

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



2013 JUN 24 P 3:32

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 *30-025-29000*
 NSL NSP SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement *EOG Resource*
 DHC CTB PLC PC OLS OLM *Diamond 31 Fed Com #1*

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

[D] Other: Specify _____

[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.

Stan Wagner		Regulatory Analyst	6/20/13
Print or Type Name	Signature	Title	Date

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No

II. OPERATOR: EOG Resources, Inc.

ADDRESS: P.O. Box 2267 Midland, TX 79702

CONTACT PARTY: Stan Wagner PHONE: 432-686-3689

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 _____ 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).

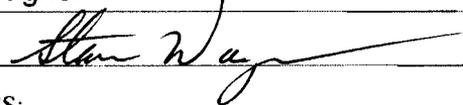
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: Stan Wagner TITLE: Regulatory Analyst

SIGNATURE:  DATE: 6/20/2013

E-MAIL ADDRESS: _____

* 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: Item X: type log previously submitted for SWD Order-1359

INJECTION WELL DATA SHEET

OPERATOR: EOG Resources, Inc.

WELL NAME & NUMBER: Diamond 31 Fed 1

WELL LOCATION: 1980' FSL & 1980' FWL
FOOTAGE LOCATION

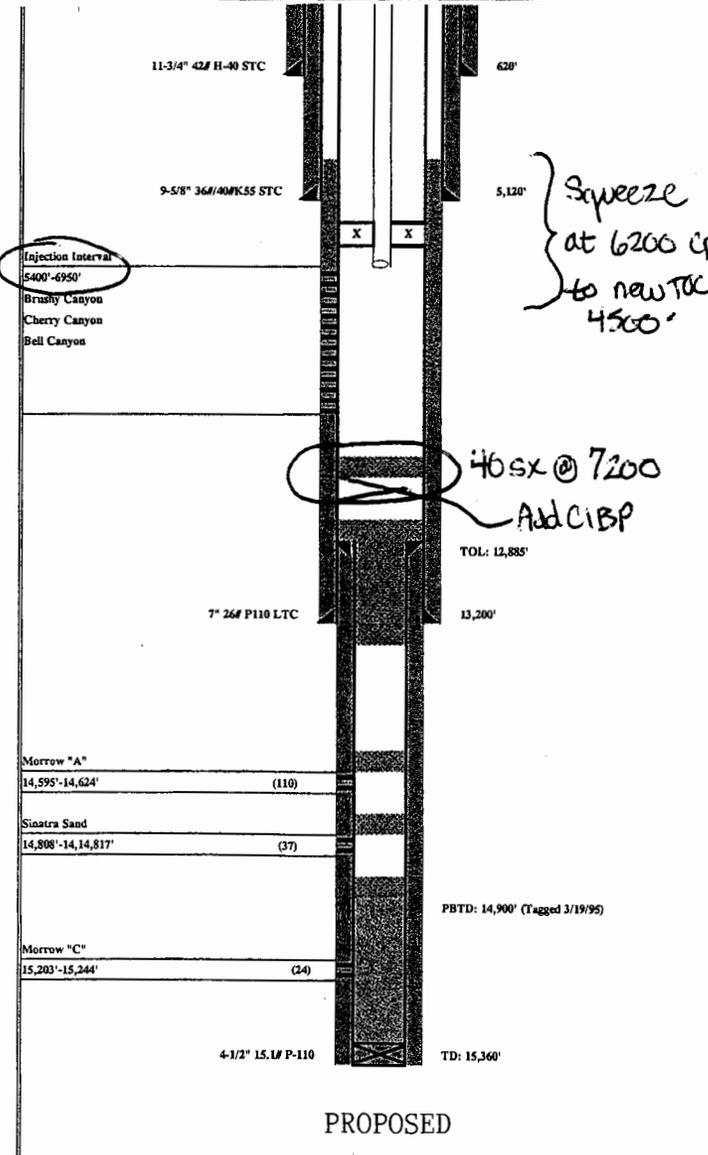
K
UNIT LETTER

31
SECTION

24S
TOWNSHIP

34E
RANGE

WELLBORE SCHEMATIC



Squeeze
at 6200 (per fs)
to new TOC at
4500'

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"
Cemented with: 515 SX. or _____ ft³
Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 9-5/8"
Cemented with: 2475 SX. or _____ ft³
Top of Cement: Surface Method Determined: Circulation

Production Casing

Hole Size: 8-3/4" Casing Size: 7"
Cemented with: 1200 SX. or _____ ft³
Top of Cement: ~4500 * Method Determined: Calculation
Total Depth: 10500

Injection Interval

5400 feet to 7200 6950

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 3-1/2" Lining Material: Plastic Coated

Type of Packer: 7" Plastic Coated / Nickel Plated Injection Packer

Packer Setting Depth: +/- 5450'

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

Additional Data

1. Is this a new well drilled for injection? _____ Yes No
If no, for what purpose was the well originally drilled? Production

2. Name of the Injection Formation: Delaware

3. Name of Field or Pool (if applicable): SWD; Delaware

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. _____
Morrow 15203 - 15242' covered by fill. Plugback procedure enclosed.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

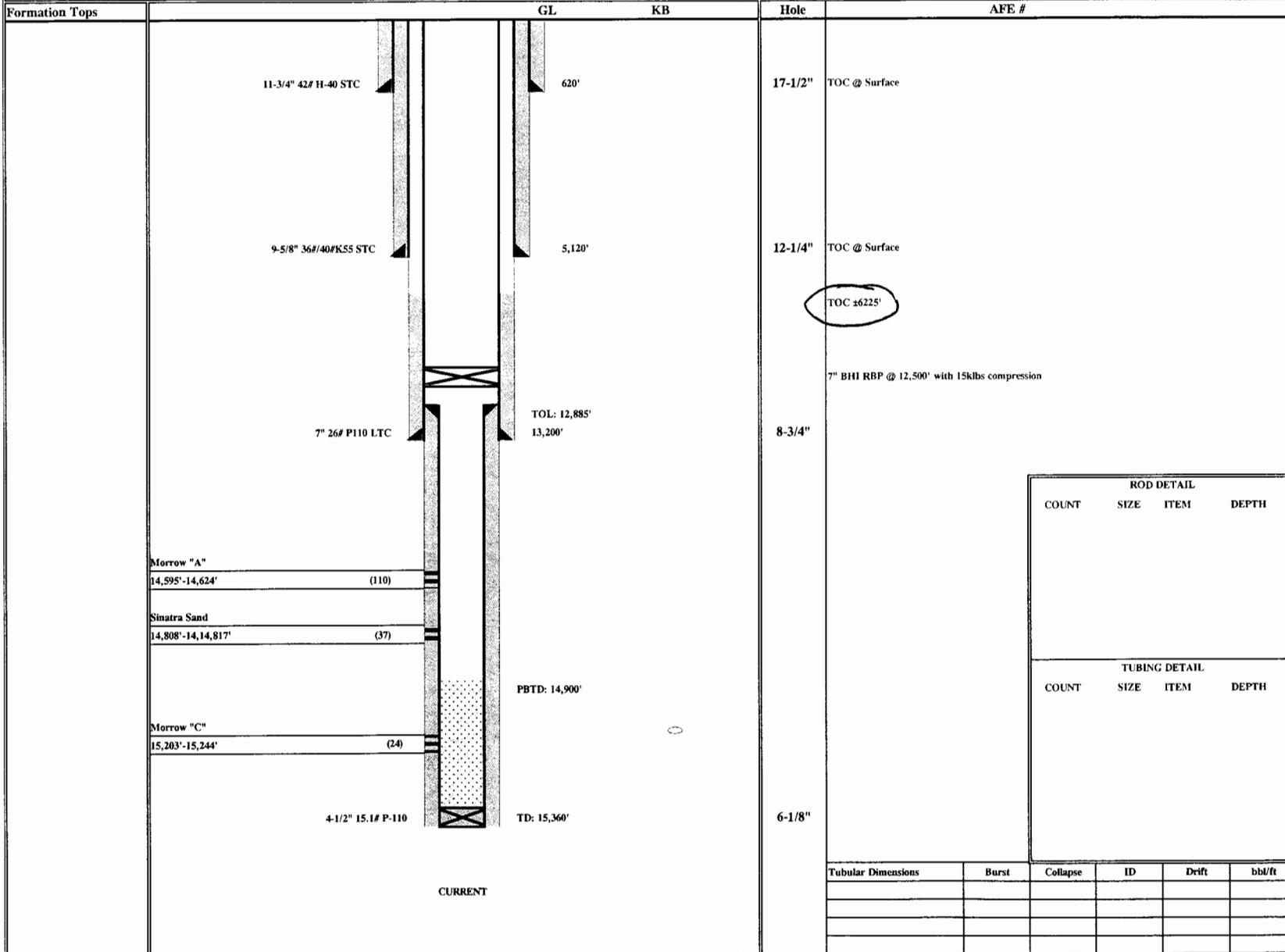
Leonard A Shale	9330'	9078
1st Bone Spring Sand	10290'	
Morrow	15150'	

DIAMOND 31 FED COM #1

API# 30-025-29000
 Sect 31, T24S, R34E
 1980' FSL & 1980' FWL
 Lea County, NM



DRILLING SPUD TD
 LAST REVISED 5/30/2013 SMB
 WI NRI



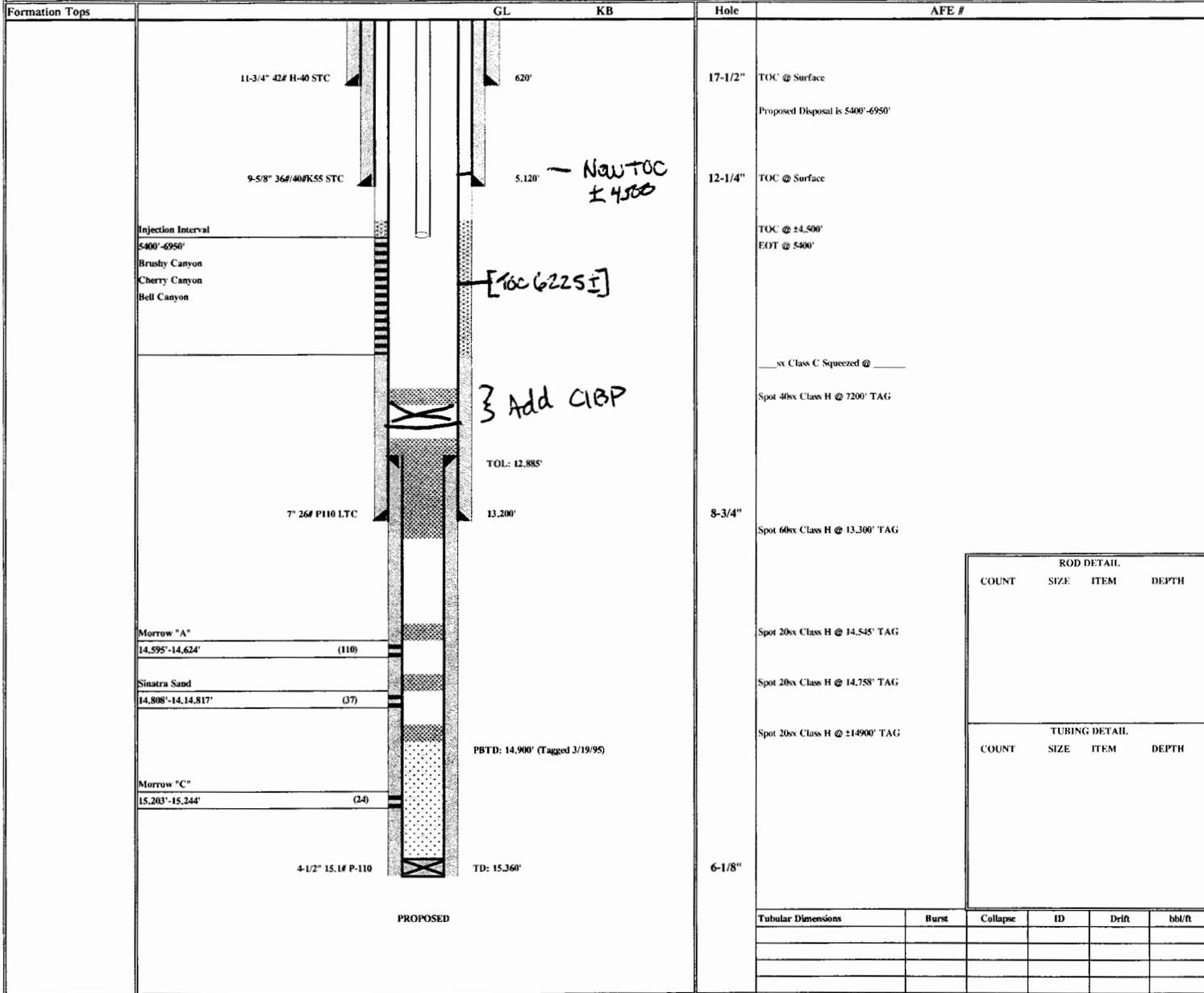
Tubular Dimensions	Burst	Collapse	ID	Drift	bb/ft

DIAMOND 31 FED COM #1

API# 30-025-29000
 Sect 31, T24S, R34E
 1980' FSL & 1980' FWL
 Lea County, NM



SPUD TD
 DRILLING 10/16/1984 12/9/1984
 LAST REVISED 5/30/2013 SMB
 WI NRI



APPLICATION FOR AUTHORIZATION TO INJECT
DIAMOND 31 FED NO. 1

VII. PROPOSED OPERATION

- (1) Proposed Average Daily Rate and Volume: 5200 BWIPD
Proposed Maximum Daily Rate and Volume: 10000 BWIPD
- (2) Open or Closed System: Closed
- (3) Proposed Average Injection Surface Pressure: 300 psi
Proposed Maximum Injection Surface Pressure: 2000 psi
Note: Original Delaware formation BHP 9500 psi.
- (4) Produced Bone Spring Formation Water (see attached analysis)
- (5) N/A

VIII. GEOLOGIC DATA ON INJECTION ZONE

Injection Zone: Delaware Sandstone Perfs 5400' – 7200'
Lithologic Detail: Fine grain sandstone
Geological Name: Delaware Mountain Group (Guadalupian)
Thickness: Delaware – 3730'
Depth: Top of Delaware at 3200'
Underground Sources of Drinking Water:
Fresh water sources in the immediate area have been encountered in aquifers above 250'. These aquifers are found in the Pliocene age Ogallala and Pleistocene age alluvial sediments and consist for the most part of alternating calcareous silt, fine sand and clay. There are no other sources of fresh water underlying the injection interval.

IX. PROPOSED STIMULATION

None at this time

X. LOGGING AND TESTING DATA ON INJECTION WELL

Logs have been previously submitted for this well.

XI. ~~CHEMICAL ANALYSIS OF~~ WATER FROM FRESH WATER WELLS
WITHIN ONE MILE OF THE INJECTION WELL

A review of the State Engineers records shows one freshwater well within one mile of the injection well.

XII. Available geologic and engineering data has been examined and no evidence has been found of open faults or any other hydrologic connection between the injection zone and any underground source of drinking water.

XIII. See attached "Proof of Notice"

Surface Owner:

United States Bureau of Land Management
620 E. Greene
Carlsbad, NM 88220

*Not
Correct*

Operators within a ½ mile radius of the proposed injector:

EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,

C=the file is (quarters are 1=NW 2=NE 3=SW 4=SE)

closed) (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-			Q Q Q			X	Y	Depth Well	Depth Water	Water Column	
	Code	basin	County	64	16	4						Sec
C 02373	C	LE		4	1	32	24S	34E	641979	3560916*	600	

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

Section(s): 32

Township: 24S

Range: 34E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

DIAMOND 31 FED COM #1 SUNDRY TO CONVERT TO SWD

API: 30-025-29000

SECT 31, T24S R34E

1980' FSL & 1980' FWL

1. Spot 20sx Class "H" cmt @ $\pm 14,900'$ TAG
2. Spot 20sx Class "H" cmt @ 14,758' TAG
3. Spot 20sx Class "H" cmt @ 14,545' TAG
4. Spot 60sx Class "H" cmt @ 13,300' TAG
5. Spot 40sx Class "H" cmt @ 7200' TAG
6. Perforate 7" casing @ 6200' and squeeze 150sx Class C
7. Perforate injection interval between 5400'-6950'
8. Run 2-7/8" tubing to $\pm 5400'$
9. Put well on injection



Diamond 31 Fed #1
 Section 31, T24S, R34E
 Lea County

1/2 mile Review
 Existing Wells

EOG Resources, Inc
 1/2 Mile Area of Review
 Application for Authorization to Inject Diamond 31 Fed 1

Operator	Lease/Well	Status	Location	Spud Date	TMD	Size	Surface Casing			Production Casing		Producing Perforations
							Depth	Cement	Size	Depth	Cement	
EOG Resources	Diamond 31 Fed Com 2H	Oil Producer	Sec 31, T24S, R34E	1/3/2013	16930'	13-3/8"	1263'	900 sx Class C	5-1/2"	16901'	350 sx C, 2175 sx H	9690 - 16829'
EOG Resources	Diamond 31 Fed Com 3H	Oil Producer	Sec 31, T24S, R34E	12/22/2012	16858'	13-3/8"	1263'	900 sx Class C	5-1/2"	16549'	350 sx C, 2150 sx H	9670 - 16461'
EOG Resources	Diamond 31 Fed Com 4H	Oil Producer	Sec 31, T24S, R34E	12/8/2012	16690'	13-3/8"	1260'	900 sx Class C	5-1/2"	16675'	350 sx C, 2175 sx H	9600 - 16566'
EOG Resources	Dillon 31 Fed 1	Oil Producer	Sec 31, T24S, R34E	3/29/1984	15275'	13-3/8"	600'	600 sx Class C	7"	13214'	1500 sx Class H	15087 - 15139'
EOG Resources	Dillon 31 Fed Com 2H ~	Proposed	Sec 31, T24S, R34E	Not Yet Drilled	16566'	11-3/4"	1255'	550 sx Class C	5-1/2"	16566'	150 sx C, 1700 sx H	~ 10000' to TD
EOG Resources	Dillon 31 Fed Com 3H ~	Proposed	Sec 31, T24S, R34E	Not Yet Drilled	16237'	11-3/4"	1255'	550 sx Class C	5-1/2"	16237'	150 sx C, 1700 sx H	~ 10000' to TD
EOG Resources	Dillon 31 Fed Com 4H ~	Proposed	Sec 31, T24S, R34E	Not Yet Drilled	16586'	11-3/4"	1245'	550 sx Class C	5-1/2"	16586'	150 sx C, 1700 sx H	~ 10000' to TD
EOG Resources	Diamond SM-36 State 1	Oil Producer	Sec 36, T24S, R33E	1/2/1985	15410'	13-3/8"	620'	515 sx Class C	7-5/8"	13272'	825 sx Class H	14674 - 14698'
									5-1/2"	12763 - 14970'	365 sx Class H	
									3-1/2"	14386 - 15410'	100 sx Class H	
Gulf Federal 1		P&A 8/24/74	Sec 31, T24S, R34E	7/30/1974	<u>5340'</u>	8-5/8"	302'	Unknown	None			Dry Hole

30-025-24824

CURRENT WELL SKETCH

DEPTH (ft)	MARKERS (KB)	LITHOLOGY	API: 30-025-40484 AFE: 104502 SPUD: 1/3/13 @ 10:00 hrs 2/3/13 @ 13:00 hrs FRR: 1/16/13 @ 00:00 hrs 2/16/13 @ 18:00 hrs RIG: Felderhoff 25/Cactus #123	Diamond 31 Fed Com #2H Red Hills(Bone Spring) Field Lea County, New Mexico	SURF: 50' FNL, 430' FWL LOC: Sec. 31 SURVEY: T-24-S, R-34-E GL: 3500.6' KB: 3530.6' ZERO:	HOLE SIZE	MW (ppg)	MUD	BHST (°F)	LOT (ppg)	EVALUATION
2,000'	Rustler - 1190' Top Salt - 1440'			20" Conductor @ 120'		17-1/2"	8.6	FW		N/A	
3,000'		Salt		Surface Casing @ 1,263' 13-3/8" 54.5# J-55 STC Cement w/ 600 sx Class C + 2.0% CaCl2 + 5.0% Salt + 0.25 pps Celloflake + 0.005% Static Free (13.5 ppg, 1.81 yld), followed by 300 sx Class C + 2.0% CaCl2 + 0.005% Static Free (14.8 ppg, 1.34 yld). Bump plug w/ 496 psi and circ 185 sx to surface		12-1/4"	9.0	Brine	86		
5,000'	Base Salt - 4990' Lamar - 5250' Bell Canyon - 5280'			TOC @ 4,650'		10.2				NA	
6,000'	Cherry Canyon - 6280'					8-3/4" to EOC	8.4			N/A	
7,000'				Intermediate Casing @ 5,145' 9-5/8", 40#, J-55, LT&C (0' - 4,000') 9-5/8", 40#, HCK-55, LT&C (4,000' - 5,140') Cement w/ 1100 sx Class C + 2.0% SMS + 10% Salt + 0.6% R-3 + 0.25 pps Celloflake (12.7 ppg, 2.21 yld), followed by 200 sx Class C + 0.6% FL-62 + 0.6% CD-32 + 2.0% SMS + 0.2% R-3 (14.8 ppg, 1.33 yld). Bump plug w/ 2088 psi and circ 157 sx to surface		8-1/2" from EOC end of lateral	9.3	WBM			
8,000'	Brushy Canyon - 7800'			KOP @ -8,952'							
9,000'	Top Leonard 9080' Bone Spring Lime - 9230'										
10,000'	Massive Carbonate 9600'			Production Casing @ 16,901' MD, 9,504' TVD 5-1/2" 17# HCP-110 LTC Cement w/ 350 sx 60:40:10 Class C + 15.0 pps BA-90 + 4.0% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 3.10% R-21 + 8 pps LCM-1 (10.8 ppg, 3.67 yld), followed by 400 sx 50:50:10 Class H + 8.0% FL-52 + 0.3% ASA-301 + 5.0% SMS + 2.0% Salt + 0.35% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake (11.8 ppg, 2.38 yld), followed by 1775 sx 50:50:2 Class H + 0.65% FL-52 + 0.50% CD-32 + 0.40% SMS + 2.0% Salt + 0.5% R-21 (14.2 ppg, 1.26 yld). Bump plug and overdisplace w/ 10 bbls							
11,000'										140	

Drlg Eng: S. Brannan
 Date: 2/19/2013

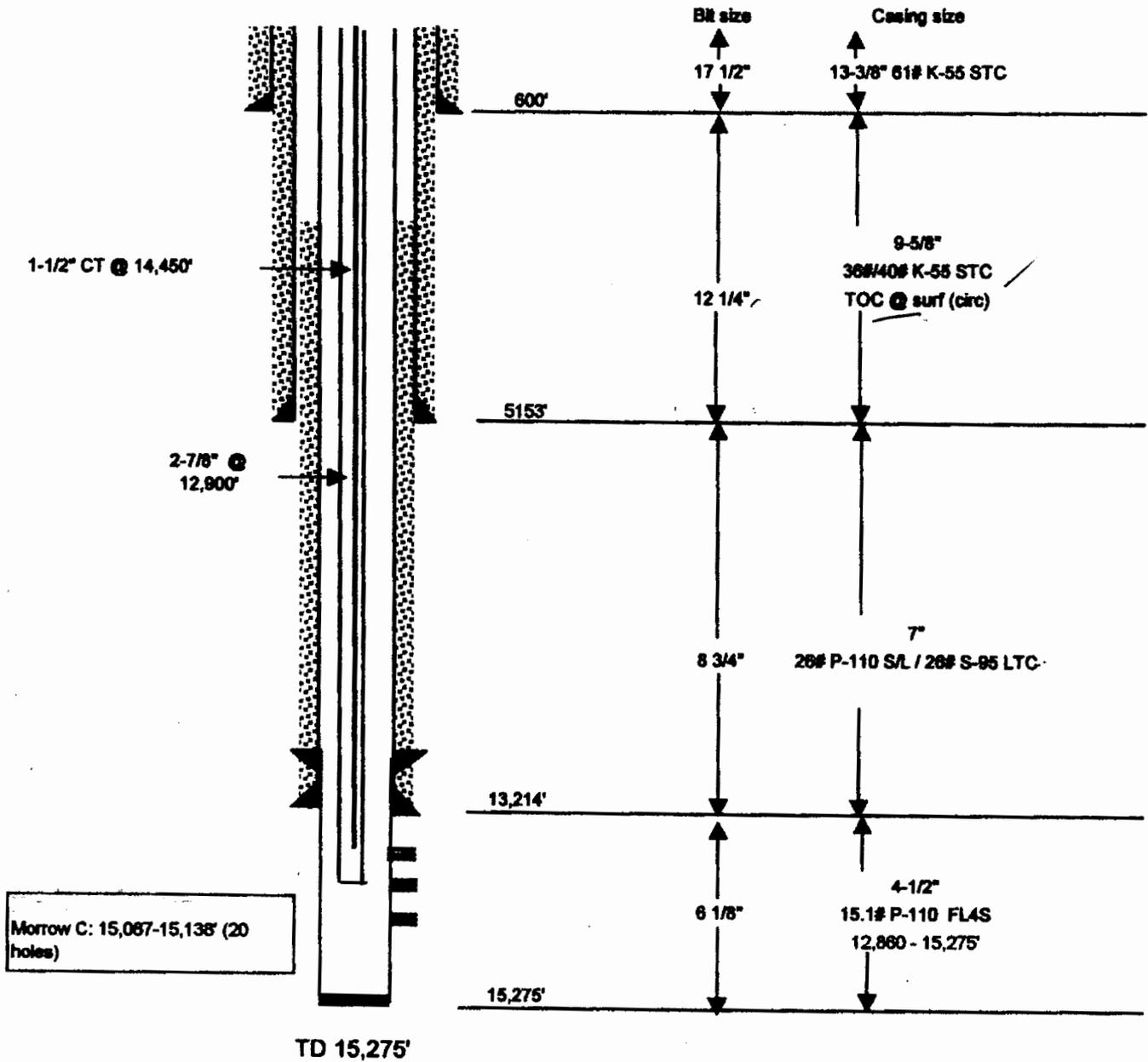
CURRENT WELL SKETCH

DEPTH (ft)	MARKERS (KB)	LITHOLOGY	API: 30-025-40486 AFE: 104933 SPUD: 12/8/12 @ 19:00 hrs 12/29/12 @ 22:30 hrs FRR: 12/21/12 @ 06:00 hrs 1/12/13 @ 08:00 hrs RIG: Felderhoff #25/Cactus #123	Diamond 31 Fed Com #4H Red Hills(Bone Spring) Field Lea County, New Mexico	SURF: 280' FSL, 2188' FWL LOC: Sec. 31 SURVEY: T-24-S, R-34-E GL: 3496.1' KB: 3526.1 ZERO:	HOLE SIZE	MW (ppg)	MUD	BHST (°F)	LOT (ppg)	EVALUATION
2,000'	Rustler - 1180' Top Salt - 1440'			20" Conductor @ 124'		17-1/2"	8.6	FW		N/A	
3,000'		Salt		Surface Casing @ 1,260' 13-3/8" 54.5# J-55 STC Cement w/ 600 sx Class C + 4.0% Bentonite + 2% CaCl2 + 0.25 pps Celloflake (13.5 ppg, 1.746 yld), followed by 300 sx Class C + 2.0% CaCl2 (14.8 ppg, 1.345 yld). Bump plug w/ 1082 psi and circ 202 sx to surface		12-1/4"	9.0	Brine	86		
5,000'	Base Salt - 4950' Lamar - 5250' Bell Canyon - 5280'			TOC @ 4,650'			10.0				
6,000'	Cherry Canyon - 6280'						10.2			NA	
7,000'				Intermediate Casing @ 5,124' 9-5/8", 40#, J-55, LT&C (0' - 4,000') 9-5/8", 40#, HCK-55, LT&C (4,000' - 5,100') Cement w/ 1200 sx Class C + 2.0% SMS + 10% Salt + 0.25 pps Celloflake (12.7 ppg, 2.22 yld), followed by 200 sx Class C + 60% FL-52 + 45% CD-32 + 20% SMS + 0.005 pps Static Free (14.8 ppg, 1.33 yld). Bump plug w/ 1830 psi and circ 478 sx to surface			8.4		117		
8,000'	Brushy Canyon - 7800'			KOP @ -8,972'		8-3/4" from ICP b				N/A	
9,000'	Top Leonard 9080' Bone Spring Lime - 9230'							WBH			
10,000'	Massive Carbonate 9600'			Landing Point at -9,500' TVD	Production Casing @ 16,675' MD, 9478' TVD 5-1/2" 17# HCP-110 LTC (MJ @ 8839) Cement w/ 350 sx 60:40:0 Class C + 15.0 pps BA-90 + 4.0% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 3.10% R-21 + 8.0 pps LCM-1 (10.8 ppg, 3.681 yld), followed by 400 sx 50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.5% SMS + 2.0% Salt + 0.05% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake (11.8 ppg, 2.38 yld), followed by 1775 sx 50:50:2 Class H + 0.65% FL-52 + 0.50% CD-32 + 0.40% SMS + 2.0% Salt + 0.15% R-3 (14.2 ppg, 1.281 yld). Bump plug w/ 2000 psi. Overdisplace w/ 4 bbls. Did not circ cement to surface	8-1/2 In Lateral	9.3				
11,000'									156		

Drig Eng: S. Brannan
Date: 1/14/2013



Dillion 31 Fed No. 1
2080' FSL & 660' FEL
Sec. 31-24S-34E
Lea County, New Mexico
API: 30-025-28643



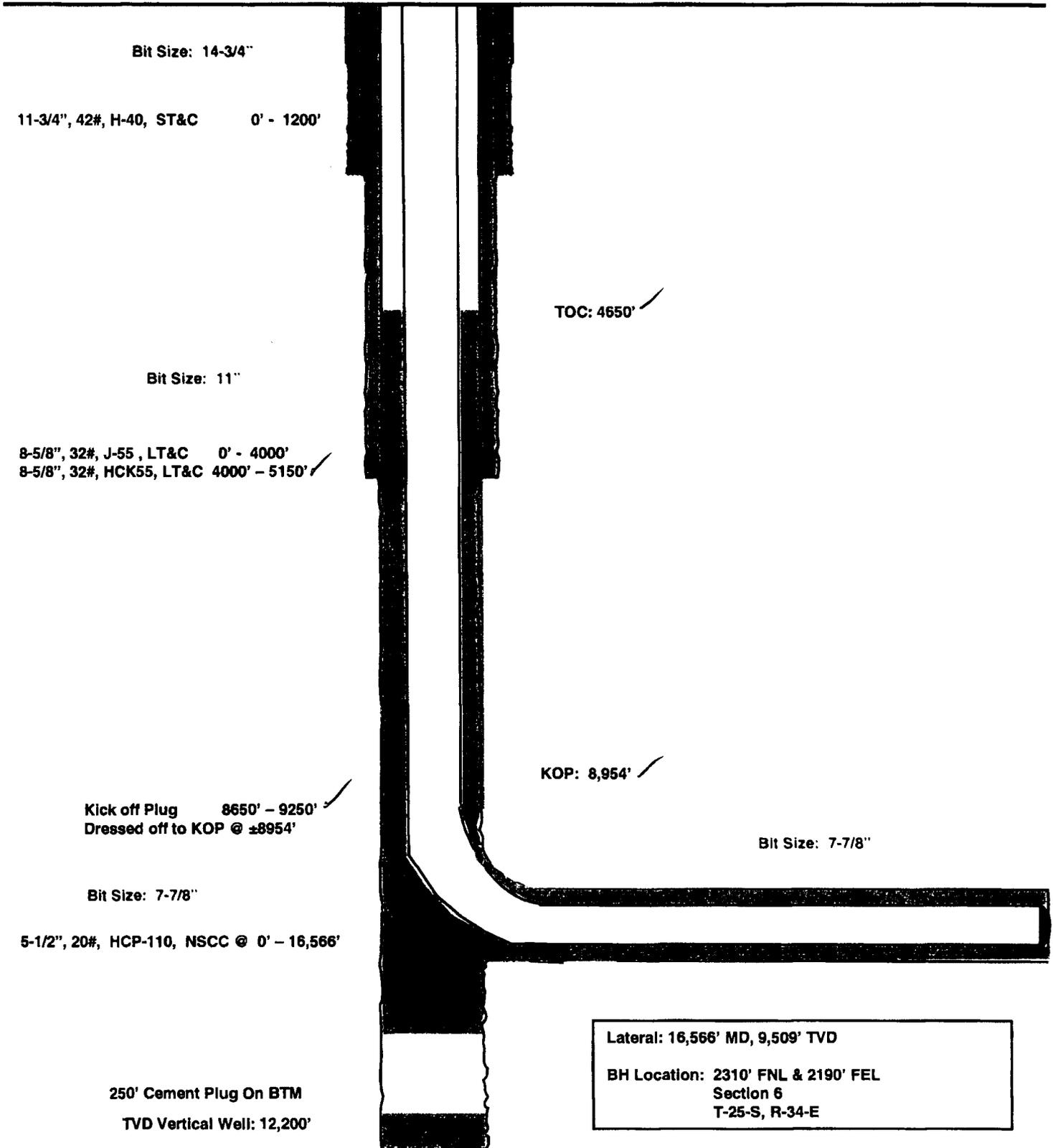
Dillon 31 Fed Com #2H
Pitchfork Ranch
Lea County, New Mexico

280' FNL
2370' FEL
Section 31
T-24-S, R-34-E

Proposed Wellbore

KB: 3,526.5'
GL: 3,496.5'

API: 30-025-



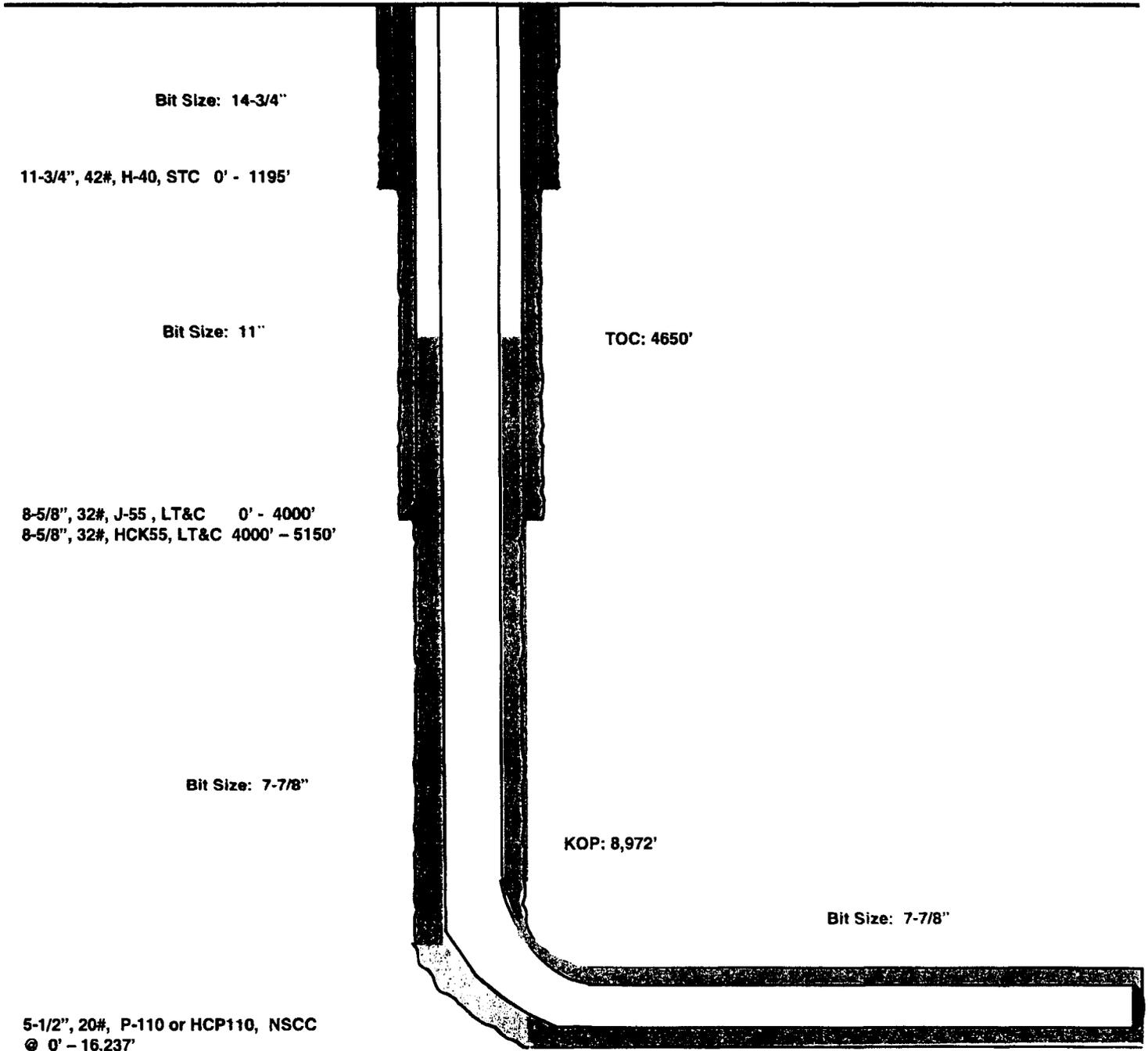
Dillon 31 Fed Com #3H
Pitchfork Ranch
Lea County, New Mexico

590' FNL
1310' FEL
Section 31
T-24-S, R-34-E

Proposed Wellbore

API: 30-025-

KB: 3,518.7'
GL: 3,488.7'



Lateral: 16,237' MD, 9,507' TVD
BH Location: 2310' FNL & 1310' FEL
Section 6
T-25-S, R-34-E

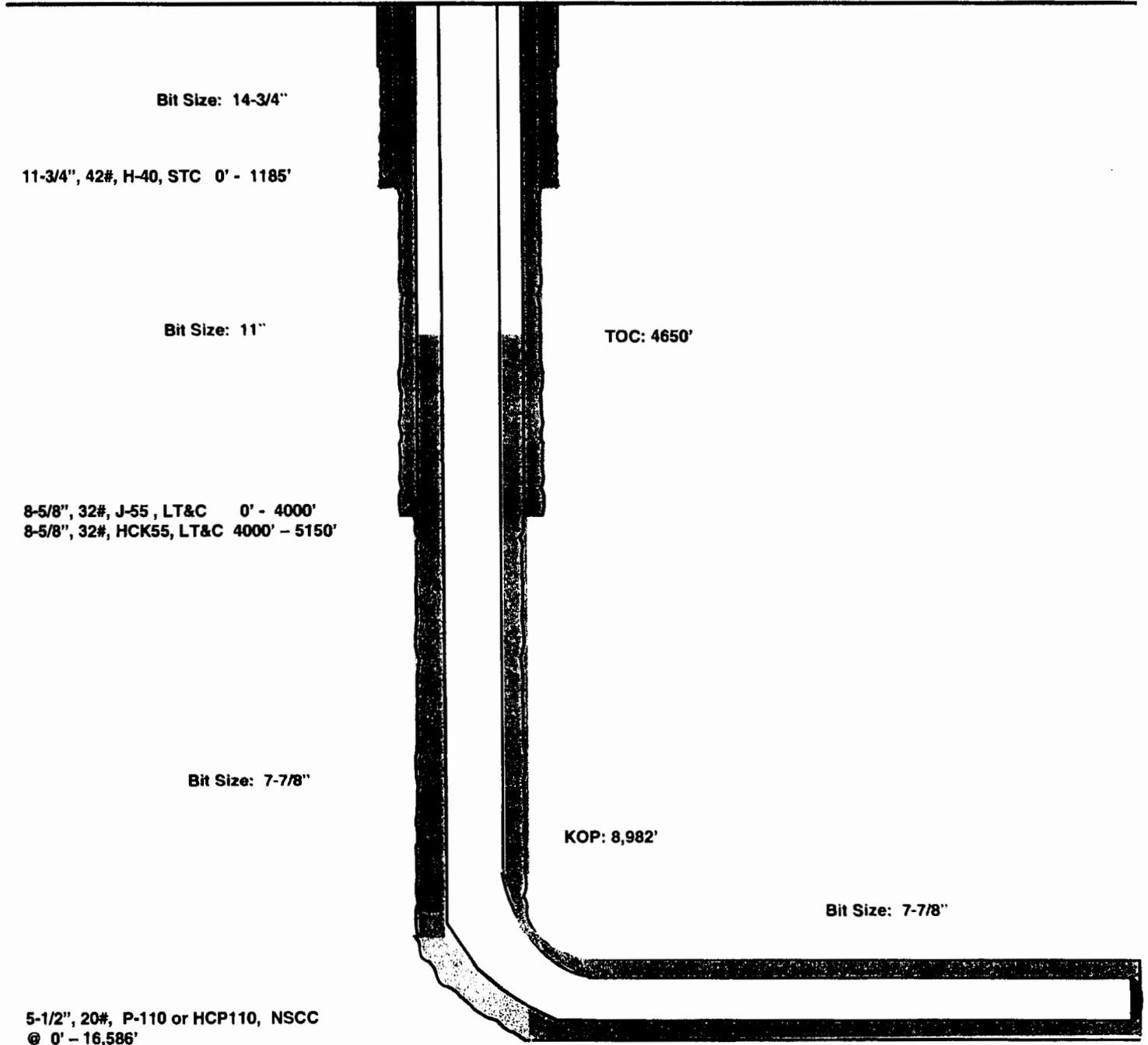
Dillon 31 Fed Com #4H
Pitchfork Ranch
Lea County, New Mexico

250' FNL
430' FEL
Section 31
T-24-S, R-34-E

Proposed Wellbore

KB: 3,513.9'
GL: 3,483.9'

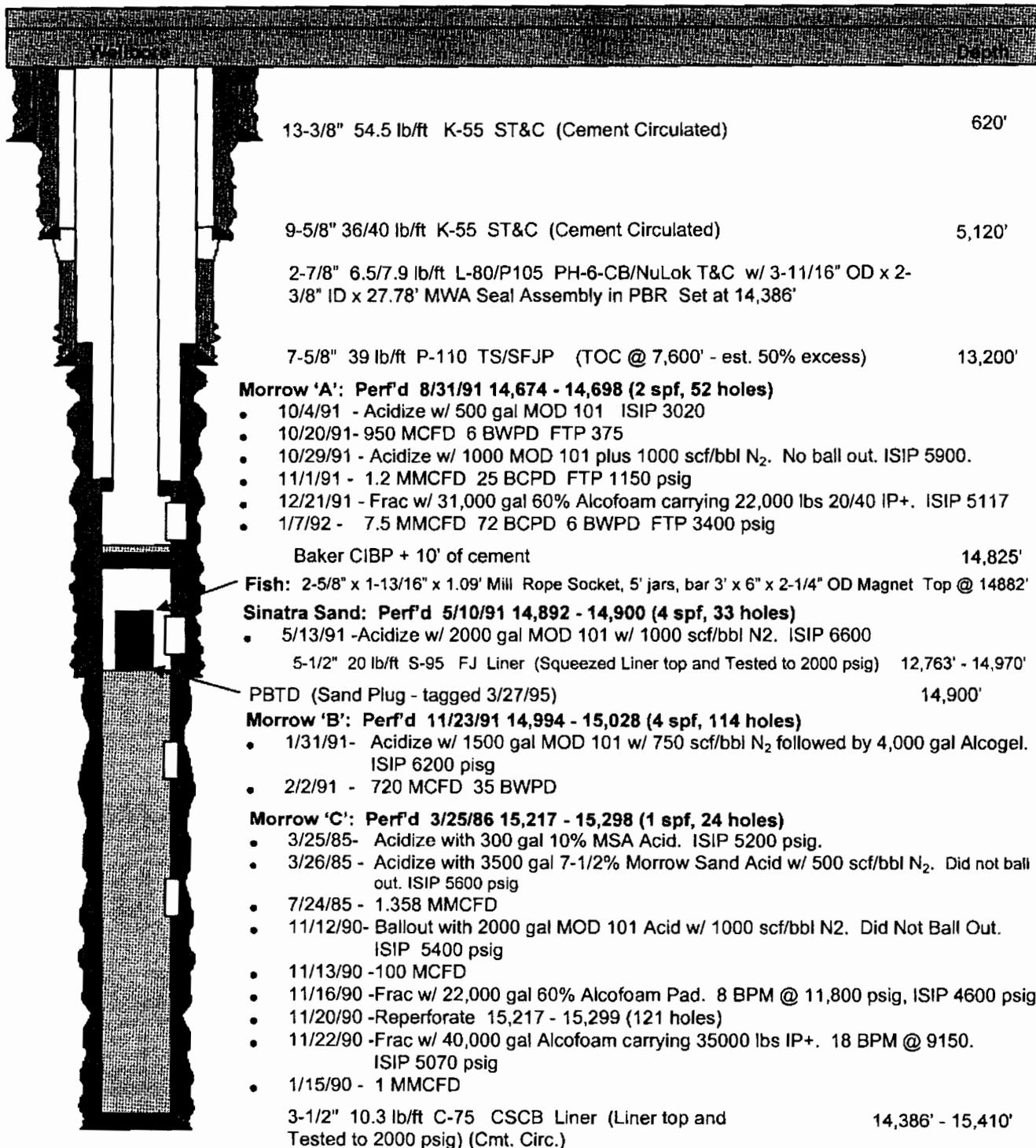
API: 30-025-



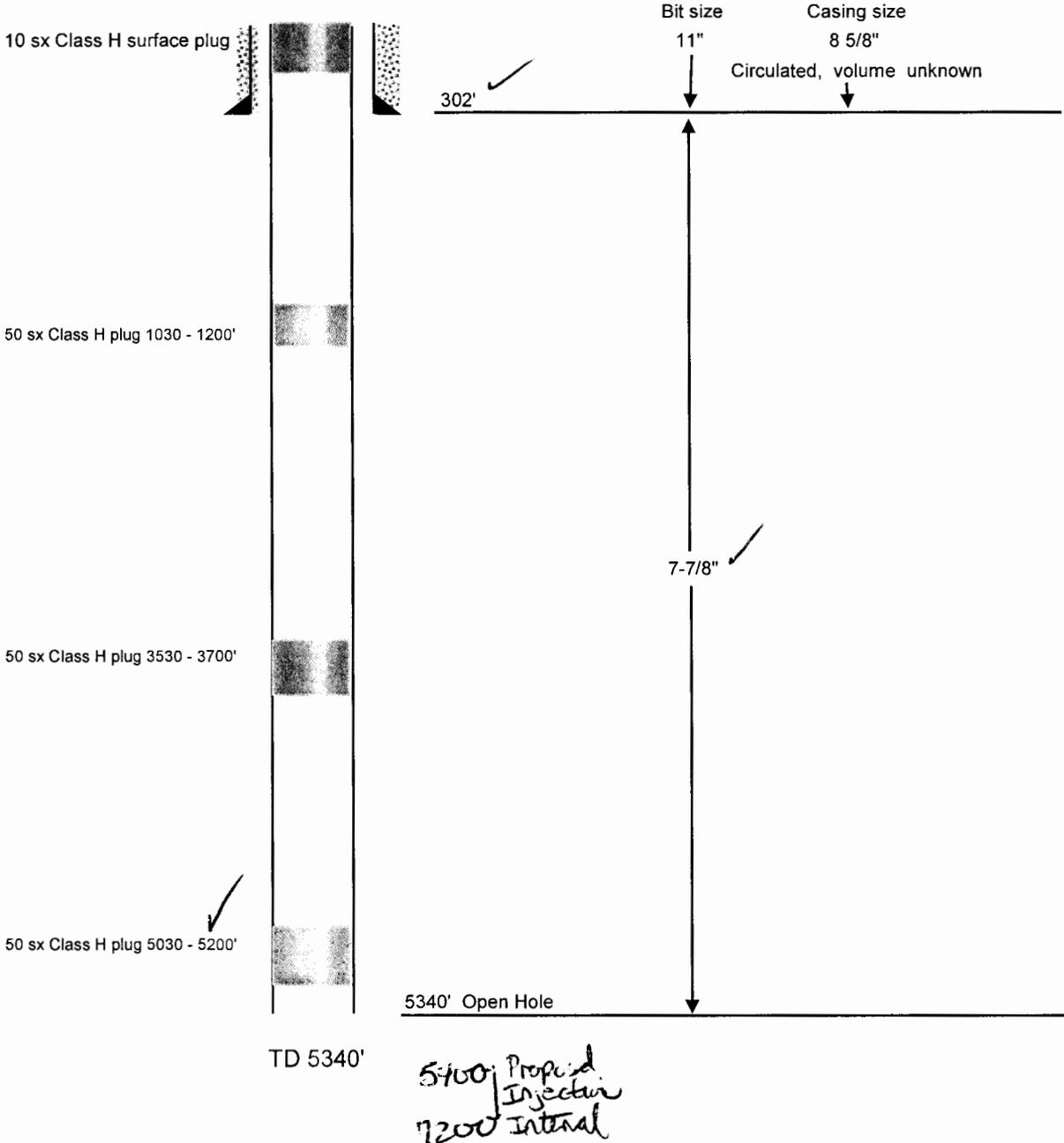
Lateral: 16,586' MD, 9,520' TVD

BH Location: 2310' FNL & 430' FEL
Section 6
T-25-S, R-34-E

WELL SCHEMATIC



Gulf Federal #1
660' FNL & 660' FWL
Sec. 31-24S-34E
Lea County, New Mexico
30-025-24824



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

SUBMIT IN DUPLICATE

(See oil
instructions on
reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO.

NM 0554513

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

30-025-24824

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Gulf Federal

9. WELL NO.

No. 1

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

31, T24S, R34E

12. COUNTY OR PARISH

Lea

13. STATE

New Mexico

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other P & A

2. NAME OF OPERATOR

Robert E. Landreth

3. ADDRESS OF OPERATOR

402 Ghls Towers East, Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 660' FNL & 630' FWL

At top prod. interval reported below

At total depth same

14. PERMIT NO. _____ DATE ISSUED _____

12. COUNTY OR PARISH

Lea

13. STATE

New Mexico

15. DATE SPUDDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, RSB, RT, GR, ETC.)* 19. ELEV. CASINGHEAD

07-30-74 08-24-74 3490.5' GL

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS

5340' 0 - TD

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 25. WAS DIRECTIONAL SURVEY MADE

DRY HOLE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN 27. WAS WELL CORED

BHC Sonic and Induction Electric

No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8"	24#	302' (GL)	11"	Circulated	none

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number) 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION:

DATE FIRST PRODUCTION _____ PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) _____ WELL STATUS (Producing or shut-in) Producing

DATE OF TEST _____ HOURS TESTED _____ CHOKE SIZE _____ PROD'N. FOR TEST PERIOD _____ OIL—BBL. _____ GAS—MCF. _____ WATER—BBL. _____ GAS-OIL RATIO _____

FLOW. TUBING PRESS. _____ CASING PRESSURE _____ CALCULATED 24-HOUR RATE _____ OIL—BBL. _____ GAS—MCF. _____ WATER—BBL. _____ OIL GRAVITY-API (CORR.) _____

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) _____ TEST WITNESSED BY _____

35. LIST OF ATTACHMENTS _____

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Robert E. Landreth TITLE Operator DATE 08-27-74

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in Item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Rustler	1150'	5240'	Anhydrite and salt
Lamar	5240'	5282'	Lime and shale
Delaware Sand	5282'	5340	Sand - water by log calculations
Total Depth	<u>5340'</u>		

38.

GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Lamar Lime	5240'	(-1740')
Delaware sand	5282'	(-1782')



RECEIVED AUG 27 1974

BYRON JACKSON INC.

CEMENTING AFFIDAVIT

I, Cene Leath, being of lawful age and having full knowledge of the facts herein below set out do state: I am employed by Byron Jackson Inc. On 8-24-19 74, BYRON JACKSON INC. performed the cementing operation herein described for Robert E. Landreth on their Well No. 1 on the Gulf Fed. lease located in Lea County, State of N.M.

CASING CEMENTING: Name or type of string was Plug. Information provided by the Customer Company states that the casing was _____ in. O.D. set in _____ inch hole, and that the casing depth set was _____ feet. For this job the following materials were used:

An estimated _____ sacks of excess cement was circulated out of the well.

CEMENT PLUG: Information provided by the Customer Company states that the hole size was 7-7/8 inches, and total depth was 5200 feet. For this job the following materials were used to place plugs as indicated:

Plug from <u>5200</u> ft. to <u>5030</u> ft.	with <u>50</u> sacks of <u>Class H Cement</u>
<u>3700</u>	<u>3530</u> <u>50</u> <u>"</u>
<u>1200</u>	<u>1030</u> <u>50</u> <u>"</u>
<u>Surface</u>	<u>10</u> <u>"</u>

SIGNED: BYRON JACKSON INC.
BY- Cene Leath
DATE: 8-24-74



Mobile Analytical Laboratories, Inc.

LABORATORIES IN ODESSA, GIDDINGS & STACY DAM

Billing Address: P.O. BOX 69210 • ODESSA, TEXAS 79769-0210

Shipping Address: 2800 WESTOVER STREET • ODESSA, TEXAS 79764

PHONE (432) 337-4744

FAX (432) 337-8781

MR. PAUL CORRALES

EOG RESOURCES

P.O. BOX 1331

JAL, NEW MEXICO 88252

SAMPLE SOURCE: VACA 24 FED COM 2-H SAMPLED 03/19/13

ANALYSIS COMPLETED: 03-26-2013

SAMPLE RECEIVED: 03-20-2013

LAB NUMBER: 15350

DISSOLVED SOLIDS:

CATIONS:	MEQ/L	mg/L
SODIUM (CALC.) (Na+)	1939.37	44606
CALCIUM (Ca++)	52.00	1040
MAGNESIUM (Mg++)	16.00	195

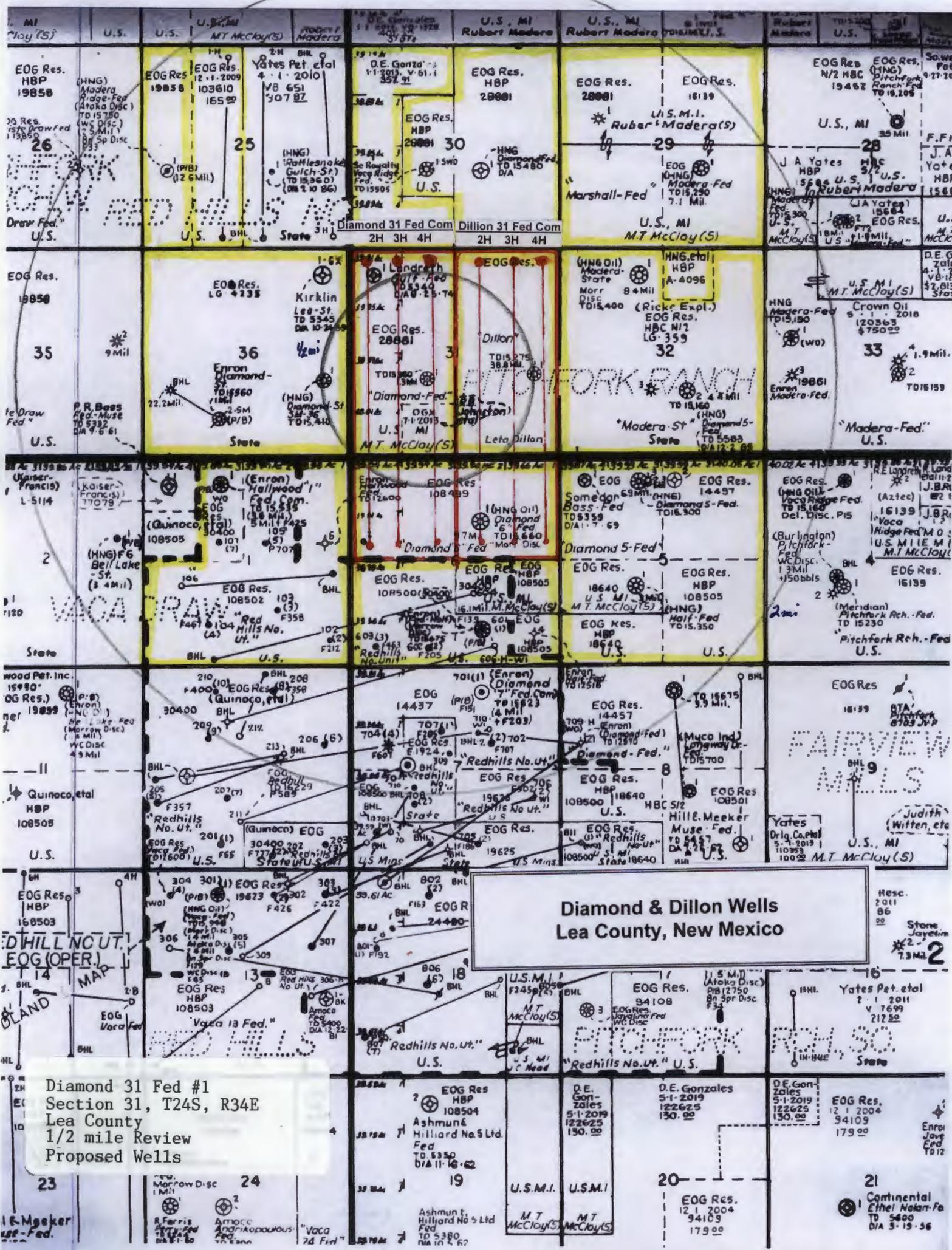
ANIONS:

CHLORIDE (Cl-)	1834.20	65114
SULFATE (SO4=)	76.15	3655
CARBONATE (CO3=)	0.00	0
BICARBONATE (HCO3-)	97.02	5918
HYDROXIDE (OH-)	0.00	0

TOTAL DISSOLVED SOLIDS: 120528

OTHER PROPERTIES:

pH	6.98	P-ALKALINITY (AS CaCO3)	0 mg/L
SPEC. GRAV.	1.07	M-ALKALINITY (AS CaCO3)	4851 mg/L
CONDUCTIVITY @ 77 °F	233000 μMHOS/CM	CALCIUM HARDNESS (AS CaCO3)	2600 mg/L
H2S	0 mg/L	MAGNESIUM HARDNESS (AS CaCO3)	800 mg/L
CO2	334 mg/L	TOTAL HARDNESS (AS CaCO3)	3400 mg/L
IRON	12.00 mg/L		



**Diamond & Dillon Wells
Lea County, New Mexico**

Diamond 31 Fed #1
Section 31, T24S, R34E
Lea County
1/2 mile Review
Proposed Wells

18-Meeker
Use-Fed.

23
Morrow Disc
1 Mil
24
Farris
Amoco
Andrikopoulos
Fed

2
EOG Res
HBP
108504
Ashmun &
Hilliard No. 5 Ltd.
Fed
TD 5380
DIA 11-16-02

19
U.S.M.I.
U.S.M.I.
M.T. McClloy(S)
M.T. McClloy(S)

20
EOG Res.
12-1-2004
94109
179.00

21
Continental
Ethel Nakan-Fa
TD 5400
DIA 3-15-56

Hesc.
2011
86
Stone
Jayetain
2
7.3 Mil



EOG Resources, Inc.
4000 North Big Spring, Suite 500
Midland, TX 79705
(915) 686-3600

June 12, 2013

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Bureau of Land Management
620 E. Greene
Carlsbad, NM 88220

Re: Application of EOG Resources, Inc. for administrative approval of
Diamond 31 Fed 1 – Lea County, New Mexico.
Application for a Water Disposal Injection well

Ladies and Gentlemen:

Enclosed please find a copy of the application of EOG Resources, Inc. (Oil Conservation Division Form C-108) in the above-referenced matter for approval of a Water Disposal Injection Well: the Diamond 31 Fed 1 is located 1980 feet from the South line and 1980 feet from the West line of Section 31, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico. EOG proposes to re-inject water produced from the Bone Spring formation into the Delaware Sand formation at a measured depth of 5400 feet to 7200 feet. This injection will occur with a maximum injection pressure of 2000 psi and a maximum injection rate of 10000 barrels of water per day as fully described in the application.

This application is provided to you as owner of the surface of the land upon which the subject well is located. If you object to this application your objection must be filed in writing with the Santa Fe Office of the Oil Conservation Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 within 15 days of the date of this letter. If there is no objection, the Division Director may approve this application.

Sincerely,

EOG RESOURCES, INC.

A handwritten signature in black ink that reads "Stan Wagner". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Stan Wagner
Regulatory Analyst

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:

**BLM
620 E. GREENE
CARLSBAD, NM 88220**

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- Agent
 Addressee

B. Received by (*Printed Name*)

LISA J Scott

C. Date of Delivery

6/14/13

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
(*Transfer from*)

7010 3090 0001 8453 4667

Affidavit of Publication

State of New Mexico,
County of Lea.

I, DANIEL RUSSELL
PUBLISHER

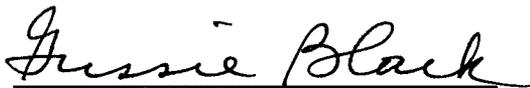
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Mexico, do solemnly swear that the
clipping attached hereto was
published in the regular and entire
issue of said newspaper, and not a
supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
May 31, 2013
and ending with the issue dated
May 31, 2013



PUBLISHER

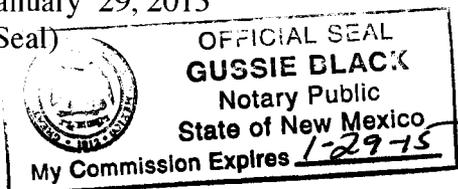
Sworn and subscribed to before me
this 31st day of
May, 2013



Notary Public

My commission expires
January 29, 2015

(Seal)



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advertisements within the meaning of
Section 3, Chapter 167, Laws of
1937 and payment of fees for said
publication has been made.

LEGAL

LEGAL

Legal Notice
May 31, 2013

EOG Resources, Inc., P.O. Box 2267, Midland, TX 79702,
will file form C-108 (Application for Authorization to Inject)
with the New Mexico Oil Conservation Division seeking
administrative approval for a water injection well.

The **Diamond 31 Fed No. 1** is located 1980' FSL & 1980
FWL, Section 31, Township 24 South, Range 34 East, Lea
County, New Mexico. Injection water will be sourced from
area wells producing from the Bone Spring formation. The
injection water will be injected into the Delaware formation
at a depth of 5400'-7200', a maximum surface pressure of
2000 psi, and a maximum rate of 10000 BWIPD.

All interested parties opposing the action 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. Additional information may
be obtained by contacting Stan Wagner at P.O. Box 2267,
Midland, TX 79702, or 432-686-3600.

#28179

01105308

00115609

STAN WAGNER
EOG RESOURCES, INC.
P.O. BOX 2267
MIDLAND, TX 79702



EOG Resources, Inc.
4000 North Big Spring, Suite 500
Midland, TX 79705
(915) 686-3600

August 21, 2013

Mr. Mark McCloy
P.O. Box 1076
Jal, New Mexico 88252

Re: Application of EOG Resources, Inc. for administrative approval of
Diamond 31 Fed No. 1, Lea County, New Mexico.
Application for a Saltwater Disposal Well

Mr. McCloy:

Enclosed please find a copy of the application of EOG Resources, Inc. (Oil Conservation Division Form C-108) in the above-referenced matter for approval of a Saltwater Disposal Injection Well: the Diamond 31 Fed No. 1 located 1980 feet from the South line and 1980 feet from the West line of Section 31 in Township 24 South, Range 34 East, NMPM, Lea County, New Mexico. EOG proposes to re-inject water produced from the Bone Spring formation into the Delaware Sand formation at a measured depth of 5955 feet to 7070 feet. The injection will occur with a maximum injection pressure of 1170 psi and a maximum injection rate of 10000 barrels of water per day as fully described in the application.

This application is provided to you as owner of the surface of the land upon which the subject well is located. If you object to this application your objection must be filed in writing with the Santa Fe Office of the Oil Conservation Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 within 15 days of the date of this letter. If there is no objection, the Division Director may approve this application.

Sincerely,

EOG RESOURCES, INC.

Stan Wagner
Regulatory Analyst

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Mark McCloy	
Street, Apt. No. or P.O. Box No. P.O. Box 1076	
City, State, ZIP+4 Jal, NM 88252	
PS Form 3800, August 2006	
See Reverse for Instructions	

004E 1557 0000 060T ET02

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DATE & TIME

LOCATION

FEATURES



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MIDLAND, TX 79711

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August 21, 2013, 9:02 pm

MIDLAND, TX 79711

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Goetze, Phillip, EMNRD

From: Stan_Wagner@eogresources.com
Sent: Wednesday, August 28, 2013 2:59 PM
To: Goetze, Phillip, EMNRD
Subject: Diamond 31 Fed 1 SWD application
Attachments: Diamond 31-1 SWD Surface Notification.pdf

Good afternoon Phillip,

The additional surface notification was delivered on 8/26/13, for our Diamond 31 Fed #1 SWD application.

Thanks,

Stan Wagner
EOG Resources - Midland Division
432-686-3689

(See attached file: Diamond 31-1 SWD Surface Notification.pdf)



C-108 Review Checklist: Received 06/24/13 Add. Request: 08/21/13 Reply Date: 08/28/13 Suspended: 08/21/13 [Ver 8]

Issued Permit: WFX / PMX / SWD Number: 1440 Permit Date: 09/16/13 Legacy Permits/Orders: —

Well No. 1 Well Name(s): Diamond 31 Federal Com.

API: 30-0 25-29000 Spud Date: 10/15/84 New or Old: N (UIC Class II Primacy 03/07/1982)

Footages 1980 FSL/1980 FWL Lot - Unit K Sec 31 Tsp 24S Rge 34E County Lea

General Location: Pitchfork Ranch/15 mi NW of Jal Pool: Former Morrow - Pitchfork Ranch
SWD: Delaware Mbr Pool No.: —

Operator: EOG Resources OGRID: 7397 Contact: Stan Wagner

COMPLIANCE RULE 5.9: Inactive Wells: 5 Total Wells: 482 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? OK

Well File Reviewed Current Status: Former Morrow producer; 5yr Com Prod: 597030/298,427 Mcf / 75i BW
Temp P&A - Morrow interval now covered with fill - 6/2013 to 6/2012

Well Diagrams: Proposed New Before Conversion After Conversion Are Elogs in Imaging?: Yes 29 Mcf

Planned Rehab Work to Well: Plug lower intervals (5 int plugs); squeeze cmt around 7" casing
to bring TOC up to 4500 ±; Perf Delaware Interval

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement 'Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Cond	—	—	—	—
Planned ___ or Existing <input checked="" type="checkbox"/> Surface	<u>17 1/2 / 13 3/8</u>	<u>0 to 620</u>	<u>515</u>	<u>Cir. to surface</u>
Planned ___ or Existing <input checked="" type="checkbox"/> Interm/Prod	<u>12 1/4 / 9 5/8</u>	<u>0 to 5120</u>	<u>2475</u>	<u>Cir. to surface</u>
Planned ___ or Existing <input checked="" type="checkbox"/> Long St/Prod	<u>8 3/4 / 7</u>	<u>0 to 13200</u>	<u>1200</u>	<u>Calc.</u>
Planned ___ or Existing ___ Liner	<u>6 1/2 / 4 1/2</u>	<u>12085 to 15360</u>	<u>360</u>	<u>Calc.</u>
Planned <input checked="" type="checkbox"/> or Existing ___ OH/PERF	<u>In 7 in casing</u>	<u>5440 - 7200</u>	<u>TOC/12885</u>	<u>1760</u>

Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops?
Adjacent Unit: Litho. Struc. Por.	—	<u>Salado</u>	<u>8870</u>
Confining Unit: <input checked="" type="checkbox"/> Litho. <input checked="" type="checkbox"/> Struc. <input checked="" type="checkbox"/> Por.	<u>+722</u>	<u>Casale</u>	<u>7070</u>
Proposed Inj Interval TOP:	<u>5400 5440</u>	<u>Bell Canyon</u>	<u>5218</u>
Proposed Inj Interval BOTTOM:	<u>7200</u>	<u>Bovsun Canyon</u>	—
Confining Unit: <input checked="" type="checkbox"/> Litho. <input checked="" type="checkbox"/> Struc. <input checked="" type="checkbox"/> Por.	<u>-2062</u>	<u>Lenaed shale</u>	<u>9262</u>
Adjacent Unit: Litho. Struc. Por.	—	<u>B.S Lime</u>	<u>11891</u>

Completion/Operation Details:	
Drilled TD	<u>15360</u> PBDT <u>12000</u> CIBP
New TD	<u>NA</u> New PBDT <u>7200</u>
Open Hole	<input type="checkbox"/> or Perfs <input checked="" type="checkbox"/>
Tubing Size	<u>3 1/2</u> Inter Coated? <u>Yes</u>
Proposed Packer Depth	<u>+5400</u>
Min. Packer Depth	<u>5340</u> (100-ft limit)
Proposed Max. Surface Press	<u>2000</u>
Admin Inj. Press	<u>1088*</u> (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P Noticed? NA BLM Sec Ord WIPP Noticed? NA SALADO: T: 3712 B: 4070 CLIFF HOUSE NA

Fresh Water: FW Formation Alluvial / Ogallala Max Depth <100' Wells? 1 Analysis? No Hydrologic Affirm Statement Yes

Disposal Fluid: Formation Source(s) Base of Ogallala at 3400-3450 Bone Spring / EOG leases in area Analysis? — On Lease Operator Only or Commercial

Disposal Interval: Injection Rate (Avg/Max BWPD): 5000/10000 Protectable Waters: No CAPITAN REEF: thru 6 adjacent No

H/C Potential: Producing Interval? No Formerly Producing? No Method: E Log / Mudlog / DST / Depleted / Other DST in area

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: 6 Horizontals? 3 - completed

Penetrating Wells: No. Active Wells 5 Num Repairs? 0 on which well(s)? — Diagrams? —

Penetrating Wells: No. P&A Wells 1 Num Repairs? 0 on which well(s)? — Diagrams? —

NOTICE: Newspaper Date 05/31/2013 Mineral Owner BLM Surface Owner BLM Private N. Date 06/12/13

RULE 26.7(A): Identified Tracts? Yes Affected Persons: EOG only Second notification to rancher / surface 08/28/13

Permit Conditions: Issues: Private owner notified / cmt squeeze / no CIBP for PB / Gulf Fed #1

Add Permit Cond: 1) CIBG with 7200 cmt PB 2) top perfs lowered to 5440' due to Gulf

1) L&P #1 (to ranch) 2) CIBI for 7 in casing squeeze