

**HYDROGEOLOGIC INVESTIGATION
CHEVRON STATION SITE,
ISLETA AND RIO BRAVO BOULEVARDS,
ALBUQUERQUE, NEW MEXICO**

by

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INTRODUCTION

Purpose and Scope

The purpose of this report was to provide a hydrogeologic assessment and determine the approximate extent of gasoline-related contamination at the Chevron Station site, 3401 Isleta Boulevard, SW, Albuquerque, New Mexico. The station is on the northwest corner of the intersection of Isleta and Rio Bravo Boulevards (Fig. 1).

The study incorporated available information from previous studies and data gathered by John W. Shomaker, Inc. between January 3 and February 21, 1992.

Previous Work

According to New Mexico Environment Department (NMED) records, gasoline-related contamination was recognized in 1983, in Mountain Bell manholes along Isleta Boulevard. New Mexico State Environmental personnel measured lower explosivity levels (LELs) between 18 and 100 percent in four manholes, along Isleta Boulevard, between Barcelona (which is 1,100 feet north of the site) and Clinton (which is about 1,600 feet south of the site) streets.

Fox and Associates made LEL measurements in manholes along Isleta Boulevard between October 1984 and September 1985 (AHED file information). They measured explosivity levels in two manholes, which are near the Chevron Station site. One manhole is in Isleta Boulevard near the Sunwest Bank, about 250 feet north of the site (MH-2, Fig. 1). The other is west of the Isleta-Rio Bravo Boulevard intersection (MH-7, Fig. 1). The manhole east of the Sunwest Bank had explosivity levels ranging from 24 to 84 percent LEL. This manhole was force-ventilated after the measurements. The manhole on the west side of the Isleta-Rio Bravo intersection had levels ranging from 2 to 36 percent LEL.

There are and have been a number of gasoline service stations in the vicinity of the Chevron Station. According to NMED records, in 1985, there were four service stations in operation within a radius of 1,200 feet of the Isleta and Rio Bravo intersection. Two of these stations were upgradient of the site.

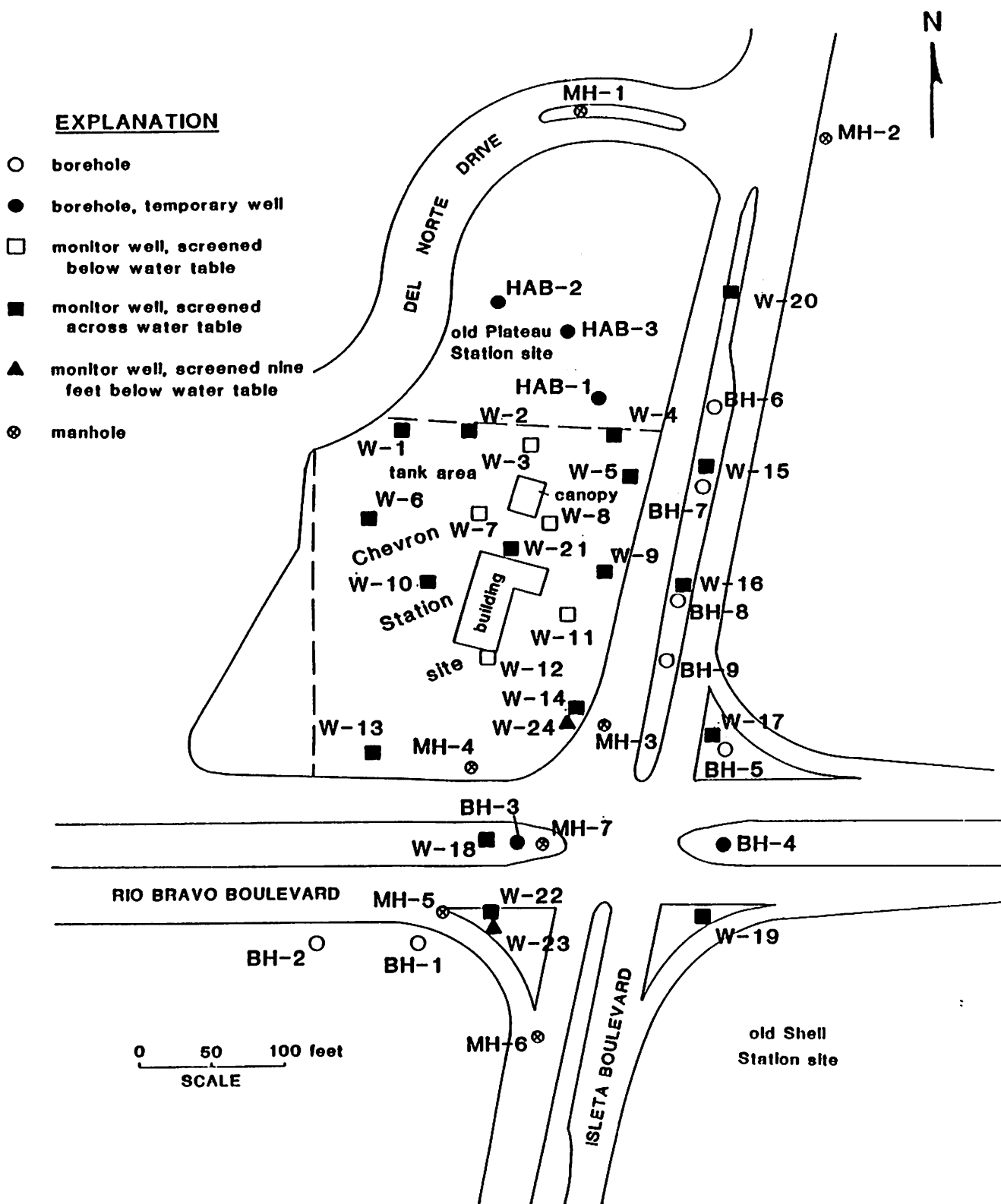


Figure 1. Map of Chevron Station site, 3401 Isleta Boulevard SW, Albuquerque, New Mexico.

According to NMED records, tank-tightness testing at the Chevron Station in 1986 indicated a possible leak in a 3000 gallon super unleaded tank. The leak was identified and repaired.

Kanjceovich (1991) completed a study to determine the extent and cause of the ground-water contamination at the Chevron site. He reported that Ever Ready Oil Company was notified by the Albuquerque Environmental Health Department (AEHD) on October 8, 1990 that ground-water contamination was discovered near the Chevron Station. This contamination was in the right-of-way along the west side of Isleta Boulevard. Tanks and lines at the Chevron Station site were tested for tightness in November, 1990, by Tank Management Services. Tanks and lines tested were within standards, under normal operating pressures (Kanjceovich, 1991). Kanjceovich (1991) concluded there was little evidence the contamination was caused by leaking tanks or lines at the site. Kanjceovich (1991) also suggested some of the contamination may have been due to overfilling of tanks, and further investigation was necessary to identify the actual source of the contamination. Kanjceovich (1991) suspected the major portion of the contamination was from off site.

USTank Management (1991) performed Tracer Tight testing of the five underground-storage tanks at the Chevron Station, in November, 1991. The tank and pipe systems passed these tests.

Regional Geology and Hydrogeology

The Chevron site at 3401 Isleta Boulevard is on the west side of the Rio Grande, within in the inner valley, south of Albuquerque. The inner valley includes the younger floodplain areas, adjacent to the Rio Grande (Peter, 1987, p. 3). Peter (1987) reported the upper 150 feet of sedimentary deposits in the inner valley consist of clay, silt, sand, gravel and cobbles. These deposits are of Holocene age and resemble deposits of the underlying Santa Fe Group. The Santa Fe Group sediments are the principal source of the alluvial material in the younger floodplain sediments.

Peter (1987, p. 5; Fig. 2 and 3) presented an east-west cross-section through the site area. This section was developed from correlation of electric and lithologic logs of four boreholes along Rio Bravo Avenue, which passes through the Chevron Station site. We used this section to estimate thickness of underlying units to a depth of 150 feet, which is as follows (from youngest to oldest):

depth, ft.	lithologic unit	thickness, ft.
0 to 35	sand and some gravel	35
35 to 63	silt and clay	28
63 to 73	gravel and sand	10
73 to >150	sand	>77

The Rio Grande channel is elevated above the adjacent flood plain and therefore, water flows from the river and recharges the underlying aquifer. In the early 1930s, the Middle Rio Grande Conservancy District and Bureau of Reclamation installed a drainage system parallel to the river to remove water from the shallow alluvium and return it to the Rio Grande.

According to Peter (1987), four major factors control the direction of shallow ground-water flow in the inner valley of the Rio Grande:

- 1) the Rio Grande
- 2) riverside and interior drains
- 3) irrigation
- 4) ground-water withdrawals by the City of Albuquerque and industry

In 1936 the ground-water flow along the inner valley, in the area of the site, was to the south approximately parallel to the Rio Grande (Theis, 1938, pl. 6; and Peter, 1987, p. 11). Ground-water flow in this area has changed little since 1936, although east of the river it has been affected by Albuquerque ground-water use (Peter, 1987, p. 14; and Kelly, 1982, p. 353).

SITE INVESTIGATION WORK

Outline of Field Events

John W. Shomaker, Inc. began field work on January 3, 1992 and finished on February 21, 1992. The following is a summary of this field work:

- | | |
|------------------|--|
| January 3, 1992 | surveyed elevations of measuring points and measured fluid levels in existing monitor wells |
| January 20, 1992 | collected water samples from existing monitor wells and submitted them for analyses of aromatic and chlorinated hydrocarbons, methyl-t-butyl ether (MTBE) and 1,2-dibromomethane (EDB) |

January 21, 1992	started soil-boring program to determine lateral extent of contamination
January 23, 1992	measured organic-vapor concentrations in nearby manholes
January 27, 1992	installed five monitor wells which were screened across the water table
January 28, 1992	surveyed elevations of new wells and developed these wells
January 30, 1992	collected water samples from the new wells and submitted them for analyses of aromatic and chlorinated hydrocarbons, MTBE and EDB
February 5, 1992	corrected elevation measurements from Kanjcevich's reports
February 10, 1992	installed and developed five monitor wells; three were screened across the water table and two were screened below the water table to evaluate the vertical migration of contamination
February 11, 1992	collected water samples from new monitor wells for analyses of aromatic and chlorinated hydrocarbons, MTBE, and EDB; measured elevations of measuring points of new wells
February 14, 1992	measured fluid levels in monitor wells
February 22, 1992	made slug tests on monitor wells 23 and 24

Fluid-level Measurements

We made fluid-level measurements in monitor wells, with a steel tape, to the nearest one-hundreth of a foot. We used water-indicating paste and chalk on the tape to indicate depths to fluid. We measured depths to fluid from a surveyed reference point on the top of the two-inch diameter, PVC casing. We didn't detect any measurable thickness of floating-product in any of the wells.

We measured elevations of measuring points on well casings using a level and rod. We made measurements to the nearest 0.01 ft. We compared our levels to the measurements reported in Kanjcevich (1991). We determined the measurements reported in Kanjcevich (1991) were incorrect,

Table 1. Relative elevations (in feet) of measuring points and fluids in wells, Chevron Station site, Isleta and Rio Bravo Boulevards (lower well identification, if present, is old designation)

well	W-1 MW-06	W-2 OW-06	W-3 MW-02	W-4 MW-07	W-5 OW-01	W-6 OW-04	W-7 MW-01
a	4928.22	4927.63	4927.53	4928.07	4929.04	4928.45	4928.02
b	4918.22	4922.63	4917.53	4923.07	4924.04	4923.45	4918.02
c	10	10	5	10	10	10	5
date							
03/06/91	4920.58	4920.75	4920.26	4920.32	4920.61	4920.61	4920.42
03/13/91	4920.59	4920.68	4920.30	4920.26	4920.68	4920.68	4920.46
03/21/91	4920.63	4920.75	4920.45	4920.41	4920.72	4920.70	4920.61
03/28/91	4920.46	4920.75	4920.44	4920.42	4920.72	4920.70	4920.62
04/03/91	4920.64	4920.79	4920.46	4920.44	4920.72	4920.61	4920.64
01/03/92	4921.07	4921.05	4921.07	4921.06	4921.00	4921.00	4920.98
01/20/92	4920.93	4920.94	4920.93	4920.91	4920.87	4920.88	4920.89
02/14/92	4920.80	4920.78	4920.78	4920.78	4920.83	4920.82	4920.74

well	W-8 MW-03	W-9 MW-08	W-10 MW-10	W-11 MW-04	W-12 MW-05	W-13 OW-02	W-14 MW-09
a	4928.53	4928.86	4927.37	4928.94	4928.21	4928.41	4928.60
b	4918.53	4923.86	4922.37	4918.94	4918.21	4923.41	4923.60
c	5	10	10	5	5	10	10
date							
03/06/91	4920.32	4920.25	4920.26	4920.27	4920.22	4920.53	4920.17
03/13/91	4920.35	4920.29	4920.29	4920.33	4920.24	4920.51	4920.22
03/21/91	4920.52	4920.44	4920.45	4920.27	4920.40	4920.53	4920.38
03/28/91	4920.52	4920.35	4920.45	4920.47	4920.41	4920.53	4920.38
04/03/91	4920.55	4920.47	4920.47	4920.50	4920.43	4920.56	4920.40
01/03/92	4920.98	4920.97	4920.95	4920.95	4920.93	4920.83	4920.90
01/20/92	4920.88	4920.82	4920.83	4920.83	4920.79	4920.70	4920.73
02/14/92	4920.72	4920.69	4920.68	4920.67	4920.65	4920.55	4920.58

well	W-15	W-16	W-17	W-18	W-19	W-20	W-21
a	4929.72	4929.61	4929.78	4928.64	4929.74	4929.75	4928.96
b	4921.95	4920.82	4921.71	4921.02	4921.39	4922.10	4921.06
c	5	5	5	5	5	5	5
date							
03/06/91							
03/13/91							
03/21/91							
03/28/91							
04/03/91							
01/03/92							
01/20/92							
02/14/92	4920.77	4920.67	4920.58	4919.88	4920.42	4920.85	4920.70

well	W-22	W-23	W-24
a	4928.98	4928.91	4928.70
b	4921.48	4915.01	4914.70
c	5	5	5
date			
03/06/91			
03/13/91			
03/21/91			
03/28/91			
04/03/91			
01/03/92			
01/20/92			
02/14/92	4920.43	4920.41	4920.55

a=measuring pt., b=top of screen, c=length of screen, ft

as the surveyor measured to points other than the water-level measuring points on the top of the well casings. We corrected the measurements reported by Kanjceovich (1991) and have included those along with our measurements in Table 1 (elevation corrections are given in Appendix A). We have also included the monitor well identifications from the Kranjceovich (1991) report in Table 1. We chose the elevation of the measuring point for W-1, reported in Kanjceovich (1991), to be our reference elevation. Therefore, our elevations are relative to that elevation.

Sampling and Analysis of Ground Water from Existing Monitor Wells

On January 20, 1992 we collected water samples from the existing monitor wells at the site. We purged a minimum of three well volumes from each well before sampling. We used disposable bailers to purge and sample each well. We collected samples in duplicate, 40-ml, glass vials which contained a few drops of hydrochloric acid and mercuric chloride as preservative. We placed the samples on ice after collection and stored them on ice during shipment to the laboratory. Samples were analyzed by Analytical Technologies, Inc. (Phoenix, Arizona) for chlorinated and aromatic hydrocarbons, EDB and MTBE. MTBE analyses were confirmed, in selected samples, using gas chromatographic and mass spectrometric methods. Results are summarized in Table 2 (analytical reports are included in Appendix B).

Boreholes and Soil-Vapor Survey

We used nine boreholes to determine the extent of soil and ground-water contamination near the site (locations are shown in Figure 1. We measured concentrations of organic-vapors in soil samples collected from the boreholes. Personnel from Ever Ready Oil Company, per our direction, drilled holes to depths ranging from 6.5 to 10.0 feet, using a four-inch diameter, truck-mounted auger. We collected two or three soil samples from each hole in one-quart glass jars, and sealed with aluminum foil. We warmed the samples and analyzed the headspace for organic-vapor concentrations, using a photoionization detector.

Results of organic-vapor concentrations are summarized in Table 3 for measurements of soil samples from boreholes and in manholes (borehole and manhole locations are shown in Fig. 1):

Table 2. Summary of laboratory analytical results,
Chevron Station site, Isleta and Rio Bravo
Boulevards (concentrations in ug/l; negative
values are below detection limits)

well	date	MTBE	BENZENE	TOLUENE	ETHYLBEN	XYLENES	DCE	EDB
W-20	02/11/92	-1.0	-0.5	21.0	-0.5	-0.5	1.0	-1.0
W-21	02/11/92	not sampled due to presence of sheen of floating product						
W-22	02/11/92	360.0	-0.5	5.7	-0.5	-0.5	19.0	-1.0
W-23	02/11/92	280.0	19.0	35.0	-5.0	-5.0	26.0	-1.0
W-24	02/11/92	28.0	80.0	26.0	9.1	-0.5	21.0	-1.0
W-15	01/30/92	-1.0	3.4	27.0	-0.5	-0.5	0.4	-1.0
W-16	01/30/92	-1.0	-0.5	7.3	-0.5	-0.5	-0.2	-1.0
W-17	01/30/92	-1.0	-0.5	-0.5	-0.5	-0.5	1.0	-1.0
W-18	01/30/92	1000.0	63.0	7.7	1.3	-0.5	33.0	-1.0
W-19	01/30/92	-1.0	-0.5	-0.5	-0.5	-0.5	0.5	-1.0
BH-3	01/21/92	900.0	24.0	-2.5	-2.5	-2.5	39.0	-5.0
BH-4	01/21/92	-1.0	-0.5	-0.5	-0.5	-0.5	0.8	-1.0
W-01	01/20/92	-1.0	-0.5	-0.5	-0.5	-0.5	16.0	-1.0
W-02	01/20/92	-1.0	87.0	0.7	2.4	3.2	38.0	-1.0
W-03	01/20/92	-50.0	1500.0	84.0	330.0	620.0	54.0	-50.0
W-04	01/20/92	70.0	1100.0	520.0	430.0	1400.0	14.0	-25.0
W-05	01/20/92	-20.0	1100.0	300.0	480.0	970.0	-4.0	-20.0
W-06	01/20/92	-1.0	-0.5	-0.5	-0.5	-0.5	-0.2	-1.0
W-07	01/20/92	160.0	1200.0	4000.0	940.0	4000.0	84.0	-25.0
W-08	01/20/92	-25.0	2100.0	1200.0	640.0	1500.0	45.0	-25.0
W-09	01/20/92	-1000.0	14000.0	-500.0	7700.0	7900.0	-200.0	-1000.0
W-10	01/20/92	4.3	1.3	-0.5	-0.5	-0.5	23.0	-1.0
W-11	01/20/92	-50.0	2800.0	2000.0	1500.0	5200.0	27.0	-50.0
W-12	01/20/92	1700.0	5500.0	-125.0	1300.0	-125.0	110.0	-250.0
W-13	01/20/92	-1.0	-0.5	-0.5	-0.5	-0.5	1.1	-1.0
W-14	01/20/92	84.0	310.0	-2.5	43.0	4.0	14.0	-5.0
HAB-1	12/10/91	-1000.0	11800.0	22000.0	1900.0	11200.0	-200.0	-200.0
HAB-2	12/10/91	-5.0	-1.0	6.5	-1.0	-1.0	13.8	-1.0
HAB-3	12/10/91	-5.0	172.0	10.6	25.0	6.5	0.8	-1.0
W-01	03/15/91							
W-02	03/15/91							
W-03	03/15/91							
W-04	03/15/91							
W-05	03/15/91							
W-06	03/15/91							
W-07	03/15/91	270.0	1100.0	3100.0	360.0	6200.0		
W-08	03/15/91	200.0	4400.0	3500.0	990.0	3900.0		
W-09	03/15/91							
W-10	03/15/91	23.0	-1.0	-1.0	-1.0	-1.0		
W-11	03/15/91	100.0	2500.0	4300.0	-100.0	8100.0		
W-12	03/15/91	1500.0	150.0	-10.0	-10.0	52.0		
W-13	03/15/91							
W-14	03/15/91							
O3	02/12/91	-1.0	-1.0	-1.0	-1.0	-1.0		
O5	02/12/91	-1.0	-1.0	-1.0	-1.0	-1.0		
W-01	02/12/91	-1.0	-1.0	19.0	-1.0	-1.0		
W-02	02/12/91	-1.0	22.0	17.0	4.1	3.9		
W-03	02/12/91	-100.0	5900.0	1200.0	140.0	4100.0		
W-04	02/12/91	-100.0	3900.0	7600.0	2000.0	8500.0		
W-05	02/12/91	-50.0	3000.0	1900.0	910.0	3500.0		
W-06	02/12/91	-1.0	-1.0	-1.0	-1.0	-1.0		
W-07	02/12/91	800.0	3400.0	9900.0	2400.0	15800.0		
W-08	02/12/91	670.0	7300.0	9300.0	2100.0	1700.0		
W-09	02/12/91	-50.0	2600.0	130.0	1500.0	-1.0		
W-10	02/12/91	-1.0	-1.0	-1.0	-1.0	12000.0		
W-11	02/12/91	180.0	5300.0	11000.0	2900.0	2.3		
W-12	02/12/91	870.0	-1.0	-1.0	1.8	-1.0		
W-13	02/12/91	-1.0	-1.0	-1.0	-1.0	-1.0		
W-14	02/12/91	17.0	-1.0	-1.0	-1.0			
W-12	11/26/90	1300.0	1700.0	3.4	39.0	10.0		
W-13	11/26/90							
W-14	11/26/90							
O3	10/30/90							
O5	10/30/90							
W-01	10/30/90							
W-02	10/30/90							
W-03	10/30/90	-1.0	2300.0	2400.0	750.0	2800.0		
W-04	10/30/90							
W-05	10/30/90							
W-06	10/30/90							
W-07	10/30/90	2200.0	8000.0	20000.0	3500.0	25000.0		
W-08	10/30/90	385.0	8700.0	20000.0	6200.0	28000.0		
W-09	10/30/90							
W-10	10/30/90							
W-11	10/30/90	-1.0	4100.0	9000.0	4600.0	15000.0		
W-12	10/30/90	1100.0	113.0	-1.0	-1.0	23.0		

Table 3. Summary of organic-vapor concentrations detected from borehole soil samples and in manholes

soil organic-vapor concentrations in ppm				
depth, ft.	0	5	10	
borehole				
BH-1	4	2		
BH-2	1	1		
BH-3	0	0	6	
BH-4	0 0	0		
BH-5	0	2	2	
BH-6	26	92	3	
BH-7	0	0	0	
BH-8	1	0	0	
BH-9	0	0	1	
W-15	0	6		
W-16	2	1		
W-17	0	0		
W-18	1	0		
W-19	0	3		
W-20	0	1		
W-21	(1518)	(1024)		
W-22	8	2		
W-23	2	0		
W-24	2	5		
manhole	organic-vapor concentration, ppm			
MH-1		0		
MH-2		0		
MH-3		4		
MH-4		4		
MH-5		0		
MH-6		3		
MH-7		17		

We collected soil samples from boreholes BH-1 (at seven foot depth) and BH-6 (at six foot depth) for analyses by EPA modified method 8015/8020 (fuel hydrocarbons, benzene, toluene, ethylbenzene, xylene and MTBE). We placed each sample in a labelled, one-pint glass jar. We placed these samples on ice and kept them on ice during storage and shipment to the laboratory. Samples were analyzed by Analytical Technologies, Inc. (Phoenix, Arizona). Measured constituents were below detection limits. Field notes are included in Appendix A and analytical reports are included in Appendix B.

We completed temporary wells in two of the boreholes (BH-4 and BH-3). We developed these wells and sampled them using disposable bailers. Samples were collected in duplicate, 40-ml vials. Each vial contained a few drops of hydrochloric acid and mercuric chloride as a preservative. We placed these samples on ice after collection and kept them on ice during shipment to the laboratory. Samples were analyzed by Analytical Technologies, Inc. for chlorinated and aromatic hydrocarbons, MTBE and EDB (results are summarized in Table 2; analytical reports are included in Appendix B).

We abandoned boreholes by plugging them with cement to land surface. This was done to prevent any vertical migration of existing or future contamination through the boring.

Drilling and Construction of New Monitor Wells

We completed ten new monitor wells at the site. Ever Ready Oil Company drilled the holes and completed the monitor wells, per our direction. They drilled four-inch diameter holes using a truck-mounted auger. Borehole depths ranged from 15 to 20 feet deep. Casing-string lengths varied from about 12 to 20 feet. They constructed the monitor wells using two-inch diameter, threaded, flush-joint, PVC casing and screen. Screen sections were five feet long and had horizontal machine-cut openings, 0.010-inches wide. They gravel packed the screen sections with 10-20 silica sand, to about a foot above the top of the screen section. They placed bentonite seals in the annulus above the gravel pack. They then backfilled the annulus above the bentonite seal with cuttings to a depth of about 1.5 feet below ground level. They finished the wells by placing seven-inch diameter steel covers with bolt-on lids over the wellheads and locking pipe plugs were installed on the wellhead (Construction details are included with field data in Appendix A). These wellheads were cemented in place slightly above ground level.

Sampling and Analysis of Ground Water from New Monitor Wells

We developed and sampled the new monitor wells with disposable bailers. We developed until the wells until the water cleared (usually more than four well volumes). We collected water samples in duplicate, 40-ml, vials which contained a few drops of hydrochloric acid and mercuric chloride. We placed the samples on ice immediately after collection and kept them on ice during shipment to the laboratory. Samples were analyzed by Analytical Technologies, Inc. (Phoenix, Arizona) for chlorinated and aromatic hydrocarbons, MTBE and EDB (results are summarized in Table 2; analytical reports are included in Appendix B).

Slug Tests

We conducted slug tests in wells 23 and 24. These two wells were screened and gravel packed about nine-feet below the water table. We made the tests using a sealed galvanized-steel pipe, of known volume, attached to a rope. We attached a pressure transducer and cable to the slug. We then lowered the slug and transducer into the well, as quickly as possible, to a fixed point below the static water-level. We measured the rate of fall of the water level using the response from pressure transducer, recorded on a chart recorder.

SITE HYDROGEOLOGY

Unsaturated Zone

The thickness of the unsaturated zone, at the site, varies from six to nine feet. The variation in thickness is primarily due to the sloping water table and the nearly level land surface. The unsaturated zone thickness also changes with fluctuations in the elevation of the water table. During the past year the fluctuation has been at least 0.7 feet (monitor well W-14, Fig. 2).

Soils in the unsaturated zone consist of gravel, sand, silt and clay; Medium- to coarse-grained, yellow-tan sands and silty sands are predominant. In some areas, the shallowest soils (surface to a depth of about three feet) appear to be imported fill material or disturbed soils.

Shallow Alluvial Aquifer

Shallow ground water occurs at a depth of between six and nine feet. The shallow aquifer is unconfined and consists predominantly of fine- to medium-grained sands with minor gravel, silt and clay material.

Direction of Ground-Water Flow and Gradients

The direction of flow in the shallow aquifer is to the south and does not appear to have changed much since the 1936 (Fig 3; Peter, 1987, p. 11 and 14). The gradient February 14, 1992 varied from 0.0008 to 0.0011. The gradient is similar to the 0.001 value reported by Peter (1987) for the same area between July 1985 and June 1986.

We also measured a vertical, downward component of flow within the shallow aquifer. We measured water-level differences between wells in well-cluster pairs W-22/W-23, and W-14/W-24. The differences were 0.004 and 0.006, respectively. These values were similar to the downward vertical gradient of 0.0051 reported in Peter (1987) between wells in a well cluster about a quarter mile west of the site.

Hydraulic Conductivity and Storage Coefficients

We interpreted slug-test data from monitor wells 23 and 24 to estimate the hydraulic conductivity of the shallow alluvial aquifer near the site. These wells are screened over a five-foot interval at a depth of about nine feet below the water table. We analyzed the data using the Bouwer-Rice method outlined in Bouwer (1989); the values of hydraulic conductivity were as follows:

Hydraulic Conductivity, ft/day		
Well	method:	Bouwer and Rice method (Bouwer, 1989)
W-23		62
W-24		119

The Bouwer and Rice slug-test method allows the measurement of saturated hydraulic conductivity of aquifer materials in a single well. This method also allows for consideration of partial penetration of the well, effects of draining gravel packs and hole diameter.

The transmissivity (T) of the shallow aquifer, at the site, was estimated using the measured saturated hydraulic conductivity (K) of the aquifer and its thickness (b).

where:

$$T = Kb$$

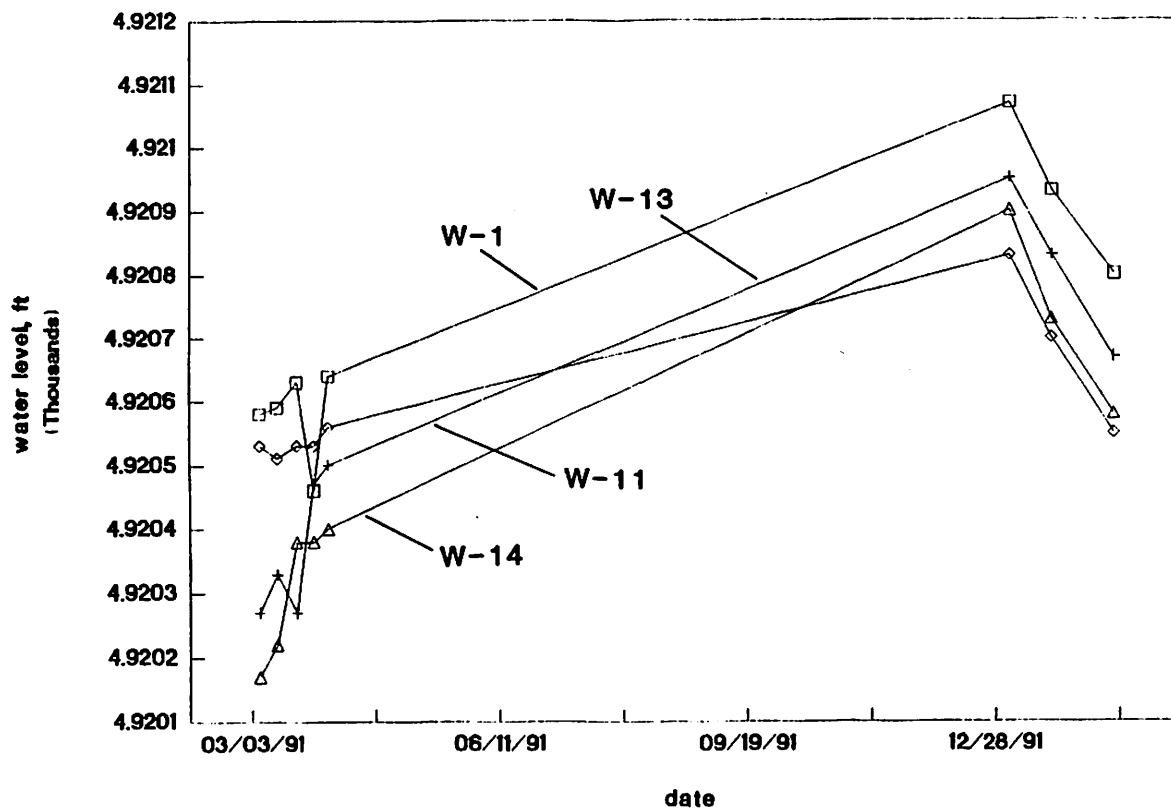


Figure 2. Graph of changes in water levels over time for selected monitor wells, Chevron Station site

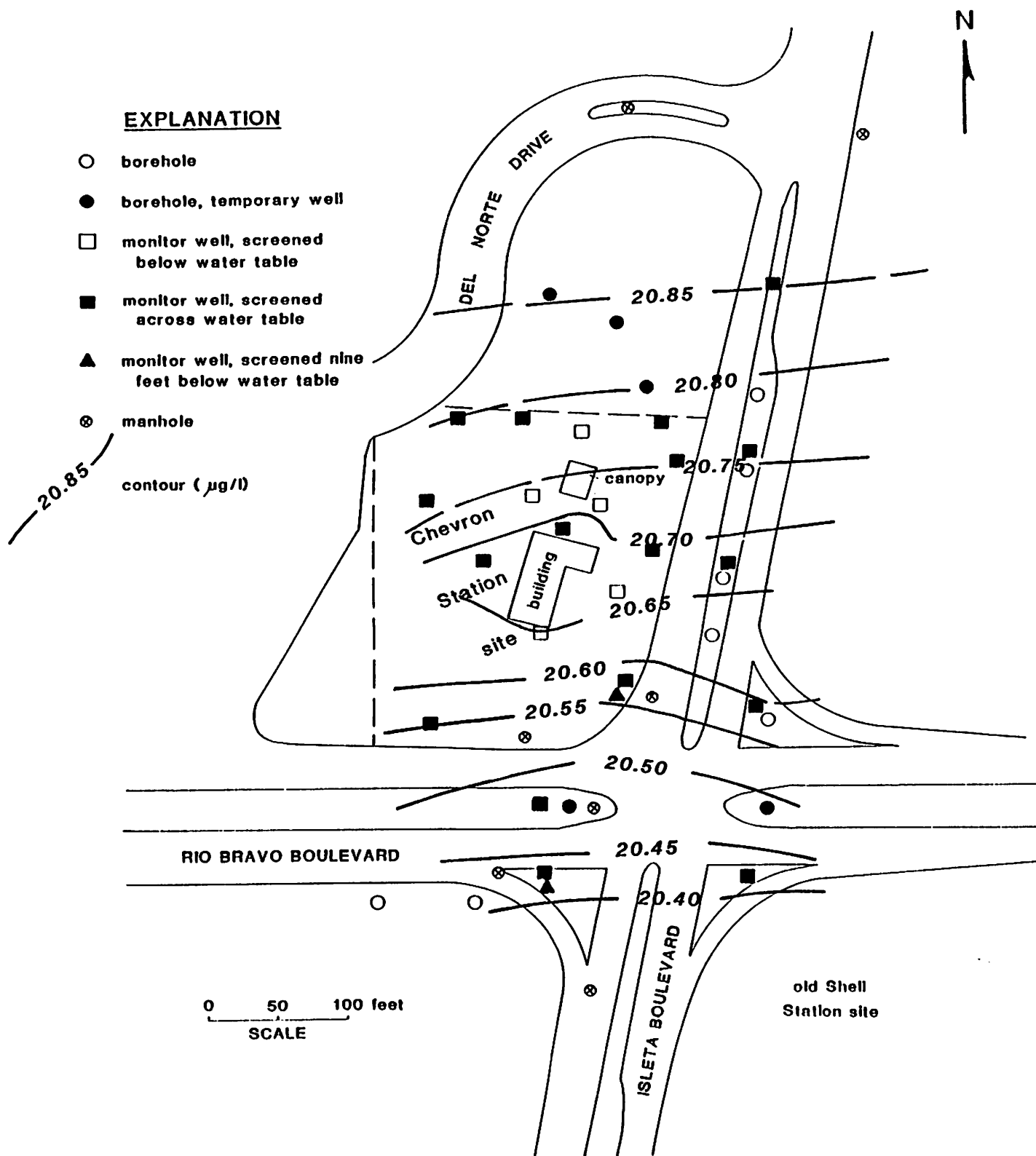


Figure 3. Map of Chevron Station site, with water-table contours, February 14, 1992.

We assumed the aquifer was 35 feet thick (from the thickness shown in the cross-section in Peter, 1987). The saturated hydraulic conductivity of the aquifer was 62 and 119 ft/day (as shown above). The transmissivity values for the shallow aquifer at monitor well W-23 and W-24 site were 2,170 and 4,165 ft²/day.

Specific storage is the volume of water elastically released from or taken into storage per unit volume of aquifer per unit change in hydraulic head (Lohman, and others, 1972). The product of specific storage and aquifer thickness is the storage coefficient of a confined aquifer.

Specific yield is the volume of water that will drain by gravity from a unit volume of aquifer material. For an unconfined aquifer the volume of water derived from storage is much greater than that derived from elastic expansion of water and the matrix in the aquifer (storage coefficient).

The storage coefficient of unconsolidated sediments, under water-table conditions, is usually determined with a long-term pumping test. Data from a long-term test is needed to account for the effects of delayed yield (drainage). Storage coefficients, determined from short-duration tests, are generally much lower. Long-term tests are generally not practical due to problems associated with the disposal of large volumes of produced water.

We estimated the specific yield of the shallow aquifer, at the site, to be about 0.20. Kernodle et al. (1987) used a specific yield of 0.10 in their ground-water flow model of the Albuquerque Basin. They considered this value at or near the minimum commonly accepted (Lohman, 1972, p. 53). The Albuquerque Basin, as a whole, contains a large fraction of very fine-grained and clayey sediments which probably justify the low value for modeling purposes. The sediments, in the shallow aquifer beneath the site, are generally fine- to coarse-grained sands, with little clay or silt. Therefore, we assumed the specific yield would be somewhat higher.

If we assume, for the unconfined aquifer conditions at the site, the specific yield and the storage coefficient are comparable. We would therefore assume a storage coefficient of 0.20. We feel this is the best approach not having data from a long-term pump test.

GROUND-WATER AND SOIL CONTAMINATION

Extent and Nature of Ground-Water Contamination

Ground water in the shallow aquifer at the Chevron Station site is contaminated with volatile aromatic and chlorinated hydrocarbons. We didn't encounter any

measurable thickness of product in any of the monitor wells. We did note an oily sheen on produced water from monitor well W-21 and L. Shore (AHED) reported the same on water from boring HAB-1. Several of the wells completed as part of the study by Kranjceovich (1991) were screened a few feet below the water table and may not allow floating product into the well; these wells include monitor wells W-3, W-7, W-8, W-11 and W-12 (Table 1).

The volatile aromatic hydrocarbons, in the ground water, appear to be associated with gasoline-related contamination. Gasoline-related contamination has been reported in the area since the early 1980s, and possibly earlier (AHED, file information). The contamination at the site includes concentrations of benzene, toluene, ethylbenzene, xylenes and MTBE, which exceed environmental standards for ground water.

Benzene, ethylbenzene, xylenes, toluene and MTBE concentrations, in ground water, are highest under the Chevron Station site and along the west side of Isleta Boulevard, east of the site (Figs. 4, 5, 6, 7 and 8). The highest concentrations of benzene were reported by AHED in a water sample collected from a test hole (HAB-1), immediately north of the northeast corner of property boundary of the site.

The presence of MTBE suggests some fraction of the contamination occurred since 1979. MTBE is a compound used in gasoline as an octane enhancer. According to Garrett et al. (1987), its was not used commercially until 1979.

We confirmed the presence of MTBE in several selected samples using gas chromatography and mass spectrometry. This was necessary because EPA method 8020,602 (gas chromatography, GC, method) has limited capability to specifically detect MTBE. We therefore, requested the laboratory analyze select samples by EPA method 624,8240 (gas chromatography/mass spectrometry, GC/MS, method). These same samples were analyzed by the GC method so the results could be compared. The GC/MS method is more expensive and has higher detection limits than the GC method. Therefore, it was only utilized to verify the presence of the MTBE at the site (see Appendix B for laboratory results).

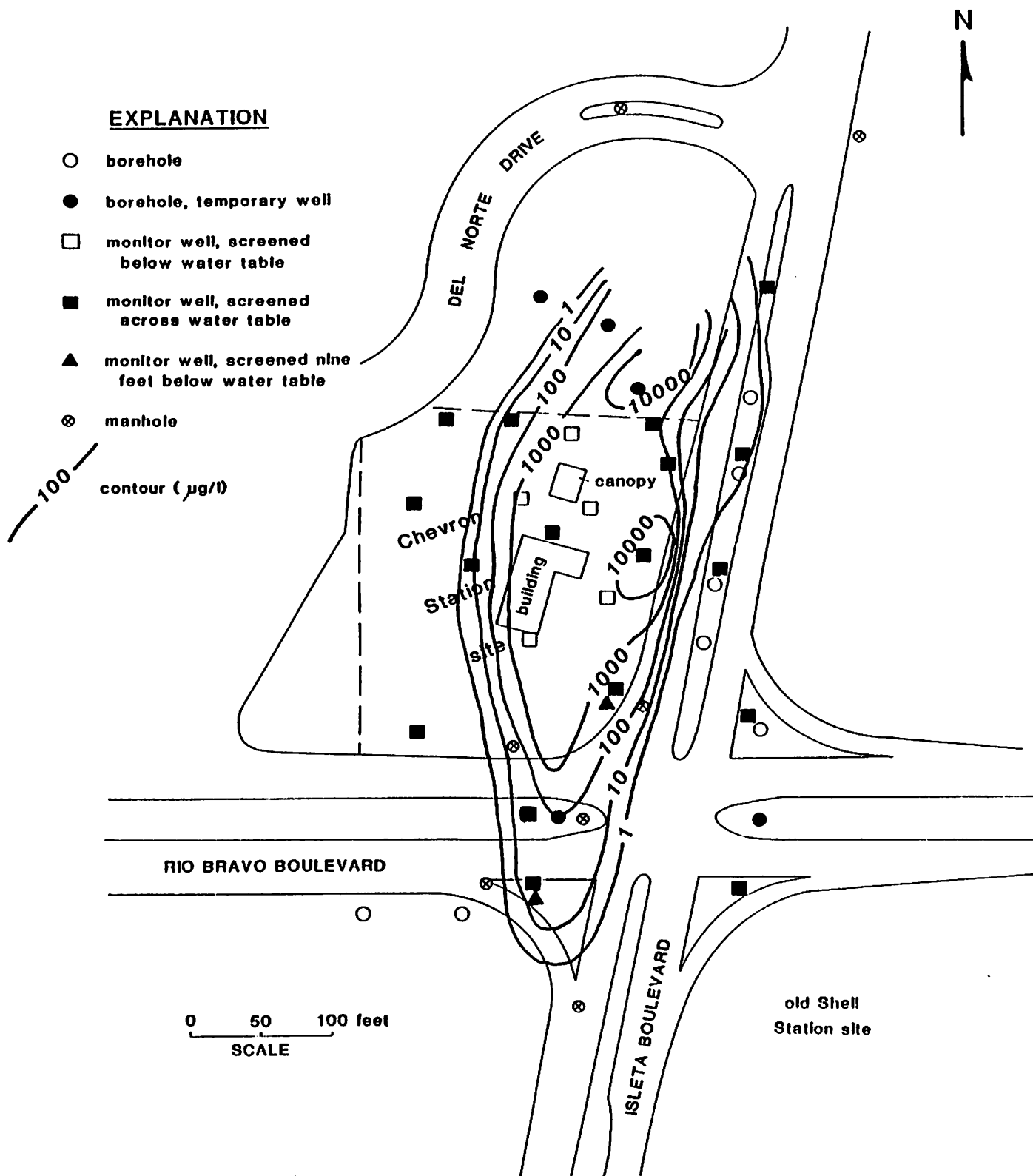


Figure 4. Iso-benzene contours (ug/l), Chevron Station site, Albuquerque, New Mexico.

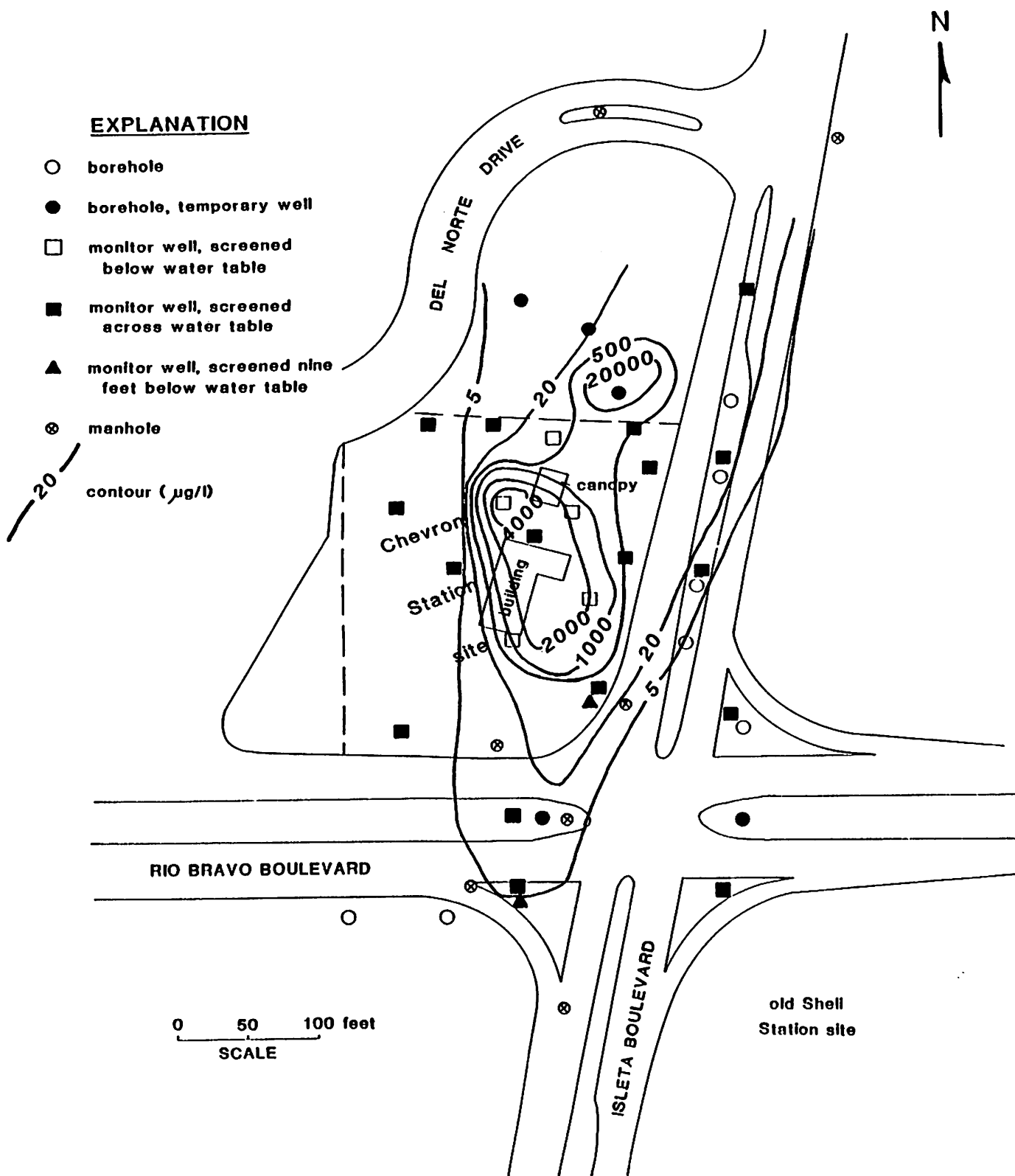


Figure 5. Iso-toluene contours ($\mu\text{g/l}$), Chevron Station site, Albuquerque, New Mexico.

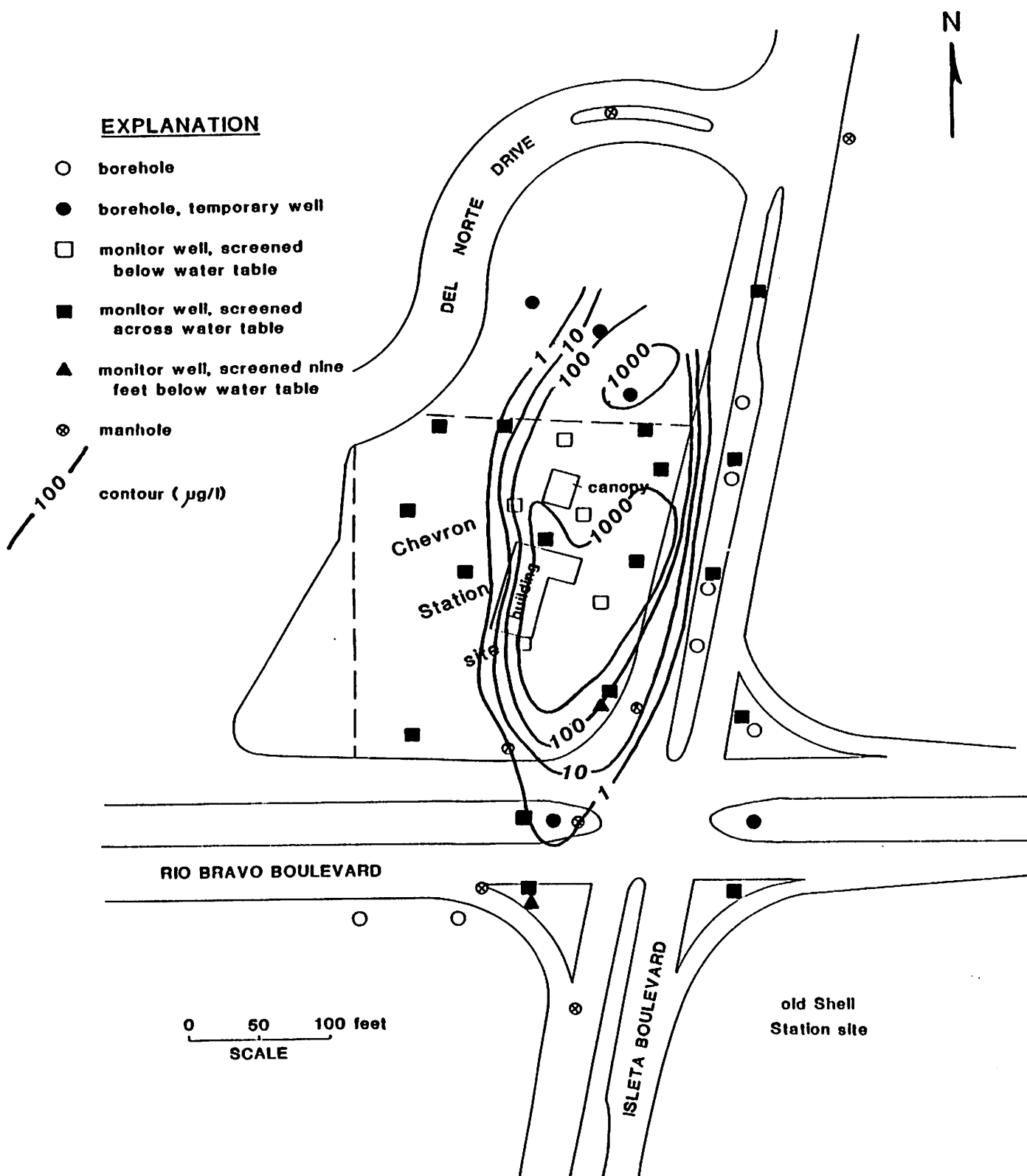


Figure 6. Iso-ethylbenzene contours (ug/l), Chevron Station site, Albuquerque, New Mexico.

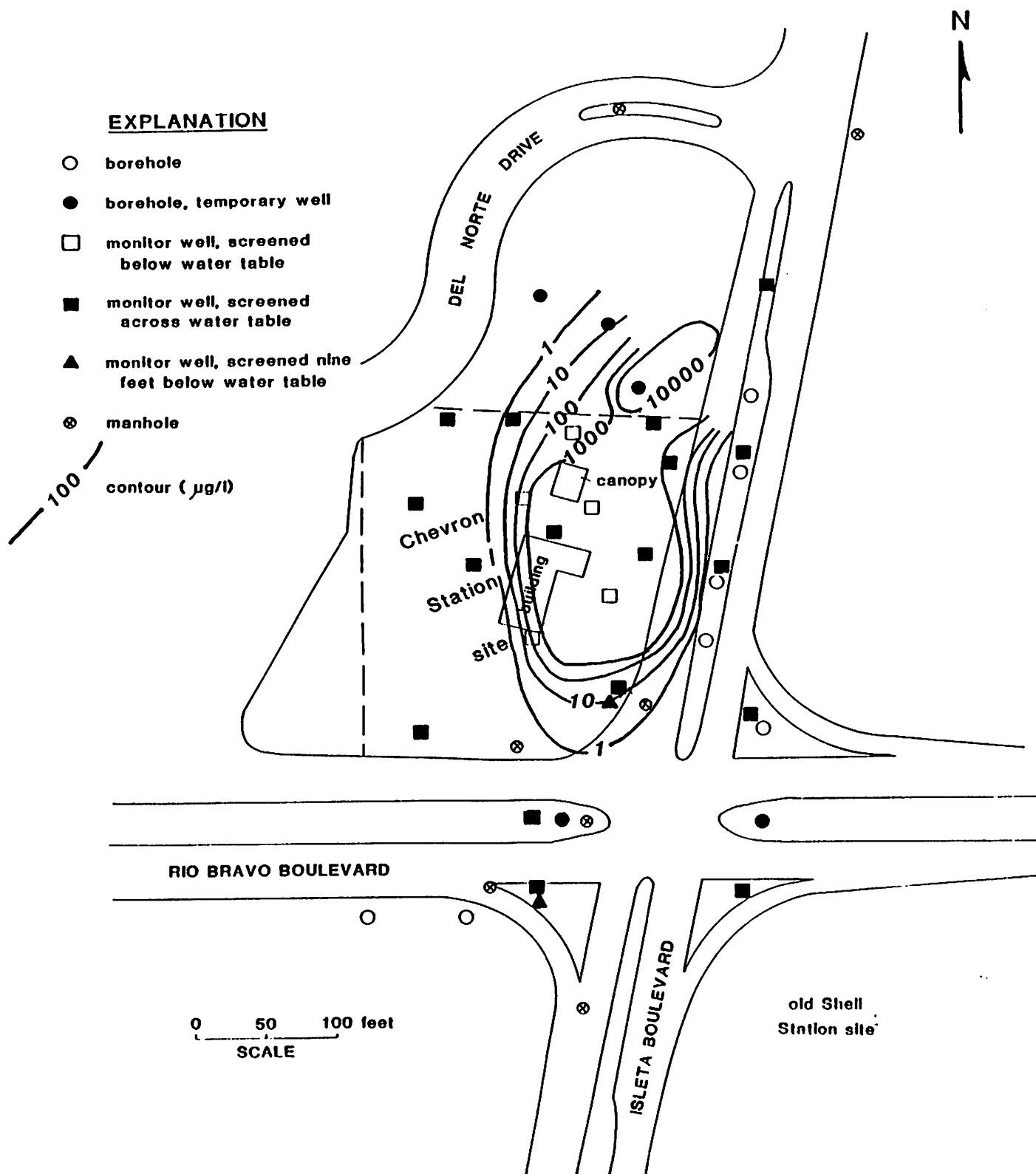


Figure 7. Iso-xylene contours ($\mu\text{g/l}$), Chevron Station site, Albuquerque, New Mexico.

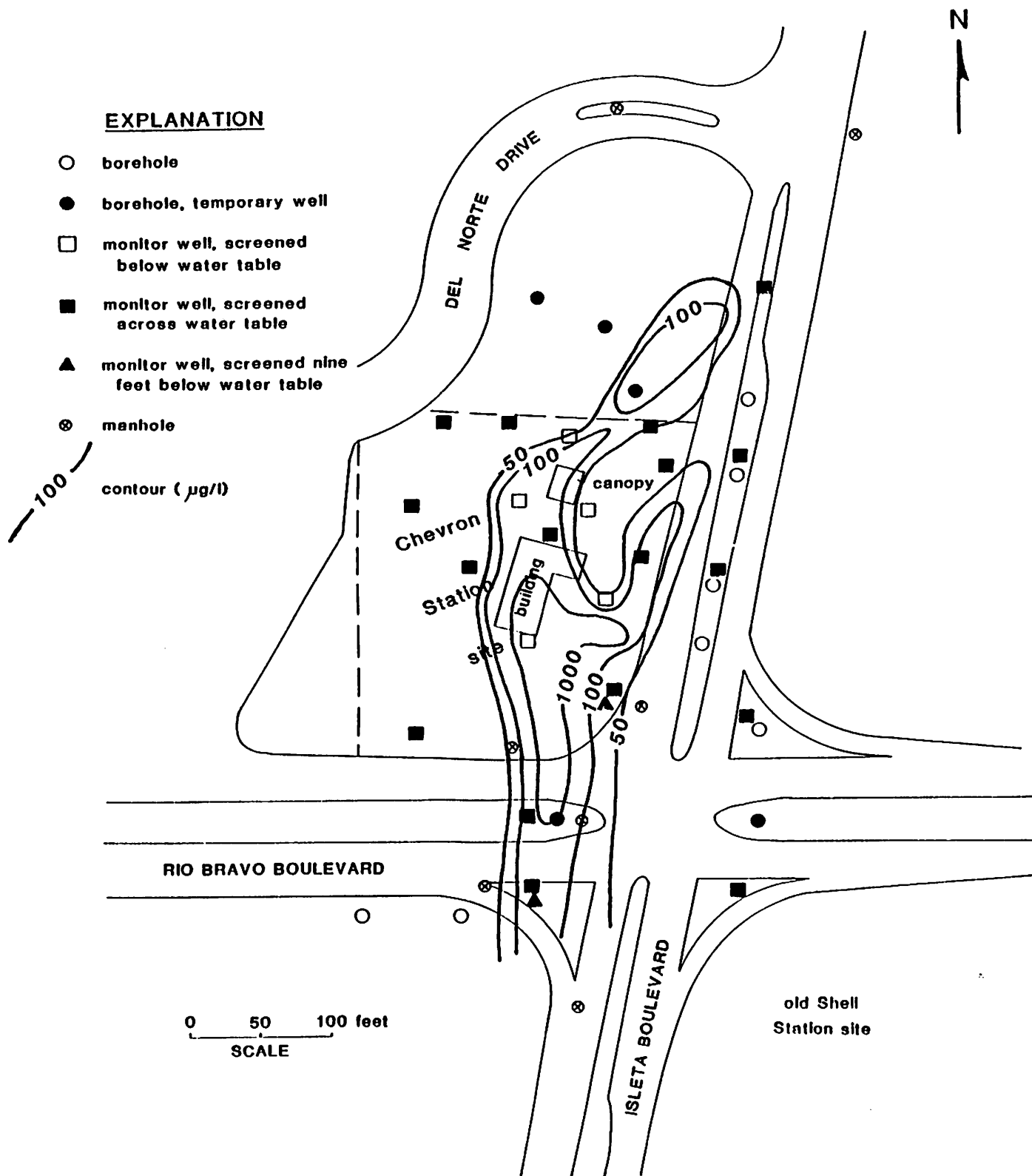


Figure 8. Iso-MTBE contours ($\mu\text{g/l}$), Chevron Station site, Albuquerque, New Mexico.

Several chlorinated compounds have been detected in the ground-water samples collected at the site. These compounds include 1,2-dichloroethene (DCE; total, includes trans- and cis- stereoisomers), tetrachloroethene (PCE), trichloroethene (TCE), 1,2-dichloroethane (DCA), chlorobenzene and chloroform. The DCE was detected in nearly every sample; the exceptions being samples from monitor wells W-6 and W-16 (Table 2). The highest concentrations of DCE appear to be in an area under the building at the Chevron Station, although the upgradient extent is beyond the northern edge of the property, and has not been defined (Fig. 9).

According to Wood et al. (1985), and Dragun (1988), PCE and TCE have relatively short biodegradation half-lives and degrade successively to DCE with the loss of chlorine atoms. Wood et al. (1985) postulated that the degradation and loss of chlorine atoms was the result of anaerobic bacterial activity. Contamination of soil and ground water by petroleum hydrocarbons enhances the generation of an anaerobic conditions which can significantly lower the oxidation state of the aquifer (Longmire, 1986). This could lead to an increase in the activity of anaerobic bacteria. Upgradient of and side gradient of the gasoline-related contamination, ground water may be more oxidized and this anaerobic bacterial activity may be limited. The PCE and TCE, in water samples collected in wells north of the gasoline contamination, may not have completely degraded to DCE.

Nyer et al. (1991) reports that DCE is also several times more soluble than TCE and more than an order of magnitude more soluble than PCE. This could explain the higher concentrations and greater mobility of the DCE in ground water at the site (Fig. 9).

The chlorobenzene and chloroform were each detected in only one sample. The chlorobenzene was measured at a concentration of 1.7 ug/l in a water sample from monitor well W-10. The concentration of chloroform was 13 ug/l in a water sample from monitor well W-11. Source of these compounds is not known.

Extent and Nature of Soil Contamination

Kranjceovich (1991) described gasoline-related soil contamination, defined as organic-vapor concentrations greater than 100 ppm during drilling at the site. Kanjceovich (1991) recognized gasoline-related soil contamination in the unsaturated zone in soil samples from boreholes W-2, W-4, W-5, W-9, and W-12. These soil samples were collected at a depth of five feet and were screened with a photoionization detector.

Ever Ready Oil/
Iskeli & Rio Bravo

1-23-71

10:00 Meet Shawn to conduct manhole survey

Loc. ID

PID Reading (ppm)

Background (ppm)

MH-1

0.0

0.0

MH-2

0.0

0.0

MH-3

4.0

0.0

MH-4

4.0

0.0

MH-5

0.0

0.0

MH-6

3.0

0.0

MH-7

17.0

0.0

↳ Bell System
manhole

MH-1 thru MH-6 were sewer manholes

MH-7 was manhole for Bell Systems

We recognized soil contamination in soil samples from boreholes BH-6 and W-21. Organic-vapor concentration were 96 and 1518 ppm, respectively.

CONCLUSIONS

There appears to be two areas of gasoline-related soil and ground-water contamination at the site. These two areas appear to overlap. The first area is near the tanks and dispensers, north of the Chevron Station building (Fig. 1). This contamination appears to extend southward under the station building near the area of well W-12. The second area is in the northeast corner of the station property. In this area, the contamination occurs north of the station property, an unknown distance, and southward parallel to Isleta Boulevard near well W-9.

The gasoline-related contamination near the tank and dispenser, north of the Chevron Station building, likely resulted from leaks or spills in that area. This contamination has migrated downgradient and coalesces with the plume migrating southward from the northeast corner of the property. The contamination, near the northeast corner of the property may have migrated from an upgradient source. This source could have been the Plateau Station site (vacant lot immediately north of the Chevron Station site, Fig. 1) and/or the utility corridor along Isleta Boulevard. Gasoline-related contamination has been reported in manholes along Isleta Boulevard, upgradient of the site, since the early 1980s.

There appears to be a plume of chlorinated solvents, which is not associated with the gasoline contamination. This plume appears to be migrating onsite from an upgradient area.

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CERTIFICATION STATEMENT

I certify I am personally familiar with the information submitted in this report and the report was prepared under my direct supervision.

Robert W. Newcomer, Jr.
John W. Shomaker, Inc.

APPENDIX A

1-3-92

Every Ready Oil & Isleta T Rio Grande

08:35 JLP, RLP pick up trailer well log from
Every Ready office

09:05 arr. loc. Begin surveying well head elevs.

Sta. 1

<u>Location</u>	<u>Reading (FT)</u>	<u>Elev. (FT)</u>	<u>Comments</u>
Shot to concrete Retaining wall N. side of site, E. end assumed elev. 100.00			
	3.46	100.00	Inst. HT = 103.46
MW-7	4.83	98.63	T.O.C. N. Side
MW-2	5.37	98.09	" " "
OW-6	5.27	98.19	" " "
MW-6	4.68	98.78	" " "
OW-4	4.45	99.01	" " "
MW-10	5.53	97.93	" " "
MW-1	4.88	98.58	" " "
MW-3	4.37	99.09	Under above T.O.C.
MW-8	4.04	99.42	T.O.C. N. Side

Sta. 2

MW-10		97.93	T.O.C. N. Side
intermed. HT	5.73	103.66	" " "
MW-8	4.24	99.42	" " "
MW-5	4.89	98.77	" " "
MW-4	4.16	99.50	" " "
MW-9	4.50	99.16	T.O.C. N. Side
OW-2	4.69	98.97	T.O.C. N. Side
OW-1		99.60	

Every Ready Oil & Isleta & Rio Bravo

Sta. 3

<u>Location</u>	<u>Reading (ft)</u>	<u>Elev. (ft)</u>	<u>Comments</u>
MW-10	5.70	97.93	T.O.C. 1) 2nd
Instru. HT		103.63	
MW-4	4.14	99.49	→ 99.50 From Sta. 2
OW-2	4.66	98.97	" " "

Sta. 4

BM	3.89	100.00	Instru. HT = 103.87
OW-1	4.29	99.60	T.O.C. 1) 2nd

Unable to locate monitor wells OW-5 & OW-3

11:15 measure Fluid levels

<u>M #</u>	<u>Loc.</u>	<u>Fluid Depth (ft)</u>	<u>Product Thickness (ft)</u>	<u>Fluid Elev.</u>
W-8	MW-3	8-0.45 = 7.55	—	91.54
W-7	MW-1	8-0.96 = 7.04	—	91.54
W-10	MW-10	7-0.58 = 6.42	—	91.51
W-12	MW-5	8-0.72 = 7.28	—	91.47
W-11	MW-4*	8.5-0.51 = 7.99	—	91.51
W-9	MW-8	8.6-0.71 = 7.89	—	91.53
W-14	MW-9	8-0.30 = 7.70	—	91.46
W-13	OW-2	8.5-0.72 = 7.58	—	91.37
W-6	OW-4	8-0.55 = 7.45	—	91.56
W-2	OW-6	7-0.47 = 6.53	—	91.61
W-1	MW-6	8-0.85 = 7.15	—	91.63
W-3	MW-2	7-0.54 = 6.46	—	91.63
W-4	MW-7	7.5-0.49 = 7.01	—	91.62
W-5	OW-1	8.5-0.46 = 8.04	—	91.56

* used Sta. 2 elev.

1-3-72

Every Ready J.I. ? Tablets & Pro

- MW-3 - 2" dia. PVC casing, locking pipe plug,
8" dia. manway w/ bolt on lid
- MW-1 - 2" dia. PVC casing, locking pipe plug,
8" dia. manway w/ bolt on lid
- MW-10 - As above
- MW-5 - As above
- MW-4 - As above
- MW-8 - As above
- MW-9 - As above
- OW-2 - 2" dia. PVC, locking pipe plug, above
ground completion, no protective casing
- OW-6 - As above
- OW-6 - As above
- OW-1 - As above
- MW-6 - 2" dia. PVC casing, locking pipe plug,
8" dia. manway w/ bolt on lid
- MW-2 - As above
- MW-7 - As above

In addition to master key # 240, you
need #'s 3232 & 3252

Ever Ready O.I.
Isleta of Rio Bravo

1-20-72

08:00 Load eqpt For sampling; buy gloves

08:50 RLP, STF arr loc. begin measuring for
levels

09:30 W-1 (MW-6) purge well by bailing 3⁺ well Vols.

09:40 collected 2-40ml vials pres. w/

HCl & HgCl₂, placed on ice

Water had a HCarb. odor; discharge moderately

09:50 W-2 (OW-6) purge well by bailing 3⁺ well Vols.

discharge slightly cldy tan, slight HCarb. odor

10:05 collected 2-40ml vials pres. w/

HCl & HgCl₂, placed on ice

10:10 W-3 (MW-2) purge well by bailing 5⁺ gals,

discharge moderately cldy grey; HCarb. odor

sheen noted on water surface.

10:50 collected 2-40ml vials pres. w/ HCl

& HgCl₂, placed on ice

11:05 W-4 (MW-7) purged well by bailing 5⁺ gals,

discharge moderately cldy, grey, HCarb. odor.

11:15 collected 2-40ml vials pres. w/ HCl

& HgCl₂, placed on ice.

11:25 W-5 (OW-1) purged well by bailing 5⁺ gals,

discharge slightly cldy, grey, HCarb. odor.

11:35 collected 2-40ml vials pres. w/ HCl

& HgCl₂, placed on ice

Ever Ready Oil /
Isleta & Rio Bravo

1-20-92

11:55 W-6 (OW-4) purged well by bailing 5⁺ gals,
discharge slightly clld, tan.

12:05 collected 2-40ml vials pres. w/ HCl
& HgCl₂, placed on ice

13:20 W-7 (MW-1) purged well by bailing 5⁺ gals
discharge slightly cloudy, grey^{-BK}, H₂S odor

13:40 collected 2-40ml vials pres. w/ HCl
& HgCl₂, placed on ice.

13:45 W-8 (MW-3) purged well by bailing 5⁺ gals,
discharge moderately cloudy, grey black, H₂S odor.

13:55 collected 2-40ml vials pres. w/ HCl & HgCl₂,
placed on ice.

Leaking pipe plug broken down not
properly

14:00 W-9 (MW-8) purged well by bailing 5⁺ gals
discharge slightly cloudy, grey, H₂S odor. ^{Foamy}

14:10 collected 2-40ml vials pres. w/ HCl
& HgCl₂, placed on ice.

14:15 W-10 (MW-10) purged well by bailing 5⁺ gals
discharge moderately clld, tan, slight H₂S odor

14:25 collected 2-40ml vials pres. w/ HCl
& HgCl₂, placed on ice

14:35 W-11 (MW-4) purged well by bailing 5⁺ gals
discharge foamy moderately clld, grey, H₂S odor.
14:50 Sample collected 2-40ml vials pres.
w/ HCl + HgCl₂, placed on Ice.

EVER READY oil
Islela + Rio Bravo

1-20-92

- 14:55 W-12 (mw-5) purge well by bailing 5+ gals
discharge moderately cloudy, Tan, H-carbon odor.
15:00 collected 2-40ml vials pres. w/ HCl + HgCl₂,
pres. on ice.
- 15:20 W-13 (mw-2) purge well by bailing 5+ gals
discharge mod. cldy, brn, NO H-carbon odor
15:30 collected 2-40ml vial pres w/ HCl + HgCl₂
placed on ice.
- 15:40 W-14 (mw-9) purged well by bailing 5+ gals.
discharge mod. cldy, brn, H-carbon odor
15:50 collected 2-40ml vials pres. w/ HCl
& HgCl₂, placed on ice

JOHN W. SHOMAKER, INC.

GEOLOGY-HYDROGEOLOGY

2703 BROADBENT PARKWAY NE, SUITE D

ALBUQUERQUE, NEW MEXICO 87107

(505) 345-3407

SITE LOCATION: Ever Ready Oil / Isleta & Rio BravoDATE: 1-20-92

FLUID-LEVEL MEASUREMENTS (FT.)

well ident.	measuring pt. elevation	depth to fluid	fluid elevation	product thickness
(MW-6)		8-0.71		
W-1	98.78	7.29	91.49	
(OW-6)		7-0.31		
W-2	98.19	6.69	91.50	-
(MW-2)		7-0.40		
W-3	98.09	6.60	91.49	-
(MW-7)		8-0.84		
W-4	98.63	7.16	91.47	-
(OW-1)		9-0.83		
W-5	99.60	8.17	91.43	-
(OW-4)		8-0.43		
W-6	99.01	7.57	91.44	-
(MW-1)		8-0.87		
W-7	98.58	7.13	91.45	-
(MW-3)		8-0.35		
W-8	99.09	7.65	91.44	-
(MW-8)		9-0.96		
W-9	99.42	8.04	91.38	-
(MW-10)		7-0.46		
W-10	97.93	6.54	91.39	-
(MW-4)		9-0.89		
W-11	99.50	8.11	91.39	-
(MW-5)		8-0.58		
W-12	98.77	7.42	91.35	-
(OW-2)		8-0.29		
W-13	98.97	7.71	91.26	-
(MW-9)		9-1.13		
W-14	99.16	7.87	91.29	-

1 - previous well identifications



DATE 10-20-72 PAGE 1 OF 1

PROJECT MANAGER: E.J. FINEBERGER						ANALYSIS REQUEST																							
COMPANY: John W. Shomeker, Inc. ADDRESS: 2702-D Broadbent Pkwy, NE Albuquerque, NM 87107 BILL TO: Tim Shepherd COMPANY: Ever Ready Oil Co., Inc. ADDRESS: P.O. Box 25845 Albuquerque, NM 87125 SAMPLES: (Signature) (505) 345-3407 PHONE NUMBER																													
SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010) + EDB	Aromatic Hydrocarbons (602/8020)	MTBE	MTBE by GC/MS	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP	NUMBER OF CONTAINERS					
W-1	4/29/92	9:30	water		X	X	X	X	X	X	X	X												2					
W-2	"	9:50	"		X	X	X	X	X	X	X	X												2					
W-3	"	10:10	"		X	X	X	X	X	X	X	X												2					
W-4	"	11:05	"		X	X	X	X	X	X	X	X												2					
W-5	"	11:25	"		X	X	X	X	X	X	X	X												2					
W-6	"	11:56	"		X	X	X	X	X	X	X	X												2					
W-7	"	13:20	"		X	X	X	X	X	X	X	X												2					
W-8	"	13:45	"		X	X	X	X	X	X	X	X												2					
W-9	"	14:00	"		X	X	X	X	X	X	X	X												2					
PROJECT INFORMATION					SAMPLE RECEIPT					RELINQUISHED BY:																			
PROJECT NO.: TOTAL NO. OF CONTAINERS					SIGNATURE: TIME: DATE:					1. SIGNATURE: TIME: DATE:					2. SIGNATURE: TIME: DATE:					3. SIGNATURE: TIME: DATE:									
PROJECT NAME: Ever Ready/Oilfield					CHAIN OF CUSTODY SEALS					PRINTED NAME: ROBERT L. FEERY					PRINTED NAME: JUS INC.					PRINTED NAME: COMPANY:					PRINTED NAME: ANALYTICAL TECHNOLOGIES, INC.				
P.O. NO.: INTACT?					RECEIVED GOOD COND/COLD					RECEIVED BY: 1. SIGNATURE: TIME: DATE:					RECEIVED BY: 2. SIGNATURE: TIME: DATE:					RECEIVED BY: LAB 3. SIGNATURE: TIME: DATE:									
VIA: Fed Ex					TAT: 24HR 48 HRS 1 WK 2 WKS					LAB NUMBER					ATTI Disposal @ \$5.00 each Return Pickup (will call)														
Comments: preserved with HCl and HgCl samples kept and shipped on ice																													



Chain of Custody

DATE 1-20-92 PAGE 2 OF 2

[illegible]

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
PROJECT NO.:		TOTAL NO. OF CONTAINERS		Signature:	Time:	Signature:	Time:	Signature:	Time:
PROJECT NAME: <i>Ever Ready/Isleta</i>		CHAIN OF CUSTODY SEALS		Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
P.O. NO.:		INTACT?		<i>Roger L. Perry 1-20-92</i>					
VIA: <i>Fed Ex</i>		RECEIVED GOOD COND./COLD		Company:		Company:		Company:	
TAT: ☐ 24HR ☐ 48 HRS ☐ 1 WK ☒ 2 WKS		LAB NUMBER		RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: (LAB) 3.	
SAMPLE DISPOSAL INSTRUCTIONS				Signature:	Time:	Signature:	Time:	Signature:	Time:
☒ ATI Disposal @ \$5.00 each ☐ Return ☐ Pickup (will call)									
Comments: <i>preserved with HCl and HgCl</i> <i>Samples kept on and shipped with ice</i>				Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
				Company:		Company:		Analytical Technologies, Inc.	

- 12:30 Stream
- 13:00 Stream cleaned teflon bailer + rinsed w/DI H₂O
- 13:40 BR-1; rinse from bailer (DI-H₂O), bailer will be used to sample H₂O from temporary well in BH-3. Sample pres. w/ HCl + HgCl₂
- 13:45 develop temporary well in BH-3. w/ Bailer cloudy, brown discharge, bailed 5' gal
Temporary well screened top of water table.
- 14:25 develop temporary well in BH-4 w/ bailer, v. cloudy, brown. No H₂O discharge. Discharge clearing after purging 2 gals. Cloudy after purging 4 gals., slightly clearer after 5 gals.
- 14:35 Collected 2-40ml vials pres. w/ HCl + HgCl₂, placed on ice
Temporary well screened top of water table
- BH-3 & BH-4 Filled to surface w/ water

Time: 09:00

Plates

W.P.

All head space samples collected w/ Hand Auger
Back-filled w/ sandy mix Bucket

[illegible]

Client: Every Ready Oil

Project: Every Ready / Isleta

BH-2

1 of 1

Site: Chevron Isleta + Rio Bravo

date: 1/21/12

time: 10:30

Geologist:

Steve T. Finch, Jr.

Contractor:

Every Ready Oil

map

drill method:

rig:

Auger 3 1/2" dia

Pink map

chevron

Back filled w/ ready mix

elevation, ft.

land surface:

l.o.o.

depth, ft. lith.

depth

ft

MVA

/ppm

description

0

Asphalt (hard)

0.4

med grained sand w/ 1/4" gravels Tan
to coarse moder

1.0

materially rounded gravels 1/4 - 1/2" dia

1.3

red grained to coarse grained sand (over 1/4" gravels, Tan)
mod. moist

2.5

1

2.5' Head space sample (1PPM)

3.0

med grained sand (w/ gravels, Tan, moist)

6.0

coarse grained, yellow sand, mod. moist (Sugar sand)

6.5

1

6.5' Head space sample (1PPM)

10.6.5'

File: 3	1 of 1
---------	--------

date: 1/21/91

Time: 11:15

जगद

Ever Ready

rtg:

Plot 05

made Temporary well + took water sample
backfilled w/ ready mix

phorum

1.0:0.

Description

0				Silty Sand w/ Gravels, lt brn, v. moist med grained sand
---	--	--	--	---

2.5 Head space sample ($\angle \Phi$ P.P.M.)

5.0			med grained sand, minor silt + gravels, Lt brown, clayey
-----	--	--	--

5.5				coarse grained sand, yellow, well sorted, moist
-----	--	--	--	---

6.0			med grained sand, yellow, well sorted, minor collect shell space sample 6.5' (L1 PPM)
-----	--	--	--

7.5			med grained sand, lt BFN, poorly sorted w/ silt + gravels v. moist
-----	--	--	---

S.D.			coarse grained sand, yellow, well sorted, calcareous.
------	--	--	---

7.0	7.0	5	T.D. collect Hand spike w/ Anger 1 (6 PPM)
-----	-----	---	--

7.0 1/2

Borehole Logging Form

hole: 4	1 of 1
---------	--------

date: 1/21/92

Contractor:

Ever Ready

rfq:

1. 10. 1911

 $\uparrow S$

Pro Fide

1.0:0.

depth
ft

OVA
ppm

.0

2.0

2.5

41

cause gained Sec'd, H. Hon, M. Hon.

2.5 1/2 rad space sample (21 PPM)

3.5

4.0

21

Sandy silt, minor clay, very moist, grey-brown.

4.0 Hz/pt space sample (21 ppm)

5.0

Silty w/ some clay, gray brown

55

5.8

21

mod. gravelly sand Lt Brn, moist

Head space sample 5.8' (< 1 ppm)

2.0

coarse sand well sorted, lt tan - yellowish

10,0

Head space sample (6 ppm)

U. 100 15-
100-1

Page 3	1 of 1
--------	--------

date: 1-21-72

Time: 14:45

Contractor:

Ever Ready

rtg:

॥३॥

Backfilled + plugged w/ Quikrete

Rio Prego

land surface:

1.0:0.

depth
ft

OVA
PPM

Description

①

Sept 14

0.11

2.0

21

med grainy sand + gravels, tan, v. moist

2.0 ft head space sample (<1 ppm)

3.5

Silty Sand w/some clay, Brn, v. moist

4.5

organic rich dark grey - brown silty clay

5.5

5,0

2

med - coarse grained sand, Lt Brw, v. moist

6.5

sugar sand, coarse well sorted sand, yellow, moist

8.5

2.5

2

sand, v. coarse, moist to wet, no hydrocarbons detected
sample collected for hydrocarbon analysis

note: P11-6	1 of 1
date: 1/21/82	
time: 15:15	

A hand-drawn map on a grid background. The word "map" is written in the top left corner. A vertical line is labeled "Rio" at the top. A horizontal line is labeled "Rio Bravo" in the middle. Another vertical line is labeled "Rio" at the bottom. A small circle is drawn on the horizontal line, and a small arrow points to it from the right.

fig:

Backfilled w/ ready mix

[illegible]

Client: Ever Ready Oil

Project: Ever Ready / Isleta

BH-7 1 of 1

Site: Chevron @ Isleta + Rio Bravo

date: 1/21/92

time: 15:50

Geologist:

Steve T. Finch, Jr.

Contractor:

Ever Ready

map

drill method:

Auger 3 1/2" dia

rig:

backfilled w/ ready mix

↑
5

Rio Bravo

Chevron

elevation, ft.

land surface:

l.o.o.

depth, ft. lith.

depth

ft

OVA

PPM

description

0

2

41

Dark - coarse sand, Tan w/ Gravel, V. moist

3.0

Silty Sand, med. gr., Tan, V. moist

5.0

5

41

med gr. sand, Tan, minor silt, moist

6.0

med gr. Sand, Tan, moist

7.5

Sugar sand, moist, Tan

8.0

8.5

41

v. coarse sand, ("sugar"), Tan saturated
head space sample 8.5'

Project: Ever Ready / Isleta

101

date: 1/21/92

Time: 16:20

Contractor:

Ever Ready

rig:

backfilled w/ ready mix

44:10

chevign

land surface:

t.o.g.

depth
54

OVA
EPM

description

0

2

1

Silty Sand, Tan. w/ gravels, J. med. i

202

5

21

silty sand, Lt Brn, w/ minor clay, 100%

7.5

Sugar Sand, meal. gr., Tan, moist

8.0

83

7

Sugar Sand, coarse gr., Tan, Saturated

Project: Ever Ready / Isleta

note: BH-9	1 of 1
------------	--------

date: 1/21/92

Time: 16:35

Contractor:

Ever Ready

rlg:

backfilled w/ ready mix

॥४॥

King Bravo

Chevron

land surface:

t.o:c.

id	description
1	1990-1991
2	1992-1993
3	1994-1995
4	1996-1997
5	1998-1999
6	2000-2001
7	2002-2003
8	2004-2005
9	2006-2007
10	2008-2009
11	2010-2011
12	2012-2013
13	2014-2015
14	2016-2017
15	2018-2019
16	2020-2021
17	2022-2023
18	2024-2025
19	2026-2027
20	2028-2029
21	2030-2031
22	2032-2033
23	2034-2035
24	2036-2037
25	2038-2039
26	2040-2041
27	2042-2043
28	2044-2045
29	2046-2047
30	2048-2049
31	2050-2051
32	2052-2053
33	2054-2055
34	2056-2057
35	2058-2059
36	2060-2061
37	2062-2063
38	2064-2065
39	2066-2067
40	2068-2069
41	2070-2071
42	2072-2073
43	2074-2075
44	2076-2077
45	2078-2079
46	2080-2081
47	2082-2083
48	2084-2085
49	2086-2087
50	2088-2089
51	2090-2091
52	2092-2093
53	2094-2095
54	2096-2097
55	2098-2099
56	2100-2101
57	2102-2103
58	2104-2105
59	2106-2107
60	2108-2109
61	2110-2111
62	2112-2113
63	2114-2115
64	2116-2117
65	2118-2119
66	2120-2121
67	2122-2123
68	2124-2125
69	2126-2127
70	2128-2129
71	2130-2131
72	2132-2133
73	2134-2135
74	2136-2137
75	2138-2139
76	2140-2141
77	2142-2143
78	2144-2145
79	2146-2147
80	2148-2149
81	2150-2151
82	2152-2153
83	2154-2155
84	2156-2157
85	2158-2159
86	2160-2161
87	2162-2163
88	2164-2165
89	2166-2167
90	2168-2169
91	2170-2171
92	2172-2173
93	2174-2175
94	2176-2177
95	2178-2179
96	2180-2181
97	2182-2183
98	2184-2185
99	2186-2187
100	2188-2189
101	2190-2191
102	2192-2193
103	2194-2195
104	2196-2197
105	2198-2199
106	2200-2201
107	2202-2203
108	2204-2205
109	2206-2207
110	2208-2209
111	2210-2211
112	2212-2213
113	2214-2215
114	2216-2217
115	2218-2219
116	2220-2221
117	2222-2223
118	2224-2225
119	2226-2227
120	2228-2229
121	2230-2231
122	2232-2233
123	2234-2235
124	2236-2237
125	2238-2239
126	2240-2241
127	2242-2243
128	2244-2245
129	2246-2247
130	2248-2249
131	2250-2251
132	2252-2253
133	2254-2255
134	2256-2257
135	

depth
ft

OVA
PCM

red gr. sand, tan, gravels, mor. +

2

Silty clay, Lt Brn, v. moist

2

LI

sugar sand, med. gr. tan. moist

5

11

Sugar Sand, coarse gr. Ten saturation

8.5

1

Chain of Custody

DATE _____ PAGE ____ OF ____

PROJECT MANAGER: _____

ANALYSIS REQUEST

COMPANY: _____

ADDRESS: _____

BILL TO: _____

COMPANY: _____

ADDRESS: _____

SAMPLERS: (Signature) _____

PHONE NUMBER _____

SAMPLE ID

DATE

TIME

MATRIX

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

Petroleum Hydrocarbons (418.1)

(MOD 8015) Gas/Diesel

Diesel/Gasoline/BTXE (MOD 8015/8020)

BTXE (8020)

Chlorinated Hydrocarbons (601/8010)

Aromatic Hydrocarbons (602/8020)

MTBE

Pesticides/PCB (608/8080)

Herbicides (615/8150)

Base/Neutral/Acid Compounds GC/MS (625/8270)

Volatile Organics GC/MS (624/8240)

SDWA Primary Standards

SDWA Secondary Standards

SDWA Volatiles (502.1/503.1)

The 13 Priority Pollutant Metals

The 8 EP Tox Metals by EP Tox Prep. (1310)

The 8 EP Tox Metals by Total Digestion

The 8 EP Tox Metals by TCLP (1311)

NUMBER OF CONTAINERS

PROJECT INFORMATION

SAMPLE RECEIPT

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

PROJECT NO:

TOTAL NO. OF CONTAINERS

CHAIN OF CUSTODY SEALS

INTACT?

RECEIVED GOOD COND./COLD

LAB NUMBER

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

P.O. NO.

SHIPPED VIA: ☒ AIR ☐ RETURN

RECEIVED GOOD COND./COLD

LAB NUMBER

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

SAMPLE DISPOSAL INSTRUCTIONS

RECEIVED GOOD COND./COLD

LAB NUMBER

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

Comments:

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

LAB NUMBER

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

LAB ID

TAT: (NORMAL) ☒ (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Company: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

ATTN: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Time: _____

Date: _____

Signature: _____

Ever Ready / Isleta

1-22-92

08:15 Shawn w/ E.R. called postponed to 09:00

08:30 called Shawn to sched. for later

~ 13:00 d to see if he had all
his material. He said he had all
supplies & probably could not get to
site until ~ 11:00, but would be
back.

09:40[±] Shawn, sched. drilling for 13:00

Ever Ready Oil / Island

1-29-72

9:30 arr. loc. RUP and RWN, set up to measure elevations of new wells

Sta. 1

loc. mp or well	Reading	Elev.	Notes
	4.08	100.00	
		104.08	T.O.C.
W-15	3.80	100.28	high side
W-16	3.91	100.17	" "
W-17	3.74	100.34	" "
Benchmark	3.21	100.87	B.M. 2. Elevation As B.M. 1. As B.M. 2.
W-19	3.78	100.30	T.O.C. high side
W-18	4.26	99.82	T.O.C. high side

10:00 RUP left loc.

10:30 Developed MW-15, -16, -17, -18, -19 with clean FVC bailers and nylon rope. Bailed between 5-10 gals from each well.

13:00 Left loc., RWN

Ever Ready / Isleta

7-20-12

- 15:15 well 18 , purged 3 gallons from well with disposable PVC bailer and nylon rope. collected 2 40-ml vials with Hcl and Hgcl pres. placed samples on ice
- 15:25 well 19 purged 3 gallons from well w/ disposable bailer and nylon rope. 15:25 collected 2 40-ml vials w/Hcl + Hgcl, pres. placed samples on ice,
- 15:40 well 17 purged well, discharge v. cloudy dk Brn, bailed 3 gallons w/ disposable bailer and nylon rope. 15:40 collected 2 40-ml vials w/Hcl + Hgcl pres. + placed on ice.
- 15:50 well 16 purged well w/ disposable bailer and nylon rope. Bailed 3 gallons. Discharge cloudy, Lt Brn. collected 2 40-ml vials w/Hcl + Hgcl pres. Placed on ice.
- 16:00 well 15 purged well w/ disposable bailer and nylon rope. Bailed 3 gallons. Discharge cloudy, Lt Brn. collected 2 40-ml vials w/Hcl + Hgcl pres. Placed on ice.



DATE 11/2/12 PAGE 1 OF 1

ATT Labs: San Diego (619)458-9141 • Phoenix (602)438-1530 • Seattle (206)228-8335 • Pensacola (904)474-1001

DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

Elevation calculations

notes: 5/5/92

		Surveyor, 11/90 M.P.	TWS, Inc. M.P.		
W i.d.	old i.d.	clev., ft	clev., ft	diff. *	well cover type
W-1	MW-06	4928.73	4928.22	.51	manhole
W-2	OW-06	4927.93	4927.63	.30	pipe plug
W-3	MW-02	4928.21	4927.53	.68	manhole
W-4	MW-07	4928.80	4928.07	.73	manhole
W-5	OW-01	4929.35	4929.04	.31	pipe plug
W-6	OW-04	4928.74	4928.45	.29	pipe plug
W-7	MW-01	4928.52	4928.02	.50	manhole
W-8	MW-03	4929.12	4928.53	.59	manhole
W-9	MW-08	4929.47	4928.86	.61	manhole
W-10	MW-10	4928.02	4927.37	.65	manhole
W-11	MW-04	4929.52	4928.94	.58	manhole
W-12	OW-05 MW-05	4928.82	4928.21	.61	manhole
W-13	OW-02	4928.73	4928.41	.32	pipe plug
W-14	MW-09	4929.20	4928.60	.60	manhole

* It appears the surveyor measured elevation with locking caps on pipe and to the tops of the manhole covers. Therefore, the water-level measurements using these elevations in Kranjcevic's reports are not correct.

Rum

Ever Ready / 15/10/12

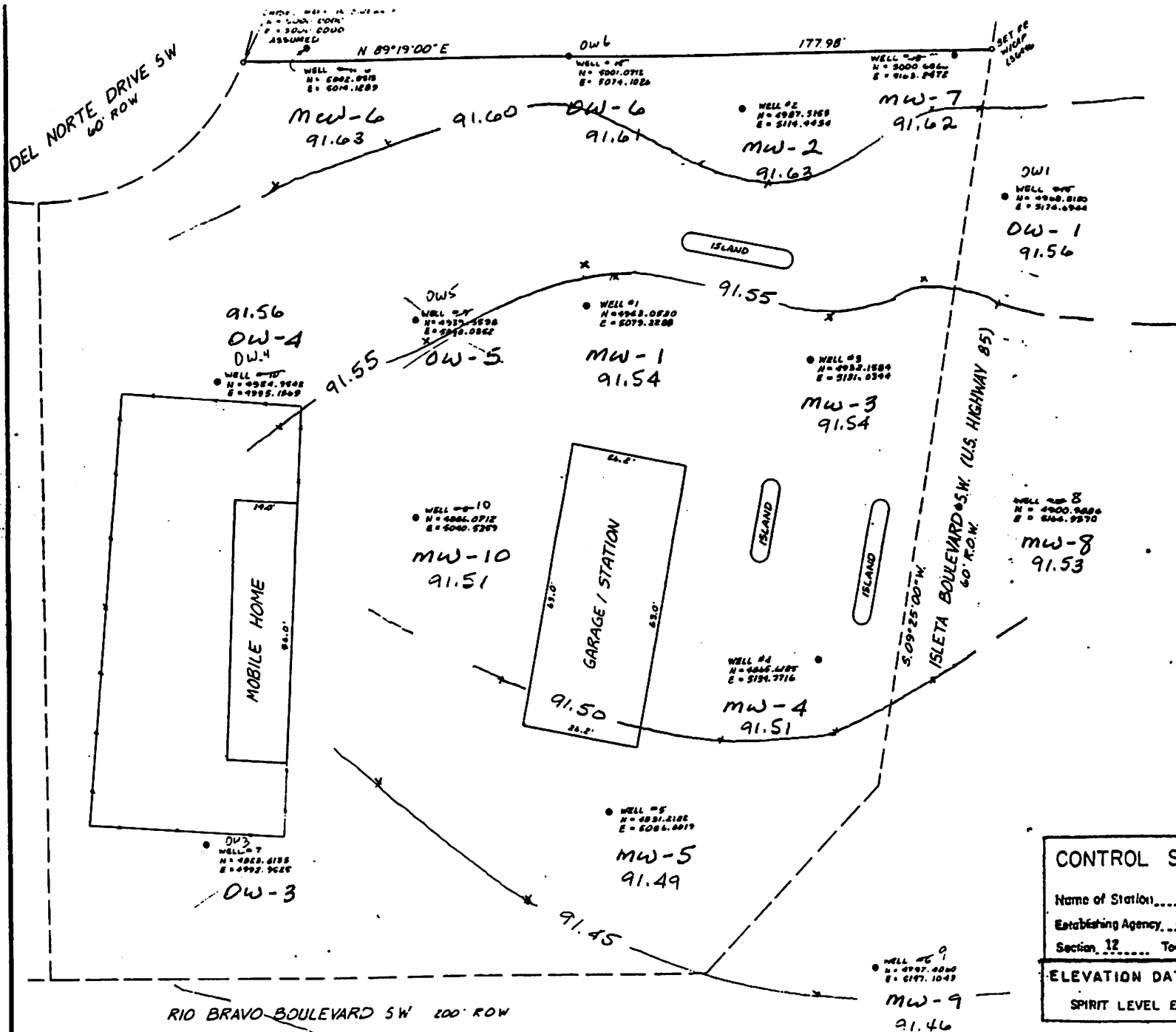
1-22-12

ELEVATIONS

	meas. pt.	meas. pt.
<u>monitor well</u>	<u>relative elev. ft</u>	<u>elev. ft</u>
W-1	98.78	4928.22
W-2	98.19	4927.63
W-3	98.09	4927.53
W-4	98.63	4928.07
W-5	99.60	4929.04
W-6	99.01	4928.45
W-7	98.58	4928.02
W-8	99.09	4928.53
W-9	99.42	4928.86
W-10	97.93	4927.37
W-11	99.50	4928.94
W-12	98.77	4928.21
W-13	98.97	4928.41
W-14	99.16	4928.60
B.M. (concrete on N. side of site)	100.00	4929.44
W-15	100.28	4929.72
W-16	100.17	4929.61
W-17	100.34	4929.78
W-18	99.82	4928.64
W-19	100.30	4929.74
W-20	100.31	4929.75
W-21	99.52	4928.96
W-22	99.54	4928.98
W-23	99.47	4928.91
W-24	99.26	4928.70

1-29-12

2/13/12



NOTE

The co-ordinator for monitor wells survey.

Wells with no without lids.

OW-3. Monitor well
Z = 5009.4741

SURVEYOR'S CERTIFICATE

I, Franklin E. Wilson, do hereby certify that from notes of an actual survey my knowledge and belief

This certificate is executed on November 19, 1988

Franklin E. Wilson, New Southwest Surveying Co.
247-4444

Wells noted

ELEVATIONS MONITOR WELL	RIM	TOP OF PIPE
1	4928.52	4928.22
2	4928.21	4927.78
3	4929.12	4928.83
4	4929.52	4929.28
5	4928.62	4928.49
6	4929.20	4928.91
7	NONE	4927.96
8	4928.02	4927.72
9	NONE	4928.86
10	4928.73	4928.49
11	NONE	4927.93
12	4928.80	4928.58
13	NONE	4929.35
14	4927.47	4928.17
15	NONE	4928.73

CONTROL STATION DATA

Name of Station 7-P12 Site New Mexico Co. Bern
Establishing Agency ACS Year 1988 Chief of Party
Section 12 Township 9N Range 2E Map No. P12

ELEVATION DATA

SPIRIT LEVEL ELEVATION (SLD 1929) Feet 4929.905 Meters

corrected
elevation
RWN
2/5/92

WATER ELEVATION MEASUREMENTS

Date March 6, 1991

Well #	Top of Rim Elevation	Ft. Below Grade	JWS, Inc. m.p. elev.	Water Level Elevation	corrected w.l.
MW-01	4928.52	7.60	4928.02	4920.92	4920.42
MW-02	4928.21	7.27	4927.53	4920.94	4920.26
MW-03	4929.12	8.21	4928.53	4920.91	4920.32
MW-04	4929.52	8.67	4928.94	4920.85	4920.27
MW-05	4928.82	7.99	4928.21	4920.83	4920.22
MW-06	4928.73	7.64	4928.22	4921.09	4920.58
MW-07	4928.80	7.75	4928.07	4921.05	4920.32
MW-08	4929.47	8.61	4928.86	4920.86	4920.25
MW-09	4929.20	8.43	4928.60	4920.77	4920.17
MW-10	4928.02	7.11	4927.37	4920.91	4920.26

Top of Pipe

OW-01	4929.35	8.43	4929.04	4920.92	4920.61
OW-02	4928.73	7.88	4928.41	4920.85	4920.53
OW-03	4927.56	6.73	destroyed	4920.83	—
OW-04	4928.74	7.84	4928.45	4920.90	4920.61
OW-05	4928.36	7.47	4928.21	4920.89	4920.71
OW-06	4927.93	6.88	4927.63	4921.05	4920.75

Top of Rim and Top of Pipe elevations taken from survey prepared
by Franklin E. Wilson, Surveyor No 6446, Southwest Surveying Co,
333 Lomas NE, Albuquerque, NM Dated 2/7/91

WATER ELEVATION MEASUREMENTS

Date March 13, 1991

Well #	Top of Rim Elevation	Ft. Below Grade	Water Level Elevation	<i>corrected W.L.</i>
MW-01	4928.52	7.56	4920.96	4920.46
MW-02	4928.21	7.23	4920.98	4920.30
MW-03	4929.12	8.18	4920.94	4920.35
MW-04	4929.52	8.61	4920.91	4920.33
MW-05	4928.82	7.97	4920.84	4920.24
MW-06	4928.73	7.63	4921.10	4920.59
MW-07	4928.80	7.81	4920.99	4920.26
MW-08	4929.47	8.57	4920.96	4920.29
MW-09	4929.20	8.38	4920.82	4920.22
MW-10	4928.02	7.08	4920.94	4920.29

Top of Pipe

OW-01	4929.35	8.36	4920.99	4920.67
OW-02	4928.73	7.90	4920.83	4920.51
OW-03	4927.56	6.68	4920.88	—
OW-04	4928.74	7.77	4920.97	4920.67
OW-05	4928.36	7.44	4920.92	4920.77
OW-06	4927.93	6.95	4920.98	4920.67

Top of Rim and Top of Pipe elevations taken from survey prepared
by Franklin E. Wilson, Surveyor No 6446, Southwest Surveying Co,
333 Lomas NE, Albuquerque, NM Dated 2/7/91

WATER ELEVATION MEASUREMENTS

Date March 21, 1991*corrected
w.l.*

Well #	Top of Rim Elevation	Ft. Below Grade	Water Level Elevation	
MW-01	4928.52	7.41	4921.11	4920.61
MW-02	4928.21	7.08	4921.13	4920.45
MW-03	4929.12	8.01	4921.11	4920.52
MW-04	4929.52	8.67	4920.85	4920.27
MW-05	4928.82	7.81	4921.01	4920.40
MW-06	4928.73	7.59	4921.14	4920.63
MW-07	4928.80	7.66	4921.14	4920.41
MW-08	4929.47	8.42	4921.05	4920.44
MW-09	4929.20	8.22	4920.98	4920.38
MW-10	4928.02	6.92	4921.10	4920.45

Top of Pipe

OW-01	4929.35	8.32	4921.03	4920.72
OW-02	4928.73	7.88	4920.85	4920.53
OW-03	4927.56	6.63	4920.93	—
OW-04	4928.74	7.75	4920.99	4920.70
OW-05	4928.36	7.37	4920.99	4920.84
OW-06	4927.93	6.88	4921.05	4920.75

Top of Rim and Top of Pipe elevations taken from survey prepared
by Franklin E. Wilson, Surveyor No 6446, Southwest Surveying Co,
333 Lomas NE, Albuquerque, NM Dated 2/7/91

WATER ELEVATION MEASUREMENTS

Date March 28, 1991

Well #	Top of Rim Elevation	Ft. Below Grade	Water Level Elevation	<i>corrected w.l.</i>
MW-01	4928.52	7.40	4921.12	4920.62
MW-02	4928.21	7.09	4921.12	4920.44
MW-03	4929.12	8.01	4921.11	4920.52
MW-04	4929.52	8.47	4921.05	4920.47
MW-05	4928.82	7.80	4921.02	4920.41
MW-06	4928.73	7.76	4920.97	4920.46
MW-07	4928.80	7.65	4921.15	4920.42
MW-08	4929.47	8.51	4920.96	4920.35
MW-09	4929.20	8.22	4920.98	4920.38
MW-10	4928.02	6.92	4921.10	4920.45

Top of Pipe

OW-01	4929.35	8.32	4921.03	4920.72
OW-02	4928.73	7.88	4920.85	4920.53
OW-03	4927.56	6.64	4920.92	—
OW-04	4928.74	7.75	4920.99	4920.70
OW-05	4928.36	7.37	4920.99	4920.84
OW-06	4927.93	6.88	4921.05	4920.75

Top of Rim and Top of Pipe elevations taken from survey prepared
by Franklin E. Wilson, Surveyor No 6446, Southwest Surveying Co,
333 Lomas NE, Albuquerque, NM Dated 2/7/91

corrected
measuring point
elevations and water levels *River
GWS, etc.*

2/5/92

WATER ELEVATION MEASUREMENTS

Date April 3, 1991

Well #	Top of Rim Elevation	Ft. Below Grade	Water Level Elevation	corrected (2.1)
MW-01	4928.52	7.38	4921.14	4920.64
MW-02	4928.21	7.07	4921.14	4920.46
MW-03	4929.12	7.98	4921.14	4920.55
MW-04	4929.52	8.44	4921.08	4920.50
MW-05	4928.82	7.78	4921.04	4920.43
MW-06	4928.73	7.58	4921.15	4920.64
MW-07	4928.80	7.63	4921.17	4920.44
MW-08	4929.47	8.39	4921.08	4920.47
MW-09	4929.20	8.20	4921.00	4920.10
MW-10	4928.02	6.90	4921.12	4920.17

Top of Pipe

OW-01	4929.35	8.32	4921.03	4920.72
OW-02	4928.73	7.85	4920.88	4920.56
OW-03	4927.56	6.61	4920.95	—
OW-04	4928.74	7.84	4920.95	4920.61
OW-05	4928.36	7.35	4921.01	4920.86
OW-06	4927.93	6.84	4921.09	4920.79

Top of Rim and Top of Pipe elevations taken from survey prepared
by Franklin E. Wilson, Surveyor No 6446, Southwest Surveying Co,
333 Lomas NE, Albuquerque, NM Dated 2/7/91

Ever Ready Oil / Isleta

2-2-81

08:40 RLP arr. loc.; Shawn w/ E.R. on site, preparing eqpt., discussing drilling plans. Waiting for orange cones to arr. so drilling can begin in morning on Isleta Blvd

09:10 Mob. to W-20

10:00 SIF ARR. RLP W loc.

10:20 Start on W-21, North side of station.

10:30 Contractor had utilities person spot electrical lines in median at Isleta + Rio Pinos

11:30 Contractor went to D-con Auger

Developed all wells by bailing w/ chain, PVC bailers suspended from derrick rope. A sheen was noted on water pump for monitor well W-21

Project: Isletia

100-20
hole:

of

date: 2-10-72

Time: 07:20

Contractor:

माधव

drill method:

rlg:

land surface:

1.0:0.

depth, ft. lth.

sample
depth

Head-
space
1.1 ml

[illegible]

2. -6.5

4

7/0

sand, med-coarse, brn; gravel $\rightarrow 3/4"$ d.c., minor silt
moist

6.5-8.5

—

1.0

sand, med., brn, well sorted, moist

8.5-15

AD

sand, Fine-coarse, brn, gravel $\rightarrow 3/4"$ dia., saturated

JOHN W. SHOMAKER, INC.
GEOLOGY-HYDROGEOLOGY

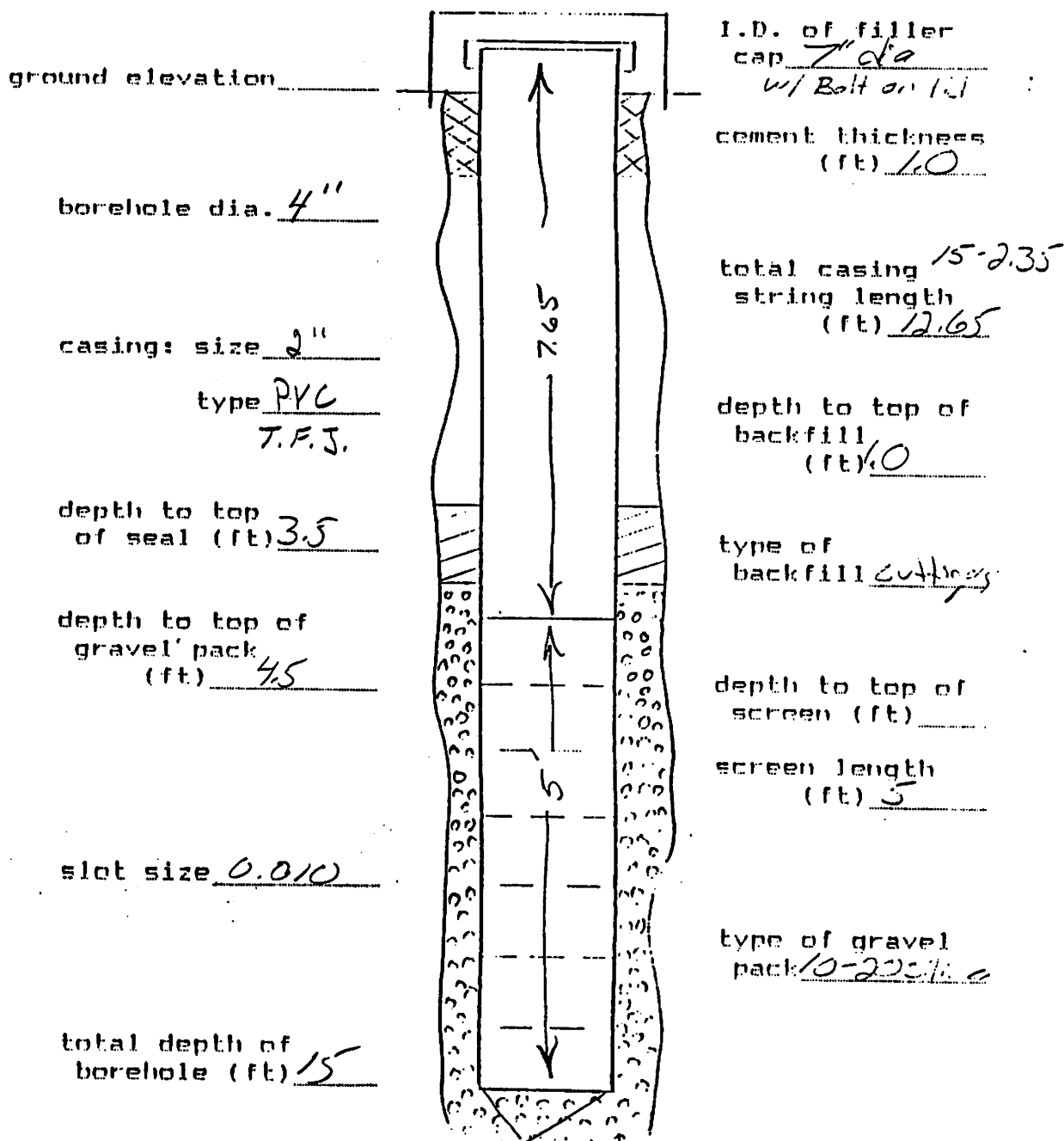
2703 BROADBENT PARKWAY NE, SUITE D
ALBUQUERQUE, NEW MEXICO 87107
(505) 345-3407

PROJECT Ever Ready / Islet DATE 6-10-78

WELL # W-20

TYPE OF RIG Auger TIME _____ INSTALLED BY: RLI

MONITOR WELL



Client: Ever Ready Oil
Site:

Project: Isleta

W-21
hole:

of

date: 2-10-92

time: 10:25

Geologist:

STF

Contractor:

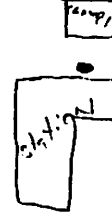
Ever Ready

Drill method:

rig:

Auger 4" dia

map

A
X
Nelevation, ft.
depth, ft. lith.land surface:
description

l.o.c.

Sample
depthhard-
ness
PPM

description

0-4

4

1518

Sand, med-coarse grn, brn, minor silt, moist.
H-carbon odor

4

silty sand, med grn, drk brn, v. moist, H-carbon odor

5.5

7

1024

sugar sand, med-coarse grn, Lt, brn, moist, H-carbon
odor8.5-
15

TD

sugar sand, coarse, saturated, gry brn, H-carbon

JOHN W. SHOMAKER, INC.
GEOLOGY-HYDROGEOLOGY
2703 BROADBENT PARKWAY NE, SUITE D
ALBUQUERQUE, NEW MEXICO 87107
(505) 345-3407

PROJECT Every Ready / Isleta

DATE 2-10-92

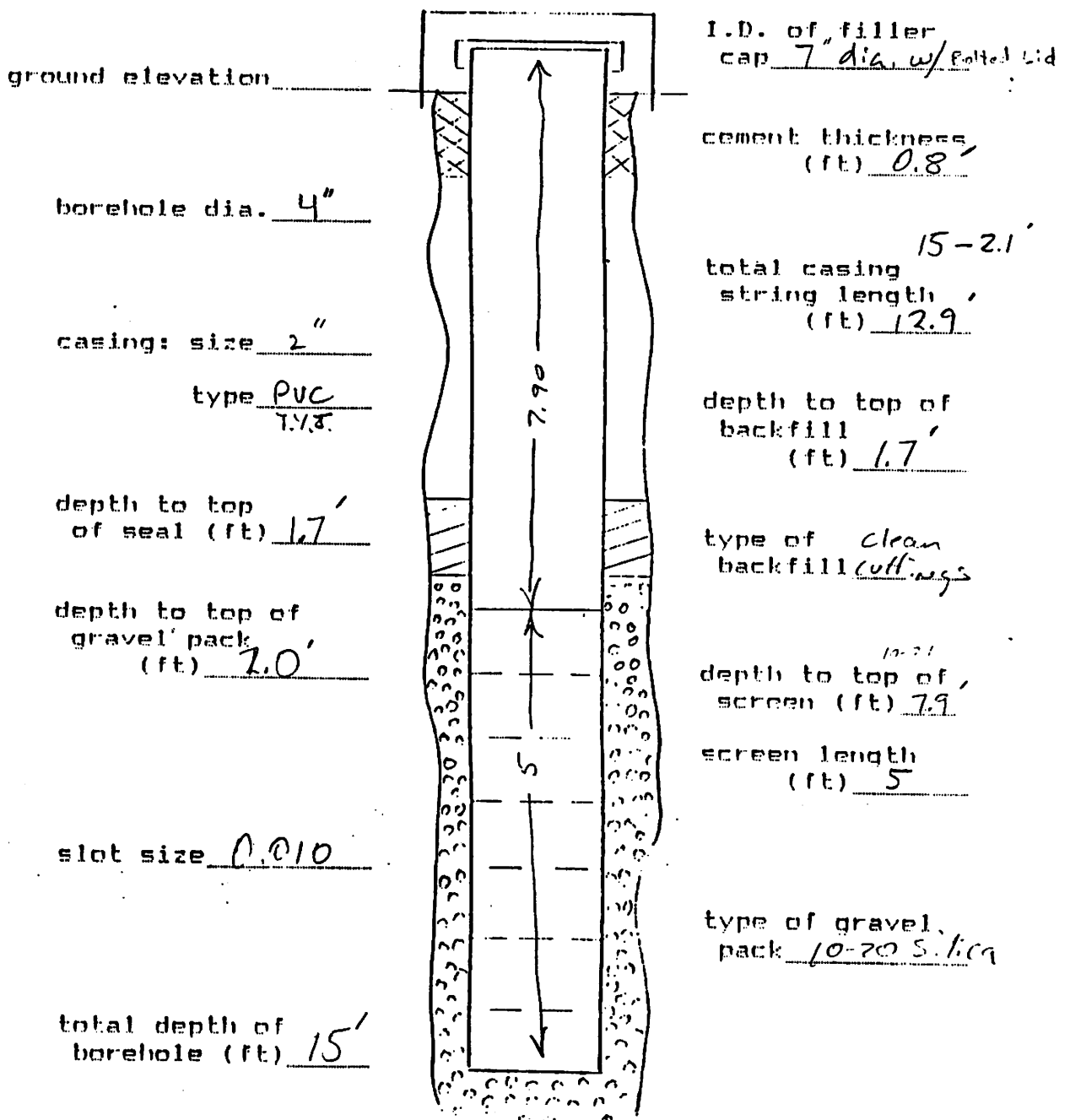
WELL # W-21

TYPE OF RIG Auger

TIME 10:45

INSTALLED BY: STF

MONITOR WELL



John W. Shomaker, Inc.

Borehole Logging Form

Client: Ever Ready Oil
Site:

Project: +s/eta

W-22
hole:

01

Islet a Chevron

date: 2-10-92

Time: 12:40

Geologist: STF

Contractor: Ever Ready

गणप

drill method: Auger

rig:

elevation, ft.
depth, ft. lith.

land surface:

1.0:G.

depth, ft. lith.

sample
Don't

11/10/19
1/20/19
K. 10/1/19

[illegible]

WJN

0

48

Sand, med - coarse grn, yellow, some gravels. moist

5

Silty sand, med grn, yellow, some clay, moist

6

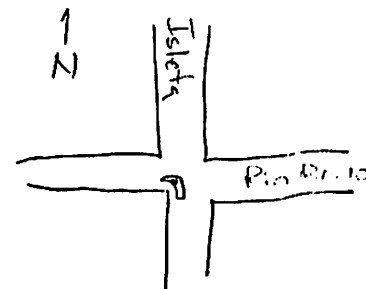
7	2
---	---

Sugar sand, yellow, moist, med grn

9

sugar sand, yellow, coarse grn, saturated

15 - TD



JOHN W. SHOMAKER, INC.
GEOLOGY-HYDROGEOLOGY

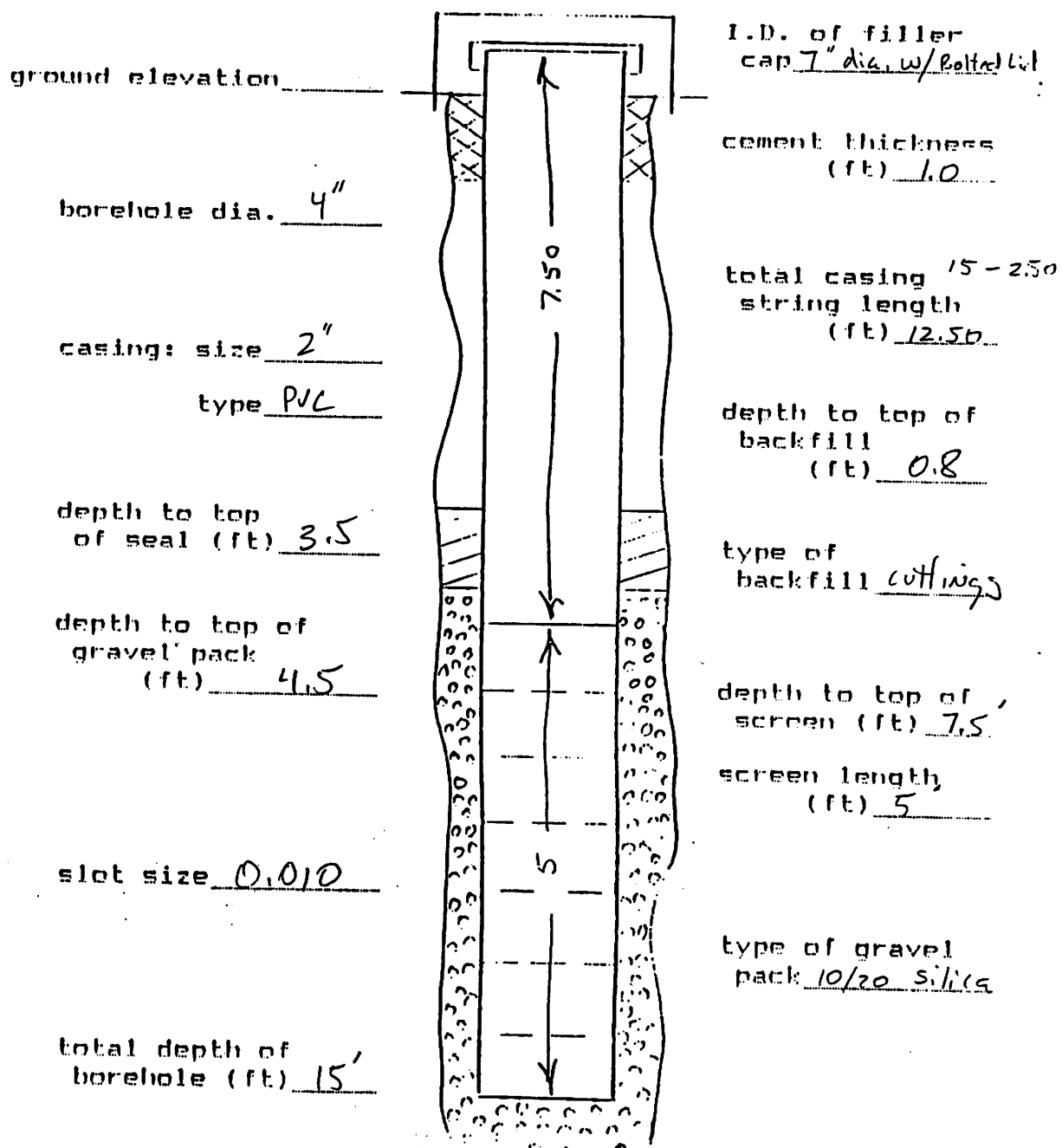
2703 BROADBENT PARKWAY NE, SUITE D
ALBUQUERQUE, NEW MEXICO 87107
(505) 345-3407

PROJECT Ever Ready / Isleta DATE 2-10-92

WELL # W-22

TYPE OF RIG Auger TIME 12:50 INSTALLED BY: STR

MONITOR WELL



Client: Ever Ready Oil

Project: Istela

hole: W-23

of

Site: Istela Chevron

date: 2-10-72

time: 13:15

Geologist:

STF

Contractor:

Ever Ready

drill method:

4" Auger

rig:

map

N
↑

Istela

2' south
of W-22

elevation, ft.

land surface:

l.o.o.

depth, ft. lith.

Sample

Head

Description

Depth

Spice
ppm

0

4

2

Sand, med. coarse grn, yellow, some gravels, moist

5

silty sand, med. grn, yellow, some clay, moist

6

7

0

sugar sand, yellow, moist, med. grn

9-20

TD

sugar sand, tan, saturated, coarse grn,

JOHN W. SHOMAKER, INC.
GEOLOGY-HYDROGEOLOGY

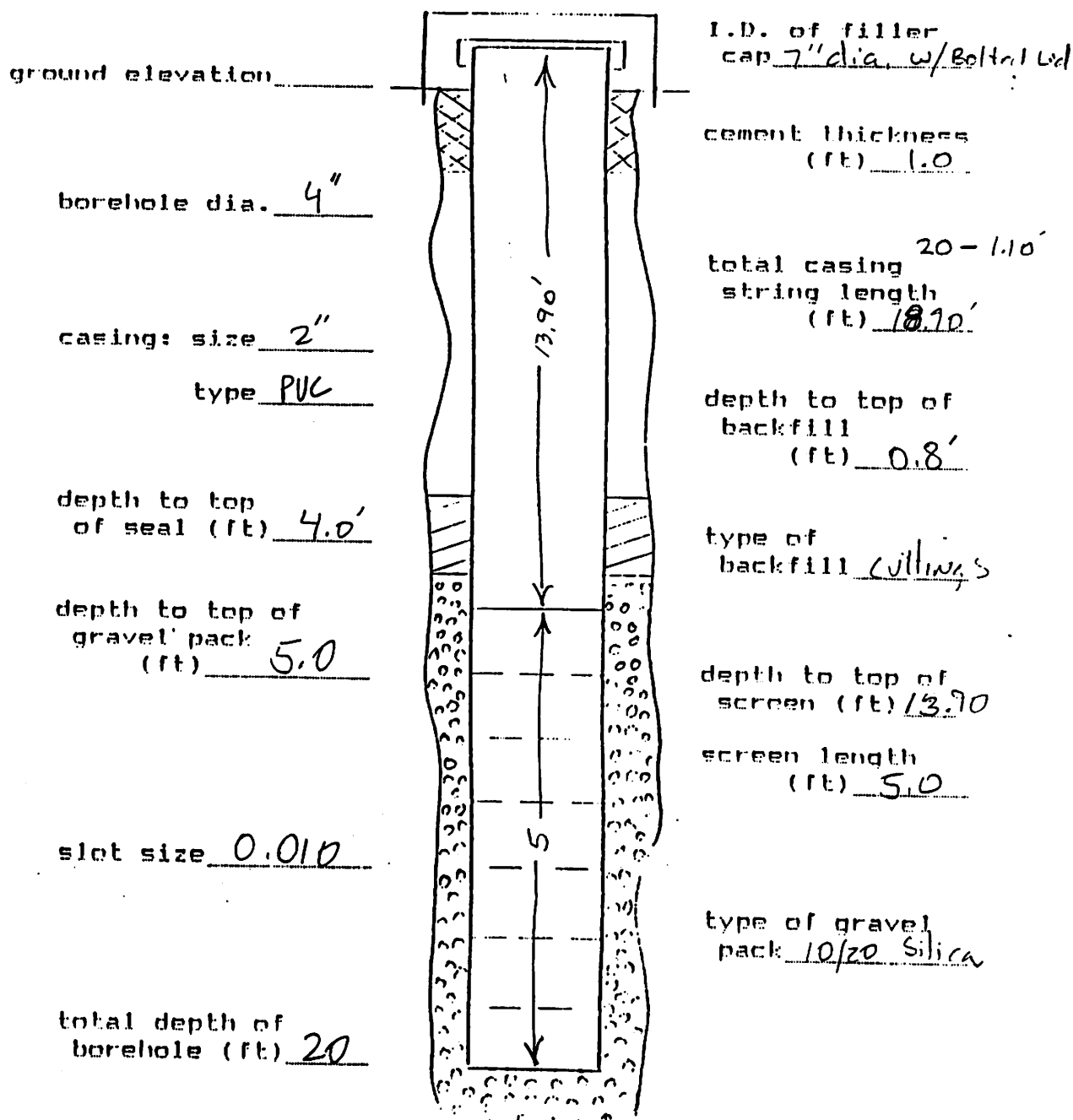
2703 BROADBENT PARKWAY NE, SUITE D
ALBUQUERQUE, NEW MEXICO 87107
(505) 345-3407

PROJECT Ever Ready / Isleta DATE 2-10-92

WELL # W-23

TYPE OF RIG Auger TIME 13:30 INSTALLED BY: STF

MONITOR WELL



Borehole Logging Form

Project: Isleta

hole:

1 of 1

Site: Tsele/cheuron

date:

Time:

Geologist:

STF

Contractor:

Ever Ready

map

- two feet section
of W-14

drill method:

rtg:

4" Auger

elevation, it

land surface:

1.0:0.

depth, ft. lith.

Sample Depth ft	Temperature °C	Salinity	Density	Specific Gravity	Sound Velocity m/sec	Refraction Index	Transmittance	Color	Turbidity	Chlorophyll	Fluorescence	Other
0	18.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
10	18.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
20	17.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
30	17.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
40	16.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
50	16.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
60	15.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
70	15.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
80	14.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
90	14.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
100	13.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
110	13.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
120	12.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
130	12.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
140	11.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
150	11.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
160	10.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
170	10.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
180	9.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
190	9.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
200	8.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
210	8.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
220	7.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
230	7.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
240	6.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
250	6.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
260	5.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
270	5.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
280	4.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
290	4.0	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
300	3.5	35.2	1.024	1.024	1490	1.33	0.95	15	0.5	0.5	0.5	
310												

Head
space
PPM

<u>surface</u>	<u>description</u>
100	100

0

4

2

Sand, med. grn, moist, Tan

5

Silty Sand, med grn, Lt Brn, v. moist

6

7

5

sugar sand, med. grn, lt brn, v. moist

8-20

TD

Sugar Sand, coarse grn, Lt Brn, v. moist

JOHN W. SHOMAKER, INC.
GEOLOGY-HYDROGEOLOGY

2703 BROADBENT PARKWAY NE, SUITE D
ALBUQUERQUE, NEW MEXICO 87107
(505) 345-3407

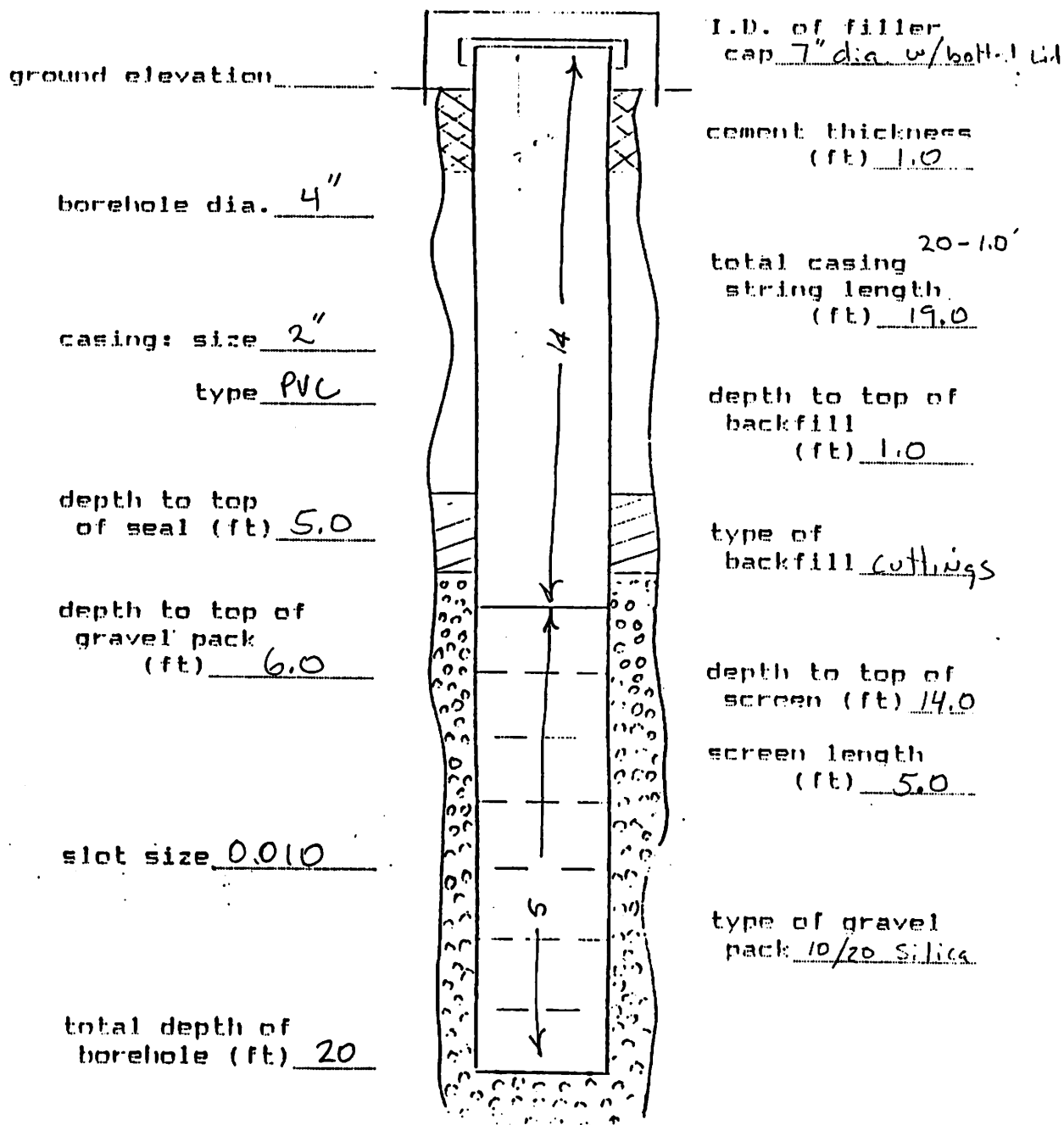
PROJECT Ever Ready / Isleta

DATE 2-10-92

WELL # W-24

TYPE OF RIG Auger TIME 14:30 INSTALLED BY: STF

MONITOR WELL



2-11-92

Ever Ready/Isleta

13:20 arr. loc., set up to sample wells W-22 and W-23

purged 3 well volumes from wells W-22 and W-23 with
clean bailers, collected ^{samples in} duplicate 40-ml vials. Vials
contained HCl and HgCl as preservative.

13:40 sampled W-22

13:45 " W-23

14:00 purged and sampled well W-24 (in btl's as before)

14:15 " " " " W-20 (" ")

14:20 bailed well W-21, no floating product detected
with bailer, strong hydrocarbon odor and sheen of oil
on surface — not sampled.

Elevations

Sta. 1

shot to mark on top of concrete wall, N. end of property	3.80'
" " high side 2" casing, W-24	4.54'
" " " " " " , W-22	4.26'
" " " " " " , W-23	4.33'

Sta. 2.

shot to be mark on concrete wall, as above	4.13'
" " high side 2" casing, W-20	3.82'
" " " " " " , W-21	4.61



Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE: 7/1/92 PAGE: 1 OF 1

[illegible]

Sta 1

instr. ht. 103.80'

W-24 103.80

- 4.54
99.26

W-22 103.80

- 4.26
99.54

W-23

103.80

4.33
99.47

Sta 2

instr. ht. 104.13'

W-20 104.13

- 3.82
100.31

W-21 104.13

- 4.61
99.52

2/13/12

Ever Ready / 13 letu

m.p.
elev, ft elevation

Well	top-of-screen, ft.	water level, ft	screen length, ft.
1-	4927.02	4918.02	
-2	4927.63	4922.63	10
✓ -3	4927.53	4917.53	5
-4	4928.07	4923.07	10
-5	4929.04	4924.04	10
-6	4928.45	4923.45	10
✓ -7	4928.02	4918.02	5
✓ -8	4928.53	4918.53	5
-9	4928.86	4923.86	10
-10	4927.37	4922.37	10
✓ -11	4929.94	4918.94	5
✓ -12	4928.21	4918.21	5
-13	4928.41	4923.41	10
-14	4928.60	4923.60	10
-15	4929.72	4921.95	5
-16	4929.61	4920.82	5
-17	4929.78	4921.71	5
-18	4928.64	4921.02	5
-19	4929.74	4921.39	5
-20	4929.75	4922.10	5
-21	4928.76	4921.06	5
-22	4928.98	4921.48	5
-23	4928.91	4915.01	5
-24	4928.70	4914.70	5

2-14-72

Ever Ready Oil/Isletg

<u>Log</u>	<u>Fluid Depth From M.P. (FT)</u>	<u>Product thickness (FT)</u>	<u>Fluid elevation (FT)</u>	<u>TMP elevation (FT)</u>
W-1	8-0.58 7.42 7-0.15	—	4920.80	4928.22
W-2	6.85 7-0.25	—	4920.78	4927.63
W-3	6.75 8-0.71	—	4920.78	4927.53
W-4	7.29 9-0.69	—	4920.78	4928.07
W-5	8.21 8-0.27	—	4920.83	4929.04
W-6	7.63 8-0.72	—	4920.82	4928.45
W-7	7.28 8-0.19	—	4920.74	4928.02
W-8	7.81 9-0.83	—	4920.72	4928.53
W-9	8.17 7-0.31	—	4920.69	4928.86
W-10	6.69 9-0.73	—	4920.68	4927.37
W-11	8.27 8-0.44	—	4920.67	4928.74
W-12	7.56 8-0.14	—	4920.65	4928.21
W-13	7.86 9-0.98	—	4920.55	4928.41
W-14	8.02 9-0.05	—	4920.58	4927.60
W-15	8.95 9-0.06	—	4920.77	4927.72
W-16	8.94 10-0.80	—	4920.67	4929.61
W-17	9.20 9-0.24	—	4920.58	4929.79
W-18	8.76 10-0.68	—	4919.88	4928.64
W-19	9.32 9-0.10	—	4920.42	4929.74
W-20	8.90 9-0.74	—	4920.85	4929.75
W-21	8.26 9-0.45	—	4920.70	4928.96
W-22	8.55 9-0.50	—	4920.43	4928.98
W-23	8.50 9-0.85	—	4920.41	4928.91
W-24	8.15	—	4920.55	4928.70

deep ✓

deep ✓

Elevations (ft) /

well	W-1	W-2	W-3	W-4	W-5
	MW-06	OW-06	MW-02	MW-07	OW-01
a	4928.22	4927.63	4927.53	4928.07	4929.04
b	4918.22	4922.63	4917.53	4923.07	4924.04
c	10	10	5	10	10
date					
03/06/91	4920.58	4920.75	4920.26	4920.32	4920.61
03/13/91	4920.59	4920.68	4920.30	4920.26	4920.68
03/21/91	4920.63	4920.75	4920.45	4920.41	4920.72
03/28/91	4920.46	4920.75	4920.44	4920.42	4920.72
04/03/91	4920.64	4920.79	4920.46	4920.44	4920.72
01/03/92	4921.07	4921.05	4921.07	4921.06	4921.00
01/20/92	4920.93	4920.94	4920.93	4920.91	4920.87
02/14/92	4920.80	4920.78	4920.78	4920.78	4920.83

a = elevation, top of casing, ft
 b = elevation, top of screen, ft
 c = screen length, ft

Elevations (ft)

well	W-6	W-7	W-8	W-9	W-10
	OW-04	MW-01	MW-03	MW-08	MW-10
a	4928.45	4928.02	4928.53	4928.86	4927.37
b	4923.45	4918.02	4918.53	4923.86	4922.37
c	10	5	5	10	10
date					
03/06/91	4920.61	4920.42	4920.32	4920.25	4920.26
03/13/91	4920.68	4920.46	4920.35	4920.29	4920.29
03/21/91	4920.70	4920.61	4920.52	4920.44	4920.45
03/28/91	4920.70	4920.62	4920.52	4920.35	4920.45
04/03/91	4920.61	4920.64	4920.55	4920.47	4920.47
01/03/92	4921.00	4920.98	4920.98	4920.97	4920.95
01/20/92	4920.88	4920.89	4920.88	4920.82	4920.83
02/14/92	4920.82	4920.74	4920.72	4920.69	4920.68

Elevations (ft)

well	W-21	W-22	W-23	W-24
a	4928.96	4928.98	4928.91	4928.70
b	4921.06	4921.48	4915.01	4914.70
c	5	5	5	5
date				
03/06/91				
03/13/91				
03/21/91				
03/28/91				
04/03/91				
01/03/92				
01/20/92				
02/14/92	4920.70	4920.43	4920.41	4920.55

elevations (ft)

11	W-11 MW-04	W-12 MW-05	W-13 OW-02	W-14 MW-09	W-15
	4928.94	4928.21	4928.41	4928.60	4929.72
	4918.94	4918.21	4923.41	4923.60	4921.95
	5	5	10	10	5
te					
/06/91	4920.27	4920.22	4920.53	4920.17	
/13/91	4920.33	4920.24	4920.51	4920.22	
/2 /91	4920.27	4920.40	4920.53	4920.38	
/2 /91	4920.47	4920.41	4920.53	4920.38	
/03/91	4920.50	4920.43	4920.56	4920.40	
/03/92	4920.95	4920.93	4920.83	4920.90	
/2 /92	4920.83	4920.79	4920.70	4920.73	
/14/92	4920.67	4920.65	4920.55	4920.58	4920.77

APPENDIX B



Analytical**Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 202664

February 21, 1992

John W. Shomaker, Inc.
2703 Broadbent Parkway NE
Suite D
Albuquerque, NM 87107

Project Name/Number: Ever Ready/011.201

Attention: Bob Newcomer

On 02/12/92, Analytical Technologies, Inc. received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

An additional compound was detected by Methods 601/602 analyses in samples W-22, W-23, and W-24. The compound had approximately the same retention time as Acetone. Confirmatory analysis by Method 624 found the compound to be an oxygenated hydrocarbon.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Mary Tyer
Project Manager

Robert V. Woods
Laboratory Manager

RVW:clf
Enclosure



Analytical Technologies, Inc.

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVERREADY

DATE RECEIVED : 02/12/92

REPORT DATE : 02/18/92

ATI I.D. : 202664

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	W-20	AQUEOUS	02/11/92
02	W-22	AQUEOUS	02/11/92
03	W-23	AQUEOUS	02/11/92
04	W-24	AQUEOUS	02/11/92

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	4

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20266401

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVERREADY
CLIENT I.D. : W-20
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/11/92
DATE RECEIVED : 02/12/92
DATE EXTRACTED : N/A
DATE ANALYZED : 02/12/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	1.0
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	0.6
TOLUENE	21
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	1.4
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	99
BROMOFLUOROBENZENE (%)	81



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20266402

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVERREADY
CLIENT I.D. : W-22
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/11/92
DATE RECEIVED : 02/12/92
DATE EXTRACTED : N/A
DATE ANALYZED : 02/12/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	19
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	5.7
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	360 D
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	100
BROMOFLUOROBENZENE (%)	89



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20266403

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVERREADY
CLIENT I.D. : W-23
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/11/92
DATE RECEIVED : 02/12/92
DATE EXTRACTED : N/A
DATE ANALYZED : 02/12/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	19
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	26
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	35
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	280 D
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	89
BROMOFLUOROBENZENE (%)	80



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20266404

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 02/11/92
PROJECT #	: 011.201	DATE RECEIVED	: 02/12/92
PROJECT NAME	: EVERREADY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-24	DATE ANALYZED	: 02/12/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
BENZENE	80 D
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	21
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	9.1
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	26
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	28
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	96
BROMOFLUOROBENZENE (%)	86



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	ATI I.D.	: 202664
PROJECT #	: 011.201	DATE EXTRACTED	: 02/12/92
PROJECT NAME	: EVERREADY	DATE ANALYZED	: 02/12/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	94
BROMOFLUOROBENZENE (%)	96



Analytical Technologies, Inc.

QUALITY CONTROL DATA

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE
ATI I.D. : 202664

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVERREADY
REF I.D. : 20299908

DATE ANALYZED : 02/12/92
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED RESULT	SPIKED SAMPLE	DUP. %		DUP. %	RPD
	RESULT	SPIKED			REC.	SAMPLE	REC.	
1,1 DICHLOROETHENE	<0.2	20	22	110	21	105	5	
TRICHLOROETHENE	<0.2	20	23	115	23	115	0	
TETRACHLOROETHENE	<0.2	20	24	120	23	115	4	
BENZENE	<0.5	20	19	95	19	95	0	
BROMODICHLOROMETHANE	<0.2	20	22	110	22	110	0	
CHLOROFORM	<0.2	20	23	115	23	115	0	
1,1,1-TRICHLOROETHANE	<0.2	20	24	120	23	115	4	
TOLUENE	<0.5	20	21	105	20	100	5	
CHLOROBENZENE	<0.5	20	21	105	22	110	5	
XYLENES	<0.5	20	18	90	17	85	6	

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

Phoenix, Arizona

Chain of Custody

DATE 2/11/92 PAGE 1 OF 1

PROJECT MANAGER: <u>Bob Newcome</u>					ANALYSIS REQUEST																		
COMPANY: <u>John W. Shomaker, Inc.</u>					Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP	NUMBER OF CONTAINERS
ADDRESS: <u>2703-D Broadbent Pkwy, NE</u>																							
<u>Albuquerque, NM 87107</u>																							
BILL TO: <u>Jim Shepherd</u>																							
COMPANY: <u>Ever Ready Oil Co., Inc.</u>																							
ADDRESS: <u>P.O. Box 25845</u>																							
<u>Albuquerque, NM 87125</u>																							
SAMPLERS: (Signature) <u>[Signature]</u> PHONE NUMBER <u>(505) 345 3407</u>																							
SAMPLE ID	DATE	TIME	MATRIX	LAB ID																			
W-20	2/11/92	14:15	water	1					X	X	X												2
W-22	2/11/92	13:40	"	2					X	X	X												2
W-23	2/11/92	13:45	"	3					X	X	X												2
W-24	2/11/92	14:00	"	4					X	X	X												2

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
PROJECT NO.: <u>Oil 201</u>	TOTAL NO. OF CONTAINERS <u>8</u>	CHAIN OF CUSTODY SEALS <u>N</u>		Signature: <u>[Signature]</u>	Time: <u>5:15p</u>	Signature: <u>[Signature]</u>	Time: <u>[Blank]</u>	Signature: <u>[Signature]</u>	Time: <u>[Blank]</u>
PROJECT NAME: <u>Ever Ready/Wileta</u>	INTACT? <u>Y</u>	RECEIVED GOOD COND./COLD <u>Y</u>		Printed Name: <u>R.W. Newcome</u>	Date: <u>2/11/92</u>	Printed Name: <u>[Blank]</u>	Date: <u>[Blank]</u>	Printed Name: <u>[Blank]</u>	Date: <u>[Blank]</u>
P.O. NO.: <u>[Blank]</u>	LAB NUMBER <u>202664</u>	RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: 3.		RECEIVED BY: (LAB)	
VIA: <u>Federal Express</u>	TAT: ☐ 24HR ☐ 48 HRS ☒ 1 WK ☐ 2 WKS	SAMPLE DISPOSAL INSTRUCTIONS		Signature: <u>[Signature]</u>	Time: <u>[Blank]</u>	Signature: <u>[Signature]</u>	Time: <u>[Blank]</u>	Signature: <u>[Signature]</u>	Time: <u>[Blank]</u>
		☒ ATI Disposal @ \$5.00 each ☐ Return ☐ Pickup (will call)		Printed Name: <u>[Blank]</u>	Date: <u>[Blank]</u>	Printed Name: <u>[Blank]</u>	Date: <u>[Blank]</u>	Printed Name: <u>[Blank]</u>	Date: <u>[Blank]</u>
Comments: <u>Samples preserved with HCl, HgCl₂ and placed and shipped on ice</u>		verbal ASAP within TAT		Company: <u>J.W. Shomaker, Inc.</u>		Company: <u>[Blank]</u>		Company: <u>[Blank]</u>	



Analytical**Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 201901

February 10, 1992

John W. Shomaker, Inc.
2703 Broadbent Parkway NE
Suite D
Albuquerque, NM 87107

Project Name/Number: Ever Ready/Isleta/011.201

Attention: Bob Newcomer

On 01/31/92, Analytical Technologies, Inc. received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

D indicates compound analyzed at a greater dilution.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Mary Tyer
Project Manager

Robert V. Woods
Laboratory Manager

RVW:clf
Enclosure



Analytical Technologies, Inc.

CLIENT : JOHN W. SHOMAKER, INC

DATE RECEIVED : 01/31/92

PROJECT # : 011.201

PROJECT NAME : EVER READY

REPORT DATE : 02/07/92

ATI I.D. : 201901

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	W-18	AQUEOUS	01/30/92
02	W-19	AQUEOUS	01/30/92
03	W-17	AQUEOUS	01/30/92
04	W-16	AQUEOUS	01/30/92
05	W-15	AQUEOUS	01/30/92

----- TOTALS -----

MATRIX	# SAMPLES
-----	-----
AQUEOUS	5

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20190101

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 01/30/92
PROJECT #	: 011.201	DATE RECEIVED	: 01/31/92
PROJECT NAME	: EVER READY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-18	DATE ANALYZED	: 02/03/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
BENZENE	63 D
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	33
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	1.3
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	7.7
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	1000 D
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	117
BROMOFLUOROBENZENE (%)	92



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20190102

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVER READY
CLIENT I.D. : W-19
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/30/92
DATE RECEIVED : 01/31/92
DATE EXTRACTED : N/A
DATE ANALYZED : 02/03/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
-----------	---------

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	0.5
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	106
BROMOFLUOROBENZENE (%)	96

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20190103

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVER READY
CLIENT I.D. : W-17
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/30/92
DATE RECEIVED : 01/31/92
DATE EXTRACTED : N/A
DATE ANALYZED : 02/03/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	1.0
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	1.8
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	106
BROMOFLUOROBENZENE (%)	85



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20190104

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVER READY
CLIENT I.D. : W-16
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/30/92
DATE RECEIVED : 01/31/92
DATE EXTRACTED : N/A
DATE ANALYZED : 02/03/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	7.3
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	107
BROMOFLUOROBENZENE (%)	98



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20190105

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVER READY
CLIENT I.D. : W-15
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/30/92
DATE RECEIVED : 01/31/92
DATE EXTRACTED : N/A
DATE ANALYZED : 02/03/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	3.4
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	0.4
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	27
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	0.9
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	100
BROMOFLUOROBENZENE (%)	89



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	ATI I.D.	: 201901
PROJECT #	: 011.201	DATE EXTRACTED	: 02/03/92
PROJECT NAME	: EVER READY	DATE ANALYZED	: 02/03/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	102
BROMOFLUOROBENZENE (%)	102



Analytical Technologies, Inc.

QUALITY CONTROL DATA

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE
ATI I.D. : 201901

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : 011.201
PROJECT NAME : EVER READY
REF I.D. : 20190104

DATE ANALYZED : 02/04/92
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP. SPIKED		RPD
	RESULT	SPIKED			SAMPLE	REC.	
1,1 DICHLOROETHENE	<0.2	20	17	85	16	80	6
TRICHLOROETHENE	<0.2	20	20	100	19	95	5
TETRACHLOROETHENE	<0.2	20	23	115	21	105	9
BENZENE	<0.5	20	24	120	23	115	4
BROMODICHLOROMETHANE	<0.2	20	21	105	21	105	0
CHLOROFORM	<0.2	20	23	115	21	105	9
1,1,1-TRICHLOROETHANE	<0.2	20	23	115	22	110	4
TOLUENE	7.3	20	31	119	30	114	3
CHLOROBENZENE	<0.5	20	23	115	21	105	9
XYLENES	<0.5	20	20	100	19	95	5

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

PROJECT INFORMATION					SAMPLE RECEIPT		RELINQUISHED BY: 1.			RELINQUISHED BY: 2.			RELINQUISHED BY: 3.								
PROJECT NO.: 011.201					TOTAL NO. OF CONTAINERS		Signature: [Signature]			Signature: [Signature]			Signature: [Signature]								
PROJECT NAME: Ever Ready/Isleta					CHAIN OF CUSTODY SEALS		Time: 5:00p			Time: [Time]			Time: [Time]								
P.O. NO.:					INTACT?		Printed Name: R.W. Newcomer			Printed Name: [Name]			Printed Name: [Name]								
VIA: Fed Ex					RECEIVED GOOD COND/COLD		Date: 1/3/92			Date: [Date]			Date: [Date]								
TAT: ☐ 24HR ☐ 48 HRS ☐ 1 WK ☒ 2 WKS					LAB NUMBER 201901		Company: J.W. Shomaker, Inc.			Company: [Company]			Company: [Company]								
SAMPLE DISPOSAL INSTRUCTIONS													RECEIVED BY: 1.			RECEIVED BY: 2.			RECEIVED BY: (LAB) 3.		
☒ ATI Disposal @ \$5.00 each ☐ Return ☐ Pickup (will call)													Signature: [Signature]			Signature: [Signature]			Signature: [Signature]		
Comments: preserved with HCl, H ₂ O and placed in ice. Verbals when available													Time: [Time]			Time: [Time]			Time: [Time]		
													Printed Name: [Name]			Printed Name: [Name]			Printed Name: [Name]		
													Date: [Date]			Date: [Date]			Date: [Date]		
													Company: [Company]			Company: [Company]			Company: [Company]		



Analytical **Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 201768

February 5, 1992

John W. Shomaker, Inc.
2703 Broadbent Parkway NE
Suite D
Albuquerque, NM 87107

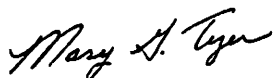
Project Name/Number: Ever Ready/Isleta

Attention: Bob Newcomer

On 01/22/92, Analytical Technologies, Inc. received a request to analyze soil and aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

D indicates the compound was analyzed at a greater dilution.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.


Mary Tyer
Project Manager


Robert V. Woods
Laboratory Manager

RVW:clf
Enclosure



CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY

DATE RECEIVED : 01/22/92

REPORT DATE : 01/31/92

ATI I.D. : 201768

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	BH-1 7'	SOIL	01/21/92
02	BH-6 6'	SOIL	01/21/92
03	BH-3	AQUEOUS	01/21/92
04	BH-4	AQUEOUS	01/21/92
05	BR-1	AQUEOUS	01/21/92

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	2
AQUEOUS	3

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20176803

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : BH-3
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/21/92
DATE RECEIVED : 01/22/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/24/92
UNITS : UG/L
DILUTION FACTOR : 5

COMPOUNDS

RESULTS

BENZENE	24
BROMODICHLOROMETHANE	<1.0
BROMOFORM	<1.0
BROMOMETHANE	<1.0
CARBON TETRACHLORIDE	<1.0
CHLOROBENZENE	<2.5
CHLOROETHANE	<1.0
CHLOROFORM	<1.0
CHLOROMETHANE	<1.0
DIBROMOCHLOROMETHANE	<1.0
2-CHLOROETHYL VINYL ETHER	<2.5
1,3-DICHLOROBENZENE	<2.5
1,2 & 1,4-DICHLOROBENZENE	<2.5
DICHLORODIFLUOROMETHANE	<1.0
1,1-DICHLOROETHANE	<1.0
1,2-DICHLOROETHANE	<1.0
1,1-DICHLOROETHENE	<1.0
1,2-DICHLOROETHENE (TOTAL)	39
1,2-DICHLOROPROPANE	<1.0
CIS-1,3-DICHLOROPROPENE	<1.0
TRANS-1,3-DICHLOROPROPENE	<1.0
ETHYLBENZENE	<2.5
METHYLENE CHLORIDE	<10.0
1,1,2,2-TETRACHLOROETHANE	<1.0
TETRACHLOROETHENE	<1.0
TOLUENE	<2.5
1,1,1-TRICHLOROETHANE	<1.0
1,1,2-TRICHLOROETHANE	<1.0
TRICHLOROETHENE	<1.0
TRICHLOROFLUOROMETHANE	<2.5
VINYL CHLORIDE	<1.0
TOTAL XYLENES	<2.5
TRICHLOROTRIFLUOROETHANE	<10.0
METHYL-t-BUTYL ETHER	900 D
1,2-DIBROMOETHANE	<5.0
ACETONE	2300 D

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	95
BROMOFLUOROBENZENE (%)	100



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20176804

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : BH-4
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/21/92
DATE RECEIVED : 01/22/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/24/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	0.8
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	91



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20176805

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : BR-1
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/21/92
DATE RECEIVED : 01/22/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/25/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	98
BROMOFLUOROBENZENE (%)	90



GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	ATI I.D.	: 201768
PROJECT #	: (NONE)	DATE EXTRACTED	: 01/24/92
PROJECT NAME	: EVER READY	DATE ANALYZED	: 01/24/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	97
BROMOFLUOROBENZENE (%)	95



GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	ATI I.D.	: 201768
PROJECT #	: (NONE)	DATE EXTRACTED	: 01/25/92
PROJECT NAME	: EVER READY	DATE ANALYZED	: 01/25/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	90



QUALITY CONTROL DATA

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE
ATI I.D. : 201768

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
REF I.D. : 20176804

DATE ANALYZED : 01/25/92
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% SPIKED REC.	DUP. SPIKED %		RPD
	RESULT	SPIKED			SAMPLE	REC.	
1,1 DICHLOROETHENE	<0.2	20	21	105	21	105	0
TRICHLOROETHENE	<0.2	20	23	115	23	115	0
TETRACHLOROETHENE	<0.2	20	24	120	23	115	4
BENZENE	<0.5	20	19	95	19	95	0
BROMODICHLOROMETHANE	<0.2	20	22	110	21	105	5
CHLOROFORM	<0.2	20	23	115	22	110	4
1,1,1-TRICHLOROETHANE	<0.2	20	23	115	23	115	0
TOLUENE	<0.5	20	21	105	21	105	0
CHLOROBENZENE	<0.5	20	22	110	23	115	4
XYLENES	<0.5	20	20	100	20	100	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20176801

TEST : FUEL HYDROCARBONS (MODIFIED EPA METHOD 8015)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : BH-1 7'
SAMPLE MATRIX : SOIL

DATE SAMPLED : 01/21/92
DATE RECEIVED : 01/22/92
DATE EXTRACTED : 01/22/92
DATE ANALYZED : 01/23/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	-

SURROGATE PERCENT RECOVERIES

DI-N-OCTYL-PHTHALATE (%)	93
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GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20176802

TEST : FUEL HYDROCARBONS (MODIFIED EPA METHOD 8015)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : BH-6 6'
SAMPLE MATRIX : SOIL

DATE SAMPLED : 01/21/92
DATE RECEIVED : 01/22/92
DATE EXTRACTED : 01/22/92
DATE ANALYZED : 01/23/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	-

SURROGATE PERCENT RECOVERIES

DI-N-OCTYL-PHTHALATE (%)	101
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GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : FUEL HYDROCARBONS (MODIFIED EPA METHOD 8015)

CLIENT	: JOHN W. SHOMAKER, INC	ATI I.D.	: 201768
PROJECT #	: (NONE)	DATE EXTRACTED	: 01/22/92
PROJECT NAME	: EVER READY	DATE ANALYZED	: 01/23/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: MG/KG
		DILUTION FACTOR	: N/A

COMPOUNDS

RESULTS

FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	-

SURROGATE PERCENT RECOVERIES

DI-N-OCTYL-PHTHALATE (%)	97
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QUALITY CONTROL DATA

TEST : FUEL HYDROCARBONS (MODIFIED EPA METHOD 8015) ATI I.D. : 201768

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
REF I.D. : 20176802

DATE ANALYZED : 01/23/92
SAMPLE MATRIX : SOIL
UNITS : MG/KG

COMPOUNDS	SAMPLE CONC. RESULT	SAMPLE SPIKED CONC.	SAMPLE SPIKED RESULT	% SPIKED REC.	DUP. SAMPLE	% SPIKED REC.	DUP. SAMPLE	RPD
FUEL HYDROCARBONS	<5	50	57	114	56	112		2

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20176801

TEST : BTEX (8020) AND MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : BH-1 7'
SAMPLE MATRIX : SOIL

DATE SAMPLED : 01/21/92
DATE RECEIVED : 01/22/92
DATE EXTRACTED : 01/22/92
DATE ANALYZED : 01/23/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.025
TOLUENE	<0.025
ETHYLBENZENE	<0.025
TOTAL XYLENES	<0.025
METHYL-t-BUTYL ETHER	<0.12

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 101



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20176802

TEST : BTEX (8020) AND MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : BH-6 6'
SAMPLE MATRIX : SOIL

DATE SAMPLED : 01/21/92
DATE RECEIVED : 01/22/92
DATE EXTRACTED : 01/22/92
DATE ANALYZED : 01/23/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.025
TOLUENE	<0.025
ETHYLBENZENE	<0.025
TOTAL XYLENES	<0.025
METHYL-t-BUTYL ETHER	<0.12

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%)	99
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GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : BTEX (8020) AND MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 201768
DATE EXTRACTED : 01/22/92
DATE ANALYZED : 01/23/92
UNITS : MG/KG
DILUTION FACTOR : N/A

COMPOUNDS

RESULTS

BENZENE	<0.025
TOLUENE	<0.025
ETHYLBENZENE	<0.025
TOTAL XYLENES	<0.025
METHYL-t-BUTYL ETHER	<0.12

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%)	90
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QUALITY CONTROL DATA

ATI I.D. : 201768

TEST : BTEX (8020) AND MTBE

CLIENT : JOHN W. SHOMAKER, INC

PROJECT # : (NONE)

PROJECT NAME : EVER READY

REF I.D. : 20176802

DATE ANALYZED : 01/23/92

SAMPLE MATRIX : SOIL

UNITS : MG/KG

COMPOUNDS	SAMPLE CONC.		SPIKED	% SPIKED	DUP.		RPD
	RESULT	SPIKED			SAMPLE REC.	DUP. SAMPLE REC.	
BENZENE	<0.025	1.0	1.1	110	0.99	99	11
TOLUENE	<0.025	1.0	1.0	100	0.94	94	6
ETHYLBENZENE	<0.025	1.0	1.0	100	0.91	91	9
TOTAL XYLENES	<0.025	3.0	3.0	100	2.8	93	7
METHYL-T-BUTYL ETHER	<0.12	2.0	2.0	100	1.9	95	5

$$\text{Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

Chain of Custody

DATE 1/21/72 PAGE 1 OF 1

[illegible]

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
PROJECT NO:	TOTAL NO. OF CONTAINERS	8		Signature: Steve Finch	Time: 17.40	Signature:	Time:	Signature:	Time:
PROJECT NAME: Ever Ready / Isleta	CHAIN OF CUSTODY SEALS	N		Printed Name: Steve Finch	Date: 1/21/92	Printed Name:	Date:	Printed Name:	Date:
P.O. NO.	INTACT?	Y		Company: Jwal Showkar Inc		Company:		Company:	
SHIPPED VIA: Fed Ex	RECEIVED GOOD COND./COLD	Y		RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: (LAB) 3.	
SAMPLE DISPOSAL INSTRUCTIONS	LAB NUMBER	206768		Signature:	Time:	Signature:	Time:	Signature:	Time:
☒ ATI ☐ RETURN				Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS				Company:		Company:		Company:	
TAT: (NORMAL) ☒ (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK									
Comments: preserved 40-ml vials with HCl and HgCl all samples kept & shipped on ice									



Analytical **Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 201743

February 5, 1992

John W. Shomaker, Inc.
2703 Broadbent Parkway NE
Suite D
Albuquerque, NM 87107

Project Name/Number: Ever Ready/Isleta

Attention: Bob Newcomer

On 01/21/92, Analytical Technologies, Inc. received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

D indicates compound analyzed at a greater dilution.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Mary A. Tyer
Mary Tyer
Project Manager

Robert V. Woods
Robert V. Woods
Laboratory Manager

RVW:clf
Enclosure



CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY

DATE RECEIVED : 01/21/92

REPORT DATE : 02/04/92

ATI I.D. : 201743

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	W-1	AQUEOUS	01/20/92
02	W-2	AQUEOUS	01/20/92
03	W-3	AQUEOUS	01/20/92
04	W-4	AQUEOUS	01/20/92
05	W-5	AQUEOUS	01/20/92
06	W-6	AQUEOUS	01/20/92
07	W-7	AQUEOUS	01/20/92
08	W-8	AQUEOUS	01/20/92
09	W-9	AQUEOUS	01/20/92
10	W-10	AQUEOUS	01/20/92
11	W-11	AQUEOUS	01/20/92
12	W-12	AQUEOUS	01/20/92
13	W-13	AQUEOUS	01/20/92
14	W-14	AQUEOUS	01/20/92

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	14

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174301

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-1
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/23/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	16
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%) 106
BROMOFLUOROBENZENE (%) 105



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174302

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-2
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/23/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	87 D
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	38
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	2.4
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	0.7
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	3.2
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	92
BROMOFLUOROBENZENE (%)	88



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174303

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 01/20/92
PROJECT #	: (NONE)	DATE RECEIVED	: 01/21/92
PROJECT NAME	: EVER READY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-3	DATE ANALYZED	: 01/24/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 50

COMPOUNDS	RESULTS
BENZENE	1500
BROMODICHLOROMETHANE	<10.0
BROMOFORM	<10.0
BROMOMETHANE	<10.0
CARBON TETRACHLORIDE	<10.0
CHLOROBENZENE	<25.0
CHLOROETHANE	<10.0
CHLOROFORM	<10.0
CHLOROMETHANE	<10.0
DIBROMOCHLOROMETHANE	<10.0
2-CHLOROETHYL VINYL ETHER	<25.0
1,3-DICHLOROBENZENE	<25.0
1,2 & 1,4-DICHLOROBENZENE	<25.0
DICHLORODIFLUOROMETHANE	<10.0
1,1-DICHLOROETHANE	<10.0
1,2-DICHLOROETHANE	<10.0
1,1-DICHLOROETHENE	<10.0
1,2-DICHLOROETHENE (TOTAL)	54
1,2-DICHLOROPROPANE	<10.0
CIS-1,3-DICHLOROPROPENE	<10.0
TRANS-1,3-DICHLOROPROPENE	<10.0
ETHYLBENZENE	330
METHYLENE CHLORIDE	<100.0
1,1,2,2-TETRACHLOROETHANE	<10.0
TETRACHLOROETHENE	<10.0
TOLUENE	84
1,1,1-TRICHLOROETHANE	<10.0
1,1,2-TRICHLOROETHANE	<10.0
TRICHLOROETHENE	<10.0
TRICHLOROFLUOROMETHANE	<25.0
VINYL CHLORIDE	<10.0
TOTAL XYLENES	620
TRICHLOROTRIFLUOROETHANE	<100.0
METHYL-t-BUTYL ETHER	<50.0
1,2-DIBROMOETHANE	<50.0
ACETONE	<2500

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	105
BROMOFLUOROBENZENE (%)	95



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174304

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-4
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/24/92
UNITS : UG/L
DILUTION FACTOR : 25

COMPOUNDS

RESULTS

BENZENE	1100
BROMODICHLOROMETHANE	<5.0
BROMOFORM	<5.0
BROMOMETHANE	<5.0
CARBON TETRACHLORIDE	<5.0
CHLOROBENZENE	<12.5
CHLOROETHANE	<5.0
CHLOROFORM	<5.0
CHLOROMETHANE	<5.0
DIBROMOCHLOROMETHANE	<5.0
2-CHLOROETHYL VINYL ETHER	<12.5
1,3-DICHLOROBENZENE	<12.5
1,2 & 1,4-DICHLOROBENZENE	<12.5
DICHLORODIFLUOROMETHANE	<5.0
1,1-DICHLOROETHANE	<5.0
1,2-DICHLOROETHANE	<5.0
1,1-DICHLOROETHENE	<5.0
1,2-DICHLOROETHENE (TOTAL)	14
1,2-DICHLOROPROPANE	<5.0
CIS-1,3-DICHLOROPROPENE	<5.0
TRANS-1,3-DICHLOROPROPENE	<5.0
ETHYLBENZENE	430
METHYLENE CHLORIDE	<50.0
1,1,2,2-TETRACHLOROETHANE	<5.0
TETRACHLOROETHENE	<5.0
TOLUENE	520
1,1,1-TRICHLOROETHANE	<5.0
1,1,2-TRICHLOROETHANE	<5.0
TRICHLOROETHENE	<5.0
TRICHLOROFLUOROMETHANE	<12.5
VINYL CHLORIDE	<5.0
TOTAL XYLENES	1400
TRICHLOROTRIFLUOROETHANE	<50.0
METHYL-t-BUTYL ETHER	70
1,2-DIBROMOETHANE	<25.0
ACETONE	<1250

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	99
BROMOFLUOROBENZENE (%)	84



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174305

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 01/20/92
PROJECT #	: (NONE)	DATE RECEIVED	: 01/21/92
PROJECT NAME	: EVER READY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-5	DATE ANALYZED	: 01/24/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 20

COMPOUNDS	RESULTS
BENZENE	1100
BROMODICHLOROMETHANE	<4.0
BROMOFORM	<4.0
BROMOMETHANE	<4.0
CARBON TETRACHLORIDE	<4.0
CHLOROBENZENE	<10.0
CHLOROETHANE	<4.0
CHLOROFORM	<4.0
CHLOROMETHANE	<4.0
DIBROMOCHLOROMETHANE	<4.0
2-CHLOROETHYL VINYL ETHER	<10.0
1,3-DICHLOROBENZENE	<10.0
1,2 & 1,4-DICHLOROBENZENE	<10.0
DICHLORODIFLUOROMETHANE	<4.0
1,1-DICHLOROETHANE	<4.0
1,2-DICHLOROETHANE	<4.0
1,1-DICHLOROETHENE	<4.0
1,2-DICHLOROETHENE (TOTAL)	<4.0
1,2-DICHLOROPROPANE	<4.0
CIS-1,3-DICHLOROPROPENE	<4.0
TRANS-1,3-DICHLOROPROPENE	<4.0
ETHYLBENZENE	480
METHYLENE CHLORIDE	<40.0
1,1,2,2-TETRACHLOROETHANE	<4.0
TETRACHLOROETHENE	<4.0
TOLUENE	300
1,1,1-TRICHLOROETHANE	<4.0
1,1,2-TRICHLOROETHANE	<4.0
TRICHLOROETHENE	<4.0
TRICHLOROFLUOROMETHANE	<10.0
VINYL CHLORIDE	<4.0
TOTAL XYLENES	970
TRICHLOROTRIFLUOROETHANE	<40.0
METHYL-t-BUTYL ETHER	<20.0
1,2-DIBROMOETHANE	<20.0
ACETONE	<1000

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	103
BROMOFLUOROBENZENE (%)	91



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174306

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-6
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/23/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	88
BROMOFLUOROBENZENE (%)	101



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174307

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-7
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/24/92
UNITS : UG/L
DILUTION FACTOR : 25

COMPOUNDS

RESULTS

BENZENE	1200
BROMODICHLOROMETHANE	<5.0
BROMOFORM	<5.0
BROMOMETHANE	<5.0
CARBON TETRACHLORIDE	<5.0
CHLOROBENZENE	<12.5
CHLOROETHANE	<5.0
CHLOROFORM	<5.0
CHLOROMETHANE	<5.0
DIBROMOCHLOROMETHANE	<5.0
2-CHLOROETHYL VINYL ETHER	<12.5
1,3-DICHLOROBENZENE	<12.5
1,2 & 1,4-DICHLOROBENZENE	<12.5
DICHLORODIFLUOROMETHANE	<5.0
1,1-DICHLOROETHANE	<5.0
1,2-DICHLOROETHANE	<5.0
1,1-DICHLOROETHENE	<5.0
1,2-DICHLOROETHENE (TOTAL)	84
1,2-DICHLOROPROPANE	<5.0
CIS-1,3-DICHLOROPROPENE	<5.0
TRANS-1,3-DICHLOROPROPENE	<5.0
ETHYLBENZENE	940
METHYLENE CHLORIDE	<50.0
1,1,2,2-TETRACHLOROETHANE	<5.0
TETRACHLOROETHENE	<5.0
TOLUENE	4000 D
1,1,1-TRICHLOROETHANE	<5.0
1,1,2-TRICHLOROETHANE	<5.0
TRICHLOROETHENE	<5.0
TRICHLOROFLUOROMETHANE	<12.5
VINYL CHLORIDE	<5.0
TOTAL XYLENES	4000 D
TRICHLOROTRIFLUOROETHANE	<50.0
METHYL-t-BUTYL ETHER	160
1,2-DIBROMOETHANE	<25.0
ACETONE	<1250

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	100
BROMOFLUOROBENZENE (%)	98



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174308

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-8
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/24/92
UNITS : UG/L
DILUTION FACTOR : 25

COMPOUNDS

RESULTS

BENZENE	2100
BROMODICHLOROMETHANE	<5.0
BROMOFORM	<5.0
BROMOMETHANE	<5.0
CARBON TETRACHLORIDE	<5.0
CHLOROBENZENE	<12.5
CHLOROETHANE	<5.0
CHLOROFORM	<5.0
CHLOROMETHANE	<5.0
DIBROMOCHLOROMETHANE	<5.0
2-CHLOROETHYL VINYL ETHER	<12.5
1,3-DICHLOROBENZENE	<12.5
1,2 & 1,4-DICHLOROBENZENE	<12.5
DICHLORODIFLUOROMETHANE	<5.0
1,1-DICHLOROETHANE	<5.0
1,2-DICHLOROETHANE	<5.0
1,1-DICHLOROETHENE	<5.0
1,2-DICHLOROETHENE (TOTAL)	45
1,2-DICHLOROPROPANE	<5.0
CIS-1,3-DICHLOROPROPENE	<5.0
TRANS-1,3-DICHLOROPROPENE	<5.0
ETHYLBENZENE	640
METHYLENE CHLORIDE	<50.0
1,1,2,2-TETRACHLOROETHANE	<5.0
TETRACHLOROETHENE	<5.0
TOLUENE	1200
1,1,1-TRICHLOROETHANE	<5.0
1,1,2-TRICHLOROETHANE	<5.0
TRICHLOROETHENE	<5.0
TRICHLOROFLUOROMETHANE	<12.5
VINYL CHLORIDE	<5.0
TOTAL XYLENES	1500
TRICHLOROTRIFLUOROETHANE	<50.0
METHYL-t-BUTYL ETHER	<25.0
1,2-DIBROMOETHANE	<25.0
ACETONE	<1250

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	93
BROMOFLUOROBENZENE (%)	90



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174309

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 01/20/92
PROJECT #	: (NONE)	DATE RECEIVED	: 01/21/92
PROJECT NAME	: EVER READY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-9	DATE ANALYZED	: 01/24/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1000

COMPOUNDS	RESULTS
BENZENE	14000
BROMODICHLOROMETHANE	<200
BROMOFORM	<200
BROMOMETHANE	<200
CARBON TETRACHLORIDE	<200
CHLOROBENZENE	<500
CHLOROETHANE	<200
CHLOROFORM	<200
CHLOROMETHANE	<200
DIBROMOCHLOROMETHANE	<200
2-CHLOROETHYL VINYL ETHER	<500
1,3-DICHLOROBENZENE	<500
1,2 & 1,4-DICHLOROBENZENE	<500
DICHLORODIFLUOROMETHANE	<200
1,1-DICHLOROETHANE	<200
1,2-DICHLOROETHANE	<200
1,1-DICHLOROETHENE	<200
1,2-DICHLOROETHENE (TOTAL)	<200
1,2-DICHLOROPROPANE	<200
CIS-1,3-DICHLOROPROPENE	<200
TRANS-1,3-DICHLOROPROPENE	<200
ETHYLBENZENE	7700
METHYLENE CHLORIDE	<2000
1,1,2,2-TETRACHLOROETHANE	<200
TETRACHLOROETHENE	<200
TOLUENE	<500
1,1,1-TRICHLOROETHANE	<200
1,1,2-TRICHLOROETHANE	<200
TRICHLOROETHENE	<200
TRICHLOROFLUOROMETHANE	<500
VINYL CHLORIDE	<200
TOTAL XYLENES	7900
TRICHLOROTRIFLUOROETHANE	<2000
METHYL-t-BUTYL ETHER	<1000
1,2-DIBROMOETHANE	<1000
ACETONE	<50000

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	83



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174310

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 01/20/92
PROJECT #	: (NONE)	DATE RECEIVED	: 01/21/92
PROJECT NAME	: EVER READY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-10	DATE ANALYZED	: 01/23/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
BENZENE	1.3
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	1.7
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	23
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	4.3
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	115
BROMOFLUOROBENZENE (%)	86



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174311

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-11
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/25/92
UNITS : UG/L
DILUTION FACTOR : 50

COMPOUNDS	RESULTS
BENZENE	2800
BROMODICHLOROMETHANE	<10.0
BROMOFORM	<10.0
BROMOMETHANE	<10.0
CARBON TETRACHLORIDE	<10.0
CHLOROBENZENE	<25.0
CHLOROETHANE	<10.0
CHLOROFORM	13
CHLOROMETHANE	<10.0
DIBROMOCHLOROMETHANE	<10.0
2-CHLOROETHYL VINYL ETHER	<25.0
1,3-DICHLOROBENZENE	<25.0
1,2 & 1,4-DICHLOROBENZENE	<25.0
DICHLORODIFLUOROMETHANE	<10.0
1,1-DICHLOROETHANE	<10.0
1,2-DICHLOROETHANE	<10.0
1,1-DICHLOROETHENE	<10.0
1,2-DICHLOROETHENE (TOTAL)	27
1,2-DICHLOROPROPANE	<10.0
CIS-1,3-DICHLOROPROPENE	<10.0
TRANS-1,3-DICHLOROPROPENE	<10.0
ETHYLBENZENE	1500
METHYLENE CHLORIDE	<100.0
1,1,2,2-TETRACHLOROETHANE	<10.0
TETRACHLOROETHENE	<10.0
TOLUENE	2000 D
1,1,1-TRICHLOROETHANE	<10.0
1,1,2-TRICHLOROETHANE	<10.0
TRICHLOROETHENE	<10.0
TRICHLOROFLUOROMETHANE	<25.0
VINYL CHLORIDE	<10.0
TOTAL XYLENES	5200
TRICHLOROTRIFLUOROETHANE	<100.0
METHYL-t-BUTYL ETHER	<50.0
1,2-DIBROMOETHANE	<50.0
ACETONE	<2500

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%) 89
BROMOFLUOROBENZENE (%) 101



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174312

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 01/20/92
PROJECT #	: (NONE)	DATE RECEIVED	: 01/21/92
PROJECT NAME	: EVER READY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-12	DATE ANALYZED	: 01/24/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 250

COMPOUNDS	RESULTS
BENZENE	5500
BROMODICHLOROMETHANE	<50
BROMOFORM	<50
BROMOMETHANE	<50
CARBON TETRACHLORIDE	<50
CHLOROBENZENE	<125
CHLOROETHANE	<50
CHLOROFORM	<50
CHLOROMETHANE	<50
DIBROMOCHLOROMETHANE	<50
2-CHLOROETHYL VINYL ETHER	<125
1,3-DICHLOROBENZENE	<125
1,2 & 1,4-DICHLOROBENZENE	<125
DICHLORODIFLUOROMETHANE	<50
1,1-DICHLOROETHANE	<50
1,2-DICHLOROETHANE	<50
1,1-DICHLOROETHENE	<50
1,2-DICHLOROETHENE (TOTAL)	110
1,2-DICHLOROPROPANE	<50
CIS-1,3-DICHLOROPROPENE	<50
TRANS-1,3-DICHLOROPROPENE	<50
ETHYLBENZENE	1300
METHYLENE CHLORIDE	<500
1,1,2,2-TETRACHLOROETHANE	<50
TETRACHLOROETHENE	<50
TOLUENE	<125
1,1,1-TRICHLOROETHANE	<50
1,1,2-TRICHLOROETHANE	<50
TRICHLOROETHENE	<50
TRICHLOROFLUOROMETHANE	<125
VINYL CHLORIDE	<50
TOTAL XYLENES	<125
TRICHLOROTRIFLUOROETHANE	<500
METHYL-t-BUTYL ETHER	1700
1,2-DIBROMOETHANE	<250
ACETONE	<12500

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	93
BROMOFLUOROBENZENE (%)	91



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174313

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC

PROJECT # : (NONE)

PROJECT NAME : EVER READY

CLIENT I.D. : W-13

SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92

DATE RECEIVED : 01/21/92

DATE EXTRACTED : N/A

DATE ANALYZED : 01/24/92

UNITS : UG/L

DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	1.1
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)

87

BROMOFLUOROBENZENE (%)

84



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20174314

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	DATE SAMPLED	: 01/20/92
PROJECT #	: (NONE)	DATE RECEIVED	: 01/21/92
PROJECT NAME	: EVER READY	DATE EXTRACTED	: N/A
CLIENT I.D.	: W-14	DATE ANALYZED	: 01/23/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 5

COMPOUNDS	RESULTS
BENZENE	310
BROMODICHLOROMETHANE	<1.0
BROMOFORM	<1.0
BROMOMETHANE	<1.0
CARBON TETRACHLORIDE	<1.0
CHLOROBENZENE	<2.5
CHLOROETHANE	<1.0
CHLOROFORM	<1.0
CHLOROMETHANE	<1.0
DIBROMOCHLOROMETHANE	<1.0
2-CHLOROETHYL VINYL ETHER	<2.5
1,3-DICHLOROBENZENE	<2.5
1,2 & 1,4-DICHLOROBENZENE	<2.5
DICHLORODIFLUOROMETHANE	<1.0
1,1-DICHLOROETHANE	<1.0
1,2-DICHLOROETHANE	<1.0
1,1-DICHLOROETHENE	<1.0
1,2-DICHLOROETHENE (TOTAL)	14
1,2-DICHLOROPROPANE	<1.0
CIS-1,3-DICHLOROPROPENE	<1.0
TRANS-1,3-DICHLOROPROPENE	<1.0
ETHYLBENZENE	43
METHYLENE CHLORIDE	<10.0
1,1,2,2-TETRACHLOROETHANE	<1.0
TETRACHLOROETHENE	<1.0
TOLUENE	<2.5
1,1,1-TRICHLOROETHANE	<1.0
1,1,2-TRICHLOROETHANE	<1.0
TRICHLOROETHENE	<1.0
TRICHLOROFLUOROMETHANE	<2.5
VINYL CHLORIDE	<1.0
TOTAL XYLENES	4
TRICHLOROTRIFLUOROETHANE	<10.0
METHYL-t-BUTYL ETHER	84
1,2-DIBROMOETHANE	<5.0
ACETONE	<250

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	99
BROMOFLUOROBENZENE (%)	112



GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 201743
DATE EXTRACTED : 01/23/92
DATE ANALYZED : 01/23/92
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	92
BROMOFLUOROBENZENE (%)	114

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	ATI I.D.	: 201743
PROJECT #	: (NONE)	DATE EXTRACTED	: 01/24/92
PROJECT NAME	: EVER READY	DATE ANALYZED	: 01/24/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLORO BENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLORO BENZENE	<0.5
1,2 & 1,4-DICHLORO BENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	97
BROMOFLUOROBENZENE (%)	95



GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE

CLIENT	: JOHN W. SHOMAKER, INC	ATI I.D.	: 201743
PROJECT #	: (NONE)	DATE EXTRACTED	: 01/25/92
PROJECT NAME	: EVER READY	DATE ANALYZED	: 01/25/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
-----------	---------

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0
METHYL-t-BUTYL ETHER	<1.0
1,2-DIBROMOETHANE	<1.0
ACETONE	<50

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	90



QUALITY CONTROL DATA

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE
ATI I.D. : 201743

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
REF I.D. : 20174306

DATE ANALYZED : 01/24/92
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP. SPIKED %		RPD
	RESULT	SPIKED			SAMPLE	REC.	
1,1 DICHLOROETHENE	<0.2	20	21	105	22	110	5
TRICHLOROETHENE	<0.2	20	21	105	22	110	5
TETRACHLOROETHENE	<0.2	20	23	115	23	115	0
BENZENE	<0.5	20	19	95	19	95	0
BROMODICHLOROMETHANE	<0.2	20	21	105	22	110	5
CHLOROFORM	<0.2	20	23	115	24	120	4
1,1,1-TRICHLOROETHANE	<0.2	20	24	120	24	120	0
TOLUENE	<0.5	20	21	105	22	110	5
CHLOROBENZENE	<0.5	20	23	115	24	120	4
XYLENES	<0.5	20	20	100	20	100	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



QUALITY CONTROL DATA

TEST : VOLATILE HALOCARBONS/AROMATICS (601/602) & MTBE ATI I.D. : 201743

CLIENT : JOHN W. SHOMAKER, INC

PROJECT # : (NONE)

PROJECT NAME : EVER READY

REF I.D. : 20176804

DATE ANALYZED : 01/25/92

SAMPLE MATRIX : AQUEOUS

UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP. DUP.		RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1 DICHLOROETHENE	<0.2	20	21	105	21	105	0
TRICHLOROETHENE	<0.2	20	23	115	23	115	0
TETRACHLOROETHENE	<0.2	20	24	120	23	115	4
BENZENE	<0.5	20	19	95	19	95	0
BROMODICHLOROMETHANE	<0.2	20	22	110	21	105	5
CHLOROFORM	<0.2	20	23	115	22	110	4
1,1,1-TRICHLOROETHANE	<0.2	20	23	115	23	115	0
TOLUENE	<0.5	20	21	105	21	105	0
CHLOROBENZENE	<0.5	20	22	110	23	115	4
XYLENES	<0.5	20	20	100	20	100	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



GCMS - RESULTS

ATI I.D. : 20174301

TEST : BTEX & MTBE (GC/MS, EPA METHOD 624)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-1
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/29/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<1
TOLUENE	<1
ETHYLBENZENE	<1
TOTAL XYLENES	<1
METHYL TERT-BUTYL ETHER	<5

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	100
BROMOFLUOROBENZENE (%)	102
TOLUENE-D8 (%)	100



GCMS - RESULTS

ATI I.D. : 20174303

TEST : BTEX & MTBE (GC/MS, EPA METHOD 624)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-3
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/29/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	900 D
TOLUENE	88
ETHYLBENZENE	370 D
TOTAL XYLENES	630 D
METHYL TERT-BUTYL ETHER	<5

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	95
BROMOFLUOROBENZENE (%)	97
TOLUENE-D8 (%)	103



GCMS - RESULTS

ATI I.D. : 20174310

TEST : BTEX & MTBE (GC/MS, EPA METHOD 624)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-10
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/29/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDSRESULTS

BENZENE	<1
TOLUENE	<1
ETHYLBENZENE	<1
TOTAL XYLENES	<1
METHYL TERT-BUTYL ETHER	<5

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	107
BROMOFLUOROBENZENE (%)	104
TOLUENE-D8 (%)	107



GCMS - RESULTS

ATI I.D. : 20174314

TEST : BTEX & MTBE (GC/MS, EPA METHOD 624)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : W-14
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 01/20/92
DATE RECEIVED : 01/21/92
DATE EXTRACTED : N/A
DATE ANALYZED : 01/29/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	270
TOLUENE	<1
ETHYLBENZENE	50
TOTAL XYLENES	8
METHYL TERT-BUTYL ETHER	60

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	104
BROMOFLUOROBENZENE (%)	101
TOLUENE-D8 (%)	98



GCMS - RESULTS

REAGENT BLANK

TEST : BTEX & MTBE (GC/MS, EPA METHOD 624)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 201743
DATE EXTRACTED : 01/30/92
DATE ANALYZED : 01/30/92
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS

RESULTS

BENZENE	<1
TOLUENE	<1
ETHYLBENZENE	<1
TOTAL XYLENES	<1
METHYL TERT-BUTYL ETHER	<5

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	80
BROMOFLUOROBENZENE (%)	91
TOLUENE-D8 (%)	95



GCMS - RESULTS

REAGENT BLANK

TEST : BTEX & MTBE (GC/MS, EPA METHOD 624)

CLIENT : JOHN W. SHOMAKER, INC
PROJECT # : (NONE)
PROJECT NAME : EVER READY
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 201743
DATE EXTRACTED : 01/29/92
DATE ANALYZED : 01/29/92
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS

RESULTS

BENZENE	<1
TOLUENE	<1
ETHYLBENZENE	<1
TOTAL XYLENES	<1
METHYL TERT-BUTYL ETHER	<5

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	101
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	105



QUALITY CONTROL DATA

TEST : BTEX & MTBE (GC/MS, EPA METHOD 624)

ATI I.D. : 201743

CLIENT : JOHN W. SHOMAKER, INC

PROJECT # : (NONE)

PROJECT NAME : EVER READY

REF I.D. : 20299901

DATE ANALYZED : 01/29/92

SAMPLE MATRIX : AQUEOUS

UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED	% REC.	
BENZENE	<1	50	39	78	38	76	3
TOLUENE	<1	50	53	106	48	96	10

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



DATE 1-20-42 PAGE 1 OF 2

ATI Labs: San Diego (619)458-9141 • Phoenix (602)436-1530 • Seaside (206)228-8335 • Pensacola (904)474-1001 DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR



Analytical Technologies, Inc.

Phoenix, Arizona

Chain of Custody

DATE 1-20-92 PAGE 2 OF 2

PROJECT MANAGER: <u>Bob Newcomer</u>					ANALYSIS REQUEST																			
COMPANY: <u>John W. Thormaker, Inc.</u>					Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (801/8010) + ED3	Aromatic Hydrocarbons (602/8020)	MTBE	MTBE by GC/MS	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/603.1)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP	NUMBER OF CONTAINERS
ADDRESS: <u>2703-D Broadbent Plwy NE</u>																								
<u>Albuquerque, NM 87107</u>																								
BILL TO: <u>Jim Shepherd</u>																								
COMPANY: <u>Ever Ready Oil Co., Inc.</u>																								
ADDRESS: <u>P.O. Box 25845</u>																								
<u>Albuquerque, NM 87125</u>																								
SIGNATURE: <u>[Signature]</u> PHONE NUMBER: <u>1505 1345-3407</u>																								
SAMPLE ID	DATE	TIME	MATRIX	LAB ID																				
W-10	1/20/92	14:15	water	10					X	X	X												2	
W-11	"	14:35	"	11					X	X	X												2	
W-12	"	14:55	"	12					X	X	X												2	
W-13	"	15:20	"	13					X	X	X												2	
W-14	"	15:40	"	14					X	X	X												2	

PROJECT INFORMATION			SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
PROJECT NO.:	TOTAL NO. OF CONTAINERS	10	Signature:	Time:	Signature:	Time:	Signature:	Time:	Signature:	Time:
PROJECT NAME: <u>Ever Ready/Isleta</u>	CHAIN OF CUSTODY SEALS	✓	Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
P.O. NO.:	INTACT?	✓	Rogger L. Perez 1-20-92							
VIA: <u>Fed Ex</u>	RECEIVED GOOD COND./COLD	✓	Company:		Company:		Company:		Company:	
TAT: ☐ 24HR ☐ 48 HRS ☐ 1 WK ☒ 2 WKS	LAB NUMBER	201743	RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: (LAB) 3.			
SAMPLE DISPOSAL INSTRUCTIONS			Signature:	Time:	Signature:	Time:	Signature:	Time:		
☒ ATI Disposal @ \$5.00 each ☐ Return ☐ Pickup (will call)			Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:		
Comments: <u>preserved with HCl and H2O2</u> <u>Samples kept on and shipped with ice</u>			Company:		Company:		Company:			

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700700 Camino de Salud, NE
[505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

December 26, 1991

Request
ID No. 012749**ANALYTICAL REPORT**
SLD Accession No. OR-91-3692Distribution☐ User 55211
☒ Submitter 303
☒ SLD FilesTo: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, NE
Albuquerque, NM 87106Submitter: Lawrence Shore
Albuq. Environ. Health Dept.
Environmental Services Div.
P.O.Box 1293
Albuquerque, NM 87103

Re: A water, purgeable sample submitted to this laboratory on December 10, 1991

DEMOGRAPHIC DATA

COLLECTION
On: 9-Dec-91 By: Sho ...
At: 14:00 hrs. In/Near: AlbuquerqueLOCATION
Thriftway, HAB-1

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen (754)

Parameter	Value	Note	MDL	Units
Benzene	11800.00		200.00	ppb
Toluene	22000.00		200.00	ppb
Ethylbenzene	1900.00		200.00	ppb
p- & m-Xylene	7800.00		200.00	ppb
o-Xylene	3400.00		200.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

MDL = Minimal Detectable Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.Evidentiary Seals: Not Sealed ☐; Intact: No ☐, Yes ☒ & Broken By: R. Mayhew Date: 12/17/91Laboratory Remarks:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION	Contract: <u>N/A</u>
Lab Code: <u>N/A</u> Case No.: <u>N/A</u>	SAS No.: <u>N/A</u> SDG No.: <u>N/A</u>
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-91-3692</u>
Sample wt/vol: <u>5.0</u> (g/mL) <u>mL</u>	SLD Batch No: <u>81</u>
Level: (low/med) <u>Low</u>	Date Received: <u>12/10/91</u>
% Moisture: not dec. <u>N/A</u> dec. <u>N/A</u>	Date Extracted: <u>N/A</u>
Extraction: (SepF/Cont/Sonc) <u>N/A</u>	Date Analyzed: <u>12/17/91</u>
GPC Cleanup: (Y/N) <u>No</u> pH: _____	Dilution Factor: <u>200</u>
	CONCENTRATION UNITS:
	(ug/L or ug/Kg): <u>ug/L</u>

(Continued on page 2.)

This sample was analyzed for the following compounds
 using EPA Methods 601 & 602

CAS NO.	COMPOUND	CONC.	QUALIFIER
67-64-1	Acetone	1000.0	U
71-43-2	Benzene	11800	
108-86-1	Bromobenzene	200.0	U
74-97-5	Bromochloromethane	200.0	U
75-27-4	Bromodichloromethane	200.0	U
75-25-2	Bromoform	200.0	U
78-93-3	2-Butanone (MEK)	1000.0	U
104-51-8	n-Butylbenzene	200.0	U
135-98-8	sec-Butylbenzene	200.0	U
98-06-6	tert-Butylbenzene	200.0	U
1634-04-4	tert-Butyl methyl ether (MTBE)	1000.0	U
56-23-5	Carbon tetrachloride	200.0	U
108-90-7	Chlorobenzene	200.0	U
67-66-3	Chloroform	200.0	U
95-49-8	2-Chlorotoluene	200.0	U
106-43-4	4-Chlorotoluene	200.0	U
96-12-8	1,2-Dibromo-3-chloropropane	200.0	U
124-48-1	Dibromochloromethane	200.0	U
106-93-4	1,2-Dibromoethane	200.0	U
74-95-3	Dibromomethane	200.0	U
95-50-1	1,2-Dichlorobenzene	200.0	U
541-73-1	1,3-Dichlorobenzene	200.0	U
106-46-7	1,4-Dichlorobenzene	200.0	U
75-71-8	Dichlorodifluoromethane	200.0	U
75-34-3	1,1-Dichloroethane	200.0	U
107-06-2	1,2-Dichloroethane	200.0	U
75-35-4	1,1-Dichloroethene	200.0	U
156-59-4	cis-1,2-Dichloroethene	200.0	U
156-60-5	trans-1,2-Dichloroethene	200.0	U
78-87-5	1,2-Dichloropropane	200.0	U
142-28-9	1,3-Dichloropropane	200.0	U
590-20-7	2,2-Dichloropropane	200.0	U
563-58-6	1,1-Dichloropropene	200.0	U
1006-01-5	cis-1,3-Dichloropropene	200.0	U
1006-02-6	trans-1,3-Dichloropropene	200.0	U
100-41-4	Ethylbenzene	1900	
87-68-3	Hexachlorobutadiene	200.0	U
98-82-8	Isopropylbenzene	200.0	U
99-87-6	4-Isopropyltoluene	200.0	U

(Continued on page 3.)

75-09-2	Methylene chloride	200.0	U
90-12-0	1-Methylnaphthalene	200.0	U
91-57-6	2-Methylnaphthalene	200.0	U
91-20-3	Naphthalene	200.0	U
103-65-1	Propylbenzene	200.0	U
100-42-5	Styrene	200.0	U
630-20-6	1,1,1,2-Tetrachloroethane	200.0	U
79-34-5	1,1,2,2-Tetrachloroethane	200.0	U
127-18-4	Tetrachloroethene	200.0	U
109-99-9	Tetrahydrofuran (THF)	1000.0	U
108-88-3	Toluene	22000	
87-61-5	1,2,3-Trichlorobenzene	200.0	U
120-82-1	1,2,4-Trichlorobenzene	200.0	U
71-55-6	1,1,1-Trichloroethane	200.0	U
79-00-5	1,1,2-Trichloroethane	200.0	U
79-01-6	Trichloroethene	200.0	U
75-69-4	Trichlorofluoromethane	200.0	U
96-18-4	1,2,3-Trichloropropane	200.0	U
95-63-6	1,2,4-Trimethylbenzene	200.0	U
108-67-8	1,3,5-Trimethylbenzene	200.0	U
75-01-4	Vinyl chloride	200.0	U
95-47-6	o-Xylene	3400	
N/A	p- & m-Xylene	7800	

Qualifier Definitions:

- B - Indicates compound was detected in the Lab Blank as well as in the sample.
- D - Indicates value taken from a secondary (diluted) sample analysis.
- E - Indicates compound concentration exceeded the range of the standard curve.
- J - Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N - Indicates that more than one peak was used for quantitation.
- U - Indicates compound was analyzed for, but not detected above the concentration listed (Quantitation Limit).

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants

(Continued on page 4.)

from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION	% RECOVERY
Fluorobenzene	50.0 ppb	107.4
2-Bromo-1-chloropropane	30.0 ppb	108.4

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
No exceptions	. ppb	.

Analyst:

Richard F. Meyerhein
Richard F. Meyerhein
Supervisor, Organic Chemistry

Reviewed By:

Richard F. Meyerhein
Richard F. Meyerhein 12/16/91
Supervisor, Organic Chemistry Section

Date Received: 12-10-91

2 User Code #: 51512111		3 Request ID No.: 012749-C		4 Priority Code #: 1		5 Facility Name: Thriftway - 3339 Isleta		6 County: Bernalillo		7 City: Albuquerque		8 State: NM					
9 Sample Location: H A B - 1												10 Collected By: Lawrence S H O R E		On: 9/12/9		At: 1400 hrs.	
11 Codes: 303				Submitter: WSS #				Organization: A E H D				12 Latitude (DDMMSS)					
13 Report To: Lawrence Shore				14 Phone #: 768-2632				Longitude (DDMMSS)				2 Digit ID (if needed)					
Address: P.O. Box 1293 Albuquerque, New Mexico 87103								15 Sampling Information: Sample Purpose: ☒ - Grab ☐ - Composite (Composite Time Period) ☐ - Compliance ☐ - Flow Proportioned ☒ - Check ☐ - Equal Aliquot ☐ - Monitoring ☐ - Sample Split w/Permites ☐ - Special ☒ - Chain of Custody									
16 Field Data: pH: , Conductivity: umhos @ C, Temperature: C, Chlorine Residual: mg/l, Flow:																	
17 Sample Source: ☒ - Stream ☒ - Well; Depth: 8.1' ☐ - Lake ☐ - Spring ☐ - Drain ☐ - Distribution ☐ - Pool ☐ - Point-of-Entry ☐ - WWTP ☐ - Other:						18 Field Notes/ Sample #: Strong BETX OODR - unwashed (5)											
19 Sample Type: ☒ - Water, ☐ - Soil, ☐ - Food, ☐ - Wastewater, ☐ - Other						20 Preservation: ☐ - NP No Preservation; Sample stored at room temperature ☐ - P-ice Sample stored in an ice bath (Not Frozen) ☐ - P-TS Sample Preserved with Sodium Thiosulfate to remove chlorine residual ☐ - P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml) ☐ - Other 4 drops H ₂ O ₂											
21 This form accompanies a single sample consisting of: 2 septum vial(s) (volume = 40 mL) glass jugs (volume =) (volume =)																	

21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.

Volatile Screens:

- ☐ - (753) Aliphatic Headspace (1-5 Carbons)
- ☐ - (754) Aromatic & Halogenated Purgeables (EPA 601 & 602)
- ☐ - (765) Mass Spectrometer Purgeables (EPA 624)
- ☐ - (766) SDWA Total Trihalomethanes (EPA 501.1)
- ☐ - (774) SDWA VOC's I [8 Regulated +] (EPA 502.2)
- ☐ - (775) SDWA VOC's II [EDB & DBCP] (EPA 504)

Other Specific Compounds or Classes:

- ☒ - () MTBE
- ☐ - ()
- ☐ - ()

Semivolatile Screens:

- ☐ - (763) Acid Extractables
- ☐ - (751) Aliphatic Hydrocarbons
- ☐ - (755) Base/Neutral Extractables (EPA 625)
- ☐ - (756) Base/Neutral/Acid Extractables (EPA 6270)
- ☐ - (758) Herbicides, Chlorophenoxy Acid
- ☐ - (759) Herbicides, Triazines
- ☐ - (760) Organochlorine Pesticides
- ☐ - (761) Organophosphate Pesticides
- ☐ - (767) Polychlorinated Biphenyls (PCE's)
- ☐ - (764) Polynuclear Aromatic Hydrocarbons
- ☐ - (762) SDWA Pesticides & Herbicides

Remarks: Its very important that I have the MTBE concentrations in this sample.

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700700 Camino de Salud, NE
[505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

December 26, 1991

Request
ID No. 012742**ANALYTICAL REPORT**
SLD Accession No. OR-91-3690Distribution() User 55211
(■) Submitter 303
(⊗) SLD FilesTo: Lawrence Shore
Albuq. Environ. Health Dept.
Environmental Services Div.
P.O.Box 1293
Albuquerque, NM 87103From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, NE
Albuquerque, NM 87106

Re: A water, purgeable sample submitted to this laboratory on December 10, 1991

DEMOGRAPHIC DATA

COLLECTION		LOCATION
On: 9-Dec-91	By: Sho . . .	Thriftway, HAB-2
At: 17:00 hrs.	In/Near: Albuquerque	

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen (754)

Parameter	Value	Note	MDL	Units
trans-1,2-Dichloroethene	3.80		1.00	ppb
cis-1,2-Dichloroethene	10.00		1.00	ppb
Trichloroethene	10.00		1.00	ppb
Tetrachloroethene	0.30	T	1.00	ppb
Toluene	6.50		1.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

MDL = Minimal Detectable Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.Evidentiary Seals: Not Sealed ☐; Intact: No ☐, Yes ☒ & Broken By: R. Meyer Date: 12/17/91Laboratory Remarks:

Trichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, and Toluene were confirmed by GC/MS. Tetrachloroethene was not confirmed by GC/MS.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION	Contract: N/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water	Lab Sample ID: OR-91-3690
Sample wt/vol: 5.0 (g/mL) mL	SLD Batch No: 81
Level: (low/med) Low	Date Received: 12/10/91
% Moisture: not dec. N/A dec. N/A	Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A	Date Analyzed: 12/17/91

(Continued on page 2.)

ANALYTICAL REPORT
 SLD Accession No. OR-91-3690
 Continuation, Page 2 of 4

GPC Cleanup: (Y/N) No pH: _____ Dilution Factor: 1
 CONCENTRATION UNITS:
 (ug/L or ug/Kg): _____ ug/L

This sample was analyzed for the following compounds
 using EPA Methods 601 & 602

CAS NO.	COMPOUND	CONC.	QUALIFIER
67-64-1	Acetone	5.0	U
71-43-2	Benzene	1.0	U
108-86-1	Bromobenzene	1.0	U
74-97-5	Bromochloromethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
75-25-2	Bromoform	1.0	U
78-93-3	2-Butanone (MEK)	5.0	U
104-51-8	n-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
1634-04-4	tert-Butyl methyl ether (MTBE)	5.0	U
56-23-5	Carbon tetrachloride	1.0	U
108-90-7	Chlorobenzene	1.0	U
67-66-3	Chloroform	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
74-95-3	Dibromomethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
75-71-8	Dichlorodifluoromethane	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
156-59-4	cis-1,2-Dichloroethene	10	
156-60-5	trans-1,2-Dichloroethene	3.8	
78-87-5	1,2-Dichloropropane	1.0	U
142-28-9	1,3-Dichloropropane	1.0	U
590-20-7	2,2-Dichloropropane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
1006-01-5	cis-1,3-Dichloropropene	1.0	U
1006-02-6	trans-1,3-Dichloropropene	1.0	U

(Continued on page 3.)

100-41-4	Ethylbenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
75-09-2	Methylene chloride	1.0	U
90-12-0	1-Methylnaphthalene	1.0	U
91-57-6	2-Methylnaphthalene	1.0	U
91-20-3	Naphthalene	1.0	U
103-65-1	Propylbenzene	1.0	U
100-42-5	Styrene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
127-18-4	Tetrachloroethene	0.3	J
109-99-9	Tetrahydrofuran (THF)	5.0	U
108-88-3	Toluene	6.5	
87-61-5	1,2,3-Trichlorobenzene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
79-01-6	Trichloroethene	10	
75-69-4	Trichlorofluoromethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
75-01-4	Vinyl chloride	1.0	U
95-47-6	o-Xylene	1.0	U
N/A	p- & m-Xylene	1.0	U

Qualifier Definitions:

- B - Indicates compound was detected in the Lab Blank as well as in the sample.
- D - Indicates value taken from a secondary (diluted) sample analysis.
- E - Indicates compound concentration exceeded the range of the standard curve.
- J - Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N - Indicates that more than one peak was used for quantitation.
- U - Indicates compound was analyzed for, but not detected above the concentration listed (Quantitation Limit).

(Continued on page 4.)

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION	% RECOVERY
Fluorobenzene	50.0 ppb	97.
2-Bromo-1-chloropropane	30.0 ppb	101.4

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
No exceptions	. ppb	.

Analyst: Richard F. Meyerhein

Richard F. Meyerhein
Supervisor, Organic Chemistry

Reviewed By: Richard F. Meyerhein

Richard F. Meyerhein 12/26/91
Supervisor, Organic Chemistry Section

Date Received: 12-10-91

User Code #: 51512111 Request ID No.: 3 Facility Name: Thriftway - 3339 Isleta County: Bernalillo City: Albuquerque State: NM

Sample Location: H A B - 2

Collected By: Lawrence S H O R E On: 11/12/91 At: 11:00 hrs

Codes: 303 Submitter WSS # Organization A E H D

Report To: Lawrence Shore Phone #: 768-2632

Address: P.O. Box 1293 Albuquerque, New Mexico 87103

Field Data: pH: Conductivity: umhos @ C Temperature: Chlorine Residual: mg/l Flow:

17 Sample Source: Stream Lake Drain Pool WWTP Well Depth: 8.2 Spring Distribution Point-of-Entry Other

18 Field Notes: Sample #: OLD WEATHERED GASOLINE Smell from water. (1)

19 Sample Type: Water Soil Food Wastewater Other

20 Preservation: NP No Preservation; Sample stored at room temperature P-ice Sample stored in an ice bath (Not Frozen) P-TS Sample Preserved with Sodium Thiosulfate to remove chlorine residue P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml) Other Hg Cl 4 drops

21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.

Volatile Screens: (753) Aliphatic Headspace (1-5 Carbons) (754) Aromatic & Halogenated Purgeables (EPA 601 & 602) (755) Mass Spectrometer Purgeables (EPA 624) (756) SDWA Total Trihalomethanes (EPA 501.1) (774) SDWA VOC's I [8 Regulated +] (EPA 502.2) (775) SDWA VOC's II [EDB & DECP] (EPA 504) Other Specific Compounds or Classes: MTBE Semivolatiles Screens: (763) Acid Extractables (751) Aliphatic Hydrocarbons (755) Base/Neutral Extractables (EPA 625) (756) Base/Neutral/Acid Extractables (EPA 6270) (758) Herbicides, Chlorophenoxy Acid (759) Herbicides, Triazines (760) Organochlorine Pesticides (761) Organophosphate Pesticides (767) Polychlorinated Biphenyls (PCB's) (764) Polynuclear Aromatic Hydrocarbons (762) SDWA Pesticides & Herbicides

Remarks: Its very important that I know the MTBE CONCENTRATION in this sample.

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700700 Camino de Salud, NE
[505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

December 26, 1991

Request
ID No. 012746**ANALYTICAL REPORT**
SLD Accession No. OR-91-3691Distribution() User 55211
() Submitter 303
(X) SLD FilesTo: Lawrence Shore
Albuq. Environ. Health Dept.
Environmental Services Div.
P.O.Box 1293
Albuquerque, NM 87103From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, NE
Albuquerque, NM 87106

Re: A water, purgeable sample submitted to this laboratory on December 10, 1991

DEMOGRAPHIC DATA

COLLECTION		LOCATION
On: 9-Dec-91	By: Sho . . .	Thriftway, HAB-3
At: 16:15 hrs.	In/Near: Albuquerque	

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen (754)

Parameter	Value	Note	MDL	Units
trans-1,2-Dichloroethene	0.10	T	1.00	ppb
cis-1,2-Dichloroethene	0.70	T	1.00	ppb
Trichloroethene	6.00		1.00	ppb
Tetrachloroethene	0.90	T	1.00	ppb
Benzene	172.00		1.00	ppb
Toluene	10.60		1.00	ppb
Ethylbenzene	25.00		1.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

MDL = Minimal Detectable Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.Evidentiary Seals: Not Sealed ☐; Intact: No ☐, Yes ☒ & Broken By: Rm [signature] Date: 12/17/91Laboratory Remarks:

The following compounds were also detected in this sample (detection limit = 1 ppb):

COMPOUND	CONCENTRATION
p- & m-Xylene	2.9
o-Xylene	3.6

A duplicate of this sample was analyzed, and the following results were obtained (detection limit = 1 ppb):

COMPOUND	CONCENTRATION
trans-1,2-Dichloroethene	0.0

(Continued on page 2.)

ANALYTICAL REPORT
 SLD Accession No. OR-91-3691
 Continuation, Page 2 of 4

cis-1,2-Dichloroethene	0.6
Trichloroethene	5.9
Tetrachloroethene	0.8
Benzene	164.
Toluene	7.9
Ethylbenzene	23.5
p- & m-Xylene	2.2
o-Xylene	3.0

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION	Contract: <u>N/A</u>
Lab Code: <u>N/A</u> Case No.: <u>N/A</u>	SAS No.: <u>N/A</u> SDG No.: <u>N/A</u>
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-91-3691</u>
Sample wt/vol: <u>5.0</u> (g/mL) <u>mL</u>	SLD Batch No: <u>81</u>
Level: (low/med) <u>Low</u>	Date Received: <u>12/10/91</u>
% Moisture: not dec. <u>N/A</u> dec. <u>N/A</u>	Date Extracted: <u>N/A</u>
Extraction: (SepF/Cont/Sonc) <u>N/A</u>	Date Analyzed: <u>12/17/91</u>
GPC Cleanup: (Y/N) <u>No</u> pH: <u></u>	Dilution Factor: <u>1</u>
	CONCENTRATION UNITS:
	(ug/L or ug/Kg): <u>ug/L</u>

This sample was analyzed for the following compounds
 using EPA Methods 601 & 602

CAS NO.	COMPOUND	CONC.	QUALIFIER
67-64-1	Acetone	5.0	U
71-43-2	Benzene	172	
108-86-1	Bromobenzene	1.0	U
74-97-5	Bromochloromethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
75-25-2	Bromoform	1.0	U
78-93-3	2-Butanone (MEK)	5.0	U
104-51-8	n-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
1634-04-4	tert-Butyl methyl ether (MTBE)	5.0	U
56-23-5	Carbon tetrachloride	1.0	U
108-90-7	Chlorobenzene	1.0	U
67-66-3	Chloroform	1.0	U
95-49-8	2-Chlorotoluene	1.0	U

(Continued on page 3.)

ANALYTICAL REPORT
 SLD Accession No. OR-91-3691
 Continuation, Page 3 of 4

106-43-4	4-Chlorotoluene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
74-95-3	Dibromomethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
75-71-8	Dichlorodifluoromethane	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
156-59-4	cis-1,2-Dichloroethene	0.7	J
156-60-5	trans-1,2-Dichloroethene	0.1	J
78-87-5	1,2-Dichloropropane	1.0	U
142-28-9	1,3-Dichloropropane	1.0	U
590-20-7	2,2-Dichloropropane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
1006-01-5	cis-1,3-Dichloropropene	1.0	U
1006-02-6	trans-1,3-Dichloropropene	1.0	U
100-41-4	Ethylbenzene	25	
87-68-3	Hexachlorobutadiene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
75-09-2	Methylene chloride	1.0	U
90-12-0	1-Methylnaphthalene	1.0	U
91-57-6	2-Methylnaphthalene	1.0	U
91-20-3	Naphthalene	1.0	U
103-65-1	Propylbenzene	1.0	U
100-42-5	Styrene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
127-18-4	Tetrachloroethene	0.9	J
109-99-9	Tetrahydrofuran (THF)	5.0	U
108-88-3	Toluene	10.6	
87-61-5	1,2,3-Trichlorobenzene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
79-01-6	Trichloroethene	6.0	
75-69-4	Trichlorofluoromethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U

(Continued on page 4.)

95-63-6	1,2,4-Trimethylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
75-01-4	Vinyl chloride	1.0	U
95-47-6	o-Xylene	3.6	
N/A	p- & m-Xylene	2.9	

Qualifier Definitions:

- B - Indicates compound was detected in the Lab Blank as well as in the sample.
- D - Indicates value taken from a secondary (diluted) sample analysis.
- E - Indicates compound concentration exceeded the range of the standard curve.
- J - Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N - Indicates that more than one peak was used for quantitation.
- U - Indicates compound was analyzed for, but not detected above the concentration listed (Quantitation Limit).

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION	% RECOVERY
Fluorobenzene	50.0 ppb	119.
2-Bromo-1-chloropropane	30.0 ppb	113.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
No exceptions	. ppb	.

Analyst:

Richard F. Meyerhein
 Richard F. Meyerhein
 Supervisor, Organic Chemistry

Reviewed By:

Richard F. Meyerhein
 Richard F. Meyerhein 12/26/91
 Supervisor, Organic Chemistry Section

Date

Received: 12-10-91

2 User Code #: 51 512 11 11		3 Request ID No.:		Request ID No. 012746-C		4 Priority Code #:		5 Facility Name: Thriftway - 3339 Isleta		6 County: Bernalillo		7 City: Albuquerque		8 State: NM	
9 Sample Location: H.A.B. - 3															
10 Collected By: Lawrence S.H.O.R.E On: 9/12/91 At: 1:16:15 hrs. Date: (YY/MM/DD) Time: 24 hr. clock 3:00 am - 1:00 pm															
11 Codes: 3 0 3 Submitter WSS # A E H D Organization															
13 Report To: Lawrence Shore P.O. Box 1293 Albuquerque, New Mexico 87103															
14 Phone #: 768-2632															
15 Sampling Information: Sample Purpose: ☒ - Compliance ☒ - Check ☐ - Monitoring ☐ - Special ☒ - Grab ☐ - Composite ☐ - Flow Proportioned ☐ - Equal Aliquot ☐ - Sample Split w/Permittee ☒ - Chain of Custody															
16 Field Data: pH: Conductivity: umhos @ C, Temperature: Chlorine Residual: mg/l, Flow:															
17 Sample Source: ☒ - Stream ☒ - Well; Depth: 7.5' ☐ - Lake ☐ - Spring ☐ - Drain ☐ - Distribution ☐ - Pool ☐ - Point-of-Entry ☐ - WWTP ☐ - Other:															
18 Field Notes/Sample #: Strong BTEX ODOR															
19 Sample Type: ☒ - Water, ☐ - Soil, ☐ - Food, ☐ - Wastewater, ☐ - Other															
20 Preservation: ☐ - NP No Preservation; Sample stored at room temperature ☐ - P-ice Sample stored in an ice bath (Not Frozen) ☐ - P-TS Sample Preserved with Sodium Thiosulfate to remove chlorine residual ☐ - P-HCl Sample Preserved with Hydrochloric Acid (2 drops/45 ml) ☐ - Other 4 drops Hg-CL ₂															
21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.															

Volatile Screens:

- ☐ - (753) Aliphatic Headspace (1-5 Carbons)
☒ - (754) Aromatic & Halogenated Purgeables (EPA 601 & 602)
☐ - (765) Mass Spectrometer Purgeables (EPA 624)
☐ - (766) SDWA Total Trihalomethanes (EPA 501.1)
☐ - (774) SDWA VOC's I [8 Regulated +] (EPA 502.2)
☐ - (775) SDWA VOC's II [EDB & DECP] (EPA 504)

Other Specific Compounds or Classes:

- ☒ - () MTBE
☐ - ()
☐ - ()

Semivolatile Screens:

- ☐ - (763) Acid Extractables
☐ - (751) Aliphatic Hydrocarbons
☐ - (755) Base/Neutral Extractables (EPA 625)
☐ - (756) Base/Neutral/Acid Extractables (EPA 8270)
☐ - (758) Herbicides, Chlorophenoxy Acid
☐ - (759) Herbicides, Triazines
☐ - (760) Organochlorine Pesticides
☐ - (761) Organophosphate Pesticides
☐ - (767) Polychlorinated Biphenyls (PCB's)
☐ - (764) Polynuclear Aromatic Hydrocarbons
☐ - (762) SDWA Pesticides & Herbicides

Remarks: Its very important to know the MTBE concentration of this sample.

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700700 Camino de Salud, NE
[505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

January 3, 1992

Request
ID No. 012741**ANALYTICAL REPORT**
SLD Accession No. OR-91-3693*Distribution*☐ User 55211
☒ Submitter 303
☒ SLD FilesTo: L. Shore
Albuq. Environ. Health Dept.
Environmental Services Div.
P.O.Box 1293
Albuquerque, NM 87103From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, NE
Albuquerque, NM 87106

Re: A water, Extractab sample submitted to this laboratory on December 10, 1991

DEMOGRAPHIC DATA

COLLECTION		LOCATION
On: 9-Dec-91	By: Sho . . .	HAB-2 at 7 to 7.5
At: 16:40 hrs.	In/Near: Albuquerque	

ANALYTICAL RESULTS: Aliphatic Hydrocarbon (>10 Carbons) Screen (751)

Parameter	Value	Note	MDL	Units
See Laboratory Remarks for Additional Information				

Notations & Comments:

MDL = Minimal Detectable Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.Evidentiary Seals: Not Sealed ☐; Intact: No ☐, Yes ☒ & Broken By: Danna P. Callahan Date: 12/11/91Laboratory Remarks: Thriftway- 3339 Isleta

HYDROCARBON FUEL SCREEN ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION	Contract: <u>N/A</u>
Lab Code: <u>N/A</u> Case No.: <u>N/A</u>	SAS No.: <u>N/A</u> SDG No.: <u>N/A</u>
Matrix: (soil/water) <u>Soil</u>	Lab Sample ID: <u>OR-92-3693</u>
Sample wt/vol: <u>11.5</u> (g/mL) <u>g</u>	SLD Batch No: <u>4-91-0066</u>
Level: (low/med) <u>Low</u>	Date Received: <u>12/10/91</u>
% Moisture: not dec. <u>15.5</u> dec. <u> </u>	Date Extracted: <u>12/11/91</u>
Extraction: (SepF/Cont/Sonc) <u>Sonic.</u>	Date Analyzed: <u>12/11/91</u>
GPC Cleanup: (Y/N) <u>No</u> pH: <u> </u>	Dilution Factor: <u><</u>
	CONCENTRATION UNITS:
	(ug/L or mg/Kg): <u> </u> mg/kg

This sample was analyzed for hydrocarbons in the C5 to C30 molecular weight range using Gas Chromatography with a Flame Ionization Detector (FID). Since the FID is a nonspecific detector, all compound identifications should be considered as tentative. An attempt has been made below to assign the hydrocarbons found in the sample to an

(Continued on page 2.)

appropriate fuel fraction when the gas chromatographic fingerprint pattern of the sample closely matches a fuel standard. When the hydrocarbons in the sample do not closely match any known specific fuel, the results will be reported as a hydrocarbon range.

TENTATIVELY IDENTIFIED FUEL FRACTIONS

The following fuel fractions were tentatively identified by FID

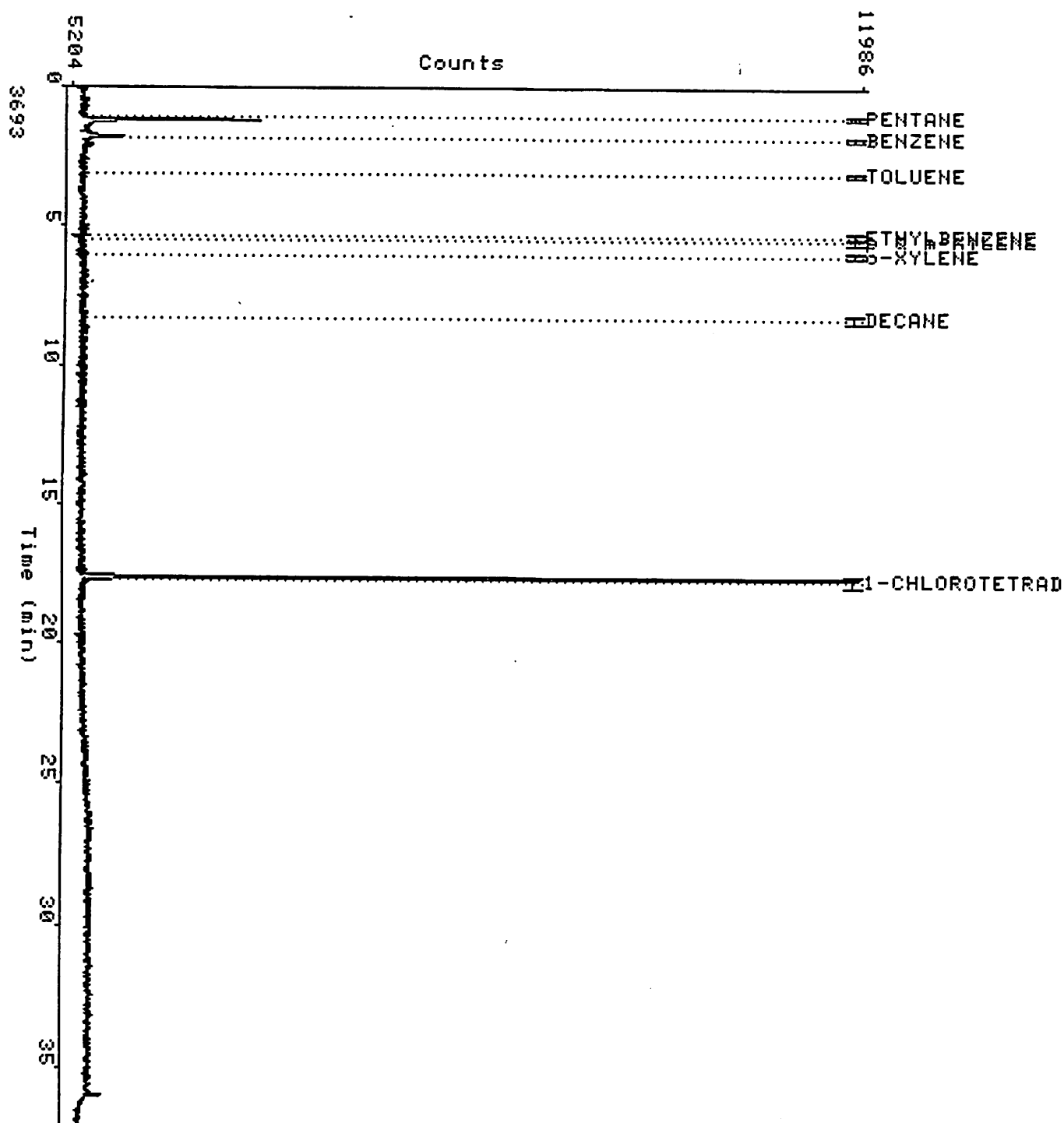
FUEL FRACTION	CARBON RANGE	EST. CONC.	% of All H-C's
GASOLINE	C5-C12	.	.
STODDARD SOLVENT	.	.	.
KEROSENE	.	.	.
JET-A	.	.	.
DIESEL FUEL	C10-C23	.	.
LUBRICATING OIL	C19-C29	.	.
UNKNOWN PATTERN	.	.	.

No aliphatic hydrocarbons were detected.

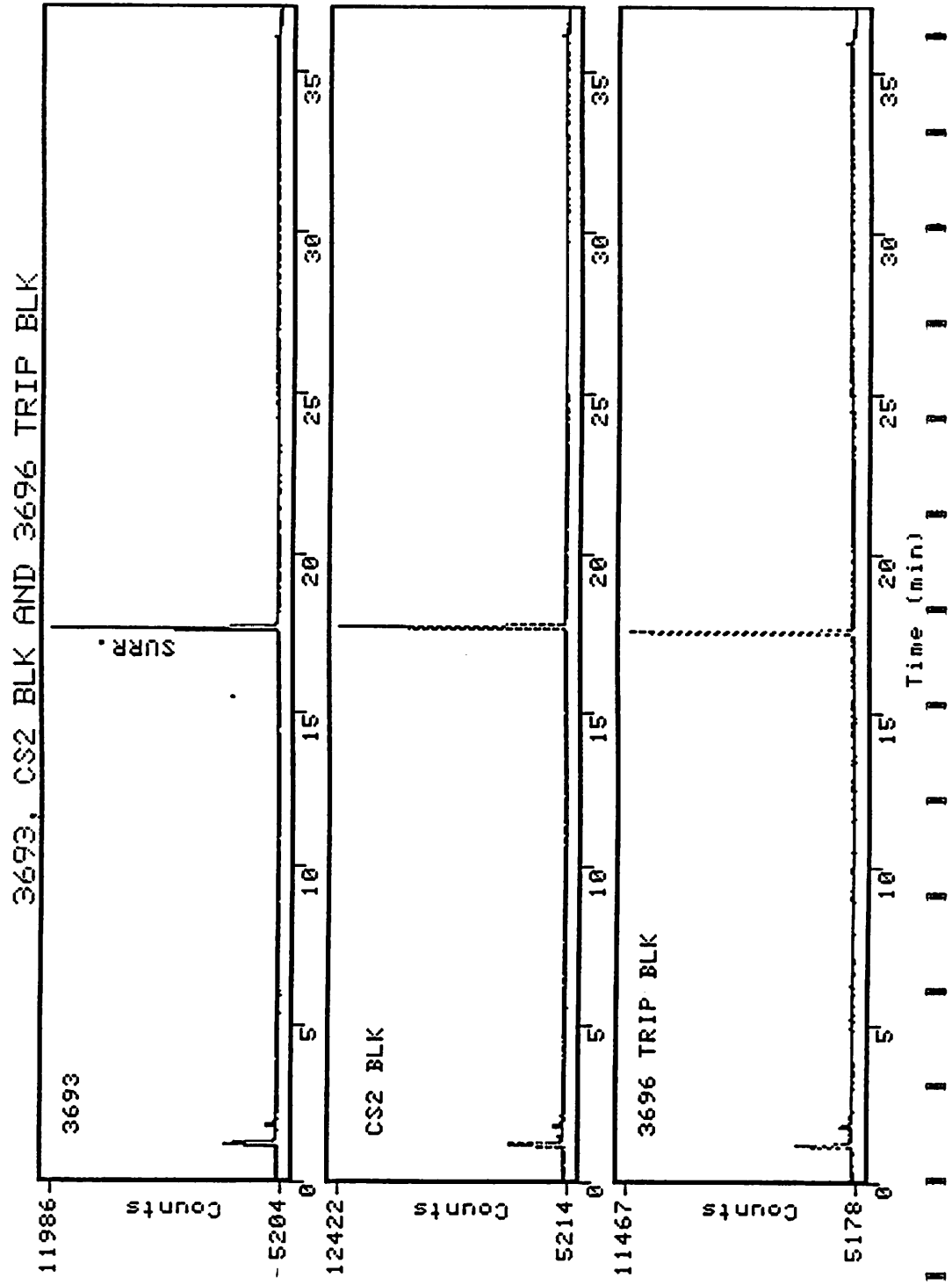
Analyst: Roberta E. Hine
Roberta E. Hine
Analyst, Organic Chemistry

Reviewed By: _____
Richard F. Meyerhein 01/02/92
Supervisor, Organic Chemistry Section

Data File: USER\$DIAL:[DATA.GARM]66A003
Report: 20613
Acquired: 11-DEC-1991 14:32:49
Time range: 0.00-37.00
Vert. scale/offset: 1.0/0



Line	Type	Filename	Start Time	End Time	Vertical Scale	Offset Counts
1		667003	0.00	37.00	1.0	0
2		667001	0.00	37.00	1.0	0
3		667002	0.00	37.00	1.0	0



SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700700 Camino de Salud, NE
[505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

January 3, 1992

Request
ID No. 012745**ANALYTICAL REPORT**
SLD Accession No. OR-91-3694Distribution☐ User 55211☒ Submitter 303☒ SLD FilesTo: L. Shore
Albuq. Environ. Health Dept.
Environmental Services Div.
P.O.Box 1293
Albuquerque, NM 87103From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, NE
Albuquerque, NM 87106

Re: A water, Extractab sample submitted to this laboratory on December 10, 1991

DEMOGRAPHIC DATA

COLLECTION		LOCATION
On: 9-Dec-91	By: Sho . . .	HAB-3 at 6.5 to 7.0
At: 14:30 hrs.	In/Near: Albuquerque	

ANALYTICAL RESULTS: Aliphatic Hydrocarbon (>10 Carbons) Screen (751)

Parameter	Value	Note	MDL	Units
See Laboratory Remarks for Additional Information				

Notations & Comments:

MDL = Minimal Detectable Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;

T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Evidentiary Seals: Not Sealed ☐; Intact: No ☐, Yes ☒ & Broken By: Danica P. Galleja Date: 12/11/91Laboratory Remarks: Thriftway- 3339 Isleta

HYDROCARBON FUEL SCREEN ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION	Contract: <u>N/A</u>
Lab Code: <u>N/A</u> Case No.: <u>N/A</u>	SAS No.: <u>N/A</u> SDG No.: <u>N/A</u>
Matrix: (soil/water) <u>Soil</u>	Lab Sample ID: <u>OR-92-3694</u>
Sample wt/vol: <u>11.5</u> (g/mL) <u>g</u>	SLD Batch No: <u>4-91-0066</u>
Level: (low/med) <u>Low</u>	Date Received: <u>12/10/91</u>
% Moisture: not dec. <u>18.8</u> dec. <u> </u>	Date Extracted: <u>12/11/91</u>
Extraction: (SepF/Cont/Sonc) <u>Sonic.</u>	Date Analyzed: <u>12/11/91</u>
GPC Cleanup: (Y/N) <u>No</u> pH: <u> </u>	Dilution Factor: <u><</u>
	CONCENTRATION UNITS:
	(ug/L or mg/Kg): <u> </u> mg/kg

This sample was analyzed for hydrocarbons in the C5 to C30 molecular weight range using Gas Chromatography with a Flame Ionization Detector (FID). Since the FID is a nonspecific detector, all compound identifications should be considered as tentative. An attempt has been made below to assign the hydrocarbons found in the sample to an

(Continued on page 2.)

appropriate fuel fraction when the gas chromatographic fingerprint pattern of the sample closely matches a fuel standard. When the hydrocarbons in the sample do not closely match any known specific fuel, the results will be reported as a hydrocarbon range.

TENTATIVELY IDENTIFIED FUEL FRACTIONS

The following fuel fractions were tentatively identified by FID

FUEL FRACTION	CARBON RANGE	EST. CONC.	% of All H-C's
GASOLINE	C5-C12	.	.
STODDARD SOLVENT	.	.	.
KEROSENE	.	.	.
JET-A	.	.	.
DIESEL FUEL	C10-C23	.	.
LUBRICATING OIL	C19-C29	4600	100
UNKNOWN PATTERN	.	.	.

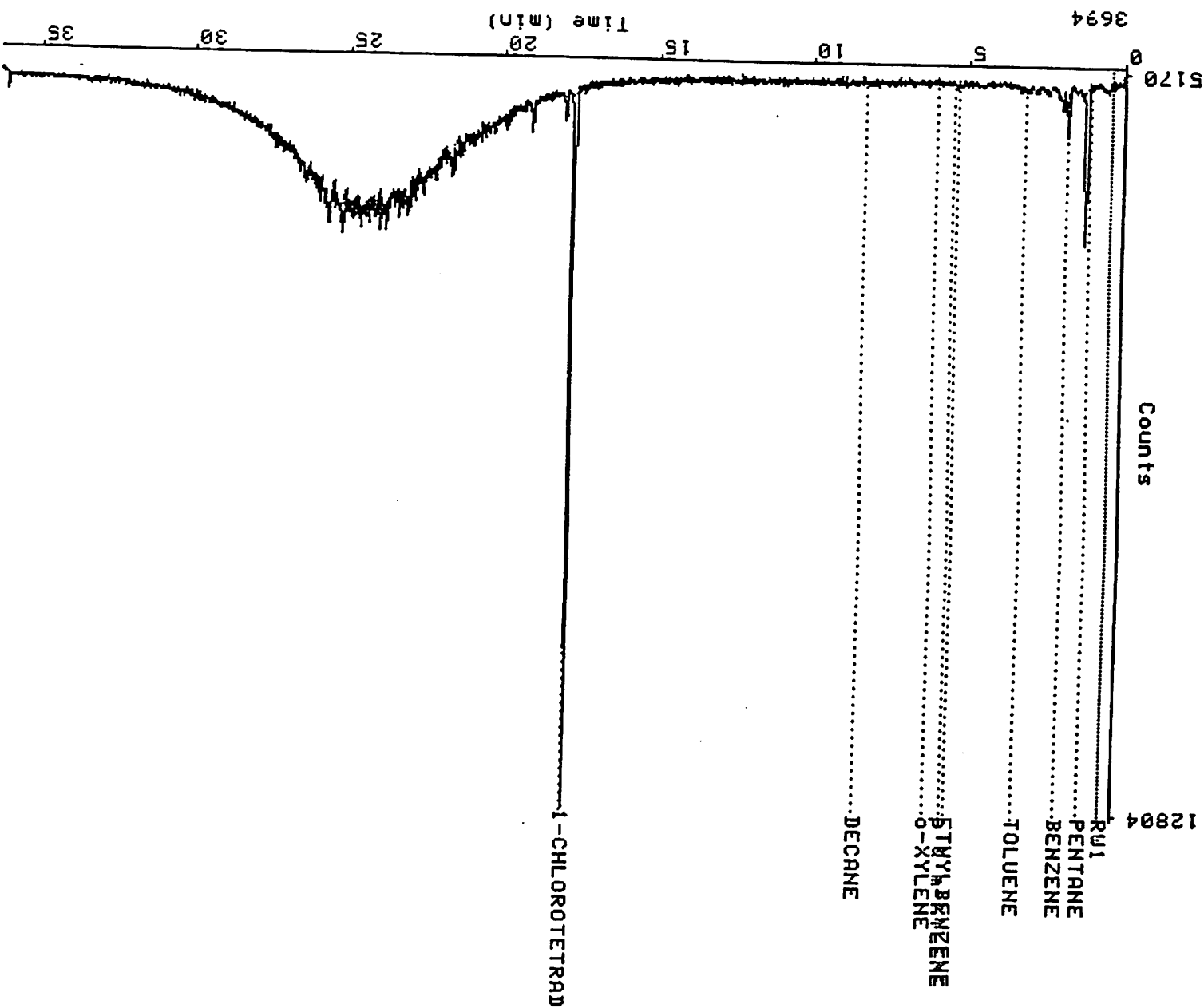
Sample contains a series of long chained hydrocarbons in the C19-C29 range and is consistent with motor oil. A small benzene peak was also detected, however this is consistent with a similar benzene peak known to be a contaminant present in the extraction solvent carbon disulfide.

Analyst: Roberta E. Hine

Roberta E. Hine
Analyst, Organic Chemistry

Reviewed By: Richard F. Meyerhein

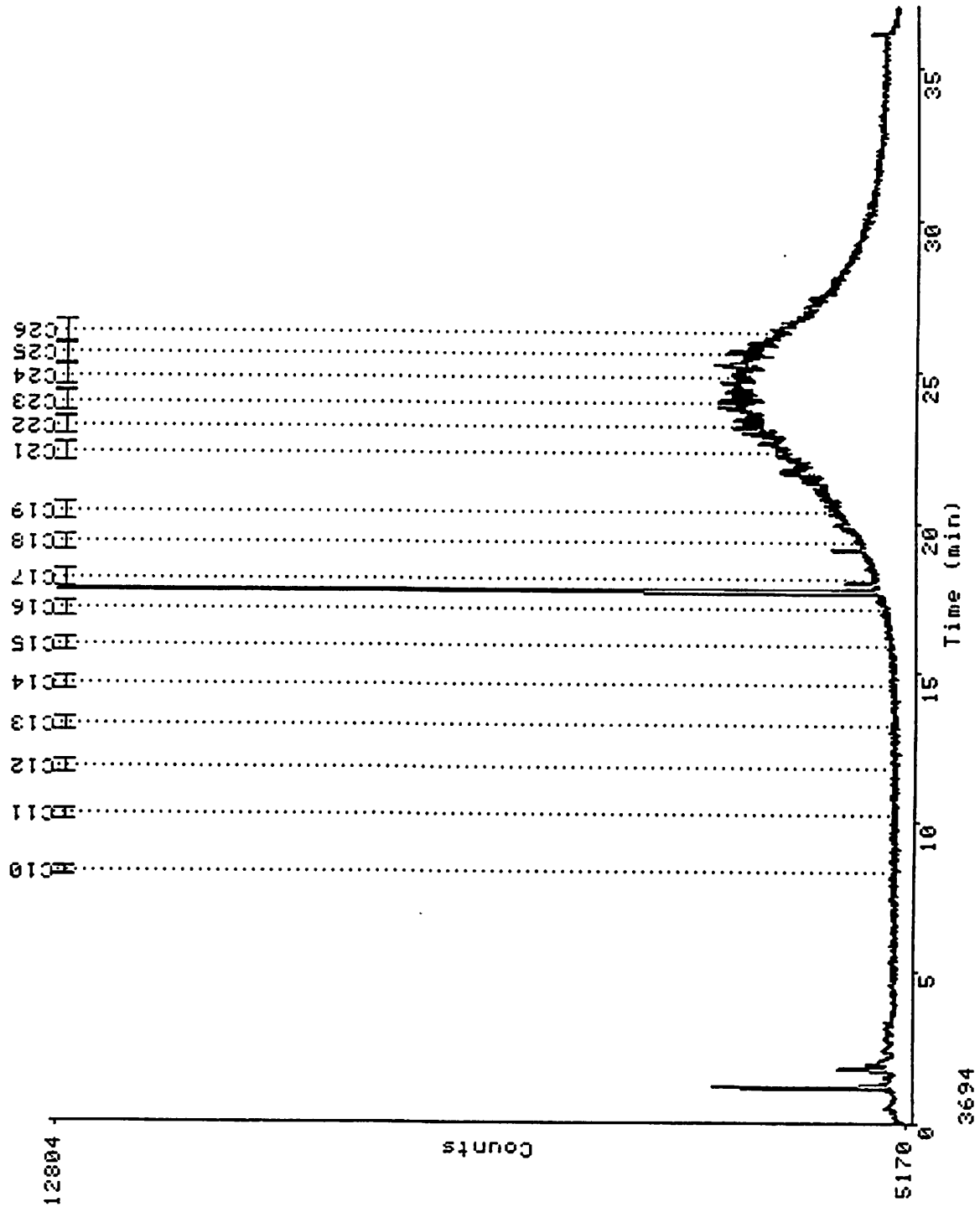
Richard F. Meyerhein 01/02/92
Supervisor, Organic Chemistry Section



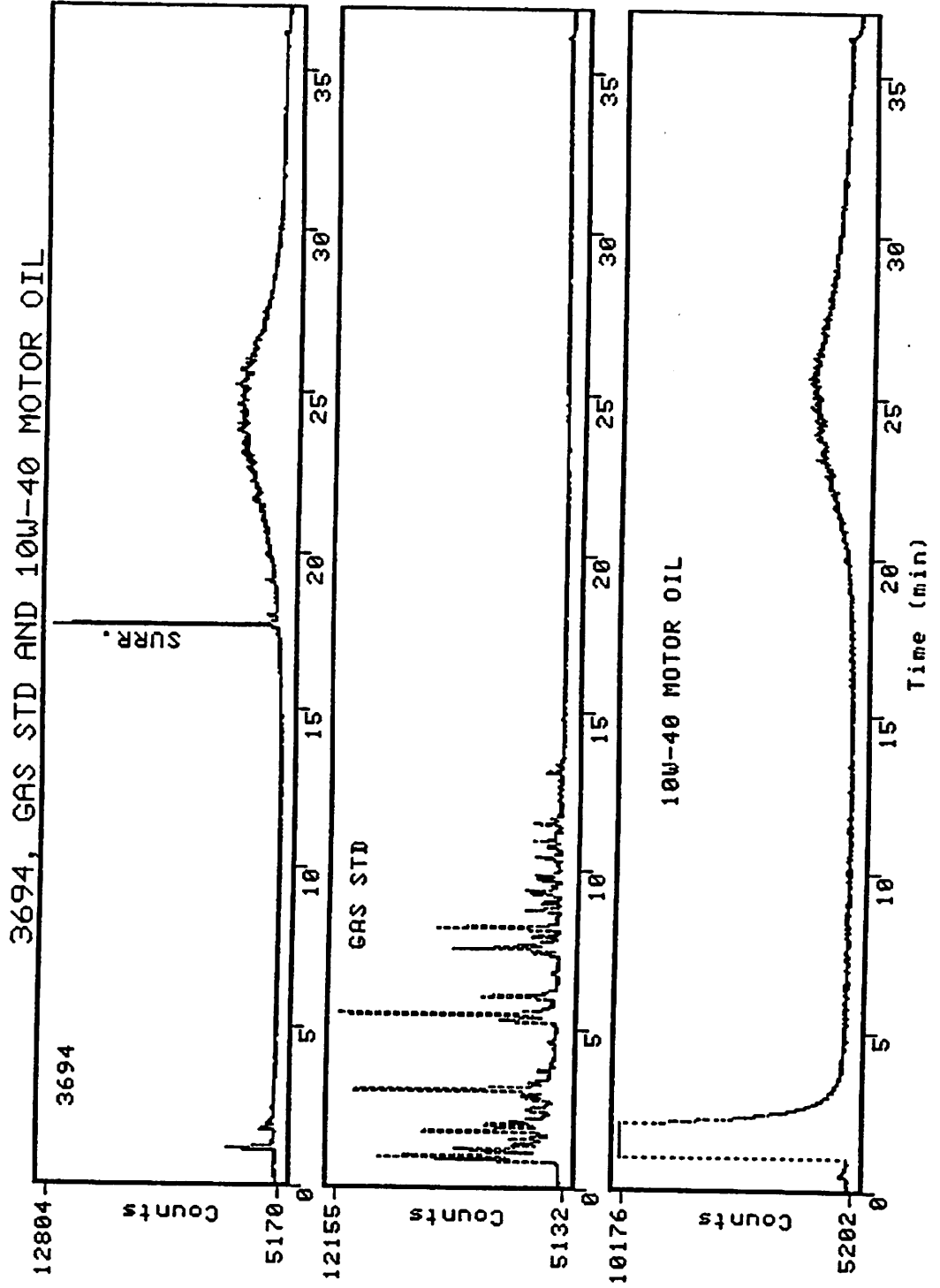
SOIL W/CS2 EXTRACTED IN FIELD

data file: 20614
Report: 11-DEC-1991 15:22:56
acquired: 0.00-37.00
Vert. scale/offset: 1.0/0
USER\$DIAL: [DATA.GARM]66A004.RAW;1

USER\$DIAL:[DATA.GARM]66A004
Report:
Aquired:
Time range:
Vert. scale/offset: 1.0/0



Filename	Start Time	End Time	Vertical Scale	Offset Counts	Line Type
56A004	0.00	37.00	1.0	0	1
6A006	0.00	37.00	1.0	0	2
40A007	0.00	37.00	200.0	0	3



Filename	Start Time	End Time	Vertical Scale	Offset Counts	Line Type
66A002	0.00	37.00	1.0	0	1
56A004	0.00	37.00	1.0	0	2
56A006	0.00	37.00	1.0	0	3

