103940299 WFX 2/22/01

ExxonMobil Production Company
U.S. West
P.O. Box 4358
Houston, Texas 77210-4358

February 6, 2001

ExxonMobil Production

Application For Authorization to Inject (Form C-108)
Avalon (Delaware) Unit #516 (30-015-28665)
Sec. 31, T20S, R28E; 1310' FNL / 97' FEL
Avalon Delaware Unit
Eddy County, New Mexico

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

Dear Sirs:

Exxon Mobil Corporation requests to convert the above referenced well to injection. The following items are attached:

Application for Authorization to Inject (Form C-108) and attachments.
- Plat showing well location, 1/2 mile Area of Review (AOR), and leases within 2 miles.
- Tabulation of well data within AOR.
- Proposed operations and stimulation information.
- Geologic / lithologic data.
- Fresh water analyses within one mile.
- Proof of Notice: Names, addresses of surface owner(s), and all leasehold operators within one-half mile.
- Copy of legal newspaper advertisement.
- Well log copies.

If you have any questions please call me at (713) 431-1210 or fax (713) 431-1600.

Sincerely,

Michael E. Wise
Regulatory Specialist

Attachements
As

Xc: New Mexico Oil Conservation Division, District II
811 S. First St.
Artesia, NM 88210

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [XX] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [XX] yes [ ] no

II. Operator: EXXON MOBIL CORPORATION

Address: P. O. BOX 4358 HOUSTON, TEXAS 77210-4358

Contact party: Michael E. Wise Phone: (713) 431-1210

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? [XX] yes [ ] no
If yes, give the Division order number authorizing the project R-10460-B.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

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

Name: MICHAEL E. WISE Title Regulatory Specialist

Signature: Date: 1-9-2001

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

Exxon Mobil Corporation	Avalon Delaware Unit	NM NM 01119
OPERATOR	LEASE	DESIGNATION & SERIAL NO.

516	1310' FNL / 97' FEL	31	T-20-S	R-28-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

30-015-28665	Avalon Delaware 3715
API WELL NO.	FIELD and POOL

Schematic

(SEE ATTACHED DRAWINGS)

Tubular Data

Surface Casing

Size: 10-3/4" Cemented with: 515 sxs.

TOC: Surface feet determined by: Circulation

Hole Size: 14-3/4"

Intermediate Casing

Size: 7-5/8" Cemented with: 233 sxs.

TOC: Surface feet determined by: Circulation

Hole Size: 9-7/8"

Long String

Size: 4-1/2" Cemented with: 590 sxs.

TOC: Surface feet determined by: Circulation

Hole Size: 6-3/4"

Total Depth: 3850'

Injection Interval:

2500 feet to 3850 feet.

X Perforation ☐ Open-hole

Tubing size 2-3/8" lined with Cement (material) set in a

Baker Model 'A' (brand and model) packer at 2340 feet. (or describe any other casing-tubing seal)

Other Data

1. Name of the injection formation: Delaware

2. Name of Field or Pool (if applicable): Avalon

3. Is this a new well drilled for injection? ☐ Yes X No

If no, for what purpose was the well originally drilled? Oil production (pre-produced prior to planned injection conversion

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used). No

5. Give the depth and name of any overlying and/or underlying oil and gas zones (pools) in this area. Yates (350-400'), Bone Spring (5000-7000'), Atoka (7800-10800'), Wolfcamp (9000-10000'), Stawn (10000'), Morrow (11000') [*Depths are approximate*]

SUPPLEMENT TO APPLICATION FOR AUTHORIZATION TO INJECT
AVALON (DELAWARE) UNIT #516
EDDY COUNTY, NEW MEXICO

I. - IV. Form C-108

V. Composite map attached (Wells and Leases within 2 Miles / Unit map with 1/2 Mile Area of Review).

VI. Tabulation of well data within the 1/2 mile Area of Review (AOR).

VII. Proposed Operations:

1. Average daily injection rate: = 500 BPD
   Maximum daily injection rate: = 2000 BPD
   Volumes of fluids to be injected: = 141,200,000 Bbls

2. Open system.

3. Average and Maximum injection pressures: Average: = 400 psi
   Maximum: = 500 psi

4. Sources, analysis, and compatibility of injection fluid: Source water is from the Delaware and fresh water which will not exceed 20% of total volume. The water will be produced from Avalon Unit wells, two or three source water wells completed in non-productive intervals of the Lower Delaware, and fresh water from the cities of Carlsbad and Bill Taylor, New Mexico.

5. NA

VIII. Geologic Data:

The proposed interval for injection at the Avalon (Delaware) Field is a porous and permeable zone within the Delaware Mountain Group, which in the Avalon area consists of fine sandstones and coarse siltstones of the Cherry Canyon and Brushy Canyon Formations. The estimated average top and base for the Delaware at Avalon are:

	TOP	BASE
Delaware Montain Goup	2494 ft. (767 ft. subsea)	4860 ft. (-1599 ft. subsea) Top of Bone Spring Fm., 2366 ft. thick

Fresh water in this area occurs primarily in the Capitan aquifer, which occurs at approximately 750 feet deep (2500 feet subsea) [Hiss, 1976, New Mexico Bureau of Mines and Mineral Resources Resource Map 6]. At Avalon, approximately 600 feet of low porosity Goat Seep Reef separate the Delaware from porous zones within the Capitan aquifer. Other potential fresh water zones (primarily the Rustler Formation) occur above the Salado salt and anhydrite. The top of the anhydrite/salt at this location is generally less than 300 feet deep. This unit serves as an effective barrier between injected and fresh water zones near the surface. No fresh water occurs below the proposed injection zone.

IX. Proposed Stimulation Program:

No stimulation is scheduled; only water wetting chemical squeeze if needed.

X. Well Log: Previously filed.

XI. Chemical Analyses of fresh water wells (two or more if available) within one mile of injection well are attached.

XII. Injection Well. There are no indications of open faults or other hydrological connections between the proposed injection interval and the shallower fresh water zones.

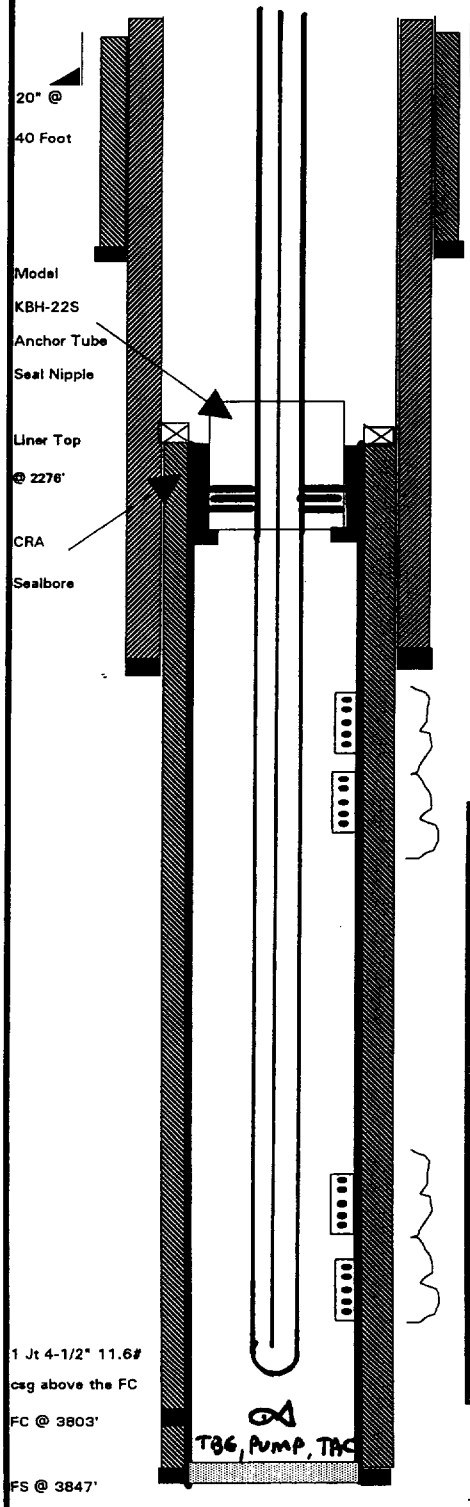
XIII. Well Data: Tabular well data and well diagram schematics are attached.

XIV. Proof of Notice: Copy of legal publication and certified notice to surface owner and leasehold operators within one-half mile of well location are attached.

WELLBORE SKETCH AND WELL HISTORY

ELEV.: KB: 3245' 13 Feet ABOVE GL

Lease & Well Name: ADU 516
Field: Avalon Delaware Unit
Location: 1310' FNL/97' FEL, Sec 31
T20S/R28E Eddy County, New Mexico
Date: 4/25/96 By: P.A. Sanchez



Hole Size 14-3/4"
TOC: Surface

10-3/4" @ 623'
CMT 515 Sx
Circ 60

CURRENT

Hole Size 9-7/8"
TOC: Surf
7-5/8" @ 2460'

CMT 750 Sx
Circ 233 SX

Hole Size 6-3/4"
TOC: 2276' (CIRC)

Perfs

Upper Cherry Canyon
2576-88 0 Degree
2606-24 (1SPF)
2652-64 2678-90
UCC - 58 perfs

Upper Brushy Canyon
3602-40 (1SP2F)
3658-70 (1SPF)
0 Degree
UBC - 33 perfs

4-1/2" Liner @ 3847'

CMT 590 Sx
Circ Full Returns

MARKER JOINTS
2592' | 3486'

TD: 3850' PBTD: 3803'

Casing Record

Surface Casing

OD	WT/Ft	Grade	Set @
10-3/4"	40.5#	K55	623

Intermediate Casing

7-5/8"	26.4#	K-55	2460'

Production Liner

4-1/2"	5.41#	FG	2276-3767
4-1/2"	11.6#	K-55	3767-3847

Tubing

Type: UNKOWN UNTIL WELL IS COMPLETED

WELL HISTORY

Apr-96 D&C well.

Brushy - perfed, acidized, Fraced w/35,000# 12/20 sand.
Cherry - perfed, acidized, Fraced w/36,600# 12/20 sand.

6/96 Hole in tubing.
4/97 Change out pump.
2/98 Stuck pump. Stuck tbg. Cut tubing, left pump and TAC in hole. RBIH w/tbg. and redo.
11/99 Stuck pump.
3/00 Stuck pump.

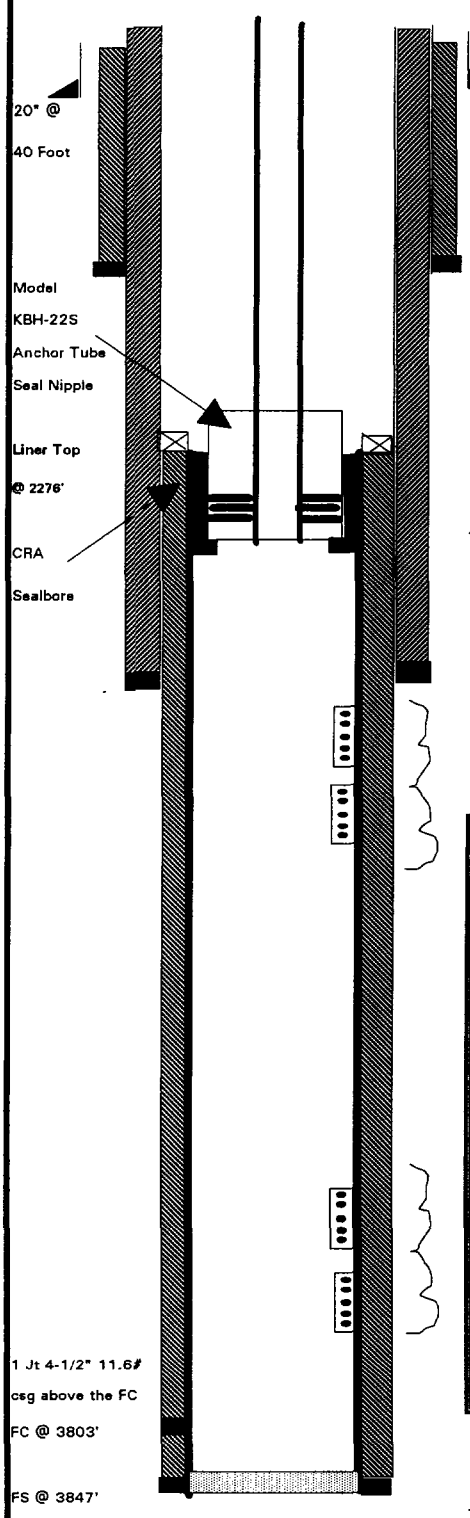
BHA:

Tbg	3565'
SN	1'
PS	4'
MA	31'

WELLBORE SKETCH AND WELL HISTORY

ELEV.: KB: 3245' 13 Feet ABOVE GL

Lease & Well Name: ADU 516
Field: Avalon Delaware Unit
Location: 1310' FNL/97' FEL, Sec 31
T20S/R28E Eddy County, New Mexico
Date: 4/25/96 By: P.A. Sanchez



Hole Size 14-3/4"
TOC: Surface

10-3/4" @ 623'
CMT 515 Sx
Circ 60

PROPOSED

Hole Size 9-7/8"
TOC: Surf
7-5/8" @ 2460'

CMT 750 Sx
Circ 233 SX

Hole Size 6-3/4"
TOC: 2276' (CIRC)

Perfs

Upper Cherry Canyon
2576-88 0 Degree
2606-24 (1SPF)
2652-64 2678-90
UCC - 58 perfs

Upper Brushy Canyon
3602-40 (1SP2F)
3658-70 (1SPF)
0 Degree

UBC - 33 perfs

4-1/2" Liner @ 3847'

CMT 590 Sx
Circ Full Returns

MARKER JOINTS
2592' 3486'

TD: 3850' PBTD: 3803'

Casing Record

Surface Casing

OD	WT/Ft	Grade	Set @
10-3/4"	40.5#	K55	623

Intermediate Casing

7-5/8"	26.4#	K-55	2460'

Production Liner

4-1/2"	5.41#	FG	2276-3767
4-1/2"	11.6#	K-55	3767-3847

Tubing

Type UNKOWN UNTIL WELL IS COMPLETED

WELL HISTORY

Apr-96 D&C well.

A1

Baker Petrolite

422 W. Main
P.O. Box 1140
Artesia, NM 88210 USA
Tel 505-746-3588
Fax 505-746-3580
www.bakerhughes.com/bapr

WATER ANALYSIS REPORT

Company : Exxon Company USA
Address : Carlsbad, NM
Lease : ADU
Well : Bill Taylor
Sample Pt. : Water Tank

Date : 14 Nov 00
Date Sampled : 14 Nov 00
Analysis No. :

	ANALYSIS		mg/L		* meq/L
1.	pH	7.2			
2.	H2S	0			
3.	Specific Gravity	1.000			
4.	Total Dissolved Solids		2840.6		
5.	Suspended Solids		N/R		
6.	Dissolved Oxygen		N/R		
7.	Dissolved CO2		6		
8.	Oil In Water		N/R		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	76.0	HCO3	1.2
12.	Chloride	Cl	500.0	Cl	14.1
13.	Sulfate	SO4	1346.0	SO4	28.0
14.	Calcium	Ca	348.0	Ca	17.4
15.	Magnesium	Mg	31.9	Mg	2.6
16.	Sodium (calculated)	Na	537.7	Na	23.4
17.	Iron	Fe	1.0		
18.	Barium	Ba	N/R		
19.	Strontium	Sr	N/R		
20.	Total Hardness (CaCO3)		1000.4		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

17	*Ca <----- *HCO3	1
	/------->	
3	*Mg -----> *SO4	28
	<---------/	
23	*Na -----> *Cl	14

Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	1.2	101
CaSO4	68.1	16.1	1097
CaCl2	55.5		
Mg(HCO3)2	73.2		
MgSO4	60.2	2.6	158
MgCl2	47.6		
NaHCO3	84.0		
Na2SO4	71.0	9.3	659
NaCl	58.4	14.1	824

REMARKS:

Baker Petrolite

Respectfully submitted,
W.C. Peterson

A1

Baker Petrolite

422 W. Main
P.O. Box 1140
Artesia, NM 88210 USA
Tel 505-746-3588
Fax 505-746-3580
www.bakerhughes.com/bapt

SCALE TENDENCY REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: Bill Taylor	Analyst	: W.C. Peterson
Sample Pt.	: Water Tank		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. = -0.2 at 50 deg. F or 10 deg. C
S.I. = -0.2 at 70 deg. F or 21 deg. C
S.I. = -0.1 at 90 deg. F or 32 deg. C
S.I. = -0.1 at 110 deg. F or 43 deg. C
S.I. = -0.0 at 130 deg. F or 54 deg. C

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CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S = 1366 at 50 deg. F or 10 deg C
S = 1431 at 70 deg. F or 21 deg C
S = 1453 at 90 deg. F or 32 deg C
S = 1456 at 110 deg. F or 43 deg C
S = 1442 at 130 deg. F or 54 deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES

A2

Baker Petrolite

422 W. Main
P.O. Box 1140
Artesia, NM 88210 USA
Tel 505-746-3588
Fax 505-746-3580
www.bakerhughes.com/bapt

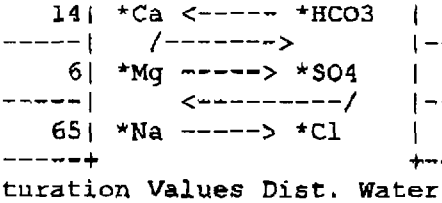
WATER ANALYSIS REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: Carlsbad		
Sample Pt.	: Fresh Water Tank		

	ANALYSIS		mg/L		* meq/L
1.	pH	7.4			
2.	H2S	26			
3.	Specific Gravity	1.003			
4.	Total Dissolved Solids		5199.5		
5.	Suspended Solids		N/R		
6.	Dissolved Oxygen		N/R		
7.	Dissolved CO2		50		
8.	Oil In Water		N/R		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	145.2	HCO3	2.4
12.	Chloride	Cl	2130.0	Cl	60.1
13.	Sulfate	SO4	1075.0	SO4	22.4
14.	Calcium	Ca	280.0	Ca	14.0
15.	Magnesium	Mg	73.1	Mg	6.0
16.	Sodium (calculated)	Na	1491.1	Na	64.9
17.	Iron	Fe	5.0		
18.	Barium	Ba	N/R		
19.	Strontium	Sr	N/R		
20.	Total Hardness (CaCO3)		1000.4		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter



Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	2.4	193
CaSO4	68.1	11.6	789
CaCl2	55.5		
Mg(HCO3)2	73.2		
MgSO4	60.2	6.0	362
MgCl2	47.6		
NaHCO3	84.0		
Na2SO4	71.0	4.8	339
NaCl	58.4	60.1	3511

REMARKS: Sample contained some Bill Taylor water.

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES A2

Baker Petrolite

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P.O. Box 1140
Artesia, NM 88210 USA
Tel 505-746-3588
Fax 505-746-3580
www.bakerhughes.com/bapt

SCALE TENDENCY REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: Carlsbad	Analyst	: W.C. Peterson
Sample Pt.	: Fresh Water Tank		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	0.1	at	50	deg. F or	10	deg. C
S.I. =	0.1	at	70	deg. F or	21	deg. C
S.I. =	0.2	at	90	deg. F or	32	deg. C
S.I. =	0.2	at	110	deg. F or	43	deg. C
S.I. =	0.2	at	130	deg. F or	54	deg. C

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CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	1763	at	50	deg. F or	10	deg C
S =	1856	at	70	deg. F or	21	deg C
S =	1892	at	90	deg. F or	32	deg C
S =	1903	at	110	deg. F or	43	deg C
S =	1888	at	130	deg. F or	54	deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES

A3

Baker Petrolite

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Tel 505-746-3588
Fax 505-746-3580
www.bakerhughes.com/bupt

WATER ANALYSIS REPORT

Company : Exxon Company USA
Address : Carlsbad, NM
Lease : ADU
Well : Injection Pump
Sample Pt. : Inlet

Date : 14 Nov 00
Date Sampled : 14 Nov 00
Analysis No. :

	ANALYSIS		mg/L		* meq/L
1.	pH	8.3			
2.	H2S	96			
3.	Specific Gravity	1.100			
4.	Total Dissolved Solids		155393.4		
5.	Suspended Solids		N/R		
6.	Dissolved Oxygen		N/R		
7.	Dissolved CO2		100		
8.	Oil In Water		N/R		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	248.9	HCO3	4.1
12.	Chloride	Cl	94359.0	Cl	2661.7
13.	Sulfate	SO4	1150.0	SO4	23.9
14.	Calcium	Ca	6840.0	Ca	341.3
15.	Magnesium	Mg	1342.6	Mg	110.5
16.	Sodium (calculated)	Na	51451.7	Na	2238.0
17.	Iron	Fe	1.3		
18.	Barium	Ba	N/R		
19.	Strontium	Sr	N/R		
20.	Total Hardness (CaCO3)		22609.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

341	*Ca <----- *HCO3	4
	/------->	
110	*Mg -----> *SO4	24
	<---------/	
2238	*Na -----> *Cl	2662

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	4.1	331
CaSO4	68.1	23.9	1630
CaCl2	55.5	313.3	17384
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	110.5	5258
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	2238.0	130789

REMARKS:

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES

A3

Baker Petrolite

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Fax 505-746-3580
www.bakerhughes.com/bapt

SCALE TENDENCY REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: Injection Pump	Analyst	: W.C. Peterson
Sample Pt.	: Inlet		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	2.2	at	50 deg. F or	10 deg. C
S.I. =	2.3	at	70 deg. F or	21 deg. C
S.I. =	2.3	at	90 deg. F or	32 deg. C
S.I. =	2.4	at	110 deg. F or	43 deg. C
S.I. =	2.5	at	130 deg. F or	54 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2068	at	50 deg. F or	10 deg C
S =	2338	at	70 deg. F or	21 deg C
S =	2507	at	90 deg. F or	32 deg C
S =	2623	at	110 deg. F or	43 deg C
S =	2674	at	130 deg. F or	54 deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES

A4

Baker Petrolite

422 W. Main
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WATER ANALYSIS REPORT

Company : Exxon Company USA
Address : Carlsbad, NM
Lease : ADU
Well : # 503
Sample Pt. : Well Head

Date : 14 Nov 00
Date Sampled : 14 Nov 00
Analysis No. :

	ANALYSIS		mg/L		* meq/L
1.	pH	8.4			
2.	H2S	88			
3.	Specific Gravity	1.100			
4.	Total Dissolved Solids		155741.6		
5.	Suspended Solids		N/R		
6.	Dissolved Oxygen		N/R		
7.	Dissolved CO2		115		
8.	Oil In Water		N/R		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	248.9	HCO3	4.1
12.	Chloride	Cl	94572.0	Cl	2667.8
13.	Sulfate	SO4	1150.0	SO4	23.9
14.	Calcium	Ca	6860.0	Ca	342.3
15.	Magnesium	Mg	1342.6	Mg	110.5
16.	Sodium (calculated)	Na	51566.8	Na	2243.0
17.	Iron	Fe	1.3		
18.	Barium	Ba	N/R		
19.	Strontium	Sr	N/R		
20.	Total Hardness (CaCO3)		22659.1		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

342	*Ca <----- *HCO3	4
	/------->	
110	*Mg -----> *SO4	24
	<---------/	
2243	*Na -----> *Cl	2668

Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	4.1	331
CaSO4	68.1	23.9	1630
CaCl2	55.5	314.3	17440
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	110.5	5258
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	2243.0	131082

REMARKS:

Baker Petrolite

Respectfully submitted,
W.C. Peterson

A4

Baker Petrolite

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SCALE TENDENCY REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: # 503	Analyst	: W.C. Peterson
Sample Pt.	: Well Head		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	2.3	at	50 deg. F or	10 deg. C
S.I. =	2.4	at	70 deg. F or	21 deg. C
S.I. =	2.4	at	90 deg. F or	32 deg. C
S.I. =	2.5	at	110 deg. F or	43 deg. C
S.I. =	2.6	at	130 deg. F or	54 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2063	at	50 deg. F or	10 deg C
S =	2333	at	70 deg. F or	21 deg C
S =	2501	at	90 deg. F or	32 deg C
S =	2618	at	110 deg. F or	43 deg C
S =	2668	at	130 deg. F or	54 deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES

A5

Baker Petrolite

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WATER ANALYSIS REPORT

Company : Exxon Company USA
Address : Carlsbad, NM
Lease : ADU
Well : # 626
Sample Pt. : Well Head

Date : 14 Nov 00
Date Sampled : 14 Nov 00
Analysis No. :

	ANALYSIS		mg/L		* meq/L
1.	pH	8.3			
2.	H2S	99			
3.	Specific Gravity	1.100			
4.	Total Dissolved Solids		155741.6		
5.	Suspended Solids		N/R		
6.	Dissolved Oxygen		N/R		
7.	Dissolved CO2		85		
8.	Oil In Water		N/R		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	248.9	HCO3	4.1
12.	Chloride	Cl	94572.0	Cl	2667.8
13.	Sulfate	SO4	1150.0	SO4	23.9
14.	Calcium	Ca	6860.0	Ca	342.3
15.	Magnesium	Mg	1342.6	Mg	110.5
16.	Sodium (calculated)	Na	51566.8	Na	2243.0
17.	Iron	Fe	1.3		
18.	Barium	Ba	N/R		
19.	Strontium	Sr	N/R		
20.	Total Hardness (CaCO3)		22659.1		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

```
+------+                    +------+
|  342 | *Ca <----- *HCO3   |    4 |
|------|   /------->        |------|
|  110 | *Mg -----> *SO4    |   24 |
|------|     <---------/    |------|
| 2243 | *Na -----> *Cl     | 2668 |
+------+                    +------+
```

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	4.1	331
CaSO4	68.1	23.9	1630
CaCl2	55.5	314.3	17440
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	110.5	5258
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	2243.0	131082

REMARKS:

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES A5

Baker Petrolite

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SCALE TENDENCY REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: # 626	Analyst	: W.C. Peterson
Sample Pt.	: Well Head		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	2.2	at	50 deg. F or	10 deg. C
S.I. =	2.3	at	70 deg. F or	21 deg. C
S.I. =	2.3	at	90 deg. F or	32 deg. C
S.I. =	2.4	at	110 deg. F or	43 deg. C
S.I. =	2.5	at	130 deg. F or	54 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2063	at	50 deg. F or	10 deg C
S =	2333	at	70 deg. F or	21 deg C
S =	2501	at	90 deg. F or	32 deg C
S =	2618	at	110 deg. F or	43 deg C
S =	2668	at	130 deg. F or	54 deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson

A6

Baker Petrolite

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WATER ANALYSIS REPORT

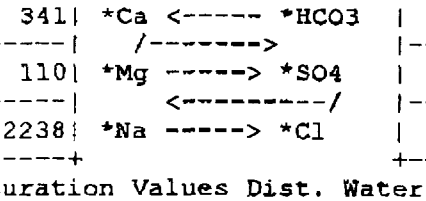
Company : Exxon Company USA
Address : Carlsbad, NM
Lease : ADU
Well : Tank 1401
Sample Pt. : Outlet

Date : 14 Nov 00
Date Sampled : 14 Nov 00
Analysis No. :

	ANALYSIS		mg/L		* meq/L
1.	pH	8.4			
2.	H2S	122			
3.	Specific Gravity	1.103			
4.	Total Dissolved Solids		155393.4		
5.	Suspended Solids		N/R		
6.	Dissolved Oxygen		N/R		
7.	Dissolved CO2		145		
8.	Oil In Water		N/R		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	248.9	HCO3	4.1
12.	Chloride	Cl	94359.0	Cl	2661.7
13.	Sulfate	SO4	1150.0	SO4	23.9
14.	Calcium	Ca	6840.0	Ca	341.3
15.	Magnesium	Mg	1342.6	Mg	110.5
16.	Sodium (calculated)	Na	51451.7	Na	2238.0
17.	Iron	Fe	1.3		
18.	Barium	Ba	N/R		
19.	Strontium	Sr	N/R		
20.	Total Hardness (CaCO3)		22609.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter



Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	4.1	331
CaSO4	68.1	23.9	1630
CaCl2	55.5	313.3	17384
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	110.5	5258
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	2238.0	130789

Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

REMARKS:

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES A6

Baker Petrolite

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SCALE TENDENCY REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: Tank 1401	Analyst	: W.C. Peterson
Sample Pt.	: Outlet		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	2.3	at	50 deg. F	or	10 deg. C
S.I. =	2.4	at	70 deg. F	or	21 deg. C
S.I. =	2.4	at	90 deg. F	or	32 deg. C
S.I. =	2.5	at	110 deg. F	or	43 deg. C
S.I. =	2.6	at	130 deg. F	or	54 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2068	at	50 deg. F	or	10 deg C
S =	2338	at	70 deg. F	or	21 deg C
S =	2507	at	90 deg. F	or	32 deg C
S =	2623	at	110 deg. F	or	43 deg C
S =	2674	at	130 deg. F	or	54 deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson

A7

Baker Petrolite

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WATER ANALYSIS REPORT

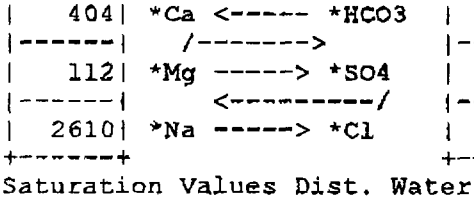
Company : Exxon Company USA
Address : Carlsbad, NM
Lease : ADU
Well : F.W.K.O.
Sample Pt. : Outlet

Date : 14 Nov 00
Date Sampled : 14 Nov 00
Analysis No. :

	ANALYSIS		mg/L		* meq/L
1.	pH	8.3			
2.	H2S	210			
3.	Specific Gravity	1.123			
4.	Total Dissolved Solids		180844.1		
5.	Suspended Solids		N/R		
6.	Dissolved Oxygen		N/R		
7.	Dissolved CO2		160		
8.	Oil In Water		N/R		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	394.1	HCO3	6.5
12.	Chloride	Cl	109482.0	Cl	3088.3
13.	Sulfate	SO4	1500.0	SO4	31.2
14.	Calcium	Ca	8100.0	Ca	404.2
15.	Magnesium	Mg	1355.9	Mg	111.6
16.	Sodium (calculated)	Na	60010.9	Na	2610.3
17.	Iron	Fe	1.3		
18.	Barium	Ba	N/R		
19.	Strontium	Sr	N/R		
20.	Total Hardness (CaCO3)		25810.3		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter



Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	6.5	524
CaSO4	68.1	31.2	2126
CaCl2	55.5	366.5	20337
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	111.6	5310
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	2610.3	152546

REMARKS:

Baker Petrolite

Respectfully submitted,
W.C. Peterson

BAKER HUGHES A7

Baker Petrolite

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SCALE TENDENCY REPORT

Company	: Exxon Company USA	Date	: 14 Nov 00
Address	: Carlsbad, NM	Date Sampled	: 14 Nov 00
Lease	: ADU	Analysis No.	:
Well	: F.W.K.O.	Analyst	: W.C. Peterson
Sample Pt.	: Outlet		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	2.6	at	50 deg. F	or	10 deg. C
S.I. =	2.6	at	70 deg. F	or	21 deg. C
S.I. =	2.6	at	90 deg. F	or	32 deg. C
S.I. =	2.7	at	110 deg. F	or	43 deg. C
S.I. =	2.7	at	130 deg. F	or	54 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	1855	at	50 deg. F	or	10 deg C
S =	2090	at	70 deg. F	or	21 deg C
S =	2242	at	90 deg. F	or	32 deg C
S =	2346	at	110 deg. F	or	43 deg C
S =	2387	at	130 deg. F	or	54 deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson

Avalon Delaware Unit

Wells within 1/2 mile radius of ADU 516

Operator	Well Name/#	Status	API No.	S-T-R	Location Footage	Drill / Spud	TD, Ft	Completion	CSG	Depth	Cmt(SX)
Exxon Mobil Corp.	**AVALON_UT_0262**	Oil	30-015-24414	30-20S-28E	560 FSL, 1980 FEL	2/16/83	4,953	2587-3690	13-3/8	545	500
									8-5/8	2485	1350
									5-1/2	4953	700
Exxon Mobil Corp.	**AVALON_UT_0263**	TA/Oil	30-015-24543	30-20S-28E	450 FSL, 990 FEL	9/30/83	5,450	2686-3750	13-3/8	546	550
									8-5/8	2410	1050
									5-1/2	4953	700
Exxon Mobil Corp.	**AVALON_UT_0501**	Oil	30-015-24331	31-20S-28E	660 FNL, 660 FEL	12/1/82	4,701	2574-3677	8-5/8	618	400
									5-1/2	4701	1050
									2-7/8	2543	NA
Exxon Mobil Corp.	**AVALON_UT_0503**	WIW	30-015-28594	31-20S-28E	43 FNL, 1458 FEL	7/18/96	3,850	2628-3680	10-3/4	621	520
									7-5/8	2456	265
									4-1/2	3847	295
Exxon Mobil Corp.	**AVALON_UT_0514**	Oil	30-015-24194	31-20S-28E	660 FNL, 1980 FEL	9/21/82	4,702	2544-3608	8-5/8	605	425
									5-1/2	4702	1050
									2-7/8	3292	NA
Exxon Mobil Corp.	**AVALON_UT_0515**	Oil	30-015-26370	31-20S-28E	1305 FNL, 1305 FEL	10/14/90	4,970	3406-3624	13-3/8	613	750
									8-5/8	2419	980
									5-1/2	4924	1000
Exxon Mobil Corp.	**AVALON_UT_0517**	Oil	30-015-24337	31-20S-28E	1980 FNL, 560 FEL	12/30/82	4,712	2538-3642	8-5/8	617	450
									5-1/2	4700	905
									2-7/8	3400	NA
Exxon Mobil Corp.	**AVALON_UT_0520W**	WIW	30-015-28664	31-20S-28E	1388 FNL, 2750 FWL	2/8/96	3,781	2590-3628	10-3/4	635	515
									7-5/8	2453	950
									4-1/2	3781	231
Exxon Mobil Corp.	**AVALON_UT_0530**	Oil	30-015-24335	31-20S-28E	1980 FNL, 1980 FEL	12/2/82	4,700	2574-3650	8-5/8	618	600
									5-1/2	4693	1215
									2-7/8	3552	NA
Exxon Mobil Corp.	**AVALON_UT_0533W**	WIW	30-015-28667	31-20S-28E	2517 FSL, 78 FEL	4/17/96	3,880	2546-3706	10-3/4	636	515
									7-5/8	2445	750
									4-1/2	3871	360
Exxon Mobil Corp.	**AVALON_UT_0548**	Oil	30-015-24373	31-20S-28E	1980 FSL, 660 FEL	6/24/83	5,000	2528-3684	13-3/8	598	670
									8-5/8	2495	850
									5-1/2	4992	900
Exxon Mobil Corp.	**AVALON_UT_0570W**	WIW	30-015-28666	31-20S-28E	2564 FNL, 1377 FEL	12/11/95	3,850	2600-3692	10-3/4	630	515
									7-5/8	2449	750
									4-1/2	3849	310
Exxon Mobil Corp.	**AVALON_UT_0571W**	WIW	30-015-28668	31-20S-28E	1356 FSL, 99 FEL	5/1/96	3,880	2520-3736	10-3/4	631	540
									7-5/8	2469	500
									4-1/2	3879	350
Exxon Mobil Corp.	**AVALON_UT_0609**	Oil	30-015-24388	32-20S-28E	660 FNL, 660 FWL	1/18/82	4,050	2724-3784	8-5/8	610	400
									5-1/2	4042	780
									2-7/8	2731	NA
Exxon Mobil Corp.	**AVALON_UT_0624**	Oil	30-015-24410	32-20S-28E	1980 FNL, 330 FWL	2/1/83	4,048	2605-3636	8-5/8	610	400
									5-1/2	4047	770
									2-7/8	3700	NA
Exxon Mobil Corp.	**AVALON_UT_0626W**	WIW	30-015-28662	32-20S-28E	2658 FSL, 1127 FWL	11/16/95	3,850	2532-3711	10-3/4	641	515
									7-5/8	2459	895
									4-1/2	3847	315
Exxon Mobil Corp.	**AVALON_UT_0641**	Oil	30-015-24409	32-20S-28E	1980 FSL, 610 FWL	4/19/83	4,050	2506-2598	13-3/8	590	880
									8-5/8	2410	1450
									5-1/2	4050	550
Maralo Inc.	**Hondo-State Com #1**	Gas	30-015-22007	32-20S-28E	1980 FNL, 660 FWL	5/2/77	11,475	10385-10705	13-3/8	565	800
									9-5/8	2790	1750
									5-1/2	11475	825
Maralo Inc.	**KEYSTONE #4**	Oil	30-015-28183	32-20S-28E	1650 FNL, 1980 FWL	1/22/95	6,650	6283-6484	13-3/8	504	550
									8-5/8	2518	1200
									5-1/2	6650	750

Circ
Circ

TOC @ 2650 by T.S

Hondo State Com No 1
already approved to OK AOR well
by 1-10460

AFFIDAVIT OF MAILING

STATE OF TEXAS

COUNTY OF HARRIS

Michael E. Wise, of lawful age, being duly sworn upon oath, deposes and says:

On the 9th day of January, 2001, copies of ExxonMobil's Application for Authorization to Inject (Form C-108) in the Avalon Delaware Unit, Well #516, Avalon Delaware Unit Field Area, Eddy County, New Mexico, were placed in the United States mail, certified in Houston, Texas. These were duly addressed to the surface owner(s) and leasehold operators within a one-half (1/2) mile radius, as shown on the attached address list and substantiated by the enclosed copies of certified return mail receipts.

Michael E. Wise
Regulatory Specialist

SUBSCRIBED AND SWORN TO me this 6th day of Feb, 2001.

E. W. WIEGREFFE
NOTARY PUBLIC
State of Texas
Comm. Exp. 08-08-2004

E. W. Wiegreffe
Notary Public in and for the
State of Texas

My Commission Expires: 8/8/2004.

MAILING LIST

Copies of the Form C-108 Application for Authorization to Inject for the **Avalaon Delaware Unit,** Well **#516,** Eddy County, New Mexico were mailed to the following addressees.

LAND SURFACE OWNER "Of Record"

Bureau of Land Management
Carlsbad Resource Office
P.O. Box 1778
Carlsbad, NM 88220

Mr. Harley Ballard
P.O. Box 1777
Carlsbad, NM 88221

Maralo Inc.
5151 San Felipe St., Suite 400
Houston, TX 77056

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

[illegible handwriting]

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery 1/19/01

C. Signature X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Copy from service label) [illegible]

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

SENDER: COMPLETE THIS SECTION

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1. Article Addressed to:

Maraic, Inc.
5151 San Felipe St, Suite 400
Houston, TX 77056

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) Patt Diebel B. Date of Delivery 1-18-01

C. Signature X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Copy from service label) [illegible]

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

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1. Article Addressed to:

BLM
Carlsbad [illegible] Office
[illegible]

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) Betty Hill B. Date of Delivery JAN 12 2001

C. Signature X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Copy from service label) [illegible]

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

ILLEGIBLE

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: [illegible]

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* [illegible] B. Date of Delivery 1/19/01

C. Signature X [illegible] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* [illegible]

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
[illegible], and
5151 [illegible], Suite 400
Houston, TX 77056

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* Patt Diebel B. Date of Delivery 1-18-01

C. Signature X [illegible] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* [illegible]

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
BLM
Carlsbad [illegible] Office
[illegible]

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* BETTY HILL B. Date of Delivery JAN 12 2001

C. Signature X Betty Hill ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* [illegible]

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Lorraine Doporto,
being first duly sworn, on oath says:

That she is Accounting Supervisor 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:

December 26, 2000

That the cost of publication is $ 31.96, and that payment thereof has been made and will be assessed as court costs.

Lorraine Doporto

Subscribed and sworn to before me this

26th day of December, 2000

dela reed

My commission expires 04/25/04
Notary Public

December 26, 2000

PUBLIC NOTICE

NOTICE OF APPLICATION FOR AUTHORIZATION TO INJECT

Applicant:
Exxon Mobil Corporation
P.O. Box 4358
Houston, TX 77210-4358
Contact Person - M.E. Wise
Phone: (713) 431-1210

Item:
Application is being made to the New Mexico Oil Conservation Division for authorization to inject fluid into the Avalon Delaware Unit #516. The well is located 1310' FNL and 97' FEL of Section 31, T20S, R28E, Eddy County, New Mexico. The injection zone will be the Delaware formation from 2500' to 3850'. The maximum injection rate will be 2000 barrels per day; the maximum injection pressure will be 500 psig. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87504-2088 within 15 days.

№ 21093

DEC 29 2000

LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE