DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO
12-3-04	12/18/04	Jones	12-7-04	SWD	pDCM0434247364

12/9/04 12/24/04

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☒ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

Westall

CHK DV Tri on offset well
Sent Email of Fax
SLO Notification
12/7/04
Received 12/8/04

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name	Signature	Title	Date

e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance __X__ Disposal _____ Storage
Application qualifies for administrative approval? __X__ Yes ~~No~~ 2004 DEC 3 PM 4 16

II. OPERATOR: RAY WESTALL

ADDRESS: Box 4 Loco Hills, NM 88255

CONTACT PARTY: RANDALL HARRIS PHONE: 505 677.2370

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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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 sources 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: RANDALL HARRIS TITLE: GEOLOGIST

SIGNATURE: _____ DATE: 11/30/04

E-MAIL ADDRESS: rharrisnm@netscape.net

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

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 the 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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, 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.

de 1

INJECTION WELL DATA SHEET

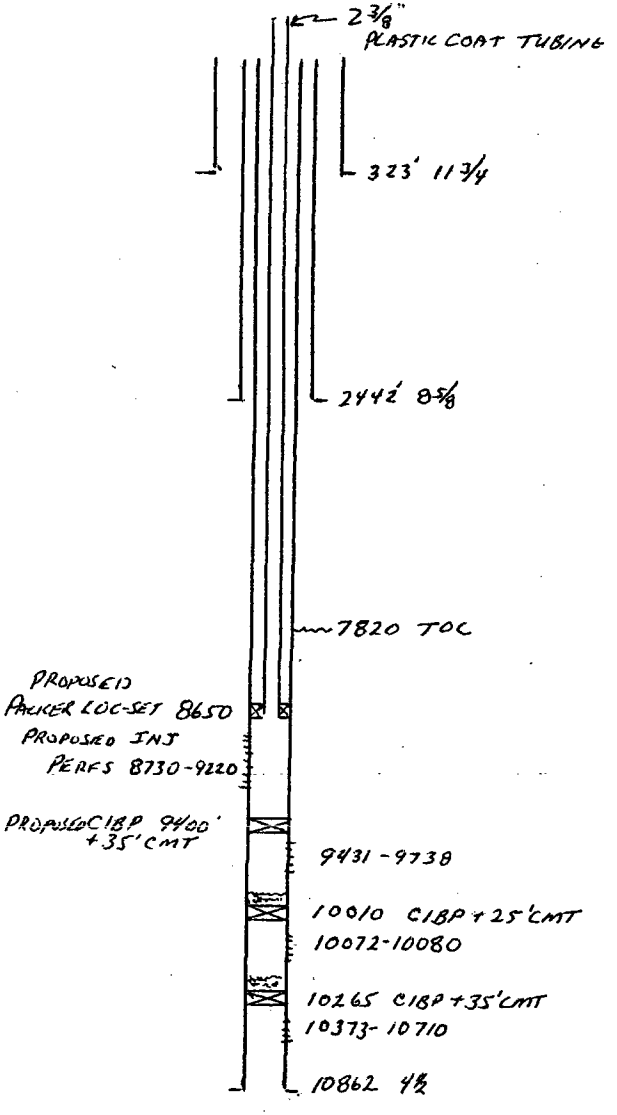
PERATOR: RAY WESTALL 30-015-22955

ELL NAME & NUMBER: STATE G COM #1

ELL LOCATION: 1980 FNL & 660 FWL | E | 24 | 19S | 27E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 15" Casing Size: 11 3/4"

Cemented with: 300 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

Hole Size: 11" Casing Size: 8 5/8"

Cemented with: 800 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 7 7/8" Casing Size: 4 1/2

Cemented with: 925 sx. *or* _____ ft³

Top of Cement: 7820 Method Determined: TEMP

Total Depth: 10862

Injection Interval

8730 feet to 9220 PERFORATED

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" Lining Material: PLASTIC

Type of Packer: BAKER LOC SET

Packer Setting Depth: 8650'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes X No

   If no, for what purpose was the well originally drilled? GAS

2. Name of the Injection Formation: CANYON

3. Name of Field or Pool (if applicable): _____

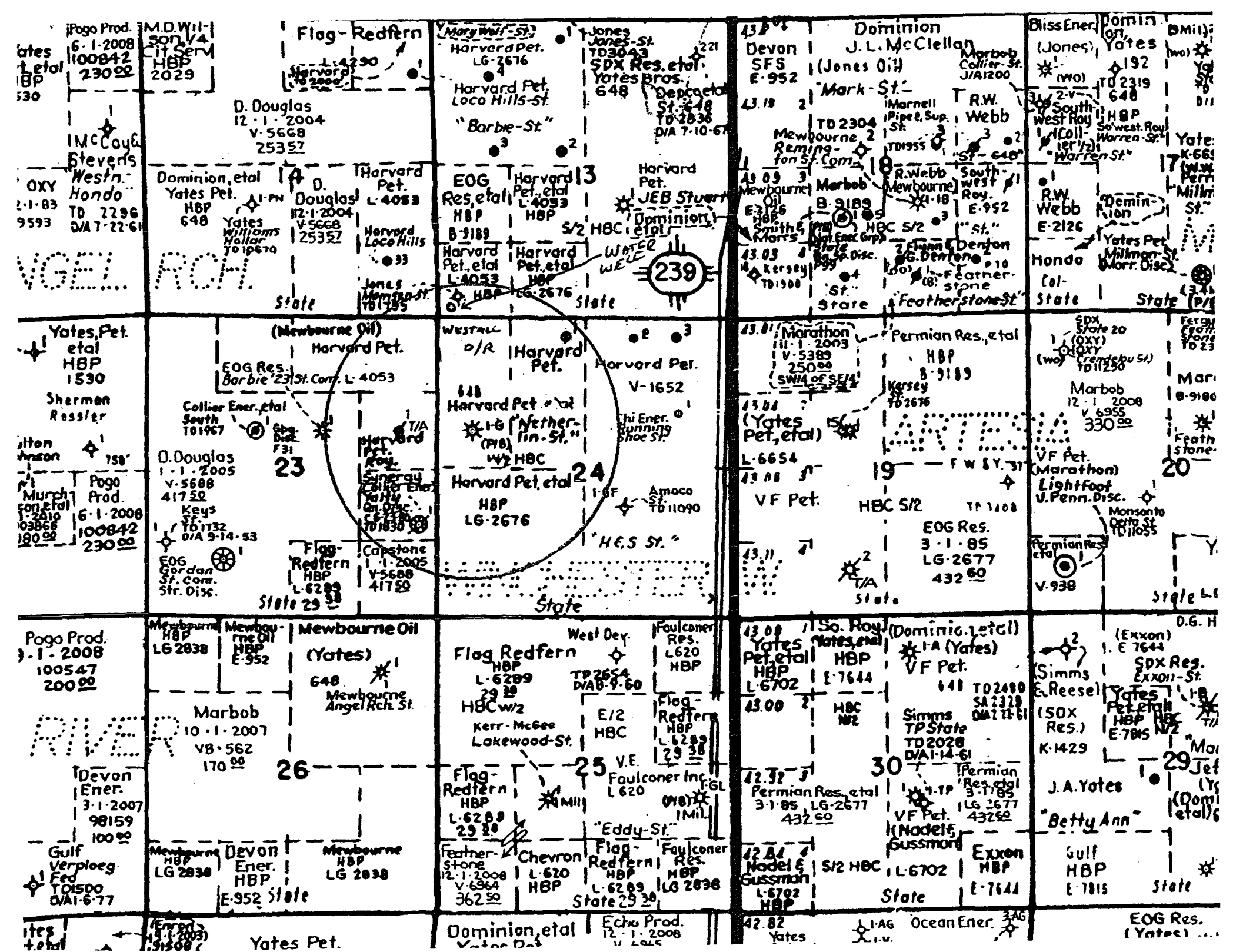
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 9431-9738

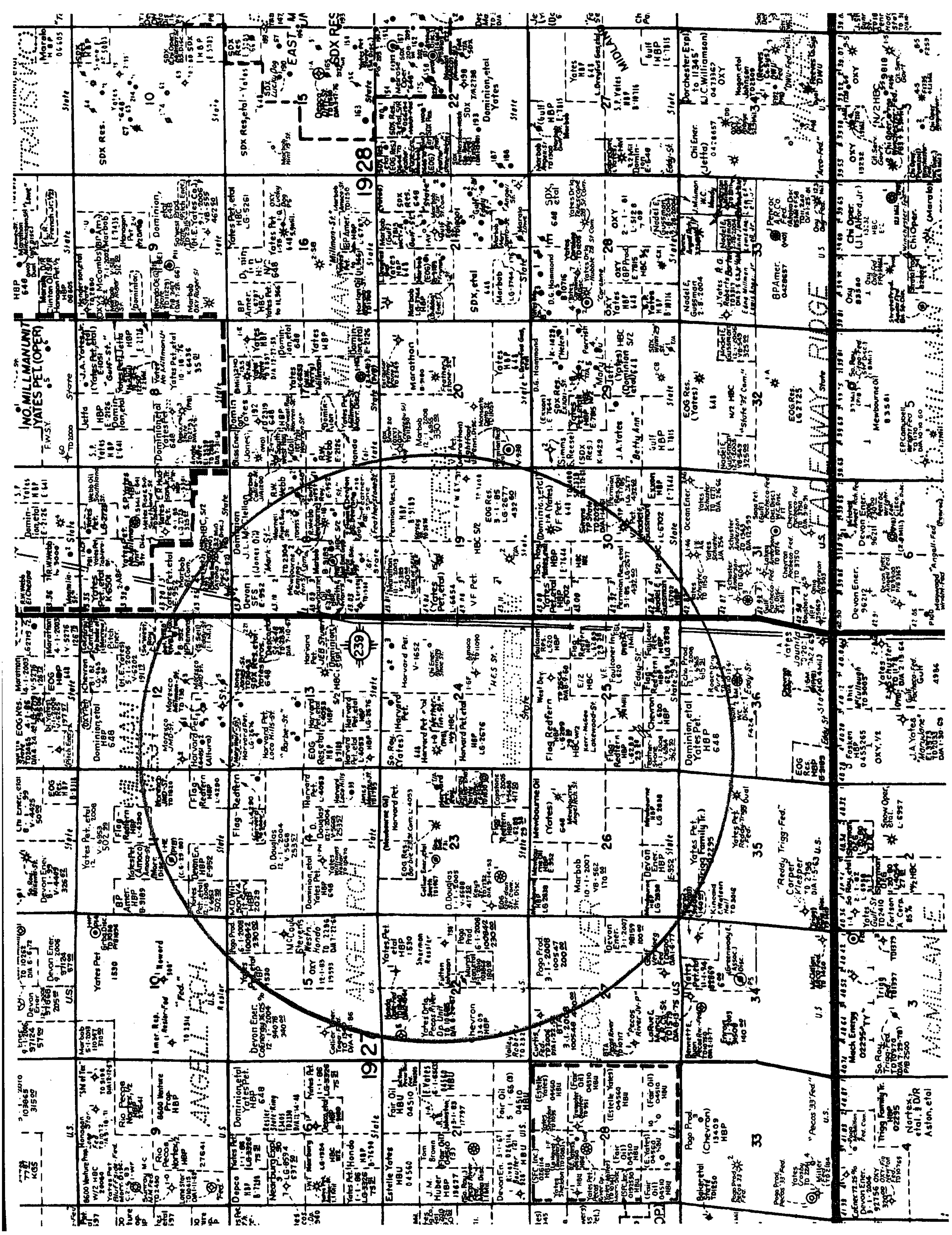
   10373-10710 CIBP 10265 +35' CMT; 10002-10080 CIBP 10010 +25' CMT

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: MORROW 10,300', QUEEN GRAYBURG 3000-4500'

ATTACHMENT V

Maps that identifies all wells of public record within two miles of each proposed injection well, and the area of review one-half mile radius around each proposed injection well.


Pogo Prod. 6-1-2008 100842 230
M.D.Wilson V4 Cit Ser HBP 2029
Flag-Redfern Harvard 4290 TD 2000
Mary Wolf St.
Harvard Pet. LG-2676
Jones Jones St. TD3043
SDX Res. etal Yates Bros. 648
Depco etal St. 648 TD 2836 D/A 7-10-67
Devon SFS E-952
J.L. McClellan (Jones Oil)
Mark St.
Marbob Collier St. J/A1200
R.W. Webb
Marnell Pipe & Sup. St. TD1955
TD 2304
Mewbourne Remington St. Com.
Bliss Ener. (Jones) (WO)
Domin on, Yates 192 TD 2319 648
HBP So'west. Roy Warren St.
Southwest Roy (Collier) "Warren St."
R.W. Webb E-2126
Demin-ion
Yates Pet. Millman St. (Morr. Disc)
Hondo Col- State
McCoy & Stevens Westn. Hondo TD 2296 D/A 7-22-61
OXY 2-1-83 9593
Dominion, etal Yates Pet. HBP 648
Yates Williams Hollar TD 1P670
D. Douglas 12-1-2004 V-5668 25357
Harvard Pet. L-4053
Harvard Loco Hills 33
Jones Morrow St. TD 1595
State
EOG Res, etal HBP B-9189
Harvard Pet. etal L-4053 HBP
Harvard Pet. etal L-4053 HBP
Harvard Pet. etal HBP LG-2676
13
S/2 HBC etal
Harvard Pet. JEB Stuart
Dominion
WATER WELL
239
Mewbourne Oil E-2126 HBP
Smith & Marrs
Kersey TD1900
St. State
Denton 2 G. Denton P10
Featherstone St.
Yates, Pet. etal HBP 1530
Sherman Ressler
Murchison etal 1-2010 03866 180
Pogo Prod. 6-1-2008 100842 230
(Mewbourne Oil)
Harvard Pet.
EOG Res. Barbie '23' St. Com. L-4053
Collier Ener. etal South TD1967
O. Douglas 1-1-2005 V-5688 417.50
Keys St. TD 1732 D/A 9-14-53
EOG Gordan St. Com. Str. Disc.
23
Harvard Pet. Roy. Synergy Collier Ener. Yaty Gu. Disc. F731 TD1830
Flag-Redfern HBP L-6289 29.38
Capstone 1-1-2005 V-5688 417.50
State 29.38
WESTALL D/R
Harvard Pet.
648
Harvard Pet. etal 1-G "Netherlin St." (P18) W/2 HBC
Harvard Pet. etal HBP LG-2676
24
Harvard Pet. V-1652
Chi Ener. Running Shoe St.
1-GF Amoco St. TD 11090
"H.E.S St."
State
Marathon 11-1-2003 V-5389 250 SW/4 of SE/4
Permian Res., etal HBP B-9189
Kersey TD 2676
(Yates Pet, etal) L-6654
VF Pet.
19
HBC S/2
F W & Y
TD 1408
EOG Res. 3-1-85 LG-2677 432.60
T/A State
SDX State 20 (OXY) (wo) OXY Crenshaw St. TD 11250
Marbob 12-1-2008 V 6955 330
VF Pet. (Marathon) Lightfoot V. Penn. Disc.
Monsanto Depta St. TD 11055
Permian Res etal V-938
20
State
Pogo Prod. 6-1-2008 100547 200
Devon Ener. 3-1-2007 98159 100
Gulf Verploeg Fed TD1500 D/A 1-6-77
Mewbourne HBP LG 2838
Mewbourne Oil HBP E-952
Mewbourne Oil (Yates) 648 Mewbourne Angel Rch St.
Marbob 10-1-2007 VB-562 170
26
Devon Ener. HBP E-952
Mewbourne HBP LG 2838
State
Flag Redfern HBP L-6289 29.38
West Dev. TP 2654 D/A 8-9-60
Faulconer Res. L620 HBP
HBC W/2
Kerr-McGee Lakewood St.
E/2 HBC
25
V.E. Faulconer Inc L 620
Flag-Redfern HBP L-6289 29.38
Mill
"Eddy St."
1-GL (P18) 1 Mil.
Feather-stone 12-1-2008 V-6964 362.50
Chevron L-620 HBP
Flag-Redfern HBP L-6289
Faulconer Res. HBP LG 2838
State 29.38
So. Roy (Dominic. etal) 1-A (Yates) VF Pet. 648 TD 2480 SA 2328 D/A 11-6-61
Yates, etal HBP E-7644
Yates Pet. etal HBP L-6702
Simms TP State TD 2028 D/A 1-14-61
30
Permian Res. etal 3-1-85 LG-2677 432.60
1-TP Permian Res. etal 3-1-85 LG-2677 432.60
VF Pet. (Nadel & Gussman) L-6702 HBP
Nadel & Gussman L-6702 HBP
S/2 HBC
Exxon HBP E-7644
State
(Exxon) E-7644 SDX Res. Exxon-St.
Simms E. Reese (SDX Res.) K-1429
J.A. Yates "Betty Ann"
Yates Pet. etal HBP E-7815
29
Gulf HBP E-7815
State
(Enron) 11-1-2003 31508
Yates Pet.
Dominion, etal
Echo Prod. 12-1-2008
42.82 Yates
1-AG Ocean Ener. 3-AG
EOG Res. (Yates)


NO. MILLMAN UNIT
YATES PET. (OPER)
SDX RES
EAST
MIDLAND
239
Dominion, etal Yates Pet. HBP 648
Flag-Redfern
Harvard Pet.
Yates Pet.
Marbob
Devon Ener.
Pogo Prod.
Chevron
State
U.S.

ATTACHMENT VI

Data on all wells of public record within the area of review. Included are schematics of the plugged wells that penetrated the proposed injection zone within the area of review.

One well the EOG Barbie "23" State Com #1 has penetrated the proposed injection zone within one mile, completion attached.

Submit to Appropriate District Office
State Lease – 6 copies
Fee Lease – 5 copies

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-105
Revised 1-1-89

OIL CONSERVATION DIVISION

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

WELL API NO. 30-015-31320

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

6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER

b. Type of Completion: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF RESVR [ ] OTHER

7. Lease Name or Unit Agreement Name: Barbie "23" State Com

2. Name of Operator: EOG Resources, Inc.

8. Well No. 1

3. Address of Operator: P. O. Box 2267, Midland, TX 79702

9. Pool name or Wildcat: Angel Ranch (Morrow)

4. Well Location
Unit Letter G : 1980 Feet From The North Line and 1980 Feet From The East Line

Section 23 Township 19S Range 27E NMPM Eddy County

10. Date Spudded	11. Date T.D. Reached	12. Date Compl. (Ready to Prod.)	13. Elevations (DF & RKB, RT, GR, etc.)	14. Elev. Casinghead
10-25-00	11-13-00	11-29-00	3451' GL	

15. Total Depth	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools	Cable Tools
10904	10845			X	

19. Producing Interval(s), of this completion - Top, Bottom, Name: Morrow (10941-10716')

20. Was Directional Survey Made: No

21. Type Electric and Other Logs Run: Comp Z Densilog-Dual Induction

22. Was Well Cored: No

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
11-3/4"	42	399'	14-3/4"	355 sx Prem Plus	
8-5/8"	32	2509'	11"	800 sx Interfill "C"	
5-1/2"	20/17	10940	7-7/8"	1200 sx Prem/50/50 Poz TOC 2450	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8"	10394'	10390'

26. Perforation record (interval, size, and number)
10654-10666' (48 holes) 10578-10581' (12 holes)
10698-10700' (8 holes) 10588-10592' (16 holes)
10710-10716' (24 holes) 10491-10499' (32 holes)
10572-10574' (8 holes) 10528-10532' (16 holes)

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
10491-10716	Natural

28. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
11-29-00	Flowing	Prod

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
12-15-00	24	64/64		3	1152	7	384000

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)
520	0					

29. Disposition of Gas (Sold, used for fuel, vented, etc.): Sold

Test Witnessed By

30. List Attachments

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Mike Francis Printed Name Mike Francis Title Agent Date 12-28-00

ATTACHMENT VII

1. Proposed average of 500 bbls per day and maximum of1000 bbls per day of injected fluids. At a rate of one bbl per minuet.

2. System will be closed.

3. Average anticipated pressure of 500 psi and a maximum of 4000 psi.

4. Source of produced water is water from nearby fields, Typical are:

Benson Bone Spring

Water: 73,623 Na+K 7,200 Ca 288 Mg 127000 Cl 282 SO_4 137 CO_2 or HCO_3 Tr. Fe
Specific Gravity 1.150 Resistivity .05 ohms @ 75 °F

Winchester Morrow

Water: Na+K, 400 Ca, 631 Mg, 42,800 Cl, 3400 SO_4, 622 CO_2, or HCO_3, Tr Fe
Specific Gravity 1.050 Resistivity ohms @ °F

Avalon Penn

Water: Na+K, 1240 Ca, 172 Mg, 26,835 Cl, SO_4, 354 CO_2, or HCO_3, 73 Fe
Specific Gravity 1.03 Resistivity 0.173 ohms @ 69 °F

5. Canyon water analysis is inferred from a nearby field.

Water: 3440 Na+K, 500 Ca, 300 Mg, 4000 Cl, 1900 SO_4, 1120 CO_2, or HCO_3, Nil Fe
Specific Gravity 1.008 Resistivity 0.840 ohms @ 72 °F

701.E(2)

ATTACHMENT VIII

The proposed injection zone is carbonates of the Canyon formation. This carbonate is composed of dolomite. There is possible drinking water overlying the injection in the surface sands at a depth of 0-250'. There is no known source underlying the injection interval.

ATTACHMENT IX

Proposed stimulation:

Acidize perforations with 2500-5000 gal 15% HCl.

ATTACHMENT XI

There is one active fresh water wells within one mile, analysis attached.

BJ SERVICES

Water Analysis

Date: 11/23/2004

2401 Sivley, Artesia NM 88210
Phone (505) 746-3140 Fax (505) 746-2293

Analyzed For

Company	Well Name	County	State
Westall	SWSW Sec 13 19-27	Eddy	New Mexico

Sample Source ***Sample #*** 1

Formation **Fresh Water Well** ***Depth***

Specific Gravity	1.000	*SG @ 60 °F*	1.002
pH	7.63	*Sulfides*	Not Tested
Temperature (°F)	71	*Reducing Agents*	Not Tested

Cations

Sodium (Calc)	*in Mg/L*	5,278	*in PPM*	5,267
Calcium	*in Mg/L*	560	*in PPM*	559
Magnesium	*in Mg/L*	43	*in PPM*	43
Soluable Iron (FE2)	*in Mg/L*	0.0	*in PPM*	0

Anions

Chlorides	*in Mg/L*	8,000	*in PPM*	7,982
Sulfates	*in Mg/L*	1,600	*in PPM*	1,596
Bicarbonates	*in Mg/L*	68	*in PPM*	68
Total Hardness (as CaCO3)	*in Mg/L*	1,580	*in PPM*	1,577
Total Dissolved Solids (Calc)	*in Mg/L*	15,550	*in PPM*	15,515
Equivalent NaCl Concentration	*in Mg/L*	14,683	*in PPM*	14,650

Scaling Tendencies

Calcium Carbonate Index* **38,259

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

Calcium Sulfate (Gyp) Index* **896,000

Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable

****This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.***

Remarks FAX 677-2361

Report # 1684

ATTACHMENT XII

All available geologic and engineering data have been examined and there is no evidence of open faults or any other hydrologic connection between the disposal zone and any source of drinking water.

ATTACHMENT XIV

PROOF OF NOTICE

Leasehold operators within one-half mile of the well location are: Harvard Petroleum, Chi Energy, Capstone and EOG. Each of the operators were provided a copy of our application by certified mail. Proof of notice is enclosed. The surface owner is the State of New Mexico.

PROOF OF PUBLICATION

Proof of publication is from the Artesia Daily Press and is attached.

CERTIFIED MAIL

Harvard Petroleum
P.O. Box 936
Roswell, NM 88201

7004 0750 0002 5384 5307

Chi Energy
P.O. Box 1799
Midland, TX 79702

7004 0750 0002 5384 5314

Capstone
P.O. Box 11148
Midland, TX 79702

7004 0750 0002 5384 5321

EOG
P.O. Box 2267
Midland, TX 79702

7004 0750 0002 5384 5338

Oil Conservation Division
1301 W. Grand
Artesia, NM 88210

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

Affidavit of Publication

NO. 18681

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott being duly

sworn,says: That he is the **Publisher** of The

Artesia Daily Press, a daily newspaper of general

circulation, published in English at Artesia, said county

and county and state, and that the here to attached

Legal Notice

was published in a regular and entire issue of the said

Artesia Daily Press,a daily newspaper duly qualified

for that purpose within the meaning of Chapter 167 of

the 1937 Session Laws of the state of New Mexico for

1 consecutive weeks/days on the same

day as follows:

First Publication November 16 2004

Second Publication

Third Publication

Fourth Publication

Gary D. Scott

Subscribed and sworn to before me this

16th Day November 2004

Barbara Ann Bacon

Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2007

Copy of Publication:

Ray Westall-Operator, P.O. Box 4, Loco Hills, New Mexico 88255 Phone (505)677-2370, Contact party for Ray Westall-Operator is Randall Harris, is seeking administrative approval from the New Mexico Oil Conservation Division to utilize a well located 1980'FNL &660'FWL Section 24, Township 19 South, Range 27 East, Eddy County, New Mexico known as the State G Com #1 for water injection. Proposed injection is in the Canyon formation through perforations 8730-9220 feet. Expected maximum injection rate of 1000 bbls per day at 500 psi. Interested parties must file objection or requests for hearing with the Oil Conservation Division, 1220 So. St. Francis Drive, Santa Fe, NM 87505 within 15 days of the notice.

Published in the Artesia Daily Press, Artesia, N.M. November 16, 2004.

Legal 18681

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Sent To CHI ENERGY
Street, Apt. No.; or PO Box No. P.O. BOX 1799
City, State, ZIP+4 MIDLAND TX 79702

Westall Oil & Gas, Inc.

Independent Oil Producer
Post Office Box 4
Loco Hills, New Mexico 88255
PH. 505-677-2370 • FAX 505-677-2361

FAX COVER SHEET

FAX NO. : _____ DATE : 12/8/04

TO : OIL CONSERVATION DIVISION

ATTENTION : WILLIAM V JONES

SUBJECT : STATE "G" C-108

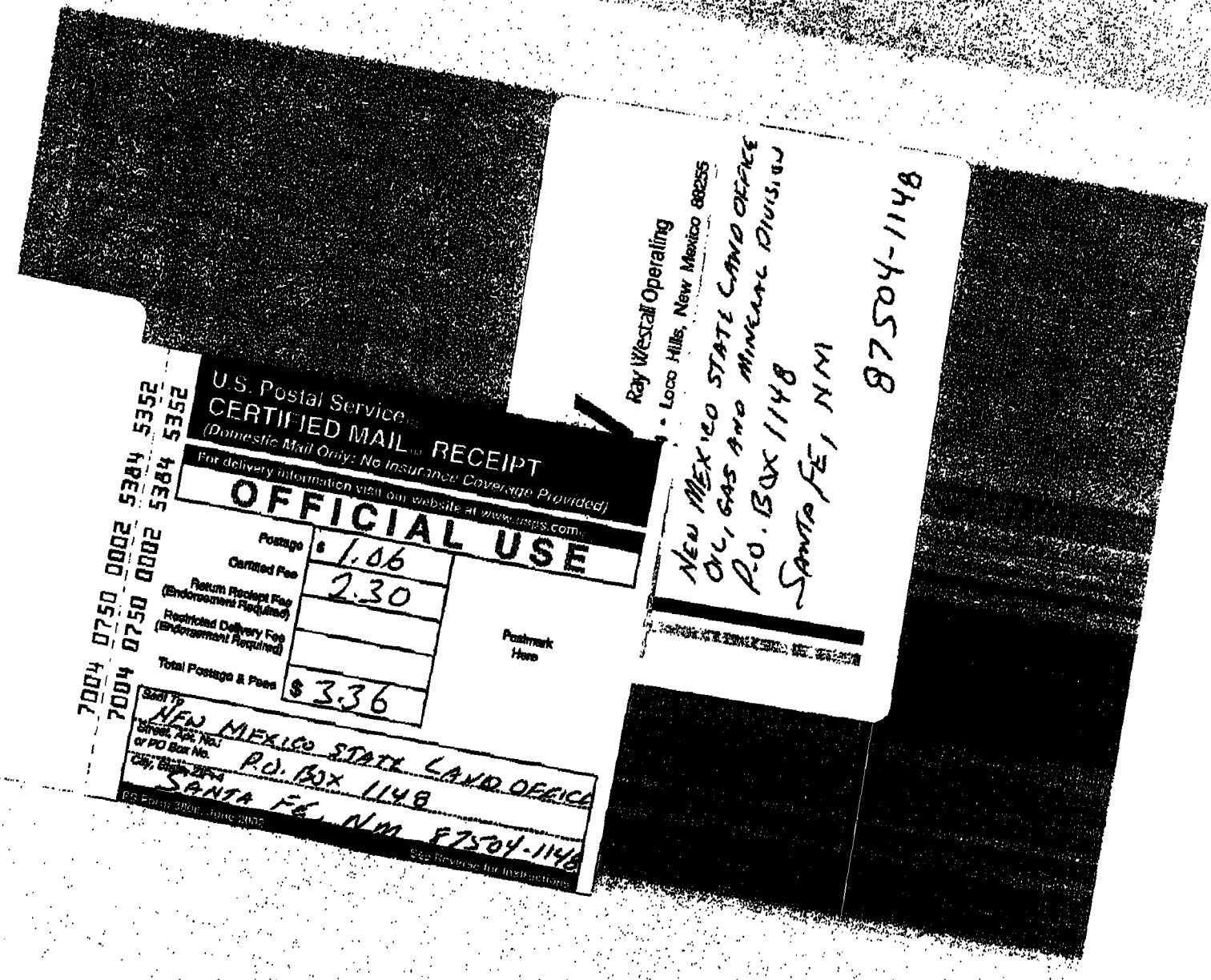
SENDER : RANDALL HARRIS

Number of Pages: Cover Sheet + _____ = _____ Pages

Please call (505) 677-2370 if you have problems receiving this document.

MESSAGE:

STATE LAND OFFICE
Copy of C-108
Thanks
Randall



Ray Westall Operating
Loco Hills, New Mexico 88255

NEW MEXICO STATE LAND OFFICE
OIL, GAS AND MINERAL DIVISION
P.O. BOX 1148
SANTA FE, NM
87504-1148

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PS Form 3800, June 2002 — See Reverse for Instructions

7004 0750 0002 5384 5352
7004 0750 0002 5384 5352

Jones, William V

From: Randall Harris [rharrisnm@netscape.net]
Sent: Thursday, December 09, 2004 8:52 AM
To: WVJones@state.nm.us
Subject: Re: State G Com #1 SWD proposal

Untitled
Attachment

Hello William Jones:
I will sent a copy to the state land office via certified mail
7004 0750 0002 5384 5352. I will fax a copy to your attention.

Thanks
Randall Harris
WVJones@state.nm.us wrote:

> Hello Randall:
> I briefly reviewed your application as just received today.
>
> Please send by fax or mail the evidence that you notified the State
> Land Office as the surface owner of your proposed SWD well.
> Our contact info is on our web site.
>
> Thanks,
>
> William V. Jones Engineering Bureau
> <http://www.emnrd.state.nm.us/ocd/Bureaus/Engineering/engineer.htm>
> Oil Conservation Division
> <http://www.emnrd.state.nm.us/ocd/> Santa Fe
> <http://www.emnrd.state.nm.us/ocd/general/SFdirectory.htm>
>
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30-015-22955

Ogrid- 18862

Property- 11711

Pool- 70310

Geol. Tops per ICBM

Yates 530	Penn 8630
7 Rivers 778	Strawn 9348
Bowers 1140	Atoka 10046
Queen 1310	Morrow LS 10408
Grayburg 1640	Morrow Cl 10518
San Andres 2246	
Bone Spring 2906	
3rd BS Sand 7868	
Wolfcamp 8235	

2609110

2609130

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12-19-79

Comp Mont
surf - 11,130
Dual Lat.
320 - 11,129

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NEW MEXICO OIL CONSERVATION COMMISSION

RECEIVED
SEP 25 1979
O. C. C.
ARTESIA, OFFICE

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: 648

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.)

1. OIL WELL [ ] GAS WELL [X] OTHER-

7. Unit Agreement Name:

2. Name of Operator: Southland Royalty Company ✓

8. Farm or Lease Name: State G Com.

3. Address of Operator: 1100 Wall Towers West, Midland, Texas 79701

9. Well No.: 1

4. Location of Well: UNIT LETTER E, 1980 FEET FROM THE north LINE AND 660 FEET FROM THE west LINE, SECTION 24 TOWNSHIP 19S RANGE 27E NMPM.

10. Field and Pool, or Wildcat: Undesignated (Angell Ranch Morrow)

15. Elevation (*Show whether DF, RT, GR, etc.*): 3462.6' GR

12. County: Eddy

16. 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 [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [X]	
OTHER [ ]		OTHER [ ]	

17. 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.

Drill 7 7/8" hole to TD of 11,136'. Ran Compensated Neutron-Formation Density w/Caliper log and Dual Induction w/RXO log.

Ran 5½" csg set to 10,862'. Cement w/125 sx 50-50 Posmix 2% gel plus 800 sx Class "H", 5# KCL/sx. Plug down @ 2:40 A.M. 9-19-79. Pres to 2000 psi to test casing. Release pressure, float hold OK Move out rotary. Will complete with completion unit. Temperature Survey t/cmt @ 7820'.

5½" csg in hole as follows:

Btm Hole	324'	5½"	17#	11.6#	S-95	LT&C
	2714'	5½"	17#	11.6#	N-80	LT&C
	4911'	5½"	17#	11.6#	K-55	ST&C
	2715	5½"	17#	11.6#	N-80	LT&C
Top Hole	198	5½"	17#	11.6#	N-80	Butt.
	10,862					

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

SIGNED C. Harvey Cass TITLE District Engineer DATE 9-24-79

APPROVED BY W. A. Gressett TITLE SUPERVISOR, DISTRICT II DATE SEP 27 1979

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Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: 648

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.)

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2. Name of Operator: Southland Royalty Company ✓

8. Farm or Lease Name: State G Com.

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9. Well No.: 1

4. Location of Well: UNIT LETTER E, 1980 FEET FROM THE north LINE AND 660 FEET FROM THE west LINE, SECTION 24 TOWNSHIP 19S RANGE 27E NMPM.

10. Field and Pool, or Wildcat: Undesignated (Morrow) (Angell Ranch)

15. Elevation (*Show whether DF, RT, GR, etc.*): 3462.6' GR

12. County: Eddy

16. 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 [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [XX]	
OTHER [ ]		OTHER [ ]	

17. 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.

Drill 7 7/8" hole to TD of 11,136'. Ran Compensated Neutron-Formation Density w/Caliper log and Dual Laterlog w/RXO log.
Ran 4½" csg set to 10,862'. Cement w/125 sx 50-50 Posmix 2% gel plus 800 sx. Class "H", 5# KCL/sx. Plug down @ 2:40 A.M. 9-19-79. Pres to 2000 psi to test casing. Release pressure, float hold OK. Move out rotary. Will complete with completion unit. Temperature Survey t/cmt @ 7820'. 4½" csg in hole as follows:

Btm Hole	324'	4½"	11.6#	S-95	LT&C
	2714'	4½"	11.6#	N-80	LT&C
	4911'	4½"	11.6#	K-55	ST&C
	2715'	4½"	11.6#	N-80	LT&C
Top Hole	198'	4½"	11.6#	N-80	Butt.
	10,862				

CORRECTED COPY

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

SIGNED C. Harvey Carr TITLE District Engineer DATE 12-19-79

APPROVED BY W. A. Gressett TITLE SUPERVISOR, DISTRICT II DATE JAN 23 1980

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: 648

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.)

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8. Farm or Lease Name: State G Comm.

3. Address of Operator: 1100 Wall Towers West, Midland, Texas 79701

9. Well No.: 1

4. Location of Well: UNIT LETTER E, 1980 FEET FROM THE North LINE AND 660 FEET FROM Und

10. Field and Pool, or Wildcat: Angell Ranch (Morrow)

THE West LINE, SECTION 24 TOWNSHIP 19-S RANGE 27-E NMPM.

15. Elevation (*Show whether DF, RT, GR, etc.*): 3462.6' GR

12. County: Eddy

16. 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 [ ]		COMMENCE DRILLING OPNS. [X]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [X]	
OTHER [ ]		OTHER [ ]	

17. 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.

Spud well by Hondo Drilling Company Rig #3 @ 6:00 PM 7-18-79. Drill 15" hole to 323'. Ran 11 3/4" 42# H-40 ST&C csg set @ 323'. Cement w/300 sx WDC 18 hrs. Install double 10" ser 900 BOP. Test BOP and casing @ 1000 psi for 30 min. hold OK. Drill ahead 11" hole.

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

SIGNED C. Harvey Cave TITLE District Engineer DATE 7-20-79

APPROVED BY W. A. Gressett TITLE SUPERVISOR, DISTRICT II DATE JUL 30 1979

CONDITIONS OF APPROVAL, IF ANY:

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NEW MEXICO OIL CONSERVATION COMMISSION

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ARTESIA, OFFICE

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: 648

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.)

OIL WELL [ ] GAS WELL [X] OTHER-

7. Unit Agreement Name:

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8. Farm or Lease Name: State "G" Comm.

2. Address of Operator: 1100 Wall Towers West Midland, Texas 79701

9. Well No.: 1

4. Location of Well: UNIT LETTER E, 1980 FEET FROM THE North LINE AND 660 FEET FROM THE West LINE, SECTION 24 TOWNSHIP 19S RANGE 27E NMPM.

10. Field and Pool, or Wildcat: Angell Ranch (Morrow)

15. Elevation *(Show whether DF, RT, GR, etc.)*: 3462.6' GR

12. County: Eddy

16. 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 [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [X]	
OTHER [ ]		OTHER [ ]	

17. 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.

Drill 11" hole to 2442'. Run Compensated Neutron-Formation Density w/Gamma Ray-Caliper and Dual Leterolog w/RXO.
Ran 8 5/8" 24# K-55 ST&C casing set @ 2442'. Cement w/600 sx Lite Cement w/6# salt and ¼" Flocel/sx plus 200 sx Class "C" cement w/2% Calcium Chloride and 6# salt/sx. Plug down @7:45 AM 7-26-79. Circ out 150 sx. WOC 18 hrs. Nipple w/double 10" Ser 900 BOP, 10" Ser 900 Hydril and Drlg. Head. Test BOP and csg to 1500 psi for 30 minutes, hold OK. Drill ahead 7 7/8" hole.

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

SIGNED C. Harney Carr TITLE District Engineer DATE 7-27-79

APPROVED BY W. A. Gressett TITLE SUPERVISOR, DISTRICT II DATE JUL 3 1 1979

CONDITIONS OF APPROVAL, IF ANY:

Petroleum Information.

COUNTY EDDY FIELD Angell Ranch STATE NM

OPR SOUTHLAND ROYALTY CO. API 30-015-22955

NO 1 LEASE State "G" Com. MAP

Sec 24, T19S, R27E COORD

1980' FNL, 660' FWL of Sec 2-3-9 NM

19 mi SW/Loco Hills SPD 7-18-79 CMP 12-5-79

CSG

11 3/4" at 323' w/300 sx
8 5/8" at 2442' w/800 sx
4 1/2" at 10,862' w/925 sx

WELL CLASS: INIT D FIN DG ELEV

FORMATION	DATUM	FORMATION	DATUM

TD 11,136' (MRRW) PBD 10,780'

IP (Atoka-Morrow) Perfs 10,373-730' CAOF 312 MCFGPD. GOR Dry; gty (Gas); .630; SIWHP 2692#; SIBHP 2705#

CONTR Hondo OPR ELEV 3463' GL PD 11,200' RT

F.R. 7-16-79
(Morrow)

7-31-79 Drlg 4480'
DST (Queen) 1434-95' open 1 hr 30 mins w/wk blow decr to no blow, rec 20' DM, 1 hr ISIP 53#, FP 53-53#, 2 hr FSIP 53#, HP 738-738#

8-7-79 Drlg 6745' lm & sh

8-14-79 Drlg 9174' lm & dolo

8-20-79 TD 9247'; SDR

8-29-79 Drlg 9633' lm

9-5-79 TD 9710'; lost circ

9-12-79 Drlg 10,530' lm & sh
DST (Atoka) 10,072-098', open 1 hr 30 mins w/good blow, GTS in 20 mins @ 227 MCFGPD thru 3/8" chk, rec 30' O&GCM (Sampler rec .020 CFG @ 275#), 1 hr ISIP 4655#, FP 86-129#, 2 hr FSIP 4612#, HP 5080-5122#, BHT 150 deg

9-19-79 TD 11,136'; SI/WOO

BAKER HUGHES

BAKER ATLAS

Dean R. Jackson
17015 Aldine Westfield
Houston, TX 77073

Mr. Randall Harris
Westall Operating
Loco Hills, NM

Mr. Harris,

I have spent some time addressing the question you asked of me, namely, from conventional well logs, determine the water salinity in your zone of interest. As you are aware, this endeavor has many difficulties due to the number of variables and their uncertainties.

The well is located in Township 19-S, Range 27-E. Eddy County, New Mexico.

In the cleanest zone with the best porosity and lowest resistivity, the logs indicate the following:

Porosity = 17 %
Resistivity = 24 ohm-meters

The relationship between these log parameters and the water content is described by the following equation:

$$Sw^n = aR_w / (\text{Porosity}^m * R_t)$$

Making the assumption that the zone of interest is 100 % water and that the variable a =1, and that m=n=2, the equation can be rearranged to read:

$$R_w = \text{Porosity}^2 * R_t$$

Using the log derived values for porosity and resistivity, an R_w of 0.69 is found.

The formation temperature is approximately 178 deg. F

The assumption initially made was that this is a 100% water zone containing no hydrocarbons. This is almost certainly an incorrect assumption. Water data collected from tests indicate that the R_w is in the range of 0.1ohm-meters to an extreme of 0.4 ohm-meters at formation temperature, which corresponds to a salinity of a low of 26,000 to a high of 74,000 ppm, NaCl.

If the calculation of S_w is made using an average of these values for R_w, then S_w calculates to be about 60%. The salinity for this value of R_w is about 10,000 ppm, NaCl.

The possible values for R_w appear to be between 26,000 and 74,000 ppm, NaCl, based on existing water data for the area. The calculation from log data yielding a salinity of 3,500 ppm NaCl based on the assumption of 100 % S_w does not appear to be valid and a salinity of 26,000 or more seems to be more reasonable. An average of these two values is 50,000 ppm NaCl.

Dean R. Jackson
Account Manager
713.625.6846 (O)
281.723.5514 (M)
281.259.4472 (H)

email: dean.jackson@bakeratlas.com

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn	9620	T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka	10021	T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss	10788	T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen	1248	T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg	1586	T. Montoya		T. Mancos		T. McCracken	
T. San Andres	2135	T. Simpson		T. Gallup		T. Ignacio Otzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Delaware Sand		T. Todilto		T.	
T. Drinkard		T. Bone Springs	2926	T. Entrada		T.	
T. Abo		T.		T. Wingate		T.	
T. Wolfcamp	8225	T.		T. Chinle		T.	
T. Penn		T.		T. Permain		T.	
T. Cisco (Bough C)		T.		T. Penn "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from.....to..... No. 3, from.....to.....

No. 2, from.....to..... No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....

No. 2, from.....to.....feet.....

No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology

Jones, William V

From: RharrisNM@netscape.net
Sent: Wednesday, January 26, 2005 10:24 AM
To: WVJones@state.nm.us
Subject: RE: Ray Westall's SWD Permit for the State G Com #1

Log water salinity.doc

W. Jones
Attached is a letter form Dean Jackson of Atlas Wireline attempting to calculate the NaCl from log caculations.

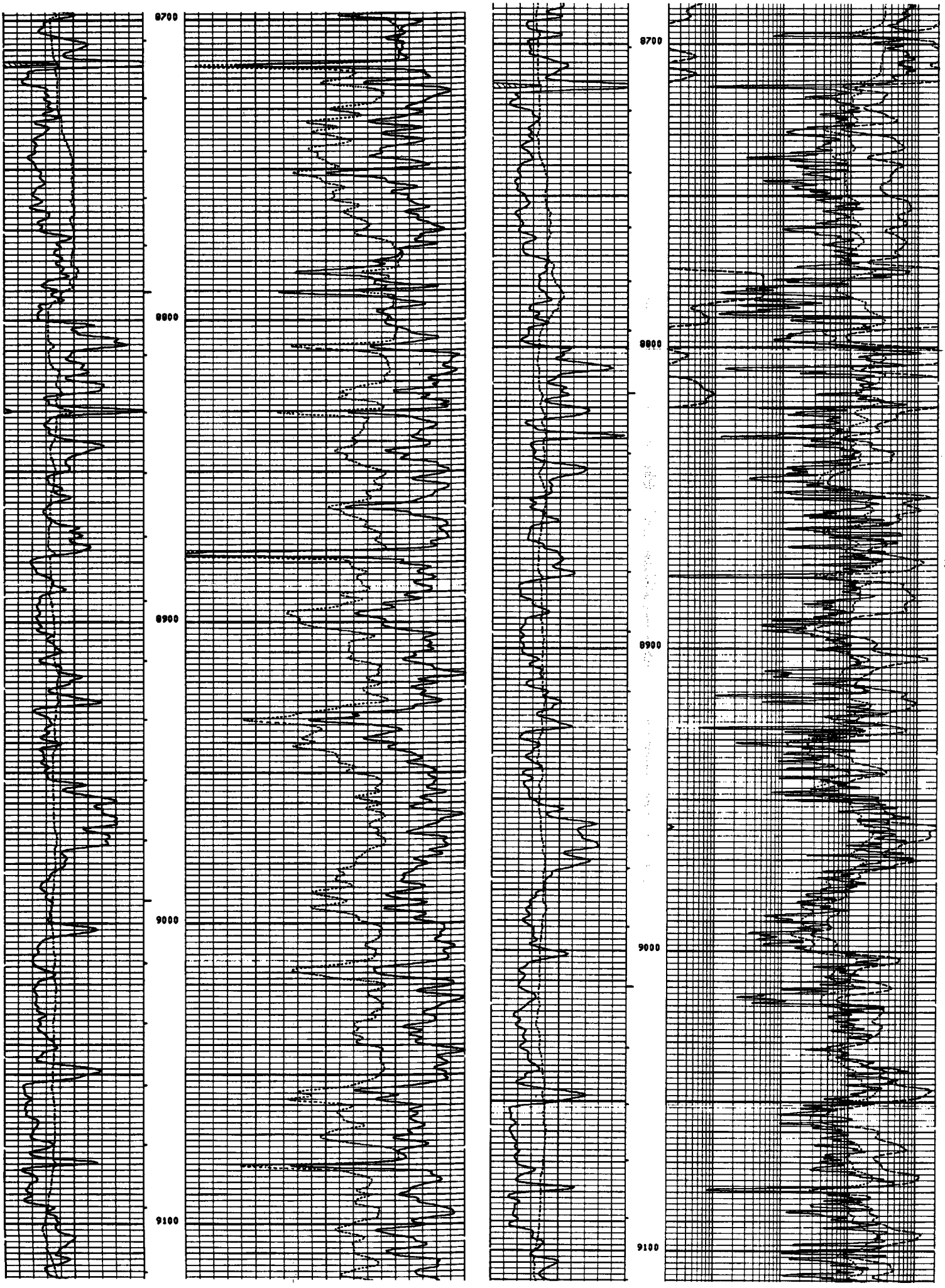
Randall

"Jones, William V" <WVJones@state.nm.us> wrote:

>Randall:
>Wow, that is high. I will look at the Marbob file.
>Would you still look at that log interval that has a lot of separation in
>the deep and shallow Res. readings and see what the log books say?
>
>-----Original Message-----
>From: Randall Harris [mailto:rharrisnm@netscape.net]
>Sent: Thursday, January 06, 2005 1:36 PM
>To: WVJones@state.nm.us
>Subject: Re: Ray Westall's SWD Permit for the State G Com #1
>
>
>W Jones:
>The TDS is a combination of Ca, Mg, Na + Cl, SO4 and SO2
>TDS = 38,731 ppm Going to the chart books we would use .70 as the Ca
>multiplier and .38 as the Sulfate multiplier, the equivalent NaCl
>concentration is found as approximately 35,120 ppm.
>
>Randall
>
>WVJones@state.nm.us <mailto:WVJones@state.nm.us> wrote:
>
>Randall:
>I can print this email and place it into the file for this application.
>However, I am rusty on water analysis, tell me what the TDS is of this
>Marbob's Canyon water analysis..
>
>Thanks,
>Will
>
>-----Original Message-----
>From: Randall Harris [mailto:rharrisnm@netscape.net
><mailto:rharrisnm@netscape.net>]
>Sent: Thursday, January 06, 2005 11:21 AM
>To: WVJones@state.nm.us <mailto:WVJones@state.nm.us>
>Subject: Re: Ray Westall's SWD Permit for the State G Com #1
>
>
>W. Jones:
>I Will look at the log 's . But more info has just come to my attention
>Marbob Energy State HU 30-015-22146 SWD 841, approx 2 miles to the
>northeast of our proposal in Sec. 7 T-19S, R28E is injecting in the same
>interval. Their applicaton has a water analysis in the Canyon by
>Hallburton showing ph 7.5, calcium 3,643, Magnesium 1,588,
>chlorides 32,000, sulfates 1,500, bicarbonates 854. Could I amend our

>application to refect this info?
>
>Thank you ,
>Randall
>
>WVJones@state.nm.us <mailto:WVJones@state.nm.us> wrote:
>
>Randall:
>
>will you first look at the resistivity log and send an opinion about the
>
>"equivalent" NACL TDS of this proposed injection interval. For example, I
>
>have looked at the log and see a permeable interval with 80 to 100
>
>ohm-meters of deep resistivity - what does your log book say about the TDS
>
>of this interval at those resistivities?
>
>
>
>This is an EPA program and the US EPA in the Safe Drinking Water Act says
>
>protectible waters have less than 10,000 total dissolved solids. If you are
>
>pulling water from this zone and putting the same or better waters back into
>
>the zone, there is no problem.
>
>
>
>Regards,
>
>
>
>Will Jones
>
>
>
>
>
>
>-----Original Message-----
>
>From: Randall Harris [mailto:rharrisnm@netscape.net
><mailto:rharrisnm@netscape.net>]
>
>Sent: Tuesday, January 04, 2005 3:26 PM
>
>To: WVJones@state.nm.us <mailto:WVJones@state.nm.us>
>
>Subject: Re: Ray Westall's SWD Permit for the State G Com #1
>
>
>
>
>
>
>Mr. Jones:
>
>After reviewing all sources I do not believe any water west to the Pecos
>
>river in the Cisco-Canyon formation is fresher than 10,000 ppm Cl, so
>
>if you would agree , we will perforate the Canyon in this well swab
>
>for a water sample and have it tested. If it falls below 10,000 ppm I
>
>will place on the Docket, if it is above I will file an amendend C-108.

>
>
>
>Respectfully submitted
>
>Randall L. Harris
>
>Geologist
>
>
>
>WVJones@state.nm.us <mailto:WVJones@state.nm.us> wrote:
>
>
>
>
>
>Hello Randall:
>
>According to our Rule 701.E(2), you will have to place this on a
>
>Division hearing dockette for consideration. It cannot be done
>
>administratively.
>
>You are applying to inject, for SWD purposes, highly saline waters
>
>into the Canyon in Eddy County, and the Canyon is likely less than
>
>10,000 tds.
>
>
>
>Please contact your attorney and supply Florene Davidson in this
>
>office with an application and ad to place on the dockette.
>
>
>
>If, after reading this administrative application, my conclusions are
>
>incorrect, please send a letter of explanation.
>
>
>
>Regards,
>
>
>
>William V. Jones   Engineering Bureau
>
> <http://www.emnrd.state.nm.us/ocd/Bureaus/Engineering/engineer.htm>
><http://www.emnrd.state.nm.us/ocd/Bureaus/Engineering/engineer.htm>
>
>   Oil Conservation Division
>
> <http://www.emnrd.state.nm.us/ocd/> <http://www.emnrd.state.nm.us/ocd/>
>Santa Fe
>
> <http://www.emnrd.state.nm.us/ocd/general/SFdirectory.htm>
><http://www.emnrd.state.nm.us/ocd/general/SFdirectory.htm>
>
>
>
>Confidentiality Notice: This e-mail,including all attachments is for
>
>the sole use of the intended recipient(s) and may contain confidential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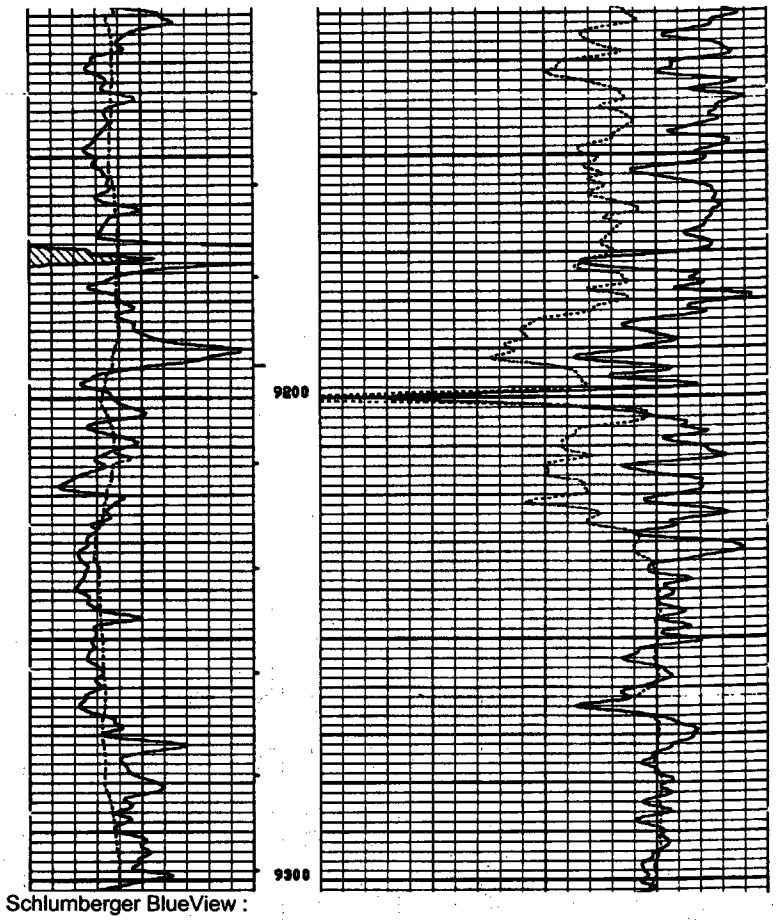
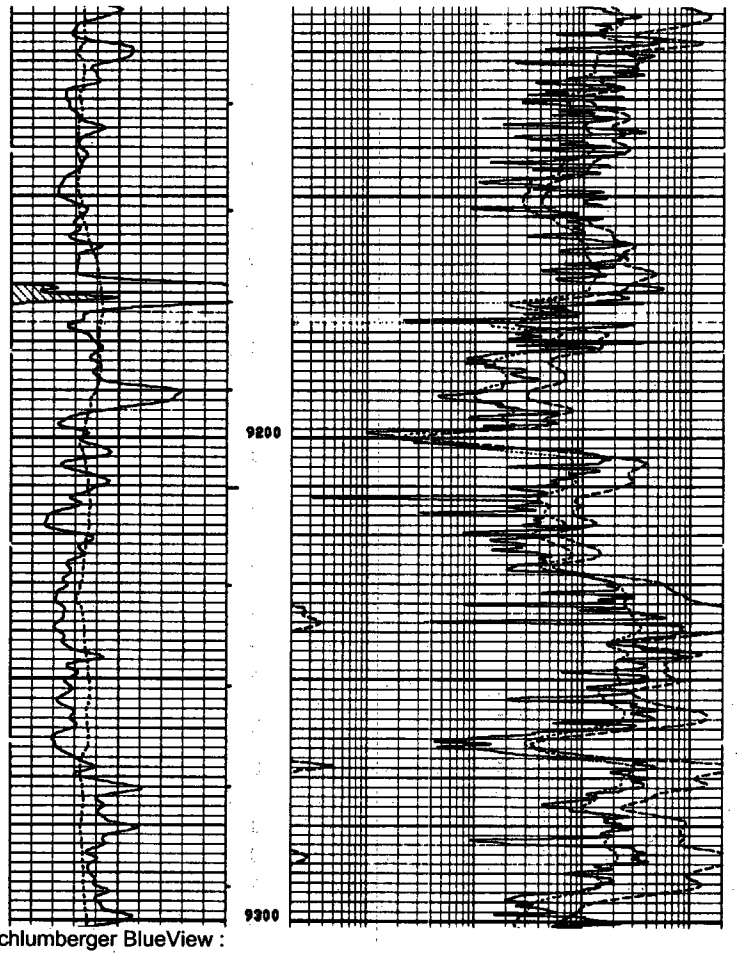


Schlumberger BlueView :



Schlumberger BlueView :