DATE IN 10/7/05	SUSPENSE 10/22/05	ENGINEER WVJ	LOGGED IN	TYPE SWD 940A	APP NO. pWVJ053185467

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 _____

[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 _____

10/7/05 10/22/05

pWJ 0531854071

SWD-940-A

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Tuesday, October 25, 2005 10:48 AM
To: 'don.lankford@elpaso.com'
Subject: RE: SWD application for the VPR A 182 WDW

Hello Don:
Let me know how you are progressing on this?

Regards,

Will Jones
OCD/Santa Fe

From: Jones, William V., EMNRD
Sent: Friday, October 07, 2005 8:38 AM
To: 'don.lankford@elpaso.com'
Subject: SWD application for the VPR A 182 WDW

Hello Don:
Roy Johnson passed some essential info on the completion of this well to me - since I am doing the SWD permitting here at this time.

When an operator changes the depths of the permitted injection interval, we normally require an amended application along with notices to all offsets within 1/2 mile, the surface owner, and a new newspaper notice. Looks like you have raised the injection interval. Let me know if the formations to inject in have changed also. You probably have no other operators within 1/2 mile, so we can shorten the process to:

1) Send a short note to my attention in Santa Fe formally requesting the OCD to amend the SWD permit and
2) Post a new notice with the county newspaper containing the new depths and correct formation name(s), and send me a copy of this notice.
3) Let how soon you intend to begin injecting.

I am required to wait 15 days prior to granting the amended permit. If you have a rush schedule, call me at the contact info on our web site.

Thank You and take care,

William V. Jones Engineering Bureau Oil Conservation Division Santa Fe

Called 10/25/05

505-445-6720 or 6733

Langford 447-5440 cell

ELPASO Katan

10/25/2005

elpaso | Production

P.O. Box 190
Raton, New Mexico 87740

September 27, 2005

Mr. William Jones
Petroleum Engineer
NMOGC Division
1220 S St Francis
Santa Fe, NM 87505

Re: VPR A 182 WDW
Administrative Order SWD-940
"Change in Plan"

Dear Mr. Jones:

Please find attached the "VPR A 182 WDW Well History" that details the drilling and completion procedures. This document will also address the conditions leading to our "Change in Plan" from the original application. We also attached the Drilling and Completion Well Diagrams.

We have submitted the necessary Sundry Notices to the District Supervisor's office for review and approval.

Please notify us if you are in need of further information.

Sincerely,

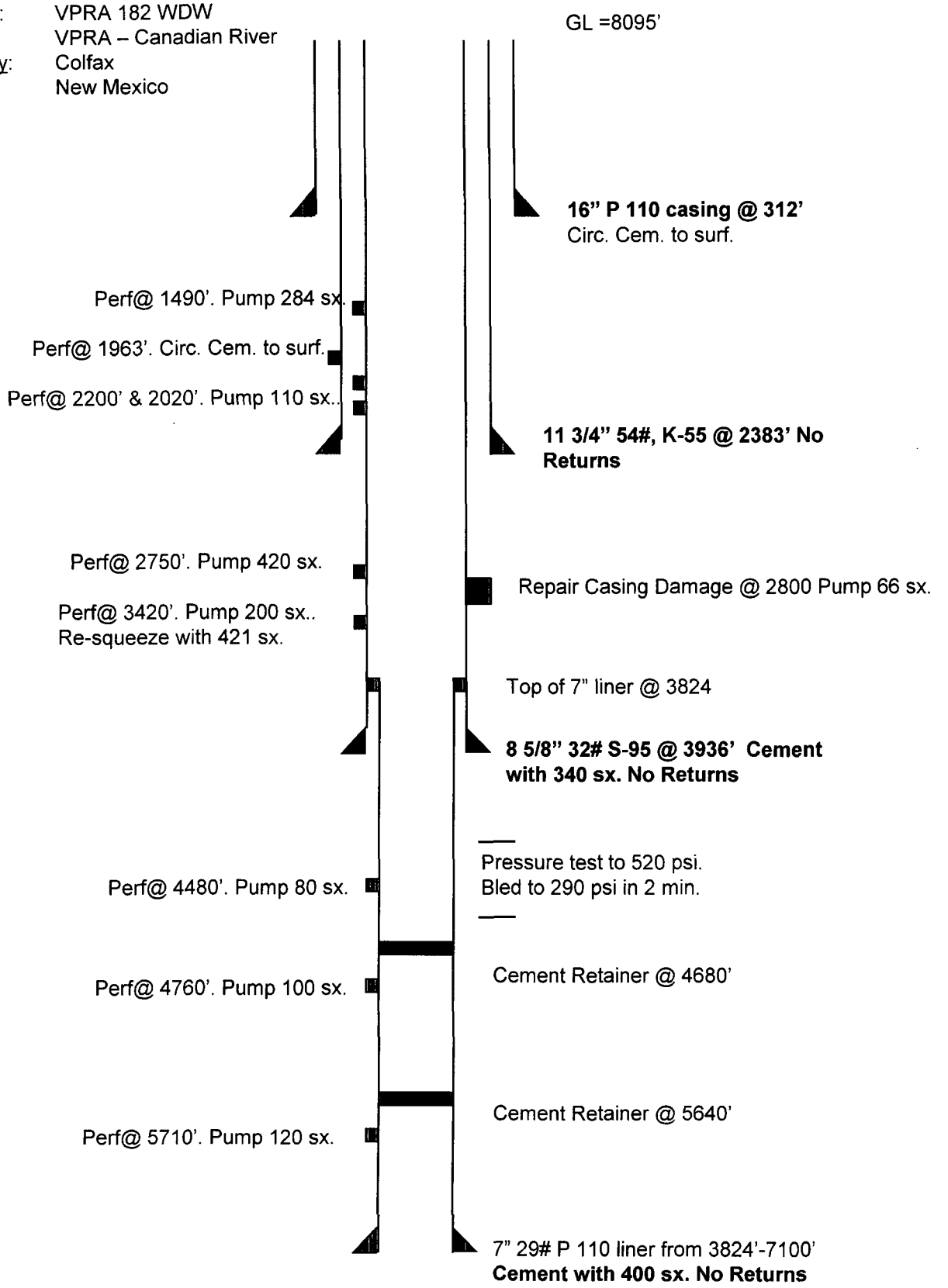
DR Lankford

Donald R. Lankford
Production Manager

DRL:sam
Enc. (Well History and Well Diagrams)
Cf: Roy Johnson, District Supervisor.

VPR A 182 WDW
(Drilling Well Diagram)

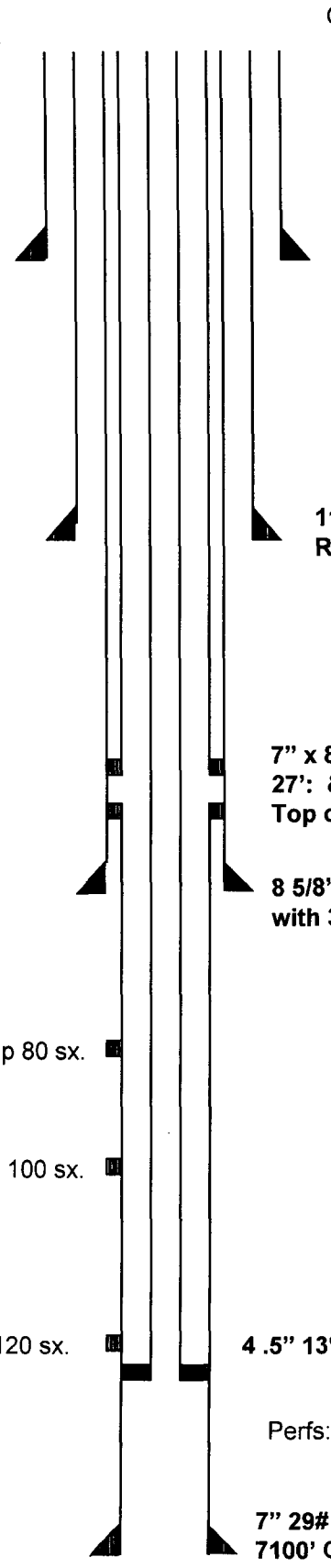
Lease: VPRA 182 WDW
Field: VPRA – Canadian River
County: Colfax
State: New Mexico



Revised: July 19, 2005

VPR A 182 WDW
(Completion Well Diagram)

Lease: VPRA 182 WDW
Field: VPRA – Canadian River
County: Colfax
State: New Mexico



GL =8095'

16" P 110 casing @ 312'
Circ. Cem. to surf.

11 3/4" 54#, K-55 @ 2383' No Returns

7" x 8 .625" x-patch seal assembly @ 3620-27': &" 29# P-110 to surface, 120 sks
Top of 7" liner @ 3824

8 5/8" 32# S-95 @ 3936' Cement with 340 sx. No Returns

Perf@ 4480'. Pump 80 sx.

Perf@ 4760'. Pump 100 sx.

Perf@ 5710'. Pump 120 sx.

4 .5" 13% chrm tbg w/ 7" nickle plated pkr @ 5953'

Perfs: 6044' – 7048'

All csg tested to 500 psi for 1 hr.

7" 29# P 110 liner from 3824'-7100' Cement with 400 sx. No Returns

Revised: September 27, 2005

VPR A 182 WDW: WELL HISTORY

02/26/05	Spud well at 5:30 a.m.
02/27/05	Drill 20" hole to 358'.
03/01/05	Set and cemented 16" casing at 312'. 12 bbls of cement to surface.
03/10/05	Drill 14 ¾" hole to 2383'.
03/11/05	Set and cemented 11 ¾", 54# K-55 casing at 2383'. No return. Final lift pressure 230 psi.
03/12/05	Temp Survey TOC at 2050'.
03/13/05	Perf (4) squeeze holes at 1963'. Cement perfs at 1963 with 690 sks. Circulated 35 bbls to surface.
03/30/05	Spotted cement plug 2295'- 2795' in 10 5/8" hole due to lost circulation and sticky shale.
03/31/05	Spotted second cement plug at 2240' – 2598' in 10 5/8" hole.
04/09/05	Replace 4 ½" DP after 1 part and 2 holes.
04/13/05	Air drilled 10 5/8" hole to 4213'.
04/14/05	Set and cemented 8 5/8", 32# S-95 / K-95 casing at 3936'. With 340 sks. No returns.
04/15/05	Temp Survey TOC at 3450'. Perf (4) squeeze holes at 3420' – 3421'. Cement perfs 3420' – 3421' with 200 sks. Final lift at 50 psi.
04/16/05	Temp Survey TOC at 3360' Cement perfs 3420' – 3421' with 421 sks. Final lift at 150 psi. CBL TOC at 2770'.
04/17/05	Perf (4) holes at 2750' – 2752'. Cement perfs 2750'- 2752' with 420 sks. CBL TOC at 2214' Perf (8) holes at 2200' – 2202'. Established 1 bpm at 1500 psi. Perf (4) holes at 2020'- 2021'. Cement perfs 2020' – 2021' with 110 sks. Final squeeze at 1100 psi.
04/18/05	Perf (4) holes at 1490'- 1491'. Cement perfs 1490'- 1491' with 284 sks.
04/20/05	Drill out cement. Test perfs 1390' – 2230' to 1500 psi. Test OK. Test perfs 2750' – 2752'. Bled to 250 psi in 6 minutes.
04/26/05	Air drill 7 7/8" hole to TD at 7168'.
04/29/05	Set and cemented 7", 29#, P 110 Liner 3824'- 7100'. Cemented with 400 sks. No returns.
05/01/05	Set 8 5/8" RPB at 1404'.
05/02/05	Release Tesco Rig 1 at 6:30 a.m.
05/26/05	MIRU Key Rig 5
05/27/05	Remove 8 5/8" RBP from 1404'.

VPR A 182 WDW: WELL HISTORY

05/28/05	Ran CBL with Patterson Wireline
	Perf (8) holes at 5710'- 5712'.
05/29/05	Set 7" cement retainer at 5640'.
	Cement perfs 5710'- 5712' with 120 sks.
06/01/05	Ran CBL TOC at 4796'.
	Perf (8) holes 4760'- 4762'.
06/02/05	Set 7" cement retainer at 4680'.
	Cement perfs 4760'- 4762' with 100 sks.
06/03/05	Ran CBL TOC at 4510'.
	Perf (4) holes 4480'- 4481'.
06/04/05	Set cement retainer at 4430'.
	Cement perfs 4480'- 4481' with 80 sks
06/05/05	Wireline PBTD: 4188'. No cement behind casing
06/07/05	Drilled out cement to 4426'.
	Ran CBL TOC at 4332'.
06/08/05	Milled tight spot 2790'- 2791'.
06/09/05	Set 8 5/8" cement retainer at 3760'.
	Cement with 120 sks. On vacuum.
06/14/05	Isolated casing leak 2776' – 2808', 1 bpm at 800 psi.
06/15/05	Milled on tight spot at 2790' with 7 7/8" tapered mill.
06/16/05	Set 8 5/8" packer at 2624'.
	Cemented casing leak at 2790' with 36 sks.
	Hesitate squeeze to 1500 psi.
06/17/05	Drilled out squeeze cement 2770'- 2885'.
	Would not pressure test at 800 psi.
06/18/05	Schlumberger ran casing inspection log.
	Found apparent casing damage at 2800'.
06/30/05	Spotted balanced plug 2693'- 2803' with 30 sks.
	Final squeeze pressure 965 psi. SI
07/02/05	Drilled out squeeze 2739'- 2803'. Pressure test to 500 psi. Test OK
07/07/05	Drilled out cem. and retainers to TOL at 3848' with 7 7/8" blade bit.
07/08/05	Drilled out retainers 4377', 4430', and soft cement to 4481'.
	Pressure test to 520 psi. bled to 290 psi in 2 minutes.

START COMPELETION
Page 3
VPR A 182 WDW: WELL HISTORY

07/23/05	RU and run Gr – CBL 4493' to surface.
08/30/05	Set X-Patch tie back assembly @ 3620'-27'.
090/2/05	PU and run 3620' 7" 29# P110 csg with X-Patch seal assembly.
09/03/05	Cmt 7" tie back string w/ 120 sks cmt. Full returns. Sting into X-Patch w/ 15m down weight.
09/08/05	Drill out 7" seal assembly. Test patch and sq. perfs @ 4480' to 500 psi. drl cmt retainer @ 4680' and cmt to 4796'.
09/09/05	Test Sq perfs @ 4760' tp 500 psi. Drl cmt to 5726'
09/10/05	Test all csg to 500 psi for 15 min, OK.
09/11/05	Ran Gr – N log, 7074' to 5000'.
09/12/05	Perf disposal zone: 7041-48', 7002-24', 6958-82', 6804-10', 6722-30', 6649-94', 6615-35'.
09/13/05	Perf disposal zone: 6337-46', 6214-50', 6192-94', 6162-87', 6133-51', 6100-20', 6091-97', 6052-58', 6044-48'. PU and run 2 7/8" tbg w/ 7" Pkr @ 6019'.
09/14/05	Swab well. Fl @ 3500' thru 18 swab runs. Obtained 8 samples for Analysis. LD work string.
09/15/05	PU and run 7" nickel plated pkr and 4 ½" tbg. Set @ 5953'. Run MIT, 500 psi for 1 hour, OK. RD MO.
09/17/05	Ran injection test – 7 bpm @ 85 psi, increase rate to 10 bpm @ 174 Psi. SD. Well on vaccum. Final Report.

elpaso | Production

P.O. Box 190
Raton, New Mexico 87740

November 1, 2005

Mr. William Jones
Petroleum Engineer
NMOGC Division
1220 S St Francis
Santa Fe, NM 87505

Re: VPR A 182 WDW
"Notice of Application for Fluid Injection Well Permit"

Dear Mr. Jones:

Please find attached the "Notice of Application" article , published in our local Newspaper "The Raton Range", an amended Form C-105 (showing the formation Tops) and a "Water Analysis Report by Baker Petrolite".

Please notify us if you are in need of further information.

Sincerely,

Shirley Mitchell

Shirley A. Mitchell
Regulatory Analyst
El Paso Raton, LLC

For Donald R. Lankford
Production Manager

DRL:sam
Enc. (Newspaper Article, Form C-105, Water Analysis)
Cf: Roy Johnson, District Supervisor.

"Notice of Application for Fluid Injection Well Permit" El Paso Energy Raton, Corp., 1001 Louisiana, Houston, Texas, is seeking administrative approval from the New Mexico Oil Conservation Division to complete their Vermejo Park Ranch A-182 WDW, located in Section 28, T-32N, R-20E, Colfax County, Vermejo Park Ranch, New Mexico, as a water disposal well. The proposed intervals are as follows: Dakota Formation from 6044' to 6250', Morrison Formation from 6337' to 6346', Entrada Formation from 6615' to 6694', Chinle Formation from 6722' to 6810' and the Glorieta Formation from 6958' to 7048'. El Paso Energy Raton, Corp. plans to inject a maximum injection pressure of 1200 psi. Interested must file objections or request for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice.

Donald R. Lankford

Production Manager

El Paso Energy Raton, Corp.

P.O. Box 190
Raton, NM 87740

(505) 445-6721
(505) 445-6788 Fax

Legal No. 543205. Published in The Raton Range: October 28 and November 1, 2005.

Submit To Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies
District I
1625 N. French Dr., Hobbs, NM 87240
District II
811 South First, Artesia, NM 87210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis
Santa Fe, NM 87505

Form C-105
Revised March 25, 1999

WELL API NO. **30-007-20540**

5. Indicate Type of Lease STATE ☐ FEE ■

State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER **WATER DISPOSAL**

AMENDED

b. Type of Completion: NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER **Water Disposal**

7. Lease Name or Unit Agreement Name: **VPR A**

2. Name of Operator: **EL PASO ENERGY RATON, LLC**

8. Well No. **182 WDW**

3. Address of Operator: **PO BOX 190, RATON, NM 87740**

9. Pool name or Wildcat: **97222**

4. Well Location

Unit Letter **E** : **2166** Feet From The **North** Line and **1074** Feet From The **West** Line

Section **28** Township **32N** Range **20E** **NMPM** **COLFAX** County

10. Date Spudded	11. Date T.D. Reached	12. Date Compl. (Ready to Prod.)	13. Elevations (DF, RB, RT, GR, etc.)	14. Elev. Casinghead
02/26/05	04/26/05	09/17/05	8,191' (GL)	

15. Total Depth	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones? (2)	18. Intervals Drilled By	Rotary Tools	Cable Tools
7,168'	4,188'	Entrada /Glorieta		0 - TD	NONE

19. Producing Interval(s), of this completion - Top, Bottom, Name **(Formations)**
Glorieta : 7041'- 7048', 7002'- 7024', 6958'- 6982', 6804'- 6810', 6722'- 6730'
Entrada: 6649'- 6694', 6615'- 6635', 6337'- 6346', 6214'- 6250', 6192'- 6194', 6162'- 6187', 6133'- 6151', 6100'- 6120, 6091'- 6097', 6052'- 6058', 6044'- 6048'

20. Was Directional Survey Made: **NO**

21. Type Electric and Other Logs Run
Mud log, Temperature Log, Neutron Gamma Ray, and Cement Bond Log

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
16"	80#	312'	20"	340 sks	NONE
11 3/4"	54#	2383'	14 3/4"	800 sks	NONE
8 5/8"	32#	3936'	10 5/8"	340 sks	NONE

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
7"	3824'	7100'	400 sks	No
7"	Surface	3620'	120 sks	No

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
4 ½"	5953'	

26. Perforation record (interval, size, and number)
7041'- 7048', 7002'- 7024', 6958'- 6982', 6804'- 6810', 6722'- 6730'
6649'- 6694', 6615'- 6635', 6337'- 6346', 6214'- 6250', 6192'- 6194',
6162'- 6187', 6133'- 6151', 6100'- 6120, 6091'- 6097', 6052'- 6058',
6044'- 6048'

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

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

28 **PRODUCTION**

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

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.)*

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

Test Witnessed By

30. List Attachments

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

Printed Signature: DR Lankford

Name: **Donald R. Lankford** Title: **Production Manager** Date: **09/27/05**

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	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta **6954'**	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota **6032'**	T_Raton – **350'**
T. Blinebry	T. Gr. Wash	T. Morrison **6323'**	T._Vermejo – **2,000'**
T.Tubb	T. Delaware Sand	T.Todilto	T__Trinidad – **2,280'**
T. Drinkard	T. Bone Springs	T. Entrada **6576'**	
T. Abo	T.	T. Wingate	
T. Wolfcamp	T.	T. Chinle **6701'**	T.
T. Penn	T.	T. Permian	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

Rocky Mountain Region
1675 Broadway, Suite 1500
Denver, CO 80202
(303) 573-2772
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	EL PASO PRODUCTION	Sales RDT:	44625
Region:	ROCKY MOUNTAINS	Account Manager:	TY CLINESMITH (505) 447-0621
Area:	RATON, NM	Sample #:	335087
Lease/Platform:	VERMEJO PARK RANCH 'A'	Analysis ID #:	54851
Entity (or well #):	182	Analysis Cost:	$40.00
Formation:	UNKNOWN		
Sample Point:	DOWNHOLE (8)		

Summary	
Sampling Date:	9/15/05
Analysis Date:	10/5/05
Analyst:	STACEY SMITH
TDS (mg/l or g/m3):	11356.6
Density (g/cm3, tonne/m3):	1.009
Anion/Cation Ratio:	1.0000001
Carbon Dioxide:	
Oxygen:	
Comments:	

Analysis of Sample 335087 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**5310.0**	**149.78**	**Sodium:**	**3736.1**	**162.51**
Bicarbonate:	**549.0**	**9.**	**Magnesium:**	**7.0**	**0.58**
Carbonate:	**0.0**	**0.**	**Calcium:**	**213.0**	**10.63**
Sulfate:	**1197.0**	**24.92**	**Strontium:**	**11.0**	**0.25**
Phosphate:			**Barium:**	**1.5**	**0.02**
Borate:			**Iron:**	**115.0**	**4.16**
Silicate:			Potassium:	217.0	5.55
			Aluminum:		
Hydrogen Sulfide:			Chromium:		
pH at time of sampling:		7.7	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**7.7**	Manganese:		
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.73	25.99	-0.82	0.00	-0.88	0.00	-0.38	0.00	1.89	1.04	0.13
100	0	0.79	31.88	-0.83	0.00	-0.83	0.00	-0.37	0.00	1.73	1.04	0.19
120	0	0.86	38.81	-0.84	0.00	-0.76	0.00	-0.35	0.00	1.60	0.69	0.27
140	0	0.93	46.44	-0.83	0.00	-0.66	0.00	-0.33	0.00	1.50	0.69	0.38

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

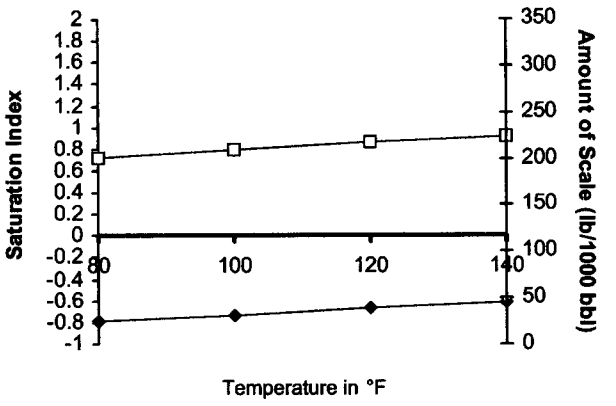
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

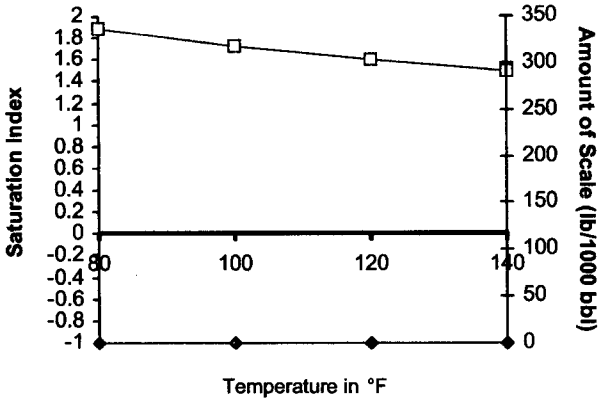
Scale Predictions from Baker Petrolite

Analysis of Sample 335087 @ 75 °F for EL PASO PRODUCTION, 10/5/05

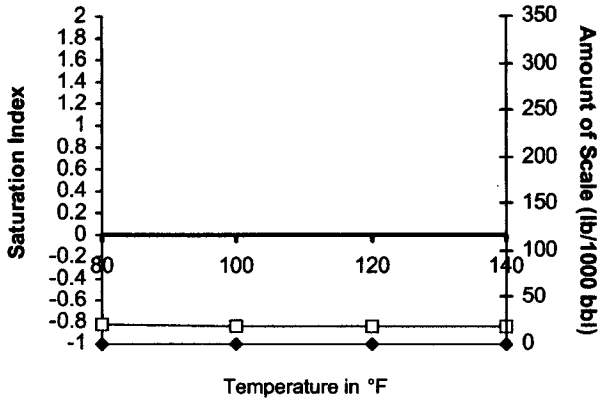
Calcite - CaCO3



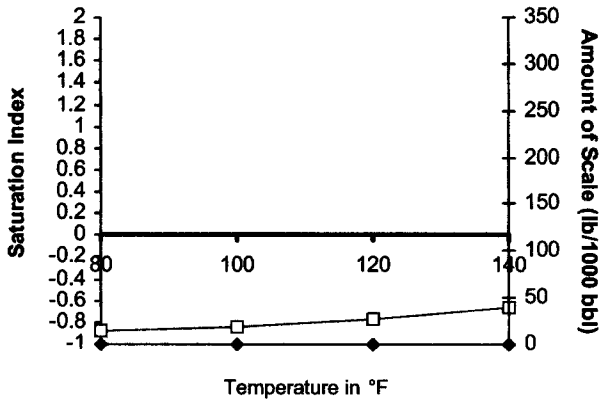
Barite - BaSO4



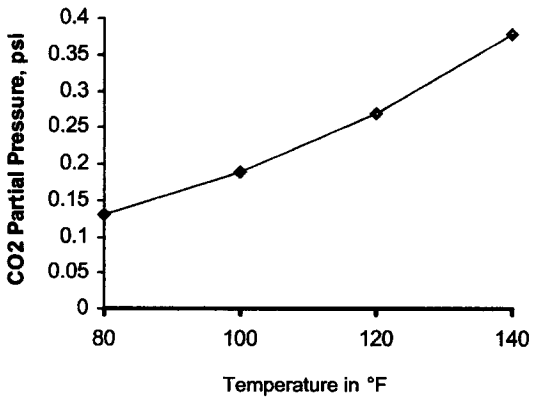
Gypsum - CaSO4*2H20



Anhydrite - CaSO4



Carbon Dioxide Partial Pressure



Celestite - SrSO4