

GW - 100

**GENERAL
CORRESPONDENCE**

YEAR(S):
2003 - 1997

Ford, Jack

From: Ford, Jack
Sent: Friday, February 21, 2003 10:15 AM
To: 'ssword@farmington.oilfield.slb.com'
Subject: Junk Cement Disposal

Dear Steve:

The OCD is in receipt of Schlumberger's request for disposal of junk cement returned to the service facility site. Based upon data supplied to the OCD disposal under Rule 20 NMAC 712.D is herewith approved.

If you have any questions contact me at (505) 476-3489.

W. Jack Ford, C.P.G.
Oil Conservation Division

Ford, Jack

From: Steve Sword [ssword@farmington.oilfield.slb.com]
Sent: Friday, February 21, 2003 9:32 AM
To: jwford@state.nm.us
Subject: Junk Cement Disposal

Jack,

I do have a copy of the new discharge plan. I would like to request a Special Waste Disposal for our unusable/unsalable oilfield returns on junk cement. I went through all our MSDS and the only ones that I had questions on were the following 3. I will use our code , composition/information on ingredients and percentage .

1. D046 POLYPROPYLENE GLYCOL; CAS 25322-69-4; 30-60%

Fuller's Earth (ATTAPULGITE); CAS 8031-18-3; 60-100%

The maximum we use on this is 0.25%, for a 94 lb. sack this would be 0.235 lb.

2. D079 DISODIUM METASILICATE; CAS 6834-92-0; 60-100%

The maximum we use on this is 3%, for a 94 lb sack this would be 2.82 lbs.

This is the one I talked to you about yesterday.

3. D800 SODIUM LIGNOSULFONATE; CAS 8061-51-6; 60-100%

The maximum we use on this is 0.2%, for a 94 lb. sack this would be 0.188 lb.

The D046 is antifoam agent and used on most systems. The D079 is a chemical extender and being used primarily on intermediate strings of casing where hydrostatic pressure is of concern. Used once in a while on longstrings. The D800 is a mid temperature retarder this is not used very often.

If you need more information you can call me at 505-325-5096 ext. 49 or mail at ssword@farmington.oilfield.slb.com. If you need MSDS they are available. Would appreciate if we could get your approval to use the local landfill as soon as possible.

Thanks For All

Your Help

Steve

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [REDACTED] dated 8/9/02,
or cash received on _____ in the amount of \$ 1,700.00
from Schlumberger
for Farmington Service Facility GW-100
Submitted by: [Signature] Date: 8/15/02
Submitted to ASD by: _____ Date: _____
Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility _____ Renewal _____
Modification _____ Other _____
(specify)

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.
Full Payment _____ or Annual Increment _____

Schlumberger Schlumberger Technology Corporation
100 Gillingham Lane
Sugar Land, Texas 77478

Check No. [REDACTED]
Citibank Delaware, a subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720
62-20/311

PAY One thousand seven hundred and 00/100 Dollars

To the order of _____ Date 08/09/02 Amount *****\$1,700.00

STATE OF NEW MEXICO
1220 S ST FRANCIS DRIVE
SANTA FE, NM 87505

[Signature]
Authorized Signature
Second Signature Required Over \$50,000.00





Document No	Invoice No	Invoice Date	Net Amount	Reference # / Info	Company
1900488160	DISCHARGE RENEWA	07/05/02	1,700.00	DISCHARGE RENEWAL GW-100	Dowell

Vendor No 0003081655

Sum Total

*****\$1,700.00

AFFIDAVIT OF PUBLICATION

Ad No. 46263

**STATE OF NEW MEXICO
County of San Juan:**

CONNIE PRUITT, being duly sworn says:
That she is the Advertising Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meeting of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):
Wednesday, June 5, 2002.

And the cost of the publication is \$71.40

Connie Pruitt

ON 6-5-02 CONNIE PRUITT appeared before me, whom I know personally to be the person who signed the above document.

Lynsey Beck
My Commission Expires April 2, 2004.

COPY OF PUBLICATION

NOTICE OF PUBLICATION

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-100) - Schlumberger Well Services, Mr. Mike Dickinson, 3106 Bloomfield Highway, Farmington, New Mexico 87401, has submitted a discharge plan renewal application for their Farmington Service facility located in the SE/4 SE/4, Section 14, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. Any potential discharge at the facility will be stored in a closed top receptacle prior to transport to an OCD approved off-site disposal facility. Groundwater most likely to be affected by an accidental discharge is at a depth of 25 feet with a total dissolved solids of approximately 710 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 29 th day of May, 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director

Legal No. 46263, published in The Daily Times Farmington, New Mexico, Wednesday, June 5, 2002.

THE SANTA FE
NEW MEXICAN

Founded 1849

NM OIL CONSERVATION DIVISION
1220 S. ST. FRANCIS
SANTA FE, NM 87505
ATTN ED MARTIN

AD NUMBER: 264366 ACCOUNT: 56689
LEGAL NO: 71569 P.O.#: 02199000249
181 LINES 1 time(s) at \$ 79.79
AFFIDAVITS: 5:25
TAX: 5.31
TOTAL: 90.35

AFFIDAVIT OF PUBLICATION

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ENERGY, MINERALS
AND NATURAL
RESOURCES
DEPARTMENT
OIL CONSERVATION
DIVISION

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GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 29 th day of May, 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL
LORI WROTENBERY, Director
Legal #71569
Pub. June 7, 2002

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, K. Voorhees being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #71569 a copy of which is hereto attached was published in said newspaper 1 day(s) between 06/07/2002 and 06/07/2002 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 7 day of June, 2002 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/s/ K. Voorhees

LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this
7 day of June A.D., 2002

Notary Laura E. Hardy

Commission Expires 11/23/03

02 JUN 11 PM 10:11

OIL CONSERVATION DIV

www.sfnewmexican.com

Ford, Jack

From: Martin, Ed
Sent: Monday, June 03, 2002 10:47 AM
To: Farmington Daily Times (E-mail)
Cc: Ford, Jack; Anaya, Mary
Subject: Legal Notice

Please publish the attached legal notice, one time only, on or before Friday, June 7, 2002.

Upon publication, send to this office:

1. Publisher's affidavit.
2. Invoice. Our purchase order number is **02199000251**

If you have any questions, please contact me.

Thank you.



Publ. Notice
GW-100.doc

Ed Martin

Ed Martin
New Mexico Oil Conservation Division
Environmental Bureau
1220 S. St. Francis
Santa Fe, NM 87505
Phone: (505) 476-3492
Fax: (505) 476-3471

Ford, Jack

From: Martin, Ed
Sent: Monday, June 03, 2002 10:44 AM
To: Santa Fe New Mexican (E-mail)
Cc: Ford, Jack; Anaya, Mary; Bruce S. Garber; Chris Shuey; Colin Adams; Director, State Parks; Don Fernald; Don Neeper; Eddie Seay; Gerald R. Zimmerman; Jack A. Barnett; James Bearzi; Jay Lazarus; Lee Wilson & Associates; Marcy Leavitt; Martin Nee; Mike Matush; Mike Schultz; Ned Kendrick; Regional Forester; Ron Dutton; Secretary, NMED
Subject: Legal Notice

Please publish the attached legal notice, one time only, on or before Friday, June 7, 2002.

Upon publication, forward to this office:

1. Publisher's affidavit.
2. Invoice. Our purchase order number is **02199000249**

If you have any questions, please contact me.

Thank you.



Publ. Notice
GW-100.doc

Ed Martin

Ed Martin
New Mexico Oil Conservation Division
Environmental Bureau
1220 S. St. Francis
Santa Fe, NM 87505
Phone: (505) 476-3492
Fax: (505) 476-3471

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ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

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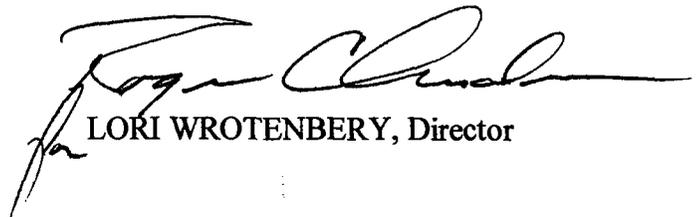
Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above.

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If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 29 th day of May, 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


LORI WROTENBERY, Director

SEAL

Schlumberger

May 20, 2002

Mr. Roger Anderson
State of New Mexico
Oil Conversation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Anderson,

Please find attached for your review Schlumberger Well Services renewal application for Ground Water Discharge Plan GW-100 for our Farmington Facility located in SE ¼ SE ¼, Section 14, Township 29N, Range 13W, San Juan County, New Mexico. This was filed pursuant to the New Mexico Water Quality Control Commission Regulations in May of 1997 and was approved on July 14, 1997 for a period of five years. This approval will expire on August 19, 2002.

Should you have any questions concerning this renewal application please call (505) 325-5096.

Sincerely,

Mike Dickinson


District Manager
Schlumberger Well Services

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised January 24, 2001

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

**DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS,
REFINERIES, COMPRESSOR, GEOTHERMAL FACILITIES
AND CRUDE OIL PUMP STATIONS**

(Refer to the OCD Guidelines for assistance in completing the application)

New Renewal Modification

1. Type: Oilfield – Cementing, Acidizing and Fracturing Services

2. Operator: Schlumberger Well Services

Address: 3106 Bloomfield Highway, Farmington, New Mexico 87401

Contact Person: Mike Dickinson Phone: (505) 325-5096

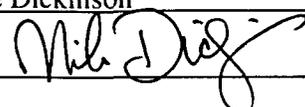
3. Location: SE /4 SE /4 Section 14 Township 29N Range 13W
Submit large scale topographic map showing exact location.

4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

14. CERTIFICATION I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

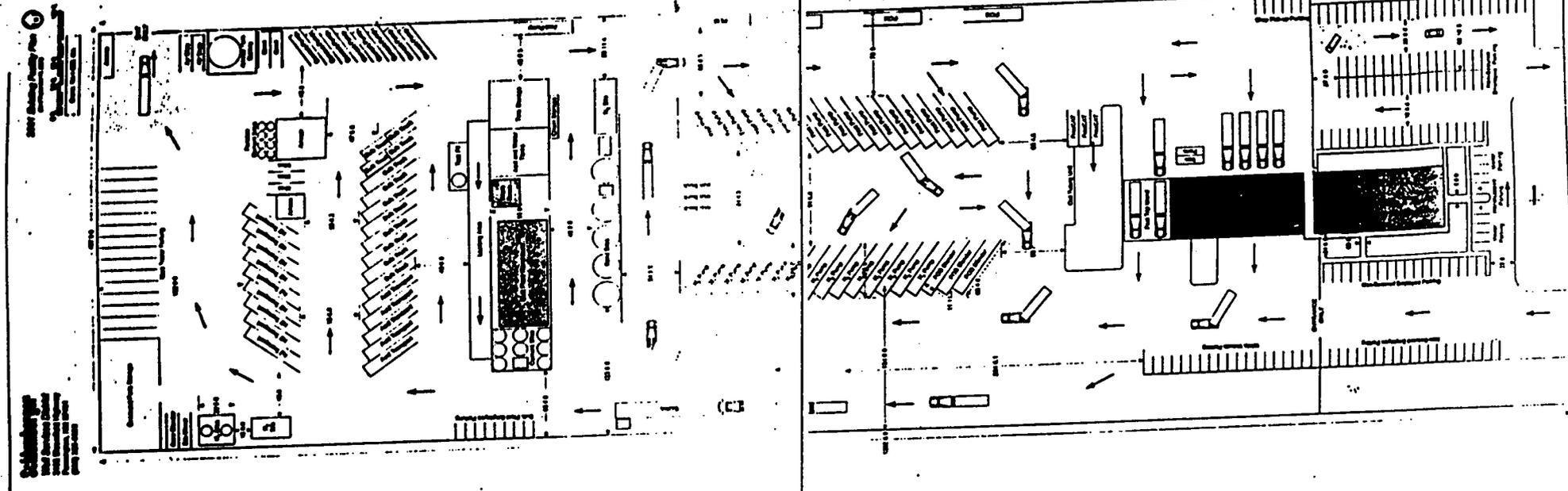
Name: Mike Dickinson

Title: District Manager

Signature: 

Date: May 20, 2002

III. Location: SE ¼ SE ¼ Section 14 Township 29N Range 13W



EXPLANATION

- — — — — FENCE
- - - - - SEWER LINES
- UNUSED SEPTIC SYSTEMS

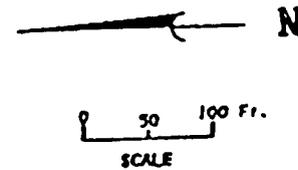
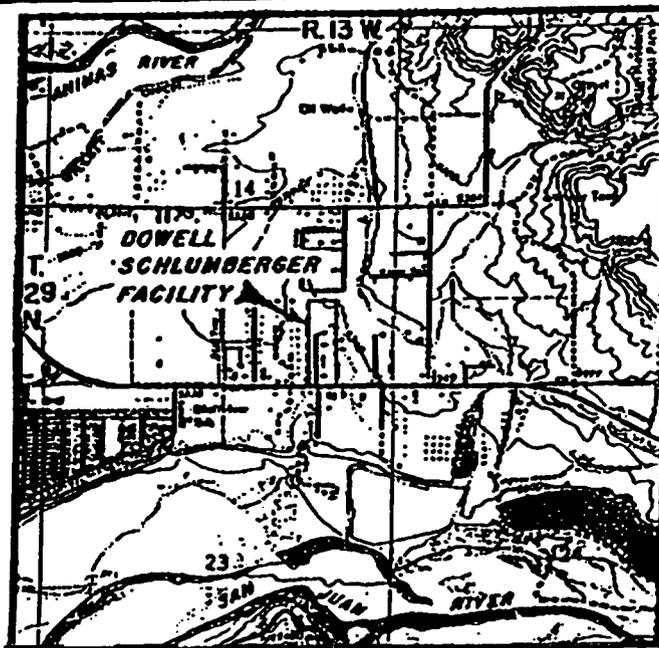


FIGURE 1

**SITE PLAN
DOWELL SCHLUMBERGER INCORPORATED
FARMINGTON, NEW MEXICO FACILITY**

Western Water Consultants, Inc. P.O. BOX 4134 LAS ALAMOS, N.M. 87001 (505) 742-0001	*PROFESSIONAL ENGINEERING* *CONSULTING* P.O. BOX 1041 FARMINGTON, N.M. 87401 (505) 671-0011
---	---

LOCATION

Schlumberger

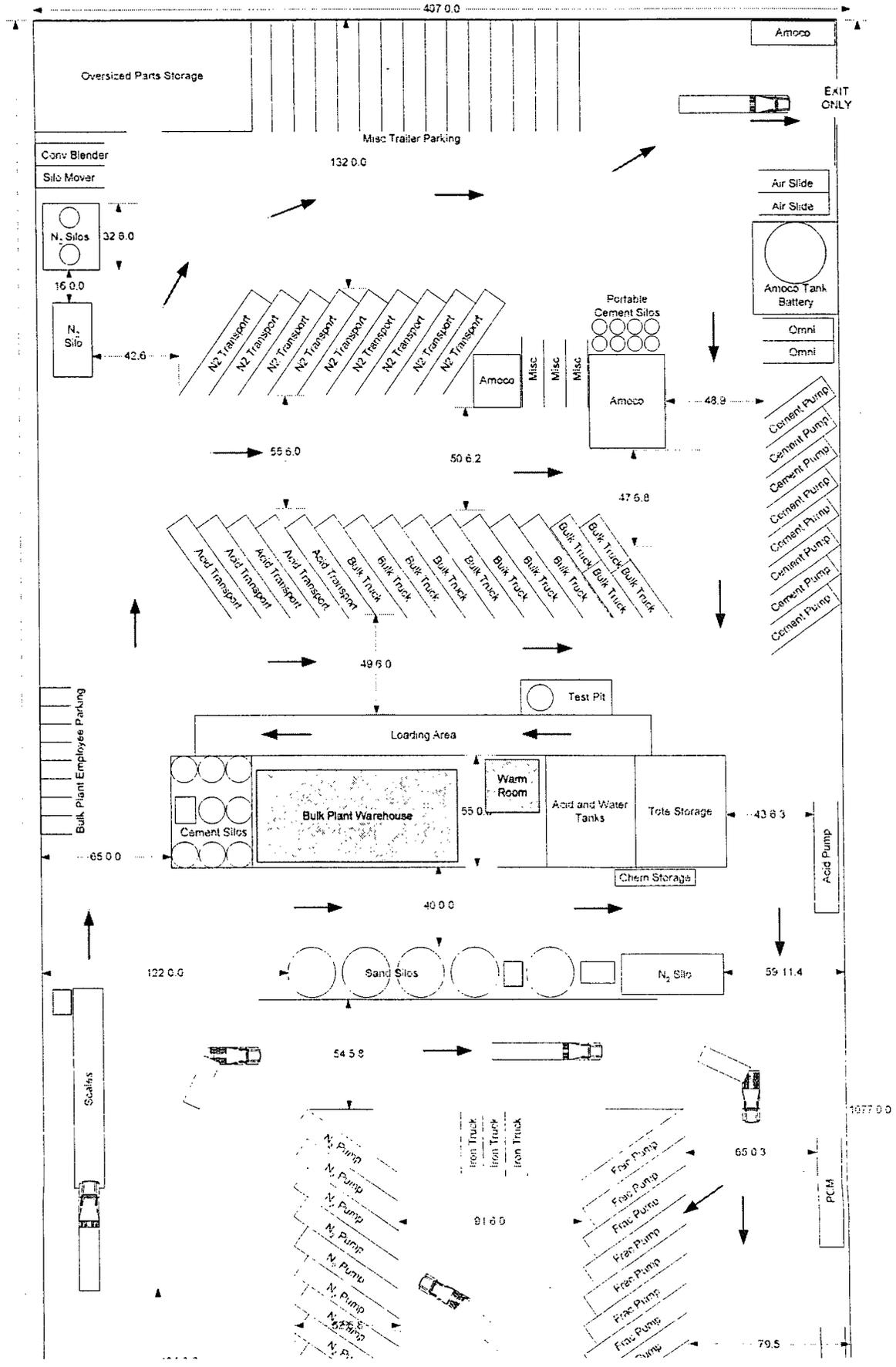
Well Services District
 3106 Bloomfield Highway
 Farmington, NM 87401
 (505) 325-5096

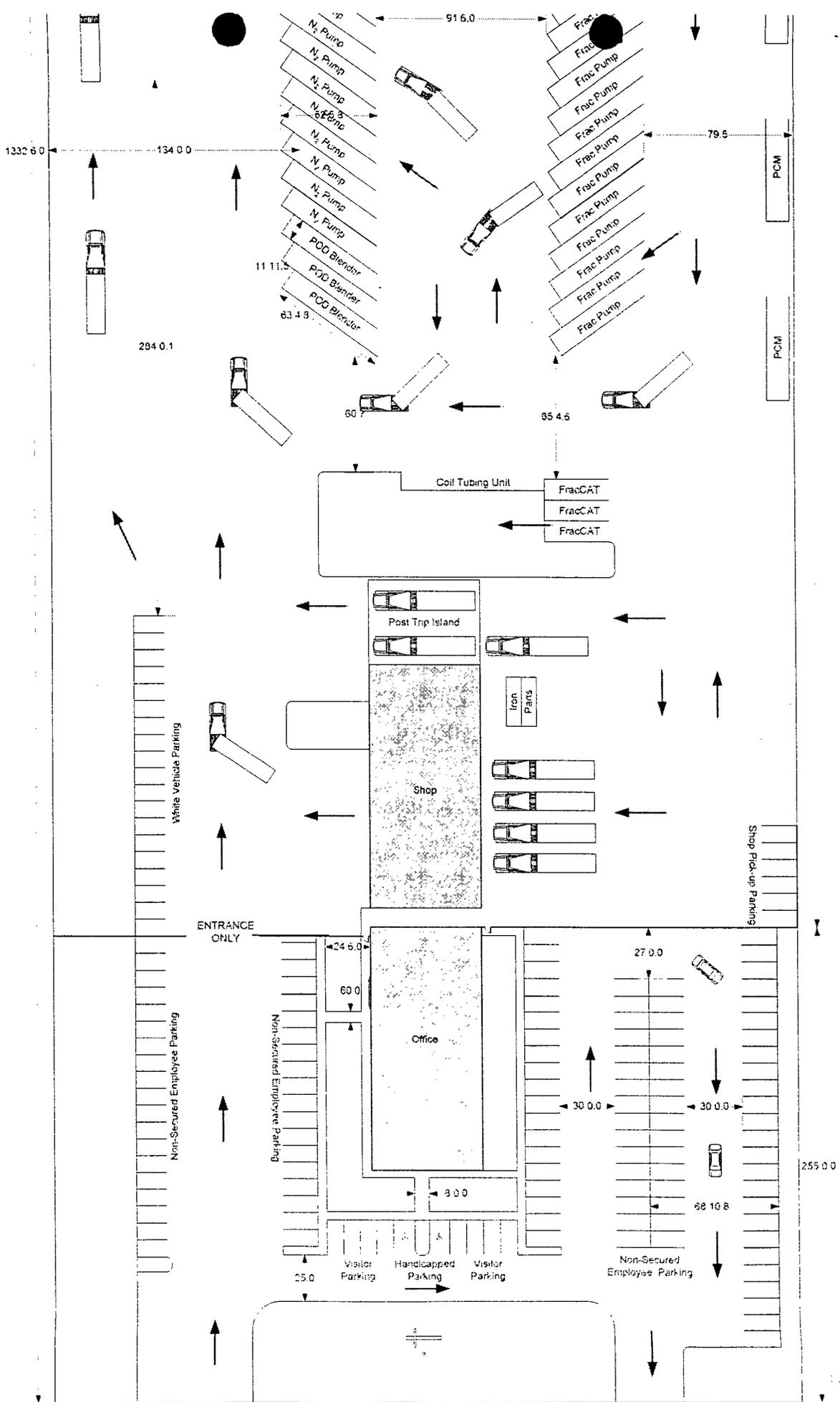
2001 Existing Facility Plan
 (as of September 11, 2001)



0 ft. 30 ft. 50 ft. 100 ft.

Scale: 1 in = 50 ft. 0 in.





IV. Name and Address of Land Owner

WARRANTY DEED

J. B. BROWN and VEDA B. BROWN, husband and wife, for consideration paid, grant to DOWELL INCORPORATED, a Delaware Corporation, the following described real estate in

San Juan

County, New Mexico:

A Tract of land in the Southeast Quarter of the Southeast Quarter (SE $\frac{1}{4}$ SE $\frac{1}{4}$) of Section Fourteen (14), Township 29 North, Range 13 West, N.M.F.M., described as follows:

BEGINNING North 89°50' West 924 feet from the Southeast Corner of said Section 14, such point being in the center line of State Highway # 17;

THENCE North 89°50' West 396 feet along the center line of said Highway to the Southwest corner of the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of said Section 14;

THENCE North 1320 feet;

THENCE South 89°50' East 396 feet;

THENCE South 1320 feet to the point of beginning, containing approximately 12 acres.

TOGETHER with one share in the Farmington Echo Irrigation Ditch. SUBJECT to right-of-way over the South 40 feet thereof for said Highway # 17.



V. Facility diagram and Description

SITE DESCRIPTION AND HISTORY

Schlumberger Well Services owns and operates a facility located at 3106 Bloomfield Highway in the city of Farmington, San Juan County, New Mexico. Figure 1 shows the site plan of the facility. The 11.6 acre facility was built in 1958 as a base for oilfield service operations. Prior to development, the land was under cultivation as an apple orchard. There have been some changes to the facility since the last application for renewal in 1997. The office was rebuilt as a larger building to replace the existing offices (there were two offices, one to the north and one to the south near Bloomfield Highway).

The facility currently includes one office building, a five-bay vehicle maintenance shop, one bulk plant warehouse for dry chemical storage, and bulk storage containers for sand, cement and hydrochloric acid. Directly to the east of the bulk plant warehouse is a tote storage revetment for liquid chemical storage. An existing slurry gel plant which included an above ground diesel storage tank has been removed from service and replaced with a slurry tank to receive product from vendors. This tank is just north of the bulk plant warehouse in a revetment.

The facility originally obtained its water from a 100 foot industrial well drilled in 1959 northwest of the shop. Two septic systems handled sewage from the offices and wash room in the shop. Water from the wash bays was routed through an oil water separator and then discharged into an open ditch along the southeast side of the property.

Municipal water and sewers were extended to the area in 1978. The Schlumberger facility as well as other properties in the area are now connected to municipal utilities. Schlumberger quit using the water well and both septic systems in 1978. The well and the septic systems have been plugged or removed in 1994 and 1995. Water and sewer lines not shown on the site plan are present beneath Bloomfield Highway adjacent to the south side of the facility.

The Schlumberger facility is located on land owned by Schlumberger in an area zoned for commercial use. It is bordered on the east by several commercial properties, on the south by U.S. Highway 64, on the west by a construction company yard and on the north by a residential area containing modular and mobile homes.

BP Amoco operates a gas well on the northern part of the property and a Dehydration unit is on the northeast corner of the property. The well produces natural gas from the Dakota Sandstone formation from depths between 5768 and 5910 feet below the surface.

A B C D E F

1

2

FARMINGTON

3

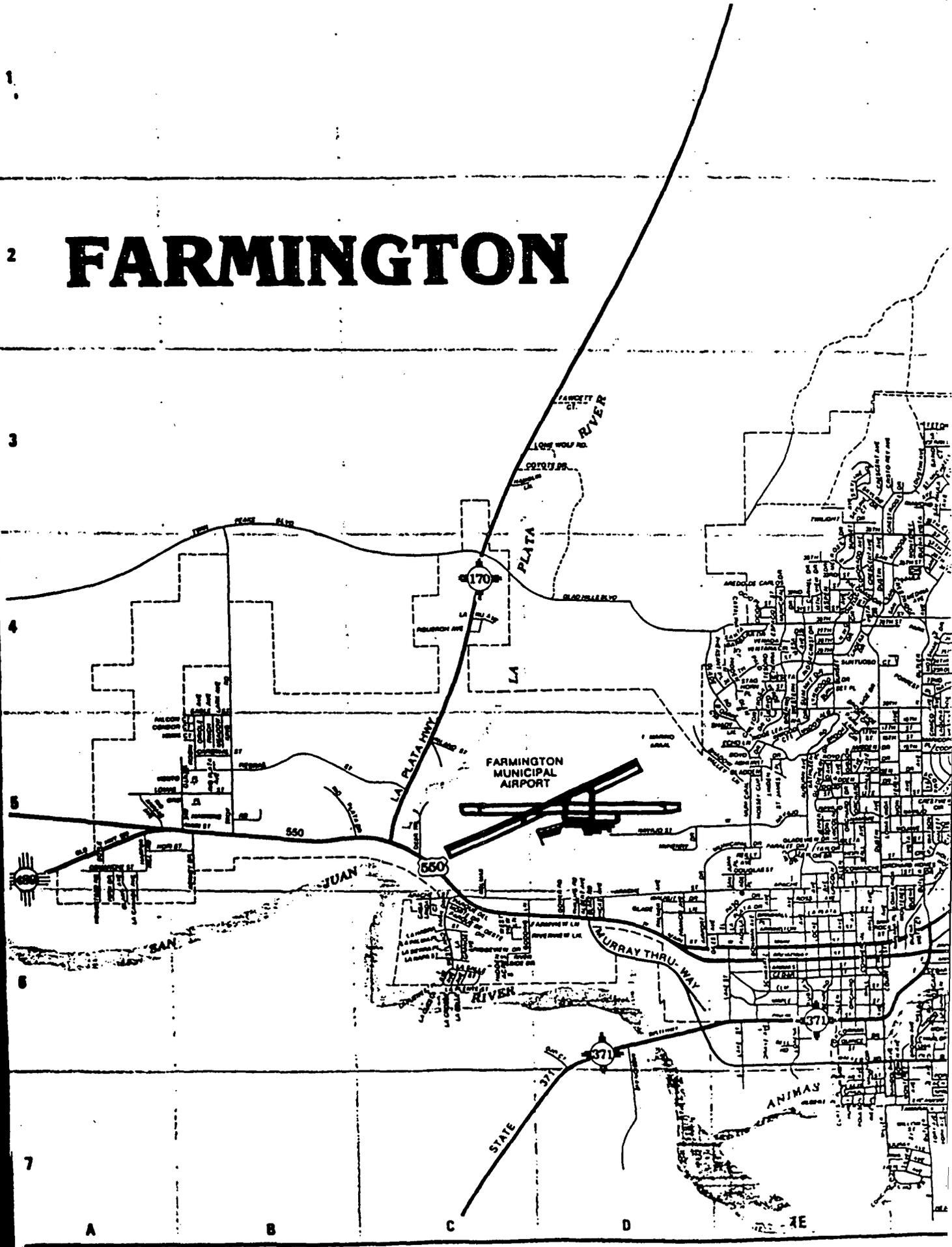
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5

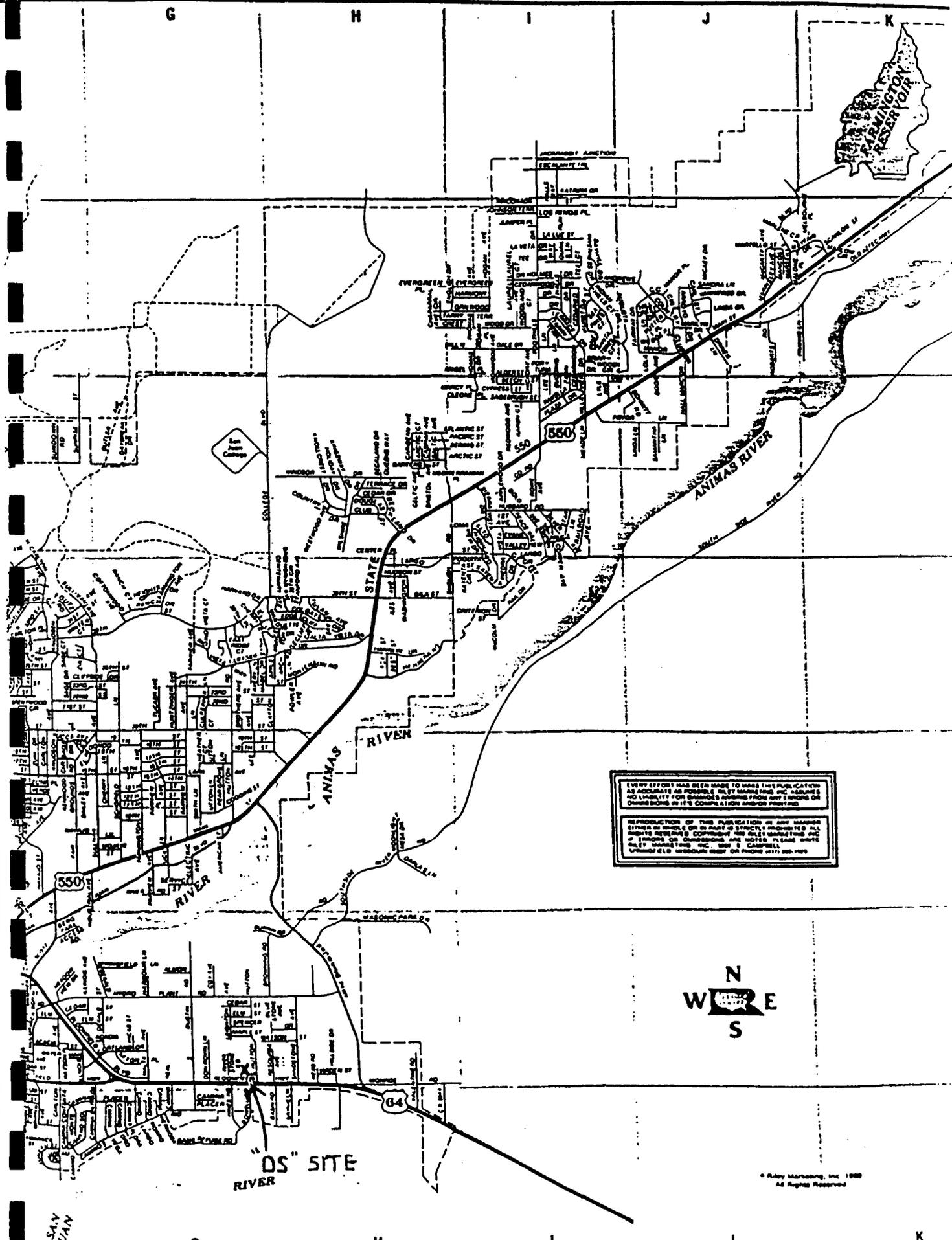
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7

M
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A B C D E



EVERY EFFORT HAS BEEN MADE TO MAKE THIS PUBLICATION AS ACCURATE AS POSSIBLE. RILEY MARSHALL, INC. ASSUMES NO LIABILITY FOR ERRORS ARISING FROM ANY EMISSION OR OMISSIONS IN ITS COMPILED AND/OR PRINTED REPRODUCTION OF THIS PUBLICATION IN ANY MANNER EITHER IN WHOLE OR IN PART OR DIRECTLY OR INDIRECTLY. RILEY MARSHALL, INC. ASSUMES NO LIABILITY FOR ERRORS ARISING FROM ANY EMISSION OR OMISSIONS IN ITS COMPILED AND/OR PRINTED REPRODUCTION OF THIS PUBLICATION IN ANY MANNER EITHER IN WHOLE OR IN PART OR DIRECTLY OR INDIRECTLY. RILEY MARSHALL, INC. ASSUMES NO LIABILITY FOR ERRORS ARISING FROM ANY EMISSION OR OMISSIONS IN ITS COMPILED AND/OR PRINTED REPRODUCTION OF THIS PUBLICATION IN ANY MANNER EITHER IN WHOLE OR IN PART OR DIRECTLY OR INDIRECTLY.

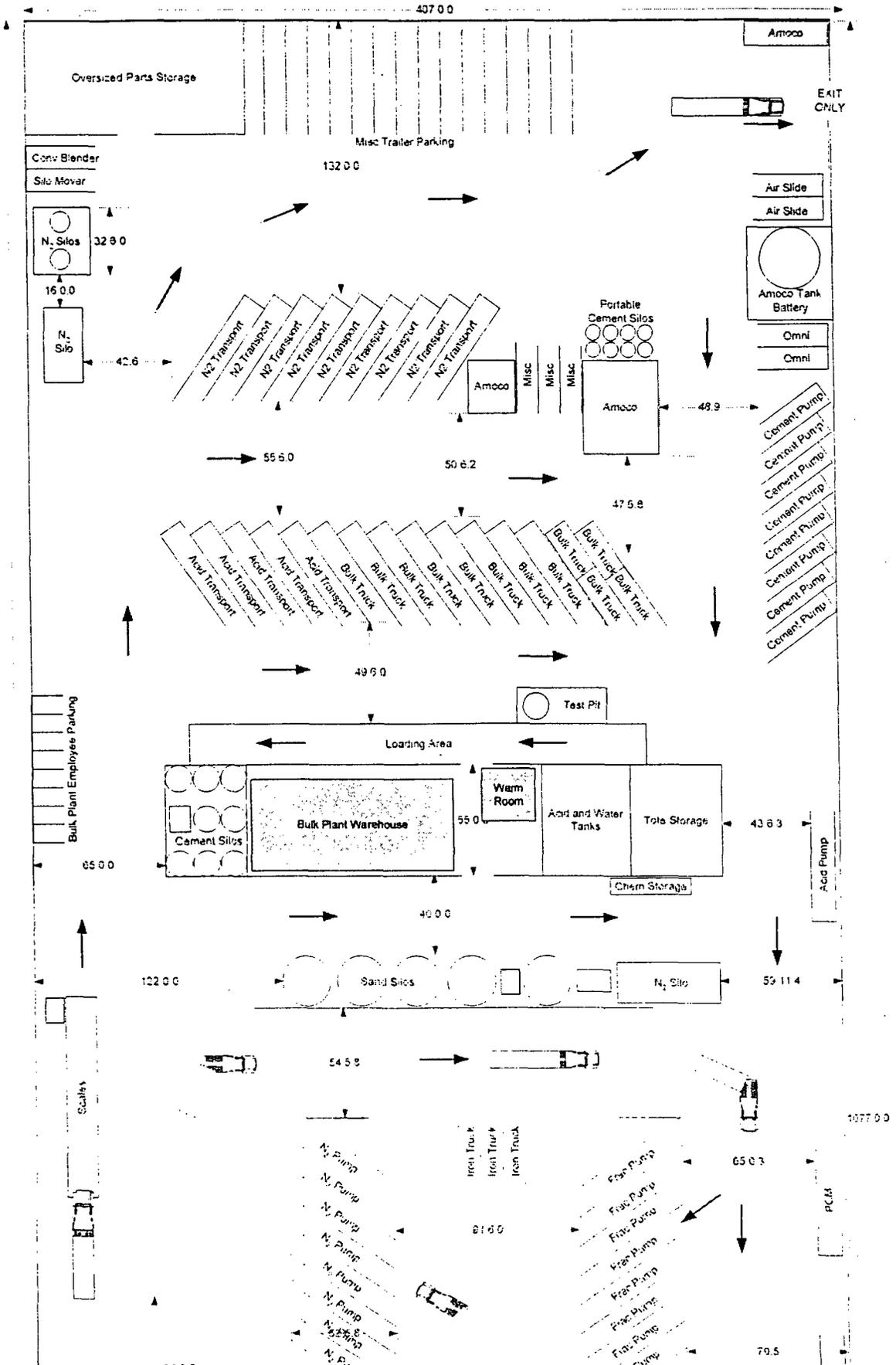
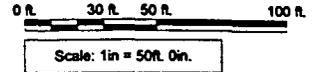
M
A
P
S

SAN JUAN

Schlumberger

Well Services District
 3106 Bloomfield Highway
 Farmington, NM 87401
 (505) 325-5096

2001 Existing Facility Plan
 (as of September 11, 2001)



1332 6.0 134 0.0

79.6

294 0.1

1111.3

834.9

60

654.6

PCM

PCM

Coil Tubing Unit

FracCAT

FracCAT

FracCAT

Post Trip Island

Iron Parts

Shop

Shop Fra-c-up Parking

ENTRANCE ONLY

245.0

60.0

27.0

30.0

30.0

255.0

3.0

28.16.8

15.0

Visitor Parking

Handicapped Parking

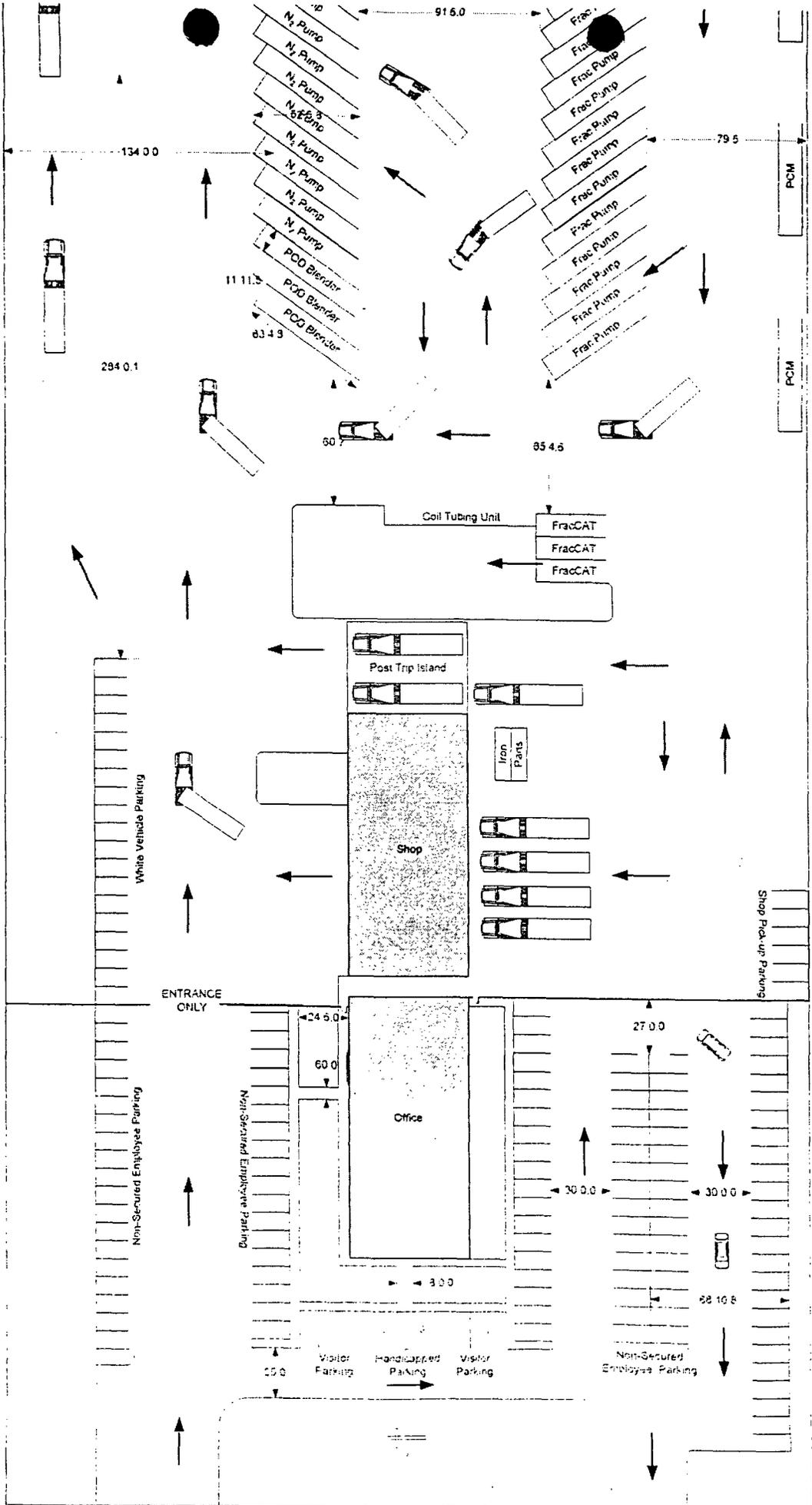
Visitor Parking

Non-Secured Employee Parking

White Vehicle Parking

Non-Secured Employee Parking

Non-Secured Employee Parking



VI. Materials Stored at Facility - MSD Sheets are available for current inventory at facility

MATERIALS STORED AT FACILITY

B069	BIOCIDE	J134	ENZYME BREAKER
B142	SLURRY GEL	A186	CORRISION INHIBITOR
B145	FRICTION REDUCER	L1	IRON STABILIZER
D024	GILSONITE EXTENDER	L401	STABILIZER
D047	ANTIFOAM AGENT	F75N	SURFACTANT
D048	LITEPOZ EXTENDER	D044	GRANULATED SALT
D049	TXI LITEWEIGHT EXTENDER	D042	KOLITE
D112	FLUID LOSS ADDITIVE	D053	GYPSUM
D122A	CHEMICAL WASH ADDITIVE	M117	POTASSIUM CHLORIDE
D124	LITEFIL EXTENDER	D800	RETARDER
D154	LOW TEMP EXTENDER	A261	CORRISION INHIBITOR
D907	CLASS G CEMENT	J475	EB-CLEAN BREAKER
F103	EZEFLO SURFACTANT	D600	GASBLOK ADDITIVE
F104	FOAMING AGENT	W054	NON EMULSIFIER
F105	SURFACTANT		
H036	36% HYDROCHLORIC ACID		
J318	LIQUID BREAKER AID		
J457	SLURRIABLE GUAR		
J473	COALBED METHANE ADDITIVE		
J501	PROPNET ADDITIVE		
J508W	CLEARFRAC WINTERIZED		
J532	BORATE CROSSLINKER		
L036	ORGANIC ACID		
L064	CLAY STABILIZER		
N002	NITROGEN		
S001	CALCIUM CHLORIDE		
S014	12/20 MESH SAND		
S018	16/30 MESH SAND		
S020	20/40 MESH SAND		
S022	40/70 MESH SAND		
U028	GELLING AGENT ACTIVATOR		
U042	CHELATING AGENT		
U051	DIESEL OIL		
D065	DISPERSANT		
D079	CHEMICAL EXTENDER		
D020	BENTONITE EXTENDER		
D029	CELLOPHANE FLAKES		
D167	UNIFLAC		
D046	ANTIFOAM AGENT		
J218	BREAKER		
D173	SQUEEZECRETE ADDITIVE		

SHOP MATERIAL STORAGE

MOTOR OIL
ANTIFREEZE
GEAR OIL
TRANSMISSION OIL
PACKING OIL
HYDRAULIC OIL

VII. Description of present sources and quantities of effluent and waste solids

**PRESENT SOURCES AND QUANTITIES
OF EFFLUENT AND WASTE SOLIDS**

<u>WASTE TYPE</u>	<u>GENERAL COMPOSITION AND SOURCE</u>	<u>VOLUME PER MONTH</u>	<u>MAJOR ADDITIVES</u>
1. Waste lubrication & motor oils	motor oil, packing oil, filter oil	100-200 gallons	None
2. Packing Oil	Used oil from pumps	20-30 gallons	None
3. Antifreeze	Used antifreeze from truck radiators	10-20 gallons	None
4. Used drums	Empty chemical drums	10-20 gallons	None
5. Tires	Worn and damaged	2-10	None
6. Cement	Returned dry mixed cement	50-100 sacks	None
7. Filters	Used oil filters	6-8	None
8. Filters	Used fuel filters	8-10	None

VIII. Description of current liquid and solid waste collection / treatment / disposal systems

**CURRENT LIQUID AND SOLID WASTE COLLECTION,
TREATMENT AND DISPOSAL PROCEDURES**

<u>Waste Type</u>	<u>Treatment/Disposal</u>
1. Waste lubrication and motor oils	Oil is picked up by Thermo Fluids and they recycle in burners
2. Packing Oil	Oil is picked up by Thermo Fluids and they recycle in burners
3. Antifreeze	Thermo Fluids refines for re-use
4. Used drums and buckets	Buckets & drums are shipped to West Texas Drum for disposal
5. Cement	Cement that is dry blended and not pumped is returned and unloaded into dedicated silo. This is sent to Envirotech land farm for disposal.
6. Tires	Damaged and/or worn out tires are taken by Western Tire and properly disposed of at county landfill or recapped.
7. Filters	Used oil and fuel filters are drained and picked up by Ashland Environmental for recycling.
8. Oil Booms and absorbent pads	Ashland Environmental picks up for recycling.
9. Hazardous Waste	Ashland Environmental picks up for proper disposal depending on the profile of the waste.

IX. Description of proposed modifications to existing collection / treatment / disposal systems

**PROPOSED MODIFICATIONS TO EXISTING
COLLECTION, TREATMENT AND DISPOSAL SYSTEMS**

No changes are proposed at this time. Many of the processes have changed since the last renewal in 1997 and those processes are outlined in the previous section

X. **Facility Inspection Audit**

DISTRICT: 2069
Jamie

DATE: 5/17/02

1.	Professional Appearance & Housekeeping in Good Order	X		
2.	Safety Equipment in Use as Needed & Available for Visitors	X		
3.	Laboratory Chemicals Stored in Locked Cabinet(s)	X		
4.	Laboratory Sample Wastes Collected & Disposed in Accordance with Location Plan	X		
5.	Waste Container Labeled (Lab Residue Satellite Accumulation)		X	
6.	Authorized List of Lab Equipment Users		X	
7.	Maintenance & Calibration Documented & According to Schedule		X	
8.	Ground Fault Interrupter in Service in Wet Areas	X		
9.	Containers Arranged on the Counter Top to Prevent Spills, Breakage, etc.	X		
10.	Compressed Gas Cylinders Chained to Prevent Falling	X		
11.	Ventilation Provided for Proper Air Exchange (fans, vent hoods, etc.)	X		
12.	Vent Hoods in Place & Working Where Needed	X		
13.	MSDS Available for All Chemicals Used	X		
14.	Chemicals Labeled, Tagged or Marked with Chemical Name & Appropriate Hazard Warning	X		
15.	Operational Eye Wash Station & Safety Shower (painted yellow)	X		
16.	Fire Extinguisher(s) (Inspected Monthly)	X		
17.	Signs	X		
	a) No Smoking	X		
	b) Eye Wash Station	X		
	c) Exit/No Exit	X		
	d) Safety Goggles Required When Handling Chemicals	X		
	e) Safety Equipment Required Beyond This Point	X		
	f) Fire Extinguisher (Above all Extinguishers)	X		
18.	Security Provided to Prevent Unauthorized Access and Theft of Chemicals and Equipment	X		
19.	Are Lab Personnel Properly Storing, Handling, and Disposing of Needles, Syringes, etc.	X		
20.	Other			

COMMENTS:

5. did not know about - put label on
6. working on as of now
7. working on as of now

Dowell NAM District Audit

Revised 5/17/2002

DISTRICT: 2069
Jamie

DATE: 5/17/02

1.	Proper Safety Gear in Use (Safety Glasses, Bump Cap, Hard Toe Shoes, Nomex)	X		
2.	No Finger Ring Policy	X		
3.	Eye Protection Provided & Worn Where There is Danger of Flying Objects or Chemical Contact	X		
4.	Are Chemical Gloves & Apron Provided at Parts Washer	X		
5.	Personal Protective Equipment Available to Visitors and Contractors as Needed		X	
6.	Hearing Protection Available in High Noise Areas	X		
7.	First Aid Kit Available & Adequately Stocked According to Dowell Guidelines	X		
8.	Eye Wash Bottles/Stations	X		
9.	Fire Extinguishers Provided (One every 50' from Work Area)			
	a) Inspected Monthly, Serviced Annually	X		
	b) Free from Obstructions or Blockage	X		
	c) Identified with Sign	X		
	d) Hung on Brackets with a Distinguishing Background, Floor Marked	X		
10.	Approved Respirators Provided for Regular or Emergency use Where Needed (Including SCBA Units) Location:			X
11.	Metal Oily Rag Container Provided with Self Closing Lids	X		
12.	Confined Space Entry Equipment Provided & Maintained	X		
	a) Mechanical Ventilation Blower	X		
	b) Lock-Out/Tag-Out Devices (Locks, etc.)	X		
	c) Approved Respiratory Equipment (Such as Air Line Supplied Full Face or SCBA)			X
	d) Portable Electrical Equipment - Grounded & Equipped with Ground Fault Protection if Used in Tanks	X		
	e) Lifelines & Related Recovery Equipment	X		
	f) Oxygen Meter - Properly Calibrated and Documented	X		
	g) Combustible Gas Meter-Properly Calibrated & Documented.	X		
	j) Person trained and Certified to Calibrate, Maintain and Use Combustible Gas and Oxygen Indicator Instruments	X		
	h) Grounding Straps	X		
13.	OSHA Approved Safety Cans Provided for Flammable & Combustible Liquids	X		
14.	Lock-Out/Tag-Out Devices Provided	X		
15.	Chock Blocks Available & In Use	X		
16.	Other			

If any answer is "No", corrective action is required.
List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: 2069
Janice

DATE: 5/17/02

1.	All Work Areas Properly Illuminated	X		
2.	Professional Appearance - Housekeeping Neat & Clean	X		
3.	Spills, Leaks Cleaned Up with Absorbent or Covered with Pads to Prevent Slips & Falls	X		
4.	Trash Containers with Lids Provided in Adequate Numbers & Emptied Each Day	X		
5.	System in Place for Recycle/Disposal of Oily Rags	X		
6.	Ventilation System in Place & Used by Mechanics to Direct Truck Exhaust Outside Building	X		
7.	Tools, Jacks, Stands, Slings, Chains, etc., Maintained in Good condition, Safely Stored and Capacity Clearly Marked	X		
8.	Parts Cleaning Area			
	a) Personal Protective Equipment Provided - Gloves, Goggles	X		
	b) Light Working & Protected from Breakage	X		
	c) Self-Closing Lid in Case of Fire	X		
	d) Labels and No Smoking Signs in Place	X		
	e) No Spills or Leaks	X		
	f) System Place to Recycle or Dispose of Used Solvent	X		
9.	Used Oil Storage Area			
	a) Tank/Drum Place in Secondary Containment	X		
	b) No Spills or Leaks (Container in Good Condition)	X		
	c) Properly Labeled - "Used Oil Only"	X		
	d) System in Place to Properly Reuse or Recycle Used Oil	X		
	e) Used Oil Filters Properly Managed According to NAM Environmental Standard #1.	X		
	f) Housekeeping Neat & Clean	X		
10.	Exits and No Exits Properly Marked	X		
11.	Service Pit Area			X
	a) Lighting, Outlets, Fans, Sump Pump, etc., Operating Properly			
	b) Non-Skid Surface Provided on Steps into Pit			
	c) Floor in Pit Free of Slip, Trip & Fall Hazards			
	d) Housekeeping in Pit Adequate			
	e) Drop Lights & Extension Cords Provided with Ground Fault Circuit Interrupter			
	f) Proper Warning (Rail, Lip, Yellow Paint, Barrier Tape, etc.) Provided Around Pit Opening When Not Covered			
	g) Mechanical Ventilation Provided			
	h) "No Smoking" Sign Displayed			
	i) Service Lines Properly Marked, i.e., water, air, oil, etc.			
	j) Electrical Appliance Explosion Proof			

If any answer is "No", corrective action is required.
List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: 2069
J Amie

DATE: 5/17/02

1.	Tools Being Used or Stored Are in Good Condition	X		
2.	Tool Boxes Neat & Orderly with No Worn Out or Damaged Tools	X		
3.	Hammer Handles & Striking Surfaces in Good Repair, Free of Cracks & Splinters	X		
4.	Pipe-Wrench Jaws Sharp to Prevent Slipping	X		
5.	Wrench Openings Square - Not Rounded Out	X		
6.	Tool Handles Wedged Tightly in the Head of Hammers, etc.	X		
7.	Modified Tools Listed with Shop Supervisor and Secured			X
8.	Correct Tool(s) Being Used for the Job	X		
9.	Employees Using Protective Equipment	X		
10.	Grinders, Saws, & Similar Equipment Provided with Safety Guards	X		
11.	Power Tools Used with Shield, Guard, or Attachment, Supplied by the Manufacturer	X		
12.	Guards in Place Over Belts, Pulleys, Chains, Sprockets	X		
13.	Portable Fans Provided with Full Guards or Screens Having Openings of 1/2" or Less	X		
14.	Electrical Tools, Cords, etc.			
	a) Cords Free of Cuts, Splices, or Breaks in Insulation	X		
	b) Plugs in Good repair & Have Ground Conductor Prong	X		
	c) Portable Power Tools Grounded or Double Insulated	X		
	d) Receptacles in Good Condition with No Indication of a Short	X		
	e) Receptacles Inspected for Proper Ground Wiring	X		
	f) Portable Power Tools Have Trigger Locks Removed	X		
	g) Tag-Out System in Place to Remove Defective Tools, Cords, etc., From Service	X		
15.	Drill Press & Bench Grinder			
	a) Cords in Good Condition & Grounded	X		
	b) Eye Protection Required Signs Posted	X		
	c) Drill Press Anchored to the Floor or Bench to Prevent Falling Over	X		
	d) Drill Press Vice Available & in Good Condition	X		
	e) Brush Provided to Remove Drill Press Cuttings	X		
	f) Tool Rest on Grinder Positioned 1/8" from Stone	X		
	g) Grinder Stone in Good Condition, Free of Visible Cracks	X		
	h) Upper Wheel Disintegration Guard & Side Guards in Place	X		
	i) Grinder Securely Mounted to a Stationary Bench, Table, etc.	X		

If any answer is "No", corrective action is required.

List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: 2069

DATE: 5/17/02

Jamie

16.	Shop Hoist & Related Equipment			
	a) Certification List of Authorized Operators on File or Posted	X		
	b) Capacity Clearly Marked on Beam & Hoist (Are They the Same?)	X		
	c) Hook Safety Latch Installed & in Good Repair	X		
	d) Chains & Electrical Cable in Good Condition	X		
	e) If Operating in a Wet or a Damp Location, is the Hoist Control Waterproof			X
	f) Hoist & Associated Beams, Trolleys, Chains, Stops, etc., Thoroughly Inspected Annually (Last Inspection Date <u>Jan 2002</u>) and Documented	X		
	g) Travel Stops Installed & Securely Bolted in Place	X		
	h) Hook Painted Yellow	X		
17.	Air Compressors & Associated Systems			
	Tank Safe Working Pressure <u>150</u> psi	X		
	Shop System Safe Working Pressure <u>150</u> psi	X		
	a) Guards Over Pulleys & Belts	X		
	b) Good Condition, Painted, No Rust Spots	X		
	c) Regulators, Gauges, & Pressure relief "Pop Off" Valve off Set <u>120</u> psi - Working/Current Inspection Tag in Place			
	d) System Safety Inspection & Hydrostatic Test Performed on Tank Within Last 12 Months & Date Marked on Tank (Last Inspection Date <u>Jan 2002</u>)			
	e) Name Of Person Performing Inspection On Tank	X		
	f) Maintained Free of Oil Leaks or Drip Pan in Place	X		
	g) Sign Posted in Area - "This Equipment Starts Automatically"	X		
	h) If Supplying Pressure to Bulk Liquid Storage Tanks, Are Tanks Supplied with Operating Gauges & "Pop Off" Valves/Current Inspection Tag in Place	X		
	i) System Free of Air Leaks	X		
	j) Tanks Supplied With a Drain at Lowest Point & Periodically Drained of Oil & Moisture	X		
	k) Pop Off Valve Set to Prevent Pressure in Tank From Exceeding Designed Safe Working Pressure Marked on Tank or the Shop System (Whichever is Lower)	X		
	l) OSHA Approved Air Nozzle Used for Cleaning (< 30 psi)	X		

If any answer is "No", corrective action is required.
List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: 2069

DATE: 5/17/02

Jamie

18.	Battery Charge Station/Storage			
	a) Signs "No Smoking Within 10 Feet" & "Chemical Goggles Required"	X		
	b) Disposal Plan for Used Batteries (Return to Vendor)	X		
	c) Chemical Goggles Provided in Area	X		
	d) Charger Cord & Leads in Good Condition	X		
	e) Acid Spill Neutralizer Available	X		
	f) Charged/Stored in Well Ventilated Area	X		
19.	Welding And Cutting - GAS & ARC			
	a) Certification List for Approved Welders Up to Date & Listed by Specialty, Gas, ARC, or Both (Shop Records)	X		
	b) Mechanical Ventilation or Special Respiratory Protection Provided for Welders	X		
	c) Hot Work Permit System in Place & Being Used	X		
	d) Personnel Protective Equipment Provided & in Good Condition and Stored Properly	X		
	1) Gauntlet Gloves & Apron	X		
	2) Welding Hood With Correct Lens	X		
	3) Gas Cutting Goggles with Correct Lens (Minimum Shade No. 4	X		
	4) Other			
	e) Eye Protection Required Sign(s)	X		
	f) Welding Operations Conducted Away From (At Least 25') Flammable & Combustible Liquids	X		
	g) Material Available to Protect Truck Fuel Tanks, Slag During Welding Operations	X		
	GAS			
	1) Hoses in Good Condition & Free of Leaks, Splices & Other Damage	X		
	2) Flash Back Check Valves in Place on Both Ends of Hose	X		
	3) In-Service Cylinders Upright & Adequately Secured in a Rack	X		
	4) Cylinder Regulator & Gauges in Good Condition and Working	X		
	5) Valves Turned Off and Regulators Backed Out When Not in Use	X		
	6) Cylinder Marked or Labeled to Clearly Identify Contents	X		

DISTRICT: 2069

DATE: 5/17/02

JAMIE

	7) Stored or Empty Cylinders			
	a) Caps in Place & Tight (No Oil Used)	X		
	b) Firmly Secured to Rack or Wall by Chain, Cable, Pipe, etc., (NOT Rope)	X		
	c) Empty Cylinders Marked "Empty"	X		
	d) Oxygen & Acetylene Cylinders Separated by Fire Resistant Barrier or by at least 10'	X		
	8) Housekeeping Neat & Clean (No Oily Rags, etc.)	X		
	ARC			
	1) Welding Leads in Good condition, Free of Breaks, Exposed Wires, Splices, etc.	X		
	2) No Exposed Wires Where Leads Enter Welding Machine	X		
	3) Adequate Ground Returns Circuit in Place & Machine Grounded Properly	X		
	4) Welding Curtain Available		X	
	5) Housekeeping Neat & Clean (No Welding Rods on Floor, etc.)	X		
	6) Correct Personnel Protective Equipment Provided & and in Good Condition and Stored Properly	X		
20.	UTILITIES			
	1. Gas, Air, Water & Electrical Lines Marked			
ⓧ	2. Switch Panels & Breaker Boxes Clear & Accessible	X		
ⓧ	3. Electrical Switches/Breakers Identified and No Open Slots	X		
ⓧ	4. Access to Open Wiring Locked	X		
ⓧ	5. Lock-Out / Tag-Out System in Place	X		
ⓧ	6. Main Power Shut-Off Adequately Identified and Labeled	X		
ⓧ	7. Heating & Ventilation Adequate	X		
ⓧ	8. Are Certified Electrical Contractors & Plumbers Used to Modify/Repair Utility Systems	X		
ⓧ	9. All Receptacles Checked Periodically for Grounding	X		
	10. Adequate Water Supply & Associated Fire Fighting Equipment Provided & in Good Condition Ready For Use			X
	11. Other			

5. Need to get safety glasses in case for visitors
 1) No welding curtain available

DISTRICT: 2069
Jamie

DATE: 5/17/02

1.	Tires in Storage Deflated to 5 psi or Less (Tube Type Only)			X
2.	Tires Secure From Theft	X		
3.	Lubricant & Coolant Storage			
	a) No Smoking Signs Posted in Area	X		
	b) Secondary Containment Provided	X		
	c) Area Clean, Neat, & Free of Spills, Leaks, etc.	X		
	d) Absorbent Material Available to Clean-Up Spills, Leaks, etc.	X		
	e) If Storage Tanks are Pressurized - All Safety Devices (Pop-Off Valves, Gauges, Valves) in Good Operating Condition and Checked Periodically			X
	f) HMIS Label & Contents on Tank	X		
4.	Parts Storage Housekeeping Neat & Clean	X		
5.	Shelving Adequate for Parts & Equipment Being Stored	X		
	a) Heavy Objects Placed on Lower Shelves	X		
	b) No Objects Protruding from Shelves into Aisles	X		
	c) No Flammable Liquids (Other Than Small Quantity Daily Use Such as Spray Cans) Stored on Open Shelves	X		
6.	Designated Area for Flammable Combustible Liquids	X		
	a) Flammable & Combustible Liquids in Cans (1-5 gallons) Stored in an Approved Fire Proof Metal Cabinet	X		
	b) Storage Rooms for Flammable & Combustible Liquids Provided with Explosion Proof Ventilation Fans And Operating			X
	c) No Smoking or Open Flame Sign Posted	X		
	d) Fire Extinguisher Mounted and Inspected Monthly	X		
	e) Light Bulbs Protected from Breakage	X		
7.	Storage Area Free of "Junk"	X		
8.	Radioactive Gauges			
	a) Stored in Accordance with Dowell Radiation Manual	X		
	b) Radiation Sign(s) Posted	X		
	c) Designated Area Away From Other Work Activity	X		
	d) Devices Secured from Unauthorized Removal - Locked Door, Locked Box, Chained & Locked	X		
9.	MSDS & List of Chemicals in Use & Stored Available for Review	X		
10.	Second Floor Storage Area (Shop Mezzanine) Marked with Load Capacity in LBS/Square Foot			X
11.	Other			
COMMENTS:				

DISTRICT: 2069
JAMIE

DATE: 5/17/02

1.	Ladders Stored in Designated Area and Secured from Falling	X		
2.	Ladders in Good Condition and Free From Broken or Deformed Rungs, Side rails, etc.	X		
3.	Ladders in Use Approved for Industrial Use (Check Decal on Side of Ladder)	X		
4.	Non-Skid Safety Feet in Place and Working Properly	X		
5.	Ladder Rungs Free from Oil & Grease	X		
6.	"Man Lift" Platforms, for Use with a Forklift Truck, Provided with Toe Board (4"), Top and Mid Rail or Adequate Fall Protection Device	X		
7.	Rollaround Work Platform/Stairs Provided with Stops Installed and Operable for Rollers	X		
8.	Signs Posted on Permanent Work Platforms such as Shop Mezzanine Showing Loading capacity of floor in LBS/Square Foot			X
9.	Platforms Provided with 4" Toe boards			X
10.	Housekeeping on Platforms Adequate			X
11.	Permanent Means of Access and Egress Provided to Elevated Storage Area/Platforms and Maintained in Good Condition			X
12.	Other			

1.	Facility Inspections	X		
2.	Dust Collector Inspections & Maintenance Log			X
3.	Tank Integrity Inspections	X		
4.	DOT			
	a) Truck and DOT Maintenance Files	X		
	c) Certified Mechanics List	X		
	d) Brake Inspectors Certification List	X		
5.	Radiation Recordkeeping (Date of Last Audit <u>Aug 2001</u>)	X		
6.	Safe Work Permit Program (<u>Jan 15 2002</u>)	X		
7.	Other			

DISTRICT: FARMINGTON

DATE: 5/17/2002
(S. Wick)

1.	Lighting Adequate & Bulbs Protected by Guards or Bulb Protectors	✓		
2.	Chemical Storage Separate From Mechanical Parts Storage	✓		
3.	Chemical Storage Distinct from Empty Container & Drummed Waste Storage	✓		
4.	Chemical Storage Neat & Orderly (2 Pallets High Maximum)	✓		
5.	Chemicals Containers Stored Closed & in Good Condition (no Dents, Rusted Areas, Etc.)	✓		
6.	Stored Chemicals Properly Segregated (Ignitable, Corrosive, Reactive)	✓		
7.	Proper Labeling on Each Container (Product Name, Warning Statement)	✓		
8.	MSDS Information Available for chemicals in Area	✓		
9.	Storage Area Covered and/or Containers Protected from Weather		✓	
10.	Storage area Maintained Free of Leaks & Spills	✓		
11.	Fire Extinguisher Accessible & Inspected Monthly	✓		
12.	Operational Eye Wash Station and Safety Shower (Painted Yellow/Green)	✓		
13.	Hand Dollies in Good repair	✓		
14.	Electrical Panel Labeled with Voltage	✓		
15.	Electrical Panel Switches Labeled and No "Open" Slots	✓		
16.	Floor Free From Slipping/Tripping Hazards	✓		
17.	Adequate Ventilation	✓		
18.	Signs	✓		
	a) Chemicals: Goggles Must Be Worn When Handling Chemicals	✓		
	b) Watch Out For Fork Lift Trucks	✓		
	c) HMIS/Label Poster	✓		
	d) No Smoking	✓		
	e) Individual ID Signs for Stored Chemicals with HMIS/Q Code Info.	✓		
	f) Exit/No Exit	✓		
19.	Tote Tanks Used Only for Designated Chemicals According to Policy	✓		
20.	Chemical Transfer Area	✓		
	a) Designated Area for Chemical Repackaging Identified		✓	
	b) Area Maintenance Free of Leaks and Spills	✓		
	c) Sump Routinely Pumped	✓		
	d) Grounding and Bonding Straps Available for Use During transfer of Flammable Materials	✓		
21.	Other			
COMMENTS:				

If any answer is "No", corrective action is required.

List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: FARMINGTON

DATE: 5/17/2002

vs. [Signature]

1.	Storage Tanks			
	a) Clean Painted, In Good repair	✓		
	b) Vent Line Hooked-up & Fume Scrubber in Use	✓		
	c) Fume Scrubber Routinely Inspected & Maintenance Documented	✓		
	d) Sample Catcher in Use	✓		
	e) Return Acid Tank Identified & Independent from Main Bulk System	✓		
	f) Ladders & Cages in Good Repair & Locked			✓
	g) Material, Vent & Load Lines Properly Marked		✓	
	h) Rubber Lined Tank Test Current & Marked on Tank(s) Last Inspection Date			✓
	i) Backflow Valve Installed & Operational	✓		
	j) Valves, Flanges & Elbow Joints in Good Repair	✓		
2.	Secondary Containment for Spills & Leaks	✓		
3.	Floor & Revetment Wall in Good Repair, Free of Cracks & Erosion		✓	
4.	Sumps Maintained Empty When Not in Use & in Good Repair	✓		
5.	Warnings Signs & Systems	✓		
	a) Clearly Marked with Contents & NFPA Labels	✓		
	b) Safety Shower & Eye Wash Fountain	✓		
	c) "Chemicals - Goggles Must Be Worn When Handling Chemicals"	✓		
	d) Fire Extinguisher (Above All Extinguishers)	✓		
	e) Notice: This Tank Is Rubber Lined			✓
	f) No Smoking	✓		
	g) Flammable	✓		
6.	Safety Equipment Available	✓		
	a) Operational Eye Wash Station & Safety Shower (Painted Distinguishing Color)	✓		
	b) Emergency Alarm (Mounted at eye wash station)			✓
	c) Slicker Suits	✓		
	d) Goggles & Face Shields	✓		
	e) Respiratory Protection Properly Stored and Sanitary	✓		
	f) Rubber Gloves	✓		
	g) Fire Extinguisher(s) (Inspected Monthly)	✓		
	h) Chock Blocks	✓		
7.	Transfer Pumps, Piping and Hoses in Good Repair & Labeled	✓		
8.	Floors Free of Slipping/Tripping Hazards	✓		
9.	Explosion Proof Electrical Equipment in Use	✓		
10.	Adequate lighting	✓		
11.	Extension Cords have Grounding Conductors	✓		
12.	Other			

If any answer is "No", corrective action is required.

List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: 740m2N670

DATE: 5/17/2002

Swick

1.	Air Compressors & Associated Systems	✓		
	Tank Safe Working Pressure <u>200</u> psi	✓		
	System Safe Working Pressure <u>85</u> psi	✓		
	a) Guards over pulleys and belts	✓		
	b) Good condition, painted, no rust spots	✓		
	c) Regulators, gauges, and pressure relief "pop off" valve working/ inspection tag in place (inspected monthly) Attach inspection report to audit.		✓	
	d) Safety Inspection & hydrostatic test performed within last 12 months and date marked on tank (last inspection date <u>9/2001</u>)	✓		
	e) Name Of Person Performing Inspection On tank		✓	
	f) Maintained free of oil leaks or drip pan in place	✓	✓	
	g) Sign posted in area "this Equipment Starts Automatically"		✓	
	h) System free of air leaks	✓		
	i) Tank supplied with a drain at lowest point and periodically drained of oil and moisture	✓		
	j) Pop off valve set to prevent pressure in tank from exceeding designed safe working pressure marked on tank or on the bulk plant system	✓		
2.	Bulk Tanks	✓		
	a) Clean, Painted and in Good Condition		✓	
	b) Dust Collector in Use & Inspected Routinely	✓		
	c) Sample Catcher in Use	✓		
	d) All Tanks Clearly Marked with Contents & NFPA Label on at least One Tank	✓		
	e) Pressure Gauges Visible & Operational	✓		
	f) Pop-Off Valves Operational/Current Inspection Tag in Place (Inspected monthly)		✓	
	g) Surplus Cement Tank Clearly Marked & Independent from Main Bulk System	✓		
	h) Ladders & Cages in Good Repair & Locked and made to Dowell Standards	✓		
	i) Material, Vent & Load Lines Properly Marked	✓		
3.	Sample Storage Neat & Orderly	✓		
4.	Disposal Procedure Documented For Surplus Cement	✓		
5.	Safety Equipment	✓		
	a) Operational Eye Wash Station (permanent or portable) Available within 50' of work area and Clean	✓		
	b) Dust Masks/Respirators Provided for Use When Needed	✓		
	c) Goggles Provided & Worn When Required	✓		

If any answer is "No", corrective action is required.
List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: FARM 216200

DATE: 5/17/2002
SWORN

	d) Safety Equipment Maintained in Sanitary Condition	<input checked="" type="checkbox"/>		
	e) Fire Extinguisher(s) Mounted & Inspected Monthly	<input checked="" type="checkbox"/>		
6.	Transfer Hoses & Unions in Good Repair	<input checked="" type="checkbox"/>		
7.	Bulk Storage & Dry Additive Areas Neat & Free from Tripping Hazards	<input checked="" type="checkbox"/>		
8.	All Work Areas Properly Illuminated	<input checked="" type="checkbox"/>		
9.	Signs - General	<input checked="" type="checkbox"/>		
	a) Chemical Goggles Must Be Worn	<input checked="" type="checkbox"/>		
	b) Respiratory Protection Required	<input checked="" type="checkbox"/>		
	c) Eye Wash Station	<input checked="" type="checkbox"/>		
	d) Exit & No Exit in Place Above or on Doors	<input checked="" type="checkbox"/>		
	e) Fire Extinguisher (Above Each Extinguisher)	<input checked="" type="checkbox"/>		
	f) Danger Look Out for Lift Trucks	<input checked="" type="checkbox"/>		
10.	Chemical Warning Labels/HMIS on all packages	<input checked="" type="checkbox"/>		
11.	Electrical Panel Box Voltage Labeled & Switches/Breakers Identified	<input checked="" type="checkbox"/>		
12.	Dry Chemicals Stored in Order with Sacks in Good Condition (No more than 3 pallets High)	<input checked="" type="checkbox"/>		
13.	Individual ID Signs for Stored Chemicals with HMIS/Q Code Information Displayed	<input checked="" type="checkbox"/>		
14.	MSDS Information Available for Chemicals in Area	<input checked="" type="checkbox"/>		
15.	Sumps & Floor Openings Adequately Covered or Otherwise Guarded	<input checked="" type="checkbox"/>		
16.	Adequate Guard/Safety Device Provided at "Dry Add" Sack Opening Device or Safety Knife Provided to Open Sacks	<input checked="" type="checkbox"/>		
17.	Portable Electrical Tools, Drop Lights & Equipment Grounded or of Double Insulated Type			
18.	Extensions Cords Have Grounding Conductors			
19.	Other			
COMMENTS:				

DISTRICT: FARMZAR

DATE: 5/17/2002
Swamp

1.	Contents of Each Silo Properly Identified (HMIS Decal OK)	✓		
2.	NFPA Signs in Place on at Least One Silo	✓		
3.	Ladders and Cages in Good Repair and Locked	✓		
4.	All Cages, Ladders and Landing Platforms Constructed in Accordance with Dowell Standards	✓		
5.	Electrical Panel Box Voltage Labeled and Switches/Breakers Identified	✓		
6.	Electrical Panel(s) Boxes Locked	✓		
7.	GFI Extension Cords in Use Provided with Ground Fault Circuit Interruption			✓
8.	Sand Augers Locked and Covered	✓		
9.	Sand Augers Identified with Proper Warning Signs	✓		
10.	Sand Chutes Can Be Shut Off At Top of Truck	✓		
11.	Air Compressors and Associated Systems			N/A
12.	Tank Safe Working Pressure _____ psi			N/A
13.	System Safe Working Pressure _____ psi			N/A
	a) Guards Over Pulleys and Belts			N/A
	b) Good Condition, Painted, No Rust Spots			N/A
	c) Regulators, Gauges, and Pressure Relief "Pop Off" Valve Working/Inspection Tag in Place (Inspected Monthly)			N/A
	d) Safety Inspection and Hydrostatic Test Performed within Last 12 Months and Date Marked on Tanks (Last Inspection Date _____)			N/A
	e) Maintained Free of Oil Leaks or Drip Pans in Place			N/A
	f) Sign Posted in Area "This Equipment Starts Automatically"			N/A
	g) System Free of Air Leaks			N/A
	h) Tank Supplied with a Drain at Lowest Point and Periodically Drained of Oil and Moisture			N/A
	i) Pop Off Valve Set to Prevent Pressure in Tank from Exceeding Designed Safe Working Pressure Marked on Tank or of the Shop System (Whichever is Lower)			N/A
14.	All Work Areas Properly Illuminated	✓		
15.	Signs- General	✓		
	a) Chemical Goggles Must Be Worn	✓		
	b) Respiratory Protection Required	✓		
	c) Eye Wash Station	✓		
16.	Material, Vent and Load Lines Properly Marked	✓		
17.	Entrance to Underground Belt System Covered			N/A
18.	Entrance Marked "Confined Space - Safe Work Permit Required to Enter"			N/A
19.	Conveyor Belt Properly Guarded			N/A
20.	Other			

If any answer is "No", corrective action is required.
List person(s) responsible for follow-up above or on reverse side of this page.

DISTRICT: 74022622

DATE: 5/17/2002
SWD

1.	Contents of Each Storage Tank Properly Identified (HMIS / NFPA)	✓		
2.	All Ladders Leading to Top of Storage Tank in Good Condition and Free of Slip Hazards & Locked	✓		
3.	Back Guard Rail Proper Height	✓		
4.	Air compressors and Associated Systems	✓		
	Tank Safe Working Pressure <u>200</u> psi	✓		
	System Safe Working Pressure <u>150</u> psi	✓		
	a) Guards over Pulleys, and Belts	✓		
	b) Good Condition, Painted, No Rust Spots	✓		
	c) Regulators, Gauges, and Pressure Relief "Pop Off"	✓		
	d) Safety Inspection and Hydrostatic Test Performed within Last 12 Months and Date Marked on Tank (Last Inspection Date _____)			
	e) Maintained Free of Oil Leaks or Drip Pan in Place	✓		
	f) Sign Posted in Area "This Equipment Starts Automatically"	✓		
	g) System Free of Air Leaks	✓		
	h) Tank Supplied with a Drain at Lowest Point and Periodically Drain of Oil and Moisture	✓		
	i) Pop Off Valve Set to Prevent Pressure in Tank from Exceeding Designed Safe Working Pressure Marked On Tank or on the Shop System (Whichever is Lower)	✓		
5.	All Work Areas Properly Illuminated	✓		
6.	Transfer Lines Properly Marked	✓		
7.	Electrical Panel Box Voltage Labeled and Switches/Breakers Identified	✓		
8.	Electrical Panel(s), Boxes Locked		✓	
9.	Extensions Cords in Use Provided with Ground Fault Circuit Interruption			✓
10.	Warning signs			
	a) No Smoking		✓	
	b) Fire Extinguisher (Above All Extinguishers)	✓		
	c) "Save Your Eyes, Wear Goggles"		✓	
11.	Safety Devices in Place to Prevent Spills, Overfilling, etc.	✓		
12.	Fire Extinguisher Accessible and Inspected Monthly	✓		
13.	Proper Secondary Containment of Tank for Spills and Leaks	✓		
14.	Secondary Containment Maintained Free of Spills/Storm Water	✓		
15.	Secondary Containment Drain Valve(s) Maintained Closed and Locked	✓		
16.	Spill Control Materials Readily Available	✓		
17.	Area Kept Clean and Free of Spills	✓		
18.	Dust Masks and Goggles Available and Being Used	✓		
19.	*If This Area Includes a Diesel Fuel Storage Area, Fill Out Page 6 - Fuel Storage Island			✓
20.	Other			

Page 18

1C. Paper inspection tags not staying on, in process of switching to plastic or metal. Above is documented in bulk plant maintenance book.

1E. Richard Alexander performed inspection, but did not get name on tank.

1F. In process of installing new oil containment system, will be completed by 5/19.

1G. Needs new sign that states starts automatically.

2A. Bulk silos could use paint job.

2F. Refer to item 1C above same problem.

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8. Sand buckets are covered but not locked.

15C. The sand silos are used very little, no immediate eye wash at silos. There is one in cement warehouse close to silos.

Page 22

8. New electric box needs lock.

9A. Needs no smoking sign on gel tank.

9C. Needs wear goggles sign on tank.

Page 16

1G. Needs some new labels.

3. Acid dock and revetment both need some repair.

6B. Need emergency alarms at eye wash stations.

Page 17

9. Tote and drum storage not protected from weather no roof.

20A. Signs need put up for designated chemical transfer areas.

Emergency Notification Procedures

U.S. Land West

INCIDENT TYPE	NOTIFICATION REQUIRED
ALL incidents including "lights" (motor vehicle, personal injury, environmental, security, SLB Non-Involved, etc)	Email "Initial Report of Injury or Incident Form" to Clay Reavis & Product Line Manager within 24 hours.
All automotive incidents (C. M. S). all automotive incidents involving employee and/or third parties, all injury incidents and workers compensation claims, all asset losses.	Notify Clay Reavis and Product Line Manager immediately. As soon as possible within the first 24 hours, notify Travelers 24-hour hotline at 800-832-7839.
Any incident involving explosives or radioactive materials must be managed via procedures outlined in the Schlumberger Explosives or Radiation Field Control Manuals. If there are also vehicle incidents/ injuries involved, these are reported as per this document.	Immediate contact via the Schlumberger Emergency Response system 24 hour number, 281-595-3518, Clay Reavis and Product Line Manager. Preliminary Report required to Clay Reavis, Ray Dickes & Wayne Fulin within 24 hours.
Environmental incidents involving spills/discharges/releases must be called in and managed via the Schlumberger Emergency Response system.	Immediate contact to Schlumberger Emergency Response system 281-595-3518. Clay Reavis and Product Line Manager. Preliminary Report to Judy Carley, Wayne Fulin & Clay Reavis within 24 hours.
*Fatality, hospitalization of 3 or more employees/others. *Involvement/interest by news media in any incident. *Any other potentially Catastrophic incident.	Immediate phone call to Clay Reavis, Product Line Manager and Wayne Fulin. Preliminary Report to Clay Reavis and Wayne Fulin within 2 hours.
Any Regulatory Inspection, Notice of Violation, info requests etc. (OSHA, DOT, EPA, State, Local)	Immediate phone call to Clay Reavis. Preliminary Report to Clay Reavis & Wayne Fulin within 24 hours.

Note: Response letters to ANY Regulatory agency MUST be reviewed by Clay Reavis & NAM QHSE (Carley, Dickes or Campbell by expertise area) before they are distributed to the agency.

Emergency Contact List

Contact	Office No.	Home No.	Cell phone No.	Email
Clay Reavis	303-486-3274		303-324-1970	creavis@sugar-land.oilfield.slb.com
James Stewart	303-486-3246		303-589-9750	stewart@montrouge.oilfield.slb.com
Steve Hall	303-486-3240	303-874-5012	303-888-1787	hall10@englewood.oilfield.slb.com
Chuck Miller	303-486-3205	720-842-0482	720-480-3151	cmiller@englewood.oilfield.slb.com
Dwight Hennings	661-589-7590	661-663-7422	661-747-9292	hennings1@bakersfield.oilfield.slb.com
Wayne Fulin	281-285-8119	281-277-8684	281-794-7343	fulin@corpus-christi.oilfield.slb.com
Ray Dickes (R/A, Explosives)	281-285-8775	281-265-5531	281-455-6802	Dickes@sugar-land.wireline.slb.com
Neil Campbell (DOT, Vehicles)	281-285-8495	281-277-6505	281-455-5919	Campbell@sugar-land.wireline.slb.com
Judy Carley (Enviro, Chemical)	281-285-7785	281-343-0346	713-724-1752	Carley@sugar-land.oilfield.slb.com

Incident Investigation & Final Report

As noted in the OFS standard, all incidents are to be investigated using the OFS standard Risk Identification and Accident Report form and investigation technique. For all C, M, S incidents, the final investigation report with basic cause analysis and management action plans must be entered into QUEST within 7 days of the incident.

To: Operations Managers and QHSE Personnel
From: Clay Reavis
Subject: QHSE Reporting
Date: 26-March-02

Some time in the past, USL and USL West developed early reporting guidelines for any QHSE event. While these guidelines align with the OFS Risk Management Standard, there were some things added that were specific to USL and the West. The procedure in the West included the completion of a Word document file that would be sent by email to the management team in Denver. With the continued improvements in Quest, it seems redundant to complete a document and send it by email. Therefore, I would like to setup reporting guidelines for the West.

Telephone Notification: The USL and West requirement for telephone contact up the management chain parallels OFS and remains unchanged:

Catastrophic –	Immediate
Major –	Within 2 Hours (or Serious with potential to become Major)
Serious –	Within 24 Hours (Generally translates to “Gather some good basic facts and call as soon as you can.”)

Use your best judgment here.

- Calling immediately after the accident will generate a list of questions that you are either able or unable to answer. A few extra minutes may give you additional information.
- Actual and potential severity will determine how quickly the call should be made.
- If there is any doubt, call me immediately for any assistance that you may need.

Written Notification: Initial report of any CMS HSE or CMS SQ incident should be entered into Quest within one business day (24 hours). Most managers have subscriptions set up in Quest for incident notifications and contact can be made by telephone.

There is no need to complete the Word document file and send it by email.

Although it is not required to enter Light incidents into Quest within 24 hours, this should not be delayed more than necessary. Under most circumstances, one day should be reasonable time frame. (e.g., An incident occurring over the weekend should be entered Monday morning.) Light incident entry into Quest should not take more than 3 days.

There may be occasions when an incident is difficult to classify in the very early stages. (i.e., It is unclear if the incident is Light or Serious.) Handle the telephone notification and the entry of information into Quest as if the incident could be Serious. However, select the classification of Light in Quest and tell your manager it “may be reclassified to Serious” when more information is available.

Initial Quest Entry: The OFS Risk Management Standard requires reporting of eight Minimum Facts. This information should be addressed in the description text box or one of the fields in the Quest report.

- 1) Brief description of the accident including accident type and severity
- 2) Name of the location, rig, vessel, crew, plant, etc & specific location

- 3) Date and time of occurrence
- 4) Name of injured, if any, including third party
- 5) Job title of the injured
- 6) Initial injuries and treatment given
- 7) Situation of injured at time of report
- 8) Brief description of asset, environmental or information loss, if any

Note: This is an initial entry into Quest. Use the information that is known at the time and add or change it later. The investigation portion of the RIR is filled out after completion of a thorough examination of the facts.

Quest Data Entry Fields

The **Brief Description** (aka, Summary) box is an important piece of information, since it appears in the Quest email notification and under Quest search results. This field only accepts about 50 spaces, depending on the size of each character. I would like for us to use a standard format of information in this text field: Classification, type, name, location, injury detail and one short sentence description.

- Classification: C, M, S or L
- Type:
 - PI = Personal Injury
 - MVA = Motor Vehicle Accident
 - EI = Environmental Incident
 - OI = Other Incident
- Name: Last name of employee involved (may not always be applicable)
- Location:
 - S = SLB Facility
 - T = Transit (Traveling to and from location)
 - F = Field
- Injury Detail:
 - FA = First Aid
 - OSHA = OSHA Recordable Injury
 - ORD = OSHA Restricted Duty Incident
 - OLT = OSHA Lost Time Incident

Classification	Type	Name	Location	Injury Detail:
Catastrophic, Major, Serious, or Light	PI = Personal Injury MVA = Motor Vehicle Accident EI = Environmental OI = Other Incident	Last name of employee involved	S = SLB Facility T = Transit F = Field	FA = First Aid OSHA = OSHA Recordable Injury ORD = OSHA Restricted Duty OLT = OSHA Lost Time

Examples:

SMVA_Doe_T Backing, ran into parked car
 LPI_Doe_S_OSHA Hit in head
 SPI_Doe_F_ORD_Back strain lifting pipe

Use the **Detailed Description** (aka, Details) to tell the background and events of the incident, just as you have always done. You might want to add some words to explain when it is an initial report and perhaps head off some early questions. (*i.e., Initial Report – Current known*)

information listed and details subject to change.) This text can be deleted when the investigation information is entered into the report.

DOT regulations and/or USL procedures require post accident drug and alcohol testing. Indicate in the description box if the test was done or not.

The **Investigation** portion of the Quest entry should be filled in after the all the facts have been gathered, the root cause analyzed and correction actions developed. The investigation should be completed and entered into Quest within 15 days.

SECTION 4

SPILL PREVENTION AND CONTROL

A. GUIDELINES FOR DS SPILL CONTAINMENT AND BEST MANAGEMENT PRACTICES PROGRAM

The objectives of these guidelines is to contain and control unexpected discharges of substances which could damage public or private property or adversely affect the environment, air, ground, and surface or subsurface waters, including public-owned treatment works.

1. Diking will be provided for secondary containment of hazardous substances. All diking and other containment devices shall be consistent with sound engineering practices, loss prevention principles and environmental regulations.
2. New facility construction and major facility upgrading shall be designed so that unexpected discharges of hazardous products will be contained on DS property and measures will be taken to prevent it from entering or adversely affecting the environment. Existing facilities will be evaluated and controls devised to contain unexpected discharges.
3. With continued emphasis by government agencies to regulate the management of all phases of hazardous substances and wastes, it is imperative that DS secure proper permits prior to beginning construction of new facilities or making changes to existing facilities. Location facilities with existing environmental permits, or those that have not been required to have permits in the past, may be required to obtain permits prior to changes or modifications.
4. Strong emphasis should be put on drainage, water tables, future growth, sewer availability and capability, and low-profile locations for future siting of DS locations.
5. Written procedures will be developed to document a Spill Prevention Control and Countermeasures (SPCC) and Best Management Practices Program. Records of preventive maintenance, housekeeping and training practices must be kept current at all times.

B. SPILL CONTROL - STORAGE AND DRAINAGE RECOMMENDATION

1. Bulk Liquid Chemical Storage and Mixing Areas (HCl, HF, P121, ZnBr₂), diesel fuel, methanol and all other liquid bulk stored chemicals or additives).

SECTION 4

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B. SPILL CONTROL - STORAGE AND DRAINAGE RECOMMENDATION

1. Bulk Liquid Chemical Storage and Mixing Areas (HCl, HF, P121, ZnBr₂), diesel fuel, methanol and all other liquid bulk stored chemicals or additives).

- (a) All bulk liquid chemical storage and hazardous waste tanks shall have a containment system to prevent losses from entering groundwater, soil, navigable waters and sewer systems, or otherwise creating an environmental or a personnel hazard.
- (b) Various types of containment systems have been used in DS. A satisfactory tank-farm containment system will meet the following design criteria.
 - (1) Volume of containment must be 110% of the largest container in the containment not including the volume displaced by tanks and other equipment in the containment.
 - (2) Dike and interior floor must be liquid tight and designed to withstand a full hydrostatic head of the fluid being contained. Materials of construction will have a permeability of 1×10^{-7} centimeters/second or less, which is about 1/10 of an inch per year.
 - (3) Drainage of all fluids from containments must be routed in such a manner to allow for proper testing and treatment prior to any discharge. There will be no openings in the containment system. Annual hydrostatic testing of the containment system will be conducted and documented.
- (c) Bulk chemical tanks requiring fume scrubbers such as HF, HCl or VERTAN* 675 may generate hazardous wastes as a result of the scrubber action. These wastes may be subject to hazardous waste regulations (see No. 7 below).

2. Drummed Product Storage

- (a) Drummed chemicals shall be stored in an area designed to contain a spill that may result from the rupture of a container.
- (b) Sloped and/or curbed concrete slabs provide the best type of containment for storage of these containers. A slope of a minimum of 1% should be incorporated in the design of these slabs.
- (c) Consideration must be given to safe and efficient handling of the containers, collection and removal of spills, and control of rainwater or snow melt runoff.

* Trademark or Service Mark of Dowell Schlumberger

(d) Spills or stormwater runoff shall never be allowed to drain directly into sewer systems or lagoons.

3. Tank Truck/Car Loading and Unloading Facilities

- (a) These areas will be designed with a spill containment area for treatment or disposal.
- (b) Consideration must be given to containment size (minimum 110% of largest truck). Design will minimize the amount of stormwater entering the containment.
- (c) Diversionary systems will be provided if needed to prevent spills from entering sewer system lines.

4. Dry Bulk Product Storage and Handling

- (a) Driveways and truck traffic ways must be paved to prevent "fugitive" dust.
- (b) Properly designed and operating dust collector is required on any dry product storage or handling system that is loaded or unloaded pneumatically. If excessive dust is generated by mechanical handling equipment, dust collectors on the system will also be necessary. Minimum air flow rate to bag surface area is a 3:1 ratio cu ft/sq ft.
- (c) All dry products bagged or in bulk will be handled so that "fugitive" dust does not leave DS property.

5. General Facility Drainage

- (a) The yard drainage of a new or modified location facility will be designed to prevent stormwater or chemical spills from directly entering a sewer system or from affecting permanent structures on the facility.
- (b) The exit point or points of runoff will be noted on plot plans so that the operator of the facility can develop emergency spill containment plans.

6. Used Motor Oils and Solvents

- a) Used oil and used chlorinated solvents must be provided with and stored in separate containers.
- (b) Used oils will be recycled where feasible by selling or transferring ownership to a government-approved oil reclaimer.
- (c) Used chlorinated solvents.

- (1) Consider local or regional system to reclaim solvent if practical.
- (2) Consider location reclamation system if applicable.
- (3) Transfer ownership to government-approved solvent reclaimer.

7. Wastewater Handling and Disposal

(a) Acid fume scrubber water and acid transport rinse water.

- (1) Must never be reused for acid dilution; such reuse is a violation of the DS Quality Assurance Policy.
- (2) If excess is generated, it may be completely neutralized and disposed of as a nonhazardous waste.

(b) Truck wash wastewater.

- (1) Recycle waters only for reuse in truck wash to remove oil and solids.
- (2) This water (even after treatment) cannot be used for acid dilution; such reuse is a violation of DS Quality Assurance Policy.
- (3) If excess is generated, after proper treatment, it may be sent to a sanitary sewer system (if allowed by local regulations) or saltwater disposal well.

8. Stormwater

- (a) Minimize uncontaminated stormwater entrance into sewer or lagoon.
- (b) Preference will be given to use public sewer systems for disposal of process area stormwater.
- (c) Cover (roof) all areas having drains connected to sewer system or lagoon or use rain stop valves.
- (d) Design entire facility to direct nonprocess area stormwater away from sewer drains, separator tanks and lagoons.
- (e) Stormwater collected inside diked areas and other chemical process areas will be tested prior to discharge. If contaminated, it will be disposed of in accordance with government permits or as a waste.

(f) Stormwater must be handled in accordance with all government regulations. Permits may be required for discharge to sewer or surface. Contaminated stormwater cannot be discharged to a ditch except as allowed in applicable government permits.

9. General

- (a) Avoid the necessity for surface discharge permits for wastewater by using the public sewer system (if allowed by local regulations) or other waste disposal method.
- (b) Emphasize recycle/reuse of wastewaters and other potential wastes; however, these must never be used in products or services.
- (c) Avoid use of lagoons or ponds for wastewater storage. These may require permits.
- (d) Review adequacy of pretreatment system, neutralization beds, oil and mud separators, etc. These must be inspected weekly for proper functioning; the inspection must be documented.
- (e) Plan a designated empty drum storage area out of sight. Used drums must have bungs in place, and stored in a manner that residual chemicals cannot contaminate the ground or stormwater runoff.

XII. Geological/Hydrological Evidence

HYDROGEOLOGY

The Schlumberger Well Services facility is located on the north flank of the San Juan Structural Basin (Fassett 1964). Bed rock in the area dips to the south at approximately 1 degree (100 ft/mile). The uppermost bedrock comprises approximately 900 feet of sandstone, siltstone and shale of the cretaceous Kirtland Formation.

(Petroleum Information, 1981)

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 5/21/02

or cash received on _____ in the amount of \$ 100.00

from Schlumberger Farmington Petty Cash

for Schlumberger Farmington Facility 4W-100

Submitted by: [Signature] Date: 5/23/02

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

Filing Fee New Facility _____ Renewal

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment or Annual Increment _____

FARMINGTON PETTY CASH
P.O. BOX 1650 PH. 505-325-5096
FARMINGTON, NM 87499

DATE 5-21-02 95-207/1022

PAY TO THE ORDER OF NMED - Water Quality Management \$ 100.00

One hundred and no/100 DOLLARS

 **Citizens Bank**
500 W. Broadway
Farmington, NM 87401

[Signature]

FOR _____



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

February 28, 2002

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 3929 7563

Mr. John Miller
Dowell Schlumberger
P.O. Box 2727
Houston, Texas 77252-2727

RE: Discharge Plan Renewal Notice for the Dowell Schlumberger Facility

Dear Mr. Miller:

Dowell Schlumberger has the following discharge plan, which expires during the current calendar year.

GW-100 expires 8/19/2002 – Farmington Facility

WQCC 3106.F. If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

The discharge plan renewal application for each of the above facilities is subject to WQCC Regulation 20NMAC 6.2.3114. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of \$100.00. After January 15, 2001 renewal discharge plans require a flat fee equal to the flat fee schedule for oil field service facilities pursuant to revised WQCC Regulations 20NMAC 6.2.3114. A copy of the revised fee schedule is included for your assistance. The \$100.00 filing fee is to be submitted with each discharge plan renewal application and is nonrefundable.

Mr. John Miller
February 28, 2002
Page 2

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office. Please submit the original discharge plan renewal application and one copy to the OCD Santa Fe Office and one copy to the OCD Hobbs District Office. **Note that the completed and signed application form must be submitted with your discharge plan renewal request.** A complete copy of the regulations is also available on NMED's website at www.nmenv.state.nm.us).

If any of the above-sited facilities no longer has any actual or potential discharges and a discharge plan is not needed, please notify this office. If Dowell Schlumberger has any questions, please do not hesitate to contact Mr. Jack Ford at (505) 476-3489.

Sincerely,



Roger C. Anderson
Oil Conservation Division

RCA/wjf

cc: OCD Aztec District Office



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

Z 357 869 912

January 21, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-357-869-912

Mr. John A. Miller
Remediation Manager
Schlumberger Oilfield Services
300 Schlumberger Drive
Sugar Land, Texas 77478

RE: Discharge Plan GW-100
Dowell Schlumberger (DS) Farmington Facility
San Juan County, New Mexico

Dear Mr. Miller:

OCD is in receipt of the report, dated October 6, 1997, covering the results of the second semi-annual groundwater monitoring event for 1997 at the above referenced site and DS's request for termination of groundwater monitoring together with abandonment of the four remaining monitoring wells.

After a careful review of the recent monitoring results together with past groundwater monitoring data, OCD hereby **approves** the termination of the groundwater monitoring schedule previously approved. OCD, however, **does not approve** the abandonment of the remaining groundwater monitoring wells. The remaining monitoring wells should be secured and remain available for groundwater monitoring when final closure of the facility is effected.

If you have any questions contact Mr. W. Jack Ford at (505) 827-7156.

Sincerely,

Roger C. Anderson
Chief, Environment Bureau
Oil Conservation Division

cc: OCD Aztec District Office

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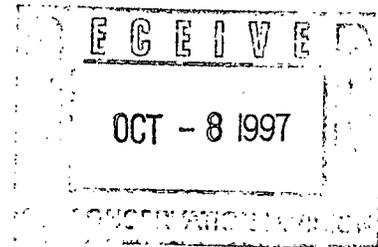
PS Form 3800, April 1995

Oilfield Services Shared Resources

John A. Miller
Remediation Manager

Via 2-Day Fedex

October 6, 1997



Mr. Roger Anderson
Environmental Bureau Chief
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

GW-100

RE: Results of the Second Semi-annual Ground-water Monitoring Event for 1997 at the Dowell a Division of Schlumberger Technology Corporation Facility in Farmington, New Mexico.

Dear Mr. Anderson:

Enclosed are the results of the second semi-annual ground-water monitoring event for 1997 at the Dowell facility in Farmington, New Mexico. Ground-water sampling was conducted by Western Water Consultants, Inc. (WWC) on August 12, 1997 and was overseen by Mr. Denny Foust of NMOCD District III. Included as enclosures are updated water level and water quality tables (Tables 1 and 2), a site map with potentiometric surface contours (Figure 1), laboratory data sheets, and chain of custody documentation.

In addition to providing the results of the monitoring event, this report is to serve as a closure document for the Farmington facility. The following text provides a brief description of past investigative work.

Three underground storage tanks (UST's) were removed in March of 1989. Minor soil contamination around the UST's led to a soil vapor survey being performed. The soil vapor survey and UST removals served to provide guidance for locating monitoring wells to investigate possible impacts to ground-water and obtain pertinent hydrogeologic data. Well completion and lithologic logs are provided as enclosures.

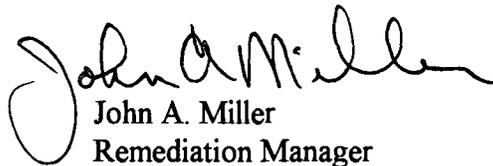
In August 1994, WWC removed an oil/water separator, 2 truck wash bays and associated collection sumps, and 2 acid loading docks and collection sumps. The removal of these facilities and the excavation of any impacted soils served to further alleviate the number of potential sources.

Page 2
October 6, 1997

Since fieldwork began at the Farmington facility, 1 year of quarterly ground-water monitoring and 6 years of semi-annual monitoring have been performed. Over the past year contaminant concentrations have remained at or below the established maximum contaminant levels (Table 2). Low levels of tetrachloroethylene (PCE) have been detected in the upgradient monitoring well (FNM-1) since 1990 which indicates the probability of an off-site source of contamination. A Chronology of Completed Fieldwork (Table 3) performed at the facility is included as an enclosure.

For the purpose of terminating any further obligations to ground-water monitoring, Dowell is requesting authorization from the NMOCD to abandon the 4 remaining monitoring wells at this facility. If you have any questions concerning this document please feel free to contact me at 281-285-8498.

Sincerely,


John A. Miller
Remediation Manager

JAM/lld

Enclosures

cc: Mr. Denny Foust
NMOCD, District III
1000 Rio Brazos Rd
Aztec, NM 87410

WWC, Laramie

TABLE 1. STATIC WATER LEVEL ELEVATIONS,
DOWELL FACILITY, FARMINGTON, NEW MEXICO

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION (Ft)	DEPTH TO GROUND-WATER (Ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PREVIOUS MEASUREMENT
FNM-1	04/06/89	40.20	Top of Casing	5344.07	26.35	5317.72	
	05/08/89				26.40	5317.67	-0.05
	10/03/90				23.11	5320.96	3.29
	04/11/91				26.53	5317.54	-3.42
	06/17/91				20.88	5323.19	5.65
	09/19/91				18.91	5325.16	1.97
	02/18/92				25.67	5318.40	-6.76
	08/25/92				20.95	5323.12	4.72
	03/18/93				27.11	5316.96	-6.16
	09/29/93				22.09	5321.98	5.02
	06/02/94				22.20	5321.87	-0.11
	09/26/94				20.57	5323.50	1.63
	06/05/95				24.93	5319.14	-4.36
	09/13/95				19.25	5324.82	5.68
	05/29/96				19.29	5324.78	-0.04
	11/04/96				21.93	5322.14	-2.64
06/10/97	24.97	5319.10	-3.04				
08/13/97	23.69	5320.38	1.28				
FNM-2	04/06/89	32.00	Top of Casing	5335.26	25.38	5309.88	
	05/08/89				25.07	5310.19	0.31
	10/03/90				21.80	5313.46	3.27
	04/11/91				25.14	5310.12	-3.34
	06/17/91				21.45	5313.81	3.69
	09/19/91				20.78	5314.48	0.67
	02/18/92				23.72	5311.54	-2.94
	08/25/92				21.30	5313.96	2.42
Well abandoned on 8/26/92							
FNM-3	04/06/89	40.40	Top of Casing	5334.97	31.31	5303.66	
	05/08/89				31.63	5303.34	-0.32
	10/03/90				27.95	5307.02	3.68
	04/11/91				31.47	5303.50	-3.52
	06/17/91				28.46	5306.51	3.01
	09/19/91				25.60	5309.37	2.86
	02/18/92				30.73	5304.24	-5.13
	08/25/92				26.90	5308.07	3.83
	03/18/93				31.43	5303.54	-4.53
	09/29/93				27.84	5307.13	3.59
	06/02/94				28.46	5306.51	-0.62
	09/26/94				26.75	5308.22	1.71
	06/05/95				30.50	5304.47	-3.75
	09/13/95				25.96	5309.01	4.54
	05/28/96				27.03	5307.94	-1.07
	11/04/96				27.24	5307.73	-0.21
06/10/97	30.37	5304.60	-3.13				
08/13/97	28.12	5306.85	2.25				
FNM-4	04/06/89	35.00	Top of Casing	5338.00	25.40	5312.60	
	05/08/89				24.74	5313.26	0.66
	10/03/90				19.94	5318.06	4.80
	04/11/91				25.13	5312.87	-5.19
	06/17/91				18.77	5319.23	6.36
	09/19/91				17.12	5320.88	1.65
	02/18/92				23.00	5315.00	-5.88
	08/25/92				18.10	5319.90	4.90
Well abandoned on 8/26/92							
FNM-5	04/06/89	35.00	Top of Casing	5337.16	24.89	5312.27	
	05/08/89				24.54	5312.62	0.35
	10/03/90				19.96	5317.20	4.58
	04/11/91				24.62	5312.54	-4.66
	06/17/91				18.67	5318.49	5.95
	09/19/91				17.19	5319.97	1.48
	02/18/92				22.86	5314.30	-5.67
	08/25/92				18.35	5318.81	4.51
Well abandoned on 8/26/92							
FNM-6	04/06/89	40.00	Top of Casing	5333.68	33.63	5300.05	
	05/08/89				33.52	5300.16	0.11
	10/03/90				27.59	5306.09	5.93
	04/11/91				33.22	5300.46	-5.63

TABLE 1. STATIC WATER LEVEL ELEVATIONS,
DOWELL FACILITY, FARMINGTON, NEW MEXICO

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION (Ft)	DEPTH TO GROUND-WATER (Ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PREVIOUS MEASUREMENT
FNM-6 Cont.	06/17/91				28.59	5305.09	4.63
	09/19/91				25.59	5308.09	3.00
	02/18/92				30.81	5302.87	-5.22
	08/25/92				26.65	5307.03	4.16
	03/18/93				32.72	5300.96	-6.07
	09/29/93				27.45	5306.23	5.27
	06/02/94				28.37	5305.31	-0.92
	09/26/94				26.46	5307.22	1.91
	06/05/95				31.23	5302.45	-4.77
	09/13/95				25.86	5307.82	5.37
	05/28/96				27.06	5306.62	-1.20
	11/04/96				26.83	5306.85	0.23
	06/10/97				30.95	5302.73	-4.12
	08/13/97				27.84	5305.84	3.11
FNM-7	04/06/89	35.00	Top of Casing	5334.15	27.41	5306.74	
	05/08/89				27.53	5306.62	-0.12
	10/03/90				23.60	5310.55	3.93
	04/11/91				27.26	5306.89	-3.66
	06/17/91				23.31	5310.84	3.95
	09/19/91				21.86	5312.29	1.45
	02/18/92				26.18	5307.97	-4.32
	08/25/92				22.55	5311.60	3.63
	03/18/93				27.15	5307.00	-4.60
	09/29/93				23.49	5310.66	3.66
	06/02/94				23.85	5310.30	-0.36
	09/26/94				22.63	5311.52	1.22
	06/05/95				26.02	5308.13	-3.39
	09/13/95				22.11	5312.04	3.91
	05/28/96				22.36	5311.79	-0.25
	11/04/96				23.09	5311.06	-0.73
	06/10/97				26.02	5308.13	-2.93
08/13/97				23.85	5310.30	2.17	

NOTE:

Elevations are based on a known elevation datum point on Roberts Com 1-B gas well.

TABLE 2. CHEMICAL COMPOUNDS DETECTED IN GROUND-WATER, DOWELL FACILITY, FARMINGTON, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	XYLENES (mg/L)	PCE (mg/L)	TCE (mg/L)	1,2-DCE (mg/L)	1,1,1-TCA (mg/L)	CHLOROFORM (mg/L)
FNM-1	04/05/89	0.000	ND(0.0002)	ND(0.0002)	0.000	ND(0.0003)	ND(0.0001)	ND(0.0001)	ND(0.0003)	0.000
	10/03/90	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/11/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/17/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.003	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	09/19/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	02/18/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	08/27/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	03/18/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	09/29/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/02/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	09/27/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	06/05/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	09/13/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	05/29/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	11/04/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.0007J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
06/10/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.00102J	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	
08/13/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	
FNM-2	04/05/89	ND(0.0002)	0.000	ND(0.0002)	0.000	ND(0.0003)	ND(0.0001)	ND(0.0001)	0.001	ND(0.0001)
	10/03/90	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/11/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/17/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	09/19/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Well abandoned 8/26/92										
FNM-3	04/05/89	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	0.015	ND(0.0001)	ND(0.0001)	0.010	0.001
	10/03/90	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.017	0.028	0.010	0.015	ND(0.0005)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.016	0.027	0.011	0.017	ND(0.0005)
	04/11/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.014	0.006	ND(0.0005)	0.008	ND(0.0005)
	06/17/91	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.015)	0.021	0.036	0.016	0.009	ND(0.0025)
	Duplicate	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.015)	0.020	0.033	0.016	0.009	ND(0.0025)
	09/19/91	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.015)	0.016	0.029	0.018	ND(0.002)	ND(0.002)
	Duplicate	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.015)	0.015	0.028	0.018	ND(0.002)	ND(0.002)
	02/18/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.009	0.005	0.003	0.005	0.001
	08/27/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.009	0.011	0.006	0.006	ND(0.0005)
	03/18/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	09/29/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.005	0.007	ND(0.0005)	0.004	ND(0.0005)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.004	0.007	ND(0.0005)	0.003	ND(0.0005)
	06/02/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.006	0.005	0.008	ND(0.001)	ND(0.001)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.005	0.008	ND(0.001)	ND(0.001)
	09/27/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.005	0.004	ND(0.001)	0.003	ND(0.001)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.004	0.005	ND(0.001)	ND(0.001)	ND(0.001)
	06/05/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.006	ND(0.001)	ND(0.001)	0.001	ND(0.001)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.006	ND(0.001)	ND(0.001)	0.001	ND(0.001)
09/13/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.006	0.003	ND(0.001)	0.002	ND(0.001)	
Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.005	0.003	ND(0.001)	0.001	ND(0.001)	
05/28/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.005	0.001	0.001	ND(0.001)	ND(0.001)	

TABLE 2. CHEMICAL COMPOUNDS DETECTED IN GROUND-WATER, DOWELL FACILITY, FARMINGTON, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	XYLENES (mg/L)	PCE (mg/L)	TCE (mg/L)	1,2-DCE (mg/L)	1,1,1-TCA (mg/L)	CHLOROFORM (mg/L)
FNM-3 Continued	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.004	0.001	0.001	ND(0.001)	ND(0.001)
	11/04/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.002	0.0005J	ND(0.001)	ND(0.001)	ND(0.001)
	06/10/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.005	0.001	0.001	0.00084J	0.00054J
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.005	0.001	0.00095J	0.00071J	0.00044J
	08/13/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.003	0.00076J	0.00041J	0.00053J	0.002
FNM-4	04/05/89	ND(0.0002)	0.001	0.000	0.001	ND(0.00003)	ND(0.0001)	ND(0.0001)	ND(0.00003)	ND(0.0001)
	10/03/90	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/11/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/17/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	09/19/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Well abandoned 8/26/92										
FNM-5	04/05/89	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.00003)	ND(0.0001)	ND(0.0001)	0.002	ND(0.0001)
	10/03/90	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/11/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/17/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
09/19/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.001	
Well abandoned 8/26/92										
FNM-6	04/06/89	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.00003)	ND(0.0001)	ND(0.0001)	0.001	ND(0.0001)
	10/03/90	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/11/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.003	ND(0.0005)	ND(0.0005)	0.006	ND(0.0005)
	06/17/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.005	ND(0.0005)	ND(0.0005)	0.002	ND(0.0005)
	09/19/91	0.003	ND(0.001)	ND(0.001)	ND(0.003)	0.001	ND(0.0005)	ND(0.0005)	0.001	ND(0.0005)
	02/18/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.004	0.001	ND(0.0005)	0.003	0.001
	08/27/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	3/18/93#	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.010	0.004	0.003	0.006	0.001
	03/18/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.010	0.005	0.003	0.006	0.001
	09/29/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/02/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	09/27/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	06/05/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	09/13/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)	0.001	ND(0.001)
	05/28/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.0006J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	11/04/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	0.006
	06/10/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
08/13/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.00096J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	
FNM-7	04/06/89	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.00003)	ND(0.0001)	ND(0.0001)	ND(0.00003)	ND(0.0001)
	10/03/90	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.003	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/11/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/17/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.003	ND(0.0005)	0.002	0.001	ND(0.0005)
	09/19/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	02/18/92	ND(0.001)	ND(0.001)	0.004	ND(0.003)	ND(0.002)	ND(0.0005)	0.001	ND(0.0005)	ND(0.0005)
	08/27/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	03/18/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	09/29/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

TABLE 2. CHEMICAL COMPOUNDS DETECTED IN GROUND-WATER, DOWELL FACILITY, FARMINGTON, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	XYLENES (mg/L)	PCE (mg/L)	TCE (mg/L)	1,2-DCE (mg/L)	1,1,1-TCA (mg/L)	CHLOROFORM (mg/L)
FNM-7 Continued	06/02/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	09/27/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	06/05/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	09/13/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.001	0.007
	05/28/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	0.002
	11/04/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	0.001
	Duplicate	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	.00063J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	06/10/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	08/13/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	08/13/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.00092J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Water Well	06/17/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trip Blank	08/27/92	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	03/18/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	06/05/95	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	05/28/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	11/04/96	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	6/10/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	08/13/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Field Blank	03/18/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	09/29/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.003)	ND(0.002)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

EXPLANATION:

NA = Not analyzed
 ND = Not detected at laboratory limits indicated in parentheses
 # = 1,2-DCA (1,2-Dichloroethane) detected in well FNM-6 at a concentration of 0.8 ug/l
 J = Detected at concentrations below the laboratory detection limit
 * = Sec-Butylbenzene detected in well FNM-7 at a concentration of 0.003 mg/l

CHEMICAL ABBREVIATIONS:
 1,2-DCE = 1,2-Dichloroethene
 1,1,1-TCA = 1,1,1-Trichloroethane
 TCE = Trichloroethene
 PCE = Tetrachloroethene

Table 3.

CHRONOLOGY OF COMPLETED FIELD WORK

Dowell, a division of Schlumberger Technology Corporation, Farmington, New Mexico

Field Work	Date
Removal of 3 UST's, one 2,000 gal. gasoline, one 2,000 and one 7,500 gal. Diesel	March 28, 1989
Soil Vapor Survey	Between March 28 - 31, 1989
Monitoring well installation (7 wells) and Ground-water Sampling	March 31 - April 5, 1989
Ground-water Sampling	October 3, 1990
First Quarter Ground-water Sampling	April 11, 1991
Second Quarter Ground-water Sampling	June 17, 1991
Third Quarter Ground-water Sampling	September 19, 1991
First semi-annual Ground-water Monitoring Event, 1992	February 18, 1992
Second semi-annual Ground-water Monitoring Event, 1992	August 25-27, 1992
Monitoring Wells FNM-2, 4, and 5 abandoned	August 26, 1992
First semi-annual Ground-water Monitoring Event, 1993	March 18, 1993
Second semi-annual Ground-water Monitoring Event, 1993	September 29, 1993
Oil/ Water separators sampled for closure	September 29, 1993
First semi-annual Ground-water Monitoring Event, 1994	June 2, 1994
Closure of Acid Dock and Truck Wash Collection Systems	August, 1994
Second semi-annual Ground-water Monitoring Event, 1994	September 26-27, 1994
First semi-annual Ground-water Monitoring Event, 1995	June 5, 1995
Second semi-annual Ground-water Monitoring Event, 1995	September 13, 1995
First semi-annual Ground-water Monitoring Event, 1996	May 28-29, 1996
Second semi-annual Ground-water Monitoring Event, 1996	November 4, 1996
First semi-annual Ground-water Monitoring Event, 1997	June 10, 1997
Second semi-annual Ground-water Monitoring Event, 1997	August 13, 1997

MONITOR WELL 324FNM-1

LOCATION T29N, R13W, Sec 14, NW1/4 NW1/4 SE1/4 SE1/4
 (dabb), 163' W of E point, 17' S of N point
 1263 N, 230 E

WELL OWNER: Dowell Schlumberger Incorporated

CASING Schedule 40 PVC

SCREEN SLOT SIZE 0.010 inch

SAND PACKING 12/20 mesh

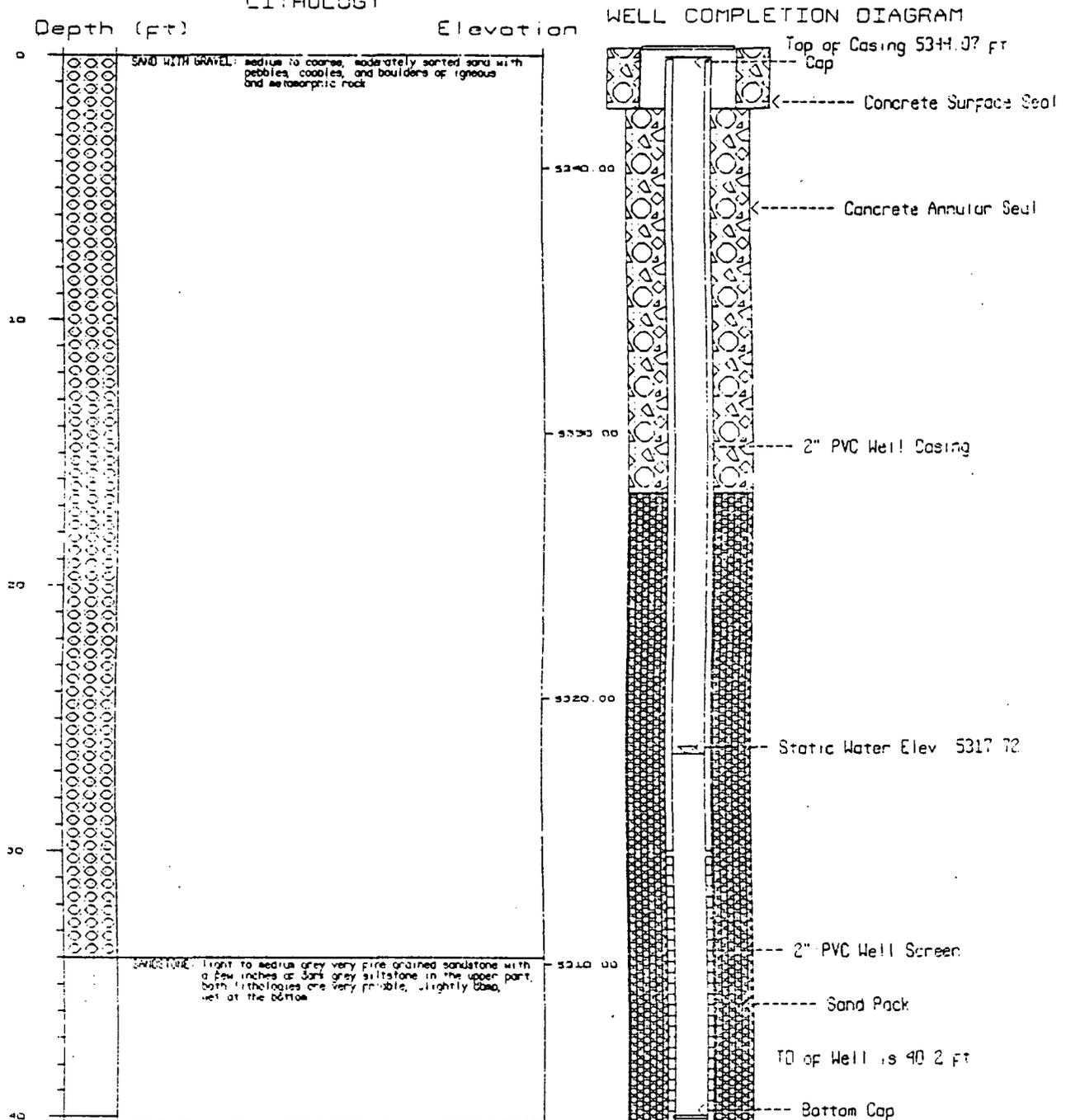
WATER TABLE ELEVATION 5317.72 (4/6/69)

GROUND ELEVATION 5344.24

DRILLER: Bunge Corporation (Brian Bunge)

DRILLING METHOD: 6" 1/4 bit with driven 7" OG casing

DATE: March 31, 1989



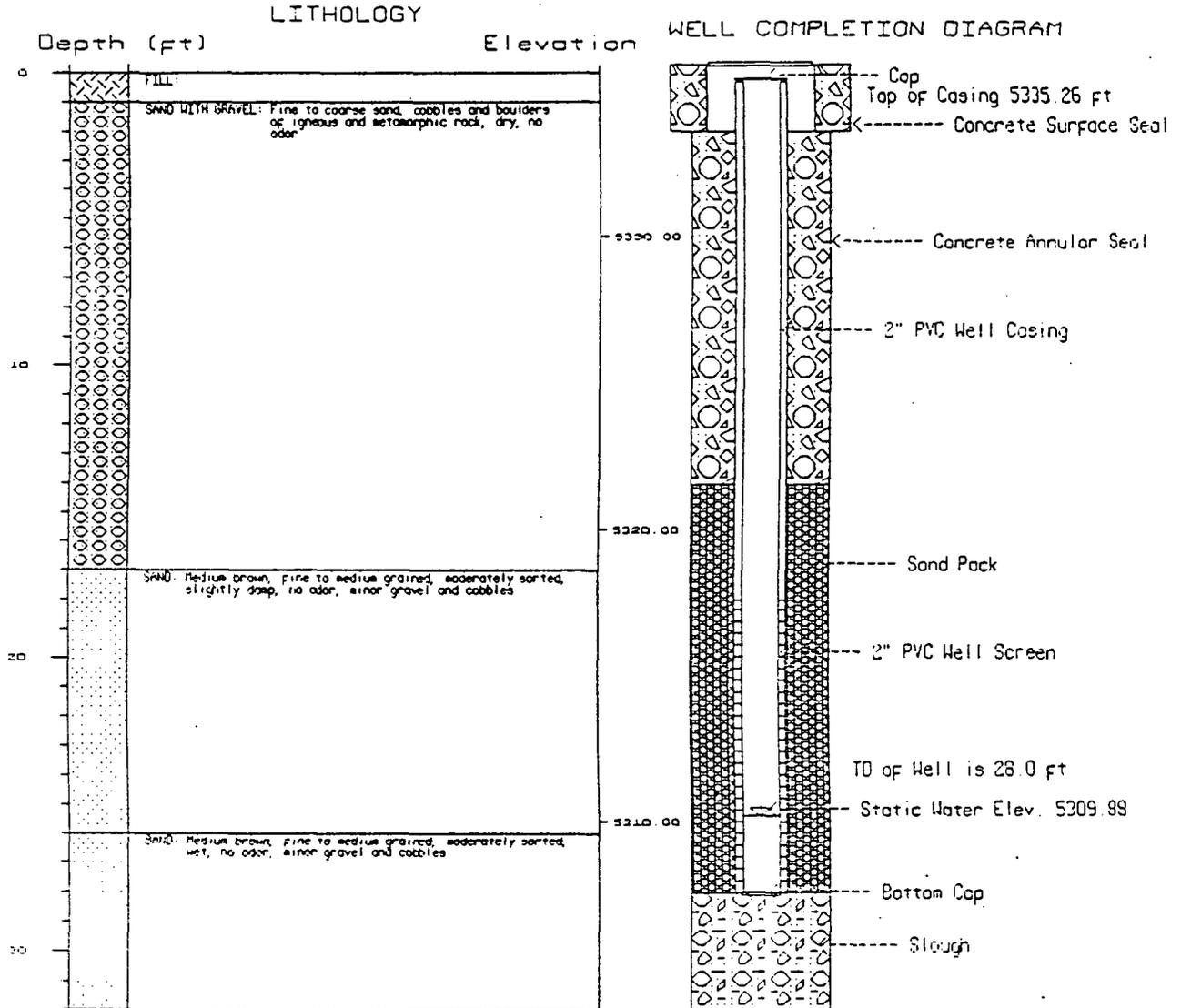
MONITOR WELL 924FNM-2

LOCATION: T29N, R13W, Sec 14, NW1/4 SW1/4 SE1/4 SE1/4
(ddcb), 441' N, 264' E of SW corner of property

WELL OWNER: Dowell Schlumberger Incorporated

DRILLER: Burge Corrosion (Brian Burgel)
DRILLING METHOD: 6" 1/4 bit with driven 7" 00 casing
DATE: April 1, 1999

CASING: Schedule 40 PVC
SCREEN SLOT SIZE: 0.010 inch
SAND PACKING: 12/20 mesh
WATER TABLE ELEVATION: 5309.88 (4/6/89)
GROUND ELEVATION: 5335.59



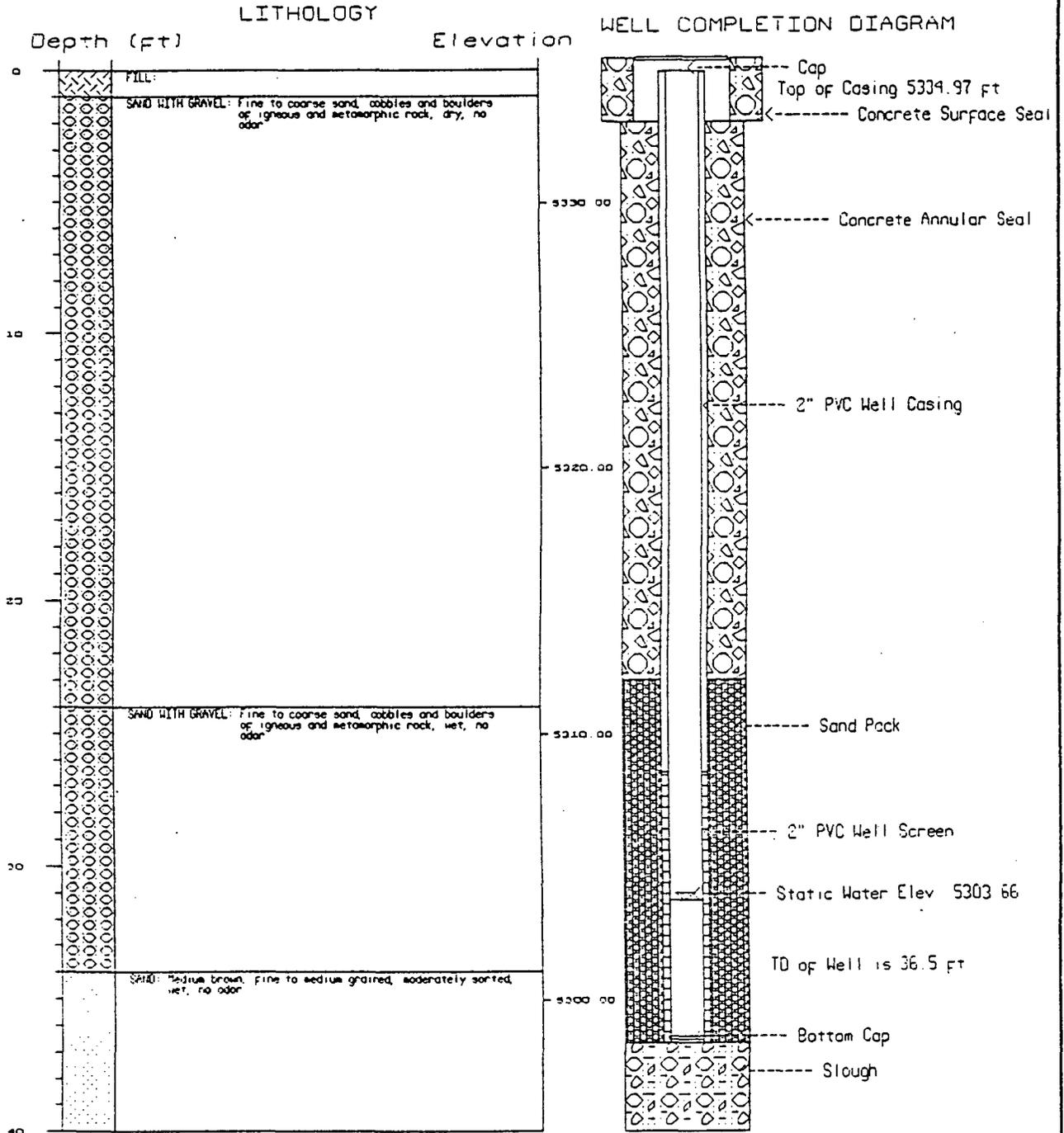
MONITOR WELL 924FNM-3

LOCATION: T29N, R13W, Sec 19, SW1/4 SW1/4 SE1/4 SE1/4
 (ddcc), 294' N, 271' E of SW corner of property

DRILLER: Burge Corrosion (Brian Burge)
 DRILLING METHOD: 6" 1/4 bit with driven 7" OD casing
 DATE: April 3, 1989

WELL OWNER: Dowell Schlumberger Incorporated

CASING: Schedule 40 PVC
 SCREEN SLOT SIZE: 0.010 inch
 SAND PACKING: 12/20 mesh
 WATER TABLE ELEVATION: 5303.66 (4/6/89)
 GROUND ELEVATION: 5335.06



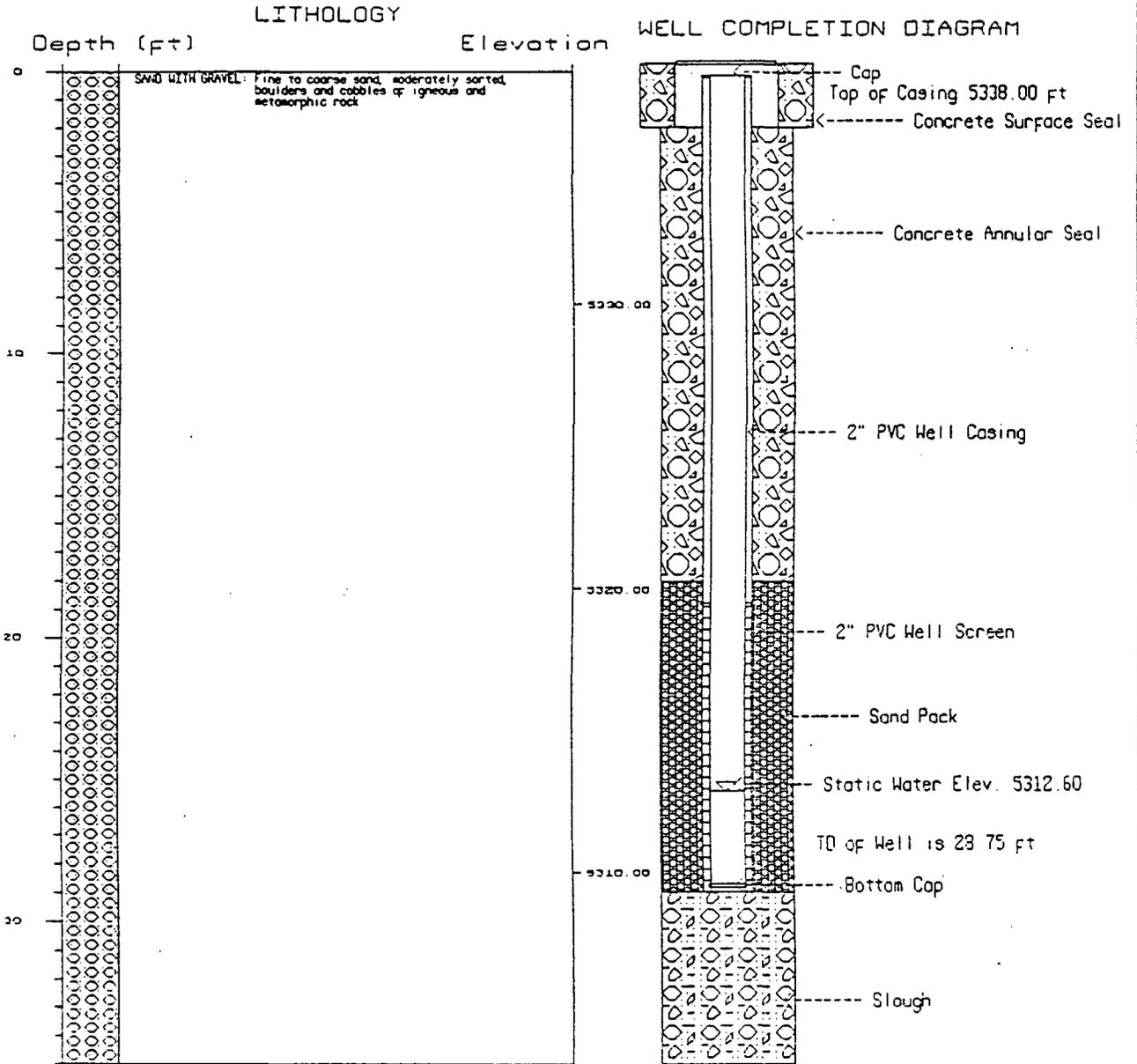
MONITOR WELL 924FNM-4

LOCATION: T29N, R13W, Sec 14, NW1/4 SW1/4 SE1/4 SE1/4
(ddbb), 745' N, 18' E of SW corner of property

WELL OWNER: Dowell Schlumberger Incorporated

DRILLER: Burge Corrosion (Brian Burge)
DRILLING METHOD: 6" 1/4 bit with driven 7" OD casing
DATE: April 3, 1999

CASING: Schedule 40 PVC
SCREEN SLOT SIZE: 0.010 inch
SAND PACKING: 12/20 mesh
WATER TABLE ELEVATION: 5312.60 (4/6/89)
GROUND ELEVATION: 5338.26



MONITOR WELL 924FNM-5

LOCATION: T29N, R13W, Sec 14, NW1/4 SW1/4 SE1/4 SE1/4 (ddbb), 755' N, 201' E of SW corner of property

WELL OWNER: Dowell Schlumberger Incorporated

DRILLER: Burge Corrasion (Brian Burgel)

DRILLING METHOD: 6" 1/4 bit with driven 7" OD casing

DATE: April 9, 1989

CASING: Schedule 40 PVC

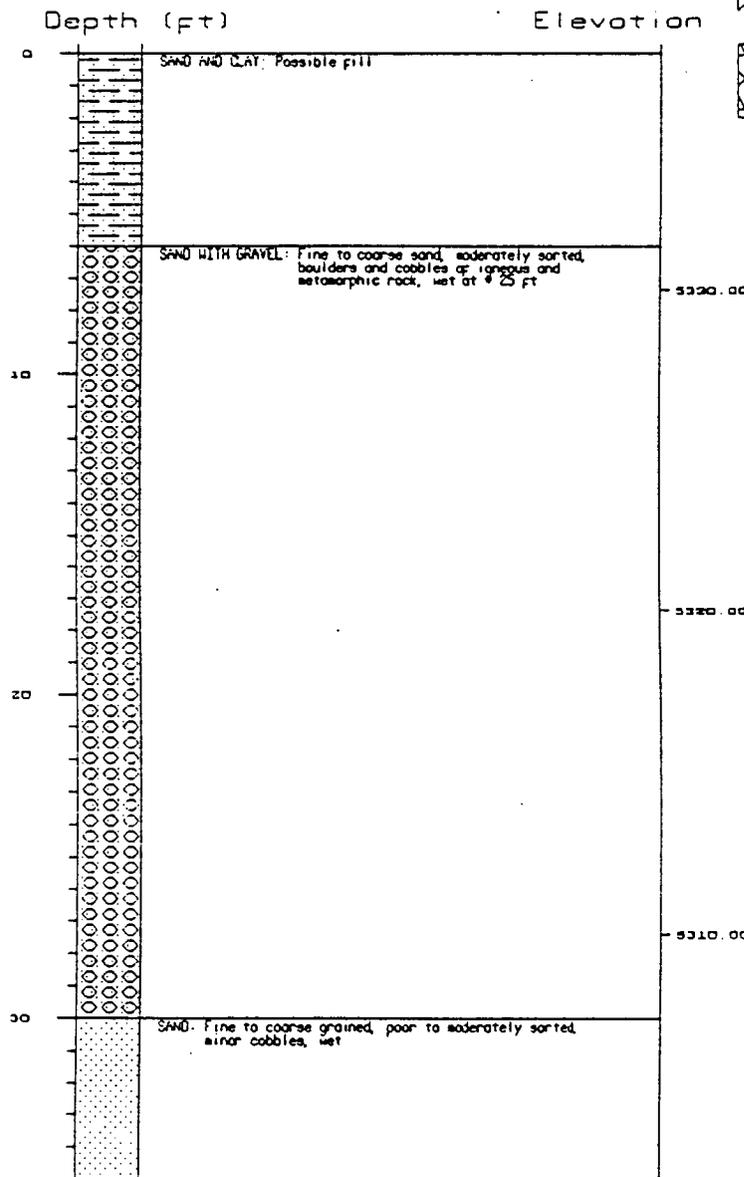
SCREEN SLOT SIZE: 0.010 inch

SAND PACKING: 12/20 mesh

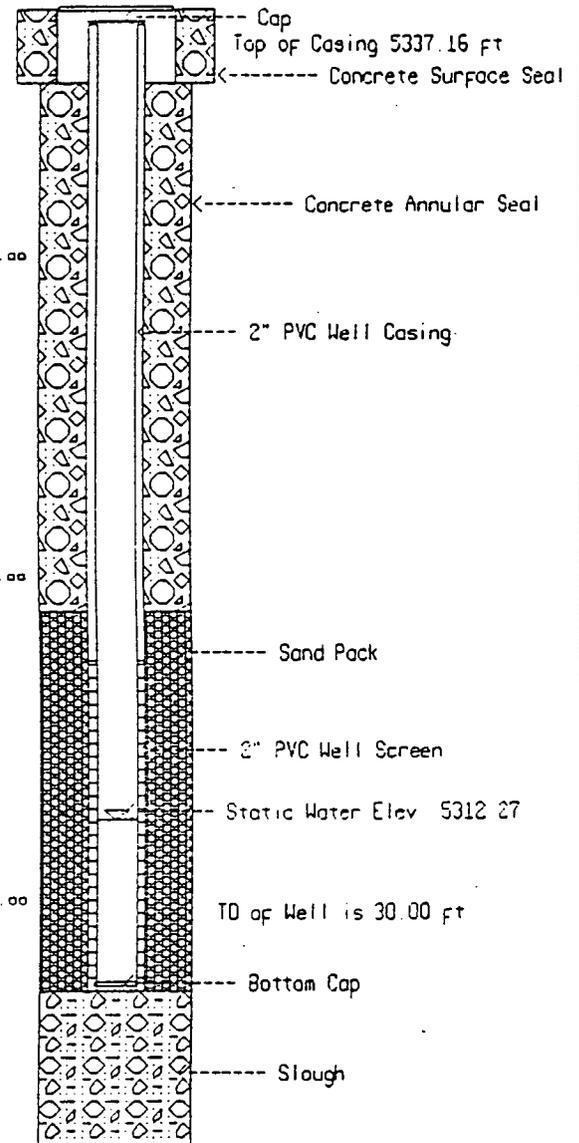
WATER TABLE ELEVATION: 5312.27 (4/6/89)

GROUND ELEVATION: 5337.37

LITHOLOGY



WELL COMPLETION DIAGRAM



MONITOR WELL 924FNM-6

LOCATION: T29N, R13W, Sec 14, SW1/4 SW1/4 SE1/4 SE1/4
(ddcc), 37' N, 172' E of SW corner of property

WELL OWNER: Dowell Schlumberger Incorporated

DRILLER: Burge Corrosion (Brian Burge)

DRILLING METHOD: 6" 1/4 bit with driven 7" OD casing

DATE: April 5, 1999

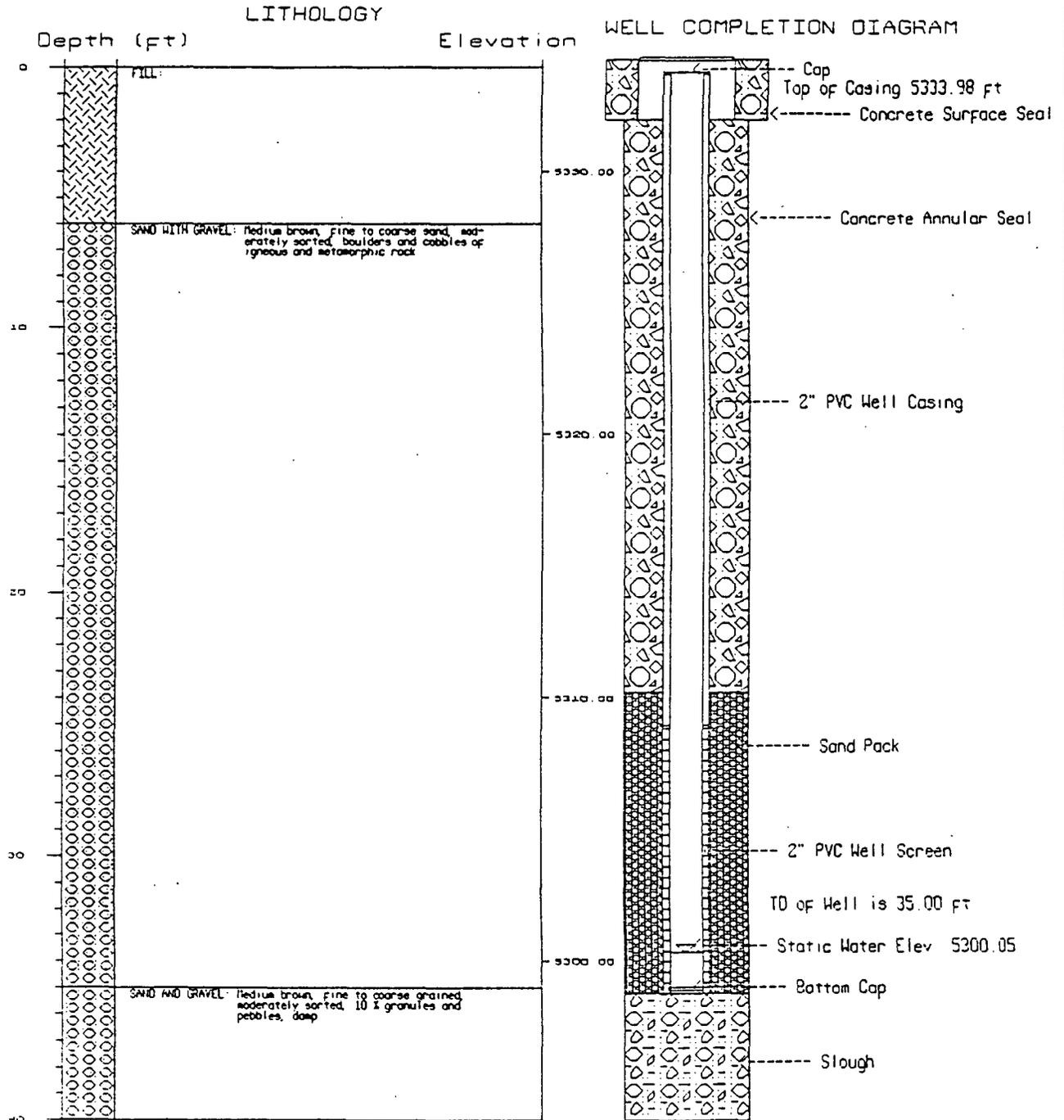
CASING: Schedule 40 PVC

SCREEN SLOT SIZE: 0.010 inch

SAND PACKING: 12/20 mesh

WATER TABLE ELEVATION: 5300.05 (4/6/99)

GROUND ELEVATION: 5333.98



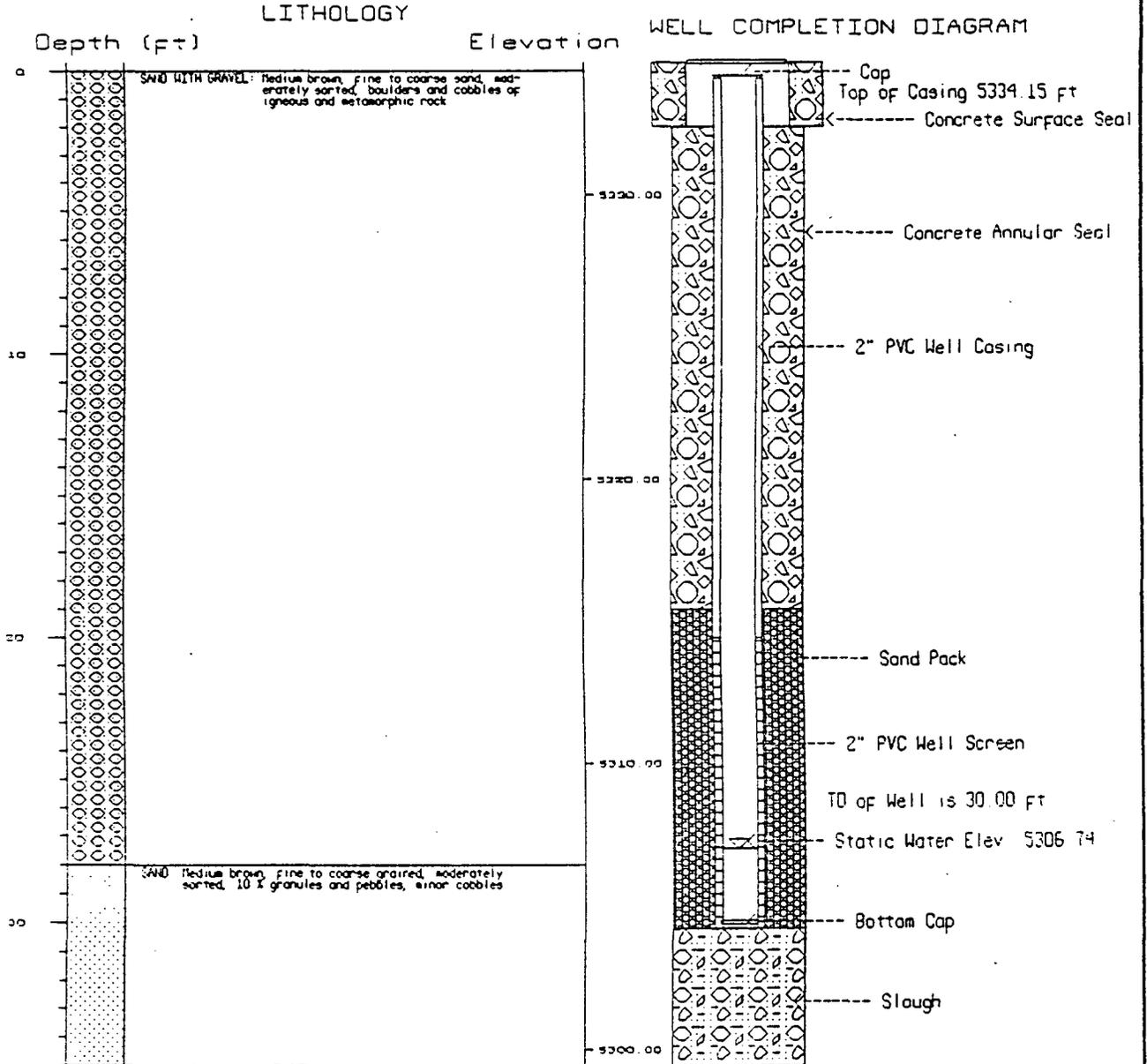
MONITOR WELL 924FNM-7

LOCATION: T29N, R13W, Sec 14, NW1/4 SW1/4 SE1/4 SE1/4 (ddbb), 428' N, 145' E of SW corner of property

WELL OWNER: Dowell Schlumberger Incorporated

DRILLER: Burge Corrosion (Brian Burgel)
 DRILLING METHOD: 6" 1/4 bit with driven 7" OD casing
 DATE: April 5, 1989

CASING: Schedule 40 PVC
 SCREEN SLOT SIZE: 0.010 inch
 SAND PACKING: 12/20 mesh
 WATER TABLE ELEVATION: 5306.74 (4/6/89)
 GROUND ELEVATION: 5334.43



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File 89-024.D

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 89024-1.8/97
Laboratory ID: C97-47595
Matrix: Water
Dilution Factor: 2

FNM-1

Date Sampled: 08/13/97
Date Received: 08/19/97
Date Analyzed: 08/19/97
Date Reported: August 28, 1997

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

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: **Western Water Consultants**
 Sample ID: 89024-1.8/97
 Laboratory ID: C97-47595

FNM-1

Date Sampled: 08/13/97
 Date Analyzed: 08/19/97
 Date Reported: August 28, 1997

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

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1089848	989536	110%	50 - 200 %
Fluorobenzene	1963859	1846097	106%	50 - 200 %
1,4 - Difluorobenzene	1900924	1732497	110%	50 - 200 %
Chlorobenzene - d5	1381555	1288776	107%	50 - 200 %
1,4 - Dichlorobenzene - d4	564539	557894	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.71	97.1%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.82	98.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

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

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MAILING: P.O. BOX 3258 • CASPER, WY 82602

E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260Client: **Western Water Consultants**
Sample ID: 89024-3.8/97
Laboratory ID: C97-47596
Matrix: Water
Dilution Factor: 1

FNM-3

Date Sampled: 08/13/97
Date Received: 08/19/97
Date Analyzed: 08/19/97
Date Reported: August 28, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	1,1 - Dichloroethene	ND		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	1,1 - Dichloroethane	ND		1.0
78-93-3	2 -Butanone (MEK)	ND		10.0
156-59-2	cis - 1,2 - Dichloroethene	0.41	J	1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	1.62		1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	1,1,1 - Trichloroethane	0.53	J	1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	Benzene	ND		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	0.76	J	1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	Tetrachloroethene	3.13		1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

ND - Analyte not detected at stated limit of detection

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



EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 89024-3.8/97
Laboratory ID: C97-47596

FNM-3

Date Sampled: 08/13/97
Date Analyzed: 08/19/97
Date Reported: August 28, 1997

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

ND - Analyte not detected at stated limit of detection

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

RUNTIME QUALITY ASSURANCE REPORT

<u>INTERNAL STANDARDS</u>	<u>AREA</u>	<u>ICAL / CCAL</u> <u>AREA</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>ACCEPTANCE</u> <u>RANGE</u>
Pentafluorobenzene	893081	989536	90.3%	50 - 200 %
Fluorobenzene	1693721	1846097	91.7%	50 - 200 %
1,4 - Difluorobenzene	1589531	1732497	91.7%	50 - 200 %
Chlorobenzene - d5	1142380	1288776	88.6%	50 - 200 %
1,4 - Dichlorobenzene - d4	434968	557894	78.0%	50 - 200 %

<u>SYSTEM MONITORING COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>ACCEPTANCE</u> <u>RANGE</u>
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.70	97.0%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

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

**ENERGY LABORATORIES, INC.**

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EPA METHOD 8260

Client: **Western Water Consultants**
 Sample ID: 89024-6.8/97
 Laboratory ID: C97-47597
 Matrix: Water
 Dilution Factor: 1

FNM-6

Date Sampled: 08/13/97
 Date Received: 08/19/97
 Date Analyzed: 08/19/97
 Date Reported: August 28, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND		1.0
74-87-3	Chloromethane	ND		1.0
75-01-4	Vinyl chloride (Chloroethene)	ND		1.0
74-83-9	Bromomethane	ND		1.0
75-00-3	Chloroethane	ND		1.0
75-69-4	Trichlorofluoromethane	ND		1.0
75-35-4	1,1 - Dichloroethene	ND		1.0
75-09-2	Methylene chloride (Dichloromethane)	ND		1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND		1.0
75-34-3	1,1 - Dichloroethane	ND		1.0
78-93-3	2 -Butanone (MEK)	ND		10.0
156-59-2	cis - 1,2 - Dichloroethene	ND		1.0
74-97-5	Bromochloromethane	ND		1.0
67-66-3	Chloroform (Trichloromethane)	0.97	J	1.0
594-20-7	2,2 - Dichloropropane	ND		1.0
71-55-6	1,1,1 - Trichloroethane	ND		1.0
107-06-2	1,2 - Dichloroethane	ND		1.0
563-58-6	1,1 - Dichloropropene	ND		1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND		1.0
71-43-2	Benzene	ND		1.0
74-95-3	Dibromomethane	ND		1.0
78-87-5	1,2 - Dichloropropane	ND		1.0
79-01-6	Trichloroethene	ND		1.0
75-27-4	Bromodichloromethane	ND		1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND		1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND		1.0
79-00-5	1,1,2 - Trichloroethane	ND		1.0
108-88-3	Toluene	ND		1.0
106-93-4	1,2 - Dibromoethane	ND		1.0
142-28-9	1,3 - Dichloropropane	ND		1.0
124-48-1	Dibromochloromethane	ND		1.0
127-18-4	Tetrachloroethene	0.96	J	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND		1.0
108-90-7	Chlorobenzene	ND		1.0
100-41-4	Ethylbenzene	ND		1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND		2.0
75-25-2	Bromoform (Tribromomethane)	ND		1.0
100-42-5	Styrene (Ethenylbenzene)	ND		1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND		1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND		1.0
96-18-4	1,2,3 - Trichloropropane	ND		1.0

*ND - Analyte not detected at stated limit of detection**J - Meets Mass Spectral identification criteria but result is below established detection limit*



EPA METHOD 8260

Client: **Western Water Consultants**
 Sample ID: 89024-6.8/97
 Laboratory ID: C97-47597

FAM-6

Date Sampled: 08/13/97
 Date Analyzed: 08/19/97
 Date Reported: August 28, 1997

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

ND - Analyte not detected at stated limit of detection

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

RUNTIME QUALITY ASSURANCE REPORT

<u>INTERNAL STANDARDS</u>	<u>AREA</u>	<u>ICAL / CCAL</u> <u>AREA</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>ACCEPTANCE</u> <u>RANGE</u>
Pentafluorobenzene	915902	989536	92.6%	50 - 200 %
Fluorobenzene	1642815	1846097	89.0%	50 - 200 %
1,4 - Difluorobenzene	1549031	1732497	89.4%	50 - 200 %
Chlorobenzene - d5	1118376	1288776	86.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	433209	557894	77.7%	50 - 200 %

<u>SYSTEM MONITORING COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>ACCEPTANCE</u> <u>RANGE</u>
Dibromofluoromethane	9.67	96.7%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.75	97.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.92	99.2%	80 - 120 %

REFERENCES

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

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EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 89024-7.8/97
Laboratory ID: C97-47598
Matrix: Water
Dilution Factor: 1

FAM-7

Date Sampled: 08/13/97
Date Received: 08/19/97
Date Analyzed: 08/19/97
Date Reported: August 28, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	1.06	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: **Western Water Consultants**
 Sample ID: 89024-7.8/97
 Laboratory ID: C97-47598

FNM-7

Date Sampled: 08/13/97
 Date Analyzed: 08/19/97
 Date Reported: August 28, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	2.47	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	827937	989536	83.7%	50 - 200 %
Fluorobenzene	1507871	1846097	81.7%	50 - 200 %
1,4 - Difluorobenzene	1444477	1732497	83.4%	50 - 200 %
Chlorobenzene - d5	1079932	1288776	83.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	446472	557894	80.0%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.83	98.3%	86 - 118 %
Toluene - d8	10.3	103%	88 - 110 %
4 - Bromofluorobenzene	10.3	103%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

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

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EPA METHOD 8260

Client: **Western Water Consultants**
 Sample ID: 89024-A.8/97
 Laboratory ID: C97-47599
 Matrix: Water
 Dilution Factor: 1

Date Sampled: 08/13/97
 Date Received: 08/19/97
 Date Analyzed: 08/19/97
 Date Reported: August 28, 1997

*Duplicate of
 FNM-7*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	0.92	J 1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

*ND - Analyte not detected at stated limit of detection**J - Meets Mass Spectral identification criteria but result is below established detection limit*



EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 89024-A.8/97
Laboratory ID: C97-47599

*Duplicate of
FNM-7*

Date Sampled: 08/13/97
Date Analyzed: 08/19/97
Date Reported: August 28, 1997

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	2.17	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

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

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1070868	989536	108%	50 - 200 %
Fluorobenzene	1912810	1846097	104%	50 - 200 %
1,4 - Difluorobenzene	1838360	1732497	106%	50 - 200 %
Chlorobenzene - d5	1323795	1288776	103%	50 - 200 %
1,4 - Dichlorobenzene - d4	534380	557894	95.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.50	95.0%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

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

**ENERGY LABORATORIES, INC.**

SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601

MAILING: P.O. BOX 3258 • CASPER, WY 82602

E-mail: energy@trib.com • FAX: (307) 234 - 1639 • PHONE: (307) 235 - 0515 • TOLL FREE: (888) 235 - 0515

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: Trip Blank
Laboratory ID: C97-47600
Matrix: Water
Dilution Factor: 1

Date Sampled: N/A
Date Received: 08/19/97
Date Analyzed: 08/19/97
Date Reported: August 28, 1997

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

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: **Western Water Consultants**
 Sample ID: Trip Blank
 Laboratory ID: C97-47600

Date Sampled: N/A
 Date Analyzed: 08/19/97
 Date Reported: August 28, 1997

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

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1050292	989536	106%	50 - 200 %
Fluorobenzene	1886520	1846097	102%	50 - 200 %
1,4 - Difluorobenzene	1831364	1732497	106%	50 - 200 %
Chlorobenzene - d5	1312696	1288776	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	538916	557894	96.6%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	9.92	99.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4%	80 - 120 %

REFERENCES

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



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EPA METHOD 8260

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

Client: Western Water Consultants
Sample Set: C97-47595 through C97-47599
Laboratory ID: C97-47595 S
Matrix: Water

Date Sampled: 08/13/97
Date Received: 08/19/97
Date Analyzed: 08/19/97
Date Reported: August 28, 1997

INTERNAL STANDARDS

	ICAL / CCAL AREA	SPIKED SAMPLE AREA	%	SPIKE DUPLICATE AREA	%	ACCEPTANCE RANGE
Pentafluorobenzene	989536	1008315	102%	1004477	102%	50 - 200 %
Fluorobenzene	1846097	1849604	100%	1864842	101%	50 - 200 %
1,4 - Difluorobenzene	1732497	1789805	103%	1802074	104%	50 - 200 %
Chlorobenzene - d5	1288776	1299051	101%	1328553	103%	50 - 200 %
1,4 - Dichlorobenzene-d4	557894	539180	96.6%	564843	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS

	SPIKED SAMPLE CONCENTRATION	PERCENT RECOVERY	SPIKE DUPLICATE CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104%	10.8	108%	86 - 118 %
Toluene - d8	10.0	100%	9.93	99.3%	88 - 110 %
4 - Bromofluorobenzene	9.86	98.6%	10.2	102%	86 - 115 %
1,2 - Dichlorobenzene-d4	9.82	98.2%	9.89	98.9%	80 - 120 %

SPIKED SAMPLE RESULTS

	SPIKED SAMPLE ORIG. CONC. CONCENTRATION	(µg/L) *	SPIKE AMOUNT (µg/L)	PERCENT RECOVERY	ACCEPTANCE RANGE
Vinyl chloride	10.1	ND	10.0	101%	80 - 120 %
1,1 - Dichloroethene	11.0	ND	10.0	110%	80 - 120 %
2 - Butanone (MEK)	11.5	ND	10.0	115%	80 - 120 %
Chloroform	11.8	ND	10.0	118%	80 - 120 %
1,2 - Dichloroethane	11.8	ND	10.0	118%	80 - 120 %
Carbon tetrachloride	11.3	ND	10.0	113%	80 - 120 %
Benzene	11.4	ND	10.0	114%	80 - 120 %
Trichloroethene	11.5	ND	10.0	115%	80 - 120 %
Tetrachloroethene	11.1	ND	10.0	111%	80 - 120 %
Chlorobenzene	11.9	ND	10.0	119%	80 - 120 %
1,4 - Dichlorobenzene	11.8	ND	10.0	118%	80 - 120 %

SPIKE DUPLICATE SAMPLE RESULTS

* Concentration does not include dilution correction

	SPIKE DUP CONCENTRATION	ORIG. CONC. (µg/L) *	SPIKE (µg/L)	PERCENT RECOVERY	RPD	RPD LIMITS
Vinyl chloride	10.3	ND	10.0	103%	1.5%	10 %
1,1 - Dichloroethene	11.2	ND	10.0	112%	1.9%	10 %
2 - Butanone (MEK)	11.9	ND	10.0	119%	3.2%	10 %
Chloroform	11.8	ND	10.0	118%	0.3%	10 %
1,2 - Dichloroethane	11.6	ND	10.0	116%	1.0%	10 %
Carbon tetrachloride	11.6	ND	10.0	116%	1.9%	10 %
Benzene	11.5	ND	10.0	115%	1.1%	10 %
Trichloroethene	11.6	ND	10.0	116%	1.0%	10 %
Tetrachloroethene	10.9	ND	10.0	109%	1.4%	10 %
Chlorobenzene	11.5	ND	10.0	115%	3.4%	10 %
1,4 - Dichlorobenzene	11.9	ND	10.0	119%	1.2%	10 %

MATRIX SPIKE: 0 of 22 Matrix Spike results are outside of established QC Limits

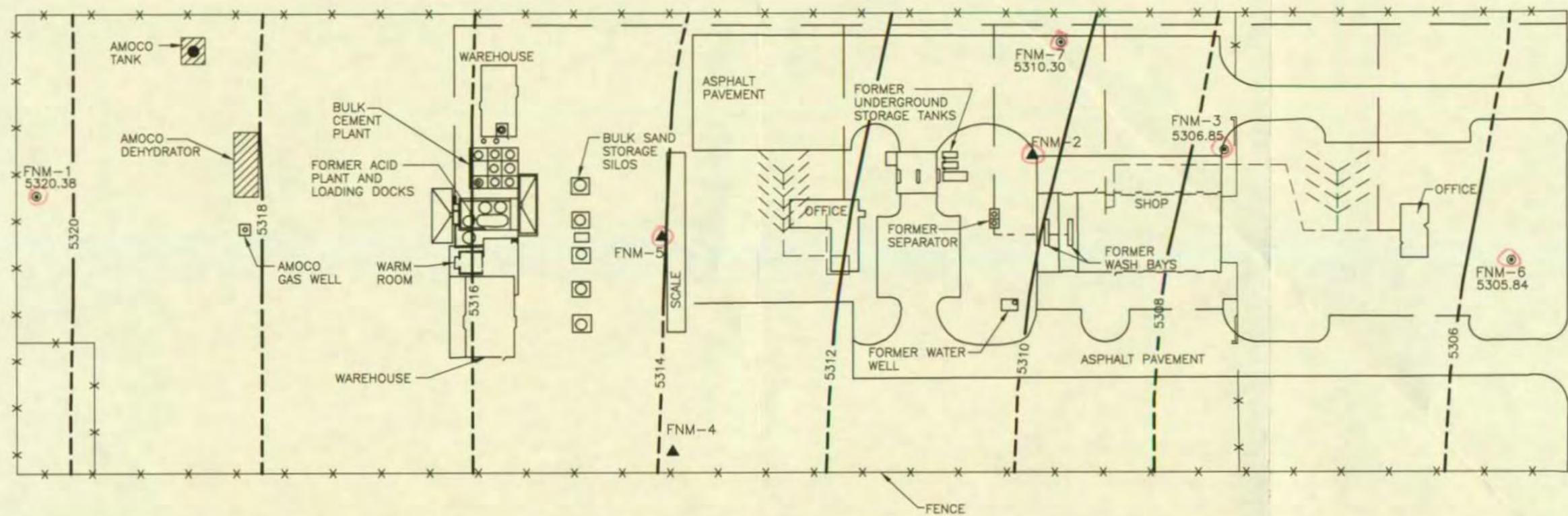
MATRIX SPIKE DUPLICATE: 0 of 11 Matrix Spike Duplicate results are outside of established QC Limits

Report Approved By:

Report File: \\ELI_CA\SYSTEMS\REPORTS\97_47595.xls

Analyst: yw
 Reviewed: sec

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EXPLANATION	
	FNM-1 MONITORING WELL LOCATION AND IDENTIFICATION
	FNM-4 ABANDONED MONITORING WELL (8/26/92)
	POTENTIOMETRIC SURFACE CONTOURS FOR 8/13/97 (DASHED WHERE INFERRED)



0 100 FT.
SCALE

FIGURE 1

SITE MAP

DOWELL, A DIVISION OF
SCHLUMBERGER TECHNOLOGY CORPORATION
FARMINGTON, NEW MEXICO

Western Water Consultants, Inc. WWC Engineering

Engineering Environmental Mining Water Resources