

DHC 2/14/00
2635

devon

ENERGY CORPORATION

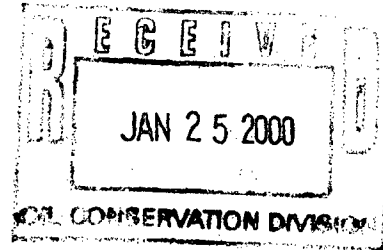
20 North Broadway, Suite 1500
Oklahoma City, Oklahoma 73102-8260

Telephone 405/235-3611
FAX 405/552-4550

January 21, 2000

Certified Mail No. Z 068 589 770

STATE OF NEW MEXICO
Energy, Minerals and Natural Resources Dept.
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505-6429



RE: Downhole Commingling
Logan 2 State #2
Section C-2-18S-27E
API #30-015-30406
Red Lake (Q-GB-SA) and
Red Lake (Glorieta-Yeso), NE Fields
Eddy County, NM

Gentlemen:

Concerning the referenced, enclosed please find the Form C-107A Application for Downhole Commingling and attachments (and three copies).

Please direct inquiries concerning this report to Ernie Buttross at (405) 235-3611, X4509.

Yours truly,

DEVON ENERGY CORPORATION (NEVADA)

A handwritten signature in cursive script, appearing to read "Tonja Rutelonis".

Tonja Rutelonis
Engineering Tech.

/trr
Enclosures

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

811 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

DISTRICT IV

2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429Form C-107-A
Revised August 1999

APPROVAL PROCESS:

___ Administrative ___ Hearing

EXISTING WELLBORE

___ YES ___ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Devon Energy Corporation (Nevada)

20 N. Broadway, Suite 1500, Oklahoma City OK 73102-8260

Operator

Address

Logan 2 State

2

C - 2-18S-27E

Eddy

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 6137

Property Code

23639

API NO.

30-015-30406

Federal ___ , State ___ , (and/or) Fee ___

X

The following facts are submitted in support of downhole commingling.	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Red Lake (Q-GB-SA)		Red Lake (Glor-Yeso)
2. Top and Bottom of Pay Section (Perforations)	To be perforated 2045'-2944'		3198'-2459'
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 50 psi producing BHP b. (Original)	a. b.	a. 100 psi producing BHP b.
6. Oil Gravity (°API) or Gas BTU Content	38.5°		41.8°
7. Producing or Shut-In?	Awaiting perfs		Producing
Production Marginal? (yes or no)	Expected to be marginal		Yes
• If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: N/A Rates:	Date: Rates:	Date: N/A Rates:
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: N/A Rates:	Date: Rates:	Date: 1/19/00 Rates: 14 BOPD, 27 MCFGPD, 240 BWPD
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: 61 % Gas: 61 %	Oil: % Gas: %	Oil: 39 % Gas: 39 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ___ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ___ Yes ___ No11. Will cross-flow occur? ___ Yes ☒ No ___ If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ___ Yes ___ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ___ No13. Will the value of production be decreased by commingling? ___ Yes ☒ No ___ (If Yes, attach explanation)14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Tonia Rutelonis TITLE Engineering Technician DATE 1/21/00TYPE OR PRINT NAME Tonia Rutelonis TELEPHONE NO. (405) 552-4515

DISTRICT I
P.O. Box 1900, Hobbs, NM 88240

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 12, 1984
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-30406	Pool Code 51300	Pool Name Red Lake (Q-GB-SA)/Red Lake; Glorieta-Yeso, NE
Property Code 23639	Property Name LOGAN "2" STATE	Well Number 2
OGED No. 6137	Operator Name DEVON ENERGY CORPORATION	Elevation 3589' 3389'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 3	2	18 S	27 E		990	NCRTH	1750	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 4	LOT 3	LOT 2	LOT 1

OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
<u>E. L. Buttross, Jr.</u>	
Signature	
<u>E. L. Buttross, Jr.</u>	
Printed Name	
<u>District Engineer</u>	
Title	
<u>9/22/98</u>	
Date	
SURVEYOR CERTIFICATION	
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.	
<u>GARY L. JONES</u>	
Date Surveyed	
<u>SEPTEMBER 02, 1998</u>	
Signature & Seal of Professional Surveyor	
Certificate No. <u>GARY L. Jones</u> 7977	
BASIN SURVEYS	

Logan 2 State #2

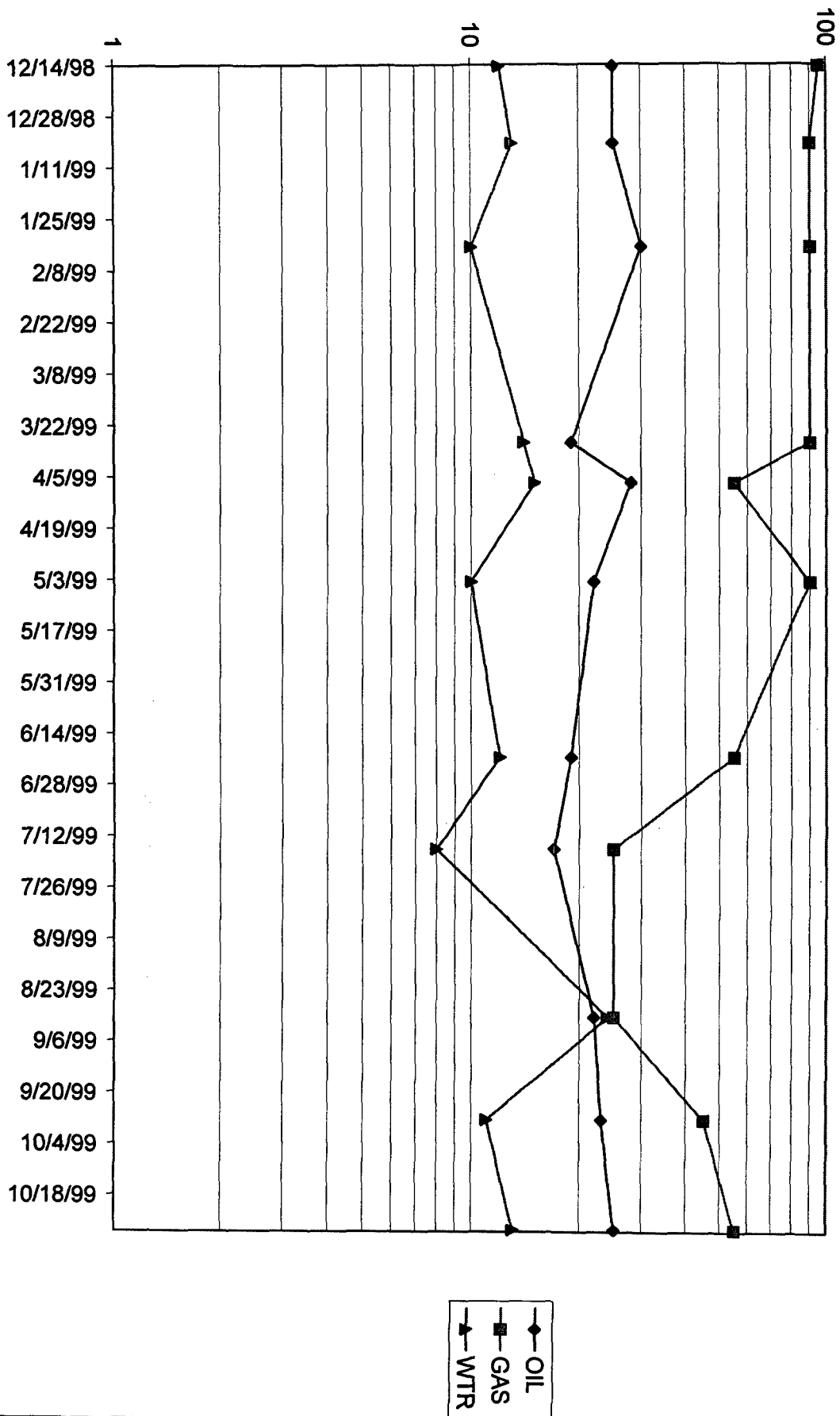
Allocation Formula

Well Name	Producing Formation	*Daily Production Test 3-month average	% of Total
Eagle 35 Federal #2	Red Lake (Q-GB-SA)	23 BO/42 MCF/16 BW	61 %
Logan 35 B Federal #9	Red Lake; Glorieta-Yeso, NE	15 BO/46 MCF/85 BW	39 %

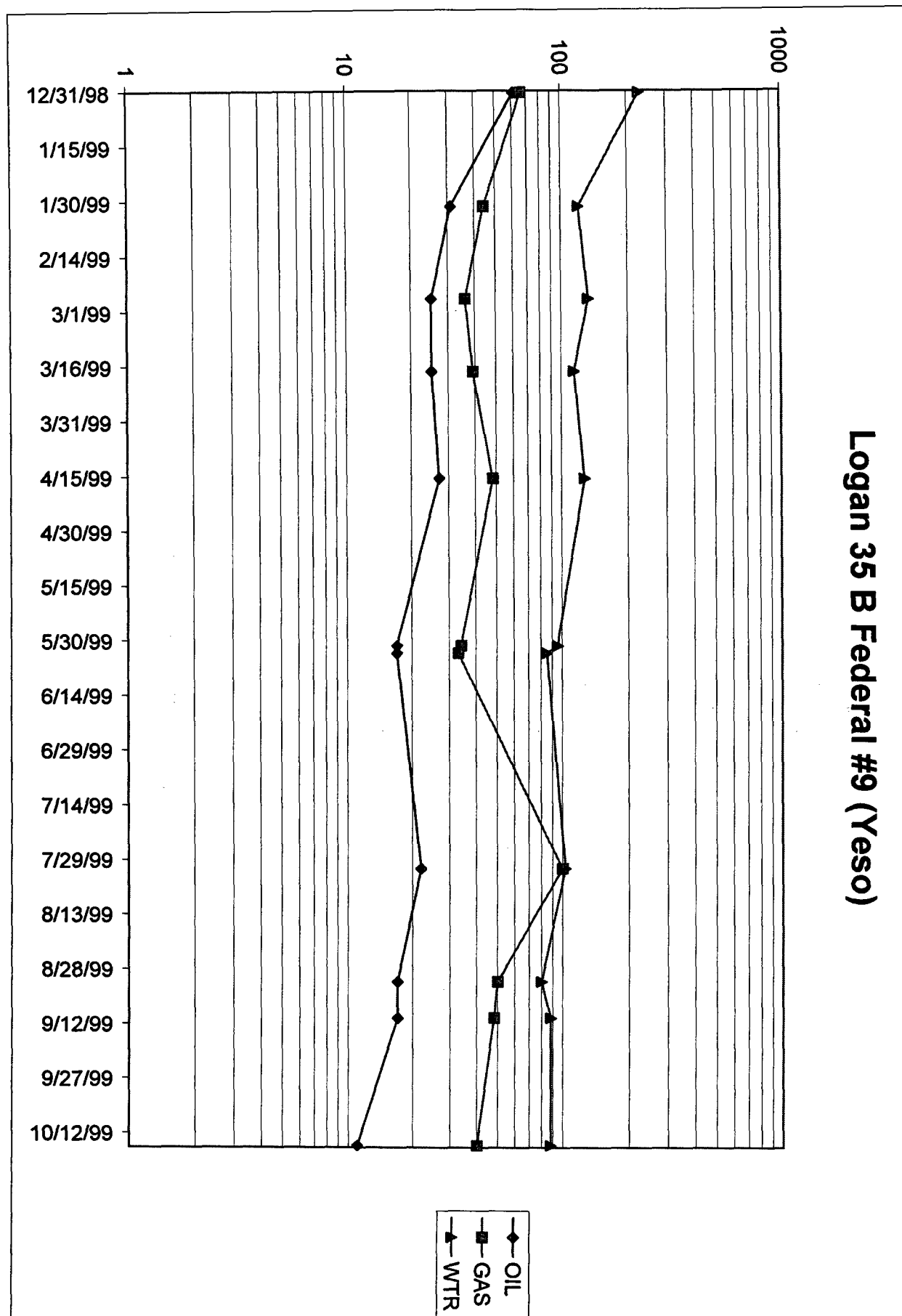
* From attached production plots

The above production test represents stable production from a San Andres producer (Eagle 35 Federal #2) and a Yeso producer (Logan 35 B Federal #9). We believe these rates of production represent an acceptable means to allocate production. **We have previously received approval for downhole commingling in these fields utilizing a similar allocation method.**

Eagle 35 L Federal #2 (San Andres)

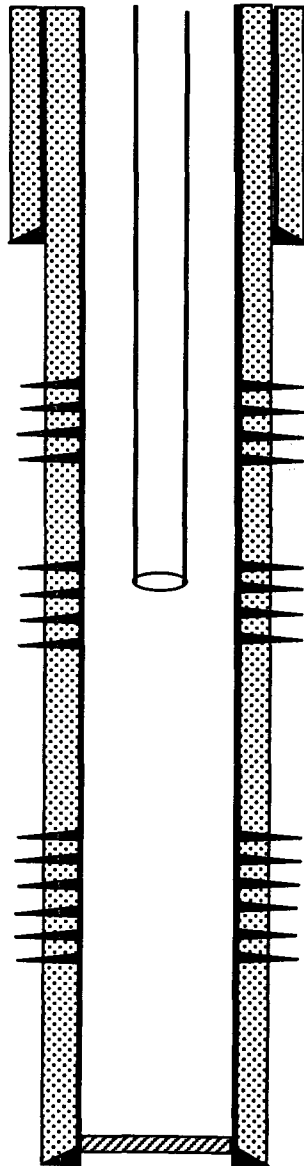


Logan 35 B Federal #9 (Yeso)



DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

WELL NAME: Logan 2 State #2			FIELD: Red Lake; Glorieta-Yeso, NE			
LOCATION: 990' FNL & 1750' FWL, Section 2-18S-27E			COUNTY: Eddy			STATE: NM
ELEVATION: GL = 3589'			SPUD DATE: 10/2/99		COMP DATE: 10/21/99	
API#: 30-015-30406		PREPARED BY: T. Rutelonis			DATE: 1/20/00	
	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 1170'	8-5/8"	24#	J-55		12-1/4"
CASING:	0' - 3710'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - 2850'	2-7/8"				
TUBING:						



☐ CURRENT

☒ PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 1170' w/ 650 sxs cmt. TOC @ surface

San Andres Perforations:
2045'-2450'

Lower San Andres Perforations:
2812'-2944'

2-7/8" tbg w/ SN @ 2850'

Yeso Perforations:
3198'-3459' (25 holes)

PBTD @ 3664'
5 1/2" casing, set @ 3710' w/ 950 sxs cmt. TOC @ surf.
TD @ 3710'

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

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. 30-015-30406
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER _____		7. Lease Name or Unit Agreement Name Logan 2 State 1			
b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER _____					
2. Name of Operator DEVON ENERGY CORPORATION (NEVADA)		8. Well No. 2			
3. Address of Operator 20 NORTH BROADWAY, SUITE 1500, OKLAHOMA CITY, OKLAHOMA 73102 (405) 235-3611		9. Pool name or Wildcat Red Lake;Glorieta-Yeso, NE			
4. Well Location Unit Letter C-990 Feet From The North Line and 1750 Feet From The West Line Section 2 Township 18S Range 27E NMPM Eddy County					
10. Date Spudded 10/2/99	11. Date T.D. Reached 10/10/99	12. Date Compl. (Ready To Prod.) 10/21/99	13. Elevations (DF, RKB, RT, GR, etc.) KB 3598'; GL 3589'; DF 3597'	14. Elev. Casinghead	
15. Total Depth, Md & Tvd 3710'	16. Plug Back T.D. 3664'	17. If Multiple Compl., How Many Zones?	18. Intervals Drilled By X	Rotary Tools X	Cable Tools
19. Producing Interval(s), Of This Completion—Top, Bottom, Name Yeso 3198'-3459'					20. Was Directional Survey Made No
21. Type Electric And Other Logs Run TDD/CNL/ALL/MCFL/GR; CBL					22. Was Well Cored No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8" J-55	24#	1170'	12-1/4"	300 sx cl "C" + 350 sx lite	TOC surf, none
5-1/2" J-55	15.5#	3710'	7-7/8"	350 sx 35:65:06 + 600 sx 50:50	TOC surf, none
				POZ "C"	

LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	2242' 3342'	

TUBING RECORD

26. Perforation record (interval, size and number)

YESO
3198'-3459' (25-.40" holes)

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

DEPTH INTERVAL	AMOUNT AND KIND OF MATERIAL USED
3198'-3459'	2500 gals 15% NE-FE acid
3198'-3459'	90,000 gals linear gel wtr +
	3000# 100 mesh sand + 69,000#
	20/40 Brady sand + 21,000# CRC sd

PRODUCTION

Date First Production 11/6/99	Productions Method (Flowing, gas lift, pumping—Size and type of pump) Pumping (2-1/2" x 2" x 16' RWTC pump)				Well Status (Prod or Shut-In) Producing		
Date Of Test 11/30/99	Hours Tested 24	Choke Size	Prod'n For Test Period	Oil—Bbl 33	Gas—Mcf 19	Water—Bbl 439	Gas-Oil Ratio 576/1
Flow. Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil—Bbl 33	Gas—MCF 19	Water—Bbl 439	Oil Gravity-Api (Corr.) 42	
29. Disposition Of Gas (Sold, Used For Fuel, Vented, Etc.) Sold					Test Witnessed By Danny Hokett		

30. List Of Attachments
Logs, Deviation Surveys

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

[Signature]

Printed **TONIA RUTELONIS**

Name

Title **ENGINEERING TECHNICIAN** Date **12/1/99**

DISTRIBUTED

Analysis: 24190

Water Analysis Report from Baker Petrolite

Summary of Mixing Waters

Sample Number	133534	112098
Company	DEVON ENERGY	DEVON ENERGY
Lease	HAWK 8	HAWK "8"
Well	WELL #3	BATTERY
Sample Location	WELLHEAD	FWKO
	yeso	SAN ANDRES
Anions (mg/L)		
Chloride	106,253	99,569
Bicarbonate	573	497
Carbonate	0.00	0.00
Sulfate	3,912	4,489
Phosphate	0.00	0.00
Borate	0.00	0.00
Silicate	0.00	0.00
Cations (mg/L)		
Sodium	67,918	63,725
Magnesium	369	509
Calcium	1,749	1,770
Strontium	36.0	49.0
Barium	0.06	0.10
Iron	48.0	0.40
Potassium	523	269
Aluminum	0.00	0.00
Chromium	0.00	0.00
Copper	0.00	0.00
Lead	0.00	0.00
Manganese	0.00	0.00
Nickel	0.00	0.00
Anion/Cation Ratio	1.00	1.00
TDS (mg/L)	181,381	170,877
Density (g/cm)	1.12	1.11
Sampling Date	10/26/99	7/28/99
Account Manager	CURRY PRUIT	CURRY PRUIT
Analyst	JOANNA RAGAN	JOANNA RAGAN
Analysis Date		8/4/99
pH at time of sampling	5.90	7.90
pH at time of analysis		
pH used in Calculations	5.90	7.90

Analysis: 24190

Water Analysis Report from Baker Petrolite

Mixes at 80°F and 0 psi

Predictions of Carbon Dioxide Pressure, Saturation Index and Amount of Scale in lb/1000bbl												
Mix Waters		CO ₂	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
133534	112098	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
100%	0%	5.52	-0.31		-0.20		-0.18		-0.21		0.13	0.01
90%	10%	4.90	-0.27		-0.19		-0.17		-0.18		0.17	0.01
80%	20%	4.30	-0.22		-0.18		-0.16		-0.16		0.20	0.01
70%	30%	3.70	-0.17		-0.17		-0.16		-0.14		0.23	0.02
60%	40%	3.10	-0.10		-0.17		-0.15		-0.12		0.26	0.02
50%	50%	2.51	-0.01		-0.16		-0.14		-0.10		0.29	0.02
40%	60%	1.92	0.09	7.5	-0.15		-0.14		-0.08		0.32	0.02
30%	70%	1.34	0.24	16.9	-0.15		-0.13		-0.06		0.35	0.03
20%	80%	0.78	0.46	26.8	-0.14		-0.13		-0.04		0.38	0.03
10%	90%	0.27	0.89	37.5	-0.14		-0.12		-0.02		0.40	0.03
0%	100%	0.05	1.51	48.8	-0.13		-0.12		0.00	0.18	0.43	0.03

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

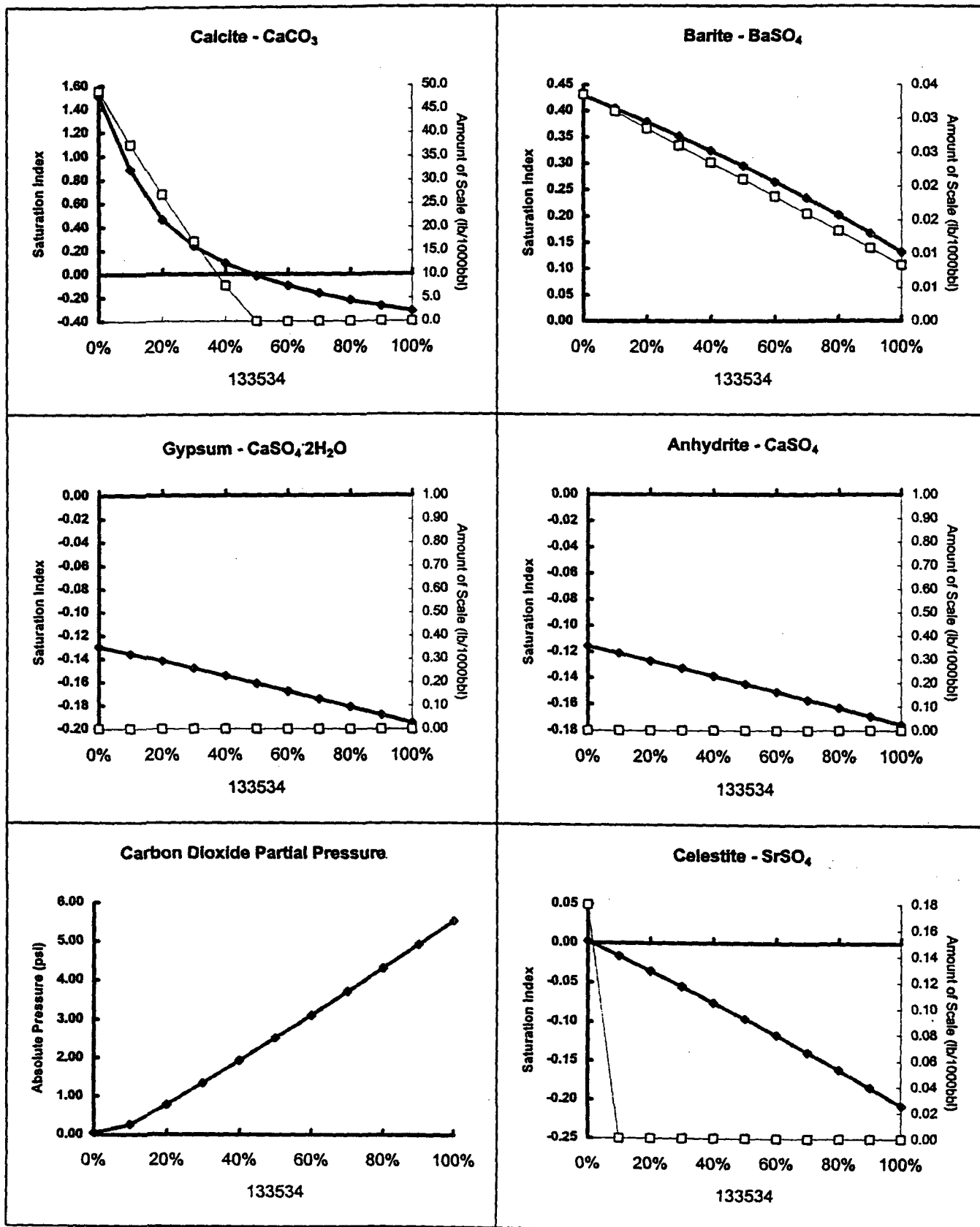
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: CO₂ Pressure is absolute pressure. Total Pressure is gauge pressure.

Mixture Predictions from Baker-Petrolite

133534 with 112098 at 80°F and 0 psi

Analysis: 24190



Analysis: 24190

Water Analysis Report from Baker Petrolite

Mixes at 100°F and 0 psi

Predictions of Carbon Dioxide Pressure, Saturation Index and Amount of Scale in lb/1000bbl												
Mix Waters		CO ₂	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
133534	112098	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
100%	0%	6.73	-0.22		-0.27		-0.19		-0.24		-0.08	
90%	10%	5.99	-0.18		-0.27		-0.18		-0.22		-0.04	
80%	20%	5.25	-0.13		-0.26		-0.18		-0.19		-0.01	
70%	30%	4.52	-0.07		-0.25		-0.17		-0.17		0.03	0.00
60%	40%	3.80	-0.00		-0.25		-0.16		-0.15		0.06	0.01
50%	50%	3.08	0.08	7.2	-0.24		-0.16		-0.13		0.09	0.01
40%	60%	2.37	0.18	15.2	-0.23		-0.15		-0.11		0.12	0.01
30%	70%	1.67	0.32	23.8	-0.22		-0.14		-0.09		0.15	0.01
20%	80%	0.99	0.53	32.8	-0.22		-0.14		-0.07		0.17	0.02
10%	90%	0.40	0.89	42.5	-0.21		-0.13		-0.05		0.20	0.02
0%	100%	0.11	1.37	53.0	-0.20		-0.12		-0.03		0.22	0.02

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

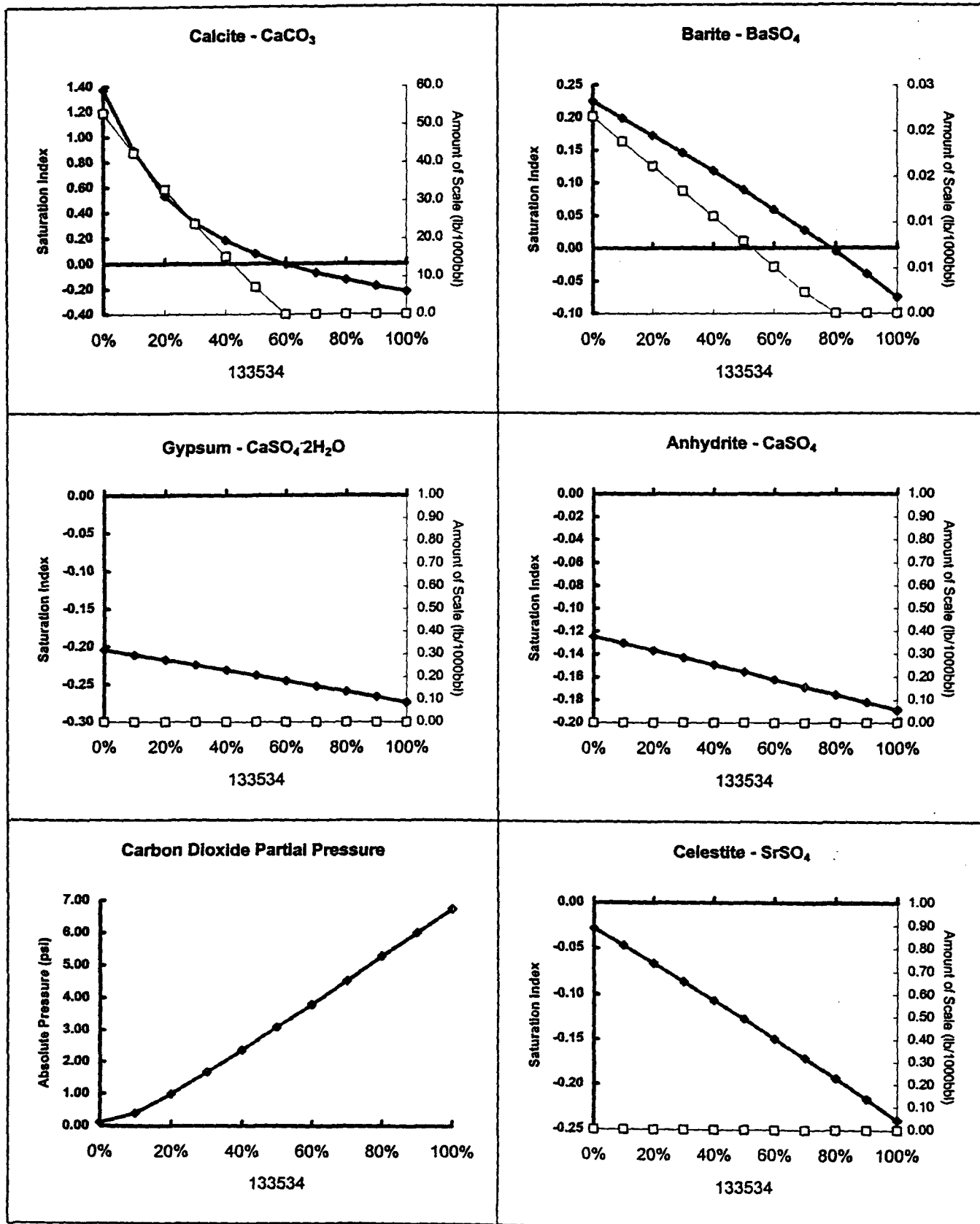
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: CO₂ Pressure is absolute pressure. Total Pressure is gauge pressure.

Mixture Predictions from Baker-Petrolite

133534 with 112098 at 100°F and 0 psi

Analysis: 24190



Analysis: 24190

Water Analysis Report from Baker Petrolite

Mixes at 120°F and 0 psi

Predictions of Carbon Dioxide Pressure, Saturation Index and Amount of Scale in lb/1000bbl												
Mix Waters		CO ₂	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
133534	112098	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
100%	0%	7.93	-0.12		-0.34		-0.18		-0.26		-0.26	
90%	10%	7.06	-0.08		-0.33		-0.17		-0.24		-0.22	
80%	20%	6.20	-0.03		-0.33		-0.16		-0.21		-0.19	
70%	30%	5.34	0.02	2.7	-0.32		-0.16		-0.19		-0.15	
60%	40%	4.49	0.09	9.2	-0.31		-0.15		-0.17		-0.12	
50%	50%	3.65	0.17	16.1	-0.30		-0.14		-0.15		-0.09	
40%	60%	2.83	0.27	23.3	-0.30		-0.13		-0.13		-0.06	
30%	70%	2.01	0.41	31.0	-0.29		-0.13		-0.11		-0.03	
20%	80%	1.24	0.60	39.2	-0.28		-0.12		-0.09		-0.01	
10%	90%	0.58	0.90	47.9	-0.27		-0.11		-0.07		0.02	0.00
0%	100%	0.20	1.26	57.4	-0.27		-0.11		-0.05		0.04	0.01

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

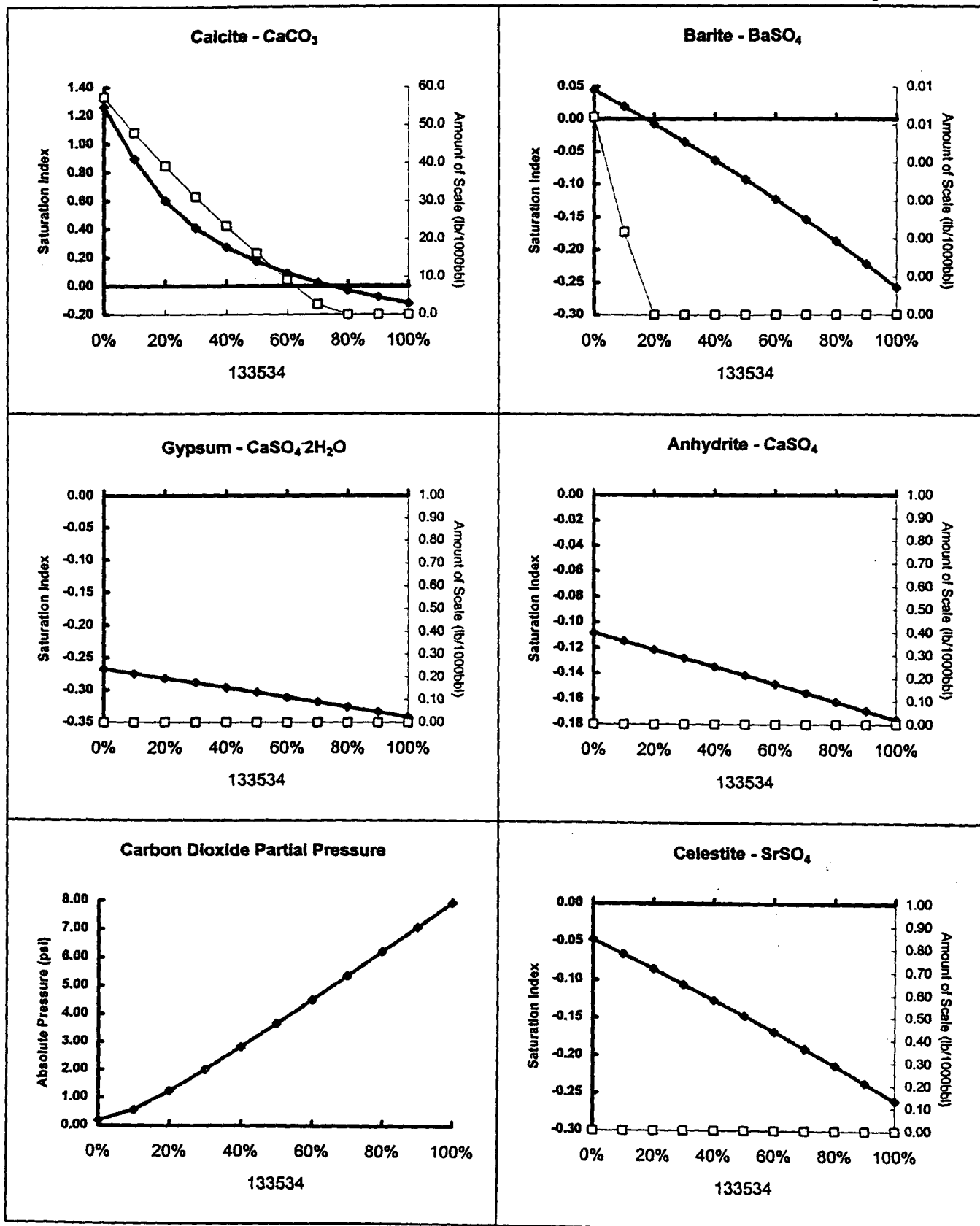
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: CO₂ Pressure is absolute pressure. Total Pressure is gauge pressure.

Mixture Predictions from Baker-Petrolite

133534 with 112098 at 120°F and 0 psi

Analysis: 24190



Analysis: 24190

Water Analysis Report from Baker Petrolite

Mixes at 140°F and 0 psi

Predictions of Carbon Dioxide Pressure, Saturation Index and Amount of Scale in lb/1000bbl												
Mix Waters		CO ₂	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
133534	112098	psi	Index Amount		Index Amount		Index Amount		Index Amount		Index Amount	
100%	0%	9.05	-0.02		-0.40		-0.14		-0.27		-0.42	
90%	10%	8.07	0.02	2.7	-0.39		-0.13		-0.25		-0.38	
80%	20%	7.09	0.07	8.0	-0.38		-0.13		-0.22		-0.35	
70%	30%	6.13	0.13	13.5	-0.38		-0.12		-0.20		-0.31	
60%	40%	5.17	0.19	19.3	-0.37		-0.11		-0.18		-0.28	
50%	50%	4.22	0.27	25.4	-0.36		-0.11		-0.16		-0.25	
40%	60%	3.29	0.37	31.9	-0.35		-0.10		-0.14		-0.22	
30%	70%	2.38	0.49	38.7	-0.34		-0.09		-0.12		-0.19	
20%	80%	1.53	0.66	46.0	-0.34		-0.08		-0.10		-0.17	
10%	90%	0.80	0.90	53.8	-0.33		-0.08		-0.08		-0.14	
0%	100%	0.34	1.18	62.3	-0.32		-0.07		-0.06		-0.11	

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

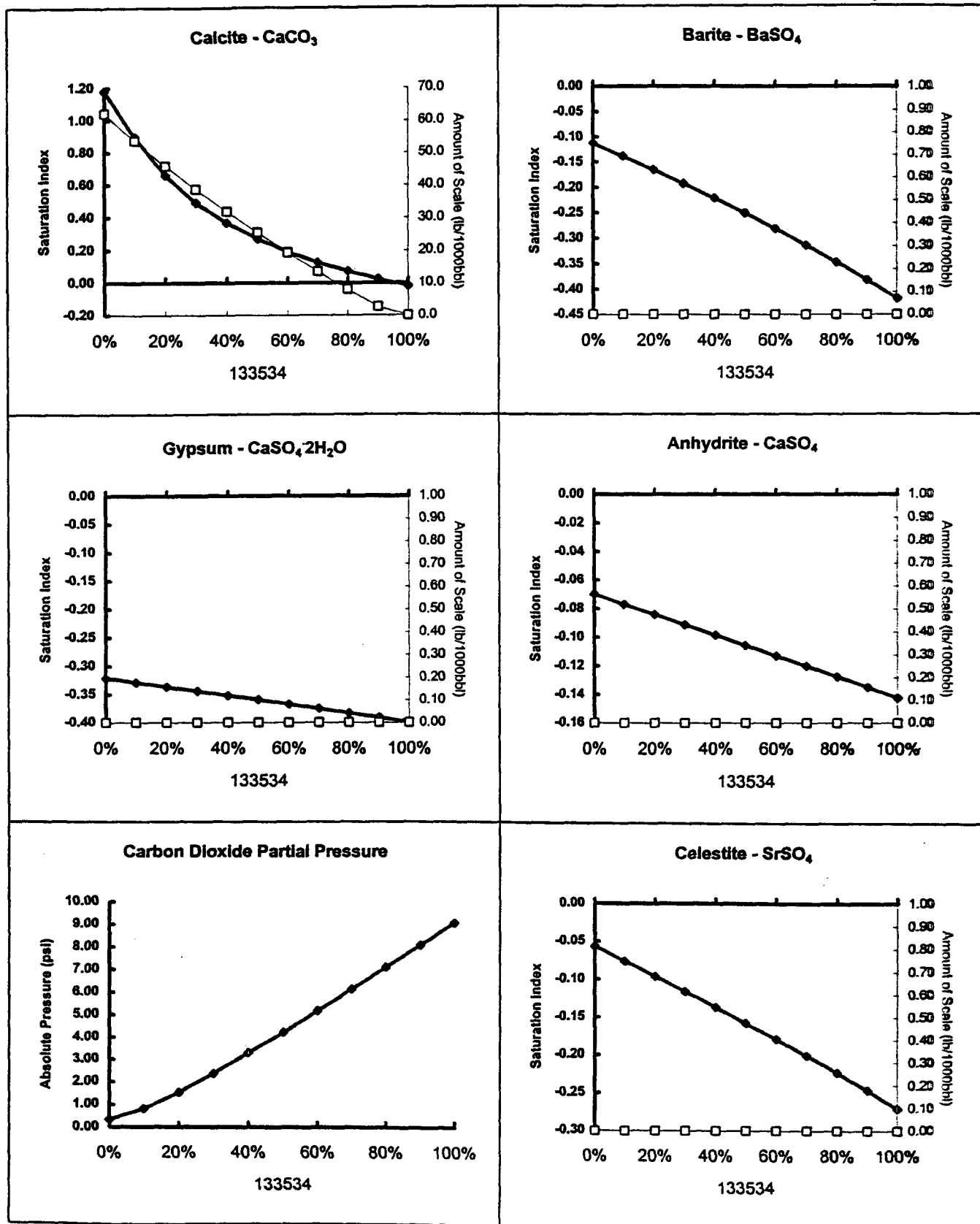
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: CO₂ Pressure is absolute pressure. Total Pressure is gauge pressure.

Mixture Predictions from Baker-Petrolite

133534 with 112098 at 140°F and 0 psi

Analysis: 24190





Mobil Analytical Laboratories

LABORATORIES IN CORPORA, SHOOTING & STACY DAM
WEST UNIVERSITY AND WESTOVER STREET
P.O. BOX 68216
CORPORA, TEXAS 79768-0216
PHONE 337-4744
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MR. ROLLAND W. PERRY
LABORATORY SERVICES
1331 TASKER DR.
HOBBS, NEW MEXICO 88240

FEBRUARY 07, 1997

DEAR MR PERRY:

THE FOLLOWING ARE THE RESULTS OF THE FOUR OIL SAMPLES FOR SULFUR CONTENT AND GRAVITY, RECEIVED 02/03/97, LAB NOS. 260-263:

	SULFUR	API GRAVITY @ 60 °F	SPECIFIC GRAVITY @ 60 °F
LAB NO. 260: DEVON ENERGY FALCON 3 "B" FED #1 (SAN ANTONIO) 01/30/97	0.547 wt%	38.5	0.8325
LAB NO. 261: DEVON ENERGY EAGLE 33 "O" FED #11 01/30/97	0.556 wt%	38.4	0.8327
LAB NO. 262: DEVON ENERGY EAGLE 33 "N" FED #9 01/30/97	0.651 wt%	37.4	0.8377
LAB NO. 263: DEVON ENERGY EAGLE 34 "M" FED #25 01/30/97	0.565 wt%	37.3	0.8384

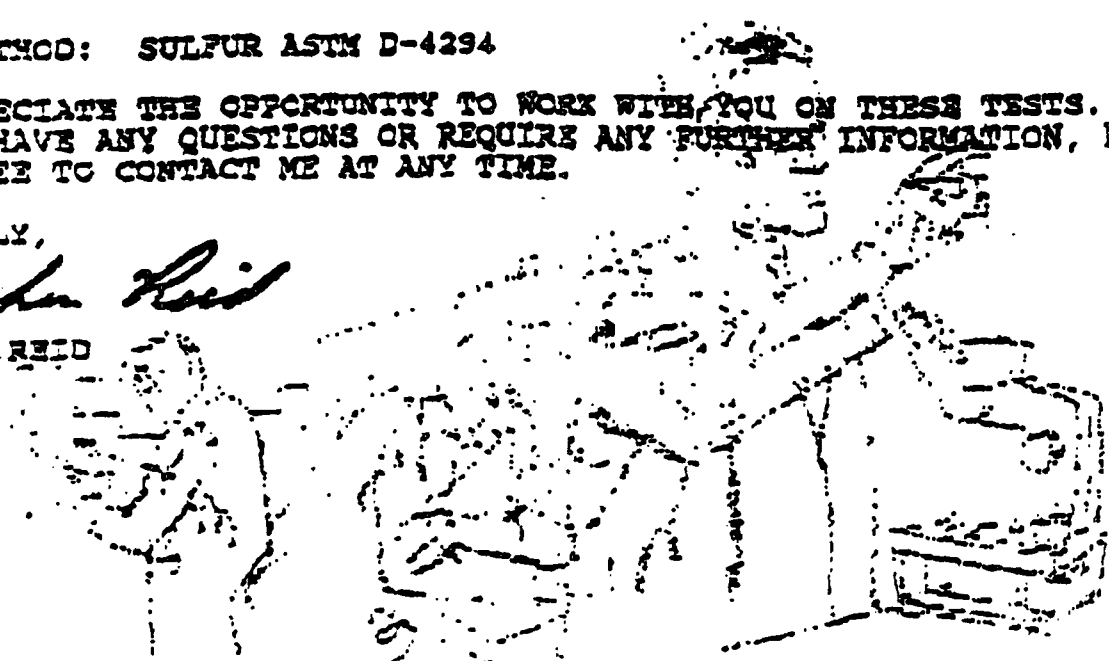
TEST METHOD: SULFUR ASTM D-4294

WE APPRECIATE THE OPPORTUNITY TO WORK WITH YOU ON THESE TESTS.
IF YOU HAVE ANY QUESTIONS OR REQUIRE ANY FURTHER INFORMATION, PLEASE
FEEL FREE TO CONTACT ME AT ANY TIME.

SINCERELY,

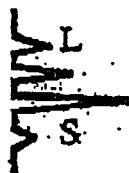
Stephen Reid

STEPHEN REID
SR/dt



DEC-15-99 WED 34 Laboratory Services

12/15/99



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

SULFUR IN CRUDE OIL

Devon Energy
P. O. Box 240
Artesia, New Mexico 88211-0250

Dec 15, 1999

YESO OIL Samples

	Total Sulfur	API Gravity @ 60° F	Specific Gravity @ 60° F
Hawk 8-3	0.4116 wt. %	42.6	0.8128
Eagle 03.9	0.4382 wt. %	37.3	0.8383
Logan 35-9	0.4752 wt. %	41.8	0.8165
Logan 35-14	0.4430 wt. %	41.8	0.8165

Thank You,
Rolland Perry