. Results of the soil samples (Table 1.) and laboratory data sheets are provided as enclosures.

OTHER LOCATIONS

1949 SUGARLAND DRIVE, SUITE 134
SHERIDAN, WYOMING 82801
(307) 672-0761
FAX (307) 674-4265

1901 ENERGY COURT, SUITE 270
GILLETTE, WYOMING 82718
(307) 682-1880
FAX (307) 682-2257

701 ANTLER DRIVE, SUITE 233
CASPER, WYOMING 82601
(307) 473-2707
FAX (307) 237-0828

2.0 GROUND-WATER MONITORING

Static water levels were measured in all wells from the top of the PVC casing (Table 2.). A potientiometric surface map (Figure 2-1.) constructed from the static water levels indicates ground-water continues to flow to the east-northeast across the site. Depth to ground-water varies from 70 to 73 feet below ground surface.

Ground-water samples were collected from all monitoring wells according to WWC protocol and analyzed for volatile organic compounds by EPA Method 8260. Results of ground-water samples for volatile organics are presented on Table 3 and an isoconcentration map (Figure 3-1.). Additional samples were collected from all monitoring wells for polynuclear aromatic hydrocarbons (PAH's), total petroleum hydrocarbons (GRO and DRO), RCRA metals, and major cations and anions as requested by the NMOCD. Results for the additional water quality parameters are presented as Tables 4, 5, and 6. Laboratory data sheets for all samples are included as enclosures.

3.0 PROPOSED DRILLING ACTIVITIES

As indicated on the isoconcentration map for total halocarbons (Figure 3-1.), contaminants are present along the east property line. In a continuing effort to define the extent of contamination at the Hobbs facility, Dowell is proposing to install 5 additional monitoring wells at the locations indicated on (Figure 4-1.). These wells would be installed to ground-water, properly developed, and the ground-water sampled for laboratory analysis by EPA Method 8260.

If you have any questions concerning this report, please feel free to contact John Miller at (281) 285-8498.

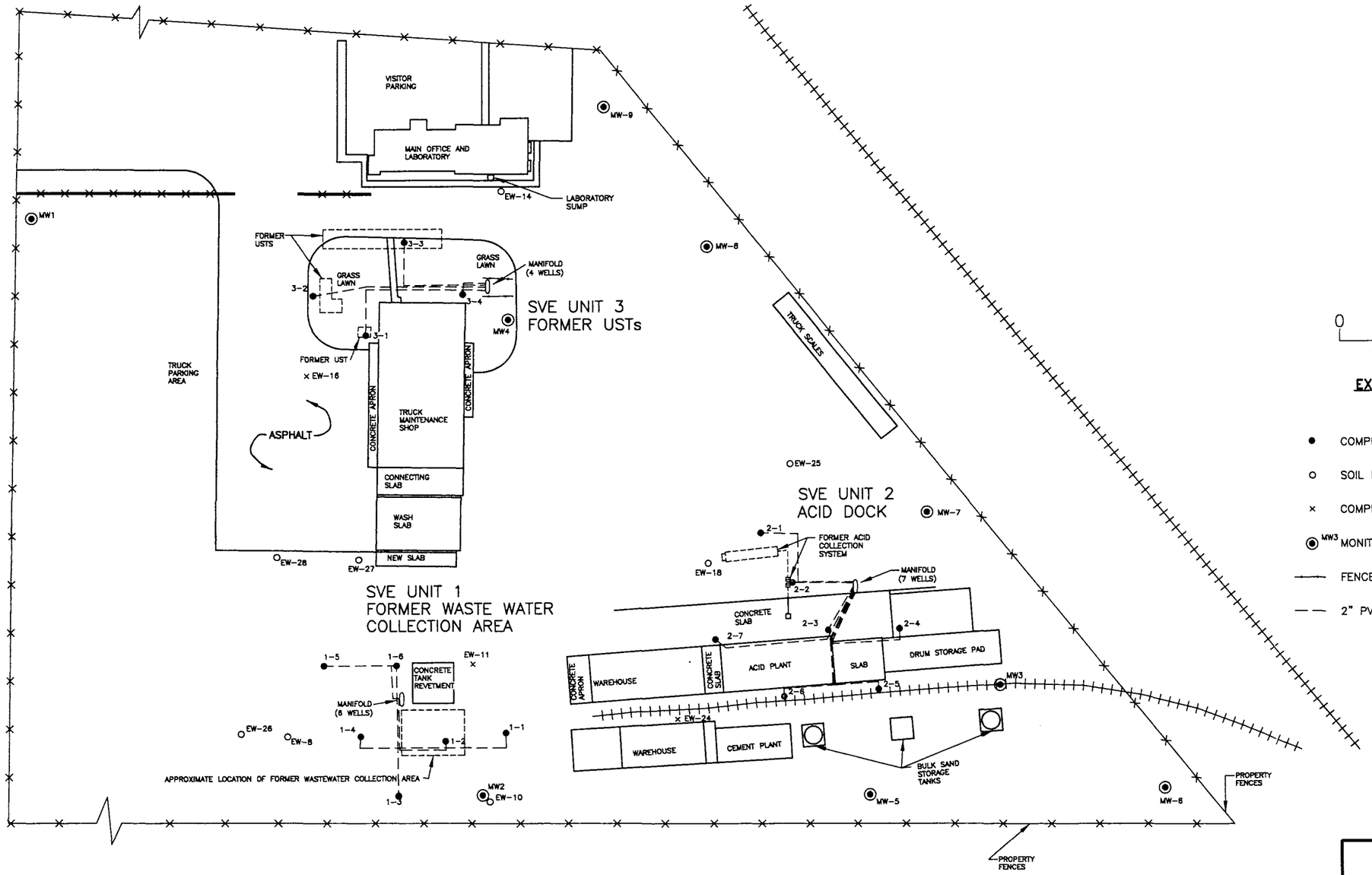
Sincerely,

Rick Deuell

Rick Deuell

RD:gh
enclosures
cc: WWC

K:\172040\93-007L\SITESVEB 02/12/97 08:52



0 80 FT.

SCALE

EXPLANATION

- ● COMPLETED AS SVE WELL
- ○ SOIL BORING
- × COMPLETED AS A FUTURE SVE WELL
- ◉ MW3 MONITORING WELL LOCATION AND IDENTIFICATION
- —— FENCED ENCLOSURE
- — — 2" PVC PIPING

FIGURE 1-1

SITE MAP AND LOCATION OF SOIL BORINGS AND WELLS

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc.

K:\172040\93-007L\POTSURF 03/18/97 13:50

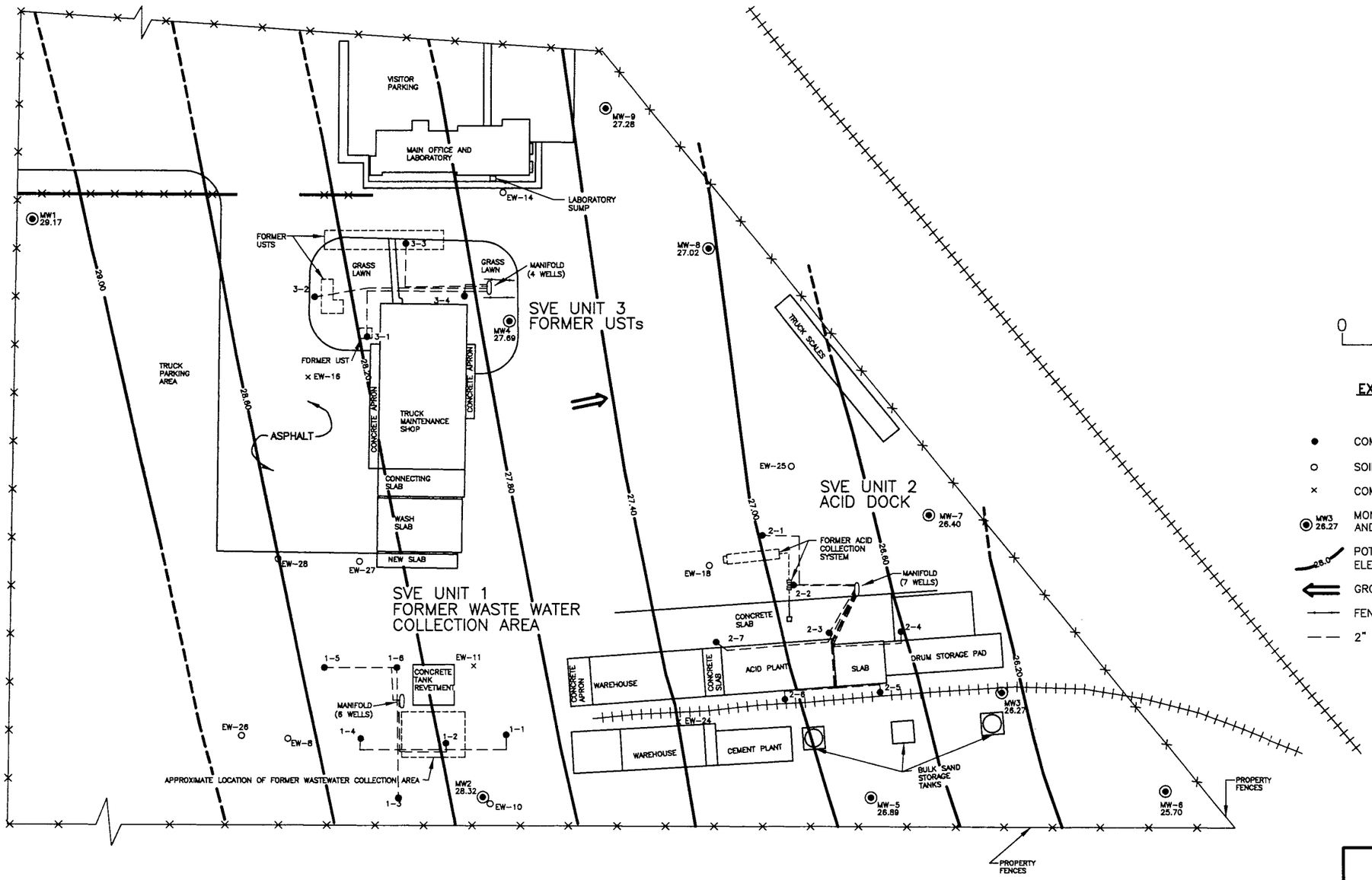


FIGURE 2-1

POTENTIOMETRIC SURFACE MAP

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc.

K:\172040\93-007L\HALO-97 03/21/97 10:26

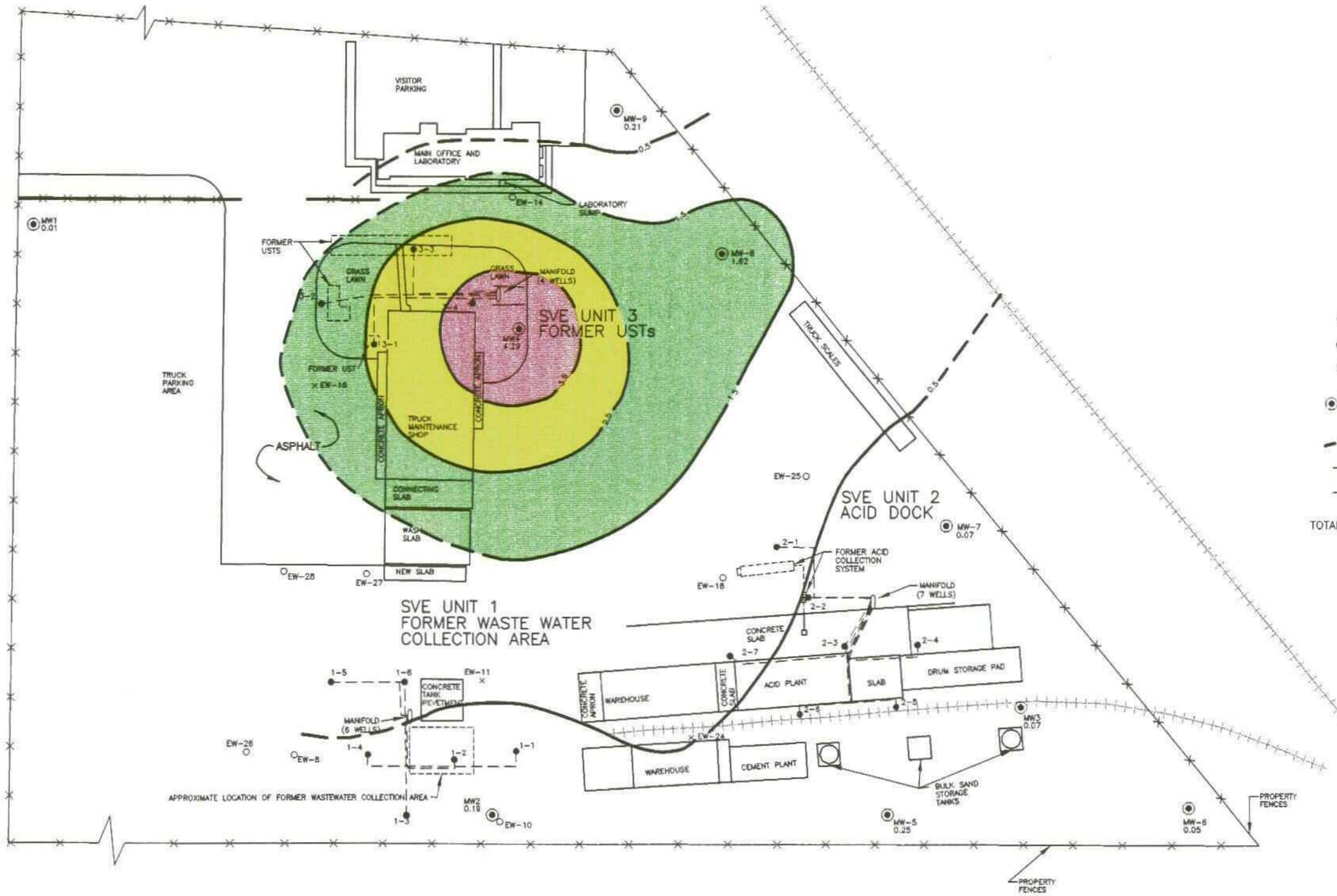


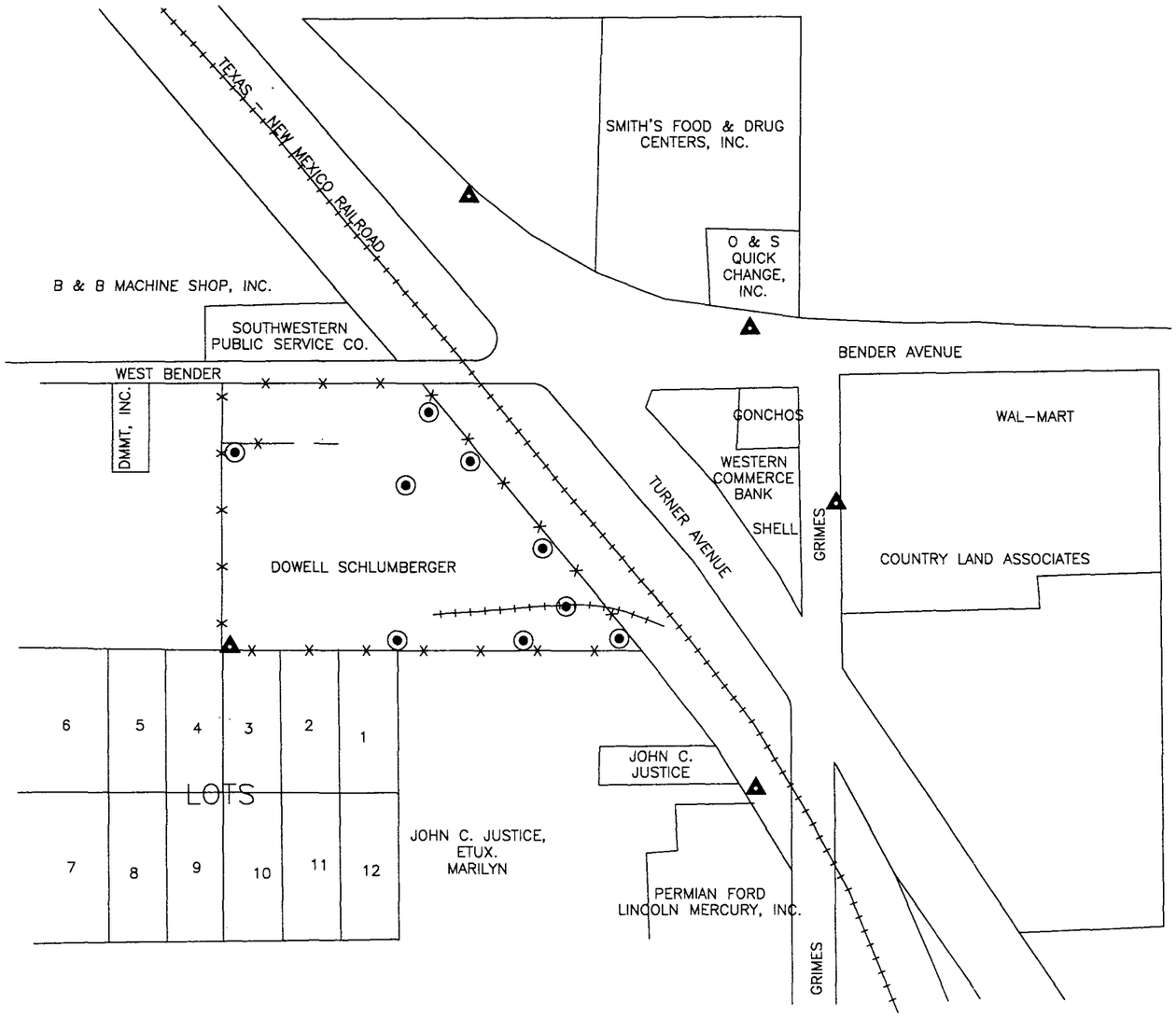
FIGURE 3-1

TOTAL HALOCARBONS CONCENTRATION MAP

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc.

K:\172040\93-007\DRILLING 03/21/97 08:42



EXPLANATION

- ▲ PROPOSED DRILLING LOCATIONS
- ⊙ APPROXIMATE LOCATION OF EXISTING MONITORING WELLS

0 300 ft.

SCALE

FIGURE 4-1

PROPOSED DRILLING LOCATIONS

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
HOBBS, NM

Western Water Consultants, Inc.

SOIL DATA

Table 1. Soil Sample Data for the Dowell Facility in Hobbs, New Mexico

Sample Location	Sample ID	Sample Depth	Date Sampled	1,1-DCA (mg/kg)	1,2-DCA (mg/kg)	1,1-DCE (mg/kg)	PCE (mg/kg)	1,1,1-TCA (mg/kg)	TCE (mg/kg)	BENZENE (mg/kg)	ETHYL-BENZENE (mg/kg)	TOLUENE (mg/kg)	TOTAL XYLENES (mg/kg)	NAPHTHA-LENE (mg/kg)
MW-5	93007-5.72-74'	72-74'	01/20/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
MW-6	93007-6.72-74'	72-74'	01/20/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
MW-7	93007-7.72-74'	72-74'	01/21/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
MW-8	93007-8.72-74	72-74'	01/21/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)
MW-9	93007-9.72-74'	72-74'	01/21/97	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)

Notes: ND = not detected at concentrations specified in parentheses.
1,1-DCA = 1,1-dichloroethane
1,2-DCA = 1,2-dichloroethane
1,1-DCE = 1,1-dichloroethene
PCE = tetrachloroethene
1,1,1-TCA = 1,1,1-trichloroethane
TCE = trichloroethene

WATER QUALITY DATA

Table 2. Static Water Level Data for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	99.61	10/25/96	84	70.22	29.39		13.78
		11/21/96		70.17	29.44	0.05	13.83
		01/22/97		70.44	29.17	0.27	13.56
MW-2	98.35	10/25/96	85	70.03	28.32		14.97
		11/21/96		70.03	28.32	0.00	14.97
		01/22/97		70.26	28.09	0.23	14.74
MW-3	99.37	10/25/96	85	72.88	26.49		12.12
		11/21/96		72.89	26.48	0.01	12.11
		01/22/97		73.10	26.27	0.21	11.90
MW-4	100.29	10/25/96	85	72.41	27.88		12.59
		11/21/96		72.37	27.92	0.04	12.63
		01/22/97		72.60	27.69	0.23	12.40
MW-5	98.79	01/22/97	85	71.90	26.89		13.10
MW-6	98.61	01/22/97	85	72.88	25.73		12.12
MW-7	99.71	01/22/97	85	73.31	26.40		11.69
MW-8	99.80	01/22/97	85	72.78	27.02		12.22
MW-9	99.85	01/22/97	85	72.57	27.28		12.43

Note: Benchmark is located on the southwest corner of the concrete revetment footer by the former wastewater collection area.

* = measured from a temporary benchmark of arbitrary elevation = 100.00 ft.

Table 3. Chemicals Detected in Ground-Water Samples, Dowell Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENE (mg/L)	NAPHTHA-LENE (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.001J
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)
	01/22/97	0.089	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	0.0008J	0.018	0.004	ND(0.001)	0.0008J	ND(0.001)
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	0.0007J	0.018	0.004	ND(0.001)	0.001	0.004
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	0.0008J	ND(0.001)	ND(0.001)	ND(0.002)	0.0009J
MW-7	01/23/97	0.047	0.0009J	0.009	0.014	ND(0.001)	0.004	0.0006J	ND(0.001)	ND(0.001)	0.001	0.013
MW-8	01/23/97	0.068	0.005J	0.280	0.810	0.460	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	0.0004J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parentheses.
J - Detected at concentration below the method detection limit.

1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethane
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

TABLE 4. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, TOTAL PETROLEUM HYDROCARBONS AND BASE-NEUTRAL POLYAROMATIC HYDROCARBONS, DOWELL FACILITY, HOBBS, NEW MEXICO

		TOTAL PETROLEUM HYDROCARBONS		*BASE-NEUTRAL POLYAROMATIC HYDROCARBONS*		
WELL NUMBER	*SAMPLE DATE*	*GRO (mg/L)*	*DRO (mg/L)*	*NAPTHALENE (mg/L)*	*PHENANTHRENE (mg/L)*	*PYRENE (mg/L)*
MW-1	01/22/97	ND(0.02)	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
MW-2	01/22/97	0.213	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
MW-3	01/22/97	0.057	1.2	ND(0.011)	ND(0.011)	ND(0.011)
MW-4	01/22/97	0.672	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
MW-5	01/22/97	0.146	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
duplicate	01/22/97	0.136	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)
MW-6	01/22/97	0.033	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)
MW-7	01/22/97	0.089	ND(1)	ND(0.011)	ND(0.011)	ND(0.011)
MW-8	01/22/97	0.369	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)
MW-9	01/22/97	0.055	ND(1)	ND(0.012)	ND(0.012)	ND(0.012)

Notes:
GRO = gasoline range organics
DRO = diesel range organics
mg/L = milligrams per liter (equivalent to parts per million)
ND(1) = constituent not detected at concentration above method detection limit in parentheses

TABLE 5. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, MAJOR CATIONS AND ANIONS (DISSOLVED), DOWELL FACILITY, HOBBS, NEW MEXICO

WELL NUMBER	SAMPLE DATE	MAJOR CATIONS				MAJOR ANIONS				pH
		CALCIUM (mg/L)	SODIUM (mg/L)	POTASSIUM (mg/L)	MAGNESIUM (mg/L)	CARBONATE (mg/L)	BICARBONATE (mg/L)	SULFATE (mg/L)	CHLORIDE (mg/L)	
MW-1	01/22/97	382	121	2.5	34.7	ND(0.1)	426	224	133	7.77
MW-2	1/22/97	173	80.4	12.3	12.5	ND(0.1)	342	132	134	7.61
MW-3	1/22/97	263	94.5	3	29.5	ND(0.1)	643	123	197	7.46
MW-4	1/22/97	205	130	2.6	32.3	ND(0.1)	466	154	219	7.61
MW-5	1/23/97	244	152	5	69	ND(0.1)	405	120	570	7.75
duplicate	1/23/97	238	147	4.6	67.3	ND(0.1)	367	134	565	7.63
MW-6	1/22/97	264	127	5.8	56.9	ND(0.1)	281	145	604	7.81
MW-7	1/22/97	181	232	5.3	69.4	ND(0.1)	411	39	666	7.95
MW-8	1/22/97	204	76.3	3.9	42.5	ND(0.1)	434	234	199	7.84
MW-9	01/22/97	150	72.3	4.6	32.2	ND(0.1)	245	131	229	7.60

Notes:
mg/L = milligrams per liter (equivalent to parts per million)
ND(0.1) = not detected at concentration above method detection limit in parentheses

TABLE 6. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, RCRA METALS (DISSOLVED), DOWELL FACILITY, HOBBS, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BARIUM (mg/L)	CADMIUM (mg/L)	CHROMIUM (mg/L)	LEAD (mg/L)	SILVER (mg/L)	ARSENIC (mg/L)	SELENIUM (mg/L)	MERCURY (mg/L)
MW-1	01/22/97	0.11	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.017	ND(0.001)	ND(0.001)
MW-2	1/22/97	0.74	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.151	ND(0.001)	ND(0.001)
MW-3	1/22/97	0.14	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.267	ND(0.001)	ND(0.001)
MW-4	1/22/97	0.13	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.029	0.002	ND(0.001)
MW-5	1/23/97	0.21	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.144	ND(0.001)	ND(0.001)
duplicate	1/22/97	0.20	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.137	ND(0.001)	ND(0.001)
MW-6	1/22/97	0.14	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.047	ND(0.001)	ND(0.001)
MW-7	1/22/97	0.22	ND(0.01)	ND(0.05)	0.16	ND(0.01)	0.007	ND(0.001)	ND(0.001)
MW-8	1/22/97	ND(0.1)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.004	ND(0.001)	ND(0.001)
MW-9	01/22/97	ND(0.1)	ND(0.01)	ND(0.05)	ND(0.05)	ND(0.01)	0.006	0.003	ND(0.001)

Notes:
mg/L = milligrams per liter (equivalent to parts per million)
ND(0.05) = ion not detected at concentration above method detection limit in parentheses

LABORATORY DATA SHEETS

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-5

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-5.72-74'	Date Received:	01/23/97
Laboratory ID:	C97-11405	Date Extracted:	01/23/97
Matrix:	Soil	Date Analyzed:	01/24/97
Dilution Factor:	200	Date Reported:	February 4, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes	ND	0.40
75-25-2	Bromoform	ND	0.20
100-42-5	Styrene	ND	0.20
95-47-6	o - Xylene	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection
J - Meets Mass Spectral identification criteria but result is below established detection limit

MW-5

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-5.72-74'	Date Analyzed:	01/24/97
Laboratory ID:	C97-11405	Date Reported:	02/04/97

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
98-82-8	Isopropylbenzene	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	726375	682321	106%	50 - 200 %
Fluorobenzene	1850652	1789599	103%	50 - 200 %
1,4 - Difluorobenzene	1580652	1550524	102%	50 - 200 %
Chlorobenzene - d5	1153732	1170774	98.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	403126	451277	89.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.9	109%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

Report File: J:\DATA\MSDATA\JAN_97\97_11405s.xls

Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-6

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-6.72-74'	Date Received:	01/23/97
Laboratory ID:	C97-11406	Date Extracted:	01/23/97
Matrix:	Soil	Date Analyzed:	01/24/97
Dilution Factor:	200	Date Reported:	February 4, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

MW-6

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-6.72-74'	Date Analyzed:	01/24/97
Laboratory ID:	C97-11406	Date Reported:	02/04/97

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	697024	682321	102%	50 - 200 %
Fluorobenzene	1760888	1789599	98.4%	50 - 200 %
1,4 - Difluorobenzene	1533041	1550524	98.9%	50 - 200 %
Chlorobenzene - d5	1118356	1170774	95.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	400806	451277	88.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.8	108%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.50	95.0%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

Report File: J:\DATA\MSDATA\JAN_97\97_11405s.xls

Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-7

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-7.72-74'	Date Received:	01/23/97
Laboratory ID:	C97-11407	Date Extracted:	01/23/97
Matrix:	Soil	Date Analyzed:	01/24/97
Dilution Factor:	200	Date Reported:	February 4, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

MW-7

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-7.72-74'	Date Analyzed:	01/24/97
Laboratory ID:	C97-11407	Date Reported:	02/04/97

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	680947	682321	99.8%	50 - 200 %
Fluorobenzene	1720431	1789599	96.1%	50 - 200 %
1,4 - Difluorobenzene	1509644	1550524	97.4%	50 - 200 %
Chlorobenzene - d5	1088049	1170774	92.9%	50 - 200 %
1,4 - Dichlorobenzene - d4	368486	451277	81.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.0	110%	86 - 118 %
Toluene - d8	9.96	99.6%	88 - 110 %
4 - Bromofluorobenzene	9.95	99.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

Report File: J:\DATA\MSDATA\JAN_97\97_11405s.xls

Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-8

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	01/22/97
Sample ID:	93007-8.72-74'	Date Received:	01/23/97
Laboratory ID:	C97-11408	Date Extracted:	01/23/97
Matrix:	Soil	Date Analyzed:	01/24/97
Dilution Factor:	200	Date Reported:	February 4, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

MW-8

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-8.72-74'	Date Analyzed:	01/24/97
Laboratory ID:	C97-11408	Date Reported:	02/04/97

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (mg/kg)*	*LIMIT OF DETECTION (mg/kg)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	675453	682321	99.0%	50 - 200 %
Fluorobenzene	1730012	1789599	96.7%	50 - 200 %
1,4 - Difluorobenzene	1487283	1550524	95.9%	50 - 200 %
Chlorobenzene - d5	1076673	1170774	92.0%	50 - 200 %
1,4 - Dichlorobenzene - d4	357114	451277	79.1%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.0	110%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: J:\DATA\MSDATA\JAN_97\97_11405s.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-9

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	01/22/97
Sample ID:	93007-9.72-74'	Date Received:	01/23/97
Laboratory ID:	C97-11409	Date Extracted:	01/23/97
Matrix:	Soil	Date Analyzed:	01/24/97
Dilution Factor:	200	Date Reported:	February 4, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
75-71-8	Dichlorodifluoromethane	ND	0.20
74-87-3	Chloromethane	ND	0.20
75-01-4	Vinyl chloride (Chloroethene)	ND	0.20
74-83-9	Bromomethane	ND	0.20
75-00-3	Chloroethane	ND	0.20
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1 - Dichloroethene	ND	0.20
75-09-2	Methylene chloride (Dichloromethane)	ND	0.20
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.20
75-34-3	1,1 - Dichloroethane	ND	0.20
156-59-2	cis - 1,2 - Dichloroethene	ND	0.20
74-97-5	Bromochloromethane	ND	0.20
67-66-3	Chloroform (Trichloromethane)	ND	0.20
594-20-7	2,2 - Dichloropropane	ND	0.20
71-55-6	1,1,1 - Trichloroethane	ND	0.20
107-06-2	1,2 - Dichloroethane	ND	0.20
563-58-6	1,1 - Dichloropropene	ND	0.20
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.20
71-43-2	Benzene	ND	0.20
74-95-3	Dibromomethane	ND	0.20
78-87-5	1,2 - Dichloropropane	ND	0.20
79-01-6	Trichloroethene	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.20
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.20
79-00-5	1,1,2 - Trichloroethane	ND	0.20
108-88-3	Toluene	ND	0.20
106-93-4	1,2 - Dibromoethane	ND	0.20
142-28-9	1,3 - Dichloropropane	ND	0.20
124-48-1	Dibromochloromethane	ND	0.20
127-18-4	Tetrachloroethene	ND	0.20
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	0.40
75-25-2	Bromoform (Tribromomethane)	ND	0.20
100-42-5	Styrene (Ethenylbenzene)	ND	0.20
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.20
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.20
96-18-4	1,2,3 - Trichloropropane	ND	0.20

ND - Analyte not detected at stated limit of detection

MW-9

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-9.72-74'	Date Analyzed:	01/24/97
Laboratory ID:	C97-11409	Date Reported:	02/04/97

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/kg)	LIMIT OF DETECTION (mg/kg)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.20
108-86-1	Bromobenzene	ND	0.20
103-65-1	n - Propylbenzene	ND	0.20
95-49-8	2 - Chlorotoluene	ND	0.20
106-43-4	4 - Chlorotoluene	ND	0.20
108-67-8	1,3,5 - Trimethylbenzene	ND	0.20
98-06-6	tert - Butylbenzene	ND	0.20
95-63-6	1,2,4 - Trimethylbenzene	ND	0.20
135-98-8	sec - Butylbenzene	ND	0.20
541-73-1	1,3 - Dichlorobenzene	ND	0.20
106-46-7	1,4 - Dichlorobenzene	ND	0.20
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	0.20
95-50-1	1,2 - Dichlorobenzene	ND	0.20
104-51-8	n - Butylbenzene	ND	0.20
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	1.00
120-82-1	1,2,4 - Trichlorobenzene	ND	0.20
91-20-3	Naphthalene	ND	0.20
87-68-3	Hexachlorobutadiene	ND	0.20
87-61-6	1,2 3 - Trichlorobenzene	ND	0.20

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	639003	682321	93.7%	50 - 200 %
Fluorobenzene	1642051	1789599	91.8%	50 - 200 %
1,4 - Difluorobenzene	1422267	1550524	91.7%	50 - 200 %
Chlorobenzene - d5	1018174	1170774	87.0%	50 - 200 %
1,4 - Dichlorobenzene - d4	346823	451277	76.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.1	111%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.5	105%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw
Reviewed: sec

Report File: J:\DATA\MSDATA\JAN_97\97_11405s.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-1

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-1.1/97**
Laboratory ID:	**97-11413**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	382
Magnesium	Mg	mg/L	1.0	34.7
Sodium	Na	mg/L	1.0	121
Potassium	K	mg/L	1.0	2.5
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	426
Sulfate	SO_4	mg/L	1.0	224
Chloride	Cl	mg/L	1.0	133

Non-Metals				
pH	-	std. units	0.10	7.77

Trace Metals				
Arsenic	As	mg/L	0.001	0.017
Barium	Ba	mg/L	0.10	0.11
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11413.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-2

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-2.1/97**
Laboratory ID:	**97-11414**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	173
Magnesium	Mg	mg/L	1.0	12.5
Sodium	Na	mg/L	1.0	80.4
Potassium	K	mg/L	1.0	12.3
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	342
Sulfate	SO_4	mg/L	1.0	132
Chloride	Cl	mg/L	1.0	134

Non-Metals				
pH	-	std. units	0.10	7.61

Trace Metals				
Arsenic	As	mg/L	0.001	0.151
Barium	Ba	mg/L	0.10	0.74
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11413.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-3

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-3.1/97**
Laboratory ID:	**97-11415**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	263
Magnesium	Mg	mg/L	1.0	29.5
Sodium	Na	mg/L	1.0	94.5
Potassium	K	mg/L	1.0	3.0
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	643
Sulfate	SO_4	mg/L	1.0	123
Chloride	Cl	mg/L	1.0	197

Non-Metals				
pH	-	std. units	0.10	7.46

Trace Metals				
Arsenic	As	mg/L	0.001	0.267
Barium	Ba	mg/L	0.10	0.14
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11413.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-4

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-4.1/97**
Laboratory ID:	**97-11416**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	205
Magnesium	Mg	mg/L	1.0	32.3
Sodium	Na	mg/L	1.0	130
Potassium	K	mg/L	1.0	2.6
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	466
Sulfate	SO_4	mg/L	1.0	154
Chloride	Cl	mg/L	1.0	219

Non-Metals				
pH	-	std. units	0.10	7.61

Trace Metals				
Arsenic	As	mg/L	0.001	0.029
Barium	Ba	mg/L	0.10	0.13
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	0.002
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11413.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-5

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-5.1/97**
Laboratory ID:	**97-11474**
Sample Matrix:	**Water**
Sample Date:	**01-23-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	244
Magnesium	Mg	mg/L	1.0	69.0
Sodium	Na	mg/L	1.0	152
Potassium	K	mg/L	1.0	5.0
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	405
Sulfate	SO_4	mg/L	1.0	120
Chloride	Cl	mg/L	1.0	570

Non-Metals				
pH	-	std. units	0.10	7.75

Trace Metals				
Arsenic	As	mg/L	0.001	0.144
Barium	Ba	mg/L	0.10	0.21
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11474.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

Duplicate of MW-5

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-A.1/97**
Laboratory ID:	**97-11479**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	238
Magnesium	Mg	mg/L	1.0	67.3
Sodium	Na	mg/L	1.0	147
Potassium	K	mg/L	1.0	4.6
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	367
Sulfate	SO_4	mg/L	1.0	134
Chloride	Cl	mg/L	1.0	565

Non-Metals				
pH	-	std. units	0.10	7.63

Trace Metals				
Arsenic	As	mg/L	0.001	0.137
Barium	Ba	mg/L	0.10	0.20
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11474ioc.xls

mw-6

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-6.1/97**
Laboratory ID:	**97-11475**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	264
Magnesium	Mg	mg/L	1.0	56.9
Sodium	Na	mg/L	1.0	127
Potassium	K	mg/L	1.0	5.8
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	281
Sulfate	SO_4	mg/L	1.0	145
Chloride	Cl	mg/L	1.0	604

Non-Metals				
pH	-	std. units	0.10	7.81

Trace Metals				
Arsenic	As	mg/L	0.001	0.047
Barium	Ba	mg/L	0.10	0.14
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11413.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-7

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-7.1/97**
Laboratory ID:	**97-11476**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	181
Magnesium	Mg	mg/L	1.0	69.4
Sodium	Na	mg/L	1.0	232
Potassium	K	mg/L	1.0	5.3
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	411
Sulfate	SO_4	mg/L	1.0	39.0
Chloride	Cl	mg/L	1.0	666

Non-Metals				
pH	-	std. units	0.10	7.95

Trace Metals				
Arsenic	As	mg/L	0.001	0.007
Barium	Ba	mg/L	0.10	0.22
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	0.16
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11413.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-8

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-8.1/97**
Laboratory ID:	**97-11477**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	204
Magnesium	Mg	mg/L	1.0	42.5
Sodium	Na	mg/L	1.0	76.3
Potassium	K	mg/L	1.0	3.9
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	434
Sulfate	SO_4	mg/L	1.0	234
Chloride	Cl	mg/L	1.0	199

Non-Metals				
pH	-	std. units	0.10	7.84

Trace Metals				
Arsenic	As	mg/L	0.001	0.004
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	< 0.001
Silver	Ag	mg/L	0.01	< 0.01

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-9

LABORATORY ANALYSIS REPORT - Western Water Consultants

Sample ID:	**93007-9.1/97**
Laboratory ID:	**97-11478**
Sample Matrix:	**Water**
Sample Date:	**01-22-97**
Report Date:	**February 20, 1997**

Major Ions		Units	Detection Limit	Results
Calcium	Ca	mg/L	1.0	150
Magnesium	Mg	mg/L	1.0	32.2
Sodium	Na	mg/L	1.0	72.3
Potassium	K	mg/L	1.0	4.6
Carbonate	CO_3	mg/L	0.10	0
Bicarbonate	HCO_3	mg/L	0.10	245
Sulfate	SO_4	mg/L	1.0	131
Chloride	Cl	mg/L	1.0	229

Non-Metals				
pH	-	std. units	0.10	7.60

Trace Metals				
Arsenic	As	mg/L	0.001	0.006
Barium	Ba	mg/L	0.10	< 0.10
Cadmium	Cd	mg/L	0.01	< 0.01
Chromium	Cr	mg/L	0.05	< 0.05
Lead	Pb	mg/L	0.05	< 0.05
Mercury	Hg	mg/L	0.001	< 0.001
Selenium	Se	mg/L	0.001	0.003
Silver	Ag	mg/L	0.01	< 0.01

ll f:\reports\clients.97\west_wat.er\water\11474ioc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-1

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-22-97**
Sample ID:	**93007-1.1/97**	**Date Received:**	**01-23-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11413**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 11.0	U
Acenaphthylene	208-96-8	< 11.0	U
Anthracene	120-12-7	< 11.0	U
Benzo (a) Anthracene	56-55-3	< 11.0	U
Benzo (b) fluoranthene	205-99-2	< 11.0	U
Benzo (k) fluoranthene	207-08-9	< 11.0	U
Benzo (g,h,i) perylene	191-24-2	< 11.0	U
Benzo (a) pyrene	50-32-8	< 11.0	U
Chrysene	218-01-9	< 11.0	U
Dibenzo (a,h) anthracene	53-70-3	< 11.0	U
Fluoranthene	206-44-0	< 11.0	U
Fluorene	86-73-7	< 11.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 11.0	U
Naphthalene	91-20-3	< 11.0	U
Phenanthrene	85-01-8	< 11.0	U
Pyrene	129-00-0	< 11.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	113	70.7	62.6%	35 - 114
2-Fluorobiphenyl	113	75.3	66.6%	43 - 116
Terphenyl-d14	113	84.1	74.4%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11413xoc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-2

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-22-97**
Sample ID:	**93007-2.1/97**	**Date Received:**	**01-23-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11414**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 11.0	U
Acenaphthylene	208-96-8	< 11.0	U
Anthracene	120-12-7	< 11.0	U
Benzo (a) Anthracene	56-55-3	< 11.0	U
Benzo (b) fluoranthene	205-99-2	< 11.0	U
Benzo (k) fluoranthene	207-08-9	< 11.0	U
Benzo (g,h,i) perylene	191-24-2	< 11.0	U
Benzo (a) pyrene	50-32-8	< 11.0	U
Chrysene	218-01-9	< 11.0	U
Dibenzo (a,h) anthracene	53-70-3	< 11.0	U
Fluoranthene	206-44-0	< 11.0	U
Fluorene	86-73-7	< 11.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 11.0	U
Naphthalene	91-20-3	< 11.0	U
Phenanthrene	85-01-8	< 11.0	U
Pyrene	129-00-0	< 11.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	113	71.1	62.9%	35 - 114
2-Fluorobiphenyl	113	73.4	65.0%	43 - 116
Terphenyl-d14	113	80.0	70.8%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11413xoc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-3

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-22-97**
Sample ID:	**93007-3.1/97**	**Date Received:**	**01-23-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11415**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 11.0	U
Acenaphthylene	208-96-8	< 11.0	U
Anthracene	120-12-7	< 11.0	U
Benzo (a) Anthracene	56-55-3	< 11.0	U
Benzo (b) fluoranthene	205-99-2	< 11.0	U
Benzo (k) fluoranthene	207-08-9	< 11.0	U
Benzo (g,h,i) perylene	191-24-2	< 11.0	U
Benzo (a) pyrene	50-32-8	< 11.0	U
Chrysene	218-01-9	< 11.0	U
Dibenzo (a,h) anthracene	53-70-3	< 11.0	U
Fluoranthene	206-44-0	< 11.0	U
Fluorene	86-73-7	< 11.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 11.0	U
Naphthalene	91-20-3	< 11.0	U
Phenanthrene	85-01-8	< 11.0	U
Pyrene	129-00-0	< 11.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	113	72.9	64.5%	35 - 114
2-Fluorobiphenyl	113	69.6	61.6%	43 - 116
Terphenyl-d14	113	88.4	78.2%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11413xoc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-4

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-22-97**
Sample ID:	**93007-4.1/97**	**Date Received:**	**01-23-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11416**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 11.0	U
Acenaphthylene	208-96-8	< 11.0	U
Anthracene	120-12-7	< 11.0	U
Benzo (a) Anthracene	56-55-3	< 11.0	U
Benzo (b) fluoranthene	205-99-2	< 11.0	U
Benzo (k) fluoranthene	207-08-9	< 11.0	U
Benzo (g,h,i) perylene	191-24-2	< 11.0	U
Benzo (a) pyrene	50-32-8	< 11.0	U
Chrysene	218-01-9	< 11.0	U
Dibenzo (a,h) anthracene	53-70-3	< 11.0	U
Fluoranthene	206-44-0	< 11.0	U
Fluorene	86-73-7	< 11.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 11.0	U
Naphthalene	91-20-3	< 11.0	U
Phenanthrene	85-01-8	< 11.0	U
Pyrene	129-00-0	< 11.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	113	76.1	67.3%	35 - 114
2-Fluorobiphenyl	113	79.9	70.7%	43 - 116
Terphenyl-d14	113	87.2	77.2%	33 - 141

Report Approved by:

Reviewed by:

pjm f:\reports\clients.97\west_wat.er\water\11413xoc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-5

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-23-97**
Sample ID:	**93007-5.1/97**	**Date Received:**	**01-24-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11474**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 11.0	U
Acenaphthylene	208-96-8	< 11.0	U
Anthracene	120-12-7	< 11.0	U
Benzo (a) Anthracene	56-55-3	< 11.0	U
Benzo (b) fluoranthene	205-99-2	< 11.0	U
Benzo (k) fluoranthene	207-08-9	< 11.0	U
Benzo (g,h,i) perylene	191-24-2	< 11.0	U
Benzo (a) pyrene	50-32-8	< 11.0	U
Chrysene	218-01-9	< 11.0	U
Dibenzo (a,h) anthracene	53-70-3	< 11.0	U
Fluoranthene	206-44-0	< 11.0	U
Fluorene	86-73-7	< 11.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 11.0	U
Naphthalene	91-20-3	< 11.0	U
Phenanthrene	85-01-8	< 11.0	U
Pyrene	129-00-0	< 11.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	110	81.1	73.7%	35 - 114
2-Fluorobiphenyl	110	77.5	70.5%	43 - 116
Terphenyl-d14	110	88.3	80.3%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11474soc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

Duplicate of MW-5

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-23-97**
Sample ID:	**93007-A.1/97**	**Date Received:**	**01-24-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11479**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 12.0	U
Acenaphthylene	208-96-8	< 12.0	U
Anthracene	120-12-7	< 12.0	U
Benzo (a) Anthracene	56-55-3	< 12.0	U
Benzo (b) fluoranthene	205-99-2	< 12.0	U
Benzo (k) fluoranthene	207-08-9	< 12.0	U
Benzo (g,h,i) perylene	191-24-2	< 12.0	U
Benzo (a) pyrene	50-32-8	< 12.0	U
Chrysene	218-01-9	< 12.0	U
Dibenzo (a,h) anthracene	53-70-3	< 12.0	U
Fluoranthene	206-44-0	< 12.0	U
Fluorene	86-73-7	< 12.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 12.0	U
Naphthalene	91-20-3	< 12.0	U
Phenanthrene	85-01-8	< 12.0	U
Pyrene	129-00-0	< 12.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	120	92.0	76.7%	35 - 114
2-Fluorobiphenyl	120	90.5	75.4%	43 - 116
Terphenyl-d14	120	51.7	43.1%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11474soc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-6

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-23-97**
Sample ID:	**93007-6.1/97**	**Date Received:**	**01-24-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11475**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 12.0	U
Acenaphthylene	208-96-8	< 12.0	U
Anthracene	120-12-7	< 12.0	U
Benzo (a) Anthracene	56-55-3	< 12.0	U
Benzo (b) fluoranthene	205-99-2	< 12.0	U
Benzo (k) fluoranthene	207-08-9	< 12.0	U
Benzo (g,h,i) perylene	191-24-2	< 12.0	U
Benzo (a) pyrene	50-32-8	< 12.0	U
Chrysene	218-01-9	< 12.0	U
Dibenzo (a,h) anthracene	53-70-3	< 12.0	U
Fluoranthene	206-44-0	< 12.0	U
Fluorene	86-73-7	< 12.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 12.0	U
Naphthalene	91-20-3	< 12.0	U
Phenanthrene	85-01-8	< 12.0	U
Pyrene	129-00-0	< 12.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	115	90.4	78.6%	35 - 114
2-Fluorobiphenyl	115	90.4	78.6%	43 - 116
Terphenyl-d14	115	105	91.3%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11474soc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-7

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-23-97**
Sample ID:	**93007-7.1/97**	**Date Received:**	**01-24-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11476**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 11.0	U
Acenaphthylene	208-96-8	< 11.0	U
Anthracene	120-12-7	< 11.0	U
Benzo (a) Anthracene	56-55-3	< 11.0	U
Benzo (b) fluoranthene	205-99-2	< 11.0	U
Benzo (k) fluoranthene	207-08-9	< 11.0	U
Benzo (g,h,i) perylene	191-24-2	< 11.0	U
Benzo (a) pyrene	50-32-8	< 11.0	U
Chrysene	218-01-9	< 11.0	U
Dibenzo (a,h) anthracene	53-70-3	< 11.0	U
Fluoranthene	206-44-0	< 11.0	U
Fluorene	86-73-7	< 11.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 11.0	U
Naphthalene	91-20-3	< 11.0	U
Phenanthrene	85-01-8	< 11.0	U
Pyrene	129-00-0	< 11.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	110	91.4	83.1%	35 - 114
2-Fluorobiphenyl	110	85.7	77.9%	43 - 116
Terphenyl-d14	110	66.3	60.3%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11474soc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-8

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-23-97**
Sample ID:	**93007-8.1/97**	**Date Received:**	**01-24-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11477**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 12.0	U
Acenaphthylene	208-96-8	< 12.0	U
Anthracene	120-12-7	< 12.0	U
Benzo (a) Anthracene	56-55-3	< 12.0	U
Benzo (b) fluoranthene	205-99-2	< 12.0	U
Benzo (k) fluoranthene	207-08-9	< 12.0	U
Benzo (g,h,i) perylene	191-24-2	< 12.0	U
Benzo (a) pyrene	50-32-8	< 12.0	U
Chrysene	218-01-9	< 12.0	U
Dibenzo (a,h) anthracene	53-70-3	< 12.0	U
Fluoranthene	206-44-0	< 12.0	U
Fluorene	86-73-7	< 12.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 12.0	U
Naphthalene	91-20-3	< 12.0	U
Phenanthrene	85-01-8	< 12.0	U
Pyrene	129-00-0	< 12.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	118	78.8	66.8%	35 - 114
2-Fluorobiphenyl	118	80.5	68.2%	43 - 116
Terphenyl-d14	118	62.4	52.9%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11474soc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-9

LABORATORY ANALYSIS REPORT - SEMI-VOLATILE ORGANICS

Client:	**Western Water Consultants**	**Sample Date:**	**01-23-97**
Sample ID:	**93007-9.1/97**	**Date Received:**	**01-24-97**
Description:	**Water**	**Analysis Date:**	**02-06-97**
Laboratory ID:	**97-11478**	**Report Date:**	**February 20, 1997**
EPA Method:	**8270**	**Analyst:**	**ELI-B**

Constituent	CAS #	Results (µg/L)	Qualifier Code
Acenaphthene	83-32-9	< 12.0	U
Acenaphthylene	208-96-8	< 12.0	U
Anthracene	120-12-7	< 12.0	U
Benzo (a) Anthracene	56-55-3	< 12.0	U
Benzo (b) fluoranthene	205-99-2	< 12.0	U
Benzo (k) fluoranthene	207-08-9	< 12.0	U
Benzo (g,h,i) perylene	191-24-2	< 12.0	U
Benzo (a) pyrene	50-32-8	< 12.0	U
Chrysene	218-01-9	< 12.0	U
Dibenzo (a,h) anthracene	53-70-3	< 12.0	U
Fluoranthene	206-44-0	< 12.0	U
Fluorene	86-73-7	< 12.0	U
Indeno (1 2 3-cd) pyrene	193-39-5	< 12.0	U
Naphthalene	91-20-3	< 12.0	U
Phenanthrene	85-01-8	< 12.0	U
Pyrene	129-00-0	< 12.0	U

SURROGATE RECOVERY REPORT

Surrogate	Added µg/L	Measured µg/L	% Recovery	QC Limits
Nitrobenzene-d5	120	104	86.7%	35 - 114
2-Fluorobiphenyl	120	100	83.3%	43 - 116
Terphenyl-d14	120	72.2	60.2%	33 - 141

Report Approved by:

Reviewed by:

pim f:\reports\clients.97\west_wat.er\water\11474soc.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

TPH AS DIESEL FUEL
EPA 8015 - MODIFIED CALIFORNIA METHOD
ANALYTICAL RESULTS

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Project:	93007	Date Received:	01/23/97
Matrix:	Water	Date Reported:	February 20, 1997

TPH AS DIESEL FUEL

Date of sample(s) extraction : 01/27/97 *Extraction by:* ELIR - sr

Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
MW-1 C97 - 11413	93007-1.1/97	ND	1.0	02/03/97
MW-2 C97 - 11414	93007-2.1/97	ND	1.0	02/03/97
MW-3 C97 - 11415	93007-3.1/97	**1.2**	1.0	02/03/97
MW-4 C97 - 11416	93007-4.1/97	ND	1.0	02/03/97

QUALITY ASSURANCE REPORT

Standard Addition Analysis (spike):

Laboratory ID	Sample ID	Spike amount, mg/L	Original Response, mg/L	Result Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
C97 - 11825 S	Spike	8.00	ND	8.55	107%	60 - 140	02/03/97
C97 - 11825 SD	Spike Duplicate	8.00	ND	8.87	111%	60 - 140	02/03/97
Duplicate RPD:					*3.7%*	0 - 20	

LC / QCS Standards:

Laboratory ID	Sample ID	Observed Response, mg/L	Expected Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
6240 QCS	ERA #40002	5.1	6.2	81.3	60 - 140	02/03/97
5000 LC	DRO STD	5.4	5.0	107	70 - 130	02/03/97

Method 8015 Blank Analysis:

Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
MB0129	Method Blank	ND	1.0	02/03/97

ND - Analyte not detected at stated limit of detection

Report Approved By: _____

Report File: F:\REPORTS\CLIENTS 97\WEST_WAT.ER\ORGANIC.CAS\97_11413.xls

Analyst: ELIR - sr
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8015 (Modified),TPH GRO

ANALYTICAL RESULTS

Client: **Western Water Consultants**
Project: N/A
Matrix: Water

Date Sampled: 01/22/97
Date Received: 01/23/97
Date Reported: February 2, 1997

GASOLINE RANGE ORGANICS CONCENTRATION: 8015 TPH GRO

Laboratory ID	Sample ID	GRO mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
MW-1 C97 - 11413	93007-1.1/97	**< 0.02**	95	80 - 120 %	01/24/97
MW-2 C97 - 11414	93007-2.1/97	**0.213**	93	80 - 120 %	01/24/97
MW-3 C97 - 11415	93007-3.1/97	**0.057**	95	80 - 120 %	01/24/97
MW-4 C97 - 11416	93007-4.1/97	**0.672**	99	80 - 120 %	01/24/97

QUALITY ASSURANCE REPORT: 8015 GRO

MATRIX SPIKE ANALYSIS

Laboratory ID	GRO Recovery, %	GRO Dup Recovery, %	Acceptance range, %	RPD, %	Acceptance range, %	Date Analyzed
C97 - 11416 S	64%	64%	40 - 80 %	**0.2%**	0 - 10 %	01/24/97

METHOD BLANK

Laboratory ID	Sample ID	GRO mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
MB0123	Blank	< 0.02	103	80 - 120 %	01/23/97

Continuing Calibration and Second Source Checks

Laboratory ID	GRO Recovery, %	Acceptance range, %	Date Analyzed	Laboratory ID	GRO Recovery, %	Acceptance range, %
cc GRO CK STD	105%	75 - 125 %	01/23/97	lc GRO CK STD	63%	40 - 80 %

ND - Analyte not detected at stated limit of detection

Report Approved By: R.A. Lindsay

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_11413.xls

Analyst: wd
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

TPH AS DIESEL FUEL
EPA 8015 - MODIFIED CALIFORNIA METHOD
ANALYTICAL RESULTS

Client: **Western Water Consultants**
Project: 93007
Matrix: Water

Date Sampled: 01/23/97
Date Received: 01/24/97
Date Reported: February 20, 1997

TPH AS DIESEL FUEL

Date of sample(s) extraction : 01/29/97 *Extraction by:* ELIR - sr

Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
mw-5 C97 - 11474	93007-5.1/97	**ND**	1.0	02/03/97
mw-6 C97 - 11475	93007-6.1/97	**ND**	1.0	02/03/97
mw-7 C97 - 11476	93007-7.1/97	**ND**	1.0	02/03/97
mw-8 C97 - 11477	93007-8.1/97	**ND**	1.0	02/03/97
mw-9 C97 - 11478	93007-9.1/97	**ND**	1.0	02/03/97
uplicate C97 - 11479 mw-5	93007-A.1/97	**ND**	1.0	02/03/97

QUALITY ASSURANCE REPORT

Standard Addition Analysis (spike):

Laboratory ID	Sample ID	Spike amount, mg/L	Original Response, mg/L	Result Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
C97 - 11825 S	Spike	8.00	ND	8.55	**107%**	60 - 140	02/03/97
C97 - 11825 SD	Spike Duplicate	8.00	ND	8.87	**111%**	60 - 140	02/03/97
Duplicate RPD:					*3.7%*	0 - 20	

LC / QCS Standards:

Laboratory ID	Sample ID	Observed Response, mg/L	Expected Response, mg/L	Recovery %	Acceptance Range, %	Date Analyzed
6240 QCS	ERA #40002	5.1	6.2	**81.3**	60 - 140	02/03/97
5000 LC	DRO STD	5.4	5.0	**107**	70 - 130	02/03/97

Method 8015 Blank Analysis:

Laboratory ID	Sample ID	Concentration mg/L	Detection Limit, mg/L	Date Analyzed
MB0129	Method Blank	**ND**	1.0	02/03/97

ND - Analyte not detected at stated limit of detection

Report Approved By:

Analyst: ELIR - sr
Reviewed: sec

Report File F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_11474.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8015 (Modified),TPH GRO

ANALYTICAL RESULTS

Client: **Western Water Consultants**
Project: N/A
Matrix: Water

Date Sampled: 01/22/97
Date Received: 01/23/97
Date Reported: February 2, 1997

GASOLINE RANGE ORGANICS CONCENTRATION: 8015 TPH GRO

Laboratory ID	Sample ID	GRO mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
mw-5 C97 - 11474	93007-5.1/97	**0.146**	91	80 - 120 %	01/24/97
mw-6 C97 - 11475	93007-6.1/97	**0.033**	89	80 - 120 %	01/24/97
mw-7 C97 - 11476	93007-7.1/97	**0.089**	98	80 - 120 %	01/24/97
mw-8 C97 - 11477	93007-8.1/97	**0.369**	88	80 - 120 %	01/24/97
mw-9 C97 - 11478	93007-9.1/97	**0.055**	83	80 - 120 %	01/24/97
duplicate mw-5 C97 - 11479	93007-A.1/97	**0.136**	97	80 - 120 %	01/24/97

QUALITY ASSURANCE REPORT: 8015 GRO

MATRIX SPIKE ANALYSIS

Laboratory ID	GRO Recovery, %	GRO Dup Recovery, %	Acceptance range, %	RPD, %	Acceptance range, %	Date Analyzed
C97 - 11480 S	63%	63%	40 - 80 %	0.1%	0 - 10 %	01/25/97

METHOD BLANK

Laboratory ID	Sample ID	GRO mg/L	Surrogate Recovery: ααα-Trifluoro-toluene	Surrogate Recovery: Acceptance range, %	Date Analyzed
MB0124	Blank	< 0.02	103	80 - 120 %	01/24/97

Continuing Calibration and Second Source Checks

Laboratory ID	GRO Recovery, %	Acceptance range, %	Date Analyzed	Laboratory ID	GRO Recovery, %	Acceptance range, %
cc GRO CK STD	108%	75 - 125 %	01/24/97	lc GRO CK STD	62%	40 - 80 %

ND - Analyte not detected at stated limit of detection

Report Approved By: P.A. Scarbury

Report File: 97_11474.xls

Analyst: wd
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-1

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-1.1/97	Date Sampled:	01/22/97
Laboratory ID:	C97-11413	Date Received:	01/23/97
Matrix:	Water	Date Analyzed:	01/24/97
Dilution Factor:	1	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**5.74**	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**1.86**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

MW-1

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-1.1/97	Date Analyzed:	01/24/97
Laboratory ID:	C97-11413	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	625525	682321	91.7%	50 - 200 %
Fluorobenzene	1745846	1789599	97.6%	50 - 200 %
1,4 - Difluorobenzene	1515940	1550524	97.8%	50 - 200 %
Chlorobenzene - d5	1110154	1170774	94.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	359275	451277	79.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.6	116%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.91	99.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.6	106%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_11413.xls

Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-2

EPA METHOD 8260

Client:	Western Water Consultants		
Sample ID:	93007-2.1/97	Date Sampled:	01/22/97
Laboratory ID:	C97-11414	Date Received:	01/23/97
Matrix:	Water	Date Analyzed:	01/24/97
Dilution Factor:	5	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	5.0
74-87-3	Chloromethane	ND	5.0
75-01-4	Vinyl chloride (Chloroethene)	ND	5.0
74-83-9	Bromomethane	ND	5.0
75-00-3	Chloroethane	ND	5.0
75-69-4	Trichlorofluoromethane	ND	5.0
75-35-4	**1,1 - Dichloroethene**	**11.0**	5.0
75-09-2	Methylene chloride (Dichloromethane)	ND	5.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	5.0
75-34-3	**1,1 - Dichloroethane**	**81.5**	5.0
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	**1,1,1 - Trichloroethane**	**82.8**	5.0
107-06-2	1,2 - Dichloroethane	ND	5.0
563-58-6	1,1 - Dichloropropene	ND	5.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	5.0
71-43-2	**Benzene**	**18.7**	5.0
74-95-3	Dibromomethane	ND	5.0
78-87-5	1,2 - Dichloropropane	ND	5.0
79-01-6	Trichloroethene	ND	5.0
75-27-4	Bromodichloromethane	ND	5.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	5.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	5.0
79-00-5	1,1,2 - Trichloroethane	ND	5.0
108-88-3	**Toluene**	**14.1**	5.0
106-93-4	1,2 - Dibromoethane	ND	5.0
142-28-9	1,3 - Dichloropropane	ND	5.0
124-48-1	Dibromochloromethane	ND	5.0
127-18-4	**Tetrachloroethene**	**16.6**	5.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	5.0
108-90-7	Chlorobenzene	ND	5.0
100-41-4	**Ethylbenzene**	**9.45**	5.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**10.6**	10.0
75-25-2	Bromoform (Tribromomethane)	ND	5.0
100-42-5	Styrene (Ethenylbenzene)	ND	5.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**5.20**	5.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	5.0
96-18-4	1,2,3 - Trichloropropane	ND	5.0

ND - Analyte not detected at stated limit of detection

mw-2

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-2.1/97	Date Analyzed:	01/24/97
Laboratory ID:	C97-11414	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		5.0
108-86-1	Bromobenzene	ND		5.0
103-65-1	n - Propylbenzene	ND		5.0
95-49-8	2 - Chlorotoluene	ND		5.0
106-43-4	4 - Chlorotoluene	ND		5.0
108-67-8	**1,3,5 - Trimethylbenzene**	**3.65**	**J**	5.0
98-06-6	tert - Butylbenzene	ND		5.0
95-63-6	**1,2,4 - Trimethylbenzene**	**2.95**	**J**	5.0
135-98-8	sec - Butylbenzene	ND		5.0
541-73-1	1,3 - Dichlorobenzene	ND		5.0
106-46-7	1,4 - Dichlorobenzene	ND		5.0
99-87-6	4-Isopropyltoluene	ND		5.0
95-50-1	1,2 - Dichlorobenzene	ND		5.0
104-51-8	n - Butylbenzene	ND		5.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		25.0
120-82-1	1,2,4 - Trichlorobenzene	ND		5.0
91-20-3	Naphthalene	ND		5.0
87-68-3	Hexachlorobutadiene	ND		5.0
87-61-6	1,2 3 - Trichlorobenzene	ND		5.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	666696	682321	97.7%	50 - 200 %
Fluorobenzene	1695939	1789599	94.8%	50 - 200 %
1,4 - Difluorobenzene	1455296	1550524	93.9%	50 - 200 %
Chlorobenzene - d5	1082247	1170774	92.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	374263	451277	82.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.2	112%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

Report File: F:\REPORTS\CLIENTS 97\WEST_WAT.ER\ORGANIC.CAS\97_11413.xls

Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-3

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-3.1/97	Date Sampled:	01/22/97
Laboratory ID:	C97-11415	Date Received:	01/23/97
Matrix:	Water	Date Analyzed:	01/24/97
Dilution Factor:	2	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		2.0
74-87-3	Chloromethane	ND		2.0
75-01-4	Vinyl chloride (Chloroethene)	ND		2.0
74-83-9	Bromomethane	ND		2.0
75-00-3	Chloroethane	ND		2.0
75-69-4	Trichlorofluoromethane	ND		2.0
75-35-4	**1,1 - Dichloroethene**	**9.92**		2.0
75-09-2	Methylene chloride (Dichloromethane)	ND		2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		2.0
75-34-3	**1,1 - Dichloroethane**	**26.7**		2.0
78-93-3	2 -Butanone (MEK)	ND		20.0
156-59-2	cis - 1,2 - Dichloroethene	ND		2.0
74-97-5	Bromochloromethane	ND		2.0
67-66-3	**Chloroform (Trichloromethane)**	**1.86**	J	2.0
594-20-7	2,2 - Dichloropropane	ND		2.0
71-55-6	**1,1,1 - Trichloroethane**	**14.4**		2.0
107-06-2	1,2 - Dichloroethane	ND		2.0
563-58-6	1,1 - Dichloropropene	ND		2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		2.0
71-43-2	Benzene	ND		2.0
74-95-3	Dibromomethane	ND		2.0
78-87-5	1,2 - Dichloropropane	ND		2.0
79-01-6	Trichloroethene	ND		2.0
75-27-4	Bromodichloromethane	ND		2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		2.0
79-00-5	1,1,2 - Trichloroethane	ND		2.0
108-88-3	Toluene	ND		2.0
106-93-4	1,2 - Dibromoethane	ND		2.0
142-28-9	1,3 - Dichloropropane	ND		2.0
124-48-1	Dibromochloromethane	ND		2.0
127-18-4	**Tetrachloroethene**	**16.1**		2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		2.0
108-90-7	Chlorobenzene	ND		2.0
100-41-4	Ethylbenzene	ND		2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		4.0
75-25-2	Bromoform (Tribromomethane)	ND		2.0
100-42-5	Styrene (Ethenylbenzene)	ND		2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		2.0
96-18-4	1,2,3 - Trichloropropane	ND		2.0

ND - Analyte not detected at stated limit of detection

mw-3

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-3.1/97	Date Analyzed:	01/24/97
Laboratory ID:	C97-11415	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	678612	682321	99.5%	50 - 200 %
Fluorobenzene	1730991	1789599	96.7%	50 - 200 %
1,4 - Difluorobenzene	1498472	1550524	96.6%	50 - 200 %
Chlorobenzene - d5	1105160	1170774	94.4%	50 - 200 %
1,4 - Dichlorobenzene - d4	367116	451277	81.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.2	112%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.97	99.7%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_11413.xls

Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-4

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-4.1/97	Date Sampled:	01/22/97
Laboratory ID:	C97-11416	Date Received:	01/23/97
Matrix:	Water	Date Analyzed:	01/24/97
Dilution Factor:	50	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		50.0
74-87-3	Chloromethane	ND		50.0
75-01-4	Vinyl chloride (Chloroethene)	ND		50.0
74-83-9	Bromomethane	ND		50.0
75-00-3	Chloroethane	ND		50.0
75-69-4	Trichlorofluoromethane	ND		50.0
75-35-4	**1,1 - Dichloroethene**	**509**		50.0
75-09-2	Methylene chloride (Dichloromethane)	ND		50.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		50.0
75-34-3	**1,1 - Dichloroethane**	**89.2**		50.0
78-93-3	2 -Butanone (MEK)	ND		500
156-59-2	cis - 1,2 - Dichloroethene	ND		50.0
74-97-5	Bromochloromethane	ND		50.0
67-66-3	**Chloroform (Trichloromethane)**	**30.7**	J	50.0
594-20-7	2,2 - Dichloropropane	ND		50.0
71-55-6	**1,1,1 - Trichloroethane**	**557**		50.0
107-06-2	**1,2 - Dichloroethane**	**36.8**	J	50.0
563-58-6	1,1 - Dichloropropene	ND		50.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		50.0
71-43-2	Benzene	ND		50.0
74-95-3	Dibromomethane	ND		50.0
78-87-5	1,2 - Dichloropropane	ND		50.0
79-01-6	Trichloroethene	ND		50.0
75-27-4	Bromodichloromethane	ND		50.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		50.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		50.0
79-00-5	1,1,2 - Trichloroethane	ND		50.0
108-88-3	Toluene	ND		50.0
106-93-4	1,2 - Dibromoethane	ND		50.0
142-28-9	1,3 - Dichloropropane	ND		50.0
124-48-1	Dibromochloromethane	ND		50.0
127-18-4	**Tetrachloroethene**	**3,100**		50.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		50.0
108-90-7	Chlorobenzene	ND		50.0
100-41-4	Ethylbenzene	ND		50.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		100
75-25-2	Bromoform (Tribromomethane)	ND		50.0
100-42-5	Styrene (Ethenylbenzene)	ND		50.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		50.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		50.0
96-18-4	1,2,3 - Trichloropropane	ND		50.0

ND - Analyte not detected at stated limit of detection

MW-4

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-4.1/97	Date Analyzed:	01/24/97
Laboratory ID:	C97-11416	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	50.0
108-86-1	Bromobenzene	ND	50.0
103-65-1	n - Propylbenzene	ND	50.0
95-49-8	2 - Chlorotoluene	ND	50.0
106-43-4	4 - Chlorotoluene	ND	50.0
108-67-8	1,3,5 - Trimethylbenzene	ND	50.0
98-06-6	tert - Butylbenzene	ND	50.0
95-63-6	1,2,4 - Trimethylbenzene	ND	50.0
135-98-8	sec - Butylbenzene	ND	50.0
541-73-1	1,3 - Dichlorobenzene	ND	50.0
106-46-7	1,4 - Dichlorobenzene	ND	50.0
99-87-6	4-Isopropyltoluene	ND	50.0
95-50-1	1,2 - Dichlorobenzene	ND	50.0
104-51-8	n - Butylbenzene	ND	50.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	250
120-82-1	1,2,4 - Trichlorobenzene	ND	50.0
91-20-3	Naphthalene	ND	50.0
87-68-3	Hexachlorobutadiene	ND	50.0
87-61-6	1,2 3 - Trichlorobenzene	ND	50.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	628660	682321	92.1%	50 - 200 %
Fluorobenzene	1666704	1789599	93.1%	50 - 200 %
1,4 - Difluorobenzene	1453998	1550524	93.8%	50 - 200 %
Chlorobenzene - d5	1234486	1170774	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	423520	451277	93.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.1	111%	86 - 118 %
Toluene - d8	10.5	105%	88 - 110 %
4 - Bromofluorobenzene	10.6	106%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.74	97.4%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_11413.xls

Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-5

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-5.1/97	Date Sampled:	01/22/97
Laboratory ID:	C97-11474	Date Received:	01/31/97
Matrix:	Water	Date Analyzed:	02/04/97
Dilution Factor:	1	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**20**		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**180**		1.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	**Chloroform (Trichloromethane)**	**1.9**		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	**1,1,1 - Trichloroethane**	**36**		1.0
107-06-2	**1,2 - Dichloroethane**	**1.5**		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	**Benzene**	**18**		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	**Trichloroethene**	**0.8**	J	1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	**1,1,2 - Trichloroethane**	**1.9**		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**12**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	**Ethylbenzene**	**3.7**		1.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**0.8**	J	2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

MW-5

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/22/97
Sample ID:	93007-5.1/97	Date Analyzed:	02/04/97
Laboratory ID:	C97-11474	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		1.0
108-86-1	Bromobenzene	ND		1.0
103-65-1	n - Propylbenzene	ND		1.0
95-49-8	2 - Chlorotoluene	ND		1.0
106-43-4	4 - Chlorotoluene	ND		1.0
108-67-8	**1,3,5 - Trimethylbenzene**	**0.4**	**J**	1.0
98-06-6	tert - Butylbenzene	ND		1.0
95-63-6	**1,2,4 - Trimethylbenzene**	**0.6**	**J**	1.0
135-98-8	sec - Butylbenzene	ND		1.0
541-73-1	1,3 - Dichlorobenzene	ND		1.0
106-46-7	**1,4 - Dichlorobenzene**	**0.5**	**J**	1.0
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND		1.0
95-50-1	1,2 - Dichlorobenzene	ND		1.0
104-51-8	n - Butylbenzene	ND		1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		5.0
120-82-1	1,2,4 - Trichlorobenzene	ND		1.0
91-20-3	Naphthalene	ND		1.0
87-68-3	Hexachlorobutadiene	ND		1.0
87-61-6	1,2 3 - Trichlorobenzene	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

Runtime Quality Assurance Report

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Bromochloromethane - d2	8899	10739	82.9%	50 - 200 %
Fluorobenzene	219346	267021	82.1%	50 - 200 %
Chlorobenzene - d5	119720	147423	81.2%	50 - 200 %
1,2 - Dichlorobenzene - d4	29896	40445	73.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
1,2-Dichloroethane - d4	10.4	104%	80 - 120 %
Toluene - d8	10.8	108%	80 - 120 %
4 - Bromofluorobenzene	10.8	108%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: rh

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.RAP\97_11474.xls

Reviewed: krs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

Duplicate of MW-5

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-A.1/97	Date Sampled:	01/23/97
Laboratory ID:	C97-11479	Date Received:	01/31/97
Matrix:	Water	Date Analyzed:	02/04/97
Dilution Factor:	1	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**18**		1.0
75-09-2	**Methylene chloride (Dichloromethane)**	**0.4**	**J**	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**190**		1.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	**Chloroform (Trichloromethane)**	**2.0**		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	**1,1,1 - Trichloroethane**	**34**		1.0
107-06-2	**1,2 - Dichloroethane**	**1.9**		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	**Benzene**	**18**		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	**Trichloroethene**	**0.7**	**J**	1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	**1,1,2 - Trichloroethane**	**2.1**		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**9.2**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	**Ethylbenzene**	**3.5**		1.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**1.0**		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

Duplicate of MW-5

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-A.1/97	Date Analyzed:	02/04/97
Laboratory ID:	C97-11479	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		1.0
108-86-1	Bromobenzene	ND		1.0
103-65-1	n - Propylbenzene	ND		1.0
95-49-8	2 - Chlorotoluene	ND		1.0
106-43-4	4 - Chlorotoluene	ND		1.0
108-67-8	1,3,5 - Trimethylbenzene	ND		1.0
98-06-6	tert - Butylbenzene	ND		1.0
95-63-6	**1,2,4 - Trimethylbenzene**	**1.3**		1.0
135-98-8	sec - Butylbenzene	ND		1.0
541-73-1	1,3 - Dichlorobenzene	ND		1.0
106-46-7	**1,4 - Dichlorobenzene**	**0.4**	J	1.0
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND		1.0
95-50-1	1,2 - Dichlorobenzene	ND		1.0
104-51-8	n - Butylbenzene	ND		1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		5.0
120-82-1	1,2,4 - Trichlorobenzene	ND		1.0
91-20-3	**Naphthalene**	**4.1**		1.0
87-68-3	Hexachlorobutadiene	ND		1.0
87-61-6	1,2 3 - Trichlorobenzene	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

Runtime Quality Assurance Report

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Bromochloromethane - d2	10541	10739	98.2%	50 - 200 %
Fluorobenzene	238199	267021	89.2%	50 - 200 %
Chlorobenzene - d5	136105	147423	92.3%	50 - 200 %
1,2 - Dichlorobenzene - d4	42300	40445	105%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
1,2-Dichloroethane - d4	11.7	117%	80 - 120 %
Toluene - d8	9.98	99.8%	80 - 120 %
4 - Bromofluorobenzene	9.38	93.8%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: rh

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.RAP\97_11474.xls

Reviewed: krs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

MW-6

Client:	**Western Water Consultants**		
Sample ID:	93007-6.1/97	Date Sampled:	01/23/97
Laboratory ID:	C97-11475	Date Received:	01/31/97
Matrix:	Water	Date Analyzed:	02/04/97
Dilution Factor:	1	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**4.4**		1.0
75-09-2	**Methylene chloride (Dichloromethane)**	**0.5**	J	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**41**		1.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	**Chloroform (Trichloromethane)**	**1.5**		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	**1,1,1 - Trichloroethane**	**3.8**		1.0
107-06-2	**1,2 - Dichloroethane**	**1.2**		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	**Benzene**	**0.8**	J	1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	ND		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	**1,1,2 - Trichloroethane**	**1.2**		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**2.5**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

MW-6

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-6.1/97	Date Analyzed:	02/04/97
Laboratory ID:	C97-11475	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		1.0
108-86-1	Bromobenzene	ND		1.0
103-65-1	n - Propylbenzene	ND		1.0
95-49-8	2 - Chlorotoluene	ND		1.0
106-43-4	4 - Chlorotoluene	ND		1.0
108-67-8	1,3,5 - Trimethylbenzene	ND		1.0
98-06-6	tert - Butylbenzene	ND		1.0
95-63-6	1,2,4 - Trimethylbenzene	ND		1.0
135-98-8	sec - Butylbenzene	ND		1.0
541-73-1	1,3 - Dichlorobenzene	ND		1.0
106-46-7	**1,4 - Dichlorobenzene**	**0.4**	**J**	1.0
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND		1.0
95-50-1	1,2 - Dichlorobenzene	ND		1.0
104-51-8	n - Butylbenzene	ND		1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		5.0
120-82-1	1,2,4 - Trichlorobenzene	ND		1.0
91-20-3	**Naphthalene**	**0.9**	**J**	1.0
87-68-3	Hexachlorobutadiene	ND		1.0
87-61-6	1,2 3 - Trichlorobenzene	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

Runtime Quality Assurance Report

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Bromochloromethane - d2	9719	10739	90.5%	50 - 200 %
Fluorobenzene	228339	267021	85.5%	50 - 200 %
Chlorobenzene - d5	123021	147423	83.4%	50 - 200 %
1,2 - Dichlorobenzene - d4	35698	40445	88.3%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
1,2-Dichloroethane - d4	12.0	120%	80 - 120 %
Toluene - d8	10.5	105%	80 - 120 %
4 - Bromofluorobenzene	9.25	92.5%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: rh

Report File. F:\REPORTS\CLIENTS 97\WEST_WAT.ER\ORGANIC.RAP\97_11474.xls

Reviewed: krs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-7

EPA METHOD 8260

Client:	Western Water Consultants		
Sample ID:	93007-7.1/97	Date Sampled:	01/23/97
Laboratory ID:	C97-11476	Date Received:	01/31/97
Matrix:	Water	Date Analyzed:	02/04/97
Dilution Factor:	1	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**9.3**		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**47**		1.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	ND		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	1,1,1 - Trichloroethane	ND		1.0
107-06-2	**1,2 - Dichloroethane**	**0.9**	**J**	1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	**Benzene**	**0.6**	**J**	1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	**Trichloroethene**	**3.8**		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	**1,1,2 - Trichloroethane**	**2.3**		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**14**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	**Chlorobenzene**	**0.6**	**J**	1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**1.0**		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

MW-7

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-7.1/97	Date Analyzed:	02/04/97
Laboratory ID:	C97-11476	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		1.0
108-86-1	Bromobenzene	ND		1.0
103-65-1	n - Propylbenzene	ND		1.0
95-49-8	2 - Chlorotoluene	ND		1.0
106-43-4	4 - Chlorotoluene	ND		1.0
108-67-8	1,3,5 - Trimethylbenzene	ND		1.0
98-06-6	tert - Butylbenzene	ND		1.0
95-63-6	1,2,4 - Trimethylbenzene	ND		1.0
135-98-8	sec - Butylbenzene	ND		1.0
541-73-1	1,3 - Dichlorobenzene	ND		1.0
106-46-7	**1,4 - Dichlorobenzene**	**0.4**	**J**	1.0
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND		1.0
95-50-1	1,2 - Dichlorobenzene	ND		1.0
104-51-8	n - Butylbenzene	ND		1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		5.0
120-82-1	1,2,4 - Trichlorobenzene	ND		1.0
91-20-3	**Naphthalene**	**13**		1.0
87-68-3	Hexachlorobutadiene	ND		1.0
87-61-6	1,2 3 - Trichlorobenzene	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

Runtime Quality Assurance Report

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Bromochloromethane - d2	10776	10739	100%	50 - 200 %
Fluorobenzene	268270	267021	100%	50 - 200 %
Chlorobenzene - d5	122543	147423	83.1%	50 - 200 %
1,2 - Dichlorobenzene - d4	41829	40445	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
1,2-Dichloroethane - d4	11.4	114%	80 - 120 %
Toluene - d8	10.1	101%	80 - 120 %
4 - Bromofluorobenzene	8.39	83.9%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: rh

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT ER\ORGANIC.RAP\97_11474.xls

Reviewed: _____

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

mw-8

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-8.1/97	Date Sampled:	01/23/97
Laboratory ID:	C97-11477	Date Received:	01/31/97
Matrix:	Water	Date Analyzed:	02/04/97
Dilution Factor:	10	Date Reported:	February 6, 1997
		Date Revised:	February 25, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		10.0
74-87-3	Chloromethane	ND		10.0
75-01-4	Vinyl chloride (Chloroethene)	ND		10.0
74-83-9	Bromomethane	ND		10.0
75-00-3	Chloroethane	ND		10.0
75-69-4	Trichlorofluoromethane	ND		10.0
75-35-4	**1,1 - Dichloroethene**	**280**		10.0
75-09-2	Methylene chloride (Dichloromethane)	ND		10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		10.0
75-34-3	**1,1 - Dichloroethane**	**68**		10.0
156-59-2	cis - 1,2 - Dichloroethene	ND		10.0
74-97-5	Bromochloromethane	ND		10.0
67-66-3	**Chloroform (Trichloromethane)**	**8.0**	**J**	10.0
594-20-7	2,2 - Dichloropropane	ND		10.0
71-55-6	**1,1,1 - Trichloroethane**	**460**		10.0
107-06-2	**1,2 - Dichloroethane**	**5.0**	**J**	10.0
563-58-6	1,1 - Dichloropropene	ND		10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		10.0
71-43-2	Benzene	ND		10.0
74-95-3	Dibromomethane	ND		10.0
78-87-5	1,2 - Dichloropropane	ND		10.0
79-01-6	Trichloroethene	ND		10.0
75-27-4	Bromodichloromethane	ND		10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		10.0
79-00-5	1,1,2 - Trichloroethane	ND		10.0
108-88-3	Toluene	ND		10.0
106-93-4	1,2 - Dibromoethane	ND		10.0
142-28-9	1,3 - Dichloropropane	ND		10.0
124-48-1	Dibromochloromethane	ND		10.0
127-18-4	**Tetrachloroethene**	**810**		10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		10.0
108-90-7	Chlorobenzene	ND		10.0
100-41-4	Ethylbenzene	ND		10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		20.0
75-25-2	Bromoform (Tribromomethane)	ND		10.0
100-42-5	Styrene (Ethenylbenzene)	ND		10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		10.0
96-18-4	1,2,3 - Trichloropropane	ND		10.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

MW-8

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-8.1/97
Laboratory ID: C97-11477

Date Sampled: 01/23/97
Date Analyzed: 02/04/97
Date Reported: February 6, 1997
Date Revised: February 25, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection
J - Present but less than the limit of detection

Runtime Quality Assurance Report

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Bromochloromethane - d2	10467	10739	97.5%	50 - 200 %
Fluorobenzene	235963	267021	88.4%	50 - 200 %
Chlorobenzene - d5	127451	147423	86.5%	50 - 200 %
1,2 - Dichlorobenzene - d4	41794	40445	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
1,2-Dichloroethane - d4	11.7	117%	80 - 120 %
Toluene - d8	10.6	106%	80 - 120 %
4 - Bromofluorobenzene	8.69	86.9%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: rh
Reviewed: krs

Report File: F:\REPORTS\CLIENTS 97\WEST_WAT.ER\ORGANIC.CAS\97_11474.xls

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

MW-9

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-9.1/97	Date Sampled:	01/23/97
Laboratory ID:	C97-11478	Date Received:	01/31/97
Matrix:	Water	Date Analyzed:	02/05/97
Dilution Factor:	1	Date Reported:	February 6, 1997
		Date Revised:	February 25, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*		*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	**1,1 - Dichloroethene**	**63**		1.0
75-09-2	**Methylene chloride (Dichloromethane)**	**0.5**	**J**	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	**1,1 - Dichloroethane**	**11**		1.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	**Chloroform (Trichloromethane)**	**3.5**		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	**1,1,1 - Trichloroethane**	**45**		1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	Benzene	ND		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	**Trichloroethene**	**0.4**	**J**	1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	**Tetrachloroethene**	**90**		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

MW-9

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-9.1/97	Date Analyzed:	02/05/97
Laboratory ID:	C97-11478	Date Reported:	February 6, 1997
		Date Revised:	February 25, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

J - Present but less than the limit of detection

Runtime Quality Assurance Report

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Bromochloromethane - d2	12250	10739	114%	50 - 200 %
Fluorobenzene	260697	267021	97.6%	50 - 200 %
Chlorobenzene - d5	150005	147423	102%	50 - 200 %
1,2 - Dichlorobenzene - d4	45944	40445	114%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
1,2-Dichloroethane - d4	12.0	120%	80 - 120 %
Toluene - d8	9.53	95.3%	80 - 120 %
4 - Bromofluorobenzene	9.57	95.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: rh

Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.CAS\97_11474.xls

Reviewed: krs

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Trip Blank

Client:	**Western Water Consultants**		
Sample ID:	93007-B.1/97	Date Sampled:	01/23/97
Laboratory ID:	C97-11480	Date Received:	01/31/97
Matrix:	Water	Date Analyzed:	02/04/97
Dilution Factor:	1	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

Trip Blank

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	01/23/97
Sample ID:	93007-B.1/97	Date Analyzed:	02/04/97
Laboratory ID:	C97-11480	Date Reported:	February 6, 1997

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene (1-Methyl-4-(1-methyl)-benzene)	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

Runtime Quality Assurance Report

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Bromochloromethane - d2	10087	10739	93.9%	50 - 200 %
Fluorobenzene	234950	267021	88.0%	50 - 200 %
Chlorobenzene - d5	126924	147423	86.1%	50 - 200 %
1,2 - Dichlorobenzene - d4	39814	40445	98.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
1,2-Dichloroethane - d4	11.6	116%	80 - 120 %
Toluene - d8	10.3	103%	80 - 120 %
4 - Bromofluorobenzene	8.75	87.5%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: rh
Reviewed: krs

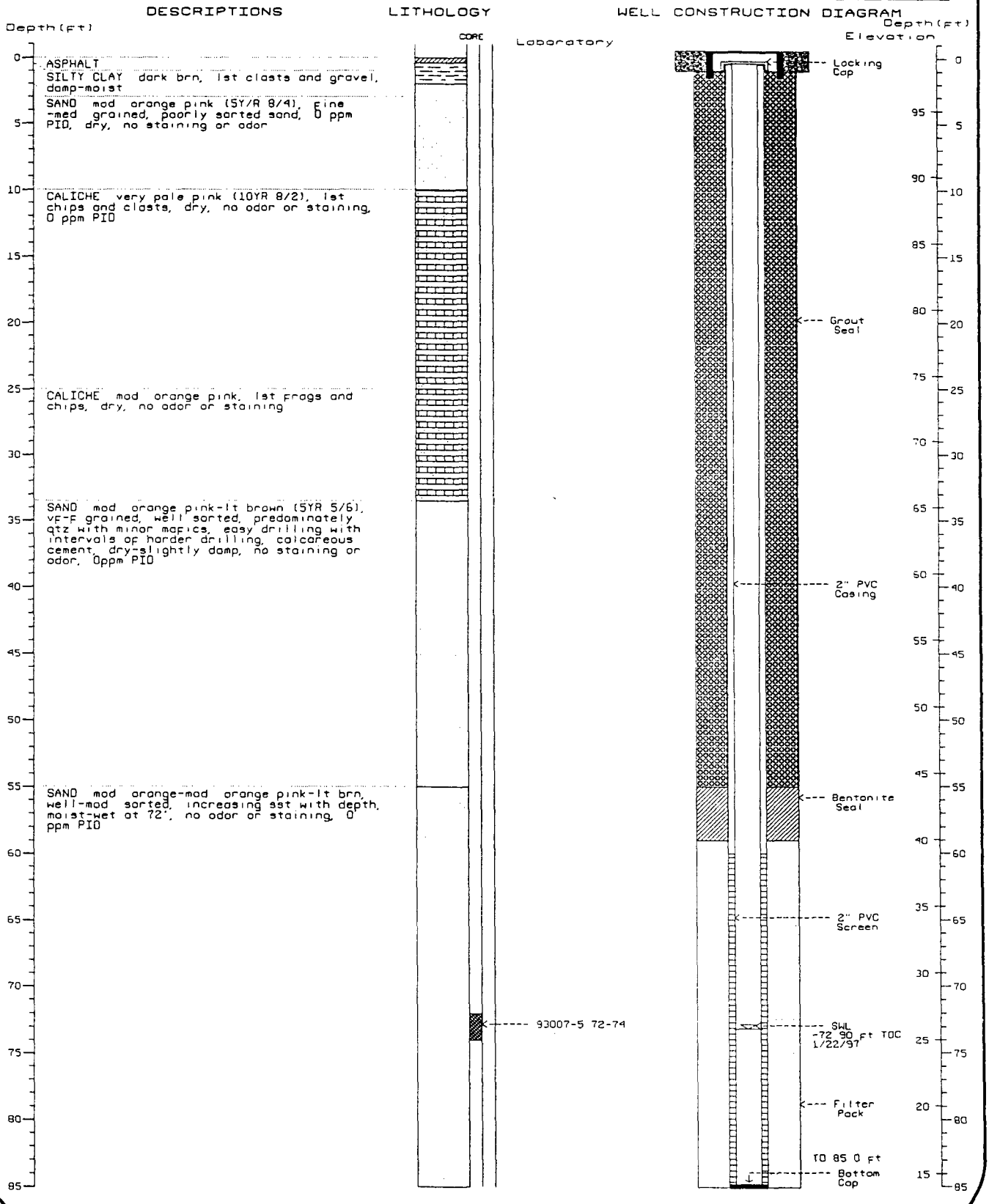
Report File: F:\REPORTS\CLIENTS.97\WEST_WAT.ER\ORGANIC.RAP\97_11474.xls

WELL COMPLETION LOGS

MONITORING WELL 93007 MW-5

LOCATION Dowell Facility, Hobbs, New Mexico
In the road between sand silos and south property fence
1105 West Bender Boulevard
LOG Western Water Consultants Inc (Kevin Mattson)
DRILLER Eades Drilling (Allen Eades)
DRILLERS LICENSE No NA
INSTALLATION DATE January 20, 1997

WELL OWNER Dowell Schlumberger (JN 93007 2)
DRILLING METHOD Air Rotary, 6 1/8 in OD
CASING 2 in Dia Flush Joint Sch. 40 PVC
SCREEN Factory Slotted Casing, 0 020 in
FILTER PACK 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION 98 79 feet
(Reference Datum Arbitrary = 100 00 feet)

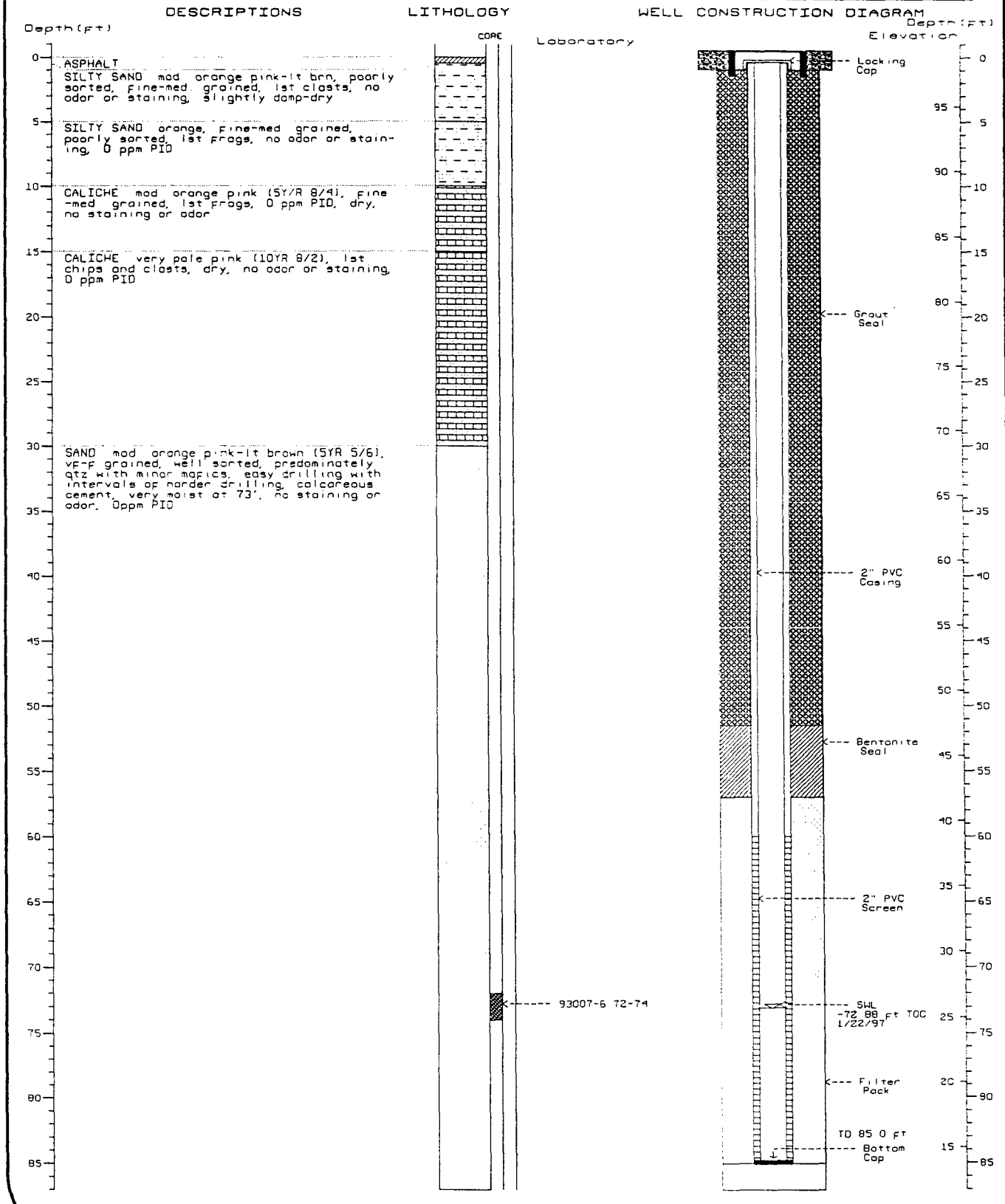


Western Water Consultants, Inc.

MONITORING WELL 93007 MW-6

LOCATION Dowell Facility, Hobbs, New Mexico
In southwest corner of the property
1105 West Bender Boulevard
LOG Western Water Consultants Inc (Kevin Mattson)
DRILLER Eades Drilling (Allen Eades)
DRILLERS LICENSE No NA
INSTALLATION DATE January 20, 1997

WELL OWNER Dowell Schlumberger (JN 93007 2)
DRILLING METHOD Air Rotary, 6 1/8 in OD
CASING 2 in Dia Flush Joint Sch 40 PVC
SCREEN Factory Slotted Casing, 0 020 in
FILTER PACK 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION 98 61 feet
(Reference Datum Arbitrary = 100 00 feet)



Western Water Consultants, Inc.

MONITORING WELL 93007 MW-7

LOCATION Dowell Facility, Hobbs, New Mexico
Near the south end of the truck scales
1105 West Bender Boulevard
LOG Western Water Consultants Inc (Kevin Mattson)
DRILLER Eades Drilling (Allen Eades)
DRILLERS LICENSE No NA
INSTALLATION DATE January 21, 1997

WELL OWNER Dowell Schlumberger (JN 93007 2)
DRILLING METHOD Air Rotary, 6 1/8 in OD
CASING 2 in Dia Flush Joint Sch 40 PVC
SCREEN Factory Slotted Casing, 0 020 in
FILTER PACK 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION 99 71 feet
(Reference Datum Arbitrary = 100 00 feet)

DESCRIPTIONS

Depth(ft)

0 — SAND AND GRAVEL
SILTY CLAY dark brn, slightly damp
CALICHE lt brn, 5YR 6/4, vF-F grained, lst frags, dry, no staining or odor

5 — CALICHE mod orange pink, very fine-fine grained, lst clasts-5/8", dry, no odor or staining

10

15 — CALICHE very pale orange, very fine-fine grained, lst clasts, hard at 24-24 5 and 26 5-27', dry, no staining or odor

20

25 — CALICHE mod orange pink, minor lst clasts, dry, no odor or staining

30

35 — SAND mod orange pink-lt brown (5YR 5/6), vF-F grained, well-mod sorted, predominately qtz with minor mafics, easy drilling with intervals of harder drilling, calcareous cement, gravelly layers at 47 and 50', moist @ 73', no staining or odor

40

45

50

55

60

65

70

75

80

85

LITHOLOGY

CORE

Laboratory

93007-7 72-74

WELL CONSTRUCTION DIAGRAM

Depth(ft) / Elevation

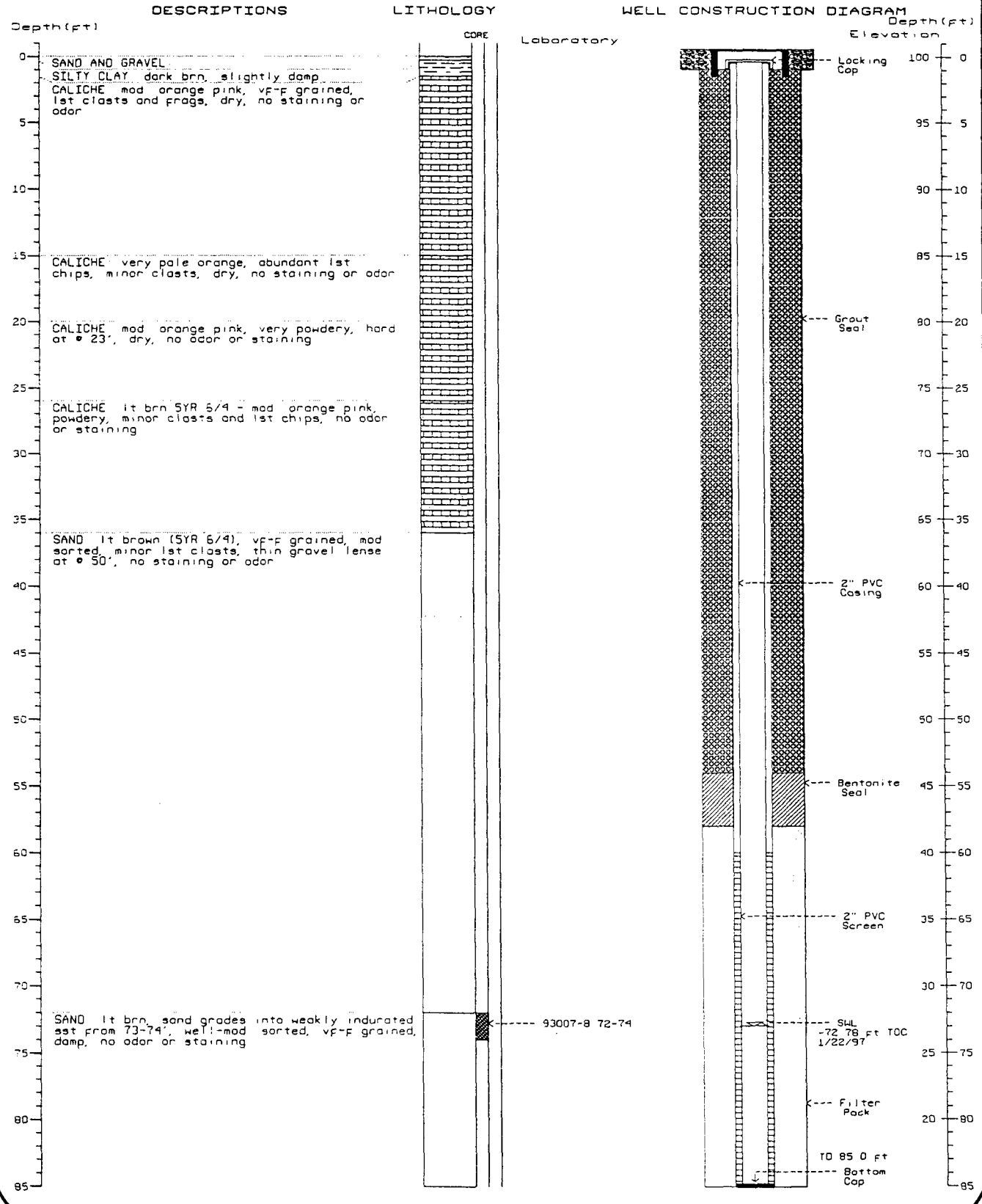
Locking Cap — 100 / 0
95 / 5
90 / 10
85 / 15
Grout Seal — 80 / 20
75 / 25
70 / 30
65 / 35
2" PVC Casing — 60 / 40
55 / 45
50 / 50
Bentonite Seal — 45 / 55
40 / 60
2" PVC Screen — 35 / 65
30 / 70
SWL -73 31 Ft TOC 1/22/97 — 25 / 75
Filter Pack — 20 / 80
TD 85 0 ft
Bottom Cap — 15 / 85

Western Water Consultants, Inc.

MONITORING WELL 93007 MW-8

LOCATION Dowell Facility, Hobbs, New Mexico
Near the north end of the truck scales
1105 West Bender Boulevard
LOG Western Water Consultants Inc (Kevin Mattson)
DRILLER Eades Drilling (Allen Eades)
DRILLERS LICENSE No NA
INSTALLATION DATE January 21, 1997

WELL OWNER Dowell Schlumberger (JN 93007 2)
DRILLING METHOD Air Rotary, 6 1/8 in OD
CASING 2 in Dia Flush Joint Sch 40 PVC
SCREEN Factory Slotted Casing, 0 020 in
FILTER PACK 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION 99 80 feet
(Reference Datum Arbitrary = 100 00 feet)

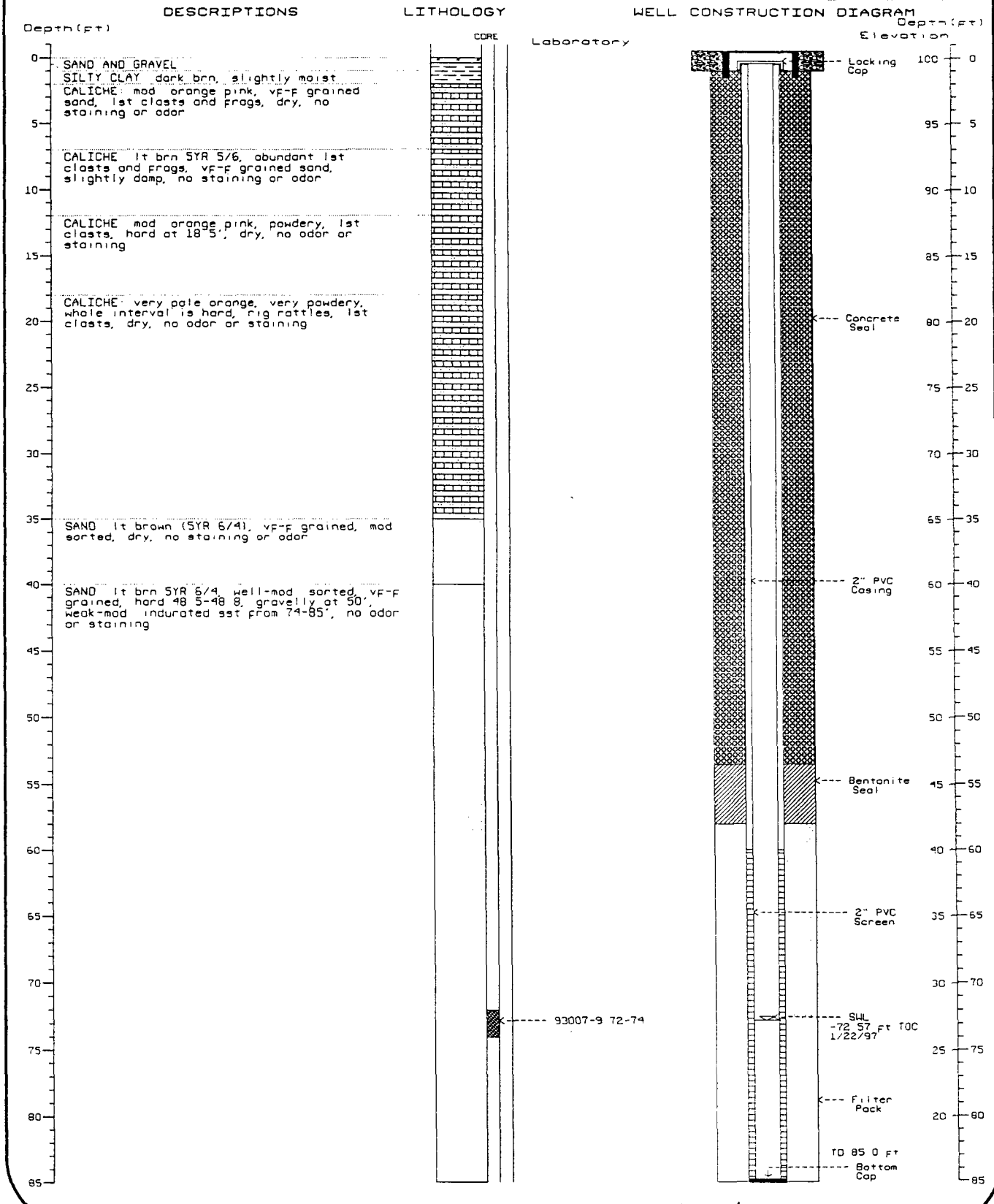


Western Water Consultants, Inc.

MONITORING WELL 93007 MW-9

LOCATION Dowell Facility, Hobbs, New Mexico
Northeast corner of the property
1105 West Bender Boulevard
LOG Western Water Consultants Inc (Kevin Mattson)
DRILLER Eades Drilling (Allen Eades)
DRILLERS LICENSE No NA
INSTALLATION DATE January 21, 1997

WELL OWNER Dowell Schlumberger (JN 93007 2)
DRILLING METHOD Air Rotary, 6 1/8 in OD
CASING 2 in Dia Flush Joint Sch 40 PVC
SCREEN Factory Slotted Casing, 0 020 in
FILTER PACK 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION 99 85 feet
(Reference Datum Arbitrary = 100 00 feet)



Western Water Consultants, Inc.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 10, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-781

Mr. John Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, TX 77478

RE: GW-073, Dowell Schlumberger (DS) - Hobbs
Groundwater Contamination Delineation - Extension

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received the **DS** letter dated March 4, 1997 requesting an extension to March 31, 1997 to submit the "Delineation Report" as required by the OCD in the letter dated December 18, 1996. The reason for the request per the letter from DS dated March 4, 1997 is to install additional groundwater delineation/monitor wells in order to define the extent of horizontal and vertical contamination in the groundwater under the facility. **Upon review of the information provided, OCD approves of the extension to install additional groundwater monitor wells, with the following conditions:**

1. All field work and sampling/reporting will be prepared and submitted as outlined in the letter from OCD dated October 7, 1996.

2. The new monitor wells and the existing nine monitor wells will be sampled for the entire suite of WQCC parameters in 20 NMAC 6.2.3103. **(See October 7, 1996 letter from OCD.)**

3. The "Delineation Report" will include a section under the "Recommendations" portion proposing the location and number of additional groundwater monitor wells to be installed. **(Mr. Wayne Price with the Hobbs OCD District Office, phone number 505- 393-6161, must will be notified 3 days in advance of any activity.)**

NOTE: All analytical reporting will include the original signed data sheets from the laboratory performing the analysis as well as the appropriate chain of custody information and QA/QC documentation.

Please be advised that the OCD extension to further investigate the contamination of groundwater at the Hobbs facility does not relieve **DS** of liability should **DS** fail to adequately determine the extent of contamination. Also, this OCD approval does not relieve **DS** from responsibility to comply with other federal, state, and local rules/regulations that may apply to this project.

Sincerely,

Patricio W. Sanchez
Petroleum Engineering Specialist

c: Mr. Wayne Price - Environmental Engineer, OCD Hobbs

P 288 258 781

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Mr. Miller	
Street & Number DS - Hobbs, GW-073	
Post Office, State, & ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

Schlumberger

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

March 4, 1997

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

RECEIVED
MAR 13 1997
OIL CONSERVATION DIVISION

Re: Groundwater Investigation at the Dowell Facility in Hobbs, New Mexico.

Dear Mr. Sanchez:

Laboratory data from the monitoring wells installed on January 22/23, 1997 indicates we have not defined the extent of contamination. Our environmental consultant is currently investigating locations for additional monitoring wells. Request submission of our investigation report be delayed to March 31, 1997 in order to complete the report and recommendations.

Thank you.

Sincerely,

John A. Miller
Remediation Manager

cc: WWC

JAM/lld

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

HOBBS DELAY

RECEIVED
MAR - 6 1997
Environmental Bureau
Oil Conservation Division

Schlumberger

HEALTH, SAFETY & ENVIRONMENT
OILFIELD SERVICES SHARED RESOURCES

DATE: 3/4/97

NO. PAGES (Including Cover): 2

TO: PAT SANCHEZ

FROM: John A. Miller
Remediation Manager

FAX NO: 505-827-8177

FAX: (281) 285-8526

LOCATION: _____

PHONE: (281) 285-8498

MESSAGE: HOBBS REPORT DELAY. MORE WELLS.

☐ RESPONSE REQUESTED BY (DATE): _____

300 Schlumberger Drive, Sugar Land, Texas 77478

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

March 4, 1997

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Groundwater Investigation at the Dowell Facility in Hobbs, New Mexico.

Dear Mr. Sanchez:

Laboratory data from the monitoring wells installed on January 22/23, 1997 indicates we have not defined the extent of contamination. Our environmental consultant is currently investigating locations for additional monitoring wells. Request submission of our investigation report be delayed to March 31, 1997 in order to complete the report and recommendations.

Thank you.

Sincerely,

John A. Miller
Remediation Manager

RECEIVED
MAR - 6 1997
Environmental Bureau
Oil Conservation Division

cc: WWC

JAM/lld

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

Pat Sanchez

From: Wayne Price
Sent: Thursday, January 23, 1997 3:46 PM
To: Pat Sanchez
Cc: Jerry Sexton
Subject: Dowell-Schlumberger Hobbs MW install & sampling.
Importance: High

Dear Pat,

I witnessed part of this project as follows:

New MW #9 grouting of casing.

Water sampling of MW-4, MW 5-9.

Reviewed the three SVE systems with John Miller-DS and Rick Deull -WWC.

Made DS aware of nearby residence located to the SW that they are on water wells. Recommended to DS to install MW in SW corner of their property.

Purge water is presently being stored in two open type stock tanks .

Made recommendation to DS to install berm to prevent storm water run-off from going off their property to near-by residence.

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

RECEIVED

JAN 16 1997

Environmental Bureau
Oil Conservation Division

January 10, 1997

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Ground-water Investigation at the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico.

Dear Pat:

This document is to notify your department that 5 additional monitoring wells are scheduled to be installed the week of January 20-24, 1997 at the Dowell facility in Hobbs, New Mexico. If there are any questions concerning this field work please feel free to contact me.

Sincerely,

John Miller
Remediation Manager

cc: WWC

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8628 (fax)

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

December 18, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-735

Mr. John Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, TX 77478

RE: GW-073, Dowell Schlumberger (DS) - Hobbs
Groundwater Contamination Delineation

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received **DS** letter dated December 16, 1996 along with the report dated December 13, 1996 prepared by Western Water Consultants on behalf of DS. **Upon review of the information provided OCD approves of the DS proposal to install five additional groundwater monitor wells, with the following conditions:**

1. All field work and sampling/reporting will be prepared and submitted as outlined in the letter from OCD dated October 7, 1996.

2. The five new monitor wells and the existing four monitor wells will be sampled for the entire suite of WQCC parameters in 20 NMAC 6.2.3103. **(See October 7, 1996 letter from OCD.)**

3. The installation of the five new monitor wells, as well as the sampling outlined above will be completed by January 31, 1997. **(Mr. Wayne Price with the Hobbs OCD District Office, phone number 505-393-6161, must will be notified 3 days in advance of any activity.)**

4. A report with the findings of the further delineation and sampling will be submitted to the OCD Santa Fe Office in duplicate with a copy to the OCD Hobbs District Office by February 28, 1997.

Please be advised that the OCD approval to further investigate the contamination of groundwater at the Hobbs facility does not relieve **DS** of liability should **DS** fail to adequately determine the extent of contamination. Also, this OCD approval does not relieve **DS** from responsibility to comply with other federal, state, and local rules/regulations that may apply to this project.

Sincerely,

Patricio W. Sanchez
Petroleum Engineering Specialist

xc: Mr. Wayne Price - Environmental Engineer, OCD Hobbs

P 288 258 735

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to DS - Miller	
Street & Number GW-073.	
Post Office, State, & ZIP Code DENVER, CO.	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

December 16, 1996

Mr. Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

DEC 18 1996

Re: Ground-water Investigation at the Dowell, a division of Schlumberger Technology Corporation Facility in Hobbs, New Mexico

Dear Pat: SE 2W8

Enclosed are two (2) copies of the ground-water investigation report for the Dowell facility in Hobbs, (Nw) Mexico. As we discussed Friday, the wells were resampled and re-surveyed to confirm the potentiometric surface and initial sampling results. The groundwater laboratory results shown in Table 3, Page 9 has led to a proposal to install five additional monitoring wells as shown in figure 2-1, Page 6. Upon your concurrence, we will schedule the drilling and advise you of the field work dates. While doing the field work, our consultant will also accomplish a water well survey for the area within one mile of the Dowell district.

If you have any questions, or require additional information, please call me at my new phone number: (281) 285-8498.

Sincerely,

John A. Miller

JAM:slw
Via 2-day Fed-Ex

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

December 5, 1996

Patricio Sanchez
N.M. Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Dowell, a division of Schlumberger Technology Corporation (Dowell)
Hobbs Facility

Dear Pat:

As requested, Dowell installed four monitoring wells at the Hobbs facility during October 23-25. Water samples were collected from those wells and analyzed by EPA Method 8260. To verify the result of this sampling effort, an additional round of samples was collected on November 21. These analyses were expedited and the results received on December 5.

Dowell believes that the confirmation samples are important for the report required by NMOCD. However, the time necessary to collect these samples and have them analyzed made it impracticable to meet the December 10 deadline. We plan to submit the report to NMOCD no later than December 17.

If you have any questions, or require additional information, please call me at 281-285-8498.

Sincerely,

John A. Miller

JAM:slw

cc: Western Water Consultants, Inc.

RECEIVED
DEC 06 1996
Environmental Bureau
Oil Conservation Division

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275 8526 (fax)

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

<Original in Brown Accrd File>

November 4, 1996

Mr. Pat Sanchez
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

RECEIVED
NOV 05 1996
Environmental Bureau
Oil Conservation Division

Re: Soil Vapor Extraction System Annual Report
Dowell Facility, Hobbs, New Mexico

Dear Mr. Sanchez:

Enclosed please find two copies of the Soil Vapor Extraction System Annual Report for the Dowell facility in Hobbs New Mexico.

If you have any questions, or require additional information, please call me at 713 275-8498.

Sincerely,

John A. Miller

JAM:slw
Via Fed-Ex

Enclosure

cc: WWC, Laramie

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

Schlumberger

HEALTH, SAFETY & ENVIRONMENT
OILFIELD SERVICES SHARED RESOURCES

DATE: 10/18/96 **NO. PAGES (Including Cover):** 4

TO: Pat Sanchez - OCD **FROM:** John A. Miller
Remediation Manager

FAX NO: 505-827-8177 **FAX:** (713) 275-8526

LOCATION: _____ **PHONE:** (713) 275-8498

cc: Rick Deuell, WNC

MESSAGE Hobbs Monitor Wells

☐ **RESPONSE REQUESTED BY (DATE):** _____

300 Schlumberger Drive
Sugar Land, TX 77478

P.O. Box 2727
Houston, TX 77252

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

18 October 1996

Mr. Pat Sanchez
New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division
2040 S. Pacheco
Sante Fe, NM 87505

RE: **Dowell, a division of Schlumberger Technology Corporation (Dowell) facility, Hobbs, New Mexico**

Dear Mr. Sanchez:

Enclosed are drawings depicting the location and typical construction for monitoring wells proposed for the Dowell facility in Hobbs. The locations were chosen to be outside the area of soil contamination to prevent contamination of the aquifer during drilling. However, the wells are adjacent to the contaminated areas and to the southeast which is believed to be downgradient. We will also install an additional upgradient well (MW-4). This should provide for optimal monitoring of the groundwater.

Dowell proposes to construct these monitoring wells during the week of October 21, 1996. Please call me if there are any questions.

Sincerely,

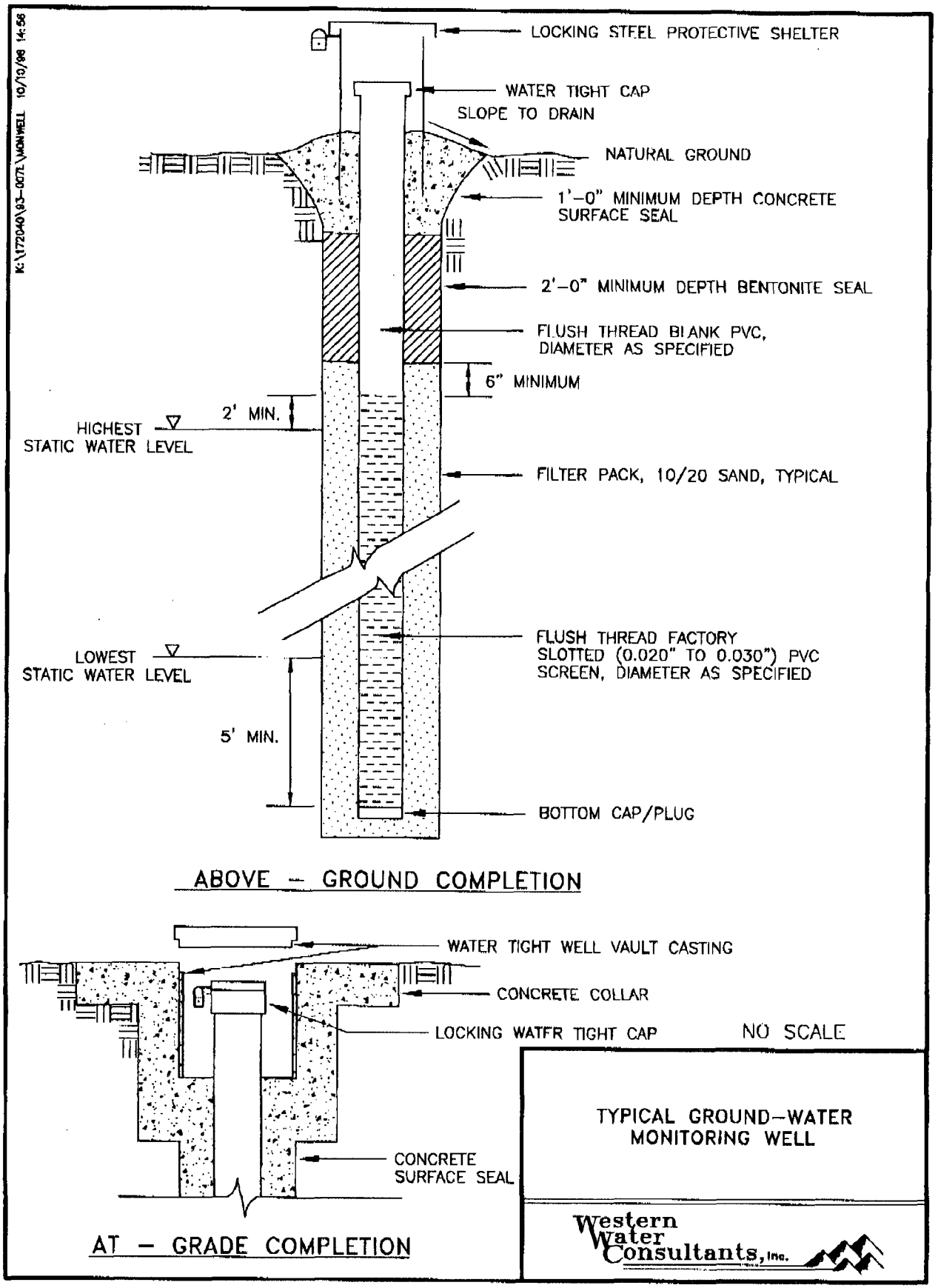
John A. Miller

JAM/ddc

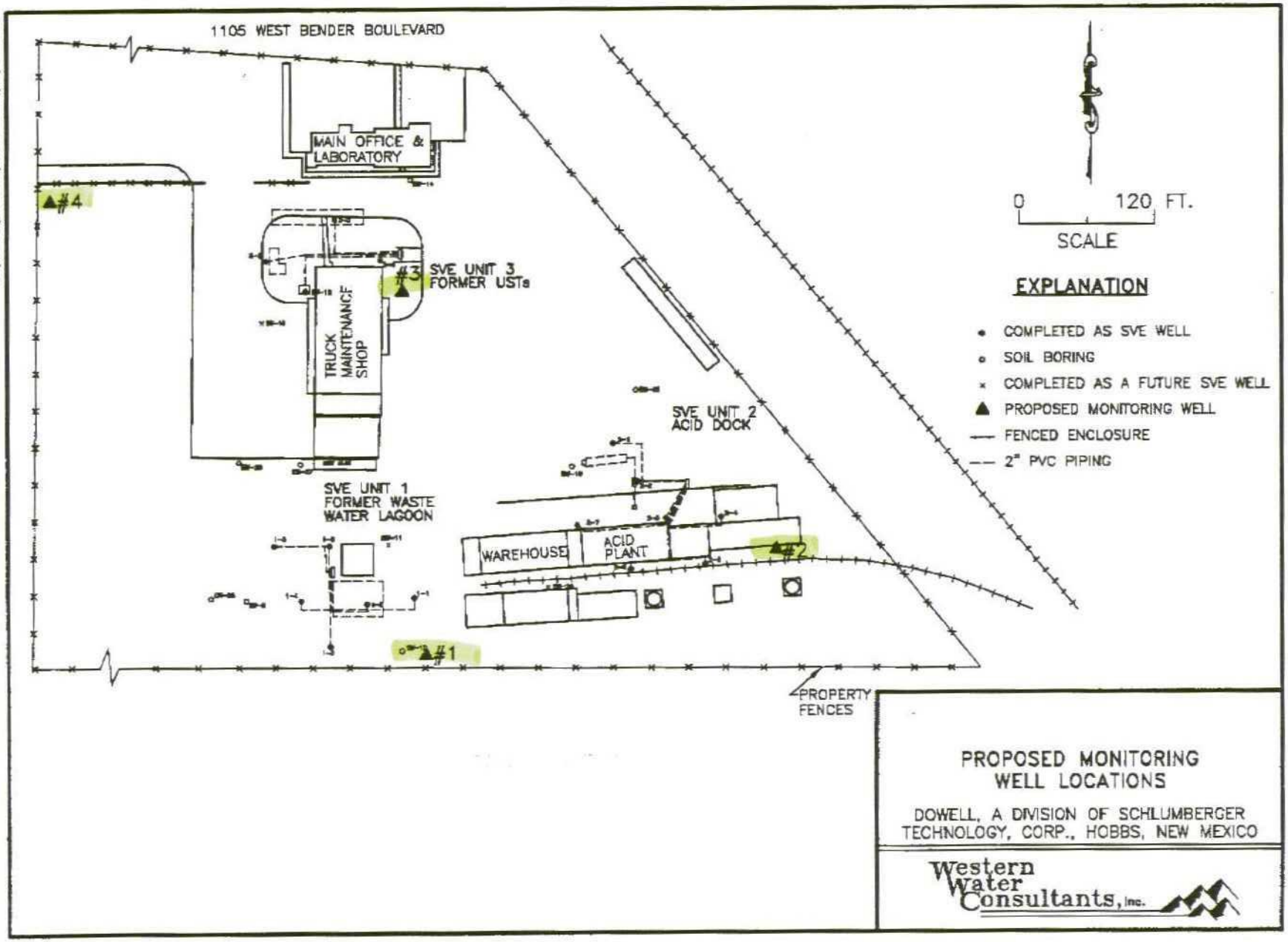
Enclosures

cc: WWC, Laramie.

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 276 8526 (fax)


K:\172040\93-007L\MONWELL 10/10/96 14:56
LOCKING STEEL PROTECTIVE SHELTER
WATER TIGHT CAP
SLOPE TO DRAIN
NATURAL GROUND
1'-0" MINIMUM DEPTH CONCRETE SURFACE SEAL
2'-0" MINIMUM DEPTH BENTONITE SEAL
FLUSH THREAD BLANK PVC, DIAMETER AS SPECIFIED
6" MINIMUM
2' MIN.
HIGHEST STATIC WATER LEVEL
FILTER PACK, 10/20 SAND, TYPICAL
FLUSH THREAD FACTORY SLOTTED (0.020" TO 0.030") PVC SCREEN, DIAMETER AS SPECIFIED
LOWEST STATIC WATER LEVEL
5' MIN.
BOTTOM CAP/PLUG
ABOVE - GROUND COMPLETION
WATER TIGHT WELL VAULT CASTING
CONCRETE COLLAR
LOCKING WATER TIGHT CAP
NO SCALE
CONCRETE SURFACE SEAL
AT - GRADE COMPLETION
TYPICAL GROUND-WATER MONITORING WELL
Western Water Consultants, Inc.

K:\172040\93-007L\PRO-WELL 10/14/98 10:42



PROPOSED MONITORING WELL LOCATIONS

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY, CORP., HOBBS, NEW MEXICO

Western Water Consultants, Inc.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

October 7, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-656

Mr. John Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, TX 77478

RE: GW-073, Dowell Schlumberger - Hobbs
Soil Remmediation/Contamination Investigation

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received **Dowell Schlumbergers (DS)** letter dated September 4, 1996 , which includes a response by Western Water Consultants (WWC) dated March 5, 1996. The letter from WWC was supposed to address the letter sent by Mr. Chris Eustice (formerly of the OCD) "Work Plan For Delineation of Contamination Dowell Schlumberger Hobbs Service Facility (GW-73)" dated January 11, 1996. **Upon review of the information provided thus far, it is unclear if groundwater at the site in question has been impacted.**

The OCD requires that DS drill/complete three (3) monitor wells - one well near each contaminated soil area, i.e. "Former Wastewater Pond" or SVE, Unit 1; "Former Acid Collection System" or SVE, Unit 2; "Former UST Site" or SVE, Unit 3. Each groundwater monitoring well will be properly developed, purged 3 well volumes, and sampled and analyzed for the full suite of WQCC constituents as listed in 20 NMAC 6.2.3103 and sampled according to the WQCC approved methods as listed in 20 NMAC 6.2.3107.B (A copy of the WQCC regulations as Effective December 1, 1995 are available on the Internet at - **www.emnrd.state.nm.us/ocd.htm** , a hardcopy can be provided by request, call (505)-827-7152.)

A. Dowell Schlumberger shall construct each of the groundwater monitoring wells as follows within 30 days of receipt of this letter:

1. A minimum of 15 feet of well screen will be installed with at least 10 feet of well screen below the water table and 5 feet of well screen above the water table. The well screen shall be attached to an appropriate/compatible type casing of at least two inches nominal diameter.

2. An appropriately sized gravel pack will be set around the well screen from the bottom of the hole to 2-3 feet above the top of the well screen.

3. A 2-3 foot bentonite plug will be placed above the gravel pack and hydrated in place.

4. The remainder of the hole annulus will be sealed with an appropriate cement grout to surface. At surface a 4' by 4' by 4" pad shall be placed around the casing and sloped such that rain water drains away from the wellbore. An appropriate steel casing/box shall be placed over the wellbore and secured so as to control access to the wellbore.

5. Each of the groundwater monitor wells surface location must be located to a common reference point on the facility and surface elevations and relative location to the reference established and provided to the OCD on an appropriate scaled surface map indicating the location of each well and the reference point.

6. All soils generated during drilling shall be placed on an impermeable liner or containerized until the soil has been properly characterized for the potential presence of Hazardous Constituents as defined in 40 CFR Part 261. Dowell Schlumberger must then submit the results of the hazardous characterization to the OCD Santa Fe Office, and propose a proper disposal or re-use method. If Dowell Schlumberger upon characterization of the soils as non-hazardous wishes to thin-spread the soil onsite, the soil must be analyzed by an EPA approved method for BTEX and TPH, the results of this analysis must then be submitted to the OCD Santa Fe Division office for approval.

7. All waters generated from the well development process must be stored and labeled in appropriate temporary type containers until the waste water has been properly characterized for hazardous constituents. Upon characterization of the waste water, Dowell Schlumberger shall notify the OCD Division office and submit for approval the analytical results--characterization indicating the regulatory status of the waste in terms of Hazardous or Non-Hazardous so that proper disposal and/or re-use options can be considered.

B. By December 10, 1996 the completion of steps 1. through 5. above (i.e. - Well construction and sampling/analytical phase) Dowell Schlumberger shall prepare and submit a report containing the following information in duplicate to the Santa Fe OCD Division office, with a copy to the Hobbs OCD District office:

1. Dowell Schlumberger shall report the following parameters on a map and summary page that shows the location of the monitor wells; Groundwater Depth, Hydraulic Gradient and Flow Direction at the site.

2. Dowell Schlumberger shall also include the results of the full suite of WQCC constituents on a summary page as sampled from each of the groundwater monitor wells. The laboratory analysis sheets and all associated lab QA/QC reports will also be included.

3. The report shall also include a recommendation based on the results of the groundwater sampling project for either of the two following scenarios:

   a. **If the groundwater is contaminated above WQCC Standards.** A course of action within 60 days to address further delineation, sufficient site characterization, and remedial options evaluation. Since Dowell Schlumberger is under an OCD approved "Discharge Plan" this evaluation must be within the scope of WQCC regulations in order to be exempted from filing a formal abatement plan - see 20 NMAC 6.2.4105.A.6. "Exemptions From Abatement Plan Requirement", Otherwise an abatement plan under part 4 of the WQCC regulations may be required.

   b. **If the groundwater is not contaminated above WQCC Standards.**

Please be advised that the OCD requirement to investigate the possible contamination of groundwater at the Hobbs facility does not relieve **Dowell Schlumberger** of liability should **Dowell Schlumberger** fail to adequately determine the extent of contamination. Also, this OCD requirement does not relieve **Dowell Schlumberger** from responsibility to comply with other federal, state, and local rules/regulations that may apply to this project.

Note: The OCD Santa Fe, (505)-827-7156, and Hobbs District, (505)-393-6161, shall be notified 3 days in advance of any field work so that the OCD may have the choice of being present to witness activities and /or split samples. If you have any questions please feel free to give me a call at (505)-827-7156.

Sincerely,

Patricio W. Sanchez
Petroleum Engineering Specialist,
Environmental Bureau

xc: Mr. Wayne Price - OCD Hobbs, Mr. Benito Garcia - Bureau Chief, NMED-HRMB

P 288 258 656

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to John Miller - DS, Habbs	
Street & Number GW-073.	
Post Office, State, & ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

Pat Sanchez

From: Wayne Price
Sent: Monday, October 07, 1996 8:09 AM
To: Pat Sanchez
Cc: Jerry Sexton
Subject: RE: Dowell Hobbs yard - groundwater.

I have reviewed and agree.

From: Pat Sanchez
To: Wayne Price
Subject: Dowell Hobbs yard - groundwater.
Date: Friday, October 04, 1996 2:32PM
Priority: High

Wayne , here is the letter I have drafted to send to Dowell Hobbs, please provide your comments by Tuesday Oct. 8, 1996 7:30 AM, Thanks! I am also going to pass be Roger and Bill Olson.

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-656

Mr. John Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, TX 77478

RE: GW-073, Dowell Schlumberger - Hobbs
Soil Remmediation/Contamination Investigation

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received Dowell Schlumbergers (DS) letter dated September 4, 1996 , which includes a response by Western Water Consultants (WWC) dated March 5, 1996. The letter from WWC was supposed to address the letter sent by Mr. Chris Eustice (formerly of the OCD) "Work Plan For Delineation of Contamination Dowell Schlumberger Hobbs Service Facility (GW-73)" dated January 11, 1996. Upon review of the information provided thus far, it is unclear if groundwater at the site in question has been impacted.

The OCD shall therefore require that DS drill/complete three (3) monitor wells - one well near each contaminated soil area, i.e. "Former Wastewater Pond" or SVE, Unit 1; "Former Acid Collection System" or SVE, Unit 2; "Former UST Site" or SVE, Unit 3. Each groundwater monitoring well will be properly developed, purged 3 well volumes, and then sampled for the full suite of WQCC constituents as listed in 20 NMAC 6.2.3103 and sampled according to the WQCC approved methods as listed in 20 NMAC 6.2.3107.B (A copy of the WQCC regulations as Effective December 1, 1995 are available on the Internet at - www.emnrd.state.nm.us/ocd.htm , a hardcopy can be provided by request, call (505)-827-7152.)

Dowell Schlumberger shall construct each of the groundwater monitoring wells as follows within 30 days of receipt of this letter:

1. A minimum of 15 feet of well screen will be installed with at least 10 feet of well screen below the water table and 5 feet of well screen above the water table. The well screen shall be attached to an appropriate/compatible type casing of at least two inches nominal diameter.

2. An appropriately sized gravel pack will be set around the well screen from the bottom of the hole to 2-3 feet above the top of the well screen.

3. A 2-3 foot bentonite plug will be placed above the gravel pack and hydrated in place.

4. The remainder of the hole annulus will be sealed with an appropriate cement grout to surface. At surface a 4' by 4' by 4" pad shall be placed around the casing and sloped such that rain water drains away from the wellbore. An appropriate steel casing/box shall be placed over the wellbore and secured so as to control access to the wellbore.

5. Each of the groundwater monitor wells surface location must be located to a common reference point on the facility and surface elevations and relative location to the reference established and provided to the OCD on an appropriate scaled surface map indicating the location of each well and the reference point.

6. All soils generated during drilling shall be placed on an impermeable liner until the soil has been properly characterized for the potential presence of Hazardous Constituents as defined in 40 CFR Part 261. Dowell Schlumberger must then submit the results of the hazardous characterization to the OCD Santa Fe Office, and propose a proper disposal or re-use method. If Dowell Schlumberger upon characterization of the soils as non- hazardous wishes to thin-spread the soil onsite, the soil must be analyzed by an EPA approved method for BTEX and TPH, the results of this analysis must then be submitted to the OCD Santa Fe Division office for approval.

7. All waters generated from the well development process must be stored and labeled in appropriate temporary type containers until the waste water has been properly characterized for hazardous constituents. Upon characterization of the waste water, Dowell Schlumberger shall notify the OCD Division office and submit the analytical results/characterization indicating the regulatory status of the waste in terms of Hazardous or Non-Hazardous so that proper disposal and/or re-use options can be considered.

Within 30 days of completion of steps 1. through 5. above (i.e. - Well construction and sampling phase) Dowell Schlumberger shall prepare and submit a report containing the following information in duplicate to the Santa Fe OCD Division office, with a copy to the Hobbs OCD District office:

1. Dowell Schlumberger shall report the following parameters on a map and summary page that shows the location of the monitor wells; Groundwater Depth, Hydraulic Gradient and Approximate Flow Direction at the site.

2. Dowell Schlumberger shall also include the results of the full suite of WQCC constituents on a summary page as sampled from each of the groundwater monitor wells. The laboratory analysis sheets and all associated lab QA/QC reports will also be included.

3. The report shall also include a recommendation based on the results of the groundwater sampling project:

a. Case for if the groundwater is contaminated above WQCC Standards. A time frame within 60 days to address further delineation, sufficient site characterization, and remedial options evaluation. Since Dowell Schlumberger is under an OCD approved "Discharge Plan" this evaluation must be within the scope of WQCC regulations in order to be exempted from filing a formal abatement plan - see 20 NMAC 6.2.4105.A.6. "Exemptions From Abatement Plan Requirement", Otherwise an abatement plan under part 4 of the WQCC regulations will be required.

b. Case for if the groundwater is not contaminated above WQCC Standards.

Please be advised that OCD direction to investigate the possible contamination of groundwater at the Hobbs facility does not relieve Dowell Schlumberger of liability should Dowell Schlumberger operation result in contamination of surface waters, ground waters or the environment. Also, OCD direction does not relieve Dowell

Schlumberger from responsibility to comply with other Federal, State, and Local Rules/Regulations that may apply to this project.

Note: The OCD Santa Fe (505)-827-7156 and Hobbs District (505)-393-6161 shall be notified 3 days in advance of any field work so that the OCD may have the choice of being present to witness activities and /or split samples. If you have any questions please feel free to give me a call at (505)-827-7156.

Sincerely,

Patricio W. Sanchez
Petroleum Engineering Specialist,
Environmental Bureau

xc: Mr. Wayne Price - OCD Hobbs, Mr. Benito Garcia - Bureau Chief, NMED-HRMB

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

RECEIVED
SEP - 6 1996
CONSERVATION DIVISION

September 4, 1996

Pat Sanchez
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

RECEIVED
SEP 09 1996
Environmental Bureau
Oil Conservation Division

Re: Dowell Schlumberger, Hobbs, New Mexico

Dear Mr. Sanchez:

Enclosed is a letter with additional information regarding work performed at the Dowell Schlumberger facility in Hobbs. This information supplements a September 29, 1995 report describing the delineation of soil contamination and installation of the soil vapor extraction systems.

Please call if there are any questions.

Sincerely,

John A. Miller

JAM:slw
2 Day Fed Ex

cc: WWC, Laramie w/o encl.

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

Serving Our Clients Since 1980

WESTERN WATER CONSULTANTS, INC.

Engineering • Hydrology • Hydrogeology • Waste Management • Construction Administration

611 SKYLINE ROAD, P.O. BOX 4128 • LARAMIE, WYOMING 82071 • (307) 742-0031 • FAX (307) 721-2913

March 5, 1996

Mr. John A. Miller
Remediation Manager
Dowell, a Division of Schlumberger Technology Corporation
300 Schlumberger Drive
Sugar Land, TX 77478

RECEIVED
SEP 0 9 1996
Environmental Bureau
Oil Conservation Division

RE: Dowell Facility in Hobbs, New Mexico.
WWC JN 93-007L-96

Dear John:

As you requested, Western Water Consultants, Inc. has reviewed and analyzed the soil data in the vicinity of the former waste-water pond area at the Hobbs, NM facility. This work is in preparation for your meeting with Mr. Chris Eustice of the New Mexico Oil Conservation Division concerning the extent of contamination at the facility as documented in the report "Determination of Extent of Contamination and Installation of Soil Vapor Extraction Systems at the Dowell Schlumberger Facility, Hobbs, New Mexico, September 29, 1995". To present the data in a more visual format two figures were developed. Figure 1 is a fence diagram showing lithology in the area of the former waste-water pond. Vertical and horizontal definition of contamination in the caliche is also shown based on soil headspace concentrations measured with a PID. Figure 2 is a contaminant concentration map for total BTEX and total halocarbons generated from laboratory analysis of soil samples.

The purpose of the figures are to address the concerns raised by Mr. Eustice in regard to the presence of volatile organics in headspace samples collected from EW-6 and EW-10 near the property boundary. At both locations the concentrations of volatile organics are low to nondetect except near the base of the caliche (Figure 1). These data indicate that the soil borings are located at the perimeter of the contamination in the main portion of the caliche. Higher concentrations at the caliche/sand interface indicate that there may be horizontal migration along the interface that is not seen in the main portion of the caliche. This migration pattern would be typical for unsaturated flow regimes.

As shown on Figure 2, neither BTEX or halocarbon compounds were detected in the soil sample from EW-10 and were at low concentrations in the sample collected from EW-6. There is an apparent discrepancy between the PID headspace data and the laboratory analysis of the soil samples. This may indicate that there is also vapor transport at the caliche/sand interface.

OTHER LOCATIONS

1949 SUGARLAND DRIVE, SUITE 134
SHERIDAN, WYOMING 82801
(307) 672-0761
FAX (307) 674-4265

1901 ENERGY COURT, SUITE 270
GILLETTE, WYOMING 82718
(307) 682-1880
FAX (307) 682-2257

701 ANTLER DRIVE, SUITE 233
CASPER, WYOMING 82601
(307) 473-2707
FAX (307) 237-0828

The areal coverage of the soil vapor extraction is shown on Figure 2. As can be seen, the system as designed will remediate the extent of contamination in the main portion of the caliche. The system will also have impact on the caliche/sand interface.

If you have any questions concerning the figures please feel free to contact me.

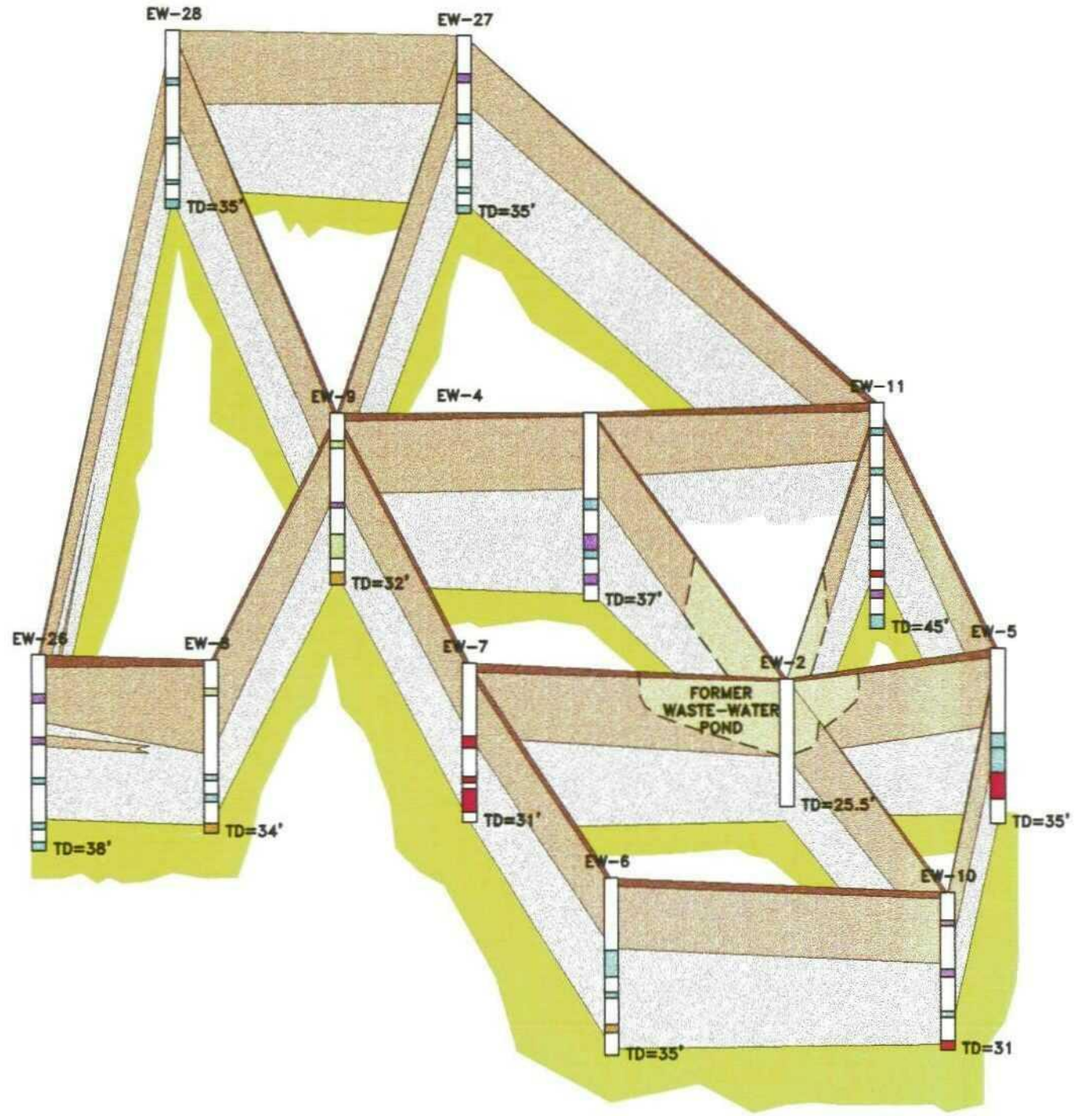
Sincerely,

Rick Deuell

Rick Deuell, P.E.

RD:gh
Enclosure
cc: Karen Lauzon
File 93-007L.A

K:\172040\03-007LVFNCE-DIA 02/23/96 08:09



LITHOLOGIC KEY

- SILTY CLAY
- SILTY SAND
- CALICHE
- SAND

HEADSPACE SAMPLE LOCATION AND VOLATILE ORGANIC VAPOR READING

- 0–10 PARTS PER MILLION
- 10–100 PARTS PER MILLION
- 100–500 PARTS PER MILLION
- 500–1,000 PARTS PER MILLION
- >1,000 PARTS PER MILLION

30'
SCALE
30'

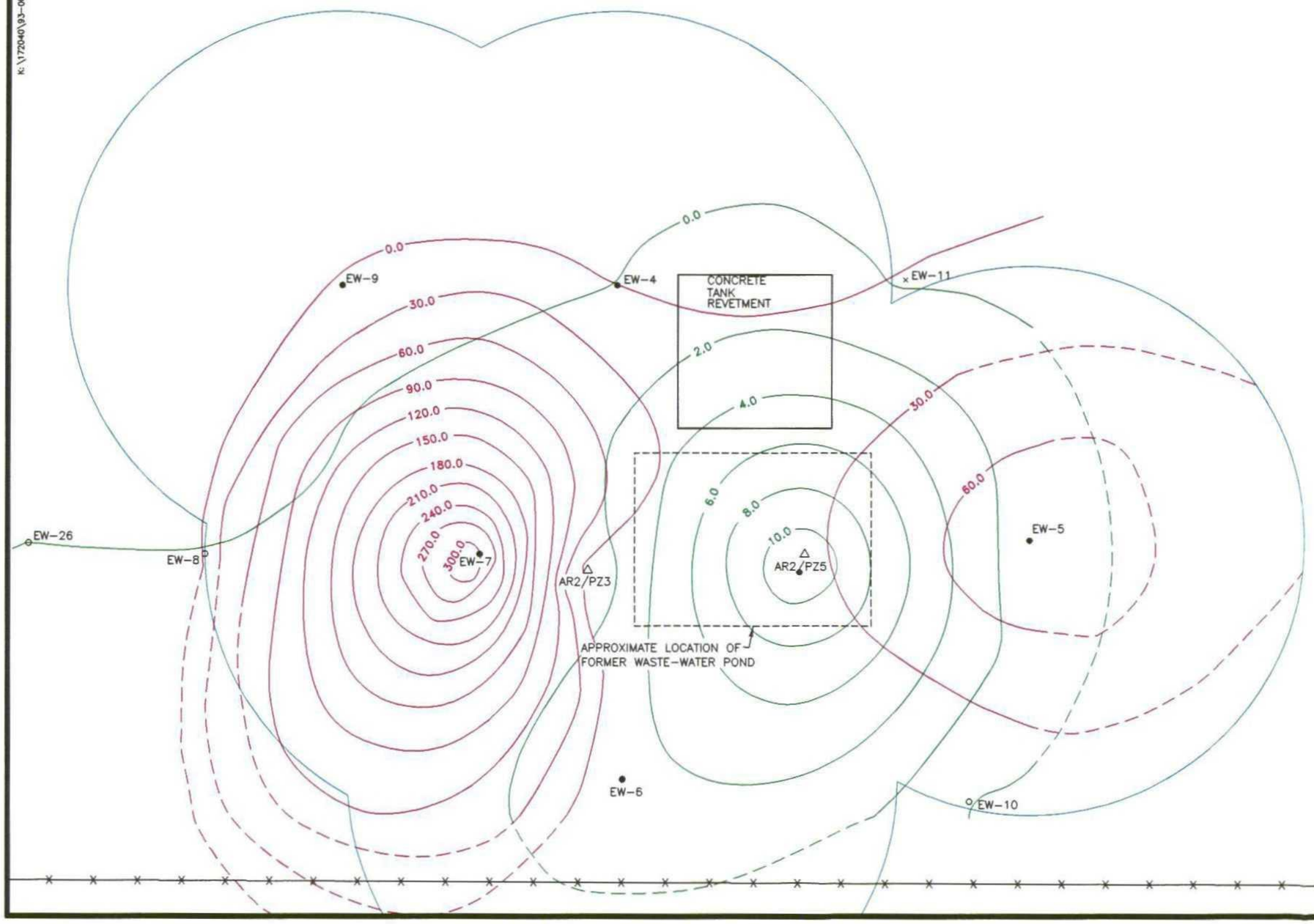
FIGURE 1

FENCE DIAGRAM OF
WASTE–WATER POND AREA

DOWELL
HOBBS, NEW MEXICO

Western Water Consultants, Inc.

K:\172040\93-007L\HALO 02/23/96 08:11





0 20 FT.
SCALE

EXPLANATION

EW-5 ●	COMPLETED AS SVE WELL
EW-10 ○	SOIL BORING
AR2/PZ5 △	PIEZOMETER LOCATION
EW-11 ×	COMPLETED AS A FUTURE SVE WELL
—0.0—	HALOCARBON CONTOUR LINE (DASHED WHERE INFERRED)
—0.0—	BTEX CONTOUR LINE (DASHED WHERE INFERRED)
	COVERAGE OF THE SVE WELLS

FIGURE 2

CONTAMINANT CONCENTRATION MAP
FORMER WASTE-WATER POND, SOIL DATA

DOWELL
HOBBS, NEW MEXICO

Western Water Consultants, Inc.

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505

January 11, 1996

CERTIFIED MAIL
RETURN RECEIPT NO.Z-765-962-608

Mr. John A. Miller, Remediation Manager
Dowell Schlumberger Inc.
P.O. Box 4378
Houston, Texas 77210-4378

RE: WORK PLAN FOR DELINEATION OF CONTAMINATION
DOWELL SCHLUMBERGER HOBBS SERVICE FACILITY (GW-73)
LEA COUNTY, NEW MEXICO

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received Dowell Schlumberger's (D/S) September 29, 1995 report "DETERMINATION OF EXTENT OF SOIL CONTAMINATION AND INSTALLATION OF SOIL EXTRACTION SYSTEMS AT THE DOWELL SCHLUMBERGER FACILITY, HOBBS, NEW MEXICO detailing the extent of contamination and installation of a soil vapor extraction system at the same facility.

The OCD recognizes the extent, both vertical and horizontal, of the contamination has not been defined. Please submit to the OCD Santa Fe Office a work plan, by March 1, 1996, to determine the vertical and horizontal extent of the contamination.

If you have any questions, please contact me at (505) 827-7153.

Sincerely,

Chris E. Eustice
Environmental Geologist

xc: OCD Hobbs District Office

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal | Time 1120 AM | Date Dec 27, 1995

Originating Party	Other Parties
CHRIS EUSTICE	JOHN MILLER
	SCHLUMBERGER/DOWELL

Place

D/S

DOWELL/SCHLUMBERGER HOBBS FACILITY

DELINEATION OF CONTAMINATION

Discussion

I told John I had received their latest report, "DELINEATON OF EXTENT OF CONTAMINATION & INSTALLATION OF THE SVE", and felt they D/S had not determined the vertical or horizontal extent of the contamination.

Conclusions or Agreements

Signature

Signed

142-88-55

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

RECEIVED
DEC 5 1995
Environmental Bureau
Oil Conservation Division

26 October 1995

Report in accordian folder

Chris Eustice
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Sante Fe, NM 87505

RE: Dowell Schlumberger, Hobbs, New Mexico

Dear Mr. Eustice:

Enclosed is a report documenting work performed at the Dowell Schlumberger facility in Hobbs. The work included drilling for delineation of soil contamination and installation of the soil vapor extraction systems described in our Workplan transmitted on January 27, 1995.

Please call if there are any questions.

Sincerely,

John A. Miller

JAM/dd

cc: WWC, Laramie

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

RECEIVED
JUN - 5 1995
CONSERVATION DIVISION

2 June 1995

Mr. Chris Eustice
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

RE: Work Schedule for Investigation and SVE Installation at the Dowell Facility in Hobbs, New Mexico

Dear Mr. Eustice:

This letter updates the schedule for the referenced work previously provided to you in a letter dated May 10, 1995. Due to personnel and equipment availability, the schedule has been revised as shown below:

June 12 - 16, 1995:	Drilling for SVE wells and soil investigation
June 14 - 16, 1995:	Installation of SVE piping
July 10 - 13, 1995:	Installation of mechanical equipment and system start up

Please do not hesitate to contact me if you have any comments or questions.

Sincerely,

John A. Miller
Remediation Manager

JAM/dd

cc: OCD Hobbs District Office
P.O. Box 1980
Hobbs, NM 88241

WWC, Laramie

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

OIL CONSERVATION DIVISION
RECEIVED
'95 MAY 8 AM 8 52

May 10, 1995

VIA Certified Mail # Z413 313 427

Mr. Chris Eustice, Geologist
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Paceco
Santa Fe, NM 87505

Re: Work Schedule at Dowell Schlumberger Hobbs facility

Dear Mr. Eustice:

This letter is submitted in response to your April 18, 1995 letter approving the "Work Plan of Soil Contamination Delineation and Installation of Soil Vapor Extraction Systems at the Dowell Schlumberger Facility in Hobbs, New Mexico." The work specified in this work plan is scheduled to begin on Monday June 5, 1995 with the drilling for soil investigation and installation of the soil vapor extraction (SVE) wells. The drilling is expected to be complete by June 9, 1995. Installation of the mechanical system and piping for the SVE systems will follow completion of the drilling and is expected to begin on Monday, June 12, 1995. The systems should be operational by June 16, 1995.

It is our understanding that the requirements of the investigation and/or delineation of contaminants referenced in Item 1 of your April 18, 1995 letter are fulfilled by the work to be conducted under the approved work plan. We will proceed with the proposed investigation methodology on June 5, 1995 as stated above unless I hear otherwise from you.

Please do not hesitate to contact me if you have questions.

Sincerely,

John A. Miller
Remediation Manager

JAM:lb

cc: WWC, Laramie

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

April 18, 1995

CERTIFIED MAIL
RETURN RECEIPT NO.P-176-012-124

Mr. John A. Miller, Remediation Manager
Dowell Schlumberger Inc.
P.O. Box 4378
Houston, Texas 77210-4378

RE: WORK PLAN FOR DELINEATION OF CONTAMINATION
DOWELL SCHLUMBERGER HOBBS SERVICE FACILITY (GW-73)
LEA COUNTY, NEW MEXICO

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received your January 28, 1995 "Work Plan of Soil Contamination Delineation and Installation of Soil Vapor Extraction Systems at the Dowell Schlumberger Incorporated Facility Hobbs, New Mexico" prepared and submitted by Western Water Consultants, Inc. on behalf of Dowell Schlumberger Incorporated (D/S). The above document outlines a plan for the installation of a soil vapor extraction (SVE) system and the delineation of the contamination(s).

Based on the information provided the OCD hereby approves the work plan and installation of the SVE facilities as proposed under the following conditions:

1. Investigation and/or delineation of the contaminants vertical and/or horizontal extent will coincide with the installation of the SVE soil borings, extraction wells and piezometers.

2. D/S will notify the OCD Santa Fe Office at least 72 hours in advance of any work associated with this approval to allow the OCD an opportunity to witness the work.

3. D/S will submit a closure report to the OCD Santa Fe Office and one copy to Wayne Price at the OCD Hobbs Office.

Please be advised this approval does not limit D/S to the work proposed should the investigation fail to adequately define the extent of contamination related to D/S's facility, nor does OCD approval relieve you of liability should your operation result in actual pollution of the ground water, surface water or the environment actionable under other laws and/or regulations.

If you have any questions, please contact me at (505) 827-7153.

Sincerely,

Chris E. Eustice
Environmental Geologist

xc: OCD Hobbs District Office

Schlumberger Oilfield Services

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

OIL CONSERV. DIVISION
RECEIVED
'94 OCT 26 AM 8 52

October 18, 1994

Via Certified Mail P 567 248 309

Mr. Chris E. Eustice
New Mexico Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504

Re: Dowell Schlumberger Incorporated Facility
Hobbs, Leon County, New Mexico

Dear Mr. Eustice:

Upon receiving your September 28, 1994 letter authorizing a soil vapor extraction (SVE) pilot test, we mobilized our environmental consultant and a drilling crew and installed SVE wells and associated piezometers the week of October 12-14. We have scheduled equipment and personnel to conduct the pilot tests on November 1 and 2. We have also notified Mr. Wayne Price of the OCD Hobbs Office. Mr. Price plans on attending the pilot tests.

We anticipate receipt of laboratory results from the pilot test in late November. Analysis of data and radius of influence of the pilot test will be accomplished in December. We would plan on providing a SVE pilot test report in January.

Delineation of the extent of contamination would ideally be combined with field work to install SVE wells after the radius of influence is known. Delineation at this time would allow on site mobilization of the environmental consultant and drilling crew as well as ensuring optimal placement of SVE wells to capture any residual contamination. Accordingly, we request that the contamination delineation workplan be submitted by January 13, 1995. We will combine the SVE pilot test with the contamination delineation work plan in a single document to facilitate review.

If you have any questions or desire additional information, please call me at 713-275-8498.

Sincerely,

J. A. Miller

JAM:lb

cc: W. Price, Hobbs OCD
S. Fields, WWC
D. Hooker, Hobbs

P.O. Box 2727, Houston, Texas 77252-2727
300 Schlumberger Drive, Sugar Land, Texas 77478
(713) 275-8498 (713) 275-8526 (fax)

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

September 28, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO.P-176-012-264

Mr. John A. Miller, Remediation Manager
Dowell Schlumberger Inc.
P.O. Box 4378
Houston, Texas 77210-4378

RE: SOIL VAPOR EXTRACTION PILOT TEST WORK PLAN
DOWELL SCHLUMBERGER HOBBS SERVICE FACILITY
LEA COUNTY, NEW MEXICO

Dear Mr. Miller:

The New Mexico Oil Conservation Division (OCD) has received your May 31, 1994 "Site Investigation Soil Vapor Extraction Pilot Test Work Plan" at the Dowell Schlumberger Incorporated Facility Hobbs, New Mexico prepared by Western Water Consultants, Inc. on behalf of Dowell. The above document outlines a plan for a soil extraction pilot test to determine the feasibility and design parameters for final remedial system design.

Based on the information provided in the work plan dated May 31, 1994, the OCD hereby approves installation of the soil vapor extraction wells and associated pieziometers for your pilot test.

Review of Dowell's February 4, 1994 "Closure Report For An Acid Collection System" at the Hobbs facility and the above referenced report indicate that the delineation of the contamination is not complete. Dowell will submit a final closure report to the OCD Santa Fe Office by December 2, 1994.

Please be advised this approval does not relieve Dowell of liability should your operation result in actual pollution of the ground water, surface water or the environment actionable under other laws and/or regulations.

Sincerely,

Chris E. Eustice
Environmental Geologist

xc: OCD Hobbs Office
Wayne Price
Jerry Sexton