BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF EXXON CORPORATION FOR AUTHORITY TO INSTITUTE AN IMPROVED OIL RECOVERY PROJECT, AND TO QUALIFY THE PROJECT FOR THE RECOVERED OIL TAX RATE, EDDY COUNTY, NEW MEXICO

No. 11297

APPLICATION

Exxon Corporation hereby applies for an order approving the institution of an enhanced oil recovery project for the recovery of hydrocarbons in the proposed Avalon Delaware Unit located in Eddy County, New Mexico, and to qualify the project for the Recovered Oil Tax Rate, and in support thereof, states:

1. Exxon, in a related application, has requested Division approval of statutory unitization and of the Unit Agreement and Unit Operating Agreement for the proposed Avalon Delaware Unit in Eddy County, New Mexico. The Unit Area, Unitized Formation, Unit Agreement, and Unit Operating Agreement are described in said application.

2. Exxon is the operator of the proposed Unit, and its address is Post Office Box 1600, Midland, Texas 79702.

3. Exxon proposes to institute a waterflood project for the enhanced recovery of oil and gas from the Unitized Formation within the Unit Area.

4. By converting certain presently producing wells to injection wells, and by drilling additional injection wells, Exxon proposes to inject fluids into the Cherry Canyon and Brushy Canyon members of the Delaware Mountain Group (Avalon Delaware Pool) in the Avalon Delaware Unit. Attached hereto as

Exhibit 1 is a plat showing the location of all wells located within the Unit Area which are proposed to be used as producing wells and injection wells during the waterflood project.

5. The water to be used for injection is produced water and source water from the Delaware wells serving the Unit. During the initial three year period (approximately) of the project, 10,000 barrels of water per day will be injected. Thereafter, it is anticipated that 9,000 barrels of water per day will be injected.

6. Applicant requests authorization to apply surface pressures in excess of 0.2 psi per foot of depth to the top of the injection zone upon administrative approval as provided by Division rules and regulations.

7. Approval of the enhanced oil recovery project will substantially increase recoverable reserves to be produced within the useful life of the new production facilities which will be installed, thereby preventing waste and protecting correlative rights.

8. A Form C-108 relating to the proposed Unit is attached hereto as Exhibit 2.

9. Exxon also requests that the project be qualified for the recovered oil tax rate pursuant to the Enhanced Oil Recovery Act, N.M. Stat. Ann. §§ 7-29A-1 et seq. (1993 Repl. Pamp.), and Division Order No. R-9708.

10. The project area, containing 2140.14 acres, more or less, is described as follows:

Township 20 South, Range 27 East

Section 25: E½E½

Section 35: E½E½

Township 20 South, Range 28 East

Section 29: SW¼SW¼

Section 30: SW¼NE¼, Lots 1-4, E½W½, SE¼

Section 31: Lots 1-4, E½W½, E½ (All)

Section 32: SW¼NE¼, W½, W½SE¼

Township 21 South, Range 28 East

Section 4: Lot 4

Section 5: Lots 1, 2

Section 6: Lots 1, 2

A plat outlining the project area is attached as Exhibit "A" to the Unit Agreement submitted in the related unitization application. The leases, lessors, and lessees within the project area are identified in Exhibit "B" attached to the Unit Agreement.

11. Project data includes:

(a)	Number of project producing wells:	27
(b)	Number of project injection wells:	19
(c)	Capital cost of additional facilities:	$ 14,400,000
(d)	Estimated value of incremental production recovered from the project:	$123,000,000[1]

[1] Based on oil at $15 per barrel, unescalated.

(e) Anticipated injection commencement date: First Quarter 1996, or upon authorization by the Division.

(f) Type of fluids injected: Produced and source water.

(g) Anticipated injection volumes: 10,000 barrels of water per day.

12. The production history of the project area, and the projected oil production from the project area, is exhibited on the graph attached hereto as Exhibit 3.

WHEREFORE, Exxon Corporation requests that this application be set for hearing before the Division on June 1, 1995, and that after hearing the Division enter its order approving the enhanced oil recovery project, qualifying this project as an Enhanced Oil Recovery Project. Exxon further requests the establishment of an allowable for each producing well, in accordance with Division Rules 505(D) and 701(G), equal to the capability of each well to produce.

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

James Bruce
Post Office Box 2068
Santa Fe, New Mexico 87504-2068
(505) 982-4554

Attorneys for Exxon Corporation

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD
& HENSLEY

James Bruce
Post Office Box 2068
Santa Fe, New Mexico 87504-2068
(505) 982-4554

Attorneys for Exxon Corporation

VERIFICATION

STATE OF TEXAS)
)ss.
COUNTY OF MIDLAND)

I, Ronald E. Mayhew, being duly sworn upon his oath, deposes and states that: He is a project manager and an employee of Exxon Corporation, he is familiar with the matters set forth in the foregoing Application, and the statements therein are true and correct to the best of his knowledge.

Ronald E. Mayhew

SUBSCRIBED AND SWORN TO before me this 9th day of May, 1995, by Ronald E. Mayhew.

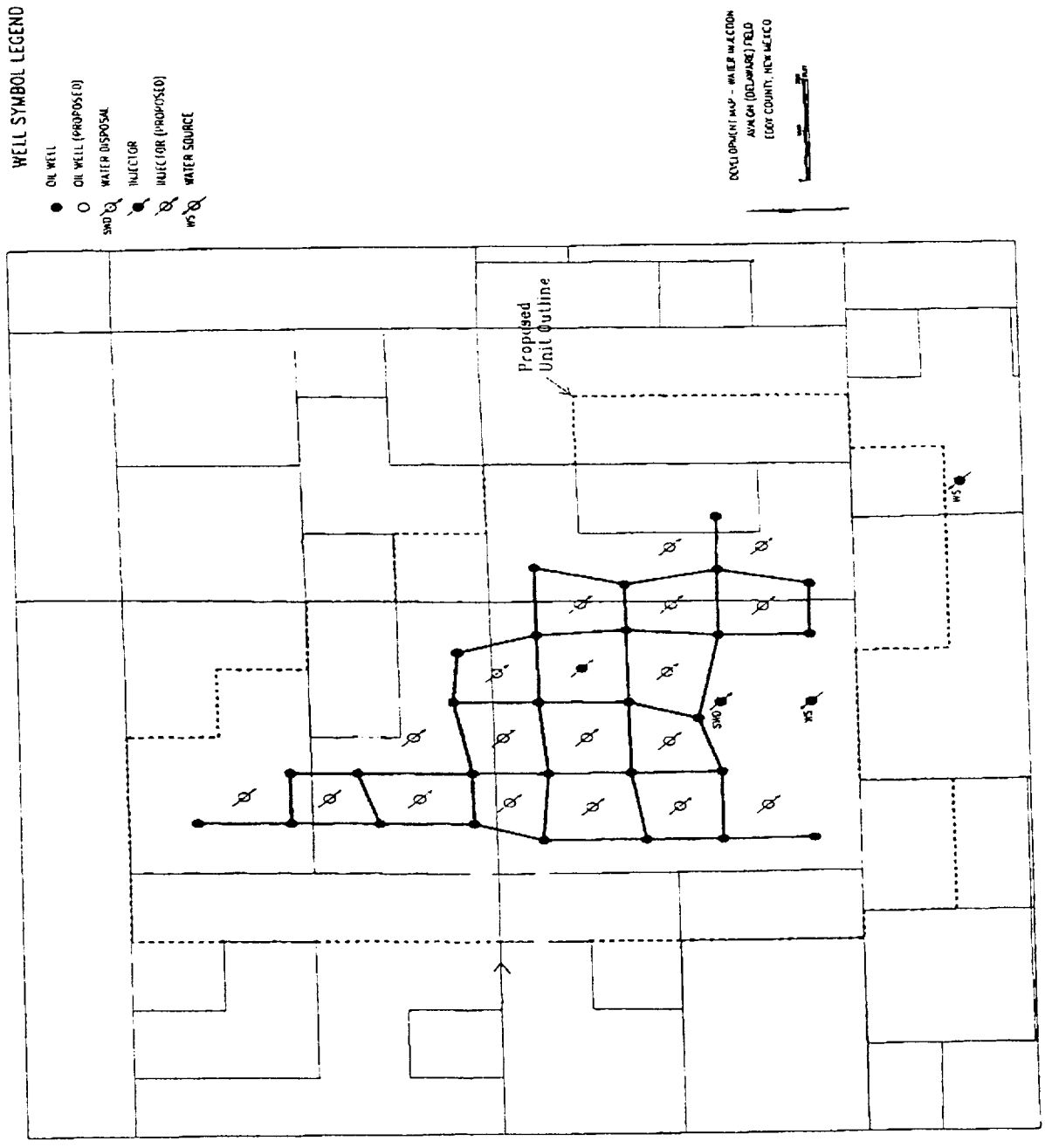
Judy Bagwell
Notary Public

My Commission Expires:
11-10-96

exxaval.app

JUDY BAGWELL
Notary Public, State of Texas
My Commission Expires 11-10-96

8/12



EXHIBIT

1

Blumberg No. 6119

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

RECEIVED
MAY 9 1995
Oil Conservation Division

Case 11297

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Exxon Corp.

Address: PO Box 1600 Midland, TX 79702

Contact party: Marsha Wilson Phone: (915) 688-7871

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? [ ] yes [X] no
If yes, give the Division order number authorizing the project _____.

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: Marsha Wilson Title Staff Office Assistant

Signature: Marsha Wilson Date: 5-8-95

* 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 appropr district office.

EXHIBIT 2

Blumberg No. 5119

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 Corp.	Avalon Unit			
OPERATOR	LEASE			
2016	1305' FNL & 1305' FEL	31	T-20-S	R-28-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

See Attached

Tubular Data

Surface Casing

Size 13 3/8" " Cemented with 750 sx.

TOC Surface feet determined by Circulation

Hole size 17 1/2"

Intermediate Casing

Size 8 5/8" " Cemented with 1385 sx.

TOC Surface feet determined by Circulation

Hole size 11"

Long string

Size 5 1/2" " Cemented with 1000 sx.

TOC Surface feet determined by Circulation

Hole size 7 7/8"

Total depth 4970

Injection interval

2478 feet to 4880 feet
(perforated or open-hole, indicate which)

Tubing size 2 7/8" 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 producer

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 to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Depths are approximate:

   Yates 350-400', Bone Spring 5000-7000', Atoka 7800-10800',

   Wolfcamp 9000-10000', Strawn 10000, Morrow 11000'

AFE # 16029

WELLBORE SKETCH AND WELL HISTORY

Avalon #2016 Unit (formerly Yates Federal "C" 36) API # 30-105-263

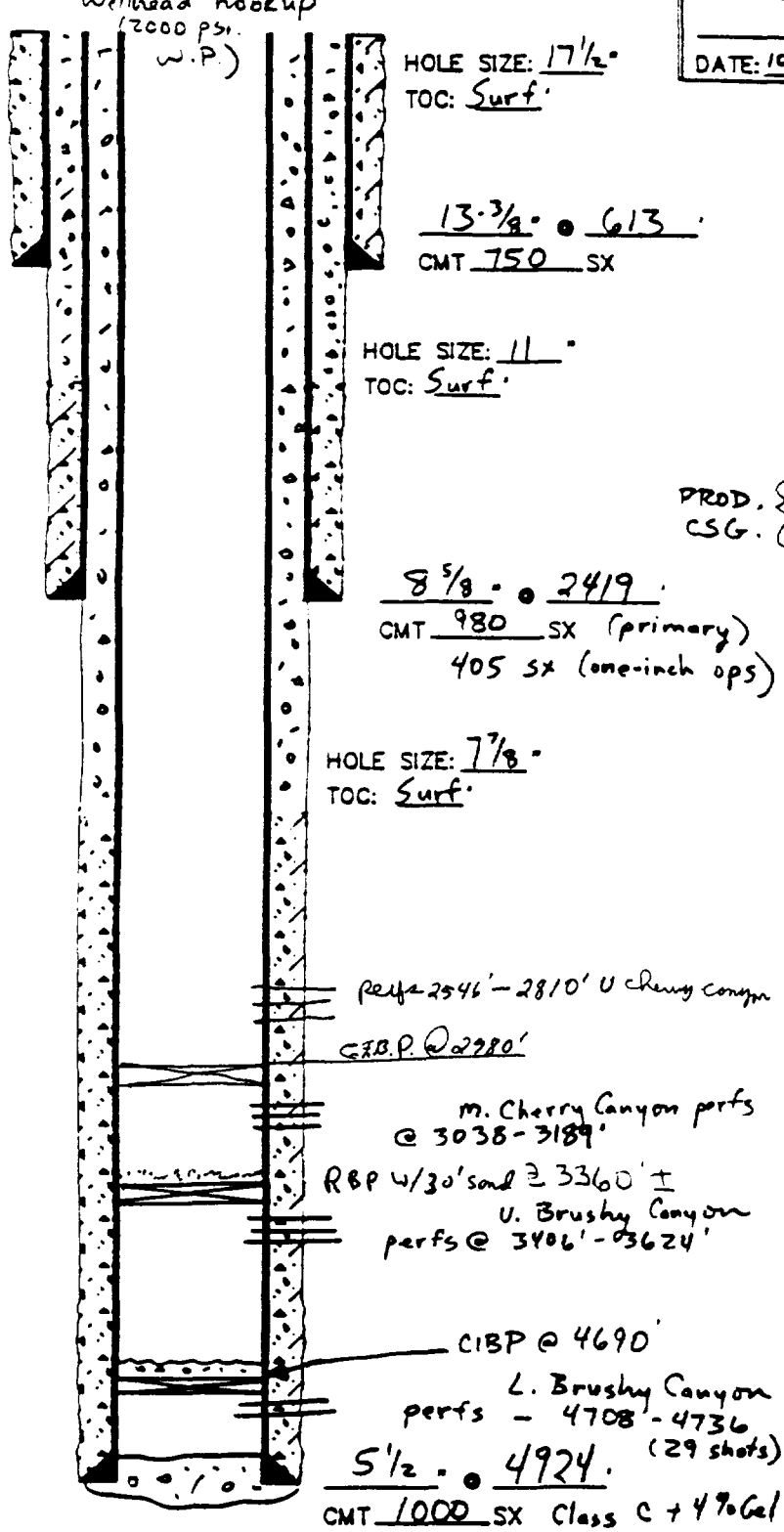
ELEV.: KB ____, 12.1' (10') ABOVE CHF / ABOVE G.L.

LEASE & WELL NAME: Yates Federal "C" 36

FIELD: Avalon COUNTY: Eddy ST.: N

LOCATION: 1305' FNL & FEL
Sec 31; T-20-S; R-28-E

DATE: 10/14/90 BY: JLC REV.: ____ BY: ____



TD: 4970' PBD: 4660±

CASING RECORD

SURFACE CASING

O.D.	WT/FT	GRADE	SET A
13-3/8"	48	K-55	613'

INTERMEDIATE CASING

8-5/8"	32#	K-55	22
	24#	J:K 55	126
	32#	J:K 55	241
PROD. CSG. 5½"	15.5#	K-55	10C
	14#	K-55	492

TUBING

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET
	2⅞"	API	EUE	6.5	J55	

WELL HISTORY:

New Drill well - FRR'd 9/90
Perf L. Brushy Canyon @ 4708-4736 w/ 29 shots. Frac w/ 36,000# 16/30 Sand in 14,000 gals gelled water. Tested WET. P/B to U. Brushy Canyon. Perf 3406-3624'. Acd w/ 4600 gals NeHCl w/ PFT tool. Frac w/ 18,500# of 20/40 plus 62,500# 12/20 sand in 49,000 gals gelled water. Well came in flowing. FRW - 142 oil 261 wtr. U.B.C & L.B.C. 0 oil.

12/90 - perfed cherry canyon - (RBP @ 3360') 3038'-3189' - M.C.R.U. Aj - water washed & acid washed perfs w 2850 15% HCl. Fraced well D/S 70,000# sand 12/20. Gelled Fluid. FRW - 104 Bo 500 BW.

2/91 Set C.F.B.P. @ 2980' perfed well 2546'-2810' - PFT acid job 6720 gal 15% HCl. Fraced well D/S. 105,000# 12/20. Gelled. PWOP - FRW'd 180 oil 170 wtr.

INJECTION WELL DATA SHEET

Exxon Corp.	Avalon Unit		
OPERATOR	LEASE		
(See attached list)	30, 31, & 32	T-20-S	R-28-E
WELL NO. FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

See attached typical schematic

Tubular Data

Surface Casing

Size 10 3/4" Cemented with 600 sx.

TOC Surface feet determined by Circulation

Hole size 14 3/4"

Intermediate Casing

Size 7 5/8" Cemented with 1400 sx.

TOC Surface feet determined by Circulation

Hole size 9 1/2"

Long string

Size 4 1/2" Fiberglass lnr Cemented with 500 sx.

TOC 2340 feet determined by Circulation

Hole size 6 1/2" underreamed to 7"

Total depth 4000'

Injection interval

* feet to * feet
(perforated or open-hole, indicate which)

Perforation

* See attached summary on question VII.3.

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? [X] Yes [ ] No

   If no, for what purpose was the well originally drilled?
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 to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Depths are approximate:

   Yates 350-400', Bone Spring 5000-7000', Atoka 7800-10,800',

   Wolfcamp 9000-10,000', Strawn 10,000' Morrow 11,000'

ATTACHMENT TO INJECTION WELL DATA SHEET
AVALON UNIT
EDDY COUNTY, NEW MEXICO

Listed below are the wells in this permit application. All wells are located in T-20-S, R-28-E.

T-20-S, R-28-E
Current Proposed Locations for New Drill Wells:

Section 30

#1212	1495 FWL	1662 FNL
#1412	1485 FWL	2310 FSL
#1612	1489 FWL	992 FSL
#1614	2677 FWL	1046 FSL

Section 31

#1812	1397 FWL	183 FNL
#1814	2673 FEL	123 FNL
#1816	1402 FEL	46 FNL
#2012	1314 FWL	1386 FNL
#2014	2681 FWL	1335 FNL
#2018	56 FEL	1320 FNL
#2212	1322 FWL	2600 FSL
#2214	2549 FWL	2699 FSL
#2216	1375 FEL	2564 FNL
#2218	73 FEL	2648 FSL
#2412	1324 FWL	1337 FSL
#2418	94 FEL	1320 FSL

Section 32

#2220	1128 FWL	2648 FSL
#2420	1107 FWL	1323 FSL

Conversion:

Section 31

#2016	1305 FEL	1305 FNL

(formerly Yates "C" Federal #36)

SUPPLEMENT TO APPLICATION FOR AUTHORIZATION TO INJECT
AVALON UNIT
EDDY COUNTY, NEW MEXICO

V. Two maps are attached.

VI. Attached is a typical wellbore sketch and tabular data on wells within the area of review.

VII. Proposed Operations

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

2. System is open

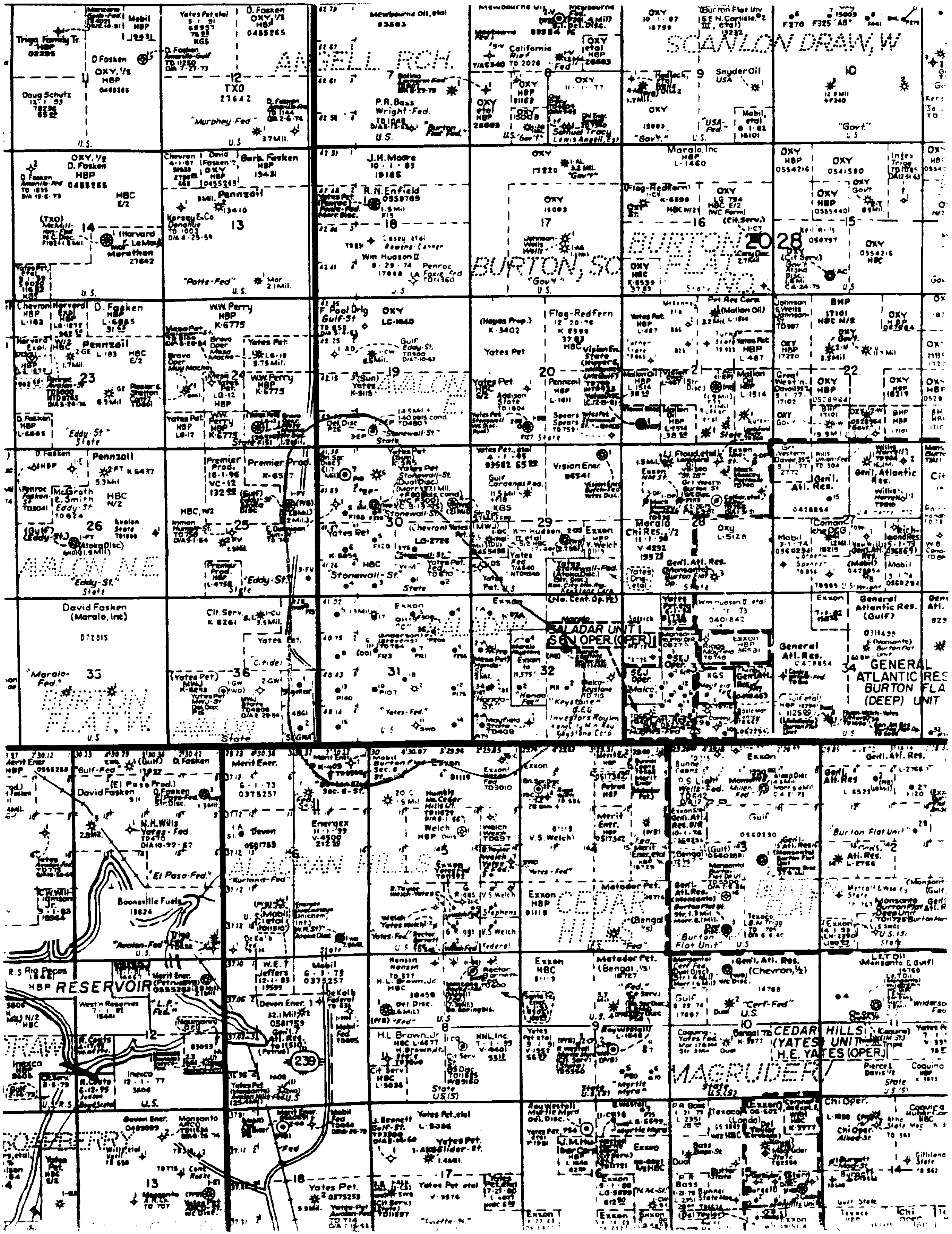
3. The average and maximum injection pressures are as follows:

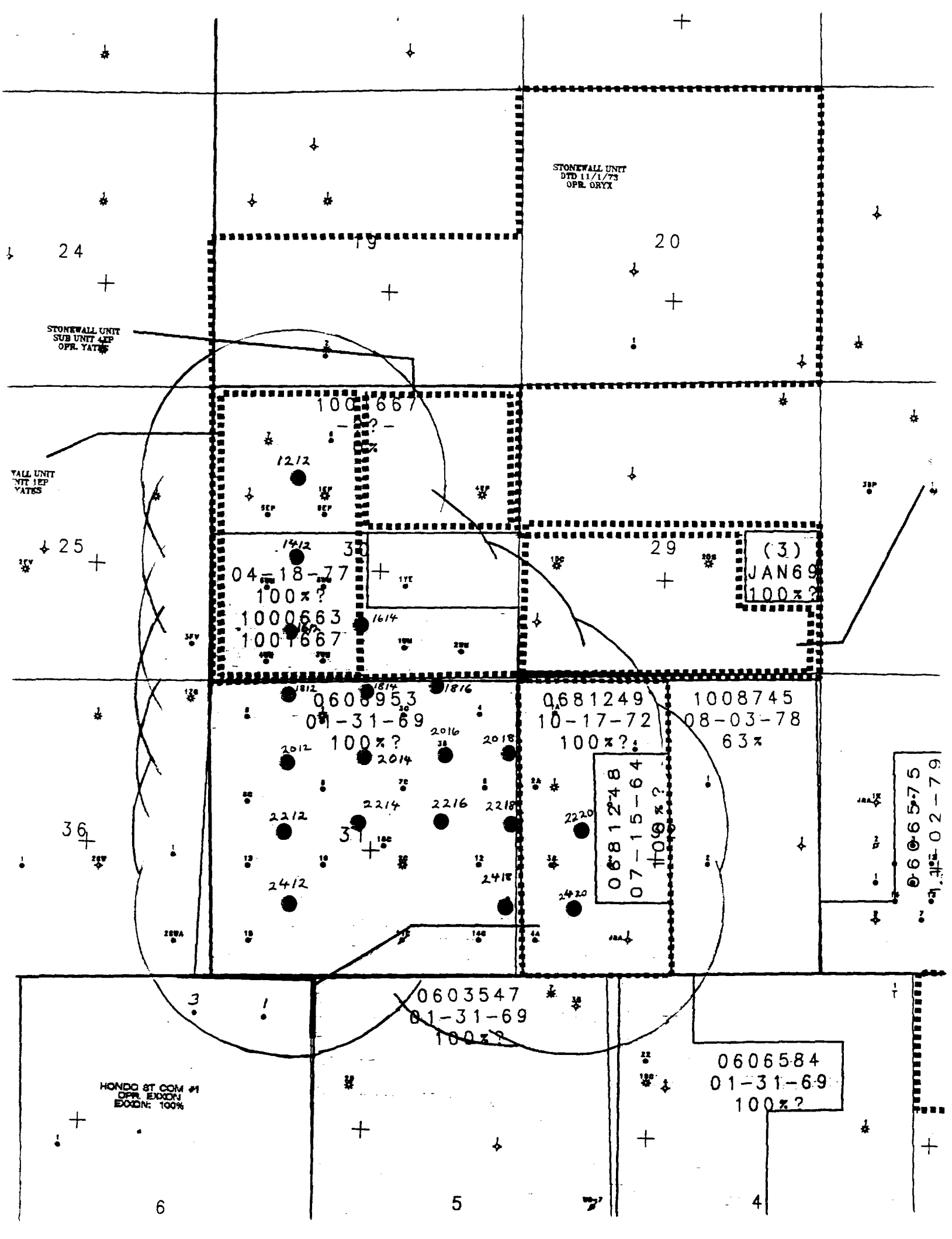
		Avg.	Max.
Section 30	**Interval**	**Press.**	**Press.**
#1212	2486-4817	493	497
#1412	2509-4832	493	502
#1612	2492-4798	493	498
#1614	2498-4853	493	500
Section 31			
#1812	2467-4774	493	493
#1814	2496-4844	493	499
#1816	2520-4902	493	504
#2012	2481-4800	493	496
#2014	2495-4843	493	499
#2018	2501-4924	493	500
#2212	2496-4817	493	499
#2214	2509-4841	493	502
#2216	2505-4885	493	501
#2218	2477-4918	493	495
#2412	2535-4826	493	507
#2418	2478-4911	493	496
Section 32			
#2220	2489-4945	493	498
#2420	2479-4935	493	496
Conversion - Section 31			
#2016 (formerly Yates "C" Federal #36)	2478-4880	493	496

4. The source of water that will be injected is from the Delaware.

   The water will be produced from Avalon Unit wells and 2 or 3 source water wells completed in non-productive intervals of the Lower Delaware.

5. NA


SCANLON DRAW, W
ANGELL RCH.
BURTON, SO
BURTON FLAT, NO
AVALON
AVALON N.E.
BURTON FLAT, W
SALADAR UNIT
SEJ OPER (OPER)
GENERAL ATLANTIC RES BURTON FLA (DEEP) UNIT
CEDAR HILLS
CEDAR HILLS (YATES) UNIT
H.E. YATES (OPER)
MAGRUDER
RESERVOIR
Trigg Family Tr.
Doug Schutz
D. Fasken
OXY
Mewbourne Oil, etal
California Rief
Snyder Oil USA
Marato, Inc
J.H. Moore
R.N. Enfield
Pennzoil
Marathon
W.W. Perry
Yates Pet.
Flag-Redfern
Vision Ener.
Premier Prod.
David Fasken (Marato, Inc)
Exxon
General Atl. Res.
Merit Ener.
David Fasken
N.H. Wills
Boonsville Fuels
Devon
Energex
Welch
Humble
V.S. Welch
Matador Pet.
Gulf
Geni. Atl. Res.
H.L. Brown, Jr
Rio Pecos
Inexco
Devon Ener.
Monsanto ARCO
Yates Pet. etal
Chi Oper.
Coquina
239


STONEWALL UNIT
DTD 11/1/73
OPR. ORYX
STONEWALL UNIT
SUB UNIT 4EP
OPR. YATES
24
19
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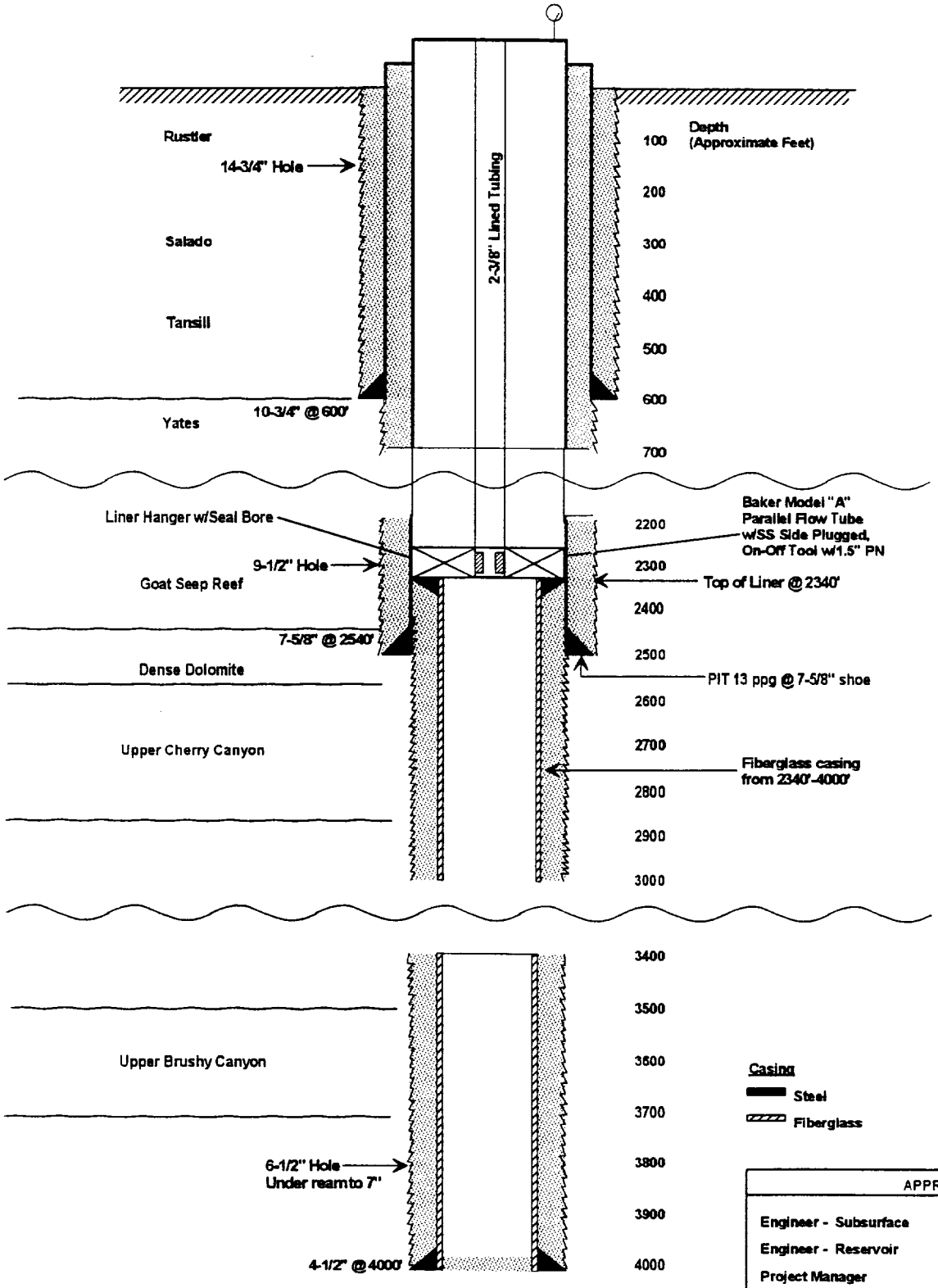
29
36
31
1212
1412
1614
04-18-77
100%?
1000663
1001667
(3)
JAN69
100%?
0608953
01-31-69
100%?
0681249
10-17-72
100%?
1008745
08-03-78
63%
2012
2014
2016
2018
2212
2214
2216
2218
2220
2412
2414
2420
0603547
01-31-69
100%?
0606584
01-31-69
100%?
HONDO ST COM #1
OPR. EXXON
EXXON: 100%
6
5
4

Avalon Project
Proposed Drillwell
Waterflood



APPROVAL	
Engineer - Subsurface	
Engineer - Reservoir	
Project Manager	
Drilling	
Engineering Supervisor	
Operations Superintendent	

3/22/95
REM/nh

WELLS WITHIN 1/2 MILE RADIUS OF
PROPOSED AVALON (DELAWARE) INJECTORS
EDDY COUNTY, NEW MEXICO

OPERATOR	WELL NAME	STATUS	SECT. #	FOOTAGE	DATE DRILLED	DEPTH	COMPLETION (PERFS)	CSG	DEPTH	CMT (SX)
T-20-S, R-28-E										
Yates Pet.	Stonewall "EP" State #2	Gas	19	660 FS, 1980 FW	02/15/77	11500	11060-11070	13 3/8"	588	500
								8 5/8"	2750	1920
								5 1/2"	11458	265
Yates Pet.	Stonewall "EP" State #3	Oil	19	545 FS, 1960 FW	10/29/77	4800	4369-4399	13 3/8"	512	450
								8 5/8"	2900	1300
								5 1/2"	4797	240
Yates Pet.	Federal "DC" #1	Gas	29	1980 FS, 660 FW	09/02/78	11540	10168-10176	13 3/8"	585	550
								8 5/8"	2845	1840
								5 1/2"	11495	650
Exxon Corp.	Yates "C" Federal #6	Oil	31	1980 FNL, 1980 FWL	02/20/83	4700	3550-3595	8 5/8"	634	500
							3606-3624	5 1/2"	4699	950
Exxon Corp.	Yates "C" Federal #1	Gas	31	660 FNL, 1980 FWL	06/19/82	11470	11040-11110	13 3/8"	584	950
								9 5/8"	3154	985
								7	10395	550
Exxon Corp.	Yates "C" Federal #2	Disposal	31	1980 FS, 1980 FE	10/13/82	11901	9004-9130	13 3/8"	588	600
								9 5/8"	3027	1250
								5 1/2"	11901	1780
Exxon Corp.	Yates "C" Federal #3	Oil	31	660 FN, 1980 FE	10/20/82	4702	3400-3608	8 5/8"	605	425
								5 1/2"	4702	1050
Exxon Corp.	Yates "C" Federal #4	Oil	31	660 FNL, 660 FEL	01/06/83	4701	2574-2818	8 5/8"	618	400
								5 1/2"	4701	1050
Exxon Corp.	Yates "C" Federal #5	Oil	31	660 FNL, 660 FWL	06/08/83	4710	2506-2726	8 5/8"	627	1300
							3494-3676	5 1/2"	4704	750
Exxon Corp.	Yates "C" Federal #7	Oil	31	1980 FN, 1980 FE	05/17/83	4700	3448-3650	8 5/8"	618	400
								5 1/2"	4693	1215
Exxon Corp.	Yates "C" Federal #8	Oil	31	2180 FN, 660 FW	07/01/83	4725	2570-2690	8 5/8"	602	1200
								5 1/2"	4720	904
Exxon Corp.	Yates "C" Federal #9	Oil	31	1980 FNL, 560 FEL	05/16/83	4712	2538-2788	8 5/8"	617	450
							3580-3662	5 1/2"	4700	905
Exxon Corp.	Yates "C" Federal #12	TA	31	1980 FSL, 660 FEL	08/03/83	5000		13 3/8"	598	670
								8 5/8"	2495	850
								5 1/2"	4992	900
Exxon Corp.	Yates "C" Federal #10	Oil	31	1980 FSL, 1980 FWL	07/01/83	5000	2548-2714	13 3/8"	632	525
								8 5/8"	2525	850
								5 1/2"	4988	950
Exxon Corp.	Yates "C" Fed. #WD-11	Disposal	31	660 FS, 1980 FE	03/13/84	5000	3955-3982	13 3/8"	600	525
								8 5/8"	2448	850
								5 1/2"	4990	900
Exxon Corp.	Yates "C" Federal #14	TA	31	660 FS, 660 FE	10/27/83	3890		13 3/8"	590	930
								8 5/8"	2493	1025
								5 1/2"	3890	500
Exxon Corp.	Yates "C" Federal #15	TA	31	660 FSL, 660 FWL	12/10/83	4930		13 3/8"	596	1000
								8 5/8"	2513	1300
								5 1/2"	4923	1150

OPERATOR	WELL NAME	STATUS	SECT. #	FOOTAGE	DATE DRILLED	DEPTH	COMPLETION (PERFS)	CSG	DEPTH	CMT (SX)
T-20-S, R-28-E (continued)										
Exxon Corp.	Yates "C" Federal #13	Oil	31	1980 FSL, 660 FWL	07/31/83	4930	2596-2732	13 3/8"	619	750
							3602-3634	8 5/8"	2493	1700
								5 1/2"	4924	1800
Exxon Corp.	Yates "C" Federal #17	Oil	31	760 FNL, 1980 FWL	09/19/83	3897	2568-2605	13 3/8"	606	1050
							3562-3626	8 5/8"	2482	930
								5 1/2"	3887	750
Exxon Corp.	Yates "C" Federal #18	TA	31	2310 FS, 2310 FE	10/20/83	3885		13 3/8"	593	700
								8 5/8"	2491	925
								5 1/2"	3876	525
Yates Pet	Stonewall "EP" State #1	Gas	30	1980 FN, 1980 FW	09/25/75	11478	10079-10097	13 3/8"	612	550
								8 5/8"	2799	1650
								5 1/2"	11380	1300
Yates Pet	Stonewall "WM" State #1	Oil	30	560 FS, 1980 FE	06/02/83	4953	2587-2680	20"	40	---
								10 3/4"	545	500
								8 5/8"	2485	1350
								5 1/2"	4953	700
Yates Pet	Stonewall "WM" State #3	Oil	30	330 FS, 1980 FW	07/22/83	4865	2530-2622	13 3/8"	545	650
							3422-3602	8 5/8"	2470	550
								5 1/2"	4864	500
Yates Pet	Stonewall "WM" State #2	Inact. Oil	30	450 FS, 990 FE	08/07/84	5450	4960-5216	13 3/8"	546	550
								8 5/8"	2410	1050
								5 1/2"	4960	750
Yates Pet	Stonewall "WM" State #4	Oil	30	330 FS, 990 FW	11/22/83	4860	2524-2727	20"	40	---
							3620-3671	13 3/8"	535	500
								8 5/8"	2642	1300
								5 1/2"	4860	750
Yates Pet	Stonewall "WM" State #5	Oil	30	1650 FS, 1980 FW	11/10/83	4900	3330-3367	13 3/8"	535	600
							3487-3515	8 5/8"	2404	1355
							3570-3576	5 1/2"	4900	700
Yates Pet	Stonewall "YE" State #1	Oil	30	1650 FS, 1980 FE	12/29/83	4950	2595-2732	20"	40	---
								13 3/8"	543	550
								8 5/8"	2415	900
								5 1/2"	4950	750
Yates Pet	Stonewall "EP" State #5	Oil	30	2310 FN, 990 FW	03/14/84	4870	3361-3730	13 3/8"	544	500
							4142-4346	8 5/8"	2420	1600
								5 1/2"	4870	800
Yates Pet	Stonewall "WM" State #6	Oil	30	1650 FS, 990 FW	12/27/83	4860	3349-3527	20"	40	---
								13 3/8"	535	550
								8 5/8"	2410	800
								5 1/2"	4860	800
Yates Pet	Stonewall "EP" State #7	Oil	30	990 FNL, 990 FWL	01/19/84	5107	4979-4983	20"	40	---
								13 3/8"	538	500
								8 5/8"	2372	1120
								5 1/2"	5100	900
Yates Pet	Stonewall "EP" State #6	Gas	30	990 FNL, 2080 FWL	04/20/85	5100	4983-4992	13 3/8"	537	400
								8 5/8"	2469	1050
								5 1/2"	5098	600
Yates Pet	Stonewall "EP" State #8	Oil	30	2310 FN, 1980 FW	04/04/84	5303	3384-3412	13 3/8"	540	425
							3434-3541	8 5/8"	2404	950
							3622-3688	5 1/2"	5303	750

OPERATOR	WELL NAME	STATUS	SECT. #	FOOTAGE	DATE DRILLED	DEPTH	COMPLETION (PERFS)	CSG	DEPTH	CMT (SX)
T-20-S, R-28-E (continued)										
Exxon Corp.	Hondo-State Com #1	Gas	32	1980 FN, 660 FW	05/02/77	11475	10385-10705	13 3/8"	565	800
								9 5/8"	2790	1750
								5 1/2"	11475	825
Maralo	Keystone #1	Gas	32	1980 NL, 1980 FEL	01/25/78	11600	6298-6503	13 3/8"	608	695
								8 5/8"	3010	1100
								4 1/2"	11600	875
Exxon Corp.	Hondo "A" State #1	Oil	32	660 FN, 660 FW	02/14/83	4050	2654-2709	8 5/8"	610	400
								5 1/2"	4042	780
Exxon Corp.	Hondo "A" State #3	Oil	32	1980 FS, 610 FW	05/24/83	4050	2506-2598	13 3/8"	590	880
								8 5/8"	2410	1450
								5 1/2"	4050	550
Exxon Corp.	Hondo "A" State #2	Oil	32	1980 FN, 330 FW	03/05/83	4047	2605-2620	8 5/8"	610	400
							2640-2660	5 1/2"	4047	770
							3622-3636			
Exxon Corp.	Hondo "A" State #4	Oil	32	660 FS, 330 FW	06/12/83	3808	2585-2620	13 3/8"	590	800
								8 5/8"	2445	1330
								5 1/2"	3808	450
Exxon Corp.	Hondo Fee #2	Oil	32	1980 FS, 1650 FW	07/15/83	2813	2542-2556	13 3/8"	588	630
							2602-2612	8 5/8"	2422	1300
							2628-2640	5 1/2"	2813	135
Maralo Inc	Keystone #2	- - -	32	1980 FSL, 1980 FEL	08/29/94	6700	6307-6514	13 3/8"	502	875
								8 5/8"	2557	1300
								5 1/2"	6700	890
Maralo Inc	Keystone #4	- - -	32	1650 FNL, 1980 FWL	01/22/95	6650	6283-6484	13 3/8"	504	550
								8 5/8"	2518	1200
								5 1/2"	6650	750
T-20-S, R-27-E										
MWJ Prod.	State "GWA" #1	Oil	36	2180 FS, 660 FE	12/10/80	4845	4724-4731	13 3/8"	410	400
							4740-4758	8 5/8"	2405	1200
							4764-4766	5 1/2"	4845	600
MWJ Prod.	State "GWA" #2	Oil	36	660 FS, 660 FE	09/13/84	4825	4367-4373	13 3/8"	502	500
								8 5/8"	2400	1350
								5 1/2"	4825	550
Yates Pet.	Citdale "ZG" #1	Gas	36	330 RN, 330 FE	08/03/84	5100	4871-4880	13 3/8"	408	325
							5023-5026	8 5/8"	2390	800
								4 1/2"	5100	710
Premier Prod.	Eddy "FV" State Com #1	Gas	25	1980 FN, 990 FE	05/12/76	11450	10014-10028	20"	30	- - -
								13 3/8"	642	650
								9 5/8"	3050	1350
								5 1/2"	11450	1070
Premier Prod.	Eddy "FV" State #3	Inact. Oil	25	660 FS, 330 FE	04/29/84	4975	2710-2716	13 3/8"	500	500
							2723-2725	8 5/8"	2450	1800
							2738-2740	5 1/2"	4975	800

OPERATOR	WELL NAME	STATUS	SECT. #	FOOTAGE	DATE DRILLED	DEPTH	COMPLETION (PERFS)	CSG	DEPTH	CMT (SX)
T-21-S, R-27-E										
Mobil Producing	Burton Flat "Sec 6" St #1	D & A	6	660 FNL, 660 FEL	02/19/87	5500		13 3/8"	457	600
								8 5/8"	2599	1300
								5 1/2"	5500	1000
Mobil Producing	Burton Flat "Sec 6" St # 3	Inact. Oil	6	660 FN, 1980 FE	07/27/84	6100	4642-4652	13 3/8"	463	600
								9 5/8"	2500	1500
								7"	6100	1375
Exxon Corp.	Yates "C" Federal #35	Disposal	5	563 FNL, 560 FEL	10/30/85	3110	2702-2898	13 3/8"	629	950
							2950-3098	8 5/8"	2592	1300
								5 1/2"	3110	550

--- = Information not available

Data Source: Petroleum Information, Scout Tickets, Well Files

VIII. Geological 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 Mountain Group	2494 ft. (767 ft. subsea)	4860 ft (-1599 ft. subsea) (top of the 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

- Perforate Upper Brushy Canyon
- Spot acid across the perforations
- Frac Brushy Canyon with 30-50K # 20/40 sand. Water based frac gel.
- Isolate Brushy Canyon
- Perforate Upper Cherry Canyon
- Spot acid across the perforations
- Frac Cherry Canyon with 30-50K # 20/40 sand. Water based frac gel.
- Put wells on injection
- Run post completion injection profile

X. Log attached for Yates Federal "C" #36

XI. Chemical analysis on the fresh water well that is within one mile of the proposed wells will be forwarded separately.

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

XIII. A signed statement of mailing of notice along with proof of publication will be submitted later. (A listing of interest owners is attached.)

Schlumberger

COMPENSATED NEUTRON LITHO-DENSITY

COMPANY EXXON COMPANY USA

WELL YATES "C" FEDERAL NO. 36

FIELD AVALON (DELAWARE)

COUNTY EDDY STATE NEW MEXICO

COUNTY EDDY
FIELD AVALON (DELAWARE)
LOCATION 1305' FNL & FEL
WELL YATES "C" FEDERAL NO. 36
COMPANY EXXON COMPANY USA

LOCATION 1305' FNL & FEL

Other Services
LDT/CNL
DLL/RXO
NGT/EPT
PHASOR/BHC
RFT
LOGNET

API SERIAL NO.	SECT.	TWP.	RANGE
30-015-263700	31	20-S	28-E

Permanent Datum	GL	Elev.	3237.0 F	Elev.: K.B. 3241
Log Measured From	KB	10.0 F	above Perm. Datum	D.F.
Drilling Measured From	KB			G.L. 3237

Date		14-SEP-1990					
Run No.		ONE					
Depth Driller		4970.0 F					
Depth Logger (Schl.)		4972.0 F					
Btm. Log Interval		4939.0 F					
Top Log Interval		2419.0 F					
Casing-Driller		8 5/8 @ 2419.0 F		@		@	
Casing-Logger		2419.0 F					
Bit Size		7 7/8"					
Type Fluid in Hole		CUT BRINE					
Dens.	Visc.	9.40 LB/G	32.0 S				
pH	Fld. Loss	7.5	10.0 C3				
Source of Sample		FLOWLINE					
Rm @ Meas. Temp.		.156 OHMM	@ 71.0 DEGF			@	
Rmf @ Meas. Temp.		.126 OHMM	@ 71.0 DEGF			@	
Rmc @ Meas. Temp.		.244 OHMM	@ 71.0 DEGF			@	
Source: Rmf / Rmc		PRESS	PRESS				
Rm @ BHT		.106 OHMM	@ 108. DEGF			@	
Time	Circulation Ended						
	Logger on Bottom	SEE LOG					
Max. Rec. Temp.		108. DEGF					
Equip.	Location	8329	ROSWELL				
Recorded By		PAT SULLIVAN					
Witnessed By		CANTRELL/LUKAS/GANAPATHY/THOMAS					

The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE			
Service Order No.	555943			
Drilling Fluid Level				
Salinity	115500. PPM			
Rmf @ BHT	.085 OHMM	@	108. DEGF	@
Rmc @ BHT	.165 OHMM	@	108. DEGF	@
Logging Speed	2000.0 F/HR			
EQUIPMENT DATA				
Tool Number 1	LDT SEE CALS			
Tool Number 2	CNL SEE CALS			
Tool Number 3	DLS 978			
Tool Number 4	DLC 1718			
Tool Number 5	SRS 800			
Tool Number 6	SRE 755			
Tool Number 7	SGC 206			
Tool Number 8	NGT SEE CALS			
Tool Number 9	HOBBS DITE			
Tool Number 10	SGC 206			
Tool Number 11	TCC 373			
Tool Number 12	TCM 1257			

REMARKS:

CHLORIDES 70K FROM MUD REPORT.

MDEN=2.71 FD=1.05

CGR NOT VALID FILES 10 & 11 DUE TO HIRS (HIGH RESOLUTION) ACQUISITION.

KALMAN FILTER DOES NOT WORK OTHER THAN ON 6" DATA FRAMES.

CGR OK ON PASSES 12 & 13.

AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 14-SEP-1990 19:59
PROGRAM FILE: TOH (VERSION 32.4 90/06/12 90/06/06)

LDTD TOOL CHECK

DENSITY RESISTIVITY SONDE NUMBER	3946
NUCLEAR SERVICE CARTRIDGE NUMBER	2839
POWERED DETECTOR HOUSING NUMBER	1736
POWERED GAMMA-GAMMA DETECTOR NUMBER	2713
LDT LOGGING SOURCE NUMBER	1756
LDT CALIBRATION MODE	WATE

	MEASURED BACKGROUND BEFORE	AFTER	UNITS	TOLERANCE ON BEFORE-AFTER
LL	18.7	18.6	CPS	+/- 1.0
LU	72.7	72.9	CPS	+/- 1.0
LS	55.0	55.0	CPS	+/- 1.0
LITH	5.4	5.4	CPS	+/- 0.3
SS1	15.8	15.8	CPS	+/- 0.5
SS2	10.7	10.7	CPS	+/- 0.5

HV SETTINGS
HV LS: 1266.8 V
HV SS: 1285.0 V

DETECTOR RESOLUTIONS
LS: 8.4 %
SS: 8.7 %

BKGD BKGD
BEFORE SURVEY: 14-SEP-1990 11:47 AFTER SURVEY: 14-SEP-1990 19:50

NGTC TOOL CHECK

NGTC CARTRIDGE NUMBER : 935
NGTC DETECTOR NUMBER : 949
NGTC CALIBRATOR NUMBER : 11
GSR-U/Y REFERENCE (GAPI) : 164

SGR	BEFORE 164 MEASURED BKG	AFTER 164 MEASURED JIG	AFTER 165 SURVEY NORM VAL	BEFORE NORM VAL	UNITS GAPI
W1NG	59.0	456.8	388.2	387.6	CPS
W2NG	20.6	200.2	175.2	173.7	CPS
W3NG	5.9	31.5	25.0	23.2	CPS
W4NG	1.5	16.7	14.8	14.8	CPS
W5NG	1.4	26.2	24.2	24.2	CPS

PCSL -208 KEY OFFSET

DETECTOR RESOLUTION : 11.5 %
P.M. HIGH VOLTAGE : 1603.8 V
THORIUM PEAK FORM FACTOR : -.16
SHOP QUALITY WINDOWS RATIO: 2.24
QUALITY WINDOWS RATIO : 2.23

BEFORE SURVEY: BACK: 14-SEP-1990 11:47 JIG: 14-SEP-1990 11:57
AFTER SURVEY CHECK: BACK: 14-SEP-1990 19:50 JIG: 14-SEP-1990 19:57

CNTH TOOL CHECK

INPUT	BEFORE JIG	AFTER JIG
CNTC	2842.84	2827.46
CFTC	1193.21	1194.21

CHANGE IN THERMAL POROSITY AT 20 PU IS -.212 PU

BEFORE SURVEY: BACK: 14-SEP-1990 11:47 JIG: 14-SEP-1990 11:57
AFTER SURVEY CHECK: BACK: 14-SEP-1990 19:50 JIG: 14-SEP-1990 19:57

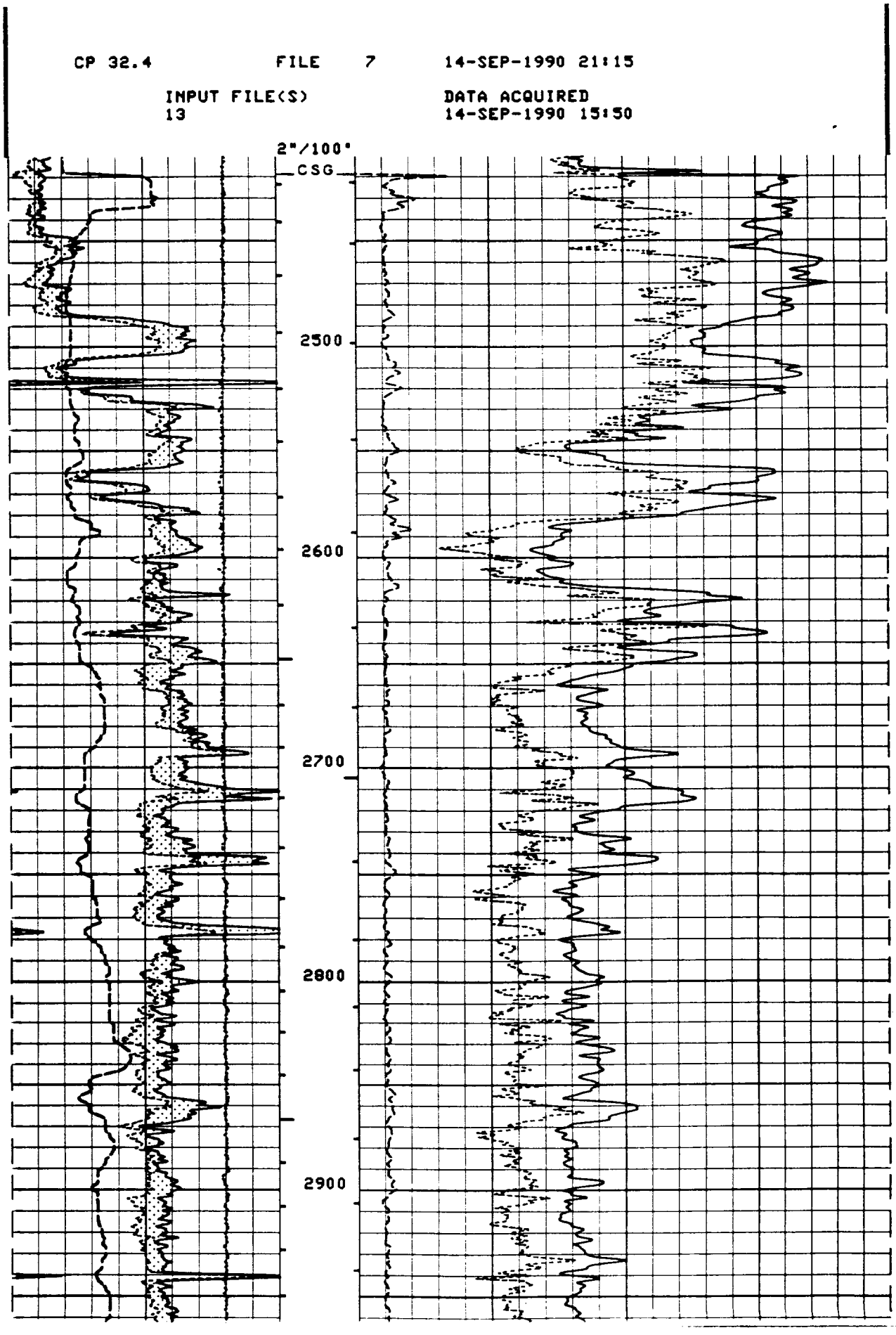
ACCUMULATED INTEGRATION VALUES SUMMARY:

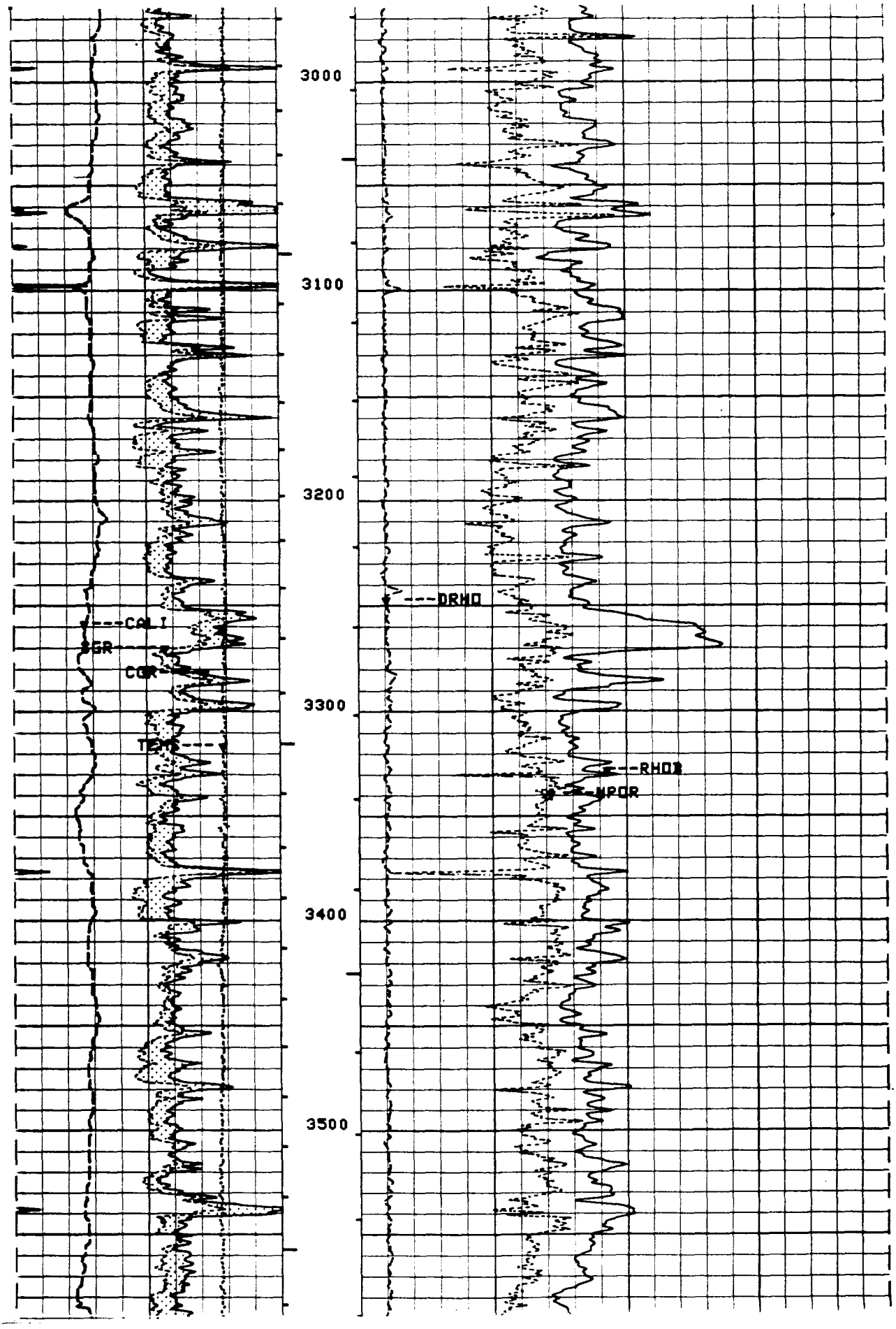
IHV: 1093.57 F3 FROM 4972.00 F TO 2419.00 F
ICV: 672.355 F3 FROM 4972.00 F TO 2419.00 F

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE
ICV	10.0000 F3	RIGHT EDGE

CALI(IN) 6.0000	16.000	DRHO(G/C3) -.0500	.45000
SGR (GAPI) 0.0	100.00		
CGR (GAPI) 0.0	100.00	RHOB(G/C3) 2.0000	3.0000
TENS(LBF) 10000.	0.0	NPOR(V/V) .30000	-.1000
SGR (GAPI) 100.00	200.00	NPOR(V/V) .70000	.30000


CP 32.4
FILE 7
14-SEP-1990 21:15
INPUT FILE(S)
13
DATA ACQUIRED
14-SEP-1990 15:50
2"/100'
CSG
2500
2600
2700
2800
2900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DRHO
CALI
SGR
CGR
TENS
RHOB
NPOR

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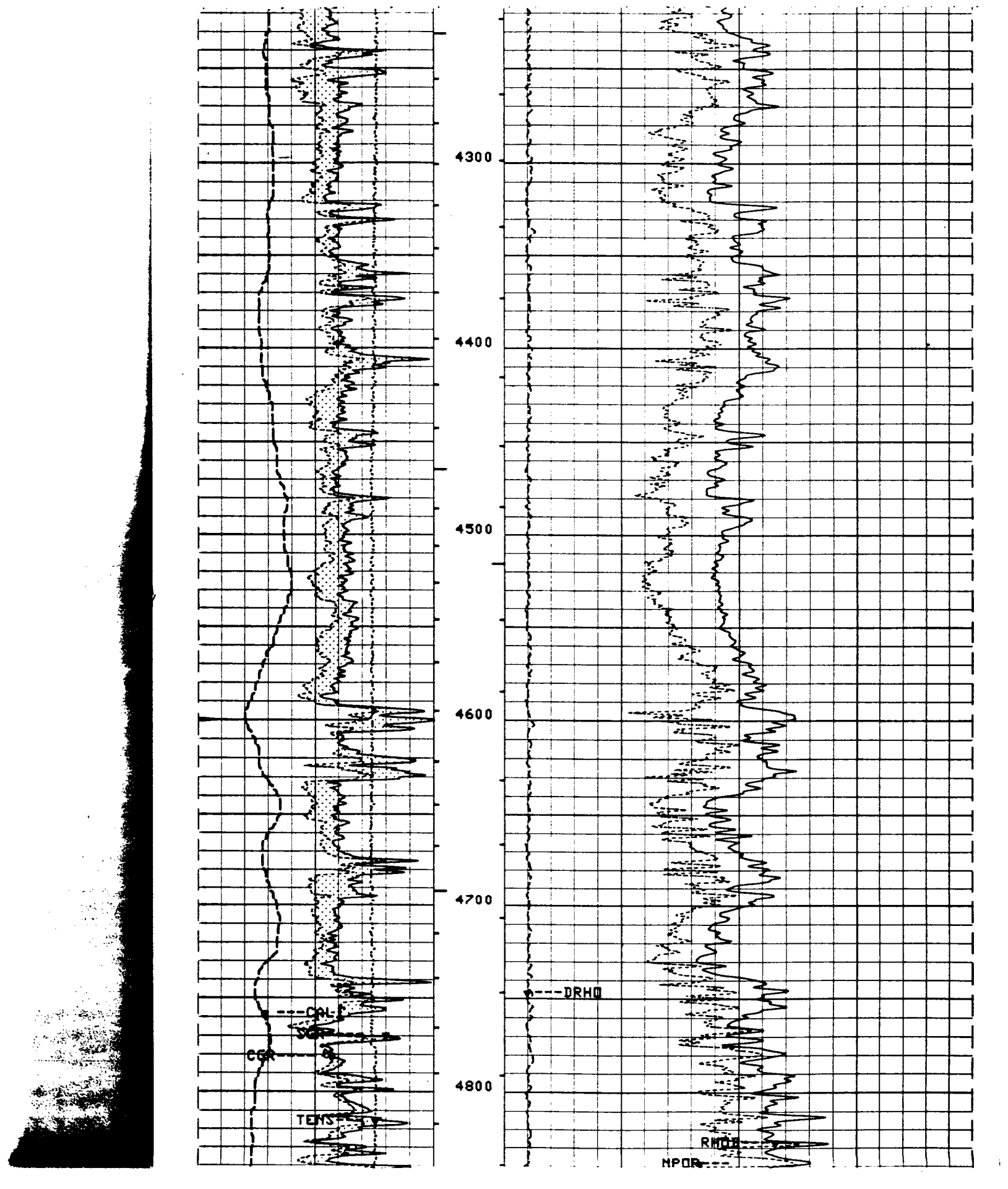
3900
4000
4100
4200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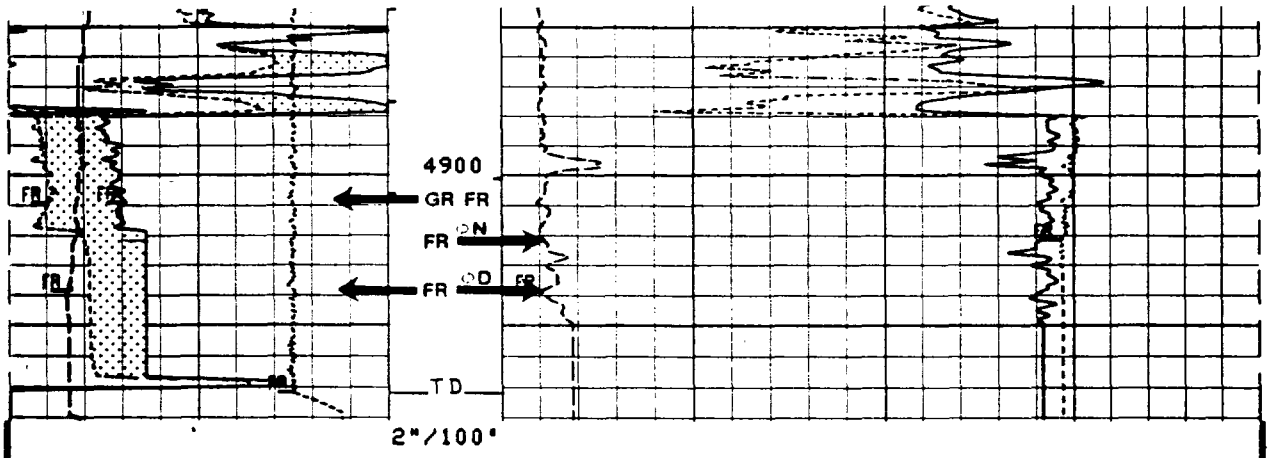
SGR
CGR
TENS
---DRHO
RHOB
NPOR



CP 32.4 FILE 7 14-SEP-1990 21:07

INPUT FILE(S)
13

DATA ACQUIRED
14-SEP-1990 15:50

CALI(IN)		DRHO(G/C3)	
6.0000	16.000	-.0500	.45000
SGR (GAPI)		RHOB(G/C3)	
0.0	100.00	2.0000	3.0000
CGR (GAPI)		NPOR(V/V)	
0.0	100.00	.30000	-.1000
TENS(LBF)		NPOR(V/V)	
10000.	0.0	.70000	.30000
SGR (GAPI)			
100.00	200.00		

SENSOR MEASURE POINT TO TOOL ZERO

DV1	14.9	FEET	CAL1	2.8	FEET
SVO	14.9	FEET	SIO	14.9	FEET
DVO	14.9	FEET	DIO	14.9	FEET
CALS	3.1	FEET	DLCS	.6	FEET
W2NG	62.7	FEET	W1NG	62.7	FEET
W4NG	62.7	FEET	W3NG	62.7	FEET
CFTC	50.9	FEET	W5NG	62.7	FEET
LITH	33.3	FEET	CNTC	50.4	FEET
LS	33.3	FEET	LL	33.3	FEET
PARI	32.8	FEET	LU	33.3	FEET
SS2	32.8	FEET	SS1	32.8	FEET
TENS	.6	FEET	CALI	33.4	FEET
CMSF	1.1	FEET	I1	1.3	FEET
TNRA	51.4	FEET	SGR	62.7	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PP	NORM		DO	0.0	F
WMUD	9.40000	LB/G	TD	4972.00	F
FCD	5.50000	IN	DHC	NONE	
BFM	LIQU		MDEN	2.71000	G/C3
FD	1.05000	G/C3	DPPM	STAN	
MATR	LIME		HC	CALI	
NPDC	0		HSCO	YES	
SOCO	NO		MCCO	NO	
BSCO	NO		FSCO	NO	
MWCO	NO		PTCO	NO	
SDAT	SOCN		MCOR	NATU	
SOCN	.500000	IN	FSAL	-50000.0	PPM
ANGL	0.0	DEG	GGRD	.0100000	DF/F
BHFL	WATE		PCSL	-208	KEV
NFO	KALM		CBAR	1.00000	
PMUD	0.0	%	GTSE	TEMP	

SURFACE OWNERS

SEC. 30, T20S, R28E	Com'r of Public Lands THE STATE OF NEW MEXICO 310 Old Santa Fe Trail SANTE FE, NEW MEXICO 87501	HARLEY BALLARD P. O. BOX 1777 CARLSBAD, N.M. 88221
SEC. 31, T20S,R28E	BUREAU OF LAND MANAGEMENT CARLSBAD RESOURCE OFFICE P.O. BOX 1778 CARLSBAD, N.M. 88220	HARLEY BALLARD P. O. BOX 1777 CARLSBAD, N.M. 88221
SEC. 32, T20S,R28E	BRUCE RIGGS P. O. BOX 847 CARLSBAD, N.M. 88221	DON RAINES P. O. BOX 847 CARLSBAD, NM 88221
	Com'r of Public Lands THE STATE OF NEW MEXICO 310 Old Santa Fe Trail SANTA FE, NEW MEXICO 87501	

MINERAL OWNERS/LESSEES

ABO
ATTN: DAVE BONEAU
105 S. FOURTH STREET
ARTESIA, NM 88210

MARY HUDSON ARD
4804 WESTRIDGE AVENUE
FT WORTH, TX 76116

JACK O MCCALL ESTATE
1210 MIDLAND NAT BNK TOWER
500 W. TEXAS AVENUE
MIDLAND, TX 79701

CHEVRON PBC (PENNZOIL)
ATTN: JAMES SPILLANDE
P. O. BOX 2967
HOUSTON, TX 77525-2967

CLAREMONT
P. O. BOX 549
CLAREMONT, OK 74018-0549

DEVON ENERGY CORP.
1500 MID AMERICAN TOWER
20 N. BROADWAY
OKLAHOMA CITY, OK 73102-8260

F A & D M FOX
1288 EAGLE DRIVE
BURLINGTON, WA 98233

77 CORP.
P. O. BOX 51006
MIDLAND, TX 79702

TR OIL COPR.
C/O DEKALB CORP.
3100 SYCAMORE ROAD
DEKALB, IL 60115

E. R. HUDSON, JR.
616 TEXAS STREET
FT. WORTH, TX 76102-4612

W. A. HUDSON II
616 TEXAS STREET
FT. WORTH, TX 76102-4612

WHITING PETROLEUM CORP.
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MIDLAND, TX 79701

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105 S. FOURTH STREET
ARTESIA, NM 88210

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E. H. JUDSON
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MIDLAND, TX 79701

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ATTN: WILLIAM ESTEP
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TULSA, OK 74102

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P. O. BOX 3908
TULSA, OK 74102

PREMIER
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ARTESIA, NM 88210

J. J. REDFERN III
EXEC OF JOHN REDFERN
CLAYDESTA NAT BANK
STE. 6300
MIDLAND, TX 79705

ROSALIND REDFERN
ATTN: ROSSON KIELLINGSTED
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MIDLAND, TX 79702

JOHN L. SCHLAGAL
ATTN: BOB HODGE
400 W. ILLINOIS, STE. 1100
MIDLAND, TX 79701

SIGMAR INC.
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400 W. ILLINOIS, STE. 1100
MIDLAND, TX 79701

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ARTESIA, NM 88210

S. P. YATES
ATTN: DAVE BONEAU
105 S. FOURTH STREET
ARTESIA, NM 88210

YATES DRILLING
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AUSTIN, TX 78763

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BETSY H. KELLER TRUSTEE
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SAN FRANSICO, CA 94123

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HONOLULU, HI 96818

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2493 MAKIKI HEIGHTS
HONOLULU, HI 96822

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MARY G. GENDRON TRUSTEE
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SAN MATEO, CA 91108

BETSY H. KELLER
2524 UNION STREET
SAN FRANCISCO, CA 94123

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WILTON, CA 06897

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MILL VALLEY, CA 94941

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DALLAS, TX 75225

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TULSA, OK 74136

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ACT 0805400
P. O. BOX 100871
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DALLAS, TX 75201

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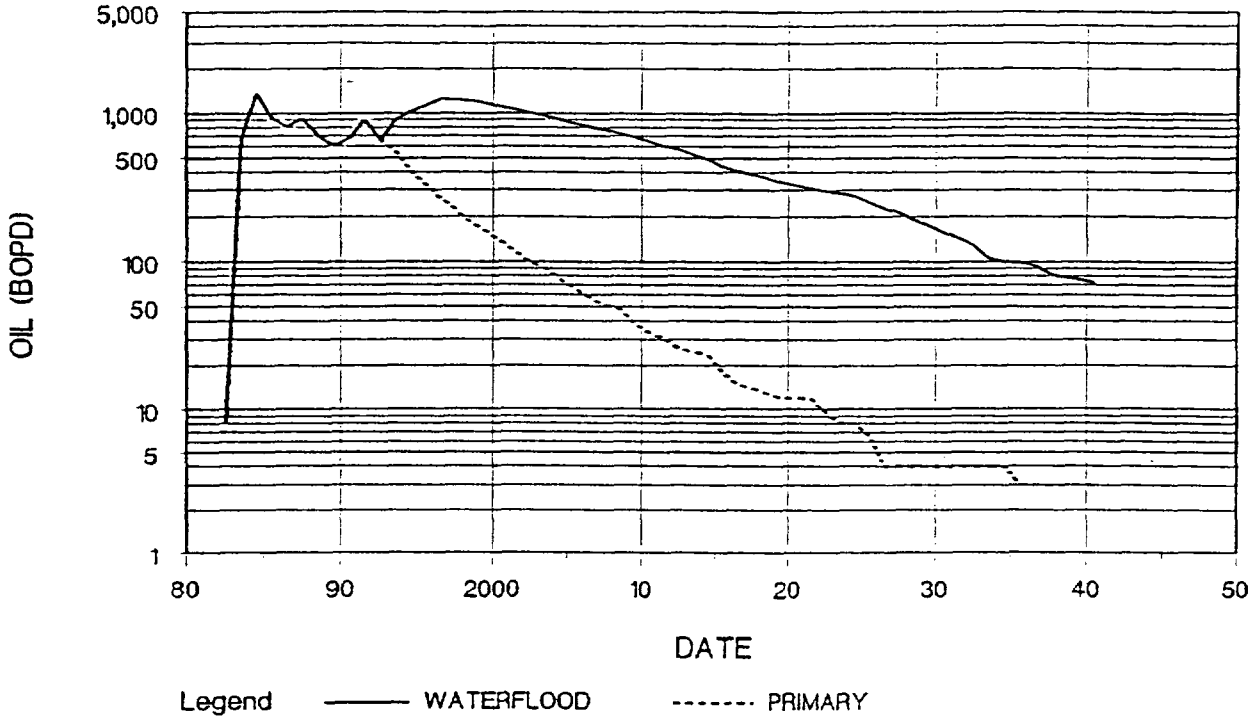
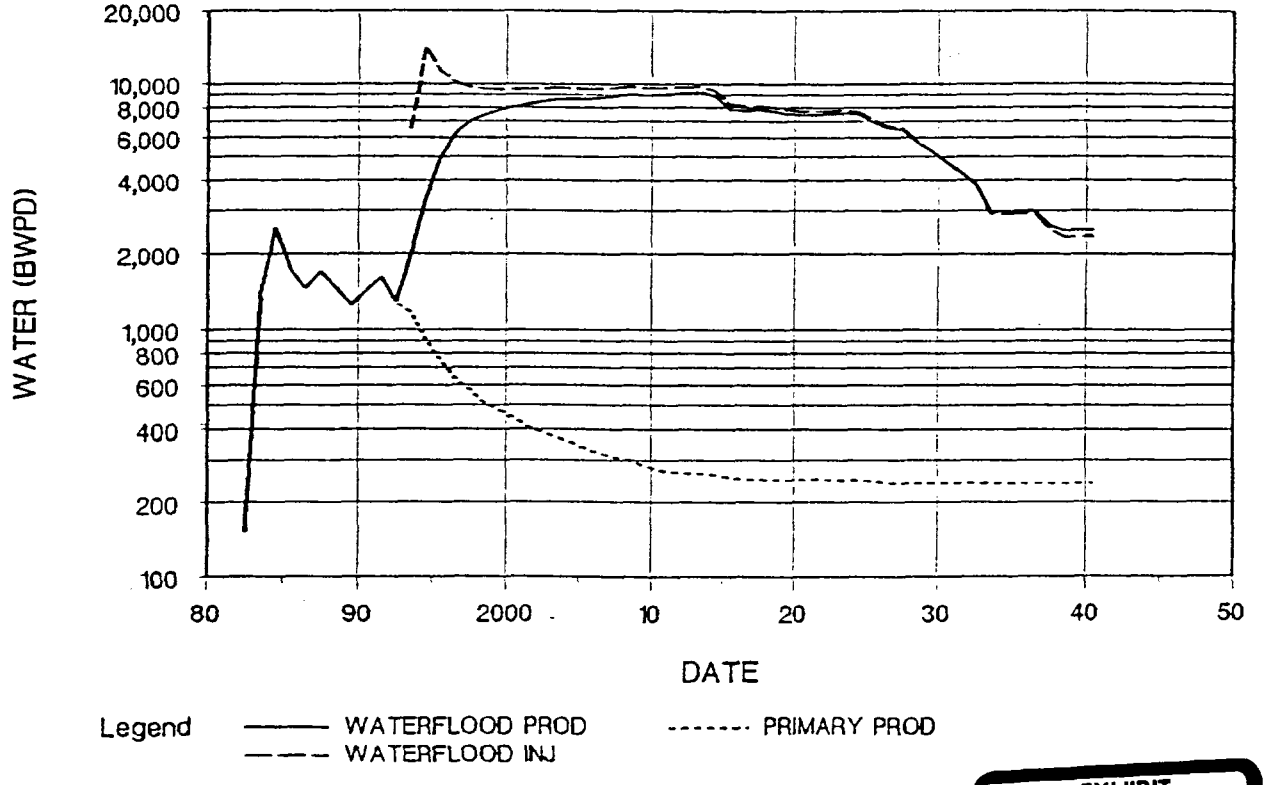
C/O JAMES CRAFTS, JR.
400 SAN SOME STREET
SAN FRANCISCO, CA 94111

AVALON PROJECT FLOWSTREAMS
WATERFLOOD VERSUS CONTINUED PRIMARY





EXHIBIT
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