BW - _____

GENERAL CORRESPONDENCE

YEAR(S):

2006-1996

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Tuesday, July 25, 2006 3:18 PM
To: 'eugene@plateautel.net'
Cc: Gum, Tim, EMNRD
Subject: Brine well Permit BW-06 has expired
Attachments: DP_BEF.rtf

Dear Mr. Irby:

Please complete the attached form and submit with a $100 filing fee made out to the Water Quality Management fund. In addition, please make arrangements to pressure test your brine well and cavern using nitrogen during the week of August 14, 2006. Sufficient nitrogen shall be placed in the well to displace all of the water to below the casing shoe. The test pressure shall be 300 psig held for 4 hours. The nitrogen shall be injected at approximately formation temperature i.e. 60 F. A pressure gauge and recently calibrated pressure recording chart shall be provided on the casing. The pressure recorder shall be calibrated for a maximum range of 500 psig and a 500 psig chart shall be used. The clock on the recorder shall be set at 8 or 12 hours.

Please note, it is the responsibility of the operator to make sure test pressures will not fracture or damage the salt formation. OCD used a conservative frac gradient of .7 psi/ft x 456 feet = 319 psi. If the operator is concerned about the proposed test pressure please notify OCD immediately.

Please submit the brine well renewal application within 10 days and notify this office 3 working days in advance of the test so OCD may witness.

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Tuesday, July 25, 2006 3:18 PM
To: 'eugene@plateautel.net'
Cc: Gum, Tim, EMNRD
Subject: Brine well Permit BW-06 has expired
Attachments: DP_BEF.rtf

Dear Mr. Irby:

Please complete the attached form and submit with a $100 filing fee made out to the Water Quality Management fund. In addition, please make arrangements to pressure test your brine well and cavern using nitrogen during the week of August 14, 2006. Sufficient nitrogen shall be placed in the well to displace all of the water to below the casing shoe. The test pressure shall be 300 psig held for 4 hours. The nitrogen shall be injected at approximately formation temperature i.e. 60 F. A pressure gauge and recently calibrated pressure recording chart shall be provided on the casing. The pressure recorder shall be calibrated for a maximum range of 500 psig and a 500 psig chart shall be used. The clock on the recorder shall be set at 8 or 12 hours.

Please note, it is the responsibility of the operator to make sure test pressures will not fracture or damage the salt formation. OCD used a conservative frac gradient of .7 psi/ft x 456 feet = 319 psi. If the operator is concerned about the proposed test pressure please notify OCD immediately.

Please submit the brine well renewal application within 10 days and notify this office 3 working days in advance of the test so OCD may witness.

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 12/20/01

or cash received on _____ in the amount of $ 100.00

from I & W INC.

for EUGENIE #1 BRINE WELL BW-06

Submitted by: (Facility Name) WAYNE PRICE Data: (OCD No.) 1/11/02

Submitted to ASD by: [signature] Data: "

Received in ASD by: _____ Data: _____

Filing Fee X New Facility ___ Renewal ___

Modification ___ Other _____ (Specify)

Organization Code 521.07 Applicable FY 2002

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increament ___

[redacted]

I. & W, INC.
P.O. BOX 98 505-677-2111
LOCO HILLS, NM 88255

95-198/1122

DATE December 20, 2001

PAY TO THE ORDER OF Oil Conservation Commission $**100.00**

DOLLARS

	Renewal Application	
	Eugenie #1	
	BW-06	

THIS CHECK IS DELIVERED FOR PAYMENT ON THE ACCOUNTS LISTED

[redacted]

Western Bank
ARTESIA, NEW MEXICO 88210

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Revised March 17, 1999

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

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

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

☐ New ☒ Renewal ☐ Modification

1. Type: Discharge Application
2. Operator: I & W, Inc.

   Address: P.O. Box 98 Loco Hills, NM 88255

   Contact Person: Bayless E. Irby Phone: (505) 885-6663

3. Location SW /4 SW /4 Section 17 Township 22S Range 27E
   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.

RECEIVED
JAN 10 2002
Environmental Bureau
Oil Conservation Division

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: Bayless E. Irby Title: Manager

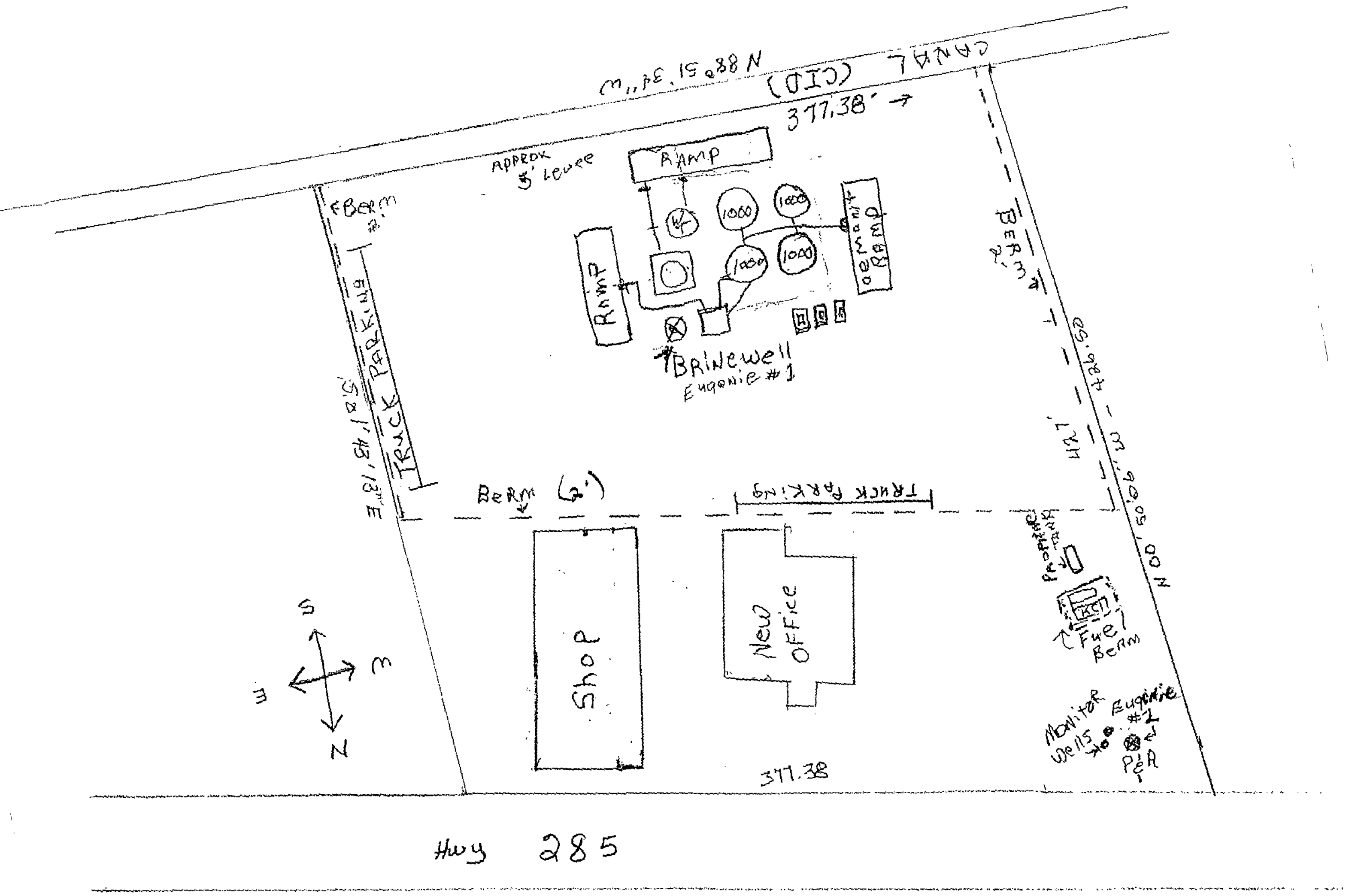
Signature: Bayless E Irby Date: December 20, 2001

?? WHY DID THEY SUBMIT ??

OWNER & LAND OWNER OF BRINE EXTRACTION FACILITY

EUGENIE #1

LOWELL IRBY
505-746-6681
P.O. BOX 98
LOCO HILLS, NM 88255



CANAL (CID)
N 88° 51' 34" W
377.38'
APPROX 5' Levee
RAMP
Ramp
Ramp
1000
1000
1000
1000
BRINEWELL
Eugenie #1
Berm
TRUCK PARKING
E 18' 43" 15.E
Berm (2')
TRUCK PARKING
427'
N 00' 50' 06" W - 426.50
Propane Tank
Fuel Berm
Shop
New Office
S
W
E
N
Monitor Wells
Eugenie #1
P&A
377.38
Hwy 285

HALLIBURTON

CENTRAL OPERATIONS LABORATORY
WATER ANALYSIS REPORT
HOBBS, NEW MEXICO

COMPANY I &W
F/W & Carlsbad

REPORT W01-121
DATE December 4, 2001
DISTRICT Hobbs

SUBMITTED BY

WELL Carlsbad DEPTH FORMATION
COUNTY FIELD SOURCE

SAMPLE				
Sample Temp.	70 °F	°F	°F	°F
RESISTIVITY	15.8			
SPECIFIC GR.	1.001			
pH	7.79			
CALCIUM	450 mpl	mpl	mpl	mpl
MAGNESIUM	390 mpl	mpl	mpl	mpl
CHLORIDE	101 mpl	mpl	mpl	mpl
SULFATES	0 mpl	mpl	mpl	mpl
BICARBONATES	30 mpl	mpl	mpl	mpl
SOLUBLE IRON	0 mpl	mpl	mpl	mpl
Sodium	-1177 mpl	0 mpl	0 mpl	0 mpl
TDS	-206 mpl	0 mpl	0 mpl	0 mpl
OIL GRAVITY	@ °F	@ °F	@ °F	@ °F

REMARKS

MPL = Milligrams per liter
Resitivity measured in Ohm/m2/m

ANALYST: James Bonner, Mike Armstrong

HALLIBURTON

CENTRAL OPERATIONS LABORATORY
WATER ANALYSIS REPORT
HOBBS, NEW MEXICO

COMPANY	I & W	REPORT	W01-122
	Brine	DATE	December 4, 2001
	Euenie # 1 Extraction Facility S. # 17 T.S. 225R27E	DISTRICT	Hobbs

SUBMITTED BY

WELL	Euqenie # 1	DEPTH		FORMATION	
COUNTY		FIELD		SOURCE	

SAMPLE				
Sample Temp.	70 °F	°F	°F	°F
RESISTIVITY				
SPECIFIC GR.	1.201			
pH	6.49			
CALCIUM	2,100 mpl	mpl	mpl	mpl
MAGNESIUM	1,050 mpl	mpl	mpl	mpl
CHLORIDE	281,385 mpl	mpl	mpl	mpl
SULFATES	0 mpl	mpl	mpl	mpl
BICARBONATES	30 mpl	mpl	mpl	mpl
SOLUBLE IRON	0 mpl	mpl	mpl	mpl
Sodium	178122 mpl	0 mpl	0 mpl	0 mpl
TDS	462,687 mpl	0 mpl	0 mpl	0 mpl
OIL GRAVITY	@ °F	@ °F	@ °F	@ °F

REMARKS

MPL = Milligrams per liter
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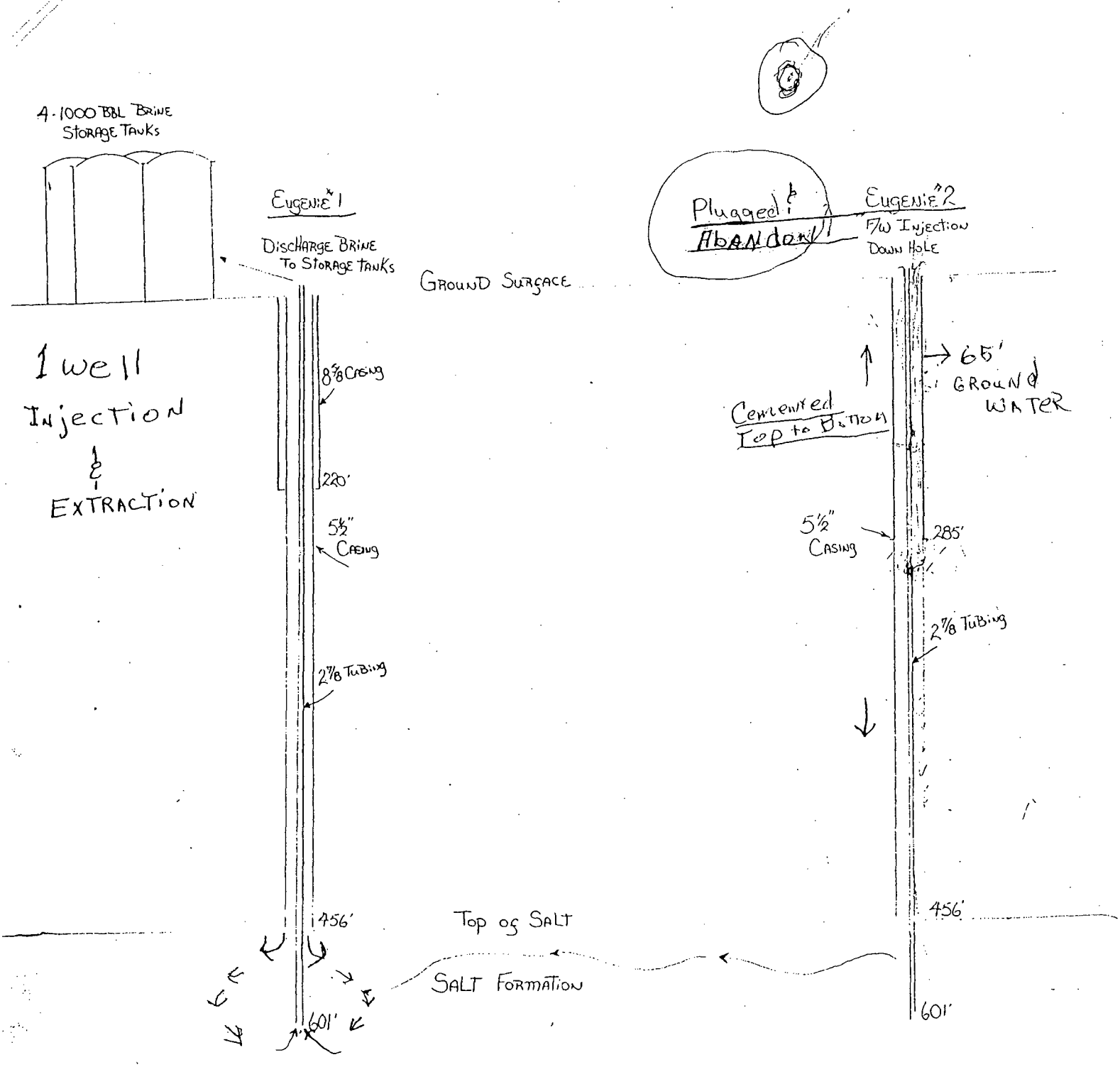
ANALYST: James Bonner,Mike Armstrong

3991



663'

Depth, Diameter Casing & Tubing Specs

Map B

SUB-SURFACE SCHEMATIC DRAWING OF EUGENIE #1 &

SOUTH Y CARLSBAD N.M. 88220

DATE 1/30/00

I & W INC

QUANTITIES

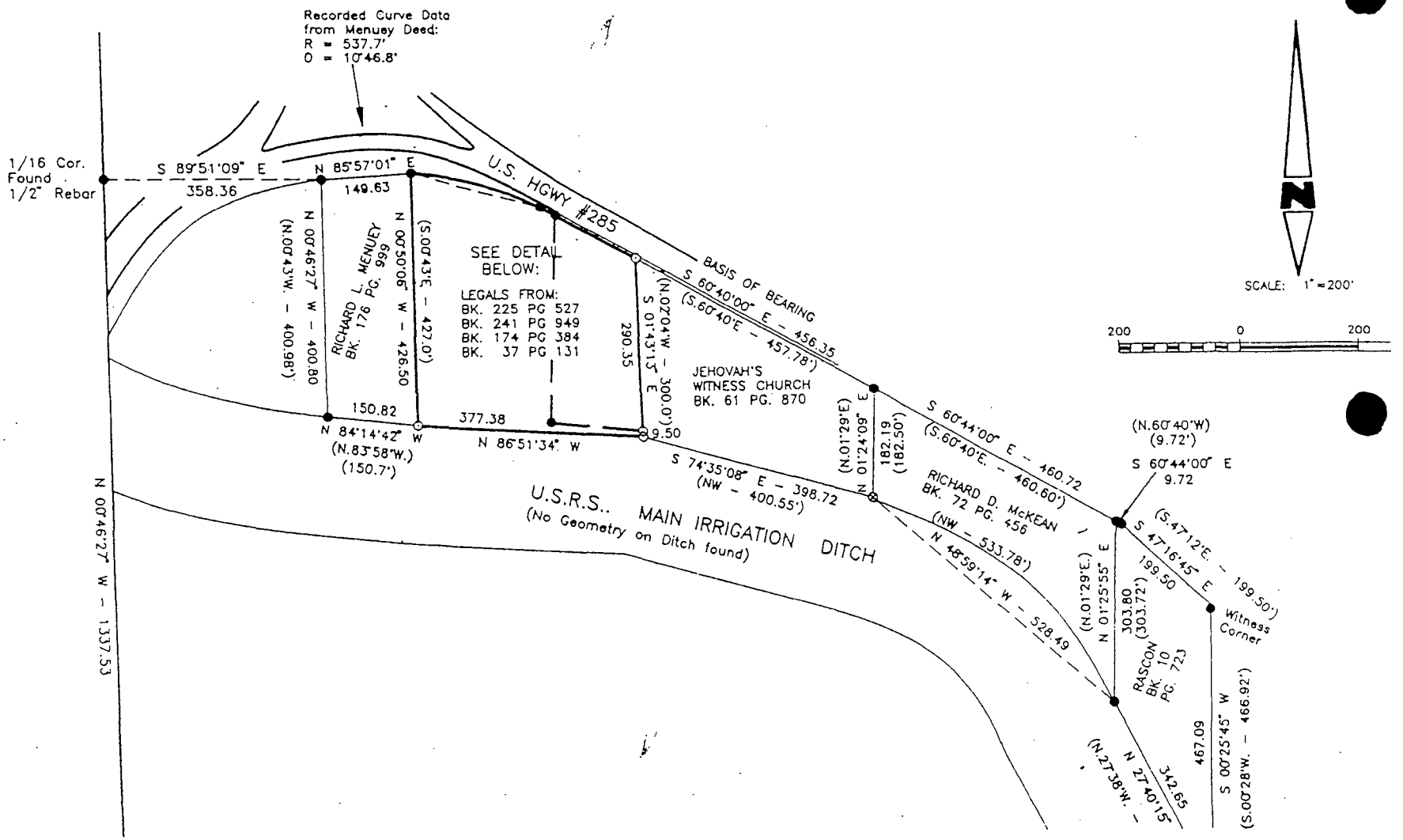
SOURCE: EUGENIE #1 EXTRACTION FACILITY

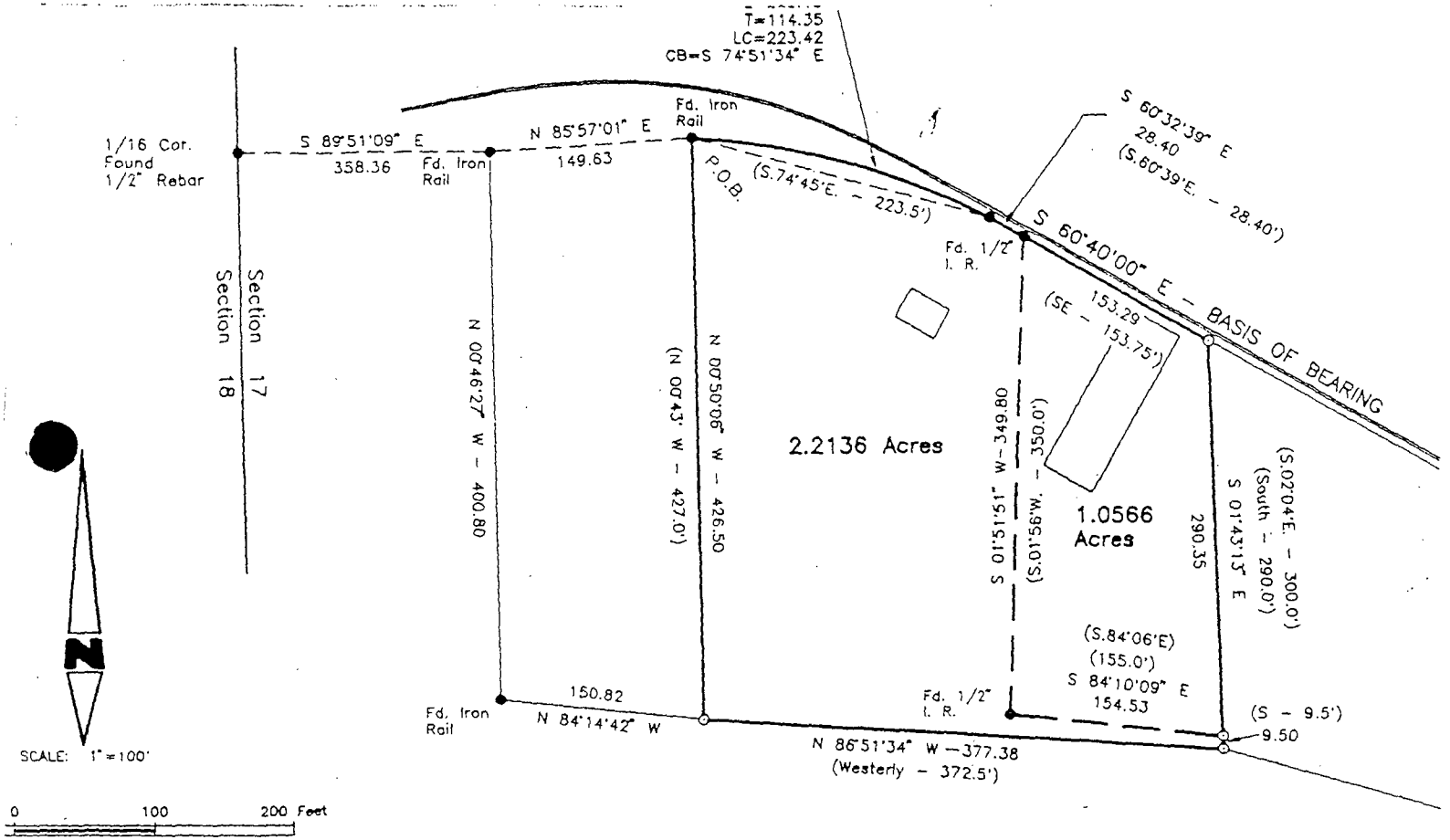
AVERAGE DAILY VOLUME PRODUCED: 200 BBLS/DAY

ESTIMATED VOLUME STORED: 4000 BBLS

TYPE OF CONTAINERS: 4 X 1000 BBL-STEEL TANKS

SECTION 17, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO





LEGAL DESCRIPTION:

A tract of land located in the Southwest quarter of the Southwest quarter of Section 17, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico and being more particularly described as follows:

Beginning at the Northwest corner of this tract, a point being on the South Right of Way line of State Highway No. 285 and a point being S.89°51'09"E., 358.36 feet and N.85°57'01"E., 149.63 feet from a half inch rebar accepted as the Northwest corner of

LEGEND:

- ⊗ Calculated Corner (Not found or set)
- ● Found Corner

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
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2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Revised March 17, 1999

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
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   Address: P.O. Box 98 Loco Hills, NM 88255

   Contact Person: Bayless E. Irby Phone: (505) 885-6663
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Signature: Bayless E Irby Date: December 20, 2001

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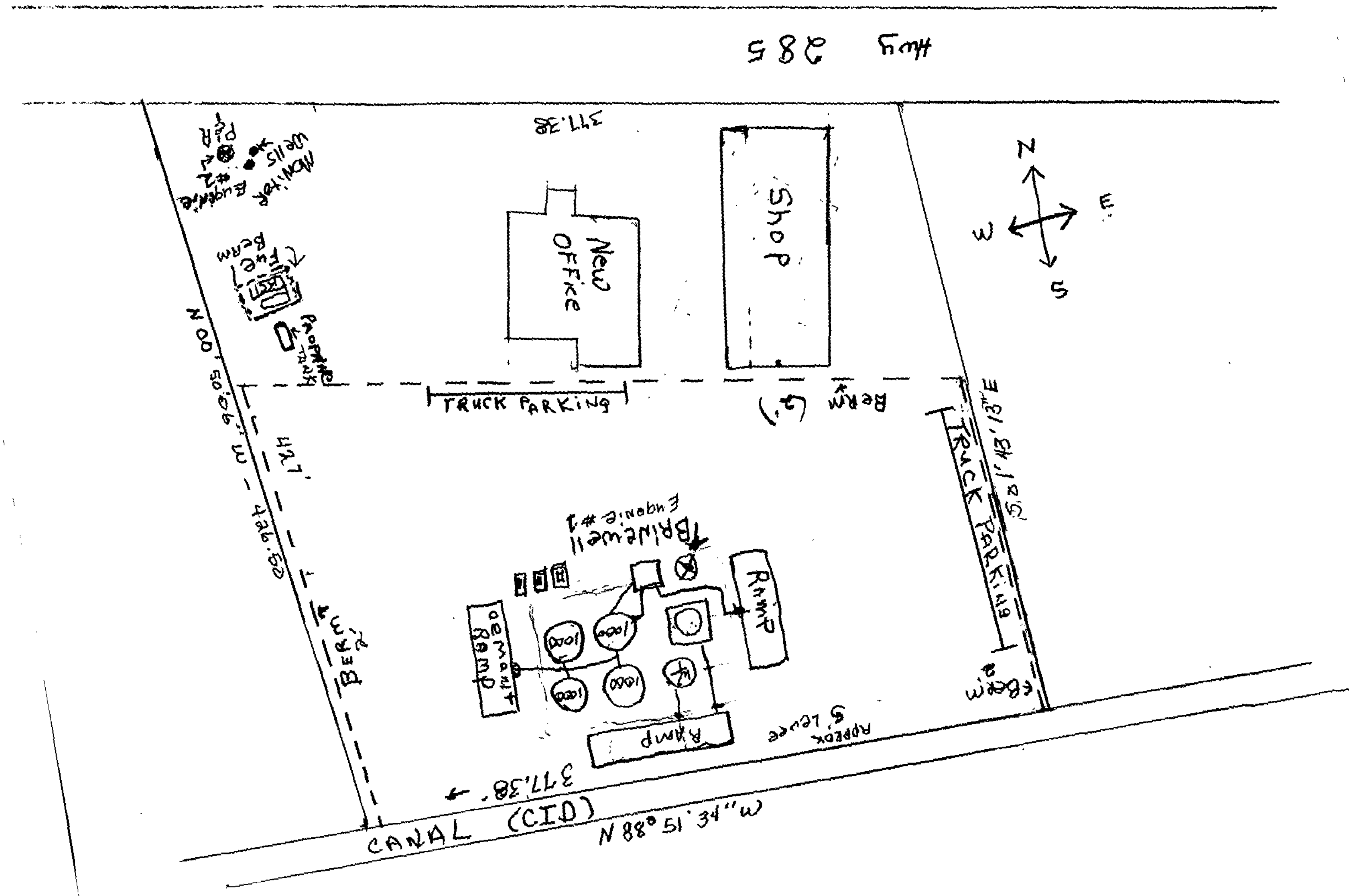
505-746-6681
P.O. BOX 98
LOCO HILLS, NM 88255



Hwy 285
377.38
Monitor Wells
Eugenie #2
P&A
Fuel Berm
Propane Tank
New Office
Shop
N
E
W
S
TRUCK PARKING
Berm (2')
427'
Brinewell
Eugenie #1
Ramp
Permanent Ramp
1000
1000
1000
1000
Berm
TRUCK PARKING
Berm
Approx Levee
Ramp
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HALLIBURTON

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OIL GRAVITY	@ °F	@ °F	@ °F	@ °F

REMARKS

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ANALYST: James Bonner,Mike Armstrong

HALLIBURTON

CENTRAL OPERATIONS LABORATORY
WATER ANALYSIS REPORT
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COMPANY	I & W	REPORT	W01-122
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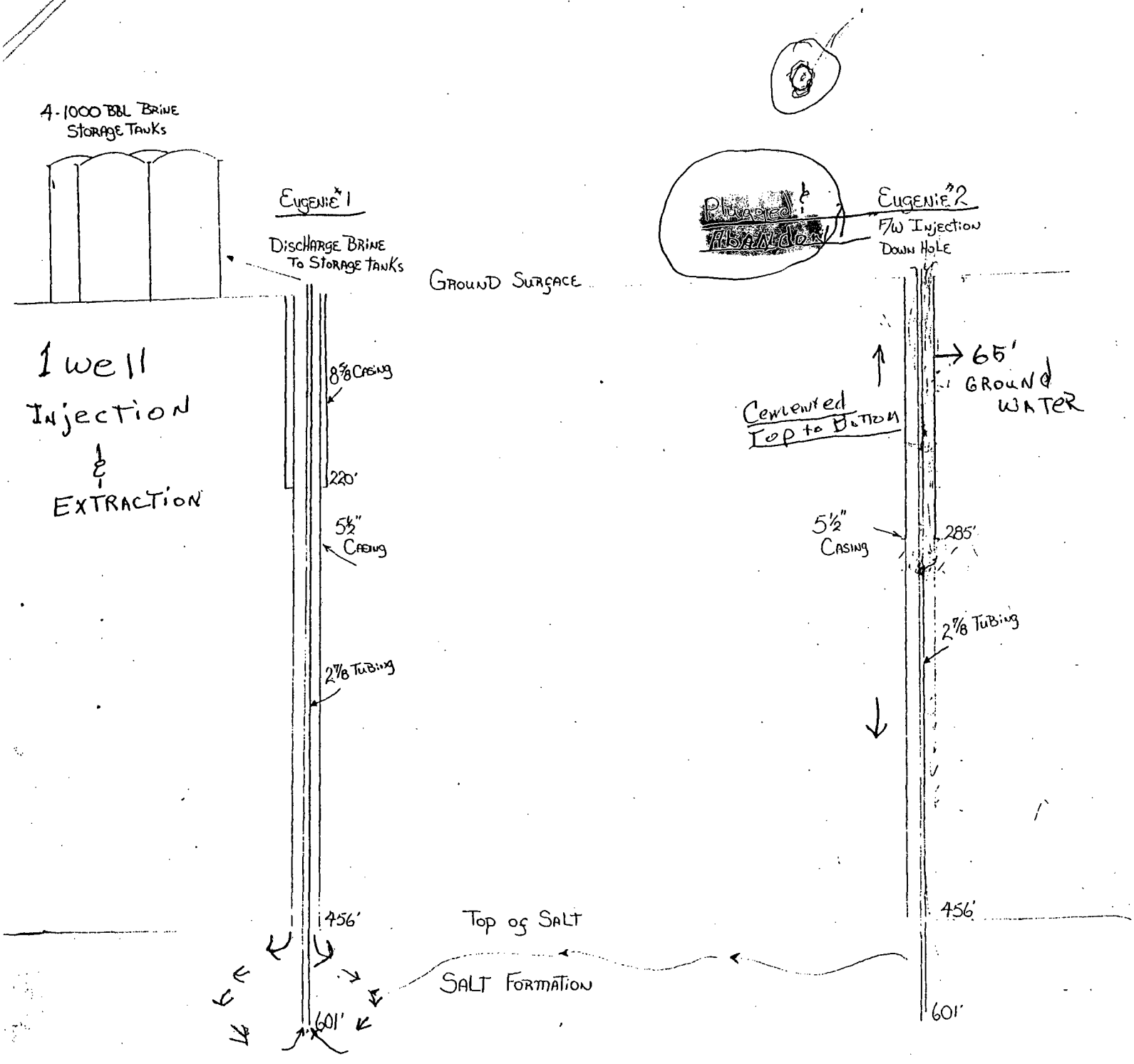

Depth, Diameter Casing & Tubing Spec's

Map B

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DATE 1/30/00

I & W INC

QUANTITIES

SOURCE: EUGENIE #1 EXTRACTION FACILITY

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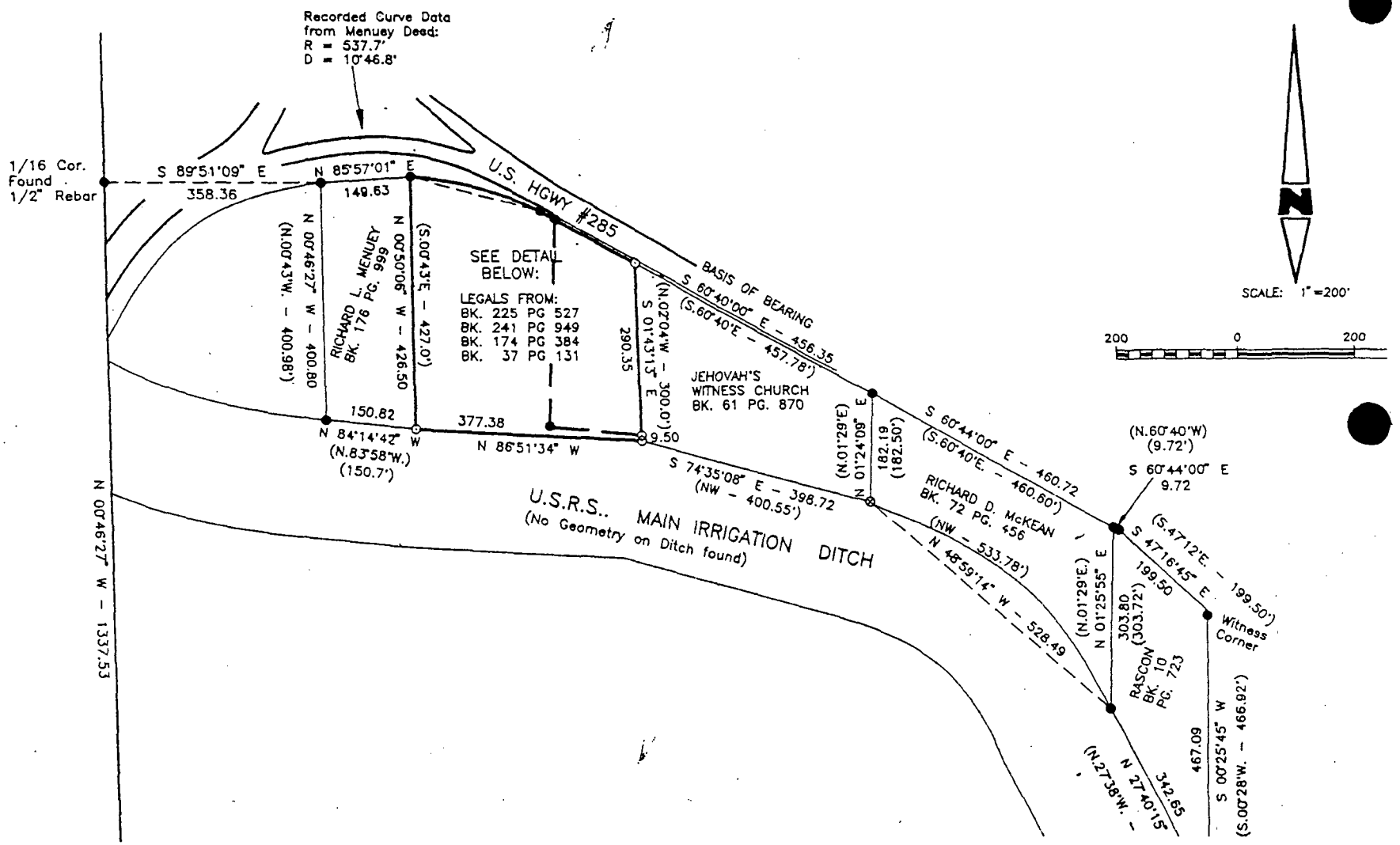
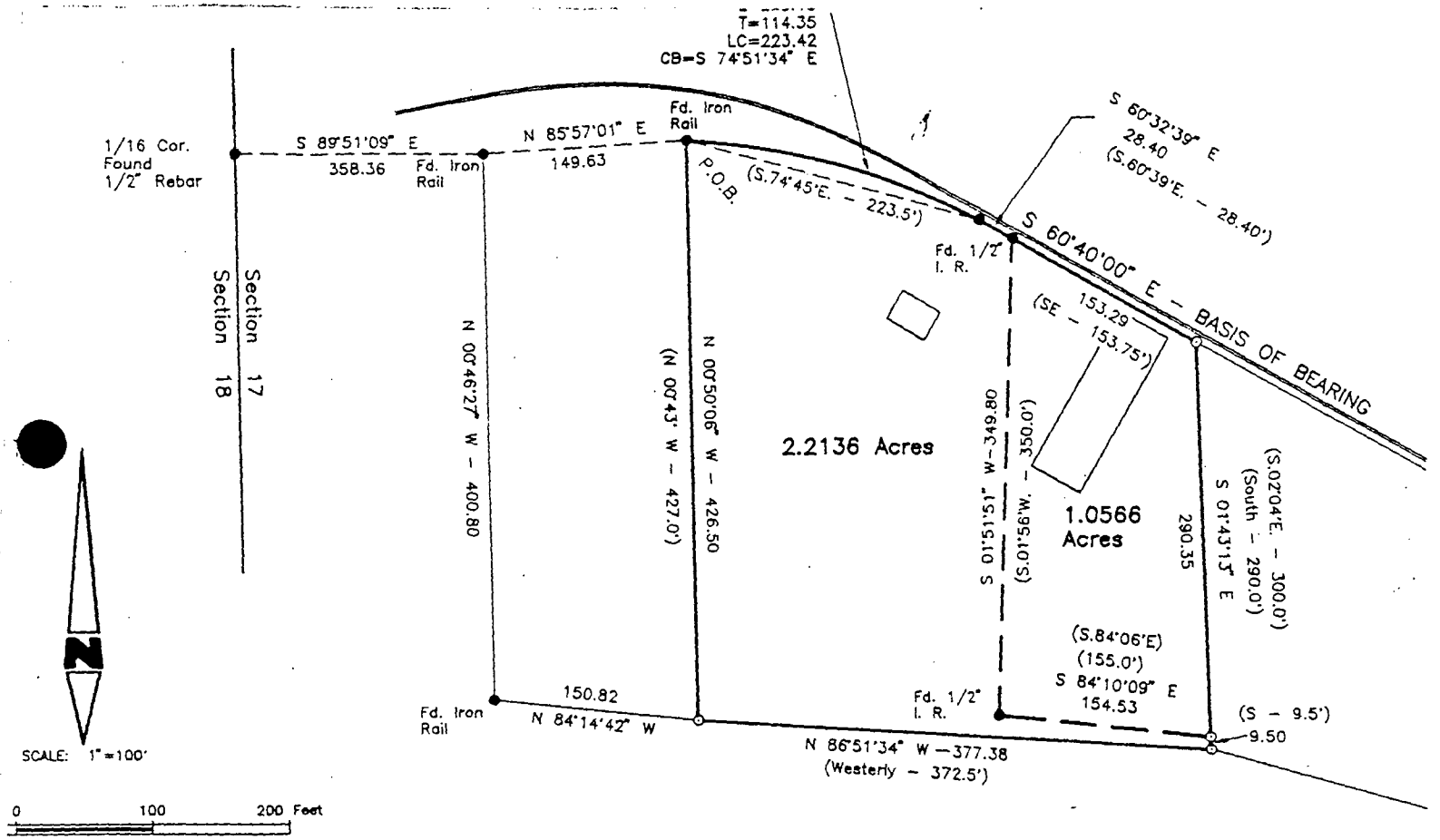
SECTION 17, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO





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LEGEND:

- ⊗ Calculated Corner (Not found or set)
- ● Found Corner

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

Mailed
10/3/01
To Santa Fe

October 2, 2001

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87504

ATTN: Wayne Price

Dear Mr. Price:

Enclosed you will find a city map of Carlsbad, with the location of four (4) wells around the I & W, Inc's Eugenie. Also, there is the test results of the samples from the two (2) monitor wells at the Eugenie. These samples were taken after the wells were purged.

The OCD representative present was Mike Stubblefiled. Samples were taken September 20, 2001.

Witness: Mike Stubblefield _____ Mike Stubblefield

Larry Dade _____ Larry Dade

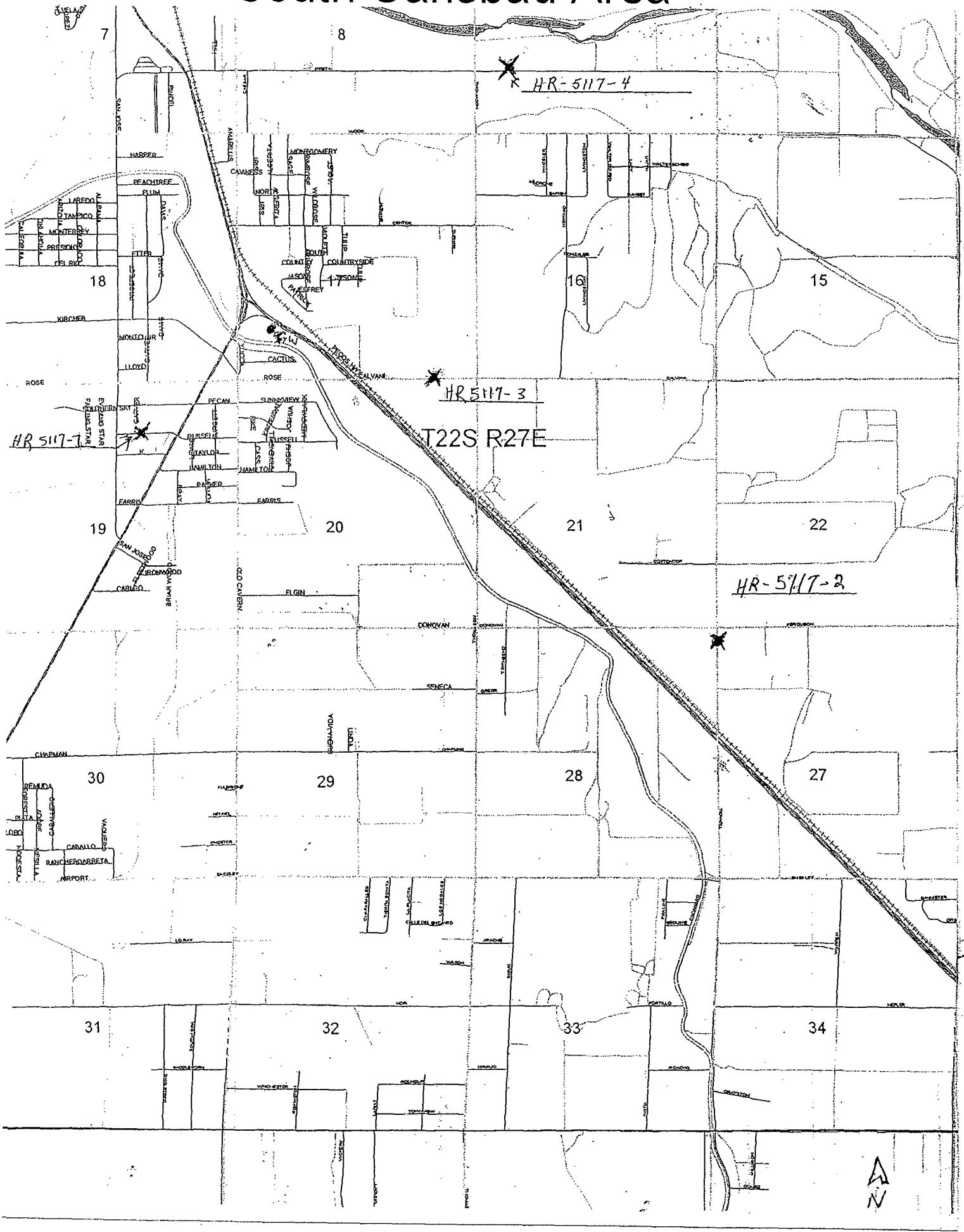
George Parchman _____ George Parchman

Respectfully,

George Parchman

George Parchman
General Manager

South Carlsbad Area



CARDINAL LABORATORIES

PHONE (915) 673-7001 · 2111 BEECHWOOD · ABILENE, TX 79603
PHONE (505) 393-2326 · 101 E. MARLAND · HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I&W INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 08/22/00
Reporting Date: 08/25/00
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Sampling Date: 08/22/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	Depth	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET 92'	192	363	91	4.40	3458	156
H5117-2	TIDWELL 70'	496	484	308	4.44	6690	240
H5117-3	CALVANI 203'	0	292	303	4.52	3896	102
H5117-4	WHITES ZOO 42'	0	500	253	6.94	4330	195
Quality Control		NR	42.0	45.0	5.05	1368	NR
True Value QC		NR	50.0	50.0	5.00	1413	NR
% Recovery		NR	84.0	90.9	101	96.7	NR
Relative Percent Difference		NR	0	2.4	0	0.1	NR

METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

		Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET	621	648	0	190	7.01	2778
H5117-2	TIDWELL	1770	796	0	293	6.98	5878
H5117-3	CALVANI	640	807	0	102	7.22	3238
H5117-4	WHITES ZOO	691	655	0	195	7.22	3300
Quality Control		1070	51.51	NR	1088	6.99	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		107	103	NR	109	99.9	NR
Relative Percent Difference		6.4	1.5	NR	8.1	0	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

8/25/00
Date

H5117.XLS

I & W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

Water Samples taken from existing water wells in the surrounding area of the Eugenie water well.

1. L Street : NE ¼ SW ¼ NW ¼ Sec.19, T22S, R27E
   a. 92' Deep & 50 years old

2. Tidwell: NE ¼ NE ¼ NE ¼ NE ¼ Sec. 27, T22S, R27E
   a. 57' Deep & 3 1/2 years old

3. Calvani : N ¼ NE ¼ NW ¼ SW ¼ Sec. 20, T22S, R27E
   a. 200' Deep & 40 Years old

4. Whites Zoo : SW ¼ NW ¼ SW ¼ NW ¼ Sec.8 T22S, R27E
   a. 42' Deep & 2 Years old

These samples where witnessed & pulled at 10:00 am on August 22, 2000 .

Mike Stublefield of Artesia OCD
Clint Taylor of Taylor Well Service
Lawrence Dade of I & W, Inc.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 09/21/01
Reporting Date: 09/25/01
Project Owner: I & W, INC.
Project Name: EUGENIE SHALLOW MONITOR WELL
Project Location: CARLSBAD, NM

Sampling Date: 09/20/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3$/L)
ANALYSIS DATE:		09/25/01	09/24/01	09/24/01	09/24/01	09/24/01	09/24/01
H6170-1	MONITOR WELL #1	840	902	620	12	12277	274
Quality Control		NR	55	46	5.29	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	92.0	106	105	NR
Relative Percent Difference		NR	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		09/24/01	09/24/01	09/24/01	09/24/01	09/24/01	09/24/01
H6170-1	MONITOR WELL #1	4100	575	0	334	6.87	9580
Quality Control		950	50.95	NR	944	7.02	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		95.0	102	NR	94.4	100	NR
Relative Percent Difference		3.0	2.7	NR	5.9	0.1	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

09/26/2001
Date

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

Company Name: I & W, Inc.	BILL TO PO #: 3854
Project Manager: George Parchman	Company: I & W, Inc.
Address: Box 1685 or 3003 S. Canal	Attn: George Parchman
City: Carlsbad State: NM Zip: 88220	Address: Box 98
Phone #: (505)885-6683	City: Loco Hills
Fax #: (505)885-8477	State: NM Zip: 88255
Project #: Shallow #1 Project Owner: I & W, Inc.	Phone #: (505)677-2111
Project Name: Eugenie Shallow Monitor Well	Fax #: (505)677-2240
Project Location: Carlsbad, NM	

ANALYSIS REQUEST

Chloride & Anions

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H6174	Monitor Well #1												9/20/01	1100

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: George Parchman	Date:	Received By:
	Time:	
Relinquished By:	Date: 9/21/01	Received By: (Lab Staff) Burgess A Cole
	Time: 5:08	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)

Phone Result ☐ Yes ☐ No Additional Fax #:
Fax Result: ☐ Yes ☐ No
REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 09/21/01
Reporting Date: 09/27/01
Project Owner: I & W, INC.
Project Name: EUGENIE DEEP MONITOR WELL #2
Project Location: CARLSBAD, NM

Sampling Date: 09/21/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		09/25/01	09/26/01	09/26/01	09/26/01	09/24/01	09/24/01
H6171-1	MONITOR WELL #2	208	551	24	201	3656	119
Quality Control		2.209	55	46	5.29	1489	NR
True Value QC		2.000	50	50	5.00	1413	NR
% Recovery		110	110	92.0	106	105	NR
Relative Percent Difference		9.5	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	OH (mg/L)	CO_3, HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		09/24/01	09/24/01	09/24/01	09/24/01	09/24/01	09/24/01
H6171-1	MONITOR WELL #2	152	621	55.6	0	11.58	2460
Quality Control		950	50.95	NR	944	7.02	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		95.0	102	NR	94.4	100	NR
Relative Percent Difference		3.0	2.7	NR	5.9	0.1	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

09/27/2001
Date

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page_____ of _____

Company Name: I & W, Inc.	BILL TO PO #: 3854
Project Manager: George Parchman	Company: I & W, Inc.
Address: Box 1685 or 3003 S. Canal	Attn: George Parchman
City: Carlsbad State: NM Zip: 88220	Address: Box 98
Phone #: (505)885-6663	City: Loco Hills
Fax #: (505)885-8477	State: NM Zip: 88255
Project #: Deep #2 Project Owner: I & W, Inc.	Phone #: (505)677-2111
Project Name: Eugenie Deep Monitor Well #2	Fax #: (505)677-2240
Project Location: Carlsbad, NM	

FOR LAB USE ONLY				MATRIX							PRES.			SAMPLING		ANALYSIS REQUEST
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID:	ICE / COOL	OTHER:	DATE	TIME	Carbons / Sulfates
16171-1	Monitor Well #2												9/21/01	1100	2

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: George Parchman	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By:	Date: 9/21/01	Received By: (Lab Staff)	REMARKS:
	Time: 5:08		
Delivered By: (Circle One)		Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:			

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I&W INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 08/22/00
Reporting Date: 08/25/00
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Sampling Date: 08/22/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET	192	363	91	4.40	3458	156
H5117-2	TIDWELL	496	484	308	4.44	6690	240
H5117-3	CALVANI	0	292	303	4.52	3896	102
H5117-4	WHITES ZOO	0	500	253	6.94	4330	195
Quality Control		NR	42.0	45.0	5.05	1368	NR
True Value QC		NR	50.0	50.0	5.00	1413	NR
% Recovery		NR	84.0	90.9	101	96.7	NR
Relative Percent Difference		NR	0	2.4	0	0.1	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET	621	648	0	190	7.01	2778
H5117-2	TIDWELL	1770	796	0	293	6.98	5878
H5117-3	CALVANI	640	807	0	102	7.22	3238
H5117-4	WHITES ZOO	691	655	0	195	7.22	3300
Quality Control		1070	51.51	NR	1088	6.99	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		107	103	NR	109	99.9	NR
Relative Percent Difference		6.4	1.5	NR	8.1	0	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

8/25/00
Date

H5117XLS

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.
2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page____ of____

Company Name:	I & W Inc.	**BILL TO**	
Project Manager:	George Parchman	P.O. #:	
Address:	Box 1685	Company:	I & W Inc
City:	Carlsbad State: NM Zip: 88220	Attn:	
Phone #:	(505) 885-6180 Fax #: (505) 885-8477	Address:	Box 98
Project #:	66063 Project Owner:	City:	Loco Hills
Project Name:		State: NM Zip:	88255
Project Location:		Phone #:	(505) 677-2111
Sampler Name:		Fax #:	" 677-2240

ANALYSIS REQUEST

CATIONS / ANIONS

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	
H5117-1	L Street			✓									8/22/00	10:00	✓
-2	TIDWELL			✓									↓	↓	✓
-3	CAIVANI			✓											✓
-4	WHITES 200			✓											✓

Sampler Relinquished:	Date:	Received By:	
	Time:		
Relinquished By:	Date: 8/22/00	Received By: (Lab Staff)	Amy Hill
	Time: 1:50		

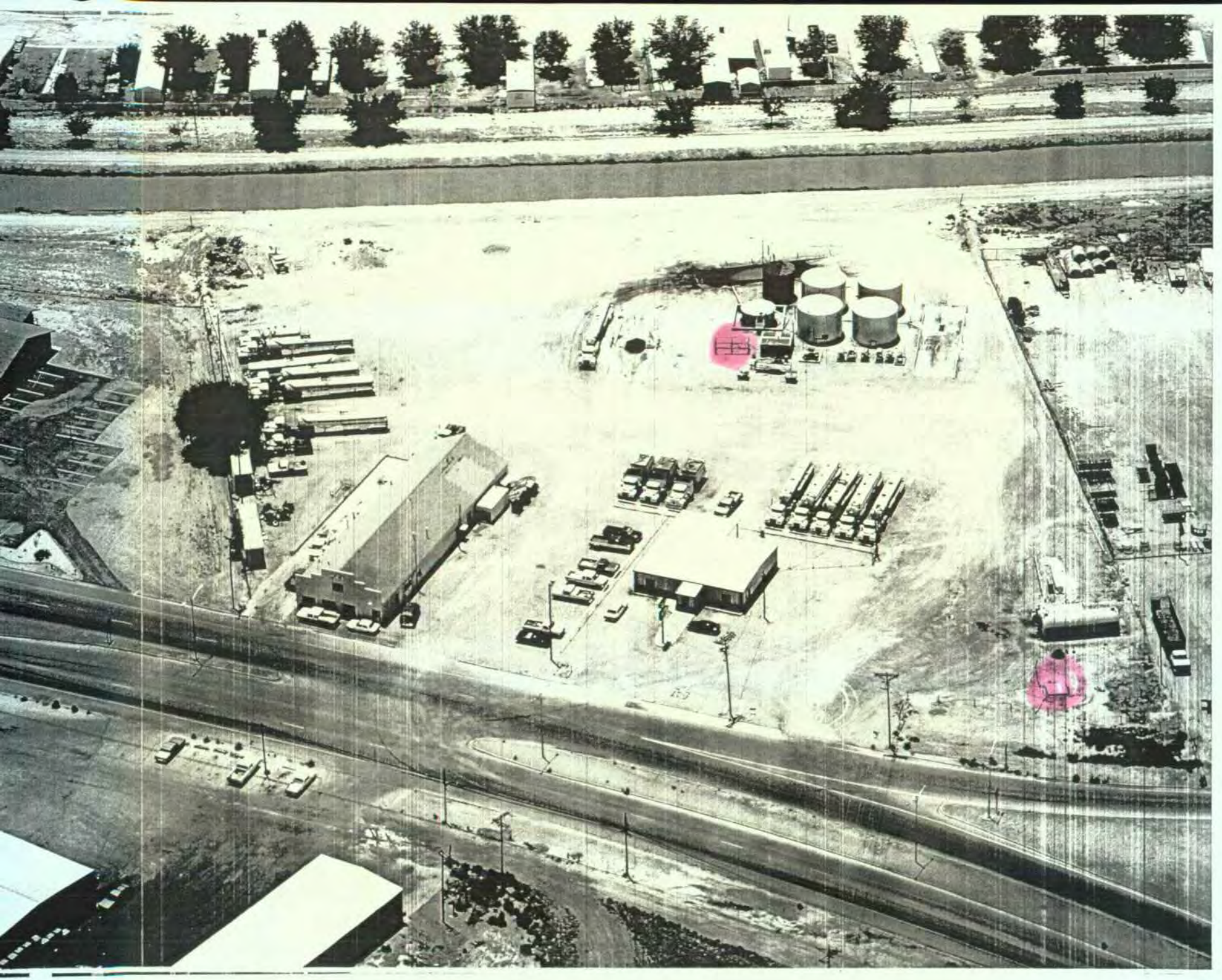
Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☐ Yes ☐ No	☐ Yes ☐ No	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:
In care of Eugene Urby

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.



ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

I/W Inc.

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

Oil Commission Department
1220 S. Frances Dr.
Santa Fe, New Mexico 87504

November 26, 2002

Attn: Wayne Price

In regards to our conversation concerning the monitor wells for I & W , Inc.. I have been in contact with Mr. Clint Taylor of Taylor Water Well Services. He was able to locate a producing fresh water well just to the north, northwest of I & W approximately ½ to ¾ miles up from our facility. This well is located at Emmitt Smith Elementary School. Enclosed is a map of the area with the previously sampled wells marked in blue. The red marked well would be the well proposed for your consideration. In regards to this matter we are hopeful that this will satisfy the needs of your department. We will be waiting to hear from you.

Legals: Sec.18 , T22S, R27E

Sincerely

George E. Parchman

GP/lr

12/4/02
Called OK To
SAMPLE
W.P.

South Carlsbad Area

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

I & W Inc.

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

Water samples taken from existing water wells in the surrounding area of the Eugenie water well.

1. L Street: NE ¼ SW ¼ NW ¼ Sec. 19, T22S, R27E
   a. 92' Deep & 50 years old

2. Tidwell: NE ¼ NE ¼ NE ¼ NE ¼ Sec. 27, T22S, R27E
   a. 57' Deep & 3 ½ years old

3. Calvani: N1/4 NE ¼ NW ¼ SW ¼ Sec. 20, T22S, R27E
   a. 200' Deep & 40 years old

4. Whites Zoo: SW ¼ NW ¼ SW ¼ NW ¼ Sec. 8, T22s, R27E
   a. 42' Deep & 2 years old

5. Dr. Emmitt Smith Elementary School: Sec.18, T22S, R27E
   a. 200' Deep and appr. 30 years old

These samples 1-4 where witnessed & pulled at 10:00 am August 22, 2000.

Witnesses: Mike Stublefield of Artesia OCD _____
Clint Taylor of Taylor Water Well Services _____
Lawrence Dade of I & W, Inc. _____

Sample 5 was witnessed & pulled at 1:30 pm December 19, 2002

Witnesses: Mike Stublefield of Artesia OCD _____
George Parchman of I & W, Inc. George Parchman
Gene Pruitt of I & W, Inc. Gene Pruitt

5F

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS. NM 88240

ANALYTICAL RESULTS FOR
I&W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 98
LOCO HILLS, NM 88255
FAX TO:

Receiving Date: 01/02/03
Reporting Date: 01/06/03
Project Number: 5
Project Name: DR. EMMITT SMITH SCHOOL
Project Location: SE18 T22S R27E

Sampling Date: NOT GIVEN
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	01/03/03	01/03/03	01/03/03	01/03/03	01/03/03	01/03/03
H7366-1 -	507	316	100	3.27	3215	140
Quality Control	NR	42	41	4.67	1322	NR
True Value QC	NR	50	50	5.00	1413	NR
% Recovery	NR	84.0	82.0	93.4	93.6	NR
Relative Percent Difference	NR	0.8	1.4	1.0	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	01/03/03	01/03/03	01/03/03	01/03/03	01/03/03	01/06/03
H7366-1 -	708	1123	0	171	7.13	2876
Quality Control	1000	50.20	NR	1068	6.98	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	100.0	100	NR	107	99.7	NR
Relative Percent Difference	3.0	0.7	NR	7.7	0.1	0.4
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

1-6-03
Date

H7366

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS. NM 88240

ANALYTICAL RESULTS FOR
I&W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 12/23/02
Reporting Date: 12/26/02
Project Number: DEEP #2
Project Name: EUGENIE DEEP MONITOR WELL #1 & #2
Project Location: CARLSBAD, NM

Sampling Date: 12/20/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		12/23/02	12/23/02	12/23/02	12/23/02	12/23/02	12/23/02
H7351-1	MW #1	1953	481	314	4.92	7519	265
H7351-2	MW #2	209	346	157	4.42	3113	80
Quality Control		NR	42	41	4.67	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	84.0	82.0	93.4	93.6	NR
Relative Percent Difference		NR	0.8	1.4	1.0	0.7	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

		Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		12/23/02	12/23/02	12/23/02	12/23/02	12/23/02	12/26/02
H7351-1	MW #1	3599	1357	0	323	6.81	7376
H7351-2	MW #2	148	1615	0	98	7.88	2920
Quality Control		1000	50.20	NR	1068	6.76	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		100.0	100	NR	107	96.6	NR
Relative Percent Difference		3.0	0.7	NR	7.7	0.4	0.4
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

12-26-02
Date

H7351

I/W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87504

February 26, 2002

Attn: Wayne Price

I & W Inc. has come up with a proposal that we hope will meet with your approval on the Eugenie brine water station located at our Carlsbad yard.

In going with a version of the picture you sent on February 4th 2002 we will be installing a similar version. This packet will include a drawing, as well as the location of the installation. 220' being the best we can do in accordance with the lot and still maintain a safe distance from highway 285. Encountering the 1st ground water in the monitor wells was at 62'. So in using this method, we would need to use some type of oil, such as peanut oil into the PVC pipe. We feel this should work fine.

As I will be away until the month of April, I ask that you send your reply to Eugene Irby Manager/Owner, or Kevin Wilson Operation Manager.

We appreciate your time and concern in this matter and will waiting to hear from you. Thank you.

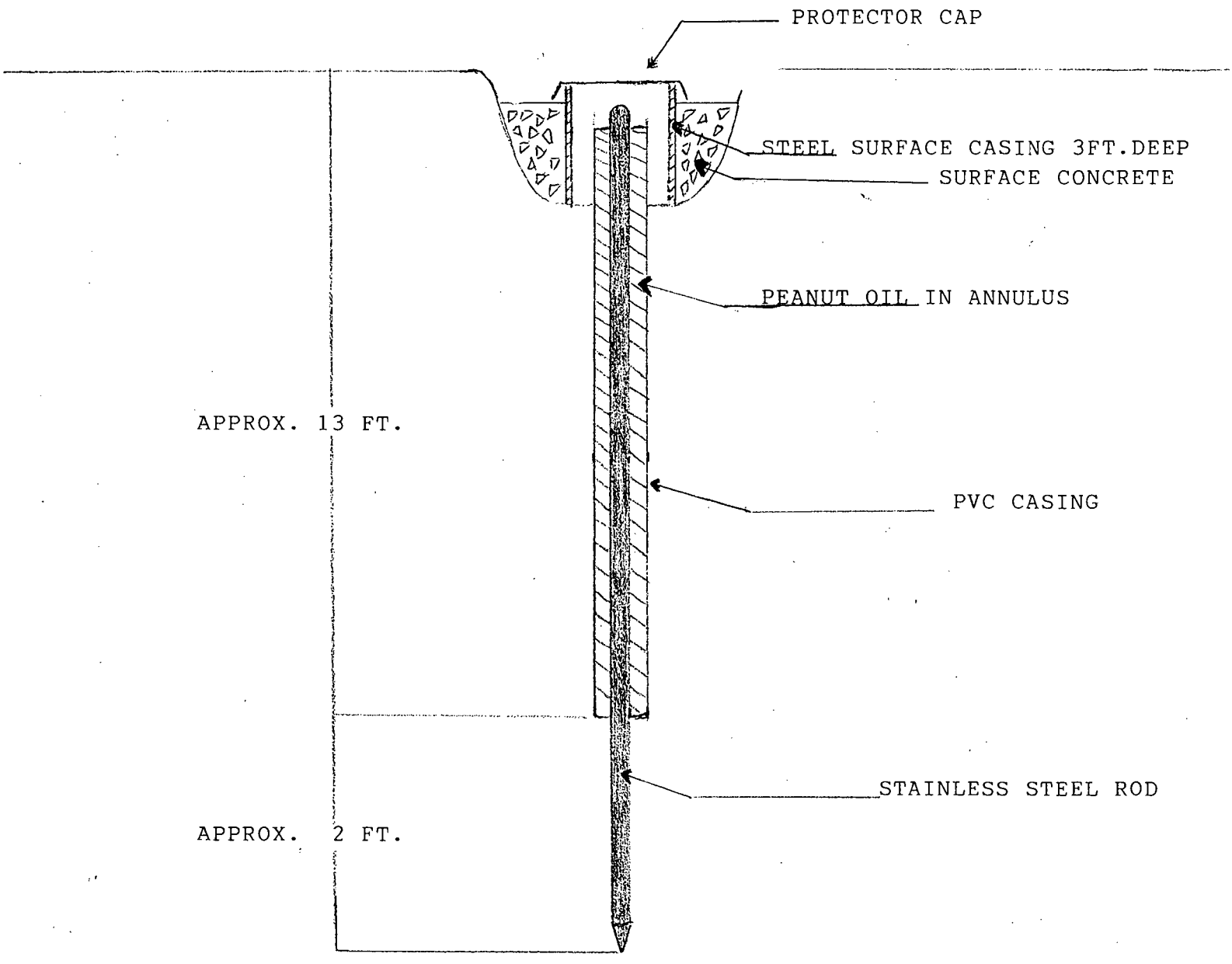
Sincerely,

George E. Parchman

George E. Parchman

GEP/lr

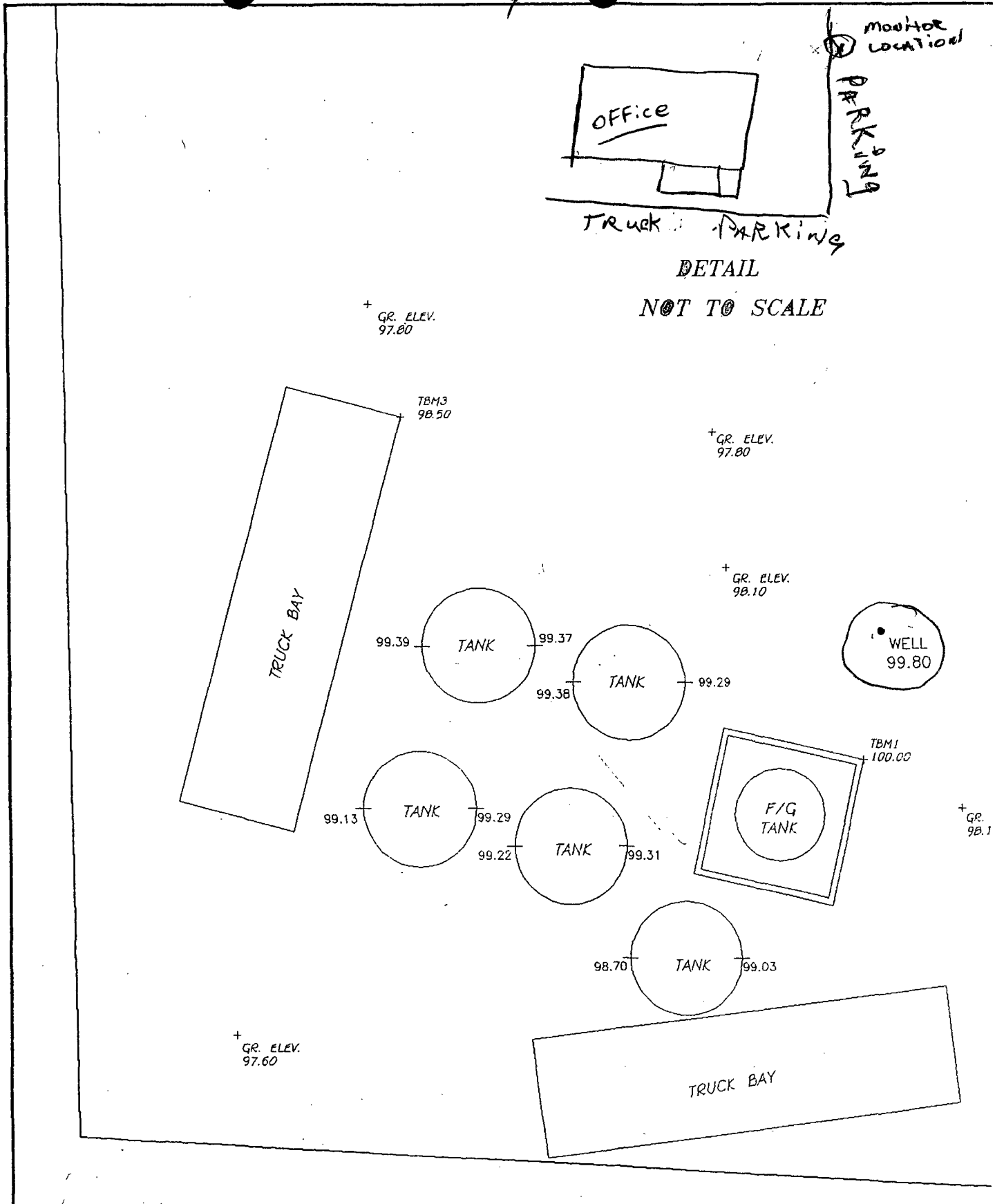
MARKER INSTALLATION



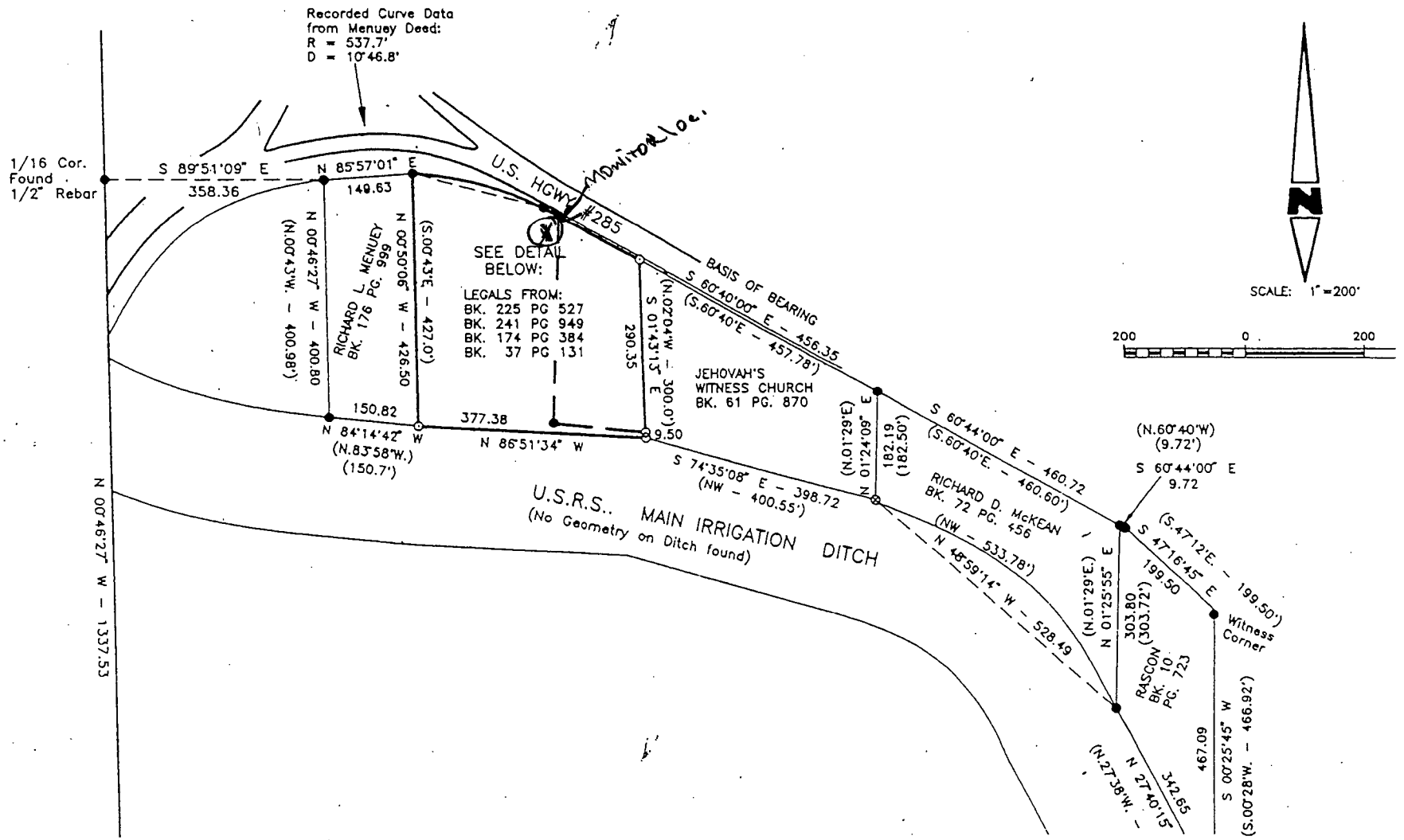
I & W, INC.
CARLSBAD, NM.
EUGENIE BRINE STATION

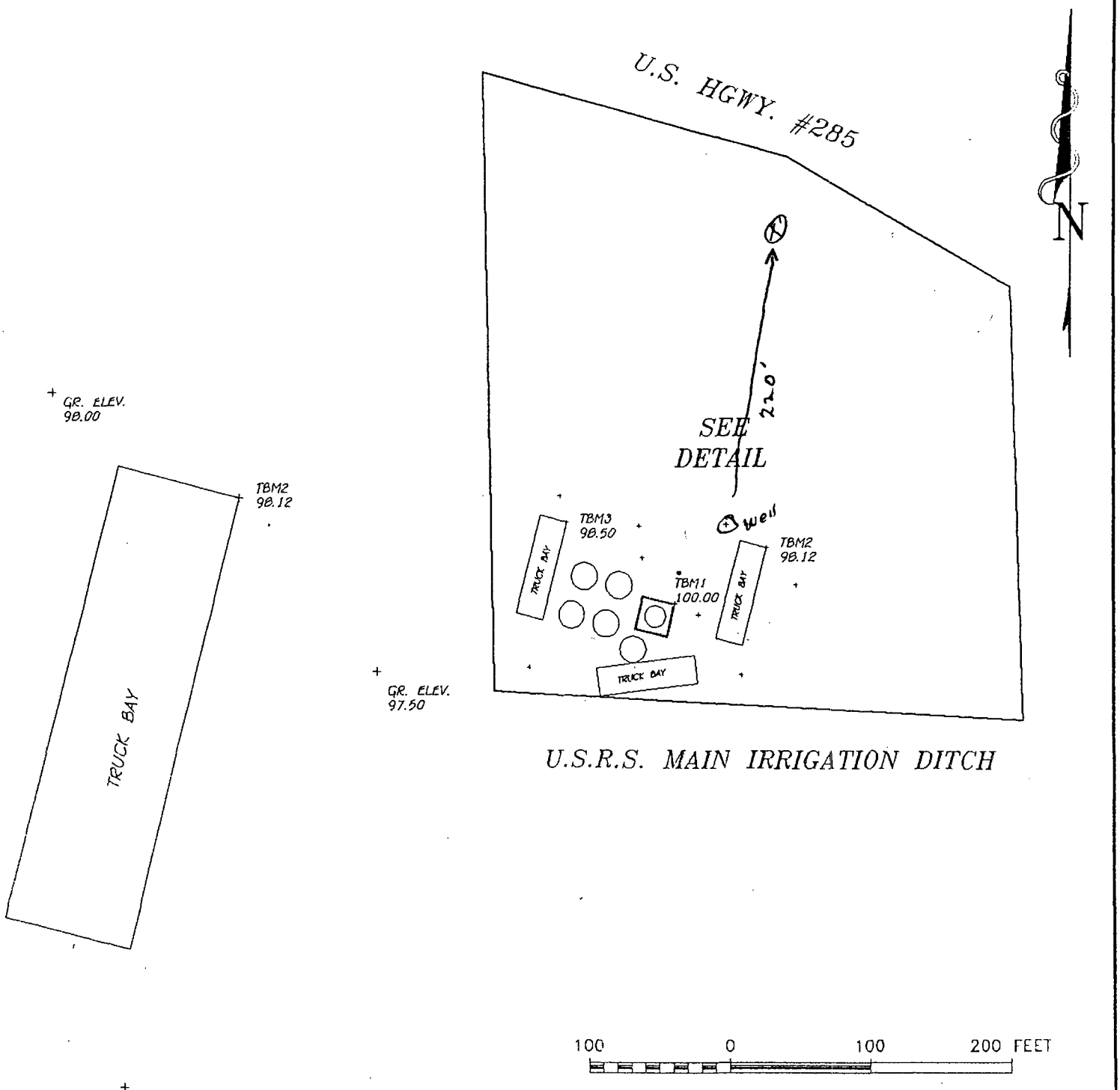
2.26.02

Hwy 28


monitor location
OFFICE
PARKING
TRUCK PARKING
DETAIL
NOT TO SCALE
GR. ELEV. 97.80
TBM3 98.50
GR. ELEV. 97.80
GR. ELEV. 98.10
TRUCK BAY
99.39
TANK
99.37
99.38
TANK
99.29
WELL 99.80
TBM1 100.00
F/G TANK
GR. 98.1
99.13
TANK
99.29
99.22
TANK
99.31
98.70
TANK
99.03
GR. ELEV. 97.60
TRUCK BAY
U.S.R.S. MAIN IRRIGATION DITCH

SECTION 17, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO





I.W. INC.

ELEVATIONS ON WELL PAD IN THE SOUTHWEST QUARTER OF SECTION 17, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

W.O. Number: 6589	Date: 01-09-97	Drawn By: S.C. NICHOLS
Survey Date: 12-30-96	Disk: SCN #34 - IW65989A.DWG	

ASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

RECEIVED
OCT 5 - 2001
OIL CONSERVATION
DIVISION

October 2, 2001

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87504

ATTN: Wayne Price

Dear Mr. Price:

Enclosed you will find a city map of Carlsbad, with the location of four (4) wells around the I & W, Inc's Eugenie. Also, there is the test results of the samples from the two (2) monitor wells at the Eugenie. These samples were taken after the wells were purged.

The OCD representative present was Mike Stubblefiled. Samples were taken September 20, 2001.

Witness: Mike Stubblefield
Larry Dade
George Parchman

Respectfully,

George Parchman
General Manager

South Carlsbad Area

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I&W INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 08/22/00
Reporting Date: 08/25/00
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Sampling Date: 08/22/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	Depth	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET 92'	192	363	91	4.40	3458	156
H5117-2	TIDWELL 70'	496	484	308	4.44	6690	240
H5117-3	CALVANI 203'	0	292	303	4.52	3896	102
H5117-4	WHITES ZOO 42'	0	500	253	6.94	4330	195
Quality Control		NR	42.0	45.0	5.05	1368	NR
True Value QC		NR	50.0	50.0	5.00	1413	NR
% Recovery		NR	84.0	90.9	101	96.7	NR
Relative Percent Difference		NR	0	2.4	0	0.1	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET	621	648	0	190	7.01	2778
H5117-2	TIDWELL	1770	796	0	293	6.98	5878
H5117-3	CALVANI	640	807	0	102	7.22	3238
H5117-4	WHITES ZOO	691	655	0	195	7.22	3300
Quality Control		1070	51.51	NR	1088	6.99	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		107	103	NR	109	99.9	NR
Relative Percent Difference		6.4	1.5	NR	8.1	0	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

8/25/00
Date

H5117-4

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

I & W Inc.
P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

Water Samples taken from existing water wells in the surrounding area of the Eugenie water well.

1. L Street : NE ¼ SW ¼ NW ¼ Sec.19, T22S, R27E
   a. 92' Deep & 50 years old

2. Tidwell: NE ¼ NE ¼ NE ¼ NE ¼ Sec. 27, T22S, R27E
   a. 57' Deep & 3 1/2 years old

3. Calvani : N ¼ NE ¼ NW ¼ SW ¼ Sec. 20, T22S, R27E
   a. 200' Deep & 40 Years old

4. Whites Zoo : SW ¼ NW ¼ SW ¼ NW ¼ Sec.8 T22S, R27E
   a. 42' Deep & 2 Years old

These samples where witnessed & pulled at 10:00 am on August 22, 2000 .

Mike Stubblefield

Mike Stubblefield of Artesia OCD
Clint Taylor of Taylor Well Service
Lawrence Dade of I & W, Inc.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 09/21/01
Reporting Date: 09/25/01
Project Owner: I & W, INC.
Project Name: EUGENIE SHALLOW MONITOR WELL
Project Location: CARLSBAD, NM

Sampling Date: 09/20/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		09/25/01	09/24/01	09/24/01	09/24/01	09/24/01	09/24/01
H6170-1	MONITOR WELL #1	840	902	620	12	12277	274
Quality Control		NR	55	46	5.29	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	92.0	106	105	NR
Relative Percent Difference		NR	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		09/24/01	09/24/01	09/24/01	09/24/01	09/24/01	09/24/01
H6170-1	MONITOR WELL #1	4100	575	0	334	6.87	9580
Quality Control		950	50.95	NR	944	7.02	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		95.0	102	NR	94.4	100	NR
Relative Percent Difference		3.0	2.7	NR	5.9	0.1	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

09/26/2001
Date

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page____ of ____

Company Name: I & W, Inc.	BILL TO PO #: 3854
Project Manager: George Parchman	Company: I & W, Inc.
Address: Box 1685 or 3003 S. Canal	Attn: George Parchman
City: Carlsbad State: NM Zip: 88220	Address: Box 98
Phone #: (505)885-6683	City: Loco Hills
Fax #: (505)885-8477	State: NM Zip: 88255
Project #: Shallow #1 Project Owner: I & W, Inc.	Phone #: (505)677-2111
Project Name: Eugenie Shallow Monitor Well	Fax #: (505)677-2240
Project Location: Carlsbad, NM	

ANALYSIS REQUEST

Chlorides & Anions

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H6170	Monitor Well #1												9/20/01	1100

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: George Parchman	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By:	Date: 9/21/01	Received By: (Lab Staff) Burgess A Cooke	REMARKS:
	Time: 5:08		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 09/21/01
Reporting Date: 09/27/01
Project Owner: I & W, INC.
Project Name: EUGENIE DEEP MONITOR WELL #2
Project Location: CARLSBAD, NM

Sampling Date: 09/21/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		09/25/01	09/26/01	09/26/01	09/26/01	09/24/01	09/24/01
H6171-1	MONITOR WELL #2	208	551	24	201	3656	119
Quality Control		2.209	55	46	5.29	1489	NR
True Value QC		2.000	50	50	5.00	1413	NR
% Recovery		110	110	92.0	106	105	NR
Relative Percent Difference		9.5	1.6	4.0	0.4	0.3	NR
METHODS:		SM3500-Ca-D		3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	OH (mg/L)	CO_3, HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		09/24/01	09/24/01	09/24/01	09/24/01	09/24/01	09/24/01
H6171-1	MONITOR WELL #2	152	621	55.6	0	11.58	2460
Quality Control		950	50.95	NR	944	7.02	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		95.0	102	NR	94.4	100	NR
Relative Percent Difference		3.0	2.7	NR	5.9	0.1	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

09/27/2001
Date

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page____ of____

Company Name: I & W, Inc.	BILL TO PO #: 3854
Project Manager: George Parchman	Company: I & W, Inc.
Address: Box 1685 or 3003 S. Canal	Attn: George Parchman
City: Carlsbad State: NM Zip: 88220	Address: Box 98
Phone #: (505)885-6663	City: Loco Hills
Fax #: (505)885-8477	State: NM Zip: 88255
Project #: Deep #2 Project Owner: I & W, Inc.	Phone #: (505)677-2111
Project Name: Eugenie Deep Monitor Well #2	Fax #: (505)677-2240
Project Location: Carlsbad, NM	

ANALYSIS REQUEST

Cations / Anions

LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	
H6171-1	Monitor Well #2												9/21/01	1100	2

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: George Parchman	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By:	Date: 9/21/01	Received By: (Lab Staff) Burgess Hall	REMARKS:
	Time: 5:08		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)

‡ Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 8/20/01

or cash received on _____ in the amount of $ 1700.00

from I & W, INC.

for EUGENIE BRINE WELL BW-006

Submitted by: (Facility Name) WAYNE PRICE Data: (OCD Rec.) 8/30/01

Submitted to ASD by: [signature] Data: "

Received in ASD by: _____ Data: _____

Filing Fee ___ New Facility ___ Renewal ✓

Modification ___ Other _____

Organization Code 521.07 Applicable FY 2002

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ___

Western Bank
ARTESIA, NEW MEXICO 88210

I. & W, INC.
P.O. BOX 98 505-677-2111
LOCO HILLS, NM 88255

[redacted]

95-198/1122

DATE 8/20/01

PAY TO THE ORDER OF Water Quality Management Fund $ **1700.00**

One Thousand Seven Hundred Dollars and 00/100---------- DOLLARS

Eugenie Permit

THIS CHECK IS DELIVERED FOR PAYMENT ON THE ACCOUNTS LISTED

[redacted]

[signature]

MP

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 8/22/01

or cash received on _____ in the amount of $ 50 00

from I & W INC

for EUGENIE BRINE ST BW-006

(Facility Name) (OCD No.)

Submitted by: WAYNE PRICE Data: 8/30/01

Submitted to ASD by: [signature] Data: "

Received in ASD by: _____ Data: _____

Filing Fee ✓ New Facility ___ Renewal ___

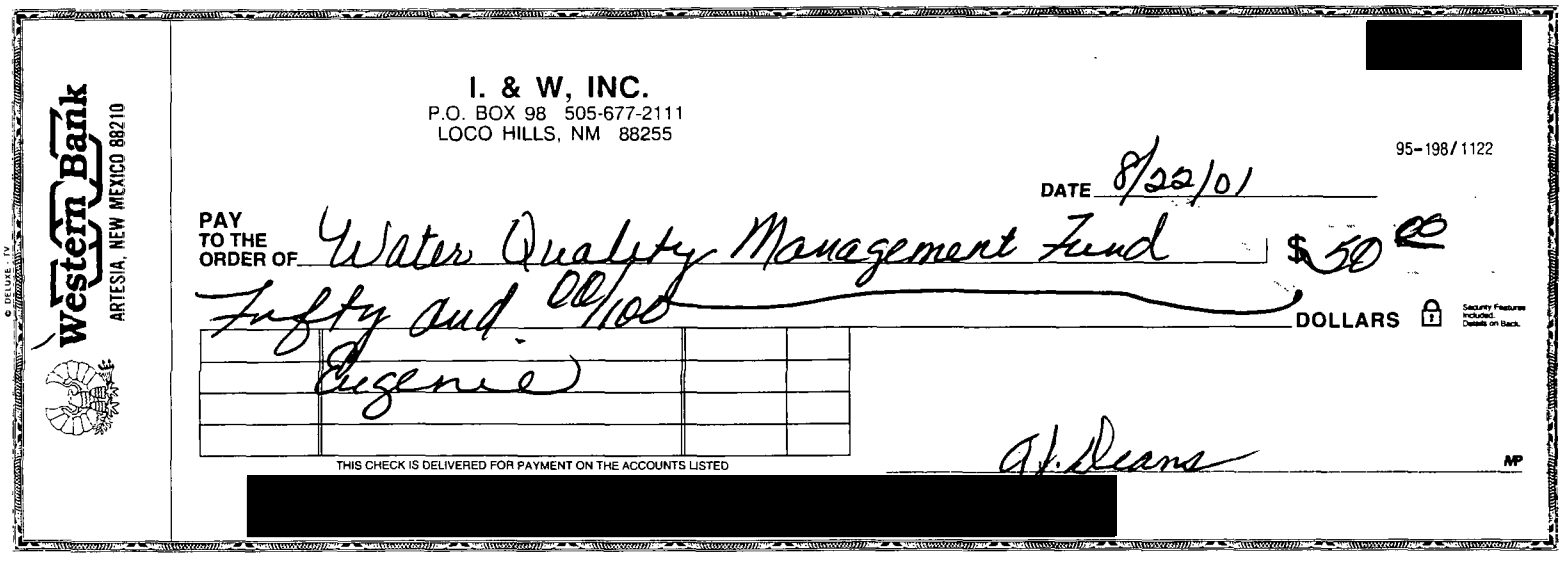
Modification ___ Other _____

(specify)

Organization Code 521.07 Applicable FY 2002

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increment ___



Western Bank
ARTESIA, NEW MEXICO 88210

[redacted]

I. & W, INC.
P.O. BOX 98 505-677-2111
LOCO HILLS, NM 88255

95-198/1122

DATE 8/22/01

PAY TO THE ORDER OF Water Quality Management Fund $ 50 00

Fifty and 00/100 DOLLARS

Security Features Included. Details on Back.

Eugenie

THIS CHECK IS DELIVERED FOR PAYMENT ON THE ACCOUNTS LISTED

[redacted]

[signature]

MP

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

August 17, 2001

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7645

George Parchman
I&W, Inc.
P.O. Box 98
Loco Hills, New Mexico, 88255

Re: Ground Subsidence Monitors
Discharge Plan BW-006 Brine Well
Carlsbad Eugenie Brine Extraction Facility
Eddy County, New Mexico

Dear Mr. Parchman:

The Discharge Plan BW-006 condition #25 required I&W, Inc. to submit for OCD approval a plan to detect long-term subsidence. Since OCD presently does not have a standard for such installations, OCD is hereby extending your deadline for plan submittal until January 31, 2002 when your first annual report is due. Please make sure I&W, Inc. addresses all of the deadlines mentioned in the approval conditions. In order to assist you, OCD has enclosed technical information pertaining to Ground Subsidence Monitors.

Please be advised that NMOCD granting of this extension does not relieve I&W, Inc. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve I&W, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions please do not hesitate to contact me at 505-476-3487 or E-mail at WPRICE@state.nm.us.

Sincerely,

Wayne Price-Pet. Engr. Spec.

cc: OCD Artesia Office

Attachments-2

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Dawn Higgins,

being first duly sworn, on oath says:

That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of thc State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

June 15	2001
	2001
	2001
	2001
	2001
	2001

That the cost of publication is $ 61.19, and that payment thereof has been made and will be assessed as court costs.

Dawn Higgins

Subscribed and sworn to before me this 19 day of June, 2001

Lorraine Deporte

My commission expires 5/25/03

Notary Public

June 15, 2001

NOTICE OF PUBLICATION

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

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

(BW-006) - I&W Incorporated, George Parchman, P.O. Box 98, Loco Hills, New Mexico 88255, has submitted a discharge plan renewal application for their Carlsbad Eugenie Brine Extraction Facility located in the SW/4SW/4 of Section 17, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico. Fresh water is injected down annulas of the No. 1 well to an approximate depth of 550 feet and brine is produced through the tubing. The brine has an average total dissolved solids content of 300,000 mg/l. Groundwater most likely to be affected by any accidental discharge is at a depth of 50 feet with a total dissolved solids concentration of about 1,000 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conversation 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 through 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 a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on

№ 21760

RECEIVED
JUN 21 2001
OIL CONSERVATION DIVISION

Approved 7/6/01

That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

June 15	2001
	2001
	2001
	2001
	2001
	2001

That the cost of publication is $ 61.19, and that payment thereof has been made and will be assessed as court costs.

Dawn Higgins

Subscribed and sworn to before me this 19 day of June, 2001

Lorraine Reporte

My commission expires 5/25/03

Notary Public

Mexico. Water Quality Control Commission Regulations, the following discharge plan applications has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(BW-006) - I&W Incorporated, George Parchman, P.O. Box 98, Loco Hills, New Mexico 88255, has submitted a discharge plan renewal application for their Carlsbad Eugenie Brine Extraction Facility located in the SW/4SW/4 of Section 17, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico. Fresh water is injected down annulas of the No. 1 well to an approximate depth of 550 feet and brine is produced through the tubing. The brine has an average total dissolved solids content of 300,000 mg/l. Groundwater most likely to be affected by any accidental discharge is at a depth of 50 feet with a total dissolved solids concentration of about 1,000 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conversation 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 through 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 a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of June 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

OIL CONSERVATION DIV

Approved 7/6/01

NOTICE OF PUBLICATION

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

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

(BW-004) - Gandy Corporation., Larry Gandy, Vice-President, P.O. Box 827, Tatum, New Mexico, 88267 has submitted an application for renewal of its previously approved discharge plan for its brine well facility. The brine extraction facility is located in the SW/4 SW/4 of Section 31, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected to an approximate depth of 2,000 feet and brine is extracted with an average total dissolved solids concentration of 313,000 mg/l. Groundwater most likely to be affected by any accidental discharge is at a depth of approximately 120 feet and has a total dissolved solids content of approximately 325 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(BW-006) - I&W Incorporated, George Parchman, P.O. Box 98, Loco Hills, New Mexico 88255, has submitted a discharge plan renewal application for their Carlsbad Eugenie Brine Extraction Facility located in the SW/4 SW/4 of Section 17, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico. Fresh water is injected down annulas of the the No. 1 well to an approximate depth of 550 feet and brine is produced through the tubing. The brine has an average total dissolved solids content of 300,000 mg/l. Groundwater most likely to be affected by any accidental discharge is at a depth of 50 feet with a total dissolved solids concentration of about 1,000 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

(BW-028) - Gold Star SWD Ltd. Co., Royce Crowell, Manager/Partner, P.O. Box 1480, Eunice, New Mexico, 88231 has submitted an application for their proposed Eunice Brine Station, located in the NW/4 NW/4 of Section 15, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Fresh water will be injected to an approximate depth of 2,000 feet. Approximately 1,000 barrels per day of brine water will be extracted with an average total dissolved solids concentration of 300,000 mg/l. The brine water will be stored in three 500 barrel aboveground closed top fiberglass tanks. Ground water most likely to be affected by any accidental discharge is at a depth of approximately 80 feet and has a total dissolved solids content of approximately 1,200 mg/l. The discharge plan addresses how spills, 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 through 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 a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7 Th. day of June 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 1/30/01,

or cash received on _____ in the amount of $ 50 ⁰⁰

from I + W INC.

for EUGENIE - CARLSBAD BRINE WELL BW-006

Submitted by: (Facility Name) WAYNE PRICE Date: (DP No.) 2/16/01

Submitted to ASD by: [signature] Date: 2/16/01

Received in ASD by: _____ Date: _____

Filing Fee X 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 ___

I & W INC.
P.O. BOX 98 (505) 677-2111
LOCO HILLS, NM 88255

95-198
1122

WESTERN BANK
ARTESIA, NEW MEXICO 88210

[redacted]

CHECK NO.	CHECK DATE	VENDOR NO.
[redacted]	01/30/01	OCD

PAY FIFTY AND 00/100 DOLLARS**********

CHECK AMOUNT
$**********50.00

TO THE ORDER OF
OIL CONSERVATION DIVISION
1220 S. ST. FRANCIS DRIVE
SANTA FE NM 87504
USA

Baylen E Lee

[redacted]

[redacted]

ACCOUNT NO.			VENDOR OCD OIL CONSERVATION DIVISION		CHECK NO. 029869		CHECK DATE 1/30/01
VOUCHER	INVOICE NUMBER	INV. DATE	REFERENCE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK AMOUNT
58042	FILING FEE	1/30/01	DISCHARGE PLAN APPL	50.00	50.00	.00	50.00
						CHECK TOTAL	50.00

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Revised March 17, 1999

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

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

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

☐ New ☒ Renewal ☐ Modification

1. Type: Brine Water Discharge
2. Operator: I & W, Inc.

   Address: P.O. Box 98 Loco Hills, New Mexico

   Contact Person: Eugene Irby/George Parchman Phone: (505) 748-1138
3. Location: SW /4 SW /4 Section 17 Township 22 Range 27
   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: George E. Parchman Title: Manager

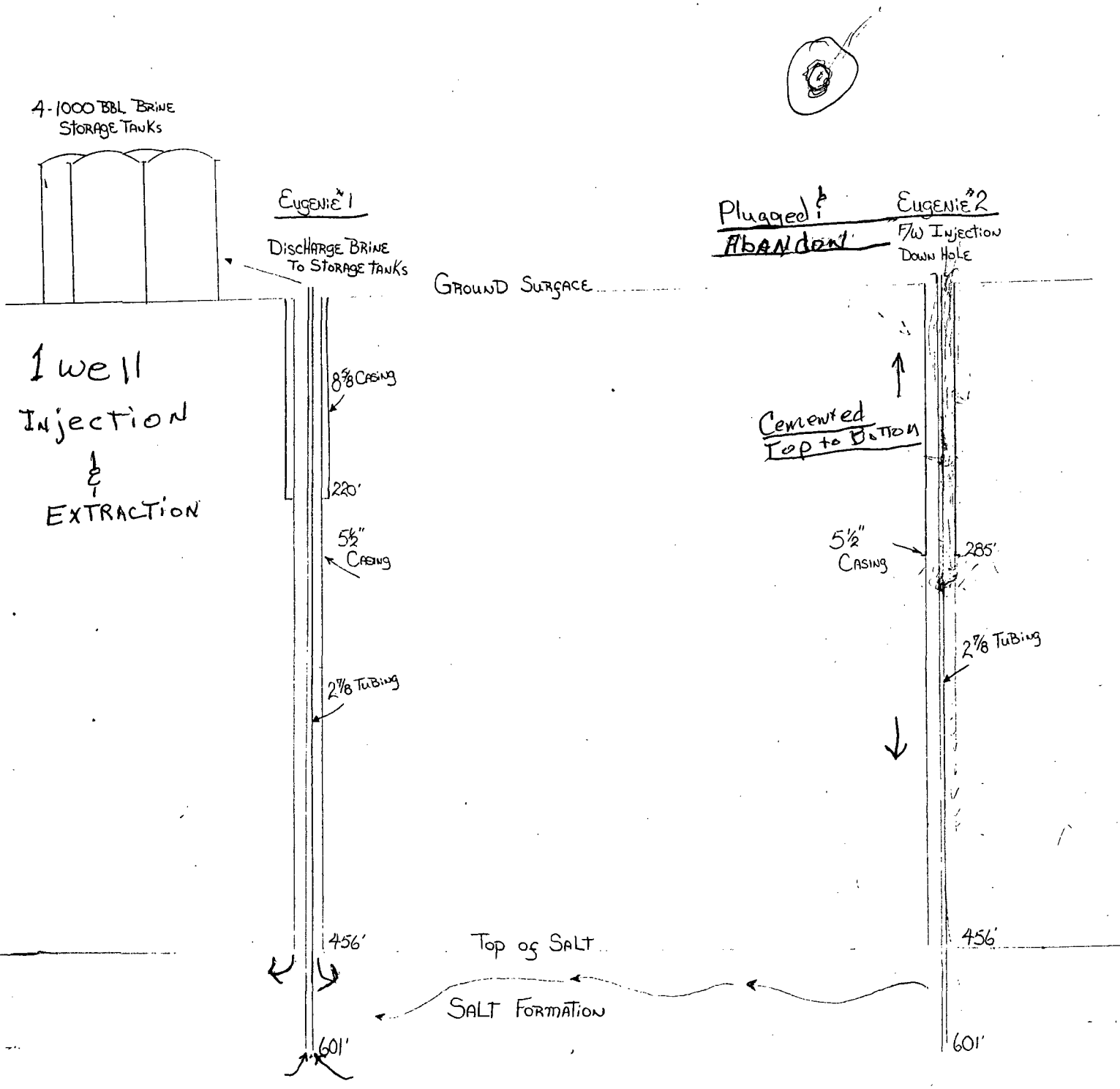
    Signature: George Parchman Date: January 29, 2001

New

Existing

Plot

887-3991



Depth, Diameter Casing & Tubing Specs

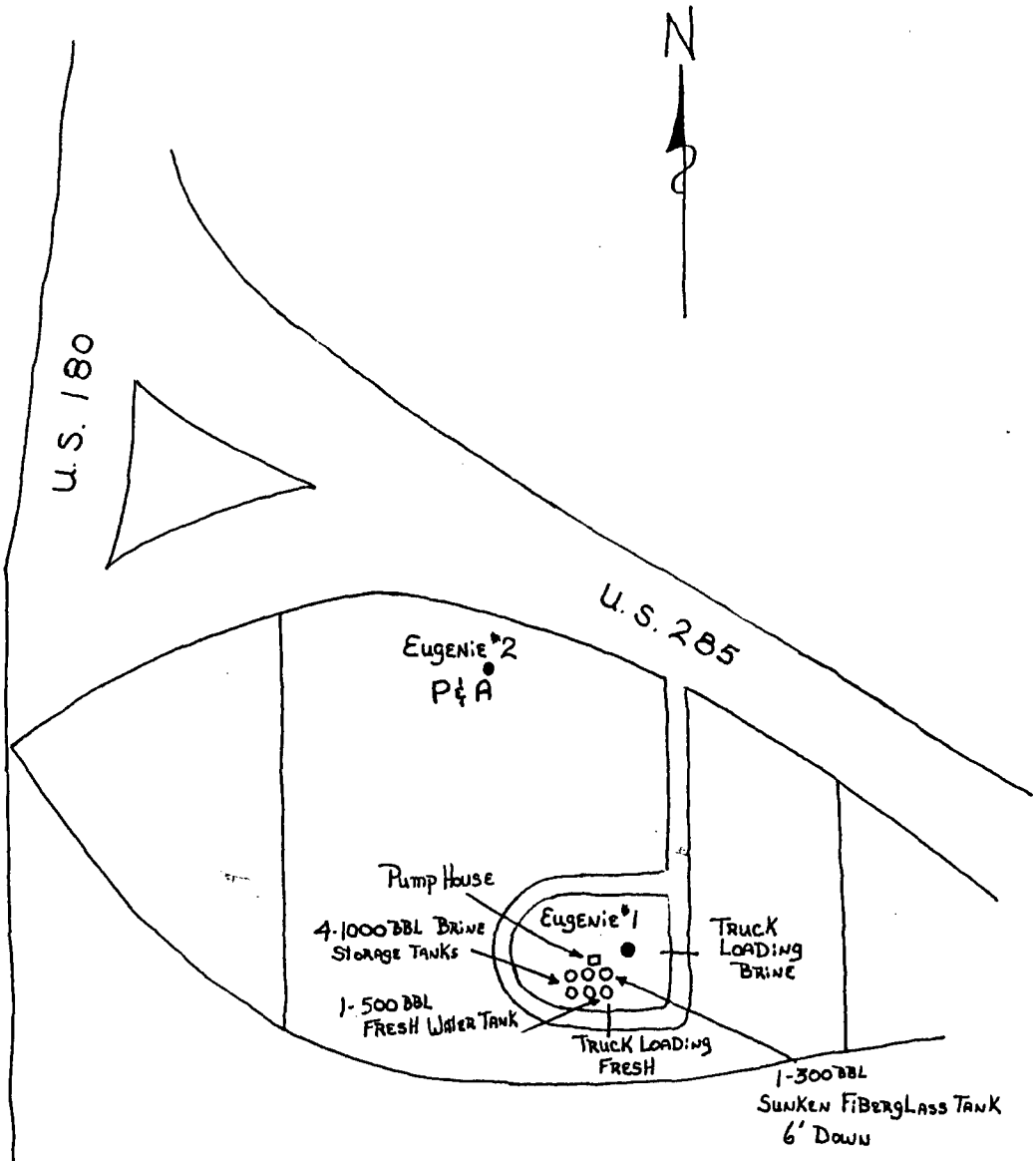
Map B

SUB-SURFACE SCHEMATIC DRAWING OF EUGENIE #1 & [illegible]

SOUTH Y CARLSBAD N.M. 88220

DATE 1/30/00

I & W INC



Facility Plot Plan

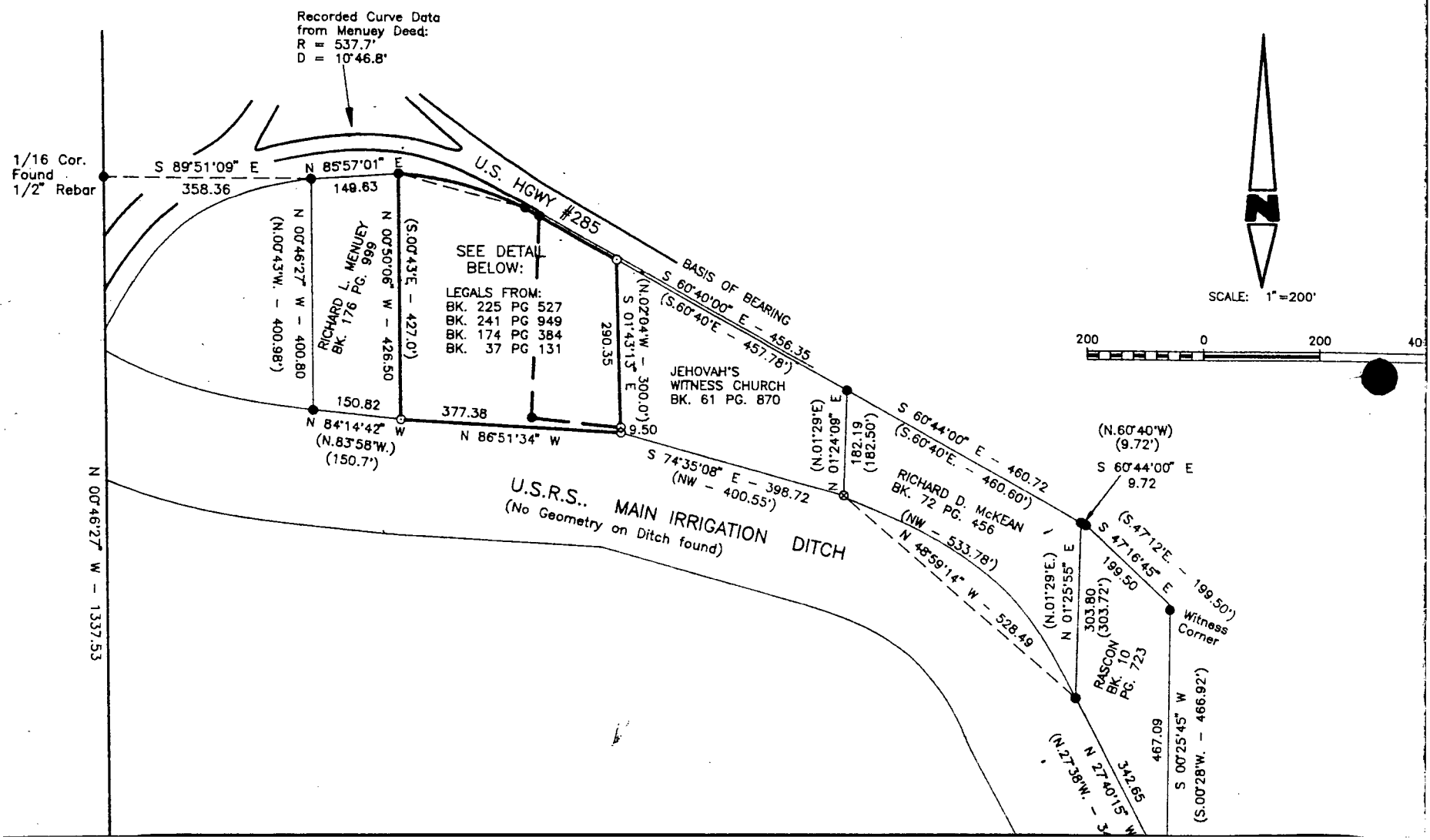
Map A

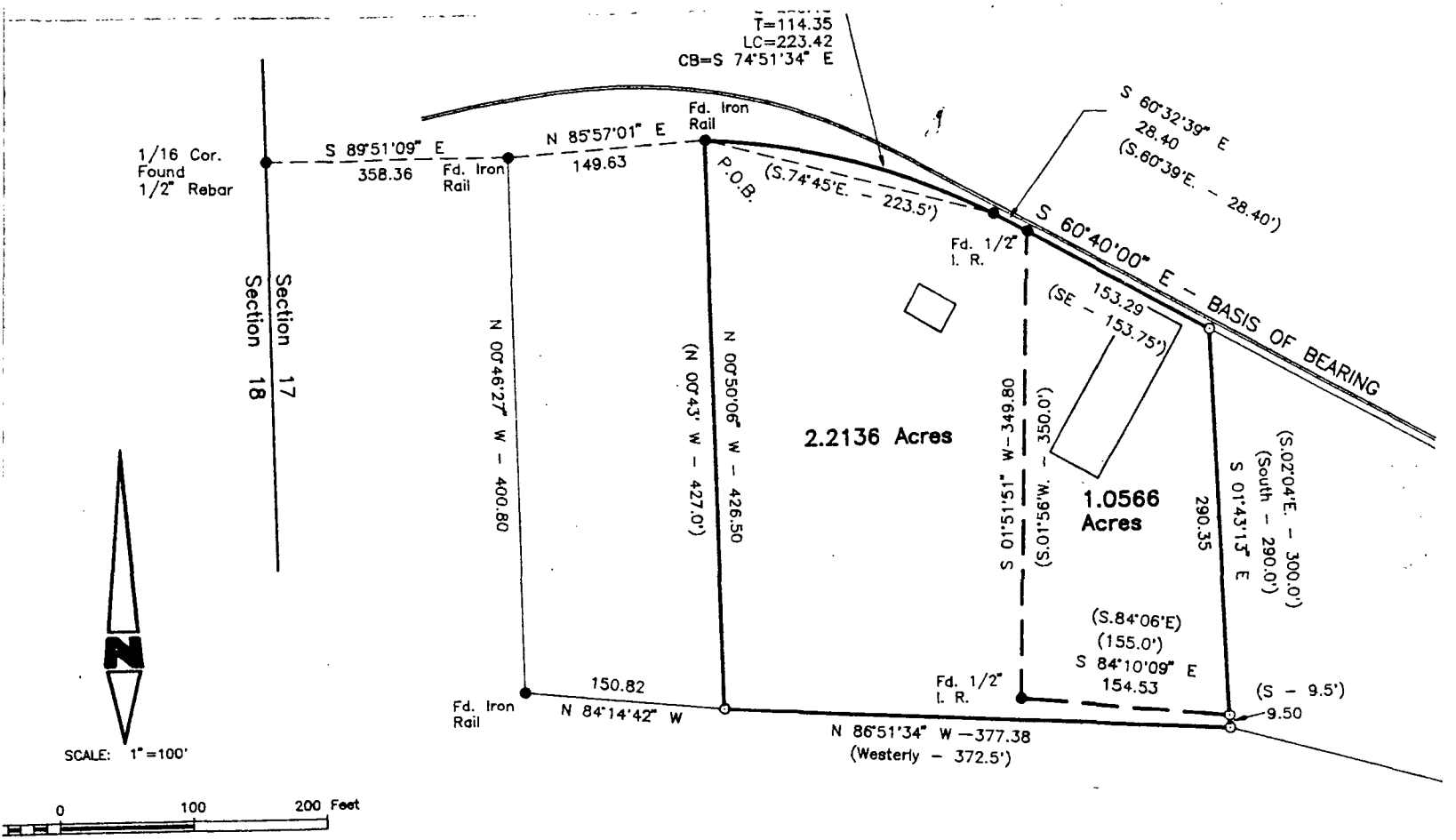
I & W Inc.

Eugenie #1 - Eugenie #2
Brine Station
SW/4 - SW/4 Sec. 17
Rge. 27 E Twp. 22 S

Date		Revised Drawing
1/29/01	Gene Pruitt	#2

SECTION 17, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO





LEGAL DESCRIPTION:

A tract of land located in the Southwest quarter of the Southwest quarter of Section 17, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico and being more particularly described as follows:

Beginning at the Northwest corner of this tract, a point being on the South Right of Way line of State Highway No. 285 and a point being S.89°51'09"E., 358.36 feet and N.85°57'01"E., 149.63 feet from a half inch rebar accepted as the Northwest corner of

LEGEND:

- ⊗ Calculated Corner (Not found or set)
- ● Found Corner

HALLIBURTON

CENTRAL OPERATIONS LABORATORY
WATER ANALYSIS REPORT
HOBBS, NEW MEXICO

COMPANY I & W Incorporated

REPORT W01-010
DATE January 24, 2001
DISTRICT Artesia

SUBMITTED BY

WELL Eugenie DEPTH FORMATION
COUNTY FIELD SOURCE

SAMPLE	Carlsbad Fresh		Eugenie Salt					
Sample Temp.	68	°F	68	°F		°F		°F
RESISTIVITY								
SPECIFIC GR.	1.001		1.210					
pH	8.17		6.79					
CALCIUM	400	mpl	1,550	mpl		mpl		mpl
MAGNESIUM	570	mpl	1,230	mpl		mpl		mpl
CHLORIDE	131	mpl	223,000	mpl		mpl		mpl
SULFATES	light	mpl	Moderate	mpl		mpl		mpl
BICARBONATES	264	mpl	103	mpl		mpl		mpl
SOLUBLE IRON	0	mpl	0	mpl		mpl		mpl
Sodium	-	mpl	-	mpl	0	mpl	0	mpl
TDS	-	mpl	-	mpl	0	mpl	0	mpl
OIL GRAVITY	@	°F	@	°F	@	°F	@	°F

REMARKS Salt Water Weight of 10.1 ppg

MPL = Milligrams per litter
Resitivity measured in: Ohm/m2/m

ANALYST:

QUANTITIES

SOURCE: EUGENIE #1 EXTRACTION FACILITY

AVERAGE DAILY VOLUME PRODUCED: 200 BBLS/DAY

ESTIMATED VOLUME STORED: 4000 BBLS

TYPE OF CONTAINERS: 4 X 1000 BBL-STEEL TANKS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 04/14/00
Reporting Date: 04/20/00
Project Number: SHALLOW #1
Project Name: EUGENIE SHALLOW MONITER WELL
Project Location: CARLSBAD, NM

Sampling Date: 04/14/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		04/20/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-1	125' WELL #1	880	573	243	12	8020	468
Quality Control		NR	44	58	5.19	1392	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	88	116	103.8	98.5	NR
Relative Percent Difference		NR	1.8	8.6	3.1	0.2	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/17/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-1	125' WELL #1	1947	1096	226	0	7.19	5890
Quality Control		1001	47.47	112	971	6.96	NR
True Value QC		1000	50.00	124	1000	7.00	NR
% Accuracy		100	94.9	90.3	97.1	99.4	NR
Relative Percent Difference		2.4	4.0	-	-	0	-
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

NOTE: Sample also contains 34 mg/L Hydroxide (OH) ion.

Amy Hill
Chemist

4/20/00
Date

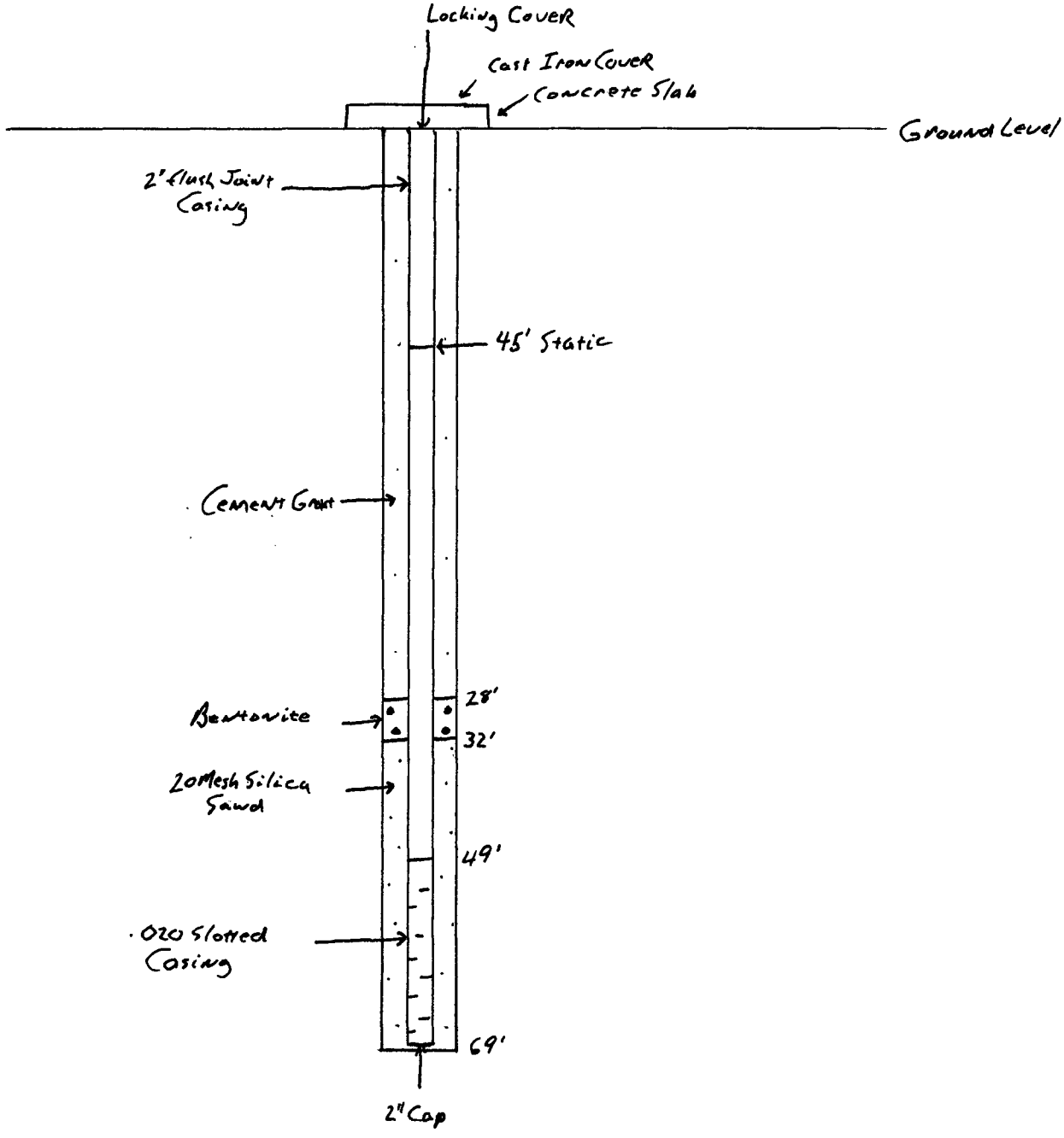
I+W #1

DRILL RATE (MIN/FT) SAMPLE DESCRIPTION

Drill 3' conductor hole and set 8 5/8" hole collar. Rig up flow line and steel mud pit. Mix bentonite mud and begin drilling 6 1/2" hole.

0-2	3	3/27/00
4	2-	0-4' Rocky Soil
6	1-	4-8' Clay:gry-brn,stky
8	1-	8-17' Caliche
10	1	
2	1	
4	2	
6	2	
8	4	17-29' Conglomerate:wht,pnk,yel brn,off wht,sme crs sand
20	9-	Note:Lost about 100 gallons of mud when pulled off of bottom to make
2	8	connection. Probably due to mud ring.
4	6-	
6	13	
8	13	3/28/00
30	13	29-36' Layers of rd clay and conglomerate:pnk,th,gry,yel brn,sndy,calc
2	3	
4	7	
6	13	36-45' Conglomerate:wht,pnk,brk rd,yel brn,vry sndy,calc
8	13	
40	5-	
2	8	
4	5	
6	8	45-58' Clay:rd,sndy,sme fn gravel
8	1-	
50	2	
2	1-	
4	1	
6	6-	
8	5-	55-59' Conglomerate:yel brn,gry,off wht,lmy,sndy
60	4-	
2	3	59-62' Sand:clr,frstd,med-crs grn,lsly consl,mod wl srtd,sb rnd,rnd
4	15	Gravel:fn (1/16"-1/8") limestone,chert,yel brn,brn,pnk,off wht,water zone
6	19-	62-67' Conglomerate:wht,pnk,yel brn,sndy,lmy,vry hrd
8	17	67-69' Clay:rd,smth
70	1	

Trip out of hole. Run in with test pump. Pump until mud thins. Trip pump out and run 2" casing. Place sand pack and cement with 1" tremie pipe. Develop well with air for 1 ½ hours.



CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 04/14/00
Reporting Date: 04/20/00
Project Number: DEEP #2
Project Name: EUGENIE DEEP MONITER WELL #2
Project Location: CARLSBAD, NM

Sampling Date: 04/14/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		04/20/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-2	225' WELL #2	242	457	24	754	6420	832
Quality Control		NR	44	58	5.19	1392	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	88	116	103.8	98.5	NR
Relative Percent Difference		NR	1.8	8.6	3.1	0.2	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/17/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-2	225' WELL #2	402	1282	0	0	11.54	2760
Quality Control		1001	47.47	112	971	6.96	NR
True Value QC		1000	50.00	124	1000	7.00	NR
% Accuracy		100	94.9	90.3	97.1	99.4	NR
Relative Percent Difference		2.4	4.0	-	-	0	-
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

NOTE: Sample also contains 283 mg/L Hydroxide (OH) ion.

Amy Hill
Chemist

4/20/00
Date

I+W #2

DRILL RATE (MIN/FT) SAMPLE DESCRIPTION

Drill 3' conductor hole and set 8 5/8" hole collar. Rig up flow line and steel mud pit. Mix bentonite mud and begin drilling 6 1/2" hole.

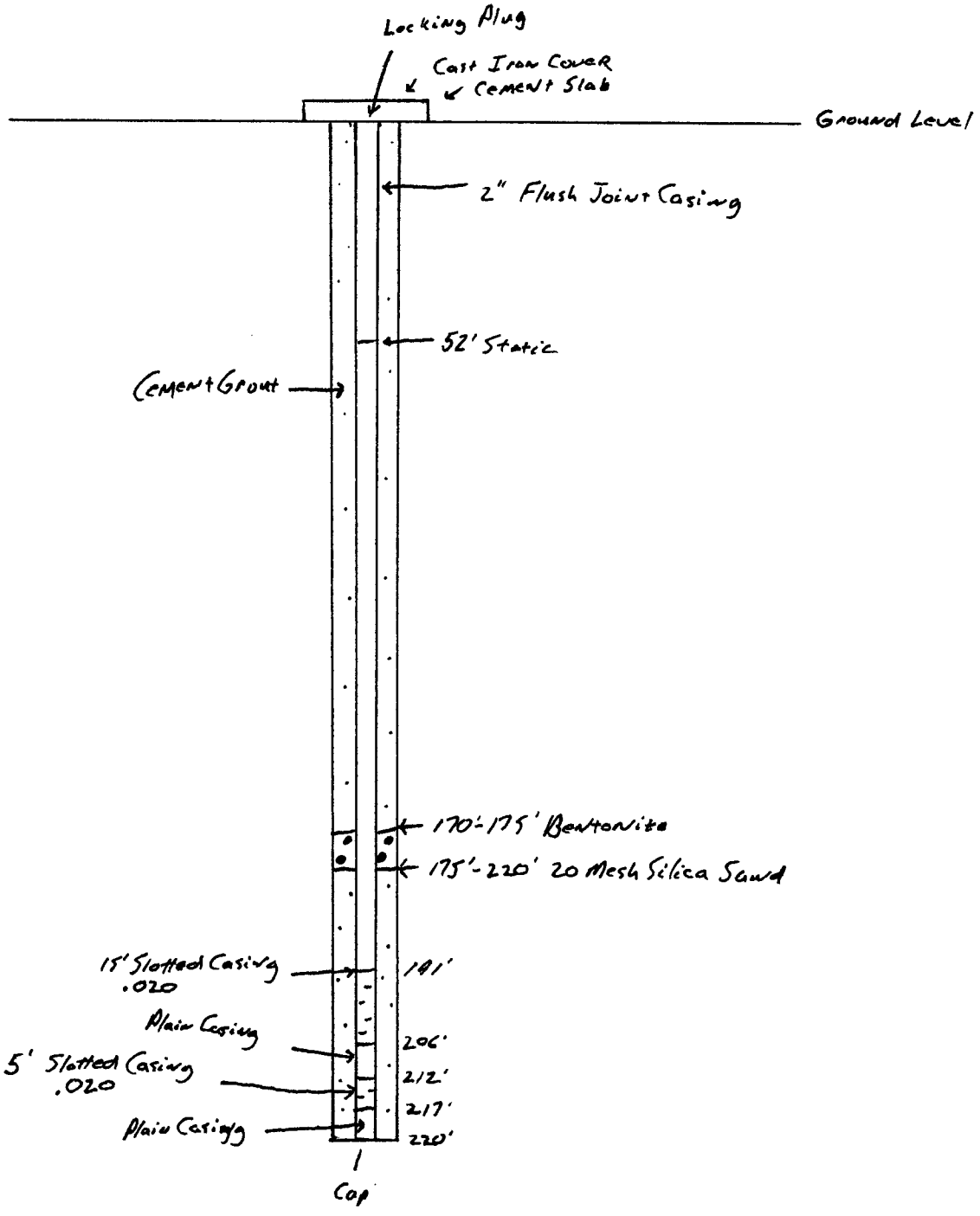
0-2	2	4/5/00
4	2	0-4' Rocky Soil
6	2	4-8' Clay:gry-brn,stky
8	2	8-17' Caliche
10	1-	
2	5	
4	3	
6	8	
8	10	17-29' Conglomerate:wht,pnk,yel brn,off wht,sme crs sand
20	15	
2	14	
4	12	
6	16	
8	16-	4/6/00
30	11	29-36' Layers of rd clay and conglomerate:pnk,th,gry,yel brn,sndy,calc
2	2	
4	17-	
6	17-	36-45' Conglomerate:wht,pnk,brk rd,yel brn,vry sndy,calc
8	16	
40	9-	
2	8-	
4	7	
6	1-	45-58' Clay:rd,sndy,sme fn gravel
8	1-	
50	1-	
2	1-	
4	1-	
6	1	
8	4	58-59' Conglomerate:yel brn,gry,off wht,lmy,sndy
60	7-	4/7/00
2	1-	59-62' Sand:clr,frstd,med-crs grn,lsly consl,mod wl srtd,sb rnd,rnd
4	19	Gravel:fn (1/16"-1/8") limestone,chert,yel brn,brn,pnk,off wht,water zone
6	24	62-67' Conglomerate:wht,pnk,yel brn,sndy,lmy,vry hrd
8	8-	67-130' Clay:rd,sndy
70	1-	

70-2	1/2	
4	1/2	
6	1/2	
8	1/2	
80	1/2	
2	1/2	
4	1/2	
6	1/2	
8	1-	
90	4	Note:sme gravel mixed with rd sndy clay
2	3	
4	4	
6	6	
8	1-	
100	1	
2	1	
4	1/2	
6	1/2	
8	1	
10	1	
2	2	
4	1-	
6	2-	
8	3	
20	4	4/8/00 CHANGE TO 6" DRAG BIT
2	1/2	
4	1/2	
6	1/2	
8	1/2	
30	4	4/9/00 CHANGE TO 6" TRICONE BIT
2	4	130-148' Conglomerate:pnk,rd,yel,brn,off wht,lmy,chrt,sme med crs sand,
4	4	sme lsly consl sand+gravel,possible water zone
6	2-	
8	3-	
40	6-	
2	4-	
4	4-	
6	3-	
8	2-	148-156' Clay:rd,smth,sft
50	1-	
2	1-	
4	2	
6	2	156-170' Clay:rd,sndy,sme fn grvl
8	1-	
60	1	

160-2	1-		
4	1		
6	1-		
8	1		
70	1	170-188'	Clay:lt yel-lt gn gry,smth
2	3		
4	3		
6	4-		
8	4-	188-200'	Clay:lt gry grn,sme yel,smth,sme fn gravel
80	5		
2	3-		
4	4		
6	4-		
8	5-		
90	5		
2	7		
4	9		
6	9		
8	8-		
200	8	4/11/00	
2	10	200-203'	Limestone:yel brn,vfn-micxln,drilled smoothly,no obv. fractures,
4	4		micro sucro,possible water zone
6	3-	203-215'	Clay:rd,smth-slty
8	10		
10	7		
2	1		
4	1	215-217'	Anhy:wht,pnk,plty,vfn xln,sme gyp
6	4		
8	4-	217-220'	Clay:rd,smth,stky
220	7		

Trip out of hole. Run casing. Sand pack with 1 1/4" tremie pipe. Cement through 1 1/4" tremie.
Trip into 2" casing with 1" pipe and develop well with air for 4 hours.
Static water level: 52'
Pull samples from #1+#2 well.

I + W #2


Locking Plug
Cast Iron Cover
Cement Slab
Ground Level
2" Flush Joint Casing
52' Static
Cement Grout
170'-175' Bentonite
175'-220' 20 Mesh Silica Sand
15' Slotted Casing .020
191'
Plain Casing
206'
5' Slotted Casing .020
212'
217'
Plain Casing
220'
Cap

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I&W INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 08/22/00
Reporting Date: 08/25/00
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Sampling Date: 08/22/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET	192	363	91	4.40	3458	156
H5117-2	TIDWELL	496	484	308	4.44	6690	240
H5117-3	CALVANI	0	292	303	4.52	3896	102
H5117-4	WHITES ZOO	0	500	253	6.94	4330	195
Quality Control		NR	42.0	45.0	5.05	1368	NR
True Value QC		NR	50.0	50.0	5.00	1413	NR
% Recovery		NR	84.0	90.9	101	96.7	NR
Relative Percent Difference		NR	0	2.4	0	0.1	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		08/24/00	08/24/00	08/24/00	08/24/00	08/24/00	08/24/00
H5117-1	L STREET	621	648	0	190	7.01	2778
H5117-2	TIDWELL	1770	796	0	293	6.98	5878
H5117-3	CALVANI	640	807	0	102	7.22	3238
H5117-4	WHITES ZOO	691	655	0	195	7.22	3300
Quality Control		1070	51.51	NR	1088	6.99	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		107	103	NR	109	99.9	NR
Relative Percent Difference		6.4	1.5	NR	8.1	0	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

8/25/00
Date

H5117.XLS

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

I/W Inc.
P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

Water Samples taken from existing water wells in the surrounding area of the Eugenie water well.

1. L Street : NE ¼ SW ¼ NW ¼ Sec.19, T22S, R27E
   a. 92' Deep & 50 years old

2. Tidwell: NE ¼ NE ¼ NE ¼ NE ¼ Sec. 27, T22S, R27E
   a. 57' Deep & 3 1/2 years old

3. Calvani : N ¼ NE ¼ NW ¼ SW ¼ Sec. 20, T22S, R27E
   a. 200' Deep & 40 Years old

4. Whites Zoo : SW ¼ NW ¼ SW ¼ NW ¼ Sec.8 T22S, R27E
   a. 42' Deep & 2 Years old

These samples where witnessed & pulled at 10:00 am on August 22, 2000 .

Mike Stublefield of Artesia OCD
Clint Taylor of Taylor Well Service
Lawrence Dade of I & W, Inc.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

Jennifer A. Salisbury
CABINET SECRETARY

Oil Conservation Div.
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

Memorandum of Meeting or Conversation

Telephone __X___
Personal _____
E-Mail _____
FAX: ___X___ **505-677-2240**

12/21/00 2:59 PM

Originating Party: **Wayne Price-OCD**

Other Parties: **George Parchman- I&W**

Subject: **Discharge Plan Renewal Notice for the following Facilities:**

BW- 006 **I&W Carlsbad Brine St.** **expires 6/19/01**
GW-___ **Name** **expires**

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]

Discussion: Discussed WQCC 3106F and gave notice to submit Discharge Plan renewal application with $50.00 filing fee for the above listed facilities.
Conclusions or Agreements:

I&W brine well test has been waived during the December schedule since they had tested earlier in the year.

Signed: Wayne Price

CC:

I/W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

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LOVINGTON
(505) 396-3331
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New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

November 15, 2000

Attn: Wayne Price

Re: Eugenie Brine Extraction Facility
Discharge Plan BW-006
SW/4 SW/4 Section 17, T22S, R27E
Eddy County, New Mexico

Upon receipt of a letter from the NMOCD on October 20, 2000 I & W was informed of a requirement for brine well operators to perform a mechanical integrity test on the brine extraction facilities. I & W, Inc. brine facility Eugenie was included in the group to be tested on December 13, 2000.

However I&W had problems with the facility in December of 1999, which had delayed the original cavern test until May 31, 2000 which was then completed.

I & W is requesting an exemption to a later date due to the time frame only being 5 months between the dates at this point. I appreciate your assistance in this matter, if you have any further questions please contact us at (505)885-6663 or (505)677-2111.

Sincerely,

Bayless E. Irby
Manager

BI/lr

I & W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

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LOVINGTON
(505) 396-3331
1 (800) 748-2084

Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

July 25, 2000

Attn: Wayne Price

Re: Eugenie Brine Extraction Facility
Discharge Plan BW-006
SW/4 SW/4 Section 17, T22S, R27E
Eddy County, New Mexico

I & W received a letter from Mr. Anderson dated June 22, 2000 with conditions for operating the Eugenie brine supply well.

(1.) I & W, Inc. will comply with an investigation plan to monitor the two wells that we have drilled for the purpose of checking migration out of the zone. We will also sample some of the surrounding area water wells, up dip & down dip to find what area water will test.

(2.) I & W, Inc. has never had to operate at any time with pressure over 100 PSI. I & W will not operate over the 238 PSI guidelines set. We also recovered approximately 12,000 bbls.of brine before resuming pump operations.

As of July 1st 2000, Eugene Irby will be the manager of the I & W Carlsbad & Lovington yards. However I will be available if I am needed.

Sincerely,

George Parchman

George E. Parchman

GP/lr

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-015-23031

5. Indicate Type of Lease STATE [XX] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Eugenie

1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER Brine Well

2. Name of Operator: I & W, Inc.

8. Well No. #1 ? . 2

3. Address of Operator: P.O. Box 1685 Carlsbad, NM 88220

9. Pool name or Wildcat

4. Well Location
Unit Letter M : 1288 Feet From The SL Line and 497 Feet From The WL Line

Section 17 Township 22S Range 27 NMPM Eddy County

10. Elevation (*Show whether DF, RKB, RT, GR, etc.*)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]		CASING TEST AND CEMENT JOB [ ]	
OTHER: Resume Brine Production [X]		OTHER: [ ]	

12. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

1.) The fresh water injection well has been plugged & abandoned as directed by the OCD, EPA.

2.) Two monitor wells have been drilled & sampled with no indication of brine water migrating into fresh water zones.

3.) Would like to begin loading cavern & run mit on well #1, in order to start producing brine water.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE May 2, 2000

TYPE OR PRINT NAME George Parchman TELEPHONE NO. (505)885-6663

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

I+W #2

DRILL RATE (MIN/FT) SAMPLE DESCRIPTION

Drill 3' conductor hole and set 8 5/8" hole collar. Rig up flow line and steel mud pit. Mix bentonite mud and begin drilling 6 1/2" hole.

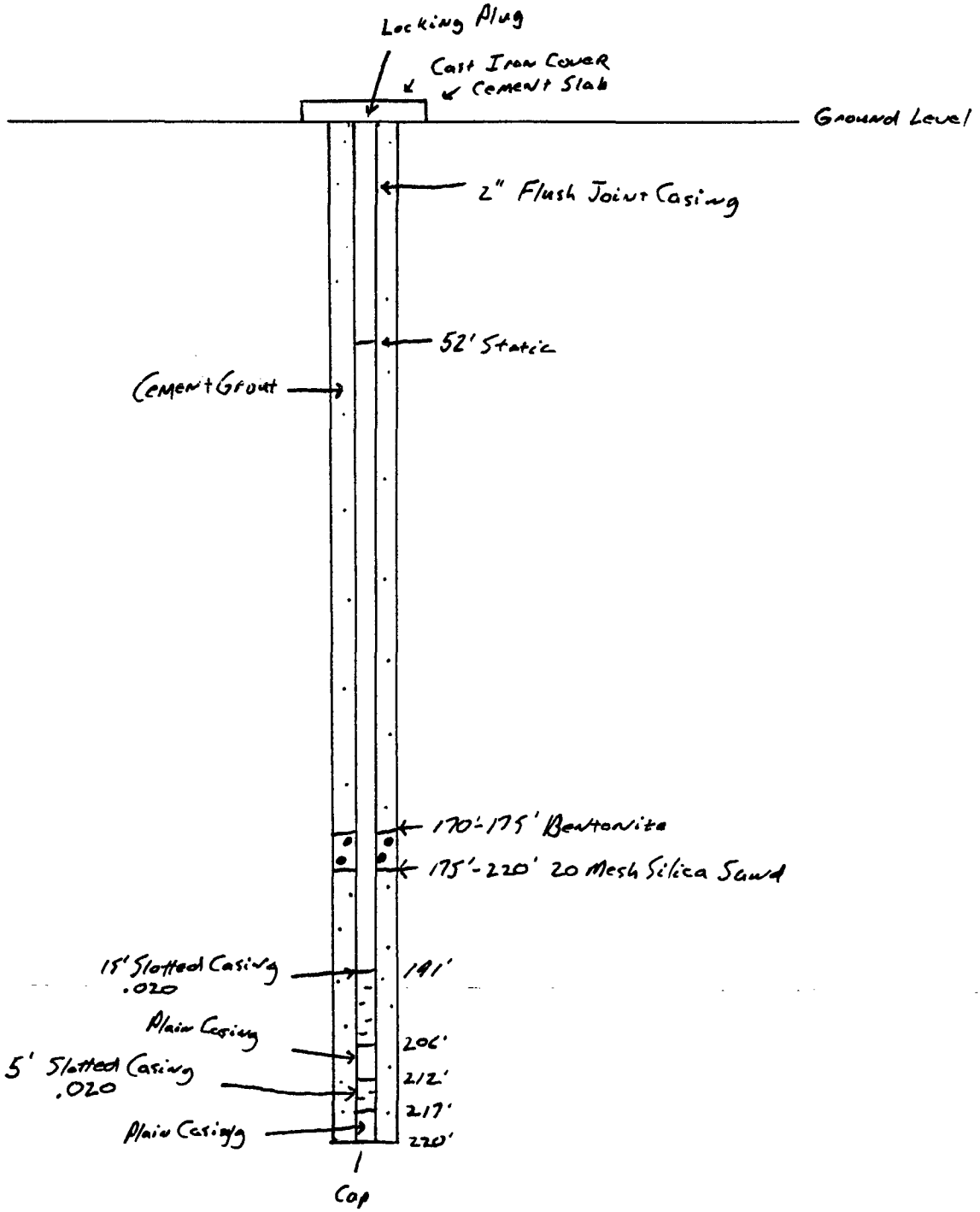
0-2	2	4/5/00
4	2	0-4' Rocky Soil
6	2	4-8' Clay:gry-brn,stky
8	2	8-17' Caliche
10	1-	
2	5	
4	3	
6	8	
8	10	17-29' Conglomerate:wht,pnk,yel brn,off wht,sme crs sand
20	15	
2	14	
4	12	
6	16	
8	16-	4/6/00
30	11	29-36' Layers of rd clay and conglomerate:pnk,th,gry,yel brn,sndy,calc
2	2	
4	17-	
6	17-	36-45' Conglomerate:wht,pnk,brk rd,yel brn,vry sndy,calc
8	16	
40	9-	
2	8-	
4	7	
6	1-	45-58' Clay:rd,sndy,sme fn gravel
8	1-	
50	1-	
2	1-	
4	1-	
6	1	
8	4	58-59' Conglomerate:yel brn,gry,off wht,lmy,sndy
60	7-	4/7/00
2	1-	59-62' Sand:clr,frstd,med-crs grn,lsly consl,mod wl srtd,sb rnd,rnd
4	19	Gravel:fn (1/16"-1/8") limestone,chert,yel brn,brn,pnk,off wht,water zone
6	24	62-67' Conglomerate:wht,pnk,yel brn,sndy,lmy,vry hrd
8	8-	67-130' Clay:rd,sndy
70	1-	

70-2	1/2	
4	1/2	
6	1/2	
8	1/2	
80	1/2	
2	1/2	
4	1/2	
6	1/2	
8	1-	
90	4	Note:sme gravel mixed with rd sndy clay
2	3	
4	4	
6	6	
8	1-	
100	1	
2	1	
4	1/2	
6	1/2	
8	1	
10	1	
2	2	
4	1-	
6	2-	
8	3	
20	4	4/8/00 CHANGE TO 6" DRAG BIT
2	1/2	
4	1/2	
6	1/2	
8	1/2	
30	4	4/9/00 CHANGE TO 6" TRICONE BIT
2	4	130-148' Conglomerate:pnk,rd,yel,brn,off wht,lmy,chrt,sme med crs sand,
4	4	sme lsly consl sand+gravel,possible water zone
6	2-	
8	3-	
40	6-	
2	4-	
4	4-	
6	3-	
8	2-	148-156' Clay:rd,smth,sft
50	1-	
2	1-	
4	2	
6	2	156-170' Clay:rd,sndy,sme fn grvl
8	1-	
60	1	

160-2	1-		
4	1		
6	1-		
8	1		
70	1	170-188'	Clay:lt yel-lt gn gry,smth
2	3		
4	3		
6	4-		
8	4-	188-200'	Clay:lt gry grn,sme yel,smth,sme fn gravel
80	5		
2	3-		
4	4		
6	4-		
8	5-		
90	5		
2	7		
4	9		
6	9		
8	8-		
200	8	4/11/00	
2	10	200-203'	Limestone:yel brn,vfn-micxln,drilled smoothly,no obv. fractures,
4	4		micro sucro,possible water zone
6	3-	203-215'	Clay:rd,smth-slty
8	10		
10	7		
2	1		
4	1	215-217'	Anhy:wht,pnk,plty,vfn xln,sme gyp
6	4		
8	4-	217-220'	Clay:rd,smth,stky
220	7		

Trip out of hole. Run casing. Sand pack with 1 1/4" tremie pipe. Cement through 1 1/4" tremie.
Trip into 2" casing with 1" pipe and develop well with air for 4 hours.
Static water level: 52'
Pull samples from #1+#2 well.

I + W #2


Locking Plug
Cast Iron Cover
Cement Slab
Ground Level
2" Flush Joint Casing
52' Static
Cement + Grout
170'-175' Bentonite
175'-220' 20 Mesh Silica Sand
15' Slotted Casing .020
191'
Plain Casing
206'
5' Slotted Casing .020
212'
217'
Plain Casing
220'
Cap

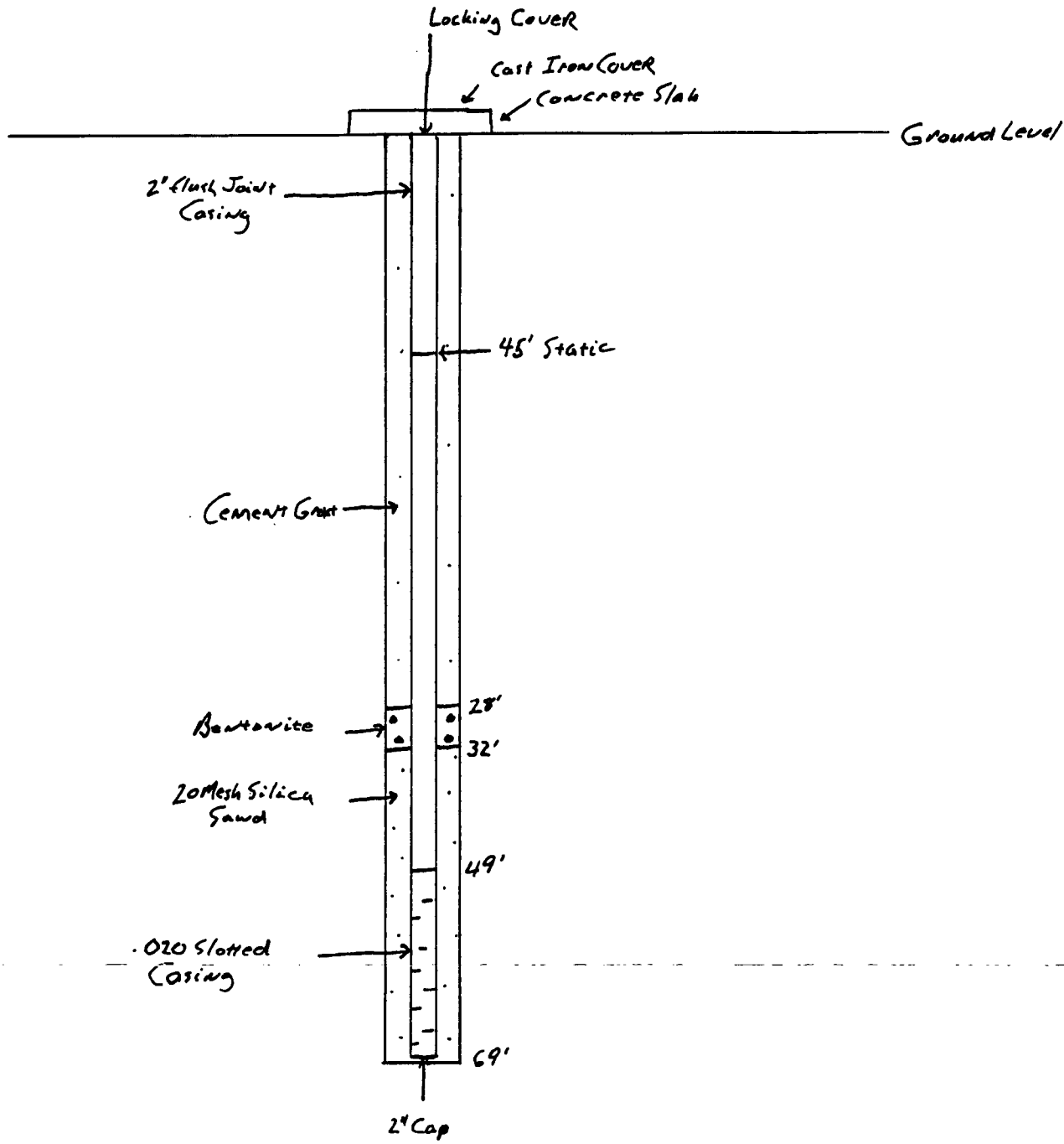
I+W #1

DRILL RATE (MIN/FT) SAMPLE DESCRIPTION

Drill 3' conductor hole and set 8 5/8" hole collar. Rig up flow line and steel mud pit. Mix bentonite mud and begin drilling 6 1/2" hole.

0-2 3 3/27/00
4 2- 0-4' Rocky Soil
6 1- 4-8' Clay:gry-brn,stky
8 1- 8-17' Caliche
10 1
2 1
4 2
6 2
8 4 17-29' Conglomerate:wht,pnk,yel brn,off wht,sme crs sand
20 9- Note:Lost about 100 gallons of mud when pulled off of bottom to make
2 8 connection. Probably due to mud ring.
4 6-
6 13
8 13 3/28/00
30 13 29-36' Layers of rd clay and conglomerate:pnk,th,gry,yel brn,sndy,calc
2 3
4 7
6 13 36-45' Conglomerate:wht,pnk,brk rd,yel brn,vry sndy,calc
8 13
40 5-
2 8
4 5
6 8 45-58' Clay:rd,sndy,sme fn gravel
8 1-
50 2
2 1-
4 1
6 6-
8 5- 55-59' Conglomerate:yel brn,gry,off wht,lmy,sndy
60 4-
2 3 59-62' Sand:clr,frstd,med-crs grn,lsly consl,mod wl srtd,sb rnd,rnd
4 15 Gravel:fn (1/16"-1/8") limestone,chert,yel brn,brn,pnk,off wht,water zone
6 19- 62-67' Conglomerate:wht,pnk,yel brn,sndy,lmy,vry hrd
8 17 67-69' Clay:rd,smth
70 1

Trip out of hole. Run in with test pump. Pump until mud thins. Trip pump out and run 2" casing. Place sand pack and cement with 1" tremie pipe. Develop well with air for 1 ½ hours.



CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 04/14/00
Reporting Date: 04/20/00
Project Number: DEEP #2
Project Name: EUGENIE DEEP MONITER WELL #2
Project Location: CARLSBAD, NM

Sampling Date: 04/14/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		04/20/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-2	225' WELL #2	242	457	24	754	6420	832
Quality Control		NR	44	58	5.19	1392	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	88	116	103.8	98.5	NR
Relative Percent Difference		NR	1.8	8.6	3.1	0.2	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/17/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-2	225' WELL #2	402	1282	0	0	11.54	2760
Quality Control		1001	47.47	112	971	6.96	NR
True Value QC		1000	50.00	124	1000	7.00	NR
% Accuracy		100	94.9	90.3	97.1	99.4	NR
Relative Percent Difference		2.4	4.0	-	-	0	-
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

NOTE: Sample also contains 283 mg/L Hydroxide (OH) ion.

Amy Hill
Chemist

4/20/00
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
I & W, INC.
ATTN: GEORGE PARCHMAN
P.O. BOX 1685
CARLSBAD, NM 88220
FAX TO: (505) 885-8477

Receiving Date: 04/14/00
Reporting Date: 04/20/00
Project Number: SHALLOW #1
Project Name: EUGENIE SHALLOW MONITER WELL
Project Location: CARLSBAD, NM

Sampling Date: 04/14/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		04/20/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-1	125' WELL #1	880	573	243	12	8020	468
Quality Control		NR	44	58	5.19	1392	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	88	116	103.8	98.5	NR
Relative Percent Difference		NR	1.8	8.6	3.1	0.2	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/17/00	04/17/00	04/17/00	04/17/00	04/17/00	04/17/00
H4796-1	125' WELL #1	1947	1096	226	0	7.19	5890
Quality Control		1001	47.47	112	971	6.96	NR
True Value QC		1000	50.00	124	1000	7.00	NR
% Accuracy		100	94.9	90.3	97.1	99.4	NR
Relative Percent Difference		2.4	4.0	-	-	0	-
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

NOTE: Sample also contains 34 mg/L Hydroxide (OH) ion.

Amy Hill
Chemist

4/20/00
Date

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mike Stubblefield
OCD
811 S. First Street
Artesia, NM 88210

Report Date: June 26, 2000

Order ID Number: A00061311

Project Number: Water Sample Irrigation Canal
Project Name: I & W Inc.
Project Location: Due South Brine Storage Tanks/Carlbad

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
147972	Water Sample	Water	6/7/00	10:45	6/13/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 147972 - Water Sample

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC03240	Date Analyzed:	6/16/00
Analyst:	LD	Preparation Method:	N/A	Prep Batch:	PB02794	Date Prepared:	6/16/00

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		86	mg/L as CaCo3	1	1
Total Alkalinity		86	mg/L as CaCo3	1	1

Sample: 147972 - Water Sample

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC03223	Date Analyzed:	6/15/00
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB02775	Date Prepared:	6/15/00

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		4500	uMHOS/cm	1	

Sample: 147972 - Water Sample

Analysis:	Dissolved Metals	Analytical Method:	E 200.7	QC Batch:	QC03397	Date Analyzed:	6/20/00
Analyst:	RR	Preparation Method:	E 3005A	Prep Batch:	PB02761	Date Prepared:	6/15/00

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		458	mg/L	1	0.50
Dissolved Magnesium		102	mg/L	1	0.50
Dissolved Potassium		6.3	mg/L	1	0.50
Dissolved Sodium		359	mg/L	1	0.50

Sample: 147972 - Water Sample

Analysis:	Ion Chromatography (IC)	Analytical Method:	E 300.0	QC Batch:	QC03219	Date Analyzed:	6/14/00
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB02771	Date Prepared:	6/14/00

Param	Flag	Result	Units	Dilution	RDL
CL		760	mg/L	1	0.50
Fluoride		1.6	mg/L	1	0.20
Nitrate-N	[1]	<1.0	mg/L	1	0.20
Sulfate		1400	mg/L	1	0.50

Sample: 147972 - Water Sample

Analysis:	TDS	Analytical Method:	E 160.1	QC Batch:	QC03220	Date Analyzed:	6/14/00
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB02772	Date Prepared:	6/13/00

[1] Sample came in already out of holding time for NO3.

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		3100	mg/L	1	10

Sample: 147972 - Water Sample

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC03269	Date Analyzed:	6/13/00
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB02822	Date Prepared:	6/13/00

Param	Flag	Result	Units	Dilution	RDL
pH	[2]	8.0	s.u.	1	1

[2] Out of holding time.

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC03219

Param	Flag	Results	Units	Reporting Limit
CL		<0.5	mg/L	0.50
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<0.5	mg/L	0.50

Sample: Method Blank QCBatch: QC03220

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<10	mg/L	10

Sample: Method Blank QCBatch: QC03223

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		2.0	uMHOS/cm	

Sample: Method Blank QCBatch: QC03240

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<2.0	mg/L as CaCo3	1
Total Alkalinity		<2.0	mg/L as CaCo3	1

Sample: Method Blank QCBatch: QC03397

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.50	mg/L	0.50
Dissolved Magnesium		<0.50	mg/L	0.50
Dissolved Potassium		<0.50	mg/L	0.50
Dissolved Sodium		<0.50	mg/L	0.50

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC03397

Param	Flag	Result	Units	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1078	mg/L	1	1000	<0.50	107		75 - 125	20
Dissolved Magnesium		1010	mg/L	1	1000	<0.50	101		75 - 125	20
Dissolved Potassium		927	mg/L	1	1000	<0.50	92		75 - 125	20
Dissolved Sodium		926	mg/L	1	1000	<0.50	92		75 - 125	20

Sample: LCSD QC Batch: QC03397

Param	Flag	Result	Units	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1072	mg/L	1	1000	<0.50	107	0.55	75 - 125	20
Dissolved Magnesium		1006	mg/L	1	1000	<0.50	100	0.39	75 - 125	20
Dissolved Potassium		921	mg/L	1	1000	<0.50	92	0.64	75 - 125	20
Dissolved Sodium		879	mg/L	1	1000	<0.50	87	5.20	75 - 125	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC03219

Param	Flag	Result	Units	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		135.14	mg/L	1	125	18	93		80 - 120	20
Fluoride		25.21	mg/L	1	25	1.8	93		80 - 120	20
Nitrate-N		49.85	mg/L	1	50	<1.0	99		80 - 120	20
Sulfate		160.33	mg/L	1	125	40	96		80 - 120	20

Sample: MSD QC Batch: QC03219

Param	Flag	Result	Units	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		133.56	mg/L	1	125	18	92	1.35	80 - 120	20
Fluoride		24.62	mg/L	1	25	1.8	91	2.55	80 - 120	20
Nitrate-N		49.46	mg/L	1	50	<1.0	98	0.78	80 - 120	20
Sulfate		158.51	mg/L	1	125	40	94	1.52	80 - 120	20

Sample: MS QC Batch: QC03397

Param	Flag	Result	Units	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1653	mg/L	1	1000	458	119		75 - 125	20
Dissolved Magnesium		1132	mg/L	1	1000	102	103		75 - 125	20
Dissolved Potassium		964	mg/L	1	1000	6.3	95		75 - 125	20
Dissolved Sodium		1228	mg/L	1	1000	359	86		75 - 125	20

Sample: MSD QC Batch: QC03397

Param	Flag	Result	Units	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1690	mg/L	1	1000	458	123	3.04	75 - 125	20
Dissolved Magnesium		1143	mg/L	1	1000	102	104	1.06	75 - 125	20
Dissolved Potassium		1012	mg/L	1	1000	6.3	100	4.88	75 - 125	20
Dissolved Sodium		1308	mg/L	1	1000	359	94	8.80	75 - 125	20

Quality Control Report
Duplicate Samples

Sample: Duplicate QC Batch: QC03220

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		3170	3100	mg/L	1	2.23	20

Sample: Duplicate QC Batch: QC03223

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		1291	1300	uMHOS/cm	1	0.69	20

Sample: Duplicate QC Batch: QC03240

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0.00	20
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0.00	20
Bicarbonate Alkalinity		313	316	mg/L as CaCo3	1	0.95	20
Total Alkalinity		313	316	mg/L as CaCo3	1	0.95	20

Sample: Duplicate QC Batch: QC03269

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		9.5	9.5	s.u.	1	0.00	20

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC03219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.50	92	80 - 120	6/14/00
Fluoride		mg/L	2.50	2.46	98	80 - 120	6/14/00
Nitrate-N		mg/L	5	4.63	92	80 - 120	6/14/00
Sulfate		mg/L	12.50	11.90	95	80 - 120	6/14/00

Sample: ICV (1) QC Batch: QC03219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.53	92	80 - 120	6/14/00
Fluoride		mg/L	2.50	2.46	98	80 - 120	6/14/00
Nitrate-N		mg/L	5	4.61	92	80 - 120	6/14/00
Sulfate		mg/L	12.50	11.90	95	80 - 120	6/14/00

Sample: CCV (1) QC Batch: QC03220

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	933	93	80 - 120	6/14/00

Sample: ICV (1) QC Batch: QC03220

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	959	95	80 - 120	6/14/00

Sample: CCV (1) QC Batch: QC03223

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		uMHOS/cm	1413	1409	99	80 - 120	6/15/00

Sample: ICV (1)

QC Batch: QC03223

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		uMHOS/cm	1413	1390	98	80 - 120	6/15/00

Sample: CCV (1)

QC Batch: QC03240

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	6/16/00
Carbonate Alkalinity		mg/L as CaCo3	0	198	0	80 - 120	6/16/00
Bicarbonate Alkalinity		mg/L as CaCo3	0	36	0	80 - 120	6/16/00
Total Alkalinity		mg/L as CaCo3	250	234	93	80 - 120	6/16/00

Sample: ICV (1)

QC Batch: QC03240

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	6/16/00
Carbonate Alkalinity		mg/L as CaCo3	0	230	0	80 - 120	6/16/00
Bicarbonate Alkalinity		mg/L as CaCo3	0	17	0	80 - 120	6/16/00
Total Alkalinity		mg/L as CaCo3	250	247	98	80 - 120	6/16/00

Sample: CCV (1)

QC Batch: QC03269

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	6/13/00

Sample: ICV (1)

QC Batch: QC03269

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	6/13/00

Sample: CCV (1)

QC Batch: QC03397

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	20	21	105	75 - 125	6/20/00
Dissolved Magnesium		mg/L	20	21	105	75 - 125	6/20/00
Dissolved Potassium		mg/L	20	22	110	75 - 125	6/20/00
Dissolved Sodium		mg/L	20	20	100	75 - 125	6/20/00

Sample: ICV (1)

QC Batch: QC03397

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	20	20.8	104	75 - 125	6/20/00
Dissolved Magnesium		mg/L	20	20.2	101	75 - 125	6/20/00
Dissolved Potassium		mg/L	20	19.6	98	75 - 125	6/20/00
Dissolved Sodium		mg/L	20	18.5	92	75 - 125	6/20/00

Cation-Anion Balance Sheet

Sample # 147972 Date: 6/26/00

Cations

	ppm	meq/L
Calcium	458	22.8542
Magnesium	102	8.39358
Sodium	359	15.6165
Potassium	6.3	0.161154

Total Cations
47.0254 in meq/L

Anions

	ppm	meq/L
Alkalinity	86	1.72
Sulfate	1400	29.148
Chloride	760	21.4396
Nitrate as N	0	0
Fluoride	1.6	0.084224

Total Anions
52.3918 in meq/L

Percentage Error
10.7957 %
(needs to be <10%)

OTHER INFORMATION

TDS	3100
EC	4500

Measure EC and Cation Sums	4702.5434	Range should be:	4050	to	4950
Measure EC and Anion Sums	5239.1824	Range should be:	4050	to	4950
Calculated TDS/Conductivity	0.6888889	Range should be:	0.55	to	0.77
Measure TDS and Cation Sums	0.6592177	Range should be:	0.55	to	0.77
Measure TDS and Anion Sums	0.5916954	Range should be:	0.55	to	0.77

147972

Page____of____

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A0006131

Company Name: N.M.O.C.D. **Phone #:** 505-748-1283

Address: (Street, City, Zip) Artesia **Fax #:** 505-7489720.

Contact Person: Mike Stubblefield

Invoice to: (If different from above)

Project #: Water Sample / Irrigation Canal **Project Name:** I+W Inc.

Project Location: Due South Brine Storage tanks. / Carlsbad. **Sampler Signature:** Mike Stubblefield

ANALYSIS REQUEST
(Circle or Specify Method No.)

Analysis columns: MTBE 8021B/602; BTEX 8021B/602; TPH 418.1/TX1005; PAH 8270C; Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7; TCLP Metals Ag As Ba Cd Cr Pb Se Hg; TCLP Volatiles; TCLP Semi Volatiles; TCLP Pesticides; RCI; GC-MS Vol. 8260B/624; GC/MS Semi. Vol. 8270C/625; PCB's 8082/608; Pesticides 8081A/608; BOD, TSS, pH; OCD Item #024 Gen Chem; Turn Around Time if different from standard; Hold

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	$NaHSO_4$	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	ANALYSIS REQUEST
147972	Water Sample	1		✓									✓	✓	6-7-00	10:45	See attached list

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Mike Stubblefield	6/12/00	10:30AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki [signature]	6-13-00	10:10a

LAB USE ONLY
Intact (Y) / N
Headspace Y / N
Temp 5 °
Log-in Review [initials]

REMARKS:
6/26

Carrier # Fed 8205-5514-9795

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

June 22, 2000

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 5659

Mr. George Parchman
I&W, Inc.
P.O. Box 1685
Carlsbad, New Mexico 88220

Re: Eugenie Brine Extraction Facility
Discharge Plan BW-006
SW/4 SW/4 Section 17-Ts22s-R27e
Eddy County, New Mexico

Dear Mr. Parchman:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of the pressure test results conducted on May 31, 2000 and the supporting documentation dated June 12, 2000. The NMOCD hereby approves I&W, Inc. to resume brine well operations for the Eugenie Brine Extraction Facility Discharge Plan BW-006 subject to the following additional conditions:

1. I&W, Inc. will submit an investigation plan for OCD approval to demonstrate that fluids have not migrated out of the permitted zone of interests.

2. I&W, Inc. operating pressure will not exceed 238 psig.

Please submit the above requested information by ~~July 15~~ AUGUST 25, 2000.

If you have any questions, please contact Wayne Price of my staff at (505-827-7155). On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief
RCA/lwp

xc: OCD Artesia Office

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

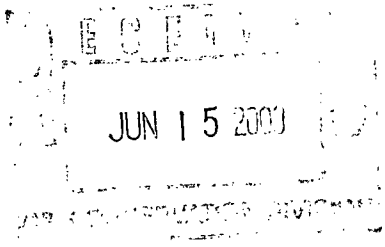
I/W Inc.
P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

June 12,2000



Attn: Wayne Price

Re: Eugenie #1
Brine Extraction Facility
Discharge Plan # BW-006

To Whom It May Concern:

We received permission to begin loading the cavern from the OCD, for a cavern Test. We began using our own pump truck units to load the cavern putting approximately 4,000 bbls of fresh water into the cavern. Due to truck scheduling, customer service, and the loss of revenue we would have to pull the unit when needed to fill prior commitments leaving the truck off the cavern for 3 to 4 days at a time. At this time we hired Davis Tool reverse unit pump and resumed pumping, continuing for approx. 3 ½ days @ 2.5 bbls. Per minute. Pressure did not seem to be coming up after reaching a point around 240 PSI. After pumping another 2 or 3,000 bbls, we shut down and called Wayne Price in Santa Fe. Relaying to him that the well would hold about 235 to 240 PSI and would not go any further. The total amount of Barrels pumped was approximately 17,500.

Mr. Price agreed that the well was 1 ½ times the normal pump in pressure, Which is 75 to 100 PSI. He then instructed us to test the well with Mr. Mike Stubblefield As the witness for Oil Conservation Division. As Instructed we ran a chart for 4 hours, Showing no change at all. The gauge as of June 12, 2000 is setting at 233 PSI. The Chart was ran May 31, 2000.

Sincerely,

George Parchman
Manager

GP/lr

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mike Stubblefield
OCD
811 S. First Street
Artesia, NM 88210

Report Date: 5/10/00

Project Number: I & W Inc.
Project Name: I & W Monitor Well #2
Project Location: Carsbad, New Mex. I & W Inc. Yard

Order ID Number: A00041910

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
144820	Monitor Well #1 Shallow	Water	4/14/00	14:00	4/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Report Date: 5/10/00 | Order ID Number: A00041910 | Page Number: 2 of 12
I & W Inc. | I & W Monitor Well #2 | Carsbad, New Mex. I & W Inc. Yard

Analytical Results Report

Sample Number: 144820
Description: Monitor Well #1 Shallow

Param	Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
Alkalinity (mg/L as CaCo3)									
Hydroxide Alkalinity	<1.0	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Carbonate Alkalinity	<1.0	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Bicarbonate Alkalinity	238	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Total Alkalinity	238	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Conductivity (uMHOS/cm)									
Specific Conductance	8800	1	SM 2510B	4/20/00	4/20/00	JS	PB01842	QC02215	
Dissolved Metals (mg/L)									
Dissolved Calcium	570	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Dissolved Magnesium	289	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Dissolved Potassium	6.6	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Dissolved Sodium	826	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Hg, Total (mg/L)									
Total Mercury	<0.0002	1	S 7470A	4/26/00	4/27/00	JM	PB01979	QC02360	0.0002
Ion Chromatography (IC) (mg/L)									
CL	2400	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.5
Fluoride	1.2	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.2
Nitrate-N	* 7.1	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.2
Sulfate	1200	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.5
* Nitrate-N - Sample out of holding time for NO3.									
pH (s.u.)									
pH	* 7.4	1	E 150.1	4/19/00	4/19/00	RS	PB01874	QC02240	1
* pH - Out of holding time.									
TDS (mg/L)									
Total Dissolved Solids	5400	1	E 160.1	4/21/00	4/24/00	JS	PB01889	QC02260	10
Total Metals (mg/L)									
Total Aluminum	0.19	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Arsenic	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Barium	0.03	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Boron	0.30	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.05
Total Cadmium	<0.002	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.002
Total Chromium	0.006	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.005
Total Cobalt	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Copper	0.04	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Iron	0.05	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.05
Total Lead	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Manganese	0.03	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Molybdenum	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Nickel	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Selenium	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Silica	7.1	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Silver	<0.005	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.005
Total Zinc	0.48	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01

Report Date: 5/10/00 | Order ID Number: A00041910 | Page Number: 3 of 12
I & W Inc. | I & W Monitor Well #2 | Carsbad, New Mex. I & W Inc. Yard

Quality Control Report
Method Blanks

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Hydroxide Alkalinity (mg/L as CaCo3)		<1.0	1	4/19/00	PB01843	QC02217
Carbonate Alkalinity (mg/L as CaCo3)		<1.0	1	4/19/00	PB01843	QC02217
Bicarbonate Alkalinity (mg/L as CaCo3)		<4.0	1	4/19/00	PB01843	QC02217
Total Alkalinity (mg/L as CaCo3)		<4.0	1	4/19/00	PB01843	QC02217

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Specific Conductance (uMHOS/cm)		3.5		4/20/00	PB01842	QC02215

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Dissolved Calcium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237
Dissolved Magnesium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237
Dissolved Potassium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237
Dissolved Sodium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Total Mercury (mg/L)		<0.0002	0.0002	4/27/00	PB01979	QC02360

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
CL (mg/L)		<0.5	0.5	4/19/00	PB01899	QC02272
Fluoride (mg/L)		<0.2	0.2	4/19/00	PB01899	QC02272
Nitrate-N (mg/L)		<0.2	0.2	4/19/00	PB01899	QC02272
Sulfate (mg/L)		<0.5	0.5	4/19/00	PB01899	QC02272

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Total Dissolved Solids (mg/L)		<10	10	4/24/00	PB01889	QC02260

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Total Aluminum (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Arsenic (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Barium (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Boron (mg/L)		<0.05	0.05	4/26/00	PB01906	QC02342
Total Cadmium (mg/L)		<0.002	0.002	4/26/00	PB01906	QC02342
Total Chromium (mg/L)		<0.005	0.005	4/26/00	PB01906	QC02342
Total Cobalt (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Copper (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Iron (mg/L)		<0.05	0.05	4/26/00	PB01906	QC02342

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Total Lead (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Manganese (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Molybdenum (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Nickel (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Selenium (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Silica (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Silver (mg/L)	<0.005	0.005	4/26/00	PB01906	QC02342
Total Zinc (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342

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I & W Inc. | I & W Monitor Well #2 | Carsbad, New Mex. I & W Inc. Yard

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	Dissolved Calcium (mg/L)	33	1	1000	975	94		75 - 125	-	QC02237
MS	Dissolved Magnesium (mg/L)	6.3	1	1000	899	89		75 - 125	-	QC02237
MS	Dissolved Potassium (mg/L)	6.5	1	1000	914	91		75 - 125	-	QC02237
MS	Dissolved Sodium (mg/L)	12	1	1000	900	89		75 - 125	-	QC02237
MSD	Dissolved Calcium (mg/L)	33	1	100	1014	98	4	-	0 - 20	QC02237
MSD	Dissolved Magnesium (mg/L)	6.3	1	100	920	91	2	-	0 - 20	QC02237
MSD	Dissolved Potassium (mg/L)	6.5	1	100	930	92	2	-	0 - 20	QC02237
MSD	Dissolved Sodium (mg/L)	12	1	100	948	94	5	-	0 - 20	QC02237

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	Cl (mg/L)	27	1	62.5	87.81	97		80 - 120	-	QC02272
MS	Fluoride (mg/L)	1.6	1	12.5	13.78	97		80 - 120	-	QC02272
MS	Nitrate-N (mg/L)	3.7	1	25	26.85	93		80 - 120	-	QC02272
MS	Sulfate (mg/L)	24	1	62.5	88.50	103		80 - 120	-	QC02272
MSD	Cl (mg/L)	27	1	62.5	88.41	98	1	-	0 - 20	QC02272
MSD	Fluoride (mg/L)	1.6	1	12.5	14.38	102	5	-	0 - 20	QC02272
MSD	Nitrate-N (mg/L)	3.7	1	25	26.83	93	0	-	0 - 20	QC02272
MSD	Sulfate (mg/L)	24	1	62.5	88.76	104	0	-	0 - 20	QC02272

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	Total Aluminum (mg/L)	0.19	1	2	2.13	97		75 - 125	-	QC02342
MS	Total Arsenic (mg/L)	<0.01	1	2	1.74	87		75 - 125	-	QC02342
MS	Total Barium (mg/L)	0.03	1	2	1.68	83		75 - 125	-	QC02342
MS	Total Boron (mg/L)	0.30	1	2	2.52	111		75 - 125	-	QC02342
MS	Total Cadmium (mg/L)	<0.002	1	2	1.49	75		75 - 125	-	QC02342
MS	Total Chromium (mg/L)	0.006	1	2	1.57	78		75 - 125	-	QC02342
MS	Total Cobalt (mg/L)	<0.01	1	2	1.59	80		75 - 125	-	QC02342
MS	Total Copper (mg/L)	0.04	1	2	1.98	97		75 - 125	-	QC02342
MS	Total Iron (mg/L)	0.05	1	2	1.65	80		75 - 125	-	QC02342
MS	Total Lead (mg/L)	<0.01	1	2	1.56	78		75 - 125	-	QC02342
MS	Total Manganese (mg/L)	0.03	1	2	1.90	94		75 - 125	-	QC02342
MS	Total Molybdenum (mg/L)	<0.01	1	2	1.60	80		75 - 125	-	QC02342
MS	Total Nickel (mg/L)	<0.01	1	2	1.80	90		75 - 125	-	QC02342
MS	Total Selenium (mg/L)	<0.01	1	2	1.75	88		75 - 125	-	QC02342

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MS	Total Silica (mg/L)	7.1	1	2	9.2	105		75 - 125	-	QC02342
MS	Total Silver (mg/L)	<0.005	1	0.4	0.29	72		75 - 125	-	QC02342
MS	Total Zinc (mg/L)	0.48	1	2	2.00	76		75 - 125	-	QC02342
MSD	Total Aluminum (mg/L)	0.19	1	2	2.08	95	3	-	0 - 20	QC02342
MSD	Total Arsenic (mg/L)	<0.01	1	2	1.71	86	2	-	0 - 20	QC02342
MSD	Total Barium (mg/L)	0.03	1	2	1.65	81	2	-	0 - 20	QC02342
MSD	Total Boron (mg/L)	0.30	1	2	2.06	88	23	-	0 - 20	QC02342
MSD	Total Cadmium (mg/L)	<0.002	1	2	1.47	74	1	-	0 - 20	QC02342
MSD	Total Chromium (mg/L)	0.006	1	2	1.55	77	1	-	0 - 20	QC02342
MSD	Total Cobalt (mg/L)	<0.01	1	2	1.56	78	2	-	0 - 20	QC02342
MSD	Total Copper (mg/L)	0.04	1	2	1.92	94	3	-	0 - 20	QC02342
MSD	Total Iron (mg/L)	0.05	1	2	1.61	78	3	-	0 - 20	QC02342
MSD	Total Lead (mg/L)	<0.01	1	2	1.54	77	1	-	0 - 20	QC02342
MSD	Total Manganese (mg/L)	0.03	1	2	1.64	81	15	-	0 - 20	QC02342
MSD	Total Molybdenum (mg/L)	<0.01	1	2	1.57	79	2	-	0 - 20	QC02342
MSD	Total Nickel (mg/L)	<0.01	1	2	1.74	87	3	-	0 - 20	QC02342
MSD	Total Selenium (mg/L)	<0.01	1	2	1.70	85	3	-	0 - 20	QC02342
MSD	Total Silica (mg/L)	7.1	1	2	9.3	110	5	-	0 - 20	QC02342
MSD	Total Silver (mg/L)	<0.005	1	0.4	0.28	70	4	-	0 - 20	QC02342
MSD	Total Zinc (mg/L)	0.48	1	2	1.97	75	2	-	0 - 20	QC02342

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	Total Mercury (mg/L)	0.00839	1	0.001	0.00850	99		80 - 120	-	QC02360
MSD	Total Mercury (mg/L)	0.00839	1	0.001	0.00862	97	7	-	0 - 20	QC02360

Quality Control Report
Duplicates

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Hydroxide Alkalinity (mg/L as CaCo		<1.0	<1.0	1	0	0 - 20	QC02217
Duplicate	Carbonate Alkalinity (mg/L as CaCo		<1.0	<1.0	1	0	0 - 20	QC02217
Duplicate	Bicarbonate Alkalinity (mg/L as CaC		121	115	1	5	0 - 20	QC02217
Duplicate	Total Alkalinity (mg/L as CaCo3)		121	115	1	5	0 - 20	QC02217

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Specific Conductance (uMHOS/cm)		127,991	130,000	1	2	0 - 20	QC02215

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Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	pH (s.u.)		7.5	7.5	1	0	0 - 20	QC02240

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Total Dissolved Solids (mg/L)		5520	5400	1	2	0 - 20	QC02260

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I & W Inc. I & W Monitor Well #2 Carsbad, New Mex. I & W Inc. Yard

Quality Control Report
Lab Control Spikes and Duplicate Spike

	Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	Dissolved Calcium (mg/L)	<.50	1	1000	998	100		75 - 125	-	QC02237
LCS	Dissolved Magnesium (mg/L)	<.50	1	1000	954	95		75 - 125	-	QC02237
LCS	Dissolved Potassium (mg/L)	<.50	1	1000	943	94		75 - 125	-	QC02237
LCS	Dissolved Sodium (mg/L)	<.50	1	1000	950	95		75 - 125	-	QC02237
LCSD	Dissolved Calcium (mg/L)	<.50	1	100	989	99	1	-	0 - 20	QC02237
LCSD	Dissolved Magnesium (mg/L)	<.50	1	100	935	94	2	-	0 - 20	QC02237
LCSD	Dissolved Potassium (mg/L)	<.50	1	100	939	94	0	-	0 - 20	QC02237
LCSD	Dissolved Sodium (mg/L)	<.50	1	100	929	93	2	-	0 - 20	QC02237

	Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	Total Mercury (mg/L)	<0.0002	1	0.001	0.00104	104		80 - 120	-	QC02360
LCSD	Total Mercury (mg/L)	<0.0002	1	0.001	0.00108	108	4	-	0 - 20	QC02360

	Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	Total Aluminum (mg/L)	<0.01	1	2	2.02	101		75 - 125	-	QC02342
LCS	Total Arsenic (mg/L)	<0.01	1	2	1.93	97		75 - 125	-	QC02342
LCS	Total Barium (mg/L)	<0.01	1	2	2.22	111		75 - 125	-	QC02342
LCS	Total Boron (mg/L)	<0.05	1	2	1.93	97		75 - 125	-	QC02342
LCS	Total Cadmium (mg/L)	<0.002	1	2	2.04	102		75 - 125	-	QC02342
LCS	Total Chromium (mg/L)	<0.005	1	2	2.08	104		75 - 125	-	QC02342
LCS	Total Cobalt (mg/L)	<0.01	1	2	2.20	110		75 - 125	-	QC02342
LCS	Total Copper (mg/L)	<0.01	1	2	2.22	111		75 - 125	-	QC02342
LCS	Total Lead (mg/L)	<0.01	1	2	2.17	109		75 - 125	-	QC02342
LCS	Total Manganese (mg/L)	<0.01	1	2	2.14	107		75 - 125	-	QC02342
LCS	Total Molybdenum (mg/L)	<0.01	1	2	2.05	102		75 - 125	-	QC02342
LCS	Total Nickel (mg/L)	<0.01	1	2	2.10	105		75 - 125	-	QC02342
LCS	Total Selenium (mg/L)	<0.01	1	2	1.90	95		75 - 125	-	QC02342
LCS	Total Silica (mg/L)	<0.01	1	2	2.05	102		75 - 125	-	QC02342
LCS	Total Silver (mg/L)	<0.005	1	0.4	0.33	83		75 - 125	-	QC02342
LCS	Total Zinc (mg/L)	<0.01	1	2	2.08	104		75 - 125	-	QC02342
LCSD	Total Aluminum (mg/L)	<0.01	1	2	2.01	100	0	-	0 - 20	QC02342
LCSD	Total Arsenic (mg/L)	<0.01	1	2	1.93	97	0	-	0 - 20	QC02342
LCSD	Total Barium (mg/L)	<0.01	1	2	2.22	111	0	-	0 - 20	QC02342
LCSD	Total Boron (mg/L)	<0.05	1	2	1.94	97	1	-	0 - 20	QC02342
LCSD	Total Cadmium (mg/L)	<0.002	1	2	2.04	102	0	-	0 - 20	QC02342

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LCSD	Total Chromium (mg/L)	<0.005	I	2	2.08	104	0	-	0 - 20	QC02342
LCSD	Total Cobalt (mg/L)	<0.01	I	2	2.20	110	0	-	0 - 20	QC02342
LCSD	Total Copper (mg/L)	<0.01	I	2	2.21	111	0	-	0 - 20	QC02342
LCSD	Total Lead (mg/L)	<0.01	I	2	2.17	109	0	-	0 - 20	QC02342
LCSD	Total Manganese (mg/L)	<0.01	I	2	2.14	107	0	-	0 - 20	QC02342
LCSD	Total Molybdenum (mg/L)	<0.01	I	2	2.06	103	0	-	0 - 20	QC02342
LCSD	Total Nickel (mg/L)	<0.01	I	2	2.11	106	0	-	0 - 20	QC02342
LCSD	Total Selenium (mg/L)	<0.01	I	2	1.91	96	1	-	0 - 20	QC02342
LCSD	Total Silica (mg/L)	<0.01	I	2	2.05	102	0	-	0 - 20	QC02342
LCSD	Total Silver (mg/L)	<0.005	I	1	0.33	83	0	-	0 - 20	QC02342
LCSD	Total Zinc (mg/L)	<0.01	I	2	2.09	105	0	-	0 - 20	QC02342

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I & W Inc. I & W Monitor Well #2 Carsbad, New Mex. I & W Inc. Yard

Quality Control Report
Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Hydroxide Alkalinity (mg/L as CaCo3)		0	<1.0	0	80 - 120	4/19/00	QC02217
ICV	Carbonate Alkalinity (mg/L as CaCo3)		0	204	0	80 - 120	4/19/00	QC02217
ICV	Bicarbonate Alkalinity (mg/L as CaCo3)		0	25	0	80 - 120	4/19/00	QC02217
ICV	Total Alkalinity (mg/L as CaCo3)		236	229	97	80 - 120	4/19/00	QC02217
CCV 1	Hydroxide Alkalinity (mg/L as CaCo3)		0	<1.0	0	80 - 120	4/19/00	QC02217
CCV 1	Carbonate Alkalinity (mg/L as CaCo3)		0	208	0	80 - 120	4/19/00	QC02217
CCV 1	Bicarbonate Alkalinity (mg/L as CaCo3)		0	26	0	80 - 120	4/19/00	QC02217
CCV 1	Total Alkalinity (mg/L as CaCo3)		236	234	99	80 - 120	4/19/00	QC02217

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Specific Conductance (uMHOS/cm)		1413	1461	103	80 - 120	4/20/00	QC02215
CCV 1	Specific Conductance (uMHOS/cm)		1413	1452	103	80 - 120	4/20/00	QC02215

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Dissolved Calcium (mg/L)		20	20.4	102	75 - 125	4/24/00	QC02237
ICV	Dissolved Magnesium (mg/L)		20	20.3	102	75 - 125	4/24/00	QC02237
ICV	Dissolved Potassium (mg/L)		20	19.3	97	75 - 125	4/24/00	QC02237
ICV	Dissolved Sodium (mg/L)		20	19.8	99	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Calcium (mg/L)		20	20.4	102	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Magnesium (mg/L)		20	20.3	102	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Potassium (mg/L)		20	19.0	95	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Sodium (mg/L)		20	19.8	99	75 - 125	4/24/00	QC02237

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Total Mercury (mg/L)		0.001	0.0010	100	80 - 120	4/27/00	QC02360
CCV 1	Total Mercury (mg/L)		0.001	0.00103	103	80 - 120	4/27/00	QC02360

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	CL (mg/L)		12.5	12.01	96	80 - 120	4/19/00	QC02272
ICV	Fluoride (mg/L)		2.5	2.59	104	80 - 120	4/19/00	QC02272
ICV	Nitrate-N (mg/L)		5	4.89	98	80 - 120	4/19/00	QC02272
ICV	Sulfate (mg/L)		12.5	12.14	97	80 - 120	4/19/00	QC02272
CCV 1	CL (mg/L)		12.5	11.87	95	80 - 120	4/19/00	QC02272

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I & W Inc. | I & W Monitor Well #2 | Carsbad, New Mex. I & W Inc. Yard

Quality Control Report
Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
CCV 1	Fluoride (mg/L)		2.5	2.48	99	80 - 120	4/19/00	QC02272
CCV 1	Nitrate-N (mg/L)		5	4.88	98	80 - 120	4/19/00	QC02272
CCV 1	Sulfate (mg/L)		12.5	12.04	96	80 - 120	4/19/00	QC02272

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	pH (s.u.)		7	7.0	100	80 - 120	4/19/00	QC02240
CCV 1	pH (s.u.)		7	7.0	100	80 - 120	4/19/00	QC02240

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Total Dissolved Solids (mg/L)		1000	999	100	80 - 120	4/24/00	QC02260
CCV 1	Total Dissolved Solids (mg/L)		1000	988	99	80 - 120	4/24/00	QC02260

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Total Aluminum (mg/L)		10	10.1	101	75 - 125	4/26/00	QC02342
ICV	Total Arsenic (mg/L)		0.5	0.511	102	75 - 125	4/26/00	QC02342
ICV	Total Barium (mg/L)		10	10.4	104	75 - 125	4/26/00	QC02342
ICV	Total Boron (mg/L)		1.25	1.32	106	75 - 125	4/26/00	QC02342
ICV	Total Cadmium (mg/L)		0.25	0.256	102	75 - 125	4/26/00	QC02342
ICV	Total Chromium (mg/L)		0.5	0.513	103	75 - 125	4/26/00	QC02342
ICV	Total Cobalt (mg/L)		2.5	2.58	103	75 - 125	4/26/00	QC02342
ICV	Total Copper (mg/L)		1.25	1.27	102	75 - 125	4/26/00	QC02342
ICV	Total Iron (mg/L)		5	5.13	103	75 - 125	4/26/00	QC02342
ICV	Total Lead (mg/L)		0.25	0.257	103	75 - 125	4/26/00	QC02342
ICV	Total Manganese (mg/L)		0.75	0.77	103	75 - 125	4/26/00	QC02342
ICV	Total Molybdenum (mg/L)		1.25	1.28	102	75 - 125	4/26/00	QC02342
ICV	Total Nickel (mg/L)		2	2.05	102	75 - 125	4/26/00	QC02342
ICV	Total Selenium (mg/L)		0.25	0.254	102	75 - 125	4/26/00	QC02342
ICV	Total Silica (mg/L)		1.25	1.36	109	75 - 125	4/26/00	QC02342
ICV	Total Silver (mg/L)		0.5	0.508	102	75 - 125	4/26/00	QC02342
ICV	Total Zinc (mg/L)		1	1.03	103	75 - 125	4/26/00	QC02342
CCV 1	Total Aluminum (mg/L)		10	10.1	101	75 - 125	4/26/00	QC02342
CCV 1	Total Arsenic (mg/L)		0.5	0.505	101	75 - 125	4/26/00	QC02342
CCV 1	Total Barium (mg/L)		10	10.3	103	75 - 125	4/26/00	QC02342
CCV 1	Total Boron (mg/L)		1.25	1.30	104	75 - 125	4/26/00	QC02342
CCV 1	Total Cadmium (mg/L)		0.25	0.252	101	75 - 125	4/26/00	QC02342
CCV 1	Total Chromium (mg/L)		0.5	0.505	101	75 - 125	4/26/00	QC02342

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I & W Inc. I & W Monitor Well #2 Carsbad, New Mex. I & W Inc. Yard

Quality Control Report
Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
CCV 1	Total Cobalt (mg/L)		2.5	2.55	102	75 - 125	4/26/00	QC02342
CCV 1	Total Copper (mg/L)		1.25	1.27	102	75 - 125	4/26/00	QC02342
CCV 1	Total Iron (mg/L)		5	5.06	101	75 - 125	4/26/00	QC02342
CCV 1	Total Lead (mg/L)		0.25	.256	102	75 - 125	4/26/00	QC02342
CCV 1	Total Manganese (mg/L)		0.75	0.76	101	75 - 125	4/26/00	QC02342
CCV 1	Total Molybdenum (mg/L)		1.25	1.26	101	75 - 125	4/26/00	QC02342
CCV 1	Total Nickel (mg/L)		2	2.03	101	75 - 125	4/26/00	QC02342
CCV 1	Total Selenium (mg/L)		0.25	0.251	100	75 - 125	4/26/00	QC02342
CCV 1	Total Silica (mg/L)		1.25	1.37	110	75 - 125	4/26/00	QC02342
CCV 1	Total Silver (mg/L)		0.5	0.505	101	75 - 125	4/26/00	QC02342
CCV 1	Total Zinc (mg/L)		1	1.01	101	75 - 125	4/26/00	QC02342

Cation-Anion Balance Sheet

Sample # 144820 Date: 5/9/00

Cations	ppm	meq/L
Calcium	570	28.443
Magnesium	289	23.78181
Sodium	826	35.931
Potassium	6.6	0.168828

Total Cations 88.3246 in meq/L

Anions	ppm	meq/L
Alkalinity	238	4.76
Sulfate	1200	24.984
Chloride	2400	67.704
Nitrate as N	7.1	0.506869
Fluoride	1.2	0.063168

Total Anions 98.018 in meq/L

Percentage Error 10.4038 %
(needs to be <10%)

OTHER INFORMATION

TDS	5400
EC	8800

Measure EC and Cation Sums	8832.4638	Range should be:	7920	to	9680
Measure EC and Anion Sums	9801.8037	Range should be:	7920	to	9680
Calculated TDS/Conductivity	0.6136364	Range should be:	0.55	to	0.77
Measure TDS and Cation Sums	0.6113809	Range should be:	0.55	to	0.77
Measure TDS and Anion Sums	0.550919	Range should be:	0.55	to	0.77

144820

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A0004[illegible]910

Company Name: N.M.O.C.D.
Phone #: 505-748-1283

Address: (Street, City, Zip) 811 S. 1st Street
Fax #: 505-748-9720

Contact Person: Mike Stubblefield

Invoice to: (If different from above) Pre-Paid

Project #: I & W Inc.
Project Name: I & W Monitor well #2

Project Location: Carlsbad, New Mex. I & W Inc. Yard.
Sampler Signature: [illegible]

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	OCD # 024	OCD # 013			Turn Around Time if different from standard	Hold
144820	Monitor well #1 Shallow.	1	qt.	✓						✓		4/18/00	2:00 P.M.																X	X				

Relinquished by: [signature] Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Vicki [illegible] Date: 4.19.00 Time: 10:10a

LAB USE ONLY
Intact (Y) / N
Headspace Y / N
Temp 4 °
Log-in Review [illegible]

REMARKS:
[illegible]

Carrier # FedEx 475572464З

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

PLEASE DELIVER TO: Wayne Price Thank you.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-104
Revised March 25, 1999

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
I & W, Inc. PO Box 1685 Carlsbad, NM 88220	010866
	[3] Reason for Filing Code: CH July 10, 1995

[4] API Number	[5] Pool Name	[6] Pool Code
30-015-23031	Fresh Water Injection Well	
[7] Property Code	[8] Property Name	[9] Well Number
25398	Eugenie	#2

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet from the	North/South Line	Feet from the	East/West line	County
M	17	22	27		1,288'	South	497'	West	Eddy

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	17	22	27		1,288'	South	497'	West	Eddy

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] POD	[21] O/G	[22] POD ULSTR Location and Description
[redacted]		[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	

JAN 2000
RECEIVED
OCD - ARTESIA

IV. Produced Water

[23] POD	[24] POD ULSTR Location and Description

V. Well Completion Data

[25] Spud Date	[26] Ready Date	[27] TD	[28] PBTD	[29] Perforations	[30] DHC, MC

[31] Hole Size	[32] Casing & Tubing Size	[33] Depth Set	[34] Sacks Cement

VI. Well Test Data

[35] Date New Oil	[36] Gas Delivery Date	[37] Test Date	[38] Test Length	[39] Tbg. Pressure	[40] Csg. Pressure
[41] Choke Size	[42] Oil	[43] Water	[44] Gas	[45] AOF	[46] Test Method

[47] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: George Parchman

Printed name: George E. Parchman

Title: Manager

Date: 12/99 Phone: 5050885-6663

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY TIM W. GUM DISTRICT II SUPERVISOR

Title:

Approval Date: 3-2-00

[48] If this is a change of operator fill in the OGRID number and name of the previous operator

(Deceased, See attached Letter)	Phil Withrow	Manager	7/95
Previous Operator Signature	Printed Name	Title	Date

Attention: Wayne Price

CHF of

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-104
Revised March 25, 1999

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
I & W, Inc. PO Box 1685 Carlsbad, NM 88220	010866
	[3] Reason for Filing Code: CH July 10, 1995

[4] API Number	[5] Pool Name	[6] Pool Code
30-0 15-22574	Brine Extraction Well	

[7] Property Code	[8] Property Name	[9] Well Number
	Eugenie	#1

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet from the	North/South Line	Feet from the	East/West line	County
M	17	22	27		995'	South	641'	West	Eddy

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	17	22	27		995'	South	641'	West	Eddy

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] POD	[21] O/G	[22] POD ULSTR Location and Description

JAN 2000
RECEIVED
OCD - ARTESIA

IV. Produced Water

[23] POD	[24] POD ULSTR Location and Description

V. Well Completion Data

[25] Spud Date	[26] Ready Date	[27] TD	[28] PBTD	[29] Perforations	[30] DHC, MC

[31] Hole Size	[32] Casing & Tubing Size	[33] Depth Set	[34] Sacks Cement

VI. Well Test Data

[35] Date New Oil	[36] Gas Delivery Date	[37] Test Date	[38] Test Length	[39] Tbg. Pressure	[40] Csg. Pressure
[41] Choke Size	**[42] Oil**	**[43] Water**	**[44] Gas**	**[45] AOF**	**[46] Test Method**

[47] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: George Parchman

Printed name: George E. Parchman

Title: Manager

Date: 12/99 Phone: 505)885-6663

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY TIM W. GUM
DISTRICT II SUPERVISOR

Title:

Approval Date: FEB 23 2000

[48] If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
(Deceased, See attached Letter)	Phil Withrow	B & E, Inc. Manager/owner	7/95

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Bill To: **OCD**
2040 S. Pacheco
Santa Fe, NM 87505

Attn: **Wayne Price**

Invoice # 42218

Invoice Date: **May 12, 2000**

Order ID: **A00041910**

Project #:	**I & W Inc.**
Project Name:	**I & W Monitor Well #2**
Project Location:	**Carsbad, New Mex. I & W Inc. Yard**

Test	Quantity	Matrix	Description	Price	SubTotal
Cu, Total	1	Water	144820 - 144820	$10.00	$10.00
Al, Total	1	Water	144820 - 144820	$10.00	$10.00
Anions/Cations/Gen. Chem.	1	Water	144820 - 144820	$120.00	$120.00
As, Total	1	Water	144820 - 144820	$10.00	$10.00
B, Total	1	Water	144820 - 144820	$10.00	$10.00
Ba, Total	1	Water	144820 - 144820	$10.00	$10.00
Ca, Total	1	Water	144820 - 144820	$10.00	$10.00
Cd, Total	1	Water	144820 - 144820	$10.00	$10.00
Ag, Total	1	Water	144820 - 144820	$10.00	$10.00
Cr, Total	1	Water	144820 - 144820	$10.00	$10.00
Zn, Total	1	Water	144820 - 144820	$10.00	$10.00
Fe, Total	1	Water	144820 - 144820	$10.00	$10.00
Hg, Total	1	Water	144820 - 144820	$12.00	$12.00
Mn, Total	1	Water	144820 - 144820	$10.00	$10.00
Mo, Total	1	Water	144820 - 144820	$10.00	$10.00
Ni, Total	1	Water	144820 - 144820	$10.00	$10.00
Pb, Total	1	Water	144820 - 144820	$10.00	$10.00
Se, Total	1	Water	144820 - 144820	$10.00	$10.00
Si, Total	1	Water	144820 - 144820	$10.00	$10.00
Co, Total	1	Water	144820 - 144820	$10.00	$10.00

Payment Terms: Net 30 Days

Total $312.00

Director, Dr. Blair Leftwich

OK for PAYMENT
Wayne Price

144820

Page____ of____

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # [illegible] A0004910

Company Name: N.M.O.C.D.
Phone #: 505-748-1283
Address: (Street, City, Zip) 811 S. 1st Street
Fax #: 505-748-9720
Contact Person: Mike Stubblefield
Invoice to: (If different from above) Pre-Paid
Project #: I & W Inc.
Project Name: I & W Monitor well #2
Project Location: Carlsbad, New Mex. I & W Inc. Yard.
Sampler Signature: Mike Stubblefield

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
144820	Monitor Well #1 Shallow.	1	gT.	X						X		4/14/00	2:00 PM.

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	6010 & 8240	6010 & 623		Turn Around Time if different from standard	Hold
															X	X			

Relinquished by: Mike Stubblefield Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Vicki Lewis Date: 4-19-00 Time: 10:00a

LAB USE ONLY
Intact (Y) / N
Headspace Y / N
Temp 4 °
Log-in Review MS

REMARKS: 5pz

Carrier # Fed Ex 475572464 3

Submittal of samples constitutes agreement to Terms and Conditions listed on revese side of C.O.C.

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TRACE ANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Bill To: **OCD**
2040 S. Pacheco
Santa Fe, NM 87505

Attn: **Wayne Price**

Invoice # **42074**

Invoice Date: **May 4, 2000**

Order ID: **A00041911**

Project #:	**I & W Inc.**
Project Name:	**I & W Monitor Well #2**
Project Location:	**Carsbad, New Mex. I & W Inc. Yard**

Test	Quantity	Matrix	Description	Price	SubTotal
Hg, Total	1	Water	144821 - 144821	$12.00	$12.00
Al, Total	1	Water	144821 - 144821	$10.00	$10.00
Anions/Cations/GEN. CHEM.	1	Water	144821 - 144821	$120.00	$120.00
As, Total	1	Water	144821 - 144821	$10.00	$10.00
B, Total	1	Water	144821 - 144821	$10.00	$10.00
Ba, Total	1	Water	144821 - 144821	$10.00	$10.00
Ca, Total	1	Water	144821 - 144821	$10.00	$10.00
Cd, Total	1	Water	144821 - 144821	$10.00	$10.00
Co, Total	1	Water	144821 - 144821	$10.00	$10.00
Cr, Total	1	Water	144821 - 144821	$10.00	$10.00
Ag, Total	1	Water	144821 - 144821	$10.00	$10.00
Fe, Total	1	Water	144821 - 144821	$10.00	$10.00
Zn, Total	1	Water	144821 - 144821	$10.00	$10.00
K, Total	1	Water	144821 - 144821	$10.00	$10.00
Mg, Total	1	Water	144821 - 144821	$10.00	$10.00
Mn, Total	1	Water	144821 - 144821	$10.00	$10.00
Mo, Total	1	Water	144821 - 144821	$10.00	$10.00
Na, Total	1	Water	144821 - 144821	$10.00	$10.00
Ni, Total	1	Water	144821 - 144821	$10.00	$10.00
Pb, Total	1	Water	144821 - 144821	$10.00	$10.00
Se, Total	1	Water	144821 - 144821	$10.00	$10.00
Si, Total	1	Water	144821 - 144821	$10.00	$10.00
Cu, Total	1	Water	144821 - 144821	$10.00	$10.00

Payment Terms: Net 30 Days

Total $342.00

Director, Dr. Blair Leftwich

OK FOR PAYMENT

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mike Stubblefield
OCD
811 S. First Street
Artesia, NM 88210

Report Date: 5/1/00

Project Number: I & W Inc.
Project Name: I & W Monitor Well #2
Project Location: Carsbad, New Mex. I & W Inc. Yard

Order ID Number: A00041911

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
144821	I & w Inc. Monitor Well #2 Deep	Water	4/14/00	15:00	4/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Results Report

Sample Number: 144821
Description: I & w Inc. Monitor Well #2 Deep

Param	Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
Alkalinity (mg/L as CaCo3)									
Hydroxide Alkalinity	770	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Carbonate Alkalinity	76	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Bicarbonate Alkalinity	<1.0	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Total Alkalinity	846	1	E 310.1	4/19/00	4/19/00	JS	PB01843	QC02217	1
Conductivity (uMHOS/cm)									
Specific Conductance	8700	1	SM 2510B	4/20/00	4/20/00	JS	PB01842	QC02215	
Dissolved Metals (mg/L)									
Dissolved Calcium	518	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Dissolved Magnesium	1.7	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Dissolved Potassium	388	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Dissolved Sodium	289	1	E 200.7	4/24/00	4/24/00	RR	PB01866	QC02237	0.5
Hg, Total (mg/L)									
Total Mercury	<0.0002	1	S 7470A	4/26/00	4/27/00	JM	PB01979	QC02360	0.0002
Ion Chromatography (IC) (mg/L)									
CL	130	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.5
Fluoride	1.2	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.2
Nitrate-N	* 3.0	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.2
Sulfate	1400	1	E 300.0	4/19/00	4/19/00	JS	PB01899	QC02272	0.5
* Nitrate-N - Sample out of holding time for NO3.									
pH (s.u.)									
pH	* 12.0	1	E 150.1	4/19/00	4/19/00	RS	PB01874	QC02240	1
* pH - Out of holding time.									
TDS (mg/L)									
Total Dissolved Solids	3700	1	E 160.1	4/21/00	4/24/00	JS	PB01889	QC02260	10
Total Metals (mg/L)									
Total Aluminum	0.09	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Arsenic	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Barium	0.12	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Boron	0.19	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.05
Total Cadmium	<0.002	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.002
Total Chromium	0.069	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.005
Total Cobalt	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Copper	0.03	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Iron	0.06	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.05
Total Lead	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Manganese	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Molybdenum	0.03	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Nickel	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Selenium	<0.01	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Silica	1.6	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01
Total Silver	<0.005	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.005
Total Zinc	0.12	1	S 6010B	4/25/00	4/26/00	RR	PB01906	QC02342	0.01

Quality Control Report
Method Blanks

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Hydroxide Alkalinity (mg/L as CaCo3)		<1.0	1	4/19/00	PB01843	QC02217
Carbonate Alkalinity (mg/L as CaCo3)		<1.0	1	4/19/00	PB01843	QC02217
Bicarbonate Alkalinity (mg/L as CaCo3)		<4.0	1	4/19/00	PB01843	QC02217
Total Alkalinity (mg/L as CaCo3)		<4.0	1	4/19/00	PB01843	QC02217

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Specific Conductance (uMHOS/cm)		3.5		4/20/00	PB01842	QC02215

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Dissolved Calcium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237
Dissolved Magnesium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237
Dissolved Potassium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237
Dissolved Sodium (mg/L)		<.50	0.5	4/24/00	PB01866	QC02237

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Total Mercury (mg/L)		<0.0002	0.0002	4/27/00	PB01979	QC02360

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
CL (mg/L)		<0.5	0.5	4/19/00	PB01899	QC02272
Fluoride (mg/L)		<0.2	0.2	4/19/00	PB01899	QC02272
Nitrate-N (mg/L)		<0.2	0.2	4/19/00	PB01899	QC02272
Sulfate (mg/L)		<0.5	0.5	4/19/00	PB01899	QC02272

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Total Dissolved Solids (mg/L)		<10	10	4/24/00	PB01889	QC02260

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Total Aluminum (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Arsenic (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Barium (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Boron (mg/L)		<0.05	0.05	4/26/00	PB01906	QC02342
Total Cadmium (mg/L)		<0.002	0.002	4/26/00	PB01906	QC02342
Total Chromium (mg/L)		<0.005	0.005	4/26/00	PB01906	QC02342
Total Cobalt (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Copper (mg/L)		<0.01	0.01	4/26/00	PB01906	QC02342
Total Iron (mg/L)		<0.05	0.05	4/26/00	PB01906	QC02342

Total Lead (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Manganese (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Molybdenum (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Nickel (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Selenium (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Silica (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342
Total Silver (mg/L)	<0.005	0.005	4/26/00	PB01906	QC02342
Total Zinc (mg/L)	<0.01	0.01	4/26/00	PB01906	QC02342

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	Dissolved Calcium (mg/L)	33	1	1000	975	94		75 - 125	-	QC02237
MS	Dissolved Magnesium (mg/L)	6.3	1	1000	899	89		75 - 125	-	QC02237
MS	Dissolved Potassium (mg/L)	6.5	1	1000	914	91		75 - 125	-	QC02237
MS	Dissolved Sodium (mg/L)	12	1	1000	900	89		75 - 125	-	QC02237
MSD	Dissolved Calcium (mg/L)	33	1	100	1014	98	4	-	0 - 20	QC02237
MSD	Dissolved Magnesium (mg/L)	6.3	1	100	920	91	2	-	0 - 20	QC02237
MSD	Dissolved Potassium (mg/L)	6.5	1	100	930	92	2	-	0 - 20	QC02237
MSD	Dissolved Sodium (mg/L)	12	1	100	948	94	5	-	0 - 20	QC02237

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	CL (mg/L)	27	1	62.5	87.81	97		80 - 120	-	QC02272
MS	Fluoride (mg/L)	1.6	1	12.5	13.78	97		80 - 120	-	QC02272
MS	Nitrate-N (mg/L)	3.7	1	25	26.85	93		80 - 120	-	QC02272
MS	Sulfate (mg/L)	24	1	62.5	88.50	103		80 - 120	-	QC02272
MSD	CL (mg/L)	27	1	62.5	88.41	98	1	-	0 - 20	QC02272
MSD	Fluoride (mg/L)	1.6	1	12.5	14.38	102	5	-	0 - 20	QC02272
MSD	Nitrate-N (mg/L)	3.7	1	25	26.83	93	0	-	0 - 20	QC02272
MSD	Sulfate (mg/L)	24	1	62.5	88.76	104	0	-	0 - 20	QC02272

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	Total Aluminum (mg/L)	0.19	1	2	2.13	97		75 - 125	-	QC02342
MS	Total Arsenic (mg/L)	<0.01	1	2	1.74	87		75 - 125	-	QC02342
MS	Total Barium (mg/L)	0.03	1	2	1.68	83		75 - 125	-	QC02342
MS	Total Boron (mg/L)	0.30	1	2	2.52	111		75 - 125	-	QC02342
MS	Total Cadmium (mg/L)	<0.002	1	2	1.49	75		75 - 125	-	QC02342
MS	Total Chromium (mg/L)	0.006	1	2	1.57	78		75 - 125	-	QC02342
MS	Total Cobalt (mg/L)	<0.01	1	2	1.59	80		75 - 125	-	QC02342
MS	Total Copper (mg/L)	0.04	1	2	1.98	97		75 - 125	-	QC02342
MS	Total Iron (mg/L)	0.05	1	2	1.65	80		75 - 125	-	QC02342
MS	Total Lead (mg/L)	<0.01	1	2	1.56	78		75 - 125	-	QC02342
MS	Total Manganese (mg/L)	0.03	1	2	1.90	94		75 - 125	-	QC02342
MS	Total Molybdenum (mg/L)	<0.01	1	2	1.60	80		75 - 125	-	QC02342
MS	Total Nickel (mg/L)	<0.01	1	2	1.80	90		75 - 125	-	QC02342
MS	Total Selenium (mg/L)	<0.01	1	2	1.75	88		75 - 125	-	QC02342

MS	Total Silica (mg/L)	7.1	1	2	9.2	105	75 - 125	-	QC02342
MS	Total Silver (mg/L)	<0.005	1	0.4	0.29	72	75 - 125	-	QC02342
MS	Total Zinc (mg/L)	0.48	1	2	2.00	76	75 - 125	-	QC02342
MSD	Total Aluminum (mg/L)	0.19	1	2	2.08	95	3	-	0 - 20	QC02342
MSD	Total Arsenic (mg/L)	<0.01	1	2	1.71	86	2	-	0 - 20	QC02342
MSD	Total Barium (mg/L)	0.03	1	2	1.65	81	2	-	0 - 20	QC02342
MSD	Total Boron (mg/L)	0.30	1	2	2.06	88	23	-	0 - 20	QC02342
MSD	Total Cadmium (mg/L)	<0.002	1	2	1.47	74	1	-	0 - 20	QC02342
MSD	Total Chromium (mg/L)	0.006	1	2	1.55	77	1	-	0 - 20	QC02342
MSD	Total Cobalt (mg/L)	<0.01	1	2	1.56	78	2	-	0 - 20	QC02342
MSD	Total Copper (mg/L)	0.04	1	2	1.92	94	3	-	0 - 20	QC02342
MSD	Total Iron (mg/L)	0.05	1	2	1.61	78	3	-	0 - 20	QC02342
MSD	Total Lead (mg/L)	<0.01	1	2	1.54	77	1	-	0 - 20	QC02342
MSD	Total Manganese (mg/L)	0.03	1	2	1.64	81	15	-	0 - 20	QC02342
MSD	Total Molybdenum (mg/L)	<0.01	1	2	1.57	79	2	-	0 - 20	QC02342
MSD	Total Nickel (mg/L)	<0.01	1	2	1.74	87	3	-	0 - 20	QC02342
MSD	Total Selenium (mg/L)	<0.01	1	2	1.70	85	3	-	0 - 20	QC02342
MSD	Total Silica (mg/L)	7.1	1	2	9.3	110	5	-	0 - 20	QC02342
MSD	Total Silver (mg/L)	<0.005	1	0.4	0.28	70	4	-	0 - 20	QC02342
MSD	Total Zinc (mg/L)	0.48	1	2	1.97	75	2	-	0 - 20	QC02342

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	Total Mercury (mg/L)	0.00839	1	0.001	0.00850	99		80 - 120	-	QC02360
MSD	Total Mercury (mg/L)	0.00839	1	0.001	0.00862	97	7	-	0 - 20	QC02360

Quality Control Report
Duplicates

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Hydroxide Alkalinity (mg/L as CaCo		<1.0	<1.0	1	0	0 - 20	QC02217
Duplicate	Carbonate Alkalinity (mg/L as CaCo		<1.0	<1.0	1	0	0 - 20	QC02217
Duplicate	Bicarbonate Alkalinity (mg/L as CaC		121	115	1	5	0 - 20	QC02217
Duplicate	Total Alkalinity (mg/L as CaCo3)		121	115	1	5	0 - 20	QC02217

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Specific Conductance (uMHOS/cm)		127,991	130,000	1	2	0 - 20	QC02215

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	pH (s.u.)		7.5	7.5	1	0	0 - 20	QC02240

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Total Dissolved Solids (mg/L)		5520	5400	1	2	0 - 20	QC02260

Quality Control Report
Lab Control Spikes and Duplicate Spike

	Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	Dissolved Calcium (mg/L)	<.50	1	1000	998	100		75 - 125	-	QC02237
LCS	Dissolved Magnesium (mg/L)	<.50	1	1000	954	95		75 - 125	-	QC02237
LCS	Dissolved Potassium (mg/L)	<.50	1	1000	943	94		75 - 125	-	QC02237
LCS	Dissolved Sodium (mg/L)	<.50	1	1000	950	95		75 - 125	-	QC02237
LCSD	Dissolved Calcium (mg/L)	<.50	1	100	989	99	1	-	0 - 20	QC02237
LCSD	Dissolved Magnesium (mg/L)	<.50	1	100	935	94	2	-	0 - 20	QC02237
LCSD	Dissolved Potassium (mg/L)	<.50	1	100	939	94	0	-	0 - 20	QC02237
LCSD	Dissolved Sodium (mg/L)	<.50	1	100	929	93	2	-	0 - 20	QC02237

	Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	Total Mercury (mg/L)	<0.0002	1	0.001	0.00104	104		80 - 120	-	QC02360
LCSD	Total Mercury (mg/L)	<0.0002	1	0.001	0.00108	108	4	-	0 - 20	QC02360

	Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	Total Aluminum (mg/L)	<0.01	1	2	2.02	101		75 - 125	-	QC02342
LCS	Total Arsenic (mg/L)	<0.01	1	2	1.93	97		75 - 125	-	QC02342
LCS	Total Barium (mg/L)	<0.01	1	2	2.22	111		75 - 125	-	QC02342
LCS	Total Boron (mg/L)	<0.05	1	2	1.93	97		75 - 125	-	QC02342
LCS	Total Cadmium (mg/L)	<0.002	1	2	2.04	102		75 - 125	-	QC02342
LCS	Total Chromium (mg/L)	<0.005	1	2	2.08	104		75 - 125	-	QC02342
LCS	Total Cobalt (mg/L)	<0.01	1	2	2.20	110		75 - 125	-	QC02342
LCS	Total Copper (mg/L)	<0.01	1	2	2.22	111		75 - 125	-	QC02342
LCS	Total Lead (mg/L)	<0.01	1	2	2.17	109		75 - 125	-	QC02342
LCS	Total Manganese (mg/L)	<0.01	1	2	2.14	107		75 - 125	-	QC02342
LCS	Total Molybdenum (mg/L)	<0.01	1	2	2.05	102		75 - 125	-	QC02342
LCS	Total Nickel (mg/L)	<0.01	1	2	2.10	105		75 - 125	-	QC02342
LCS	Total Selenium (mg/L)	<0.01	1	2	1.90	95		75 - 125	-	QC02342
LCS	Total Silica (mg/L)	<0.01	1	2	2.05	102		75 - 125	-	QC02342
LCS	Total Silver (mg/L)	<0.005	1	0.4	0.33	83		75 - 125	-	QC02342
LCS	Total Zinc (mg/L)	<0.01	1	2	2.08	104		75 - 125	-	QC02342
LCSD	Total Aluminum (mg/L)	<0.01	1	2	2.01	100	0	-	0 - 20	QC02342
LCSD	Total Arsenic (mg/L)	<0.01	1	2	1.93	97	0	-	0 - 20	QC02342
LCSD	Total Barium (mg/L)	<0.01	1	2	2.22	111	0	-	0 - 20	QC02342
LCSD	Total Boron (mg/L)	<0.05	1	2	1.94	97	1	-	0 - 20	QC02342
LCSD	Total Cadmium (mg/L)	<0.002	1	2	2.04	102	0	-	0 - 20	QC02342

LCSD	Total Chromium (mg/L)	<0.005	1	2	2.08	104	0	-	0 - 20	QC02342
LCSD	Total Cobalt (mg/L)	<0.01	1	2	2.20	110	0	-	0 - 20	QC02342
LCSD	Total Copper (mg/L)	<0.01	1	2	2.21	111	0	-	0 - 20	QC02342
LCSD	Total Lead (mg/L)	<0.01	1	2	2.17	109	0	-	0 - 20	QC02342
LCSD	Total Manganese (mg/L)	<0.01	1	2	2.14	107	0	-	0 - 20	QC02342
LCSD	Total Molybdenum (mg/L)	<0.01	1	2	2.06	103	0	-	0 - 20	QC02342
LCSD	Total Nickel (mg/L)	<0.01	1	2	2.11	106	0	-	0 - 20	QC02342
LCSD	Total Selenium (mg/L)	<0.01	1	2	1.91	96	1	-	0 - 20	QC02342
LCSD	Total Silica (mg/L)	<0.01	1	2	2.05	102	0	-	0 - 20	QC02342
LCSD	Total Silver (mg/L)	<0.005	1	1	0.33	83	0	-	0 - 20	QC02342
LCSD	Total Zinc (mg/L)	<0.01	1	2	2.09	105	0	-	0 - 20	QC02342

Quality Control Report
Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Hydroxide Alkalinity (mg/L as CaCo3)		0	<1.0	0	80 - 120	4/19/00	QC02217
ICV	Carbonate Alkalinity (mg/L as CaCo3)		0	204	0	80 - 120	4/19/00	QC02217
ICV	Bicarbonate Alkalinity (mg/L as CaCo3)		0	25	0	80 - 120	4/19/00	QC02217
ICV	Total Alkalinity (mg/L as CaCo3)		236	229	97	80 - 120	4/19/00	QC02217
CCV 1	Hydroxide Alkalinity (mg/L as CaCo3)		0	<1.0	0	80 - 120	4/19/00	QC02217
CCV 1	Carbonate Alkalinity (mg/L as CaCo3)		0	208	0	80 - 120	4/19/00	QC02217
CCV 1	Bicarbonate Alkalinity (mg/L as CaCo3)		0	26	0	80 - 120	4/19/00	QC02217
CCV 1	Total Alkalinity (mg/L as CaCo3)		236	234	99	80 - 120	4/19/00	QC02217

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Specific Conductance (uMHOS/cm)		1413	1461	103	80 - 120	4/20/00	QC02215
CCV 1	Specific Conductance (uMHOS/cm)		1413	1452	103	80 - 120	4/20/00	QC02215

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Dissolved Calcium (mg/L)		20	20.4	102	75 - 125	4/24/00	QC02237
ICV	Dissolved Magnesium (mg/L)		20	20.3	102	75 - 125	4/24/00	QC02237
ICV	Dissolved Potassium (mg/L)		20	19.3	97	75 - 125	4/24/00	QC02237
ICV	Dissolved Sodium (mg/L)		20	19.8	99	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Calcium (mg/L)		20	20.4	102	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Magnesium (mg/L)		20	20.3	102	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Potassium (mg/L)		20	19.0	95	75 - 125	4/24/00	QC02237
CCV 1	Dissolved Sodium (mg/L)		20	19.8	99	75 - 125	4/24/00	QC02237

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Total Mercury (mg/L)		0.001	0.0010	100	80 - 120	4/27/00	QC02360
CCV 1	Total Mercury (mg/L)		0.001	0.00103	103	80 - 120	4/27/00	QC02360

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	CL (mg/L)		12.5	12.01	96	80 - 120	4/19/00	QC02272
ICV	Fluoride (mg/L)		2.5	2.59	104	80 - 120	4/19/00	QC02272
ICV	Nitrate-N (mg/L)		5	4.89	98	80 - 120	4/19/00	QC02272
ICV	Sulfate (mg/L)		12.5	12.14	97	80 - 120	4/19/00	QC02272
CCV 1	CL (mg/L)		12.5	11.87	95	80 - 120	4/19/00	QC02272

Quality Control Report
Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
CCV 1	Fluoride (mg/L)		2.5	2.48	99	80 - 120	4/19/00	QC02272
CCV 1	Nitrate-N (mg/L)		5	4.88	98	80 - 120	4/19/00	QC02272
CCV 1	Sulfate (mg/L)		12.5	12.04	96	80 - 120	4/19/00	QC02272

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	pH (s.u.)		7	7.0	100	80 - 120	4/19/00	QC02240
CCV 1	pH (s.u.)		7	7.0	100	80 - 120	4/19/00	QC02240

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Total Dissolved Solids (mg/L)		1000	999	100	80 - 120	4/24/00	QC02260
CCV 1	Total Dissolved Solids (mg/L)		1000	988	99	80 - 120	4/24/00	QC02260

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Total Aluminum (mg/L)		10	10.1	101	75 - 125	4/26/00	QC02342
ICV	Total Arsenic (mg/L)		0.5	0.511	102	75 - 125	4/26/00	QC02342
ICV	Total Barium (mg/L)		10	10.4	104	75 - 125	4/26/00	QC02342
ICV	Total Boron (mg/L)		1.25	1.32	106	75 - 125	4/26/00	QC02342
ICV	Total Cadmium (mg/L)		0.25	0.256	102	75 - 125	4/26/00	QC02342
ICV	Total Chromium (mg/L)		0.5	0.513	103	75 - 125	4/26/00	QC02342
ICV	Total Cobalt (mg/L)		2.5	2.58	103	75 - 125	4/26/00	QC02342
ICV	Total Copper (mg/L)		1.25	1.27	102	75 - 125	4/26/00	QC02342
ICV	Total Iron (mg/L)		5	5.13	103	75 - 125	4/26/00	QC02342
ICV	Total Lead (mg/L)		0.25	0.257	103	75 - 125	4/26/00	QC02342
ICV	Total Manganese (mg/L)		0.75	0.77	103	75 - 125	4/26/00	QC02342
ICV	Total Molybdenum (mg/L)		1.25	1.28	102	75 - 125	4/26/00	QC02342
ICV	Total Nickel (mg/L)		2	2.05	102	75 - 125	4/26/00	QC02342
ICV	Total Selenium (mg/L)		0.25	0.254	102	75 - 125	4/26/00	QC02342
ICV	Total Silica (mg/L)		1.25	1.36	109	75 - 125	4/26/00	QC02342
ICV	Total Silver (mg/L)		0.5	0.508	102	75 - 125	4/26/00	QC02342
ICV	Total Zinc (mg/L)		1	1.03	103	75 - 125	4/26/00	QC02342
CCV 1	Total Aluminum (mg/L)		10	10.1	101	75 - 125	4/26/00	QC02342
CCV 1	Total Arsenic (mg/L)		0.5	0.505	101	75 - 125	4/26/00	QC02342
CCV 1	Total Barium (mg/L)		10	10.3	103	75 - 125	4/26/00	QC02342
CCV 1	Total Boron (mg/L)		1.25	1.30	104	75 - 125	4/26/00	QC02342
CCV 1	Total Cadmium (mg/L)		0.25	0.252	101	75 - 125	4/26/00	QC02342
CCV 1	Total Chromium (mg/L)		0.5	0.505	101	75 - 125	4/26/00	QC02342

Quality Control Report
Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
CCV 1	Total Cobalt (mg/L)		2.5	2.55	102	75 - 125	4/26/00	QC02342
CCV 1	Total Copper (mg/L)		1.25	1.27	102	75 - 125	4/26/00	QC02342
CCV 1	Total Iron (mg/L)		5	5.06	101	75 - 125	4/26/00	QC02342
CCV 1	Total Lead (mg/L)		0.25	.256	102	75 - 125	4/26/00	QC02342
CCV 1	Total Manganese (mg/L)		0.75	0.76	101	75 - 125	4/26/00	QC02342
CCV 1	Total Molybdenum (mg/L)		1.25	1.26	101	75 - 125	4/26/00	QC02342
CCV 1	Total Nickel (mg/L)		2	2.03	101	75 - 125	4/26/00	QC02342
CCV 1	Total Selenium (mg/L)		0.25	0.251	100	75 - 125	4/26/00	QC02342
CCV 1	Total Silica (mg/L)		1.25	1.37	110	75 - 125	4/26/00	QC02342
CCV 1	Total Silver (mg/L)		0.5	0.505	101	75 - 125	4/26/00	QC02342
CCV 1	Total Zinc (mg/L)		1	1.01	101	75 - 125	4/26/00	QC02342

Cation-Anion Balance Sheet

Sample # 144821 Date: 5/3/00

Cations

	ppm	meq/L
Calcium	518	25.8482
Magnesium	1.7	0.139893
Sodium	289	12.5715
Potassium	388	9.92504

Total Cations
48.4846 in meq/L

Anions

	ppm	meq/L
Alkalinity	846	16.92
Sulfate	1400	29.148
Chloride	130	3.6673
Nitrate as N	3	0.21417
Fluoride	1.2	0.063168

Total Anions
50.0126 in meq/L

Percentage Error
3.10263 %
(needs to be <10%)

OTHER INFORMATION

TDS	3700
EC	8700

Measure EC and Cation Sums	4848.4633	Range should be:	7830	to	9570
Measure EC and Anion Sums	5001.2638	Range should be:	7830	to	9570
Calculated TDS/Conductivity	0.4252874	Range should be:	0.55	to	0.77
Measure TDS and Cation Sums	0.7631284	Range should be:	0.55	to	0.77
Measure TDS and Anion Sums	0.739813	Range should be:	0.55	to	0.77

144821

Page ____ of ____

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # [redacted] A0004191 1

Company Name: N.M.O.C.D.
Phone #: 505-748-1283
Address: (Street, City, Zip) 811 S. 1st Street
Fax #: 505-748-9720
Contact Person: Mike Stubblefield / Wayne Price
Invoice to: (If different from above) Pre-Paid. OCD Santa Fe
Project #: I & W Inc.
Project Name: I & W Monitor Well #1
Project Location: Carlsbad, New Mex. I & W Inc. Yard.
Sampler Signature: Mike Stubblefield

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
144821	I & W Inc. Monitor Well #2 Deep.	1	qt.	X						X		4/14/00	3:00PM

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1/TX1005	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC-MS Vol. 8260B/624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082/608	
Pesticides 8081A/608	
BOD, TSS, pH	
OCD Item #024	X
OCD Item #027	X
Turn Around Time if different from standard	
Hold	

Relinquished by: Mike Stubblefield — Date: — Time:
Received by: — Date: — Time:

Relinquished by: — Date: — Time:
Received by: — Date: — Time:

Time:
Received at Laboratory by: Vicki Healy — Date: 4-19-00 — Time: 10:00

Agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

LAB USE ONLY

Intact (Y) / N
Headspace ____ Y / N
Temp 4 °
Log-in Review [redacted]

REMARKS:

5/4/00

Carrier # Fedex 475572464 3

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

Price, Wayne

From: Price, Wayne
Sent: Tuesday, May 02, 2000 4:16 PM
To: Gum, Tim; Stubblefield, Mike
Subject: I&W Brine Well

Dear Tim:

Please find enclosed a signed Copy of the C-103 allowing I&W to Perform an open hole test on the brine cavern. Would you please notify I&W and witness test. If they pass the test then they will be allowed to start-up brine operations. This test will be for 4 hours with no pressure drop allowed.

C103.jpg

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-103
Revised 1-1-89

WELL API NO. 30-015-23031

5. Indicate Type of Lease STATE [XX] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Eugenie

1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER Brine Well

2. Name of Operator: I & W, Inc.

8. Well No.: #1

3. Address of Operator: P.O. Box 1685 Carlsbad, NM 88220

9. Pool name or Wildcat

4. Well Location
Unit Letter M : 1288 Feet From The SL Line and 497 Feet From The WL Line

Section 17 Township 22S Range 27 NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[ ]
PULL OR ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[ ]		
OTHER: Resume Brine Production	[X]			OTHER:			[ ]

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

1.) The fresh water injection well has been plugged & abandoned as directed by the OCD, EPA.

2.) Two monitor wells have been drilled & sampled with no indication of brine water migrating into fresh water zones.

3.) Would like to begin loading cavern & run mit on well #1, in order to start producing brine water.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE May 2, 2000

TYPE OR PRINT NAME George Parchman TELEPHONE NO. (505)885-6663

(This space for State Use)

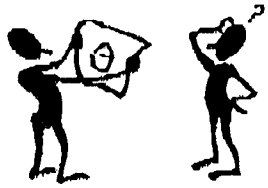
APPROVED BY Wayne Price TITLE PET. ENGR. SPEC DATE 5/2/00

CONDITIONS OF APPROVAL, IF ANY:

PO Box 1685, Carlsbad, NM 88220
Tel. (505) 885-0663
Fax (505) 885-8477

I & W, Inc.

Fax



To: Wayne Price From: George Parchman I&W Inc.

Fax: 827-8177 Pages: 2

Phone: Date: 5/2

Re: CC:

☐ Urgent ☑ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

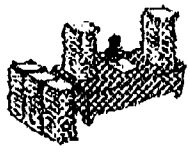
→→ Comments:

Here is Copy

OF C-103

Thanks

George



PO Box 1085, Carlsbad, NM 88220
Tel. (505) 885-6663
Fax (505) 885-8477

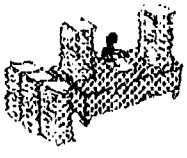
I & W, Inc.

Fax

To: Wayne Price
From: George Larchman
Fax:
Pages: 2
Phone:
Date: 3/14-2000
Re:
CC:

☐ Urgent ☒ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

→→ Comments:



I&W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

NMOCD
Santa Fe

March 14, 2000

Attn.: Wayne Price

When you & I spoke a couple of weeks ago, I brought it to your attention that it did not look like we would be able to make the 15th deadline previously set. At this time you advised me to submit a letter either by mail or fax stating that we would need an extension of time to start this project.

In speaking to our water well driller, we have tried to come up with a time frame at which we could possible get started down here. At this time it looks as though the 22nd of March would be the soonest date possible, unless unforeseen problems arise. However I will call you on Monday the 20th, 2000 with a set date.

Thank you for your understanding and cooperation in the matter.

Sincerely,

George E. Pareluman
Manager

GP/lr

DRILLING DATE
SET for MARCH 27, 2000
TELE: CAR
3/21/00

I/W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

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(505) 677-2111
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NMOCD
Santa Fe

March 14, 2000

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Thank you for your understanding and cooperation in the matter.

Sincerely,

George E. Parchman
Manager

GP/lr

Price, Wayne

From: Price, Wayne
Sent: Tuesday, February 29, 2000 8:11 AM
To: 'Mike Stubblefield'
Subject: I&W C-104's

Mike this is a reminder of our conversation the other day, when you get a chance please send us copies of the new C-104's change of ownership for the I&W Brine wells.

Thanks!

Price, Wayne

From: System Administrator
Sent: Wednesday, February 23, 2000 3:46 PM
Subject: Delivered: RE: APPROVAL OF I&W INC. MONITOR WELLS.

Your message

To: Stubblefield, Mike
Subject: RE: APPROVAL OF I&W INC. MONITOR WELLS.
Sent: 2/23/2000 3:46:17 PM

was delivered to the following recipient(s):

Stubblefield, Mike on 2/23/2000 3:46:17 PM

Price, Wayne

From: System Administrator
Sent: Wednesday, February 23, 2000 3:43 PM
Subject: Delivered: FW: I&W

Your message

To:	'Mike Stubblefield'
Cc:	Gum, Tim
Subject:	FW: I&W
Sent:	2/23/2000 3:43:30 PM

was delivered to the following recipient(s):

Gum, Tim on 2/23/2000 3:43:30 PM

Price, Wayne

From: Price, Wayne
Sent: Wednesday, February 23, 2000 3:43 PM
To: 'Mike Stubblefield'
Cc: Gum, Tim
Subject: FW: I&W

Mike! Please note I had already sent both you and Tim a copy of the Monitor Well approval letter on Feb17, 2000. The letter was sent registered to I&W on Feb 16, 2000. Please find enclosed a copy of the letter. Please note we show that you gus received it! Let us know if we have a E-mail problem!

Thanks!

From: Price, Wayne
Sent: Thursday, February 17, 2000 8:29 AM
To: Gum, Tim
Cc: 'Mike Stubblefield'
Subject: I&W

Please find attached the letter we sent I&W yesterday. Please feel free to give them a copy so they may get started.

Mwapp.doc

Price, Wayne

From: Stubblefield, Mike
Sent: Wednesday, February 23, 2000 2:44 PM
To: Price, Wayne
Subject: APPROVAL OF I&W INC. MONITOR WELLS.

WAYNE,

LARRY DADE WITH I&W CAME BY OUT OFFICE THIS MORNING.
MR. DADE WAS WANTING TO KNOW IF WE HAD HEARD ANY WORD
FROM SANTA FE ON THE APPROVAL OF I&W'S MONITOR WELLS. I&W HAS A WATER WELL DRILLING COMPANY LINED UP TO DRILL AND INSTALL THE MONITOR WELLS.
THE WATER WELL COMPANY IS ON STANDBY TO START THE DRILLING OF THE MONITOR WELLS AS SOON AS APPROVAL IS
OBTAINED FROM THE ENVIROMENTAL BUREAU.
THE WATER WELL COMPANY ALSO HAS BEEN CONTRACTED
BY WIPP PERSONAL TO DRILL MONITOR WELLS IN THE WIPP
AREA THE WATER WELL COMPANY HAS BEEN PRESSURING
I&W AS TO WHEN THE MONITOR WELLS FOR I&W WILL START
AND MAY PUT I&W ON WAITING LIST IF THEY DO NOT HAVE APPROVAL SOON.

MIKE S.

Price, Wayne

From: Price, Wayne
Sent: Thursday, February 17, 2000 8:29 AM
To: Gum, Tim
Cc: 'Mike Stubblefield'
Subject: I&W

Please find attached the letter we sent I&W yesterday. Please feel free to give them a copy so they may get started.

Mwapp.doc

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 16, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. Z 142 564 941

Mr. George Parchman
I&W, Inc.
P.O. Box 1685
Carlsbad, New Mexico 88220

Re: Eugenie Brine Extraction Facility
Discharge Plan BW-006
SW/4 SW/4 Section 17-Ts22s-R27e
Eddy County, New Mexico

Dear Mr. Parchman:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of I&W Inc.'s (I&W) letter dated January 06, 2000. I&W proposed to install three monitor wells all being within 10 feet of each other. This proposed method is not acceptable because the distance between monitor wells is to close to determine a measured groundwater gradient, also proposed monitor wells would not be far enough apart to make a preliminary determination of the extent of any possible down gradient contamination, and the well construction does not meet OCD standards. Therefore, the NMOCD will require I&W to initially install two nested monitor wells to be located approximately 10 feet southeast of the Eugenie #2 brine supply well. The following conditions are placed on the installation:

1. I&W shall complete the new monitor well(s) as follows:

   a. One monitor well shall be drilled to a shallow depth to determine if the upper part of the groundwater has been impacted. This well shall have At least 15 feet of well screen to be placed across the water table interface with 5 feet of the well screen above the water table and 10 feet of the well screen below the water table. The hole must be logged by identifying each different geologic/lithologic section encountered during the drilling of the well bore.

a. (cont)

The other monitor well shall be drilled to a depth of 200 feet, or lesser depth if I&W can demonstrate that the lowermost confining layer (i.e. red bed clay) underlying the above water aquifer has been encountered for a least 10 feet. This well shall have at least 15 feet of screen placed at the bottom of the hole. The hole must be logged by identifying each different geologic/lithologic section encountered during the drilling of the well bore.

b. An appropriately sized gravel pack shall be set in the annulus around the well(s) screen from the bottom of the hole to 2-3 feet above the top of the well screen. The well pipe and screen shall be appropriately sized and approved by OCD before installation.

c. A 2-3 foot bentonite plug shall be placed above the gravel pack.

d. The remainder of the hole shall be grouted to the surface with cement containing 3-5% bentonite.

e. A concrete pad shall be placed at the surface around the well. The well shall be installed with a suitable protective locking device.

f. The well(s) shall be developed after construction using EPA approved procedures.

2. No less than 48 hours after the well(s) are developed, ground water from all monitor well(s) shall be purged, sampled and analyzed for concentrations of major cations and anions (general chemistry) EPA method from CFR 136.3 using EPA approved methods and quality assurance/quality control (QA/QC) procedures.

3. All wastes generated during the investigation shall be disposed of at an OCD approved facility.

4. I&W shall submit the results of the investigation to the OCD Santa Fe Office by **March 15, 2000** with a copy provided to the OCD Artesia District Office and shall include the following investigative information:

a. A description of all investigation, remediation and monitoring activities which have occurred including conclusions and recommendations.

b. A geologic/lithologic log and well completion diagram for each monitor well.

c. Summary tables of all ground water quality sampling results and copies of all laboratory analytical data sheets and associated QA/QC data taken within the past year.

5. I&W will notify the OCD Santa Fe office and the OCD District office at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.

Once I&W has submitted the results as outlined in item 4. Above, I&W may then apply for permission to re-test the the brine cavern. If the brine cavern test is satisfactory and approved by OCD then I&W will be issued written permission to start up brine well operations.

Please be advised that NMOCD approval of this plan does not relieve I&W of liability should their investigations and/or operations fail to adequately investigate and/or remediate contamination that poses a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve I&W of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Artesia Office

Submit 3 Copies to Appropriate District Office

Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.
30-015-23031

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Eugenie

1. Type of Well:
OIL WELL ☐ GAS WELL ☐ OTHER Injection Well

2. Name of Operator
I & W, Inc.

8. Well No.
#2

3. Address of Operator
P.O.Box 1685, Carlsbad, New Mexico 88220

9. Pool name or Wildcat

4. Well Location
Unit Letter M : 1288' Feet From The S Line and 497' Feet From The W Line

Section 17 Township 22 Range 27 NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☒
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER:			☐

12. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

1/10/00 (1.) Rigged up Dowell Cement Trucks. (2.) Flushed 27/8 casing with 10bbls of fresh water. (3.) Pumped 25 sacks of cement with 2 % CaCl,14.8 slurry with yeild of 1.34. (4.) Shut well in with 125 PSI on 2 7/8 casing.

1/11/00 (1.) Ran 1" Tubing in hole tagged up at 450'. (2.)Spotted 6 sacks cement w with 2% CaCl. (3.)Shut well in over night.

1/12/00 (1.)Ran 1" tubing in hole, tagged up at 390'. (2.)Spotted 4 sacks class "C" neat cement @ 390'. (3.)Shut well in over night.

1/13/00 (1.)Ran 1" tubing in hole, tagged TOC at 320'. (2.)Pressure test 2 7/8 had 900 PSI, bled off to 600 PSI in 15 minutes. (3.)Spotted 6 sacks of cement @ 320' put 600 PSI on well. (4.)Shut well in over night.

1/14/00 (1.)checked well had 200 PSI on it. (2.)Ran 1" tubing in hole tagged up @315'. (3.)spotted 6 sacks of cement at 315'. (4.)Cement set for approx. 2 hours.

CONTINUED

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE 2/1/2000

TYPE OR PRINT NAME George Parchman TELEPHONE NO. 885-6663

(This space for State Use)

APPROVED BY Mike Stubblefield TITLE Field Rep. II DATE 2/14/2000

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
FEB 16 2000
Environmental Bureau
Oil Conservation Division

Submit 3 Copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

FEB 2000 RECEIVED OCD ARTESIA

WELL API NO.
30-015-23031

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)

7. Lease Name or Unit Agreement Name
Eugenie

1. Type of Well:
OIL WELL ☐ GAS WELL ☐ OTHER F/W Injection well

2. Name of Operator
I & W, Inc.

8. Well No.
#2

3. Address of Operator
P.O. Box 1685 Carlsbad, New Mexico 88220

9. Pool name or Wildcat

4. Well Location
Unit Letter M : 1288' Feet From The S Line and 497' Feet From The W Line

Section 17 Township 22 Range 27 NMPM Eddy County

10. Elevation (*Show whether DF, RKB, RT, GR, etc.*)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☒
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER:	☐		

12. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

1/14/00 (5.)Tested 2 7/8 to 450 PSI for 30 minutes no loss of pressure.
Cont. (6.)Ran 1" to TOC tagged up at approx. 200" in soft slurry, pulled up to were it would circulate.
(7.)Circulate cement out to surface as directed by OCD represenitive.

RECEIVED
FEB 16 2000
Environmental Bureau
Oil Conservation Division

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE 2/1/2000

TYPE OR PRINT NAME George Parchman TELEPHONE NO. 885-6663

(This space for State Use)

APPROVED BY Mark Stubblefield TITLE Field Rep. II DATE 2/14/2000.

CONDITIONS OF APPROVAL, IF ANY:

IN COMING!

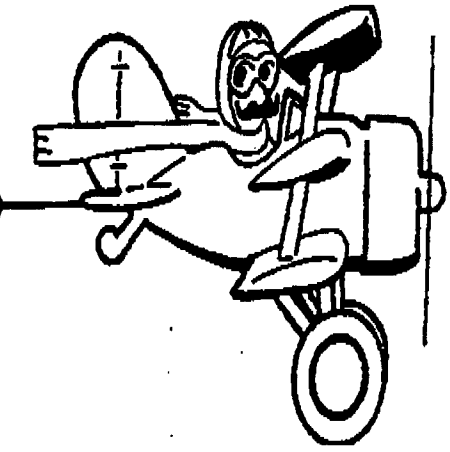
DATE: 2/14/2000

ATTENTION: Wayne Price 827-1150

FROM: Mike Stubblefield

NUMBER OF PAGES INCLUDING COVER SHEET:

III



OIL CONSERVATION DIVISION
DISTRICT II
ARTESIA, NM 88210

IF YOU HAVE ANY PROBLEMS WITH THIS TRANSMISSION OR IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL 505-748-1283.
FAX NUMBER: (505) 748-9720

Wayne there is a hard copy in the mail.

HAVE A GREAT DAY!

Submit to Appropriate District Office

Energy, Minerals and Natural Resources Department

Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.
30-015-23031

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Eugenie

1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER Injection Well

2. Name of Operator: I & W, Inc.

8. Well No.: #2

3. Address of Operator: P.O.Box 1685, Carlsbad, New Mexico 88220

9. Pool name or Wildcat:

4. Well Location
Unit Letter M : 1288' Feet From The S Line and 497' Feet From The W Line

Section 17 Township 22 Range 27 NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☒
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER:	☐		

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

1/10/00 (1.) Rigged up Dowell Cement Trucks. (2.) Flushed 27/8 casing with 10bbls of fresh water. (3.) Pumped 25 sacks of cement with 2 % CaCl,14.8 slurry with yeild of 1.34. (4.) Shut well in with 125 PSI on 2 7/8 casing.

1/11/00 (1.) Ran 1" Tubing in hole tagged up at 450'. (2.)Spotted 6 sacks cement with 2% CaCl. (3.)Shut well in over night.

1/12/00 (1.)Ran 1" tubing in hole, tagged up at 390'. (2.)Spotted 4 sacks class "C" neat cement @ 390'. (3.)Shut well in over night.

1/13/00 (1.)Ran 1" tubing in hole, tagged TOC at 320'. (2.)Pressure test 2 7/8 had 900 PSI, bled off to 600 PSI in 15 minutes. (3.)Spotted 6 sacks of cement @ 320' put 600 PSI on well. (4.)Shut well in over night.

1/14/00 (1.)checked well had 200 PSI on it. (2.)Ran 1" tubing in hole tagged up @315'. (3.)spotted 6 sacks of cement at 315'. (4.)Cement set for approx. 2 hours.

CONTINUED

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE 2/1/2000

TYPE OR PRINT NAME George Parchman TELEPHONE NO. 885-6663

(This space for State Use)

APPROVED BY Mike Williams TITLE Field Rep. II DATE 2/14/2000

CONDITIONS OF APPROVAL, IF ANY:

Submit 3 Copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.
30-015-23031

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Eugenie

1. Type of Well:
OIL WELL ☐ GAS WELL ☐ other F/W Injection well

2. Name of Operator
I & W, Inc.

8. Well No.
#2

3. Address of Operator
P.O. Box 1685 Carlsbad, New Mexico 88220

9. Pool name or Wildcat

4. Well Location
Unit Letter M : 1288' Feet From The S Line and 497' Feet From The W Line

Section 17 Township 22 Range 27 NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☒
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER:	☐		

12. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

1/14/00 (5.)Tested 2 7/8 to 450 PSI for 30 minutes no loss of pressure.
Cont. (6.)Ran 1" to TOC tagged up at approx. 200" in soft slurry, pulled up to were it would circulate.
(7.)Circulate cement out to surface as directed by OCD represenitive.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE 2/1/2000

TYPE OR PRINT NAME George Parchman TELEPHONE NO. 885-6663

(This space for State Use)

APPROVED BY Mike Stubblefield TITLE Field Rep. II DATE 2/14/2000

CONDITIONS OF APPROVAL, IF ANY:

Price, Wayne

From: Price, Wayne
Sent: Monday, February 14, 2000 10:35 AM
To: Stubblefield, Mike
Cc: Gum, Tim
Subject: I&W

Mike! Thanks for the phone call! I forgot to tell you that Tim requested us to have the monitor wells installed before we allow I&W to test. Please send us a copy of the signed C-103 showing where you approved of the plugging!

I will be sending I&W a letter on the Monitor well issue. Once the MW's are installed per OCD Santa Fe approval then we will issue I&W approval from this office on the test and start-up.

Price, Wayne

From: Stubblefield, Mike
Sent: Monday, February 14, 2000 11:08 AM
To: Price, Wayne
Subject: Read: I&W

Your message

To:	Stubblefield, Mike
Cc:	Gum, Tim
Subject:	I&W
Sent:	2/14/2000 10:35:08 AM

was read on 2/14/2000 11:08:28 AM

1/31/2000

ROGER,

I TALKED TO GEORGE PARCHMAN THIS MORNING AND REQUESTED THE SUBSEQUENT C-141 REPORT WITH FINAL PLUGGING OPERATIONS TAKEN ON THE EUGENIE #2.

I WILL FORWARD SUBSEQUENT C-141 TO YOU WHEN WE RECEIVE IT.

MIKE S.

RECEIVED

FEB 0 1 2000

Environmental Bureau
Oil Conservation Division

Revised 1-1-89

District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Eugenie

Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER F/W Inj.Well

Name of Operator: I & W, Inc.

8. Well No. #2

Address of Operator: P.o.Box 1685 Carlsbad, NM. 88220

9. Pool name or Wildcat

Well Location
Unit Letter _____ : _____ Feet From The _____ Line and _____ Feet From The _____ Line

Section 17 Township 22 Range 27 NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
FORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[X]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
PORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[ ]
ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[ ]		
ER:	[ ]			OTHER:	[ ]		

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

RECEIVED
OCD - ARTESIA

Proposal: 1. Flush casing with 10 bbls. fresh water.
2. Cement with 10 sacks of 2% CACL neat 14.8#
Cement
3. Displace cement with3.0bbls. of fresh water (top of cement approximately @500' to 525')
4. WOC for 24 hours.
5. Pressure up 2 7/8" casing to 500 PSI. 30 min. Test on Chart
Run Chart * Perforate 2 7/8" @ 375'. Circulate cement to surface inside & outside the casing.
6. Rig up water well, Rig run 1" pipe tag cement top & cement back to surface, Rig unit down, fill cellar with cement, install dryhole marker.
7. Proceed to drill monitor well according to NMOCD.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE Dec.9,1999

TYPE OR PRINT NAME George Parchman TELEPHONE NO 885-6663

(For State Use)

APPROVED BY Mike Stubblefield TITLE Field Rep. II DATE 12/15/99

CONDITIONS OF APPROVAL, IF ANY:
Notific NMOCD. To witness Plugging Operations.

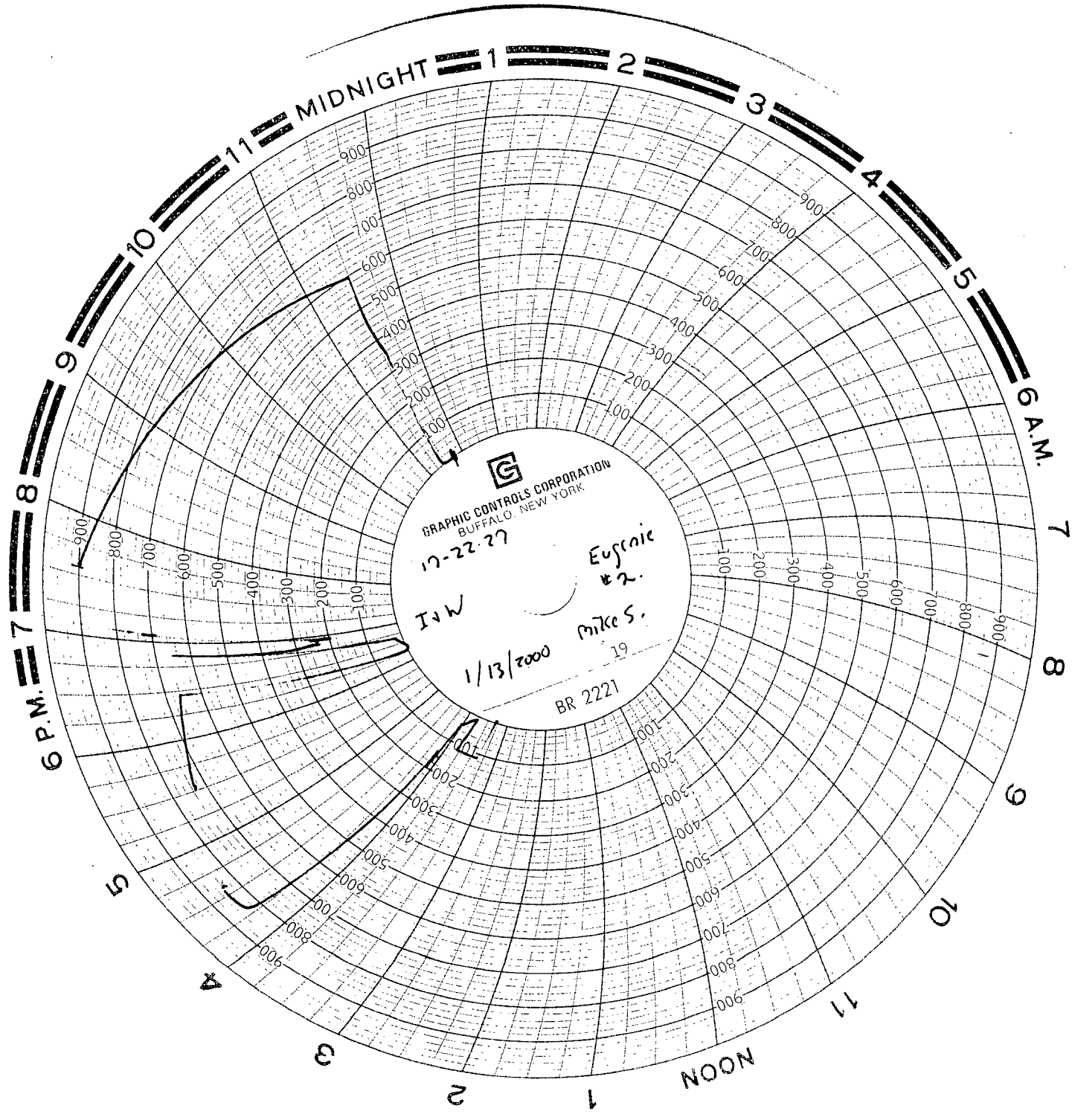
Eugenie #1

P.B.S.& S.
BOX 1591
ODESSA, TEXAS 79760

JUNE 30, 1978

SALT & 1

0 to 46	TOP SOIL WITH GRAVEL	
46 to 58	SAND & GRAVEL	
58 to 62	LIME	
62 to 65	RED BED	
65 to 76	RED SAND	
76 to 107	GRAVEL	
107 to 163	BROWN CLAY W/GRAVEL & SAND	
163 to 170	RED BED	
170 to 178	LIME VERY HARD	8'
178 to 225	RED BED	
225 to 237	ANHYDRITE & RED BED	12'
237 to 252	LIME & ANHYDRITE W/SOME GYP.	15'
252 to 268	RED BED	
268 to 285	LIME W/GYP. STRINGERS	
285 to 305	GYP. W/SOME RED BED	
305 to 320	GYP. & ANHYDRITE	15
320 to 328	RED BED	
328 to 360	ANHYDRITE W/LIME & SAND	
360 to 410	RED ROCK & ANHYDRITE	50'
410 to 430	ANHYDRITE W/SOME LIME	20
430 to 437	GRAY LINE (HARD) & ANHYDRITE	7'
437 to 445	ANHYDRITE	8'
445 to 456	ANHYDRITE & GRAY LIME	11' / 146'
456 to 555	SALT	
555 to 567	SALT & SOME LIME	
567 to 576	SALT & BLUE SHALE VERY LITTLE	
576 to 592	SALT	
592 to 663	ANHYDRITE	


MIDNIGHT
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6 A.M.
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NOON
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4
5
6 P.M.
7
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9
10
11
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
12-22-27
Eugenie
#2.
I & W
Mike S.
1/13/2000
19
BR 2221

PLUGGING ACTIONS TAKEN ON I&W ENGINIE #2

1/10/00
DOWELL PUMPED 25 SX DOWN 2.875" TBG. CAL CMT VOL. {1015' FILL IN 2.875" TBG}
DISPLACED WITH .03 BBLS.

1/11/00
RAN 1" TBG AND TAGGED TOC AT 450'.
SPOTTED 5 SX CMT AT 450' CAL CMT VOL. {184' FILL IN 2.875" TBG}

1/12/00
RAN TBG AND TAGGED TOC AT 390'.
SPOTTED 50' CMT AT 390'.

1/13/00
RAN TBG AND TAGGED TOC AT 320'.
PRESSURE TEST 2.875" TBG LOST FROM 900# TO 600# IN 15 MINUATES.
SPOTTED 6 SX CMT AT 320' CAL CMT VOL. {243' FILL IN 2.875" TBG}
LEFT UNDER PRESSURE 600# OVERNIGHT.

1/14/00
200# PSI ON TBG IN AM.
RAN 1" TBG AND TAGGED TOC AT 315'.
6SX=7.92 CU FT CMT 2.875"/5"HOLE LIN. FT PER CU. FT IS 10.9563
7.92 CU FT IS 86' LIN FILL OUTSIDE CSG.
PRESSURE TESTED 2.875" TBG AT 450# FOR FIFTEEN MINUATES NO LOST OF PRESSURE.
CIRCULATED CMT TO SURFACE USING 10 SX CMT.

- WHEN 3' SECTION OF TUBING WAS REPLACED AND WELDED
  GEORGE PARCHMAN DID RUN .5 TBG EST 8" DOWN BACKSIDE
  2.875" TBG AND EMPTIED STANDING WATER WITH VACUUM TRUCK
  TOPPED OFF TO SURF. WITH MIXED CEMENT.
  GEORGE FELT THAT THE HOLE IN THE 2.875" TBG WAS A RESULT OF CORROISION
  FROM WATER STANDING LONG TERM ON THE BACKSIDE OF THE 2.875" TBG.

Price, Wayne

From: Gum, Tim
Sent: Monday, January 24, 2000 8:35 AM
To: Stubblefield, Mike; Price, Wayne
Cc: Anderson, Roger; Wrotenbery, Lori
Subject: RE: I&W Brine well system BW-006

From: Price, Wayne
Sent: Thursday, January 20, 2000 2:25 PM
To: Gum, Tim; Stubblefield, Mike
Cc: Anderson, Roger; Wrotenbery, Lori
Subject: I&W Brine well system BW-006

Wayne---- It was our understanding , based on several phone conversations that we would approve and witness the P&A of this well . I&W has been advised that they can not begin operations until they comply with all specified conditions and our given approval. Thanks TWG.

Tele: Con: 2pm Jan 20, 2000
Mike Stubble to WPrice & RC Anderson

Dear Tim and Mike:

I&W seems to not understand the discharge plan process and the inter-action with the OCD District office. We though we made it clear to I&W in our N.O.V. letter and during our conference call on 12/06/99.

Mike just informed us that I&W has plugged the Euginie #2 well without NMOCD Environmental Bureau approval. This was a requirement in OCD's N.O.V. letter to I&W on November 19, 1999. However, we understand that OCD Artesia did approve the plugging procedure. Please have I&W submit the C-103 P&A form signed-off by OCD Artesia. Once we receive this we will evauate the plugging procedure and the groundwater investigation plan. We will notify I&W of our decisions and testing requirements by Certified Mail.

I&W Brine shall remain shut down and shall not pressure test until we issue approval from Santa Fe.

In the mean time if I&W wants to perform piping changes on the surface that will be ok, but at their own risk!

Price, Wayne

From: Price, Wayne
Sent: Thursday, January 20, 2000 2:26 PM
To: Gum, Tim; Stubblefield, Mike; Price, Wayne
Cc: Anderson, Roger; Wrotenbery, Lori
Subject: RE: I&W Brine well system BW-006

From: Price, Wayne
Sent: Thursday, January 20, 2000 2:25 PM
To: Gum, Tim; Stubblefield, Mike
Cc: Anderson, Roger; Wrotenbery, Lori
Subject: I&W Brine well system BW-006

Tele: Con: 2pm Jan 20, 2000
Mike Stubble to WPrice & RC Anderson

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In the mean time if I&W wants to perform piping changes on the surface that will be ok, but at their own risk!

I & W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

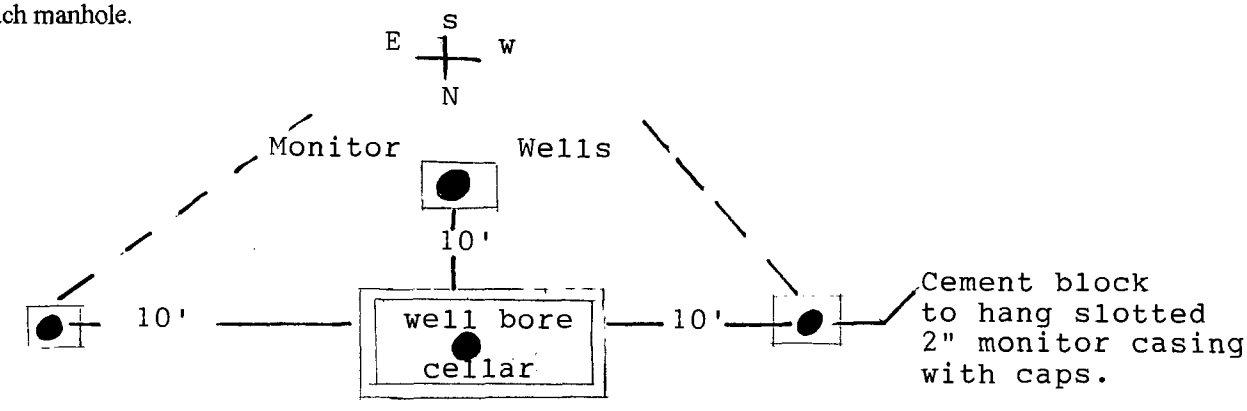
NMOCD-EPA
2040 S. Pacheco
Santa Fe, New Mexico 87505

January 06, 2000

Attn. Roger Anderson

This is a proposal only. The monitor wells for the Eugenie #2 will not be drilled until the NMOCD approves this plan or gives I & W , Inc. a plan of their own specifications of their approval.

The monitor wells will be drilled with air. Diameter of hole will be 4 7/8". Casing will be 2" flush joint monitor casing with 10' of slotted monitor with a plug on bottom. Installed on top will be water tight locking caps with bolt down manhole. The well will also be gravel packed with bentonite grout on top. Cement curbing will be placed around each manhole.



These three wells are to be drilled to 65'. We will install monitor casing which is EPA specification. The cellar, once all operations have been completed to plug well bore, will be filled with cement. A dry hole marker will be installed on the Eugenie #2.

Your comments on this proposal would be appreciated. If you have any questions or comments please contact me at (505) 885-6663.

Sincerely,

George Parchman

George E. Parchman
Manager

GP/lr

to Appropriate District Office

Energy, Minerals and Natural Resources Department

Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO. 30-015-22574

5. Indicate Type of Lease STATE [XX] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Eugenie

1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER Brine Extraction

2. Name of Operator: I & W, Inc.

8. Well No. #1

3. Address of Operator: P.O. Box 1685 , Carlsbad, NM 88220

9. Pool name or Wildcat

4. Well Location

Unit Letter M : 995' Feet From The South Line and 641' Feet From The West Line

Section 17 Township 22 Range 27 NMPM Eddy County

10. Elevation (*Show whether DF, RKB, RT, GR, etc.*)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]		CASING TEST AND CEMENT JOB [ ]	
OTHER: To change to 1 well extraction [XX]		OTHER: [ ]	

12. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Proposal: To plumb the Eugenie #1 to extract brine, We will pump fresh water down the casing to bring the brine water up thru the tubing to our storage tanks.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE Jan.4th,2000

TYPE OR PRINT NAME George E. Parchman TELEPHONE NO. 505)885-6663

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

I/W
P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

ROSWELL NM 882
PM
07 JAN
2000

156
3590
0361

UNITED STATES POSTAGE
PB778310B5
$00.33⁰ JAN 08 00
MAILED FROM ZIP CODE 88221

Oil Conservation Division
attn: Roger Anderson
2040 S. Pacheco
Santa Fe, New Mexico
87505

87505X5472 57

I/W Inc.

ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

New Mexico Oil Conservation Division
Attn.: Roger Anderson Or Wayne Price
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

December 14, 1999

Dear Sirs:

The Letter of violation that I & W, Inc. received on or about the 26th of November was read. I & W carried out the action necessary to comply.

1. Brine well was shutdown according to NMOCD direction. There has been no more operation without approval.

2. The 103 was submitted for approval to NMOCD in Santa Fe and the Artesia District office on December 9th 1999. The 103 outlined the work as discussed in the conference call on Monday December 6th 1999.

3. I & W , Inc. will proceed to drill monitor wells (3), to check if water zone was impacted, and future checks will be performed as directed by the NMOCD.

In conclusion I & W, Inc. would like to thank you for your help and concern in this matter. If you have further question please contact us at (505)885-6663.

Sincerely,

George E. Parchman
Manager

lr/GP

Submit 3 Copies to Appropriate District Office

Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

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7. Lease Name or Unit Agreement Name: Eugenie

1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER F/W Injection 11

2. Name of Operator: I & W, Inc

8. Well No. #1

3. Address of Operator: P.O. Box 1685 Carlsbad, New Mexico 88220

9. Pool name or Wildcat

4. Well Location

Unit Letter _____ : _____ Feet From The _____ Line and _____ Feet From The _____ Line

Section 17 Township 22S Range 27 NMPM Eddy County

10. Elevation *(Show whether DF, RKB, RT, GR, etc.)*

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[ ]
PULL OR ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[ ]		
OTHER: Change Operation of B/W System	[XX]			OTHER:			[ ]

12. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

Proposal: I & W, Inc. Proposes to go to a one well system of extracting brine from the Eugenie #1. If approved then we propose to pump fresh water down the casing & extract brine through the tubing.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Mgr. DATE 12/14/99

TYPE OR PRINT NAME George Parchman TELEPHONE NO. 885-6663

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

I/W Inc.

P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

UNITED STATES POSTAGE
169 PB9763006
6500 $00.33⁰ DEC 15 99
0314 MAILED FROM ZIP CODE 88255

87505-5472 57

Appropriate
rict Office

Energy, Minerals and Natural Resources Department

Revised 1-1-89

DISTRICT I
. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

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1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER F/W Inj. Well

2. Name of Operator: I&W, Inc.

8. Well No. #2

3. Address of Operator: P.O. Box 1685 Carlsbad, NM 88220

9. Pool name or Wildcat

4. Well Location
Unit Letter _____ : _____ Feet From The _____ Line and _____ Feet From The _____ Line

Section 17 Township 22S Range 27 NMPM Eddy County

10. Elevation (*Show whether DF, RKB, RT, GR, etc.*)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[X]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[ ]
PULL OR ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[X]		
OTHER:	[ ]			OTHER:			[ ]

12. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Nov.29,1999: Run 2 7/8 broach to 302' tool sticking could not continue without possibly losing tool.

Proposal: Rig up wireline unit, run C/I bridge plug to 302' set it Test 2 7/8 for leaks, if no leaking occurs, we would believe that 2 7/8 is still intact. Only leaks occured at the surface. Procede to plug existing injection well. Perf 3 holes at T.D. and try to establish a rate. If possible pump cement & plug tub. Proceed to abandon Eugenie #2 Fresh water injection well. With NMOCD approval.

RECEIVED
DEC 03 1999
Environmental Bureau
Oil Conservation Division

Void. per tele con 12/6/99
I+W will re-submit. jd

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Manager DATE 11/30/99

TYPE OR PRINT NAME George Parchman TELEPHONE NO. 505 885-6663

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

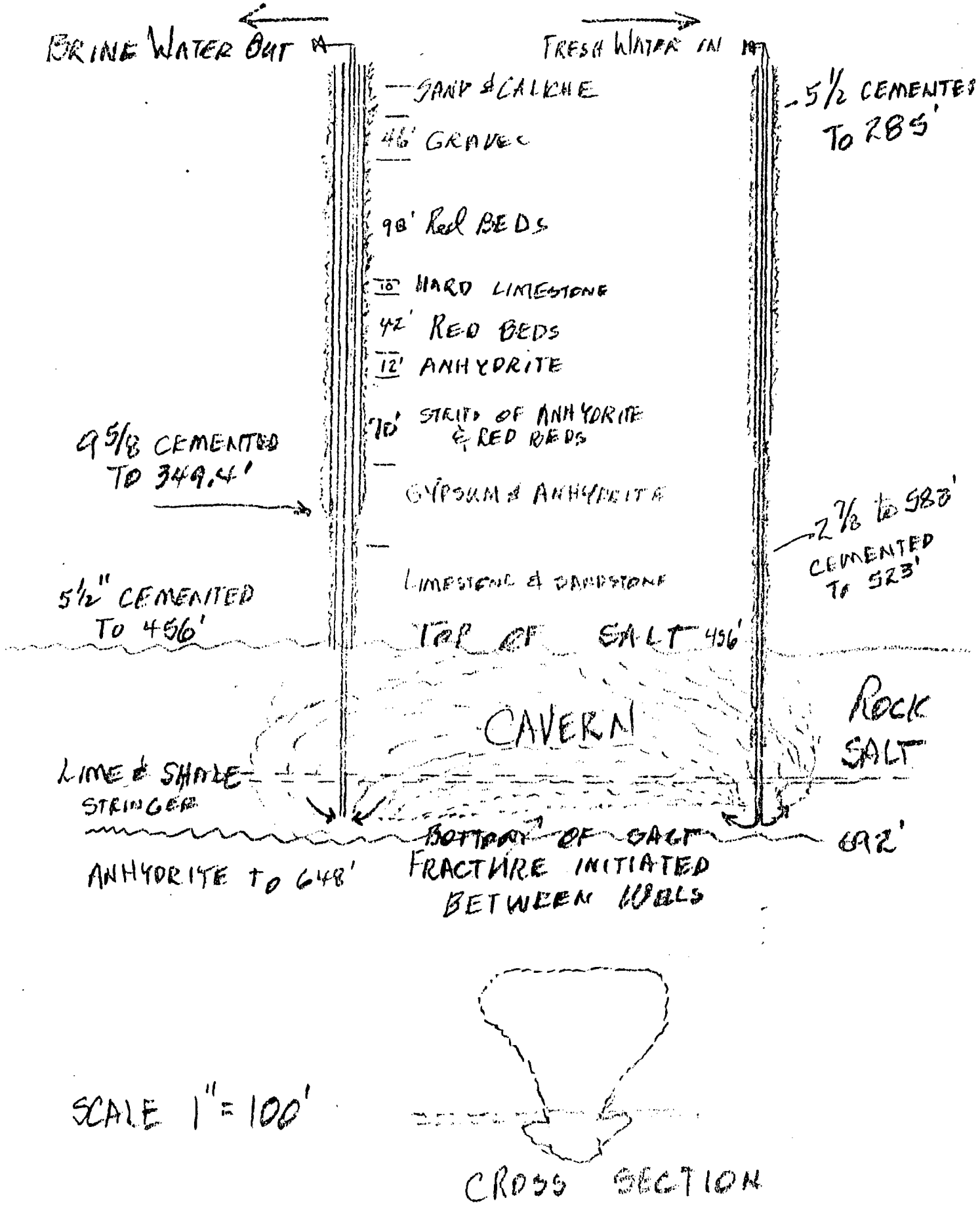
CONDITIONS OF APPROVAL, IF ANY:

OPERATION PRESS
110 psig

EUGENIE BRINE WELLS

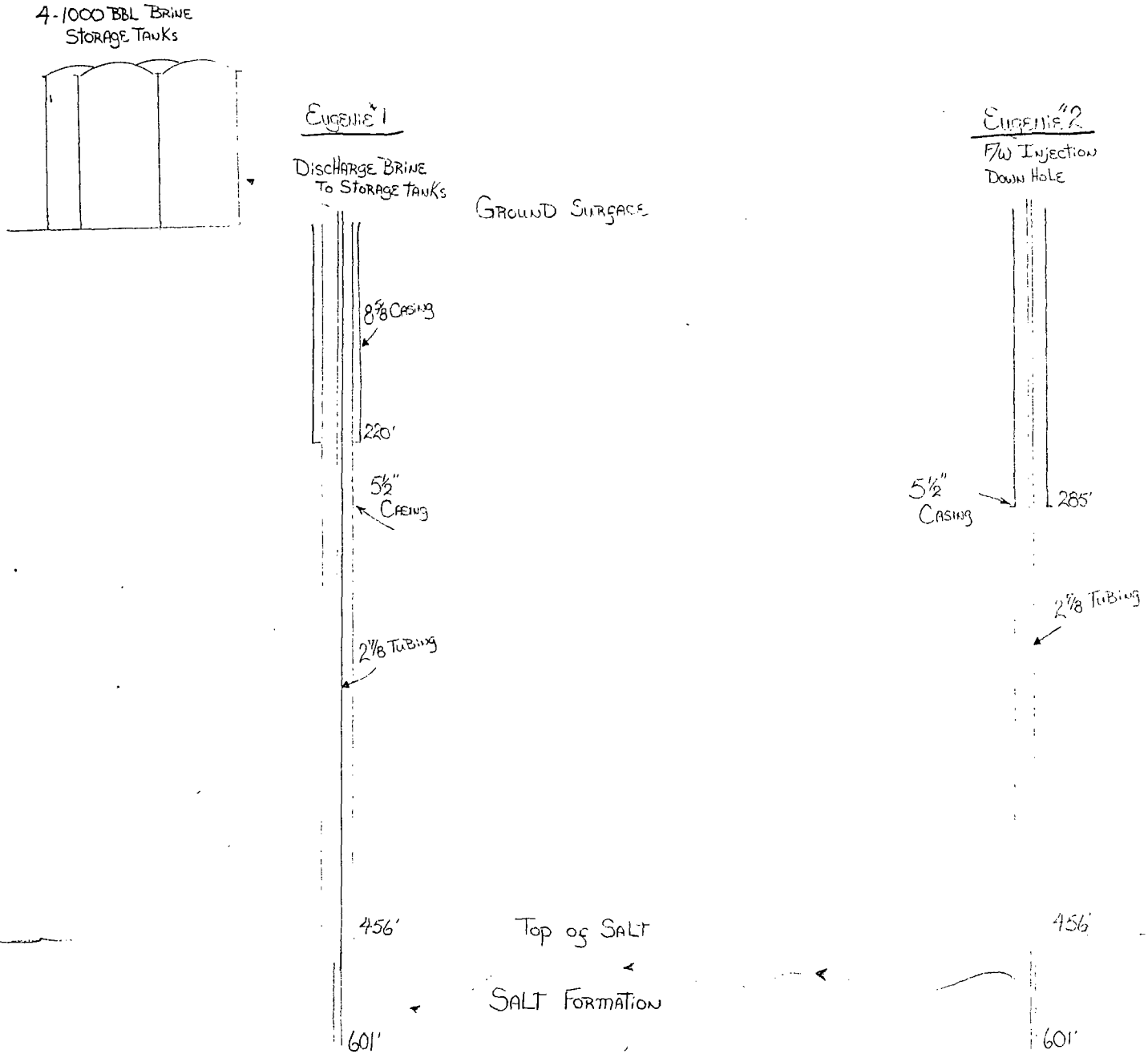
No 1 well

No 2 well



SCALE 1" = 100'

CROSS SECTION



663'

Depth, Diameter Casing & Tubing Specs

Map B

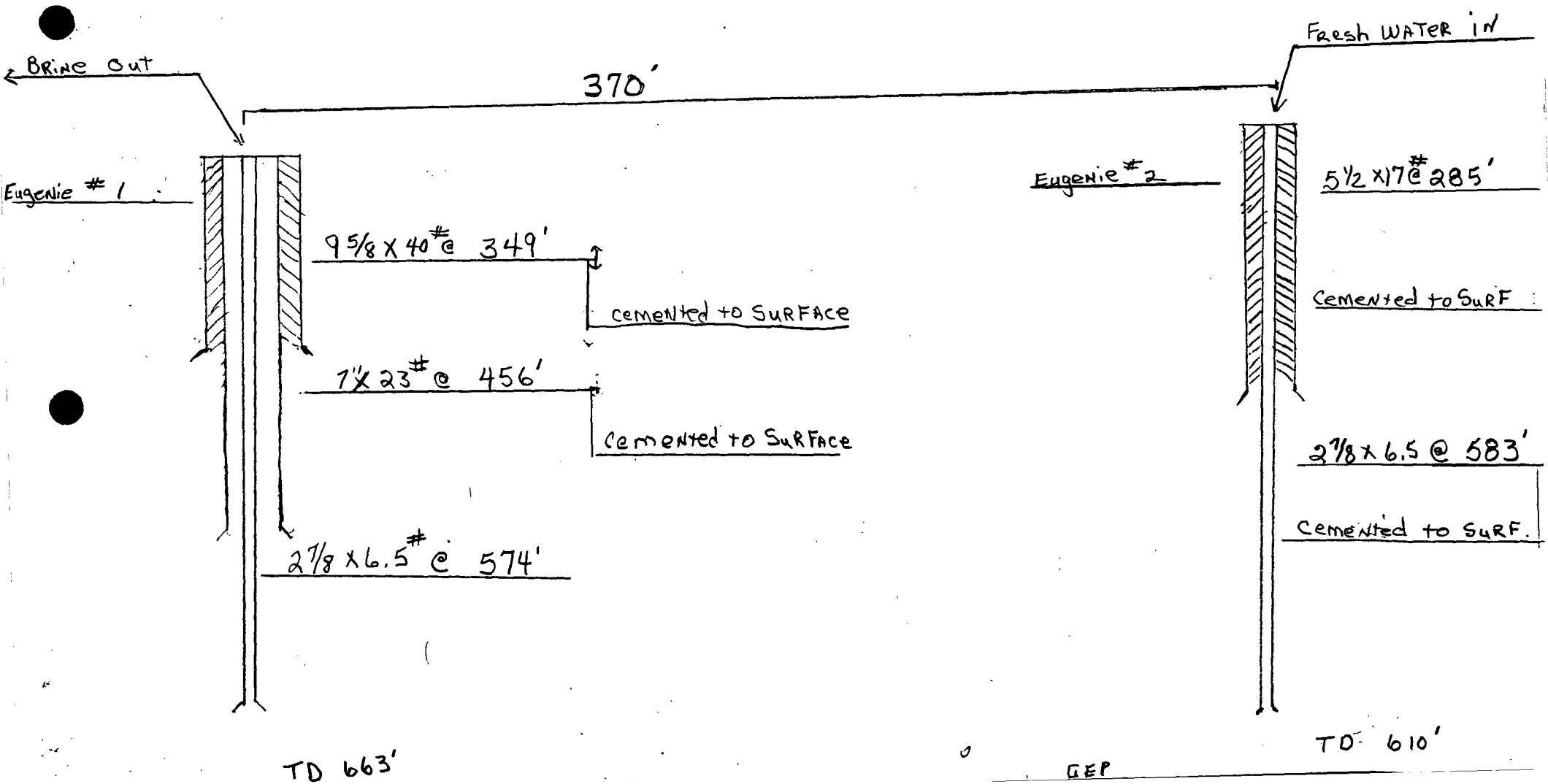
SUB-SURFACE SCHEMATIC DRAWING OF EUGENIE #1 & EUGENIE #2

SOUTH Y CARLSBAD N.M. 88220

DATE May 7, 1987

GENE PRUITT P & E, INC.

I&W INC.
BRINE STATION
CARLSBAD, NM



GEP

OIL CONSERVATION DIVISION
ARTESIA, NEW MEX. 88210

TO: Wayne Price

FROM: OCD - Gary Williams

DATE: 11/8/99

NUMBER OF SHEETS (INCLUDING TRANSMITTAL SHEET) 2

IF YOU HAVE ANY PROBLEMS WITH THIS TRANSMISSION, PLEASE CALL 505-748-1283.

FAX NUMBER (505) 748-9720

Submit 3 Copies to Appropriate District Office

Energy, Minerals and Natural Resources Department

Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Eugenie

1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER P/W Injection Well

2. Name of Operator: I&W, Inc.

8. Well No. #2

3. Address of Operator: P.O. Box 98 Loco Hills, New Mexico 88255

9. Pool name or Wildcat

4. Well Location
Unit Letter _____ : _____ Feet From The _____ Line and _____ Feet From The _____ Line
Section 17 Township 22S Range 27 NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[X]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[ ]
PULL OR ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[ ]		
OTHER:	[ ]			OTHER:	[ ]		

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

November 8th 1999 Proposed: Rig up wireline unit, Run gauge rig &bare to Approximately 550'to check casing. Rig up C/I bridge plug toset in 2 7/8casing. Set plug at approximately 285'. Then rig up tubing gun, 3 shots at 120 degrees perf 2 7/8 at 284'.

November 9th 1999 Continued: Rig up cement truck pump 25 sacks down 2 7/8 through perf and try to circulate cement up beside 2 7/8casing inside 5 1/2 casing, to stop flow.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Mgr. DATE 11/3/99

TYPE OR PRINT NAME GeoRge PArchman TELEPHONE NO. 505-9856663

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

CARLSBAD BRINE STATION

Permian's Carlsbad Brine Station is located in the SW/4 - SW/4 Section 17, Township 22 South, Range 27 East, Eddy County, New Mexico. This location is at the intersection of US Highways 285 and 180 on the Southern outskirts of the city of Carlsbad. See drawing number 1 and map 2. The pumping rate is 68 GPM at 150 PSI Pressure.

Two brine wells were drilled at this site: Eugenie No. 1 and No. 2. The No. 1 well was drilled in 1978 to a total depth of 663'. A string of 9 5/8" O.D., 40#/ft. casing was set at 349' and 170 sacks of cement was circulated. A string of 7" O.D. 23#/ft. casing was set at 456' and 135 sacks of cement circulated. 587' of 2 7/8" tubing was hung in the well, bottomed in the salt section. A drillers log, exhibit 1, is attached.

After completion of this well, in August, 1978, the production of adequate supplies of brine could not be maintained due to the relatively thin section of salt being washed, i.e. 456' to 547'. The second well Eugenie No. 2 was drilled, in November, 1979, and fractured across to the No. 1 well. This well was drilled to a total depth of 610'. 5 1/2", 17#/ft. casing was set at 285' and 125 sacks of cement circulated. 2 1/2", 6.5#/ft. tubing was set at 583' and 100 sacks of cement circulated. The well was fractured across to No. 1 well through a salt and shale stringer 576' to 592'.

Exhibit 2, attached is the drillers log for the No. 2 well, Fresh Water for operations is obtained from the city of Carlsbad from a connection at the lease site. The fresh water is pumped down the tubing of the No. 2 well and brine circulated up the tubing of the No. 1 well to the 500 bbl: brine storage tanks. Water circulation at a rate of 70 GPM is maintained by a booster pump taking suction from the Carlsbad water system. Truck loading facilities have been provided adjacent to the No. 1 brine well -

A search of the area surrounding the brine station did not reveal the presence of any fresh water wells.

The flood potential of this station appears remote. It is approximately 50' above the normal level of the Pecos River, 20' above the downtown area of Carlsbad and the highways provide excellent drainage to the west. See USGS Map 2, attached.

Sample connections are provided at the well heads of the brine wells.

A drillers logs for both wells are attached, exhibits 1 & 2 which describes the lithological character of the underground formations.

Since there are no water wells in the vicinity of the brine station no facilities for monitoring are available.

P. 01

TRANSACTION REPORT

NOV-24-99 WED 04:15 PM

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#
NOV-24	04:13 PM	915058858477	1'31"	2	SEND	OK	

FAXED N.O.V.

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

2040 South Pacheco
P. O. Box 6429
Santa Fe, New Mexico 87505-5472

Name
First [illegible]
Second [illegible]
Return [illegible]

NOV 24

Fold at line over top of envelope to the right of the return address

CERTIFIED

P 410 425 209

MAIL

RETURN TO SENDER

- ☐ Not Deliverable As Addressed
- ☐ Unable To Forward
- ☐ Insufficient Address
- ☐ Moved, Left No Address
- ☐ Unclaimed ☐ Refused
- ☐ Attempted - Not Known
- ☐ No Such Street ☐ Vacant
- ☐ No Such Number
- ☐ No Mail Receptacle
- ☐ Box Closed - No Order
- ☐ Forwarding Ordor Expired

Mr. George Parchman
I&W, Inc.
P.O. Box 727
Carlsbad, New Mexico 88220

88220

1685

NOV 22 1999

Page 1

corrective plan.
to of the tanks. Gary was informed that the tanks had

Price, Wayne

From: Gum, Tim
Sent: Monday, November 22, 1999 9:33 AM
To: Anderson, Roger; Price, Wayne
Cc: Gum, Tim
Subject: I & W BRINE WELL

Roger --- FYI and consideration when I & W submits there correctitive plan.
They are currently in the process of coating the inside of two of the tanks. Gary was informed that the tanks had SEEPS . We have received no spill reports. Thanks TWG.

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

STATE OF NEW MEXICO
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease STATE [XX] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Eugenie

1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER F/W Injection Well

2. Name of Operator: I&W, Inc.

8. Well No.: #2

3. Address of Operator: P.O. Box 98 Loco Hills, New Mexico 88255

9. Pool name or Wildcat:

4. Well Location
Unit Letter _____ : _____ Feet From The _____ Line and _____ Feet From The _____ Line
Section 17 Township 22S Range 27 NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[X]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[ ]
PULL OR ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[ ]		
OTHER:	[ ]			OTHER:	[ ]		

12. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

November 8th 1999 Proposed: Rig up wireline unit, Run gauge rig &bars to Approximately 550'to check casing. Rig up C/I bridge plug toset in 2 7/8casing. Set plug at approximately 285'. Then rig up tubing gun, 3 shots at 120 degrees perf 2 7/8 at 284'.

November 9th 1999 Continued: Rig up cement truck pump 25 sacks down 2 7/8 through perf and try to circulate cement up beside 2 7/8casing inside 5 1/2 casing, to stop flow.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Parchman TITLE Mgr. DATE 11/3/99

TYPE OR PRINT NAME GEORGE PARCHMAN TELEPHONE NO. 505-885-6663

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Date: November 2, 1999
By: Wayne Price-OCD

I&W BW-006 Brine well #1 Production Well

Date: November 2, 1999

By: Wayne Price- NMOCD

I&W BW-006 Brine Well #2 - Well leaked during Mechanical Integrity Test of Cavern. Brine water was noted to be flowing out from between the tubing and tubing/casing cemented macro-annulus. This well is normally used to inject fresh water with produced brine coming out well #1 located approximately 150-200 feet away.

Date: November 2, 1999

By: Wayne Price- NMOCD

I&W BW-006 Brine Well #2 - Well leaked during Mechanical Integrity Test of Cavern. Brine water was noted to be flowing out from between the tubing and tubing/casing cemented macro-annulus. This well is normally used to inject fresh water with produced brine coming out well #1 located approximately 150-200 feet away.

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No [redacted] dated 2/28/97,

or cash received on _____ in the amount of $ 690.00

from I & W

for Engine Brine (Facility Name) BW-006 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: R. Linden Date: 3/19/97

Received in ASD by: _____ Date: _____

Filing Fee ___ New Facility ___ Renewal X

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 97

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ___

I & W INC.
P.O. BOX 98 (505) 677-2111
LOCO HILLS, NM 88255

95-198
1122

WESTERN BANK
ARTESIA, NEW MEXICO 88210

[redacted]

CHECK NO.	CHECK DATE	VENDOR NO.
[redacted]	02/28/97	NMED

PAY SIX HUNDRED NINETY AND 00/100 DOLLARS**********

CHECK AMOUNT
$**********690.00

TO THE ORDER OF
NMED-WATER QUALITY MGM
OCD SANTA FE OFFICE
2040 SOUTH PACHECO ST.
SANTA FE NM 87505

Roswell M Shelby

[redacted]

[redacted]

ACCOUNT NO.			VENDOR NMED NMED-WATER QUALITY MGM		CHECK NO. [redacted]	CHECK DATE 2/28/97	
VOUCHER	INVOICE NUMBER	INV. DATE	REFERENCE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK AMOUNT
32402	20797	2/07/97	FLAT FEE FOR EUGENIE BRIN	690.00	690.00	.00	690.00
						CHECK TOTAL	690.00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 7, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-898

Mr. George Parchman
I & W, Inc.
P.O. Box 727
Carlsbad, New Mexico 88220

RE: Discharge Plan Fees BW-006
Eugenie Brine Extraction Facility
Eddy County, New Mexico

Dear Mr. Parchman:

On April 15, 1996, I&W, Inc. received, via certified mail, a letter from the New Mexico Oil Conservation Division (OCD) stating that the discharge plan BW-006 for the Eugenie Brine Extraction Facility located in the SW/4 SW/4 Section 17, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico was approved. In that letter it was also stated that, in accordance with Water Quality Control Commission Regulation 3114, a $50 filing fee and a $690 flat fee were required upon receipt of the approval letter. The $50 filing fee was received by the OCD on August 18, 1995. As of this date, the OCD has not received the $690 flat fee. Please submit the required flat fee by March 7, 1997.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

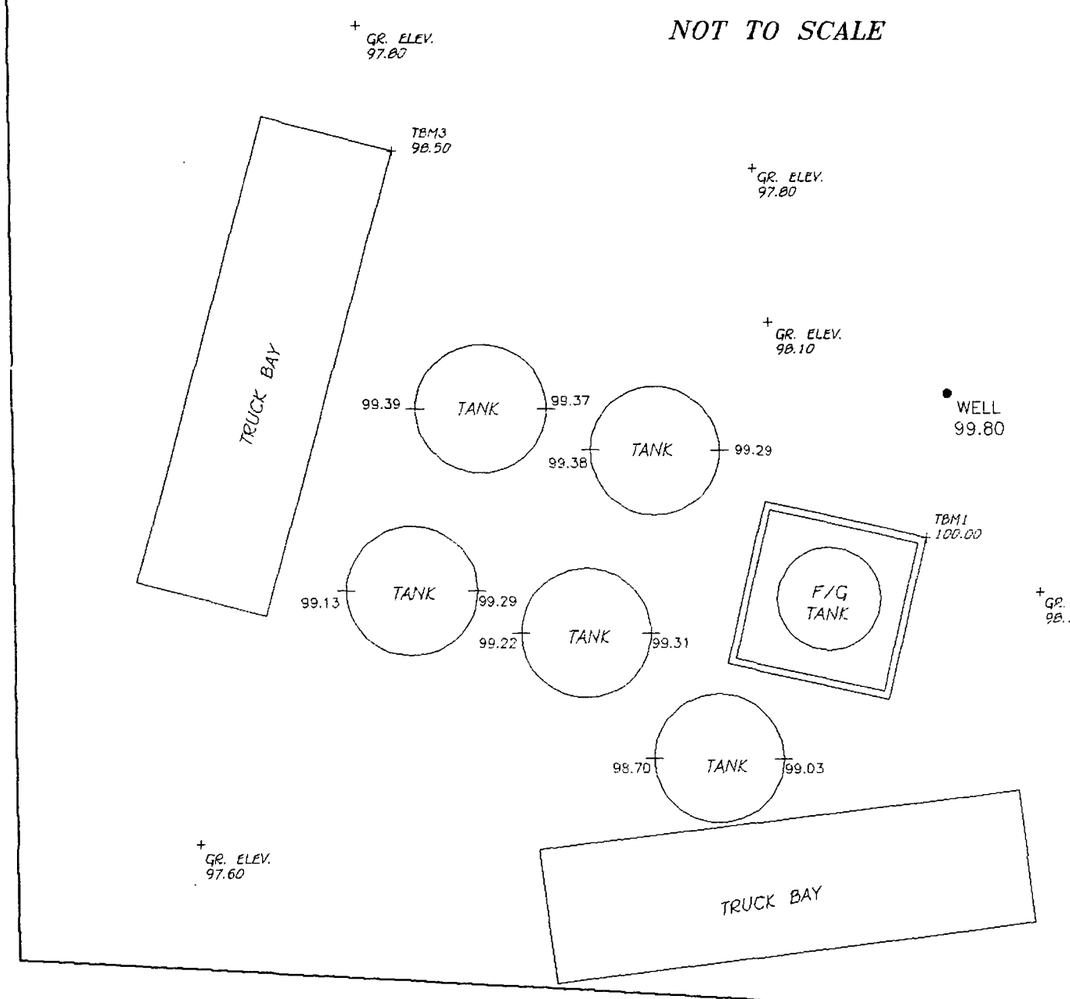
If you have any questions regarding this matter, please contact me at (505) 827-7152.

Sincerely,

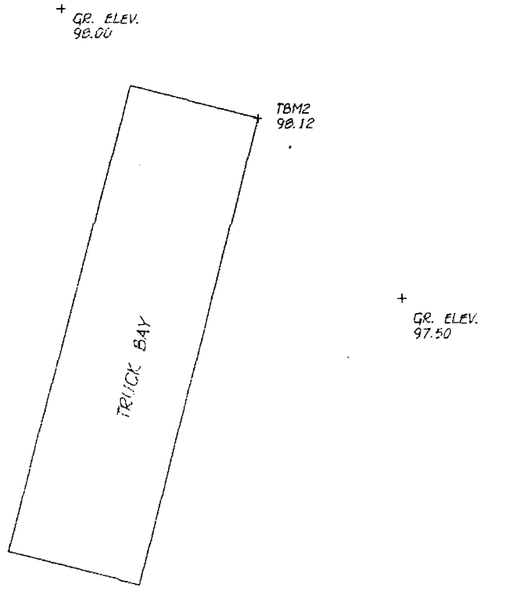
Roger Anderson
Environmental Bureau Chief

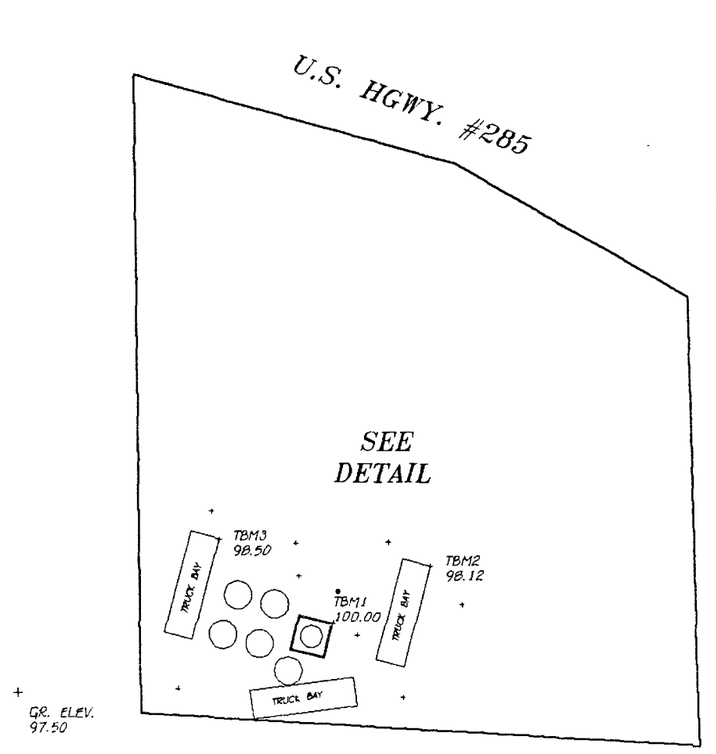
DETAIL

NOT TO SCALE



U.S.R.S. MAIN IRRIGATION DITCH





U.S.R.S. MAIN IRRIGATION DITCH

100 0 100 200 FEET

I.W. INC.

ELEVATIONS ON WELL PAD IN THE SOUTHWEST QUARTER OF SECTION 17, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

W.O. Number: 6589	Date: 01-09-97	Drown By: S.C. NICHOLS
Survey Date: 12-30-96	Disk: SCN #34 – IW65989A.DWG	

BASIN SURVEYS P.O. BOX 1786–HOBBS, NEW MEXICO

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 9:30 AM	Date 12-6-96

Originating Party	Other Parties
MARK ASHLEY	GEORGE ARCHMAN

Subject I&W - CARLSBAD

Discussion DISCHARGE PLAN REQUIREMENTS FOR SUBSIDENCE MONITORING AND BERMING.

Conclusions or Agreements GEORGE SAID HE WAS IN THE PROCESS OF DOING BOTH, & WOULD HAVE THEM DONE BY THE END OF THE YEAR AS REQUIRED BY THE OCD.

Distribution

Signed Mark Ashley

SONAR & WELL TESTING SERVICES, INC.

SONAR CALIPER SURVEY

TREATMENT NO: JOB NO: 3092

WELL DATA

T.D. SONAR:	497 ft.	T.D. OPERATOR:	500 ft.
CASING SIZE:	5 1/2 in.	CASING DEPTH:	452 ft.
INTERMEDIATE SIZE:		INTER. DEPTH:	
TUBING SIZE:	2 7/8 in.	TUBING DEPTH:	out

I & W, Inc.

Eugenie No.1

Carlsbad, N.M.

October 19,1996

GENERAL COMMENTS:

Zero at 5 1/2 in. casing flange.
No depth corrections.

MAILING ADDRESS:

P.O. Box 939
Lovington, N.M. 88260

Attn: George Parchman

CUSTOMER REP:

George Parchman

SONAR ENGINEER:

Bill Schnitger

I & W, Inc.
Eugenie No.1

October 19,1996
JOB NO: 3092

VOLUME CALCULATIONS

	DEPTH	INCR CU FT	TOTAL CU FT	INCR BBLS	BBLS
ABOVE	452	54,064.	54,064.	9,629.	9,629.
	454	25,738.	79,802.	4,584.	14,213.
	456	20,976.	100,779.	3,736.	17,949.
	458	16,519.	117,297.	2,942.	20,892.
	460	13,125.	130,422.	2,338.	23,229.
	462	10,355.	140,777.	1,844.	25,074.
	464	8,270.	149,047.	1,473.	26,546.
	466	6,968.	156,015.	1,241.	27,787.
	468	5,628.	161,643.	1,002.	28,790.
	470	4,247.	165,890.	756.	29,546.
	472	3,092.	168,982.	551.	30,097.
	474	2,126.	171,108.	379.	30,476.
	476	1,405.	172,513.	250.	30,726.
	478	678.	173,190.	121.	30,846.
	480	139.	173,329.	25.	30,871.
	482	10.	173,339.	2.	30,873.
	484	28.	173,368.	5.	30,878.
	486	33.	173,400.	6.	30,884.
	488	8.	173,408.	1.	30,885.
	490	18.	173,426.	3.	30,888.
	492	29.	173,455.	5.	30,894.
	494	20.	173,475.	4.	30,897.

I & W, Inc.
Eugenie No.1

October 19,1996
JOB NO: 3092

VOLUME CALCULATIONS

DEPTH	INCR CU FT	TOTAL CU FT	INCR BBLS	BBLS
496	10.	173,485.	2.	30,899.
497	3.	173,487.	0.	30,899.

I & W, Inc.
Eugenie No.1

October 19,1996
JOB NO: 3092

RADII IN FEET

DEPTH	ANGLE	N	S	E	W	NE	SW	SE	NW
452	90	63.1	65.1	66.4	70.5	65.5	73.1	65.4	70.4
454	90	63.4	57.5	57.3	62.3	61.2	64.7	61.8	63.9
456	90	48.2	56.6	46.8	63.5	47.2	65.6	51.8	52.9
458	90	39.4	50.3	46.2	46.4	41.6	60.9	46.4	44.7
460	90	36.4	46.3	45.1	42.1	39.0	58.7	45.4	40.6
462	90	32.9	44.8	42.5	38.1	33.9	34.0	43.5	35.9
464	90	26.5	43.9	39.9	36.3	28.6	32.6	38.3	27.3
466	90	24.1	40.7	36.9	33.1	28.2	28.1	36.4	25.4
468	90	21.8	33.4	33.7	30.2	26.3	25.8	29.1	22.6
470	90	19.2	31.6	30.0	24.0	20.4	22.7	24.3	21.6
472	90	15.9	21.5	26.0	21.0	16.9	20.0	19.9	17.5
474	90	14.6	18.9	21.0	16.0	16.0	14.5	15.5	14.6
476	90	10.0	10.6	17.0	14.0	10.9	13.5	16.0	12.0
478	90	4.7	5.4	5.5	10.2	4.0	10.4	2.1	8.2
480	90	1.8	1.5	2.1	1.1	1.6	1.4	1.9	1.2
482	90	0.9	0.7	0.8	0.8	0.9	0.8	0.9	0.8
484	90	3.6	3.5	2.7	0.8	3.1	3.0	3.3	3.7
486	90	0.8	2.3	0.8	0.8	0.9	0.7	0.8	0.8
488	90	1.0	1.1	0.8	1.2	0.8	1.2	1.1	1.2
490	90	1.8	2.3	1.0	2.0	0.8	4.2	2.9	2.3
492	90	2.2	1.9	0.6	2.8	0.9	2.8	0.8	3.1
494	90	1.8	0.7	1.6	0.9	1.7	1.4	0.8	2.3

I & W, Inc.
Eugenie No.1

October 19,1996
JOB NO: 3092

RADII IN FEET

DEPTH	ANGLE	N	S	E	W	NE	SW	SE	NW
496	90	1.3	0.8	1.0	1.4	1.2	0.8	1.1	0.8
497	90	0.9	0.8	0.7	0.7	0.7	0.7	0.8	0.8

I & W, Inc.
Eugenie No.1

October 19,1996
JOB NO: 3092

RADII IN FEET

DEPTH	ANGLE	N	S	E	W	NE	SW	SE	NW
462	1	16.8	16.7	16.6	17.0	16.6	17.1	16.6	16.8
462	5	16.5	16.5	16.5	16.5	16.6	16.5	16.6	16.2
462	10	16.5	16.4	16.4	16.4	16.6	16.3	16.4	16.3
462	15	16.4	16.5	16.2	16.2	16.6	16.2	16.4	16.0
462	20	16.6	17.0	16.8	16.7	16.9	16.7	16.8	16.8
462	25	17.6	17.4	17.0	17.4	17.4	17.1	17.3	17.6
462	30	18.2	18.0	17.4	17.5	17.8	17.4	17.5	18.1
462	35	19.5	19.0	18.1	17.9	18.9	18.4	18.5	18.5
462	40	20.1	19.6	19.1	18.5	19.9	19.1	19.6	19.1
462	45	21.7	21.1	21.3	19.8	21.8	19.9	21.1	20.9
462	50	23.6	22.6	22.5	21.4	23.1	21.8	23.0	22.1
462	55	25.3	24.0	23.5	22.8	26.9	24.3	24.2	23.8
462	60	28.4	27.7	27.6	27.9	29.1	27.4	29.1	29.8
462	65	36.2	34.7	34.0	36.3	35.2	34.2	35.0	34.4
462	70	44.8	40.9	40.6	41.1	41.3	38.2	45.3	44.8
462	75	58.6	50.0	57.7	57.0	56.5	51.7	53.6	58.1
462	80	68.0	67.8	63.4	69.0	63.9	67.3	61.9	65.1
462	85	45.7	52.7	45.5	65.8	46.4	64.7	49.0	46.2

SONAR CALIPER SURVEY
DOWNS

I & W, Inc.
Eugenie No.1

October 19,1996
JOB NO: 3092

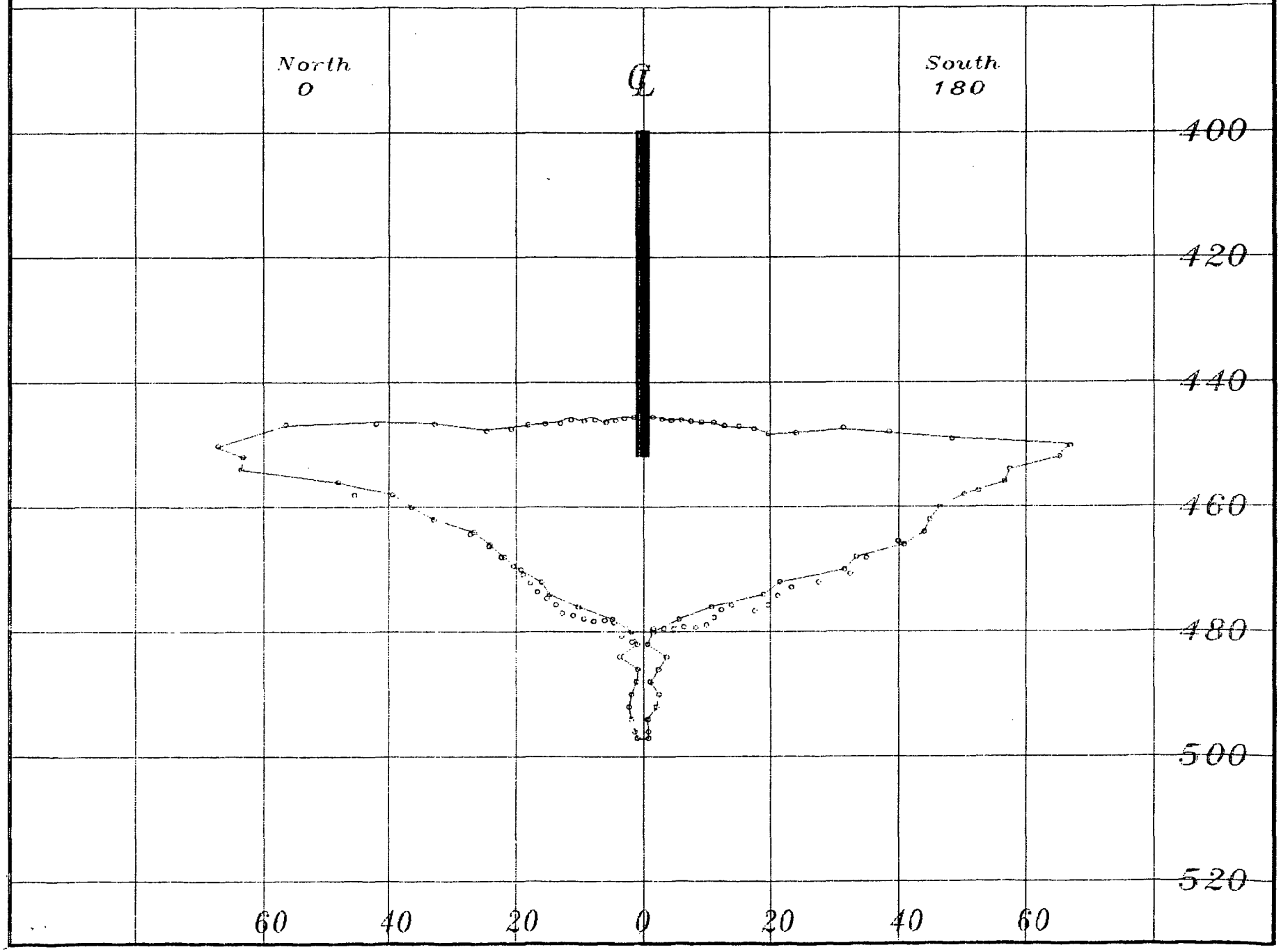
RADII IN FEET

DEPTH	ANGLE	N	S	E	W	NE	SW	SE	NW
462	95	27.2	40.0	37.7	36.0	31.9	29.5	36.4	28.1
462	100	24.6	35.5	35.4	33.7	30.9	27.9	34.6	26.0
462	105	23.1	33.6	31.9	29.0	27.9	25.3	26.8	24.5
462	110	21.7	29.3	29.5	26.5	25.3	24.2	25.1	22.8
462	115	20.8	25.7	27.5	23.5	22.7	23.9	24.2	23.1
462	120	20.4	24.4	26.8	22.4	22.0	22.9	22.8	22.2
462	125	20.2	23.9	24.7	21.7	21.5	21.2	21.8	21.5
462	130	19.7	22.8	23.7	21.8	19.6	19.5	22.1	21.0
462	135	19.3	19.4	21.9	21.2	19.2	19.6	21.8	20.1
462	140	19.6	18.9	20.8	21.4	18.9	20.0	21.2	19.8
462	145	18.8	19.2	19.2	21.3	18.8	20.8	20.0	18.5
462	150	18.4	19.5	18.8	21.8	18.7	20.0	19.3	17.7
462	155	18.0	19.1	18.4	21.4	17.8	21.0	18.4	17.6
462	160	17.2	18.3	17.6	20.8	17.8	20.4	18.2	17.2
462	165	17.1	18.1	17.5	20.9	18.3	18.9	17.4	17.4
462	170	19.0	17.7	17.3	18.2	18.2	17.7	17.1	19.0
462	175	19.7	17.6	17.3	17.9	18.6	17.9	17.3	18.2

I & W, Inc.
Eugenie No.1

VERTICAL CROSS SECTION

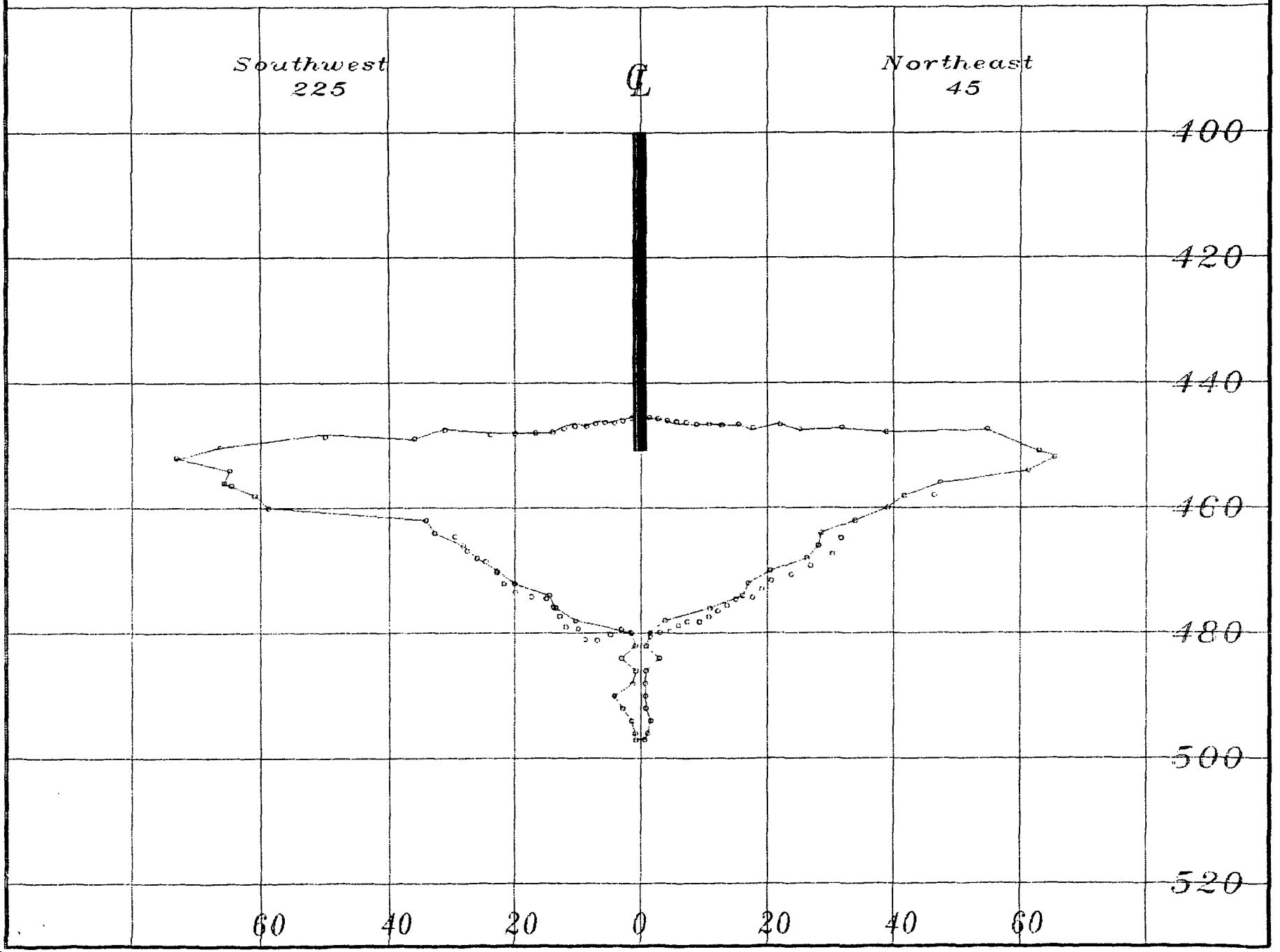
Carlsbad, N.M.
October 19,1996
Job Number - 3092



I & W, Inc.
Eugenie No.1

VERTICAL CROSS SECTION

Carlsbad, N.M.
October 19,1996
Job Number - 3092



I & W, Inc.
Eugenie No.1

VERTICAL CROSS SECTION

Carlsbad, N.M.
October 19,1996
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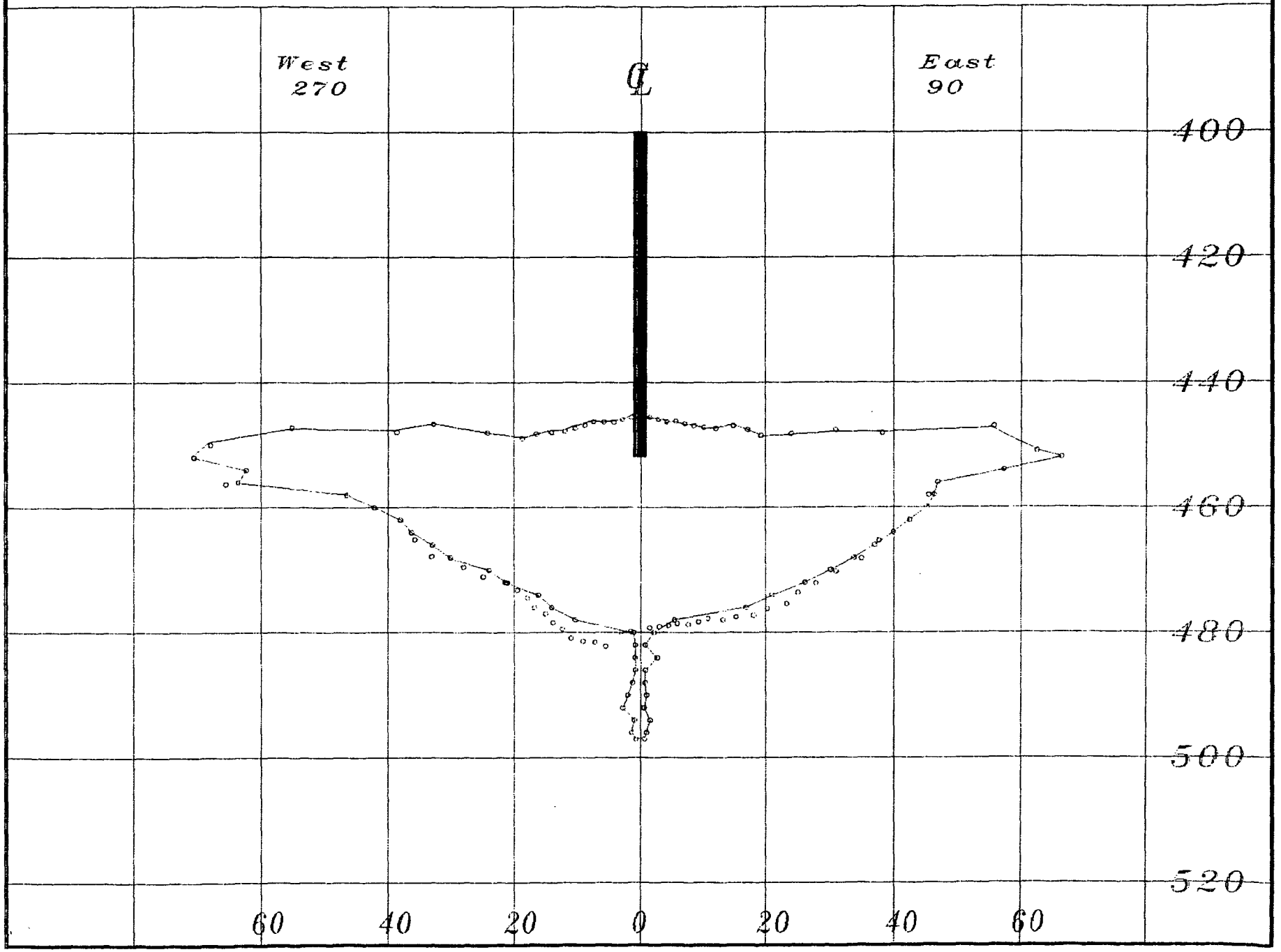

I & W, Inc.
Eugenie No.1

VERTICAL CROSS SECTION

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October 19,1996
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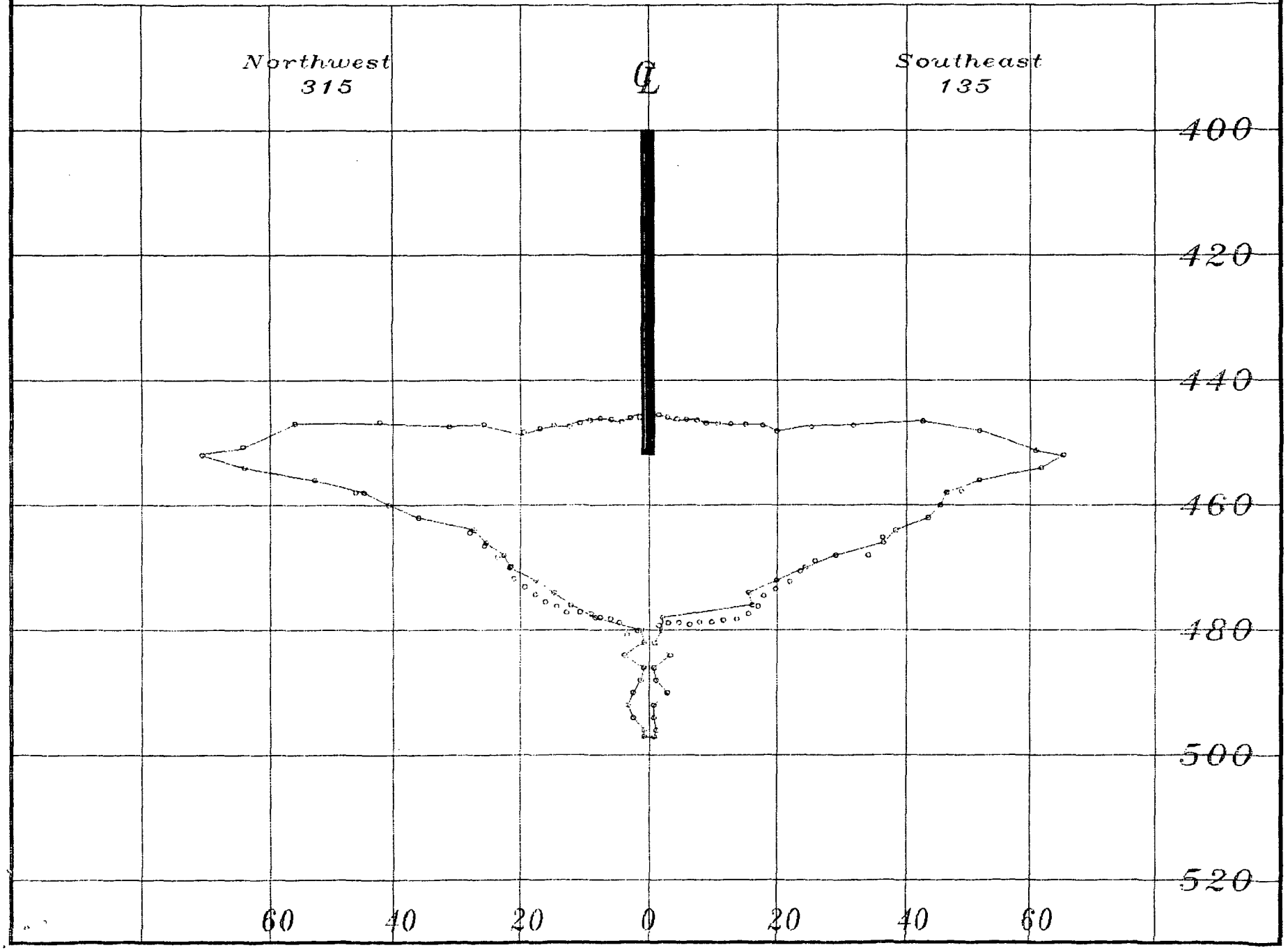

I & W, Inc.
Eugenie No.1

VERT = 20
HORZ = 20

October 19,1996
JOB NO: 3092

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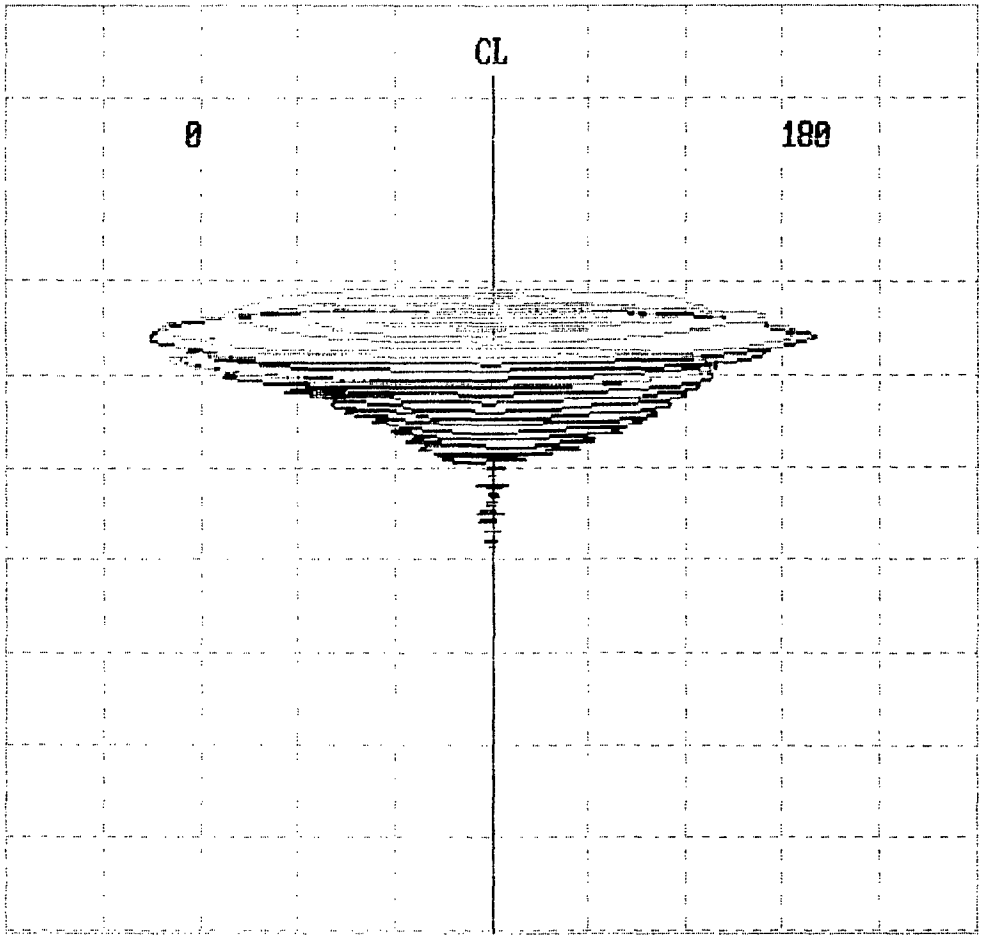

I & W, Inc.
Eugenie No.1

VERT = 20
HORZ = 20

October 19,1996
JOB NO: 3092

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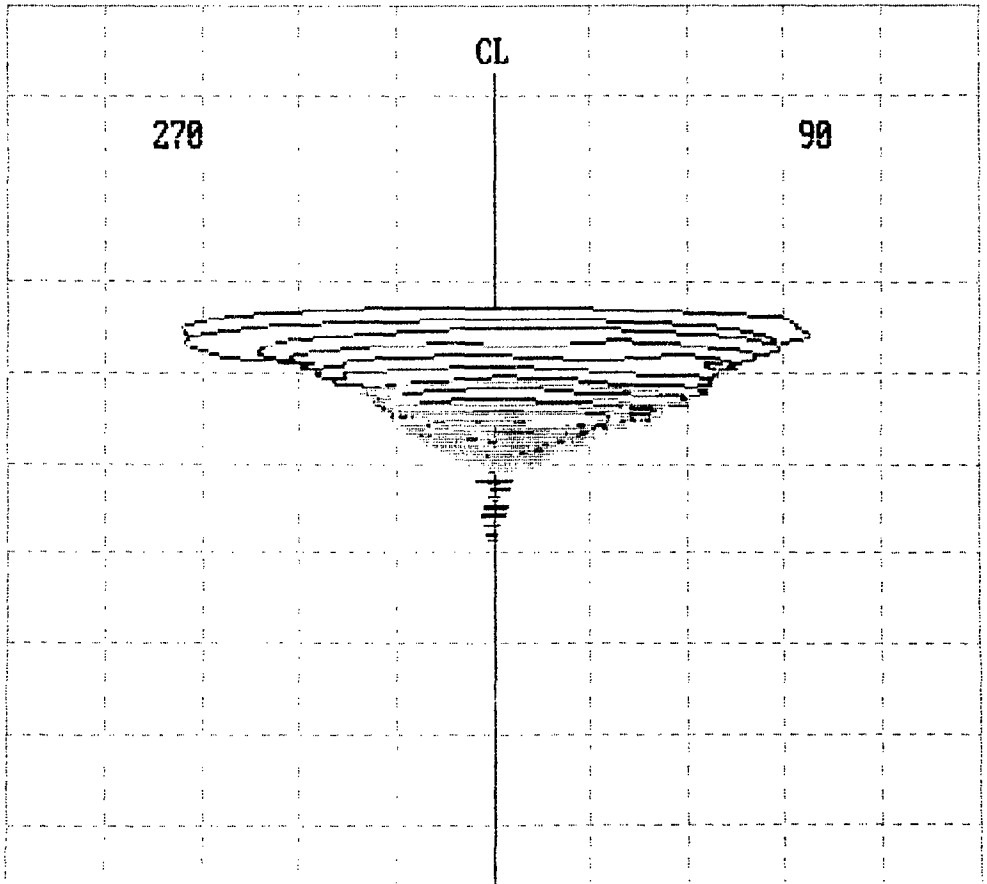

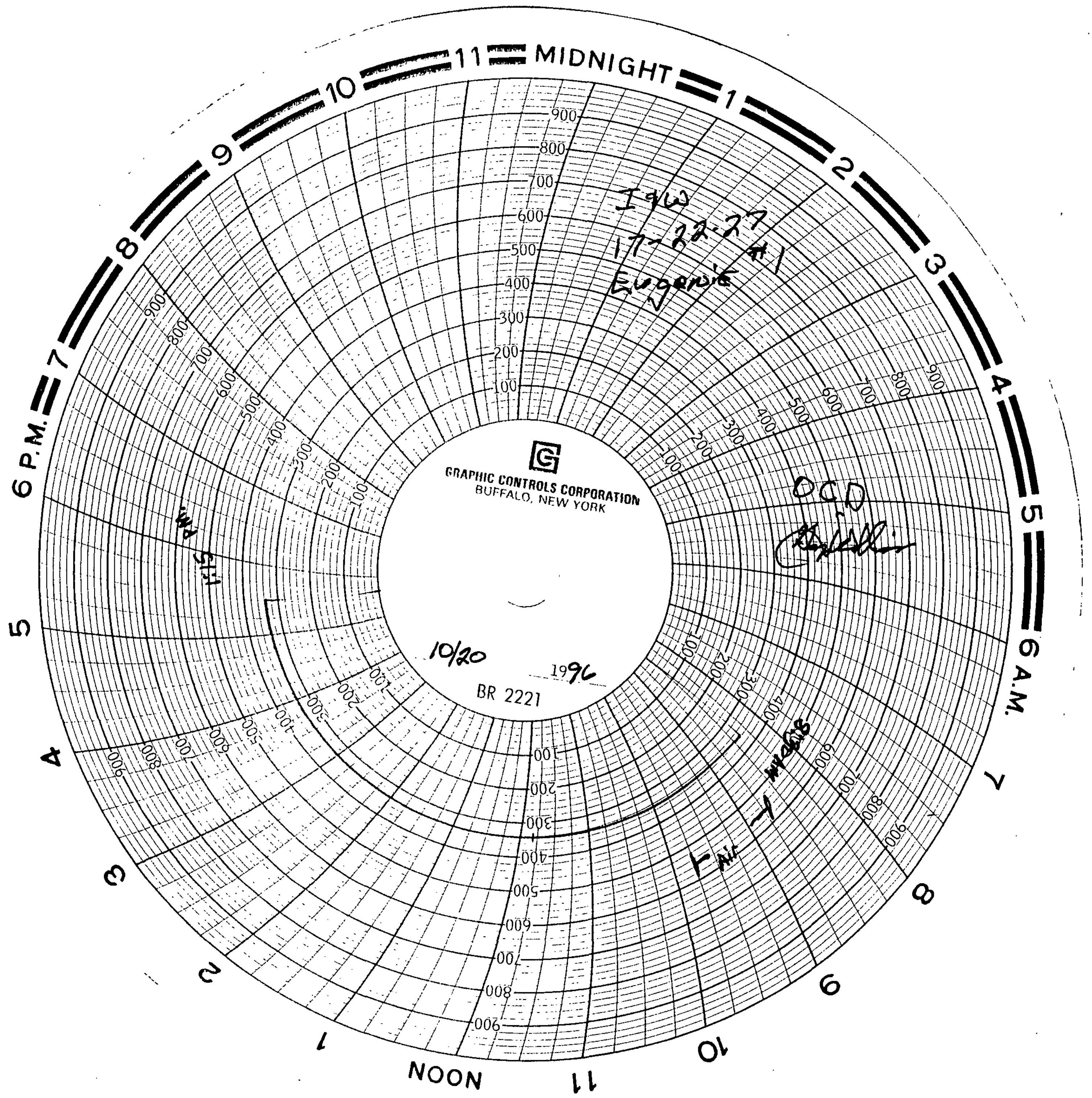

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NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

MEMORANDUM

TO: Bill LeMay and Roger Anderson

FROM: Mark Ashley

SUBJECT: I&W Brine Well (BW-006) - Carlsbad

DATE: October 15, 1996

On October 11, 1996 at 9:30 am the OCD required I&W to shut in their brine well in Carlsbad after they failed to have the well ready for mechanical integrity testing (MIT) and cavern surveying. This was the OCD's fourth attempt to test the well since October 12, 1995. The last scheduled MIT was performed on September 30, 1993.

Chronology of events:

October 12, 1995: The OCD visited the facility for a discharge plan renewal inspection, MIT and cavern survey. The scheduling of the inspection, MIT and cavern survey was setup in advance by the OCD with the cooperation of I&W. The requested MIT and cavern survey was not performed. I&W wanted to reschedule the tests when both could be performed at the same time, and the OCD agreed. The OCD was represented by Mark Ashley, Gary Williams and Bryan Arrant.

August 16, 1996: I&W was notified by certified mail that the MIT would be performed on their well on September 16, 1996. I&W was notified by phone that the cavern survey would be performed at the same time as the MIT, and I&W agreed. The scheduling of the MIT and cavern survey was setup in advance by the OCD with the cooperation of I&W.

September 16, 1996: The OCD visited the facility to conduct the scheduled MIT and cavern survey. I&W was not ready due to availability of equipment, and the test was rescheduled for October 8, 1996. The OCD was represented by Mark Ashley, Gary Williams and Bryan Arrant.

September 23, 1996: I&W was contacted to reschedule the October 8, 1996 test to October 10, 1996 due to OCD schedule conflicts. I&W did not protest rescheduling.

October 9, 1996: The OCD visited the facility and was informed by I&W that they would not be ready for the MIT and cavern survey that was rescheduled for October 10, 1996 due to availability of equipment. They rescheduled for October 11, 1996. The OCD was represented by Mark Ashley, Gary Williams.

October 11, 1996: Roger Anderson and Tim Gum were notified of I&W's failure to comply with OCD requirements, and a decision was reached by both of them that I&W would be required to shut in their brine well if they were not ready for the October 11, 1996 MIT and cavern survey.

The OCD visited the facility and was informed by I&W that they would not be ready for the rescheduled MIT and cavern survey due to availability of equipment. At that time the OCD required the well to be shut in until further notice. I&W was also informed that the MIT and cavern survey would be scheduled and witnessed by the OCD. OCD representatives present were Tim Gum, Mark Ashley, Bryan Arrant.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

October 11, 1996

Mr. Mike Butts
I & W
Loco Hills, New Mexico

Dear Mr. Butts:

The brine well which was the subject of our conversation today will be shut in until further notice.

Sincerely,

WILLIAM J. LEMAY
Director

Roger / Mark

I've had numerous conversations w/ Butts and George and Butts wanted an order shutting him down. This ~~#~~ is it. Get together with I&W for a witnessed test (why can't Artesia witness it?) Let me know what the schedule is and

when you want to lift the S.I. order if you want to lift it.

Bill

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

October 11, 1996

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I & W
Loco Hills, New Mexico

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WILLIAM J. LEMAY
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ARTESIA
(505) 746-4214
1 (800) 748-1972

CARLSBAD
(505) 885-6663
1 (800) 658-2739

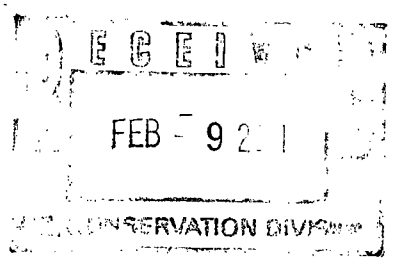
I W Inc.
P.O. BOX 98
LOCO HILLS, NEW MEXICO 88255

LOCO HILLS
(505) 677-2111
1 (800) 748-1972

LOVINGTON
(505) 396-3331
1 (800) 748-2084

January 30, 2001

Mr. Wayne Price
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504



Re: Eugenie Brine Extraction Facility
Discharge Plan Application
Discharge Plan BW-006
SW/4 SW/4 Section 17-T22S-R27E

Dear Mr. Price:

Enclosed please find our Discharge Plan Application and a copy of the New Existing Plot of Location. I would appreciate it if you would look this over and let me know if there is anything else I need to do.

Please feel free to call me at (505) 677-2111 if there is anything else needed.

Thank you,

George Parchman

George E. Parchman
Manager

THE SANTA FE
NEW MEXICAN
Founded 1849

NM OIL CONSERVATION DIVISION
ATTN: WAYNE PRICE
1220 S. ST. FRANCIS DRIVE
SANTA FE, NM 87505

AD NUMBER: 211290 ACCOUNT: 56689
LEGAL NO: 69498 P.O.#: 01199000033
299 LINES 1 time(s) at $ 131.80
AFFIDAVITS: 5.25
TAX: 8.57
TOTAL: 145.62

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE
I, M M Weideman 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 #69498 a copy of which is hereto attached was published in said newspaper 1 day(s) between 06/13/2001 and 06/13/2001 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 13 day of June, 2001 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ M M Weideman
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 13 day of June A.D., 2001

Notary Laura E. Harding

Commission Expires 11/23/03

Approved 7/06/01

RECEIVED
JUN 15 2001
OIL CONSERVATION DIV.

NOTICE OF PUBLICATION

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

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

(BW-004) - Gandy Corporation., Larry Gandy, Vice-President, P.O. Box 827, Tatum, New Mexico, 88267 has submitted an application for renewal of its previously approved discharge plan for its brine well facility. The brine extraction facility is located in the SW/4 SW/4 of Section 31, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected to an approximate depth of 2,000 feet and brine is extracted with an average total dissolved solids concentration of 313,000 mg/l. Groundwater most likely to be affected by any accidental discharge is at a depth of approximately 120 feet and has a total dissolved solids content of approximately 325 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(BW-006) - I&W Incorporated, George Parchman, P.O. Box 98, Loco Hills, New Mexico 88255, has submitted a discharge plan renewal application for their Carlsbad Eugenie Brine Extraction Facility located in the SW/4 SW/4 of Section 17, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico. Fresh water is injected down annulas of the No. 1 well to an approximate depth of 550 feet and brine is produced through the tubing. The brine has an average total dissolved solids content of 300,000 mg/l. Groundwater most likely to be affected by any accidental discharge is at a depth of 50 feet with a total dissolved solids concentration of about 1,000 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

(BW-028) - Gold Star SWD Ltd. Co., Royce Crowell, Manager/Partner, P.O. Box 1480, Eunice, New Mexico, 88231 has submitted an application for their proposed Eunice Brine Station, located in the NW/4 NW/4 of Section 15, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Fresh water will be injected to an approximate depth of 2,000 feet. Approximately 1,000 barrels per day of brine water will be extracted with an average total dissolved solids concentration of 300,000 mg/l. The brine water will be stored in three 500 barrel aboveground closed top fiberglass tanks. Ground water most likely to be affected by any accidental discharge is at a depth of approximately 80 feet and has a total dissolved solids content of approximately 1,200 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain 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 through 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 a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the

LEGALS

reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of June 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY, Director
Legal #69498
Pub. June 13, 2001

Approved OK
Wrotenbery
7/6/01