DATE IN 6/7/10	SUSPENSE	ENGINEER WVJ	LOGGED IN	TYPE SWD	APP NO. pWVJ 1015860872

9/15/10

ABOVE THIS LINE FOR DIVISION USE ONLY 1248

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

Samson

Samson Plaza
Two West Second Street
Tulsa, Oklahoma 74103-3103
USA
918/591-1791

SENT VIA FEDERAL EXPRESS

June 4, 2010

State of New Mexico
Energy, Minerals and Natural Resources Department
Attention: Mr. William V. Jones
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Reference: Samson Resources Company
Disposal Permit Modification – Order No. R-6646
State C A/C 1 #3 SWD
Lea County, NM

Dear Mr. Jones:

Please find enclosed the following required documents in an effort to modify the State C A/C 1 #3 SWD in Lea County, New Mexico Disposal Order No. 6646.

1. Original and one copy of Form C-108 (One copy sent to the Hobbs, NM District Office)
2. Map that identifies all wells and leases within 2 miles and a ½ mile radius defining the area of review .
3. Tabulation of wells within the area of review
4. Schematic of P&A'd wells within area of review.
5. Data on the injection operation
6. Injection water analysis and formation water analysis
7. Chemical Analysis of Fresh Water Wells from two or more fresh water wells
8. Wellbore schematic
9. No stimulation program anticipated
10. Logs provided to the State of New Mexico, Oil Conservation Division in 1981 (document imaging available)
11. Affirmative Statement
12. Proof of Notice - Application submitted, via certified mail, to the surface owner and each lease-hold operator within ½ mile of the above referenced well.
13. Proof of Notice - Photocopy of published newspaper Legal Notice and Affidavit of same will be submitted under separate cover.

Please note the above listed documents were submitted in the original application by the previous operator, Sun Texas Company, in 1981 and approved under Order No. R-6646.

Please do not hesitate to contact Kenneth Krawietz, Manager, Division Operations at (432) 686-6337 or kkrawietz@samson.com if additional information is required.

Thank you.

Sincerely,

SAMSON

Debbie Bedingfield
Environmental & Safety Technician

DB:

Enclosures

Cc: State of New Mexico
Energy, Minerals and Natural Resources Department
District 1
1625 N. French Drive
Hobbs, New Mexico

Engineering- File

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? _____ Yes _____ No

II. OPERATOR: Samson Resources Company
ADDRESS: Two West Second Street, Tulsa, OK 74103-3103

CONTACT PARTY: Kenneth Krawietz PHONE: (432) 686-6337

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).

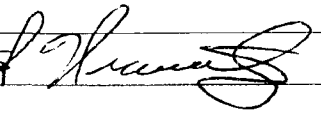
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: Kenneth Krawietz TITLE: Manager-Division Operations

SIGNATURE:  DATE: 6/7/10

E-MAIL ADDRESS: kkrawietz@samson.com

* 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: Application submitted in 1981 by Sun Texas Company; Permit Order No. R-6646 approved April 7, 1981; acquired by Samson Resources Company

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Samson Resources Company

WELL NAME & NUMBER: State C A/C 1 #3 SWD

WELL LOCATION:	1980 FSL & 660 FWL	L	2	12S	33E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC (See Attached)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17" Casing Size: 13 3/8" @ 324'

Cemented with: 350 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12 ¼" Casing Size: 9 5/8"

Cemented with: 2700 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8 7/8" Casing Size: 5 ½"

Cemented with: 3000 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Total Depth: 11,370'

Injection Interval

11,034 feet to 11,370 feet

(Perforated or **Open Hole;** indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: Plastic

Type of Packer: AS-1Pkr @ 10,380'; Perma Latch @10,660' (left in hole 9/89); Perma Latch @10,608 (left in hole 5/05)

Packer Setting Depth: 10,380

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? Devonian Producer in 1950. Converted to injection in 1981.

2. Name of the Injection Formation: Devonian

3. Name of Field or Pool (if applicable): Bagley Siluro - Devonian

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. 9950' (sqzd by circ 2800 sxs cmt)

   10,856' to 10,890' (sqzd w/ 250 sxs Cl "H"); 10,907' to 10,994' (sqzd w/ 150 sxs Cl "H")

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Devonian Formation – Top 10,848'

   Mississippian – Top 10,330' (not productive in the field)

   Penn - Top 8,897

Jones, William V., EMNRD

From: Debbie Bedingfield [DBEDINGFIELD@samson.com]
Sent: Wednesday, September 22, 2010 3:13 PM
To: Jones, William V., EMNRD
Cc: Kenneth Krawietz; Gina Saddler; Autumn Long
Subject: FW: State C A/C 1 #3 SWD - Lea County, NM (API #30-025-01036)
Attachments: [Untitled].pdf

Mr. Jones, please find attached, a modified Well Bore Diagram and Form C-103 Subsequent Well Integrity Tests and Repair reports.

Please do not hesitate to contact me if additional information is required.

Thank you.

Debbie Bedingfield
Environmental & Safety Technician
Telephone: (918) 591-1388
Fax: (918) 591-7388

-----Original Message-----
From: Debbie Bedingfield
Sent: Wednesday, September 22, 2010 3:54 PM
To: Debbie Bedingfield
Subject:

Jones, William V., EMNRD

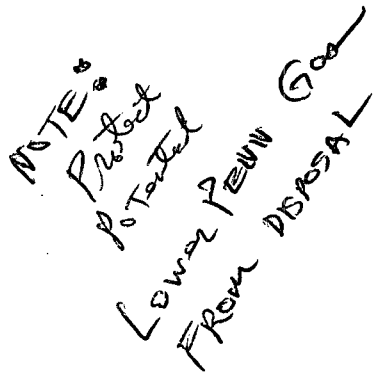
From: Jones, William V., EMNRD
Sent: Tuesday, September 21, 2010 8:29 AM
To: 'Kenneth Krawietz'
Cc: Brown, Maxey G, EMNRD
Subject: State C AC 1 #3 Devonian SWD Well 30-025-01036 Bagley Caprock area Lea County, New Mexico

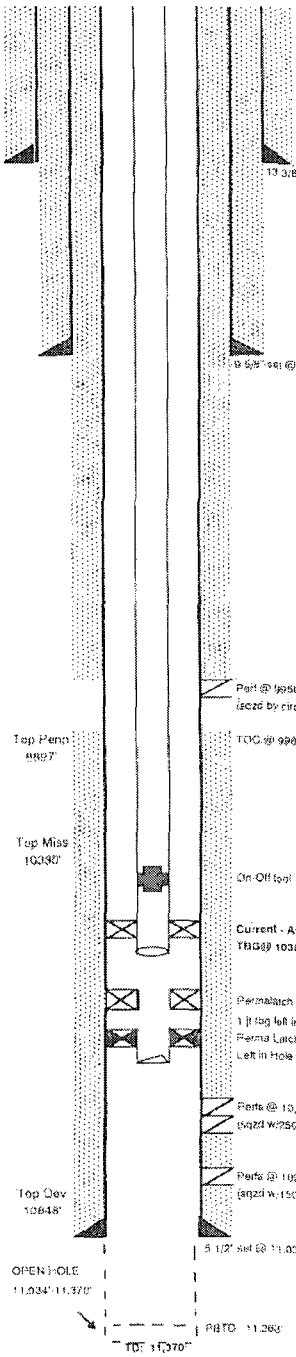
Hello Kenneth:
Looks like Samson's Rule 5.9 compliance status is A-OK this morning.

Please mail to me here in Santa Fe a new Well Bore Diagram of this well showing the current exact packer setting depth and the condition of the last MIT test and I will re-evaluate this application.

Regards,

Will Jones
New Mexico
Oil Conservation Division
Images Contacts





WELL:	State "C" A/C 1 #3 SWD	**OPERATOR:**	S R C	**SPUD DATE:**	4/3/1954
COUNTY:	Lea	**LEASE#:**	030253 -0003 & 030254	**LOCATION:**	Sec 2-T12S-R33E
STATE:	New Mexico	**FIELD:**	Bagley		
API:	30-025-01036	**FORMATION:**	Devonian		
TD:	11,370 (OH)				
PBTD:	11,260 (OH)	**ELEVATION:**	4,245' Derrick Floor	**ZERO DATUM:**	20.0' FT. ABOVE: GL

CASING RECORD

SURFACE CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
13.375"	48.00#	H40	ST&C	0'	324'		17.000"	350	Circ.
9.625"	36.00#	J55		0'	3,894'		13.000"	2700	Circ.

PRODUCTION CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
5.500"	17.00#	N80		0'	11,034'		8.750"	3000	Circ

TUBING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.
2.875"	6.50#	N80	EUE	0'	10,380'	333	

PERFORATION RECORD

DATE	TOP	BOTTOM	SPF	ZONE	STATUS
08/10/54	10,907'	10,994'	6	Devonian	Sqz'd
09/16/70	10,856'	10,860'	2	Devonian	Sqz'd
08/06/73	10,860'	10,890'	1	Devonian	Sqz'd

TREATMENT

8/10/1954	Acidized 10,907'-10994' w/5000 gals mud acid. Well flowed 270 bbls in 6 hrs.
9/10/1970	Acidized 10856'-10890' w/500 gal 28% acid. Reset pkr to 10791' and acidized w/2000 gal 15% NE acid.
8/22/1973	Acidized to 10791' w/4,000 gals 20% NE acid using ball sealers.
11/7/1978	Well TA'd due to water disposal problems.
7/23/1985	Converted well to SWD.
8/2/1985	Acidized 11,034'-11,370' w/3000 gals 15% NEFCL. BDP 0, ISIP Vac, AIR 6.5 BPM. Injection rates after acid job, 3 BPM, 3 hr inj. rate of 146 BPH on vac.
9/2/1985	
4/14/1987	Acidized OH f/11,034'-11,370' w/200 gals Xylene and 1000 gals 15% acid @ 8 BPM @ 80#, ISIP vac. Well still would not take water (gravity). Set centrifugal pump. Found PBTD @ 11,263'.
10/13/1987	Acidized OH 11,034'-11,370' w/8,000 gals 15% NE HCL in 4 stages. BDP 20 ps, FP 200, ISIP 4 BPM vac.
9/15/1993	Acidized OH f/10,852'-11,278' w/3,000 gals 15% NEFE HCL. Max TP 1000 psi @ 4.8 BPM, ATP 460 psi, ATP 470 psi @ 4 BPM. After 24 hrs, injecting 8200 BWPD, TP 0# on vac.
10/3/1993	BJ Titan acidized OH f/ 11,034' 11,370' w/3,000 gals 15% NEFE HCL acid, AIR 4.8 BPM, MP 400#, AP 150#, ISIP Vac. Put well on injection, TP 100# @ 7800 BWPD.
5/11/1995	Acidized OH f/11,034'-11,370' w/8,000 gals 15 % HCL and 3,000 gals gelled brine in 4 stages. Press test to 500 psi. Put on injection at 3200 BWPD on vac.
1/27/1999	Repaired tubing and line from tank to disposal well and put back on injection.
9/13/2000	Repaired leak in tubing. Mixed 110 gal set Totolite CRWD 132F w/300 bbls fresh water. Pressured up to 510 psi. RD truck and released. Put well on injection. Injection rate w/pumping running 6472 BPPD @ 94 psi. Injection rate w/out pump running 7645 BPPD at 12 in vac.
06/18/03	Acidized tbg w/2000 gal 15% HCL w/2 gal EP-3 NE, 4 gal 1-3 inhibitor, 10 gal LAC
11/4/03:	Acidized tbg w/3500 gal 15% HCL w/2 gal EP-3 NE, 4 gal 1-3 inhibitor, 10 gal LAC
12/1/03:	Machanical Integrity Test
05/29/05:	Mechanical Integrity Test - Passed
02/26/07:	Mechanical Integrity Test - Passed
06/26/08:	Mechanical Integrity Test - Passed
01/23/09:	Mechanical Integrity Test - Passed
03/22-30/10:	**Mechanical Integrity Test failed. Pressure tested, replaced tbg as needed, set pkr @ 10380'**
03/31/10:	**Mechanical Integrity Test - Passed**

REMARKS

Status: Salt Water Disposal Well with Open Hole f/11,034'-11,370'. PBTD @ 11,260' due to 107' fill.

SRC WI%:	BHT: 180° F
ZONE PENALTY:	BHP:
COMPETITIVE:	EST SITP:
PERC CLASS:	EST WHSIP:
FORCE POOL:	COMPRESSOR DETAIL:
SRC OFFSET/ZONE:	
LOGS:	PUMPING UNIT DETAIL:

Tubular Cap.	Bbl/ft	Ft3/ft
Tubing	0.00579	0.03253
Casing	0.02324	0.13050

Annular Cap.	Bbl/ft	Ft3/ft
Tubing x Casing	0.01521	0.08540
Casing x Hole	0.04500	0.25260

TUBULAR GOODS PERFORMANCE

Material	Tensile (lbs)	Burst (psi)	Collapse (psi)	ID (in)	Drift (in)
13.375" 48# H40 ST&C	322,000	1,730	770	12.715	12.559
9.625" 36# J55	394,000	3,520	2,020	8.921	8.765
5.5" 17# N80	397,000	7,740	6,280	4.892	4.767
2.875" 6.5# N80 EUE	144,960	10,570	11,160	2.441	2.347

*13.375" and 9.625" assumed to be ST&C and 5.5" assumed to be LT&C. *Safety Factor Not Included

Engineer: Eric DuSaw
Office#: 918-591-1929
Home#:

Prepared By: Sarah White
Date: 12-5-96
Updated: 9/21/2010 DAB

Samson

Samson Plaza
Two West Second Street
Tulsa, Oklahoma 74103-3103
USA
918/591-1791

SENT VIA FEDERAL EXPRESS

April 28, 2010

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
Attn: Elidio Gonzales
1625 North French Drive
Hobbs, NM 88240

Reference: C-103 Subsequent Reports:
State BD #3 - Lea County, NM
State C A/C 1 #3 - Lea County, NM

Dear Mr. Gonzales:

Please find enclosed, the above referenced C-103 subsequent reports for the State BD #3 and State C A/C 1 #3 in Lea County, New Mexico

Please do not hesitate to contact me at (918) 591-1364 if you have any questions, or need additional information.

Thank you very much.

SAMSON

Autumn M. Long

Autumn Long
Environmental Specialist

DB:

cc: Gerry Petree – Superintendent

Submit 1 Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
October 13, 2009

WELL API NO. 30-025-01036	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No.	
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. Type of Well: Oil Well ☐ Gas Well ☒ Other: SWD	7. Lease Name or Unit Agreement Name STATE C AC 1 8. Well Number 3
2. Name of Operator Samson Resources Company	9. OGRID Number 20165
3. Address of Operator Two West Second Street, Tulsa, OK 74103	10. Pool name or Wildcat SWD Devonian
4. Well Location Unit Letter L : 1980 feet from the South line and 660 feet from the West line Section 2 Township 12S Range 33E NMPM Lea County	
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 4245' DF	

12. 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 ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: Repair Tubing Leak and Well Integrity Test ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

3-22-2010:
Mechanical Integrity Test Performed – Failed; witnessed by Maxie Brown with OCD

3-23-2010:
Move in Spot Rig

3-24-2010:
MIRU TWS WSU; RU pump truck; pump via tubing 20 bbls. fresh water to static/vacuum; open tubing valve; use Quad Monitor to check for H2S, no H2S, well on vacuum; open annulus – annulus on vacuum; no H2S; ND well head ass'y – tbg slips 'frozen'/will not release; release pkr ass'y – reciprocate & rotate to release pkr ass'y; LD landing joint tbg with tbg slips' 'frozen' on tube; NU manual BOP ass'y; TOH with 331 jts.2.875" tbg + 1 – 10' x 2.875" tbg sub + on/off tool ass'y + 2.875" x 5.500" ArrowSet I 10K Pkr ass'y (all tbg IPC – top 60 jts tbg I.D. scaled with 0.25" 'sheath'); test landing jt. tbg to 500 psi – tested OK (heavy external pitting on land jt. tbg – remainder of tbg external appearance good); TIH open-ended with top 200 jts. 2.875" tbg; SWI – SDFN.

3-25-2010:
Pump 20 Bbl. water down csg – pump 20 bbl. down tbg – MIRU Petroplex –pump 5000 gal 15% NEFE containing 20 gal inhibitor, 5 gal non-emulsifier, 25 gal liquid citric acid, pumped 0.4 BPM, with 0 psi, flush 120 bbl. Water – RD Petroplex – TOH tubing SLM
Close BOP: SDFN

3-26-2010:
Continued testing tubing in hole, 332 jts, @ 10,380', RD tbg testing truck, set pkr in 20 pt. compression, MIRU pump truck, loaded csg w/ 24 bbls, test csg w/ 340#, looked good, shut-in well SDON

3-27-2010:
Continued testing tbg in hole, 332 jts, @ 10,380', RD tbg testing truck, set pkr in 20 pt. compression, MIRU pump truck, loaded csg w/ 24 bbls, test csg w/ 340# looked good, shut-in well SDON

3-29-2010:
Well static. Release On/Off Tool. Displace annulus to pkr fluid. Latch up. Bleed air. Test to 400# - Held for 20 min. SDFN.

3-30-2010:
Well static. ND BOP. Change out WH. Install 7 1/16" x 3000# flange. Pressure test annulus to 400#. Hold for 30 min. Good test. Bleed press. RDMO PU.

3-31-2010:
Performed Mechanical Integrity Test witnessed by M. Brown. Well returned to injection.

Packer Type: Arrow Set 1 10K Packer
Packer Depth: 10,380' (Perma Latch Junk Body Packer Left in hole 9-89 approximately 10,900')
Injection Intervals: Top: 11,034 Bottom: 11,370

Total Load Left to Recover: 370 Bbl. - Will Not Be Recovered

Spud Date: | Rig Release Date:

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

SIGNATURE Autumn N. Long TITLE: Environmental Specialist DATE 4/28/10

Type or print name: Autumn Long E-mail address: autumnl@samson.com PHONE: (918) 591-1364

For State Use Only

APPROVED BY:_____ TITLE_____ DATE_____

Submit 1 Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

COPY

Form C-103
October 13, 2009

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

WELL API NO.	30-025-01036
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	

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. Type of Well: Oil Well ☒ Gas Well ☐ Other	7. Lease Name or Unit Agreement Name: STATE C AC 1
	8. Well Number: 3
2. Name of Operator: SAMSON RESOURCES	9. OGRID Number: 20165
3. Address of Operator: 200 N LORAINE, STE 1010, MIDLAND, TX 79701	10. Pool name or Wildcat: BAGLEY SILURO - DEV

4. Well Location
Unit Letter L : 1980 feet from the S line and 660 feet from the W line
Section 2 Township 12S Range 33E NMPM LEA County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
4254' DR

12. 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	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	☐			OTHER: PERFORMED WELL INTEGRITY TEST	☒		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

3-31-10

Performed a well integrity test witnessed by OCD M Brown. Well returned to injection.

Orig Mailed 4/8

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

SIGNATURE [signature] TITLE Operations Manager DATE 04-10-2010

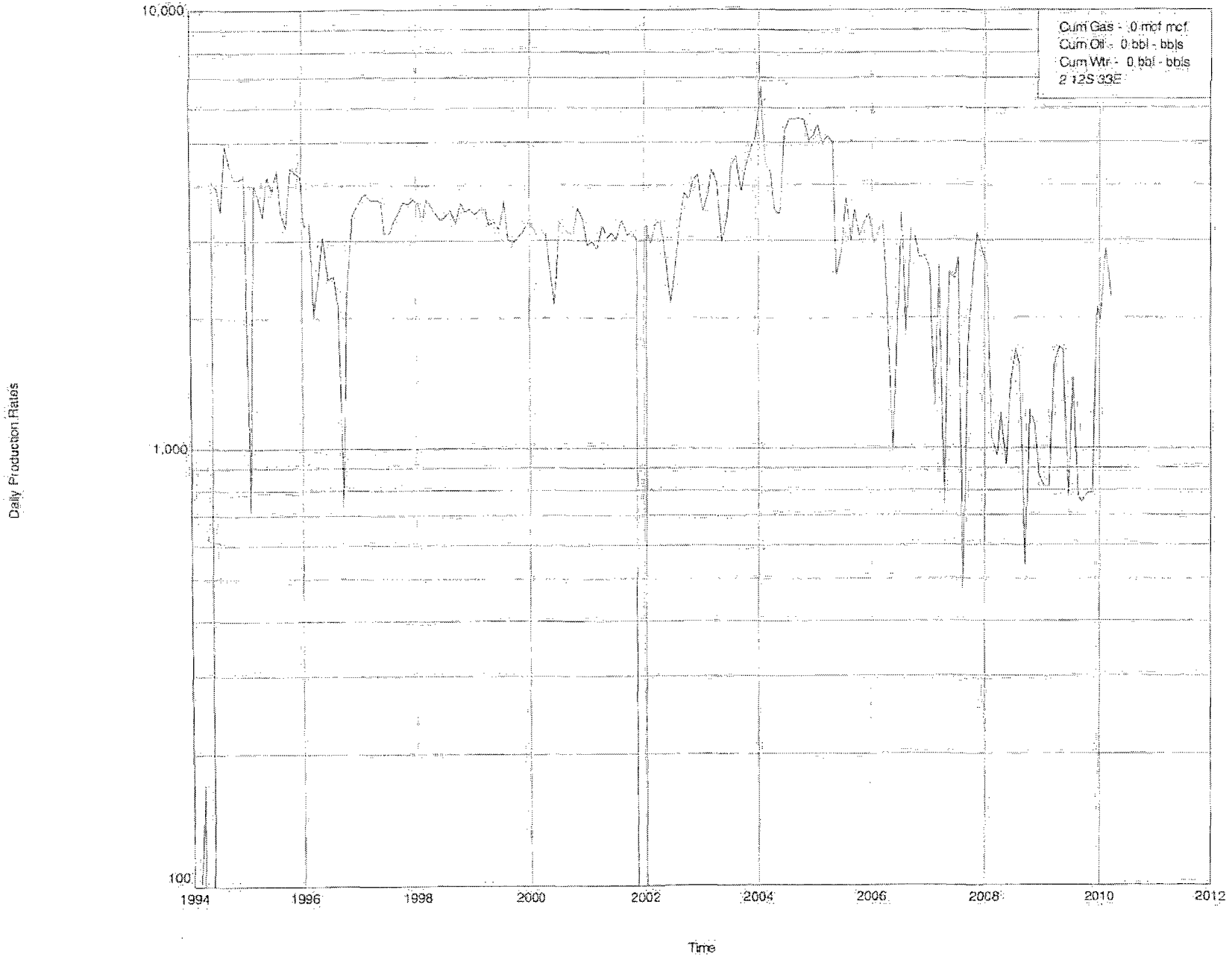
Type or print name Kenny Krawietz E-mail address: kkrawietz@samson.com PHONE: 432-683-7063

For State Use Only

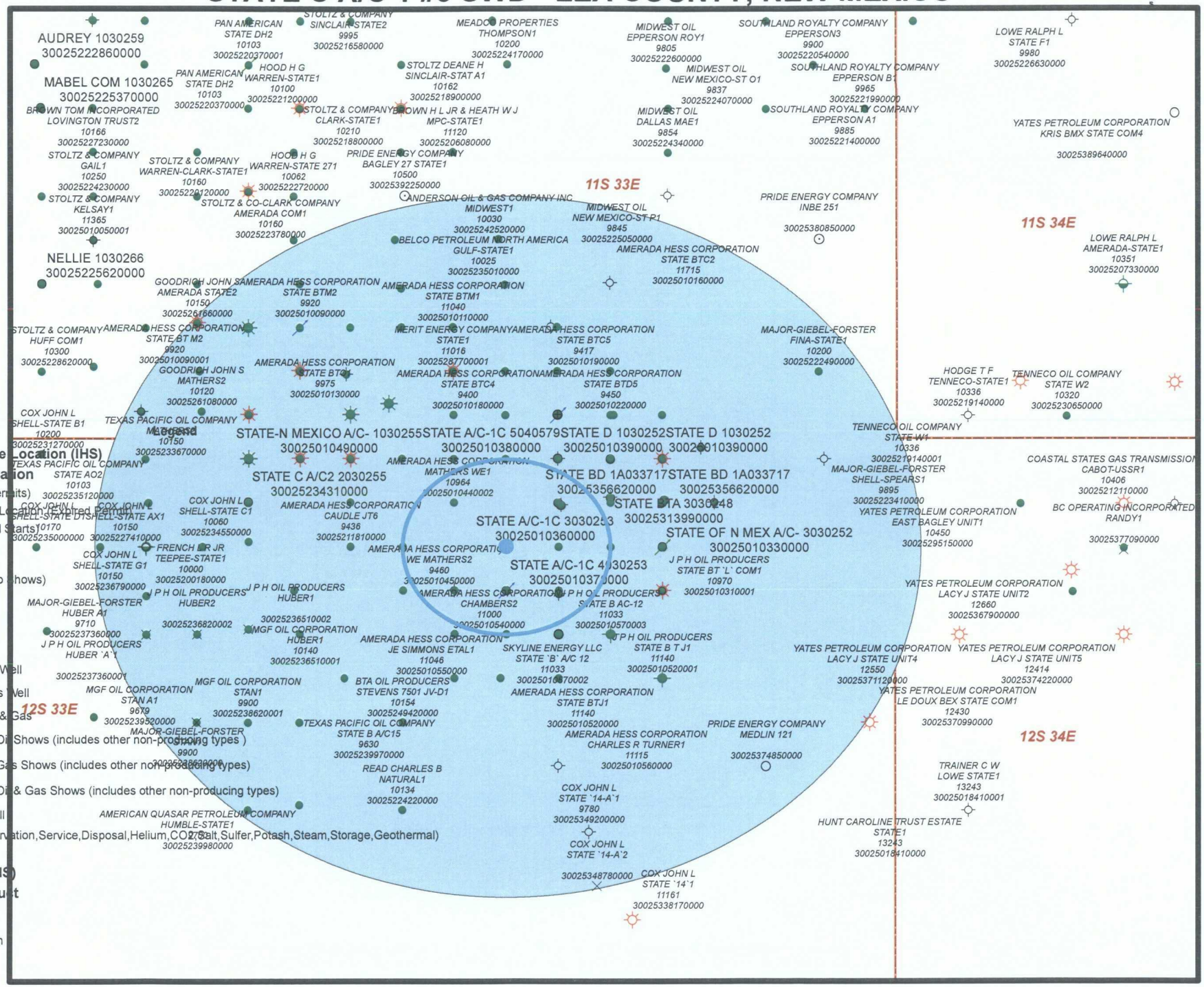
APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

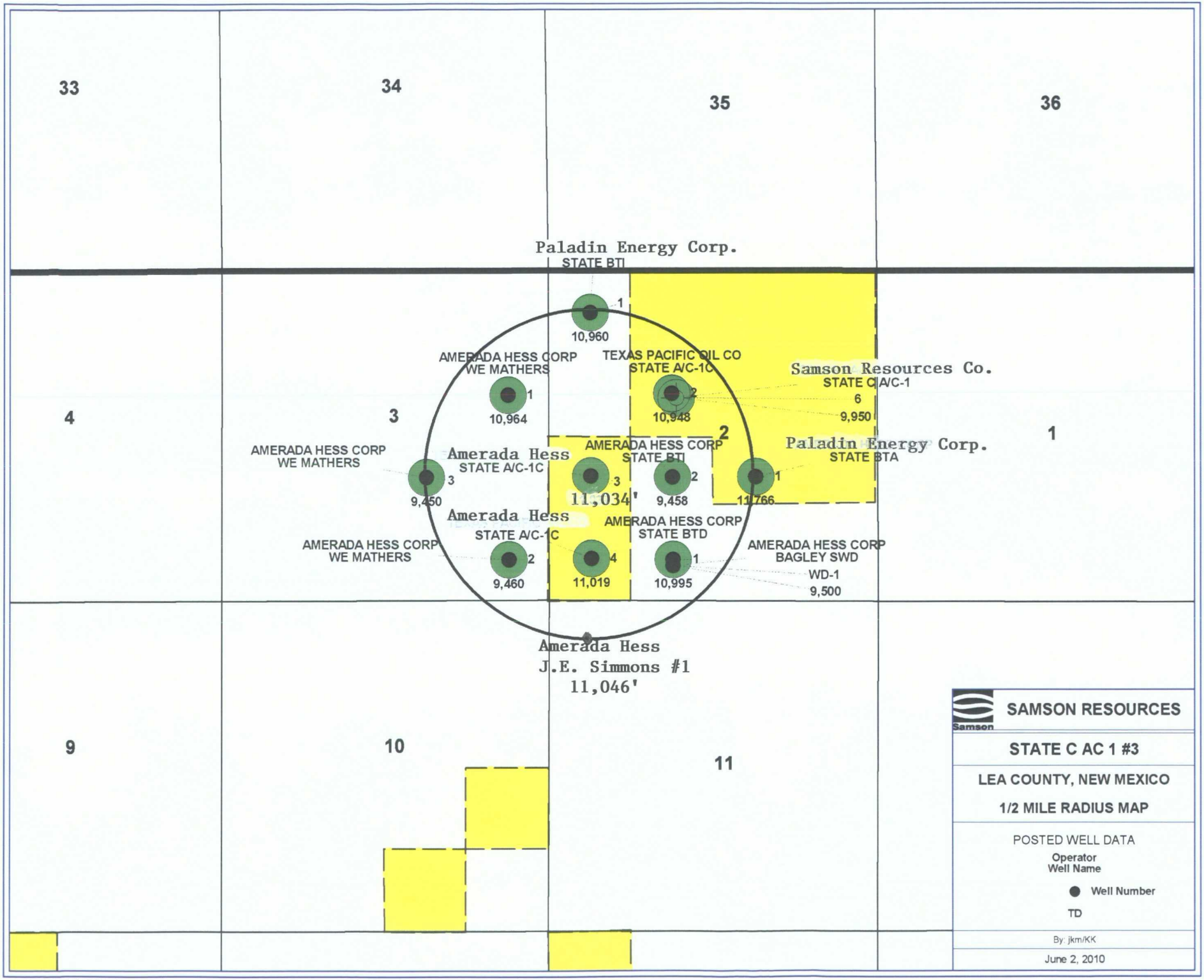
STATE C AC 1 - 3 - SWD - DEVONIAN - SAMSON RESOURCES COMPANY - 30025010360000



STATE C A/C 1 #3 SWD - LEA COUNTY, NEW MEXICO

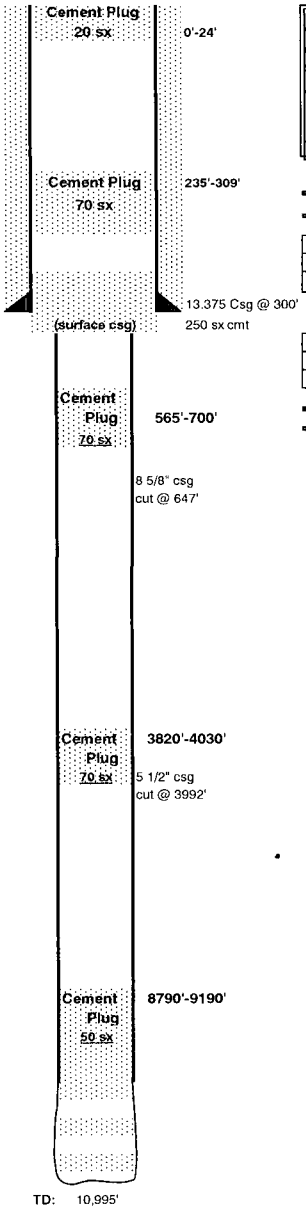


TWO MILE AND 1/2 MILE RADIUS



PETRA 6/2/2010 10:10:58 AM

Operator	Lease Name	Well #	API Number	Type	Unit/Location	Date Drilled	Completion Date	Total Depth	Top of Cement	Producing/Formerly Producing Devonian Intervals	Producing Formation	Status
Paladin Energy Corporation	State BT A	1	30-025-01025	Oil	J-02-12S-33E	11/25/1948	1/16/1949	11766'	3,170'; 3868'; 7970'; 11,098'	10,812' - 10,848'; 10,865' - 10,895'; 10,950' - 10,965'; 11,000' - 11,015'	Siluro-Devonian	Shutin - TA'D
Amerada Hess Corporation	State BTD	1	30-025-01027	Oil	N-02-12S-33E	8/8/1949	12/6/1949	10995'		OK	Bagley Siluro-Devonian	PA'D (Schematic Attached)
Paladin Energy Corporation	State BT I	1	30-025-01028	Oil	D-02-12S-33E	8/14/1950	12/2/1950	10960'	282'; 3761'; 10,908'	10,842' - 10,875'; 10,898' - 10,905'; 10,922' - 10,960'	Siluro-Devonian	Active
Samson Resources	State C A/C 1	2	30-025-01035	Oil	F-02-12S-33E	2/17/1950	6/3/1950	10948'	10,446'	10,778' - 10,948'	Devonian	Active
Samson Resources Co.	State C A/C 1	3	30-025-01036	SWD	L-02-12S-33E	4/3/1954	8/19/1969	11034' (11,370')	9,980'	10,907' - 10,994'	Devonian	Active
Samson Resources	State C A/C 1	4	30-025-01037	SWD	M-02-12S-33E	6/19/1951	10/25/1951	11019'	Surface; 4,710'	10,852' - 11,275' (Open Hole)	Devonian	Shut-In
Amerada Hess Corporation	W E Mathers	1	30-025-01044	Oil	H-03-12S-33E	10/16/1950	9/3/1968	10964'		OK	Penn	PA'D (Schematic Attached)
Amerada Hess Corporation	Pre-Ongard Well	1	30-025-01055	Oil	D-11-12S-33E	12/9/1949	4/16/1950	11046'		OK	Penn	PA'D (Schematic Attached)



WELL:	State BT "D" #1	**SPUD DATE:**	8/8/1949	**FIELD:**	BagleyStrawn
COUNTY:	Lea	**RR DATE:**		**LOCATION:**	N-Sec. 2-12S-33E
STATE:	New Mexico	**COMP DATE:**	12/6/1949	**DISTANCE:**	660' FSL & 1980 FWL
API #:	30-025-01027	**P&A Date:**	5/30/73	**FORMATION:**	Bagley Siluro-Devonian
TD:	10,995'	**PBTD:**		**ELEVATION:**	4250'

CASING RECORD

SURFACE AND INTERMEDIATE CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
13.375"	54.50#				300'			250	
8.625"	32.00#				3,600'			1000	

PRODUCTION CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
5.500"	17.00#				10,980'			600	

TUBING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	PKR

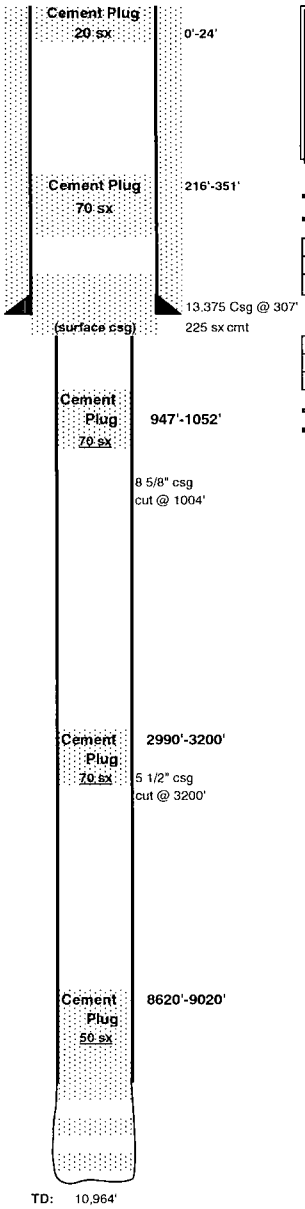
PERFORATION RECORD

DATE	TOP	BOTTOM	SPF	ZONE	STATUS

P&A Report

LOADED HOLE WITH SALT WATER MUD
SPOTTED 50 SX. CEMENT PLUG IN 5-1/2" CASING FROM 8790' TO 9190'
CUT 5-1/2" CASING AT 3992'
SPOTTED 70 SX CEMENT PLUG FROM 3820' TO 4030'
CUT 8-5/8" CASING AT 647'
SPOTTED 70 SX CEMENT PLUG FROM 700' TO 565'
70 SX CEMENT PLUG FROM 235' TO 309' AND 20 SX. CEMENT PLUG FROM 24' TO SURFACE
INSTALLED DRY HOLE MARKER
WELL PLUGGED AND ABANDONED - 5/30/1973

SOURCE: State of New Mexico Oil Conservation Division Document Imaging Database (Form C-103 Subsequent Report of Plug and Abandonment)



WELL:	W. E. Mathers #1	**SPUD DATE:**	10/16/1950	**FIELD:**	BagleyPenn
COUNTY:	Lea	**RR DATE:**		**LOCATION:**	H-Sec. 3-12S-33E
STATE:	New Mexico	**COMP DATE:**	9/3/1968	**DISTANCE:**	662' FEL & 1980 FNL
API #:	30-025-01044	**P&A Date:**	5/30/73	**FORMATION:**	Pennsylvanian
TD:	10,964'	**PBTD:**		**ELEVATION:**	

CASING RECORD

SURFACE AND INTERMEDIATE CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
13.375"				0'	307'			225	
8.625"					3,863'			1500	

PRODUCTION CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
5.500"					10,934'			550	

TUBING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	PKR

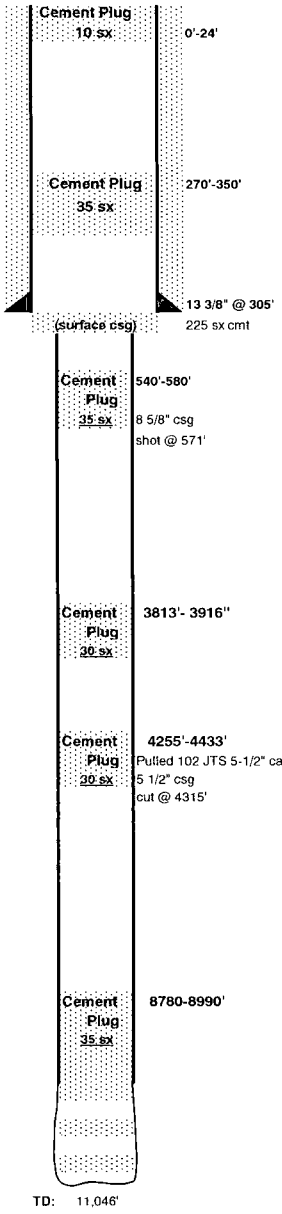
PERFORATION RECORD

DATE	TOP	BOTTOM	SPF	ZONE	STATUS
08/19/69	8,971'	8,975'			
08/19/69	8,979'	8,981'			
08/19/69	9,003'	9,007'			
08/19/69	9,011'	9,025'			
08/19/69	9,200'	9,328'			sqz

P&A Report

SPOTTED 50 SX. CEMENT PLUG IN 5-1/2" CASING FROM 8620' TO 9020'.
LOADED HOLE WITH SALT WATER MUD.
CUT 5-1/2" CASING AT 3200'
SPOTTED 70 SX. CEMENT PLUG FROM 2990' TO 3200'
CUT 8-5/8" CASING AT 1004'
SPOTTED 70 SX CEMEN T PLUG FROM 947' TO 1052'
70 SX CEMENT PLUG FROM 216' TO 351' AND
20 SX CEMENT PLUG FROM SURFACE TO 24'
INSTALLED DRY HOLE MARKER
WELL PLUGGED AND ABANDONED - 5/30/73

SOURCE: State of New Mexico Oil Conservation Division Document Imaging Database (Form C-103 Subsequent Report of Plug and Abandonment)



WELL:	J. E. Simmons #1	**SPUD DATE:**	12/9/1949	**FIELD:**	BagleyPenn
COUNTY:	Lea	**RR DATE:**		**LOCATION:**	D-Sec. 11-12S-33E
STATE:	New Mexico	**COMP DATE:**	4/16/1950	**DISTANCE:**	660' FNL & 660 FWL
API #:	30-025-01055	**P&A Date:**	2/15/59	**FORMATION:**	Pennsylvanian
TD:	11,046'	**PBTD:**		**ELEVATION:**	

CASING RECORD

SURFACE AND INTERMEDIATE CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
13.375"					305'			225	
8.625"					3,866'			1500	

PRODUCTION CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
5.500"					9,450'			600	

TUBING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	PKR

PERFORATION RECORD

DATE	TOP	BOTTOM	SPF	ZONE	STATUS
1959	9,000'	9,040'			
1959	9,580'	9,396'			

P&A Report

RIGGED UP AND PULLED TUBING, RERAN OPENED ENDED AND
SPOTTED 35 SX CEMENT PLUG FROM 8990' TO 8780'
CUT OFF 5-1/2" CASING @ 4315'
PULLED 102 JTS 5-1/2" CASING FOR TOTAL OF 4338'
SPOTTED 30 SX. CEMENT PLUG IN AND OUT OF TOP 5 1/2" CASING FROM 4255'-4433'
SPOTTED 30 SX CEMENT PLUG FROM 3813' TO 3916' IN AND OUT OF BOTTOM OF 8-5/8" CASING.
SHOT 8 5/8" CASNG OFF @ 571' RECOVERED 553' CASING.
SPOTTED 35 SX OF CEMENT PLUG IN AND OUT OF TOP OF 8 5/8" CASING FROM 540'-580'
SPOTTED 30 SX CEMENT PLUG IN AND OUT OF BOTTOM OF 13-3/8" CASING FROM 270' TO 350'
SPOTTED 10 SX PLUG IN TOP OF 13-3/8" CASING W/ 4" DRY HOLE MARKER IN TOP OF 13-3/8" CASING
DATE WORK PERFORMED 2-5 TO 2-10-1959

SOURCE: State of New Mexico Oil Conservation Division Document Imaging Database (Form C-103 Subsequent Report of Plug and Abandonment)

Samson

Samson Plaza
Two West Second Street
Tulsa, Oklahoma 74103-3103
USA
918/591-1791

SENT VIA FEDERAL EXPRESS

June 25, 2010

State of New Mexico
Energy, Minerals and Natural Resources Department
Attention: Mr. William V. Jones
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Reference: Samson Resources Company
Form C-103
State C A/C 1 #4 SWD - Lea County, NM

Dear Mr. Jones:

Please find enclosed the Form C-103, original charts for the Mechanical Integrity Test conducted 5/14/2010 and an updated wellbore diagram for the State C A/C 1 #4 SWD well in Lea County, New Mexico.

Please do not hesitate to contact me at (918) 591-1388, if additional information is required.

Thank you.

Sincerely,

SAMSON

Debbie Bedingfield
Environmental & Safety Technician

DB:

Enclosures

Cc: State of New Mexico
Energy, Minerals and Natural Resources Department
District 1
1625 N. French Drive
Hobbs, New Mexico

Engineering- File

Submit 1 Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
October 13, 2009

WELL API NO.
30-025-01037

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name
STATE C AC 1

1. Type of Well: Oil Well ☐ Gas Well ☒ Other: SWD

8. Well Number 4

2. Name of Operator
Samson Resources Company

9. OGRID Number
20165

3. Address of Operator
Two West Second Street, Tulsa, OK 74103

10. Pool name or Wildcat
SWD Devonian

4. Well Location
Unit Letter M : 660 feet from the South line and 660 feet from the West line
Section 2 Township 12S Range 33E NMPM Lea County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
4237' GR

12. 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	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	☐			OTHER: Ran New Tubing, Set Packer & Well Integrity Test	☒		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

5-14-2010:
Mechanical Integrity Test Performed – Failed; witnessed by Maxie Brown with OCD
Ran new tubing, set packer at 10,727' – did not pass Mechanical Integrity Test – Charts Attached
Well currently Shut-In

Plans to repair - Locate leak and attempt to repair, then will perform subsequent Mechanical Integrity Test

Spud Date: Rig Release Date:

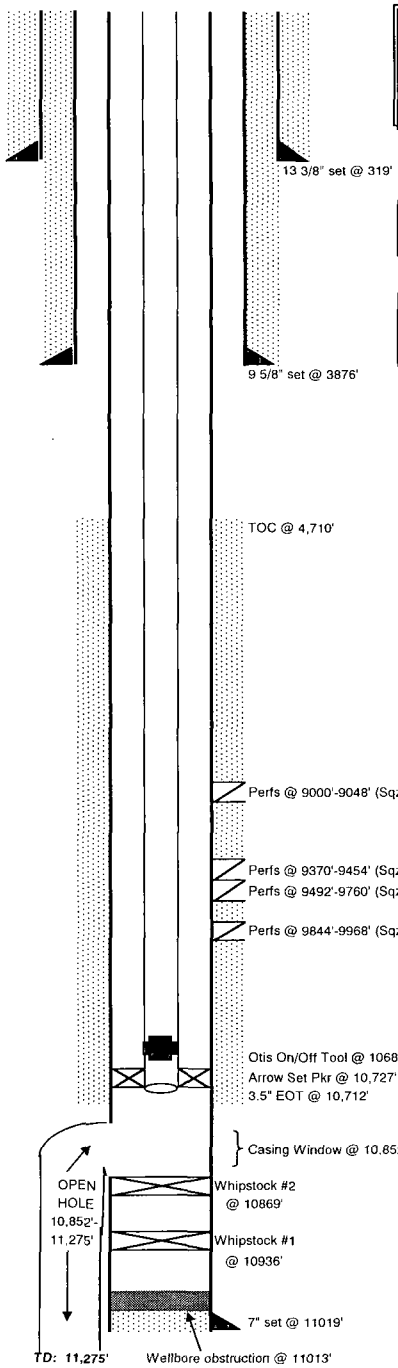
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Autumn M. Long TITLE: Environmental Specialist DATE 6/25/10

Type or print name: Autumn Long E-mail address: autumnl@samson.com PHONE: (918) 591-1364

For State Use Only

APPROVED BY: TITLE DATE



WELL:	State "C" A/C 1 #4 SWD	**OPERATOR:**	S R C	**SPUD DATE:**	6/19/1955
COUNTY:	Lea	**LEASE#:**	030253 -0004	**LOCATION:**	Sec 2-T12S-R33E
STATE:	New Mexico	**FIELD:**	Bagley Hightower		660' FSL & 660' FWL
API:	30-025-01037-0000	**FORMATION:**			
TD:	11,275'				
PBTD:	11,275'	**ELEVATION:**	4,255' KB	**ZERO DATUM:**	13.0' **FT. ABOVE:** GL

CASING RECORD

SURFACE CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
13.375"	48.00#	H40	ST&C	0'	319'		17.000"	350	Surface
9.625"	36.00#	J55	LT&C	0'	3,876'		12.000"	2800	Surface

PRODUCTION CASING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
7.000"	23.00#	N80		0'			8.750"	1825	4,710'
7.000"	26.00#	N80					8.750"		(by T.S.)
7.000"	29.00#	N80			11,019'		8.750"		

TUBING

O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.
3.500"	9.30#		EUE	0'		287	
3.000"	9.30#	N80	EUE		10,723'	53	

PERFORATION RECORD

DATE	TOP	BOTTOM	SPF	ZONE	STATUS
10/23/55	9,000'	9,022'	4	Penn	Sqz'd
10/23/55	9,022'	9,048'	8	Penn	Sqz'd
07/18/73	9,844'	9,968'		Penn	Sqz'd
09/02/73	9,492'	9,760'		Penn	Sqz'd
09/25/73	9,370'	9,454'		Penn	Sqz'd
11/02/88	10,852'	11,275'		Devonian	Open Hole

TREATMENT

10/23/1955	Perf'd Penn zone f/9000'-9,048' and treated w/500 gals mud acid and 1500 gals regular acid.
7/18/1973	Set CIBP @ 10,000', PBTD @ 9998'. Sqz'd Penn perfs w/175 sxs. Perf'd f/9844'-9968' and acidized w/5,000 gals 15% acid.
9/2/1973	Acidized perfs f/9492'-9760' w/2,000 gals 15% acid. No show of oil or gas. Added perfs 9370'-9454' and acidized w/5000 gals 15%. Set CIBP @ 9470'.
12/17/1974	Converted from hydraulic to rod pump.
9/10/1987	Well TA'd after several pulling jobs.
9/6/1988	Deepened well to 11430' and converted to SWD. Sqz'd perfs f/9370'-9454'.
9/10/1988	Drilled out CIBP @ 9470'-9472'. Tagged CIBP @ 9987'. Sqz'd perfs f/9492'-9760' & f/9844'-9968'. Tagged CIBP @ 9987'. Drilled plug f/9997'-9998'. DO CIBP @ 10979'--Fell free to 10,999'. Drilled to 11013'. Problems w/FIH; attempted to recover. Set whipstock #1 @ 10936'; Set whipstock #2 @ 10869'.
11/18/1988	Began drilling 5.875" OH; TD @ 11,240'. Attempted to put well on injection; would not take water @ 2000 psi.
7/18/1989	Worked over well to re-establish injection.
5/2/1995	Acidized w/8000 gals 15% HCL & 3000 gals gelled brine w/2 ppg.
6/2/1996	Acidized w/4000 gals 15% HCL.
11/2/1998	SRC took over operations from ORYX.
12/29/1998	Acidized OH w/5000 gals 15% NeFe acid. AIR 120 psi @ 3.4 BPM. Pre-work rate=1510 BWPD, 185 psi. Post-work rate=22000 BWPD, vacuum.
8/23/1999	Load casing w/1 BW. Pump 1500 gals 15% NEFE with 1.5 gals Low-Surf 300 and 1.5 gals HAI81 Flush w/93 bbls produced water. Ave psi=355, Max psi=841, Ave rate=3.4 BPM, Max rate=4.3 BPM, ISIP=101 psi. Returned well to injection.
6/18/03:	Acidized tbg w/2000 gal 15% HCL w/2 gal EP-3 NE, 4 gal 1-3 inhibitor, 10 gal LAC
11/4/03:	Acidized tbg w/3500 gal 15% HCL w/2 gal EP-3 NE, 4 gal 1-3 inhibitor, 10 gal LAC
12/1/03:	Mechanical Integrity Test
05/14/10:	Csg leak, failed MIT

Comments: *5.875" Open Hole Sidetracked @ 10,852'-11,275'*

MISCELLANEOUS

SRC WI%:	100.00%	**BHT:**	
ZONE PENALTY:		**BHP:**	
COMPETITIVE:		**EST SITP:**	
FERC CLASS:		**EST WHSIP:**	
FORCE POOL:		**COMPRESSOR DETAIL:**	
SRC OFFSET/ZONE:			
LOGS:	Gamma Ray, Caliper Log	**PUMPING UNIT DETAIL:**	

CAPACITIES

Tubular Cap.	**Bbl/ft**	**Ft3/ft**
Tubing(3.0#)		
Tubing(3.5#)	0.00871	0.04888
Casing (23#)	0.03936	0.22100
Casing (26#)	0.03826	0.21480
Casing (29#)	0.03714	0.2085
Annular Cap.	**Bbl/ft**	**Ft3/ft**
Tbg(3.5#) x Casing(23#)	0.02746	0.15420
Tbg(3.5#) x Casing(26#)	0.02636	0.14800
Tbg(3.5#) x Casing(29#)	0.02524	0.14170

TUBULAR GOODS PERFORMANCE

Material	Tensile (lbs)	Burst (psi)	Collapse (psi)	ID (in)	Drift (in)
13.375" 48# H40 ST&C	322,000	1,730	770	12.715	12.559
9.625" 36# J55 LT&C	453,000	3,520	2,020	8.765	8.921
7" 23# N80	442,000	6,340	3,830	6.366	6.241
7" 26# N80	519,000	7,240	5,410	6.276	6.151
7" 29# N80	597,000	8,160	7,020	6.184	6.059
3.5" 9.3# EUE				2.922	2.867
3" 9.3# N80 EUE					

*Assumed all 7" casing is LT&C. *Safety Factor Not Included

Engineer: Eric Outlaw
Office#: 918-591-1929
Home#:

Prepared By: Sarah White
Date: *12-9-96*
Updated: 6-10-97
6/22/2010 gls

SAMSON RESOURCES COMPANY

State C A/C 1 #3 SWD
API No. 30-025-01036
Section: 2-T12S-R33E
Lea County, NM

Average Daily Injection Rate (approx.) : 3,500 BWPD

Maximum Daily Injection Rate (approx.): 5,525 BWPD

System:	**Closed**
Average Injection Pressure:	**0 psi**
Maximum Injection Pressure:	**2200 psi**
Source:	**Devonian Produced Water**

Champion Technologies

Water Analysis Repc

1/24/01

Address: 4419 Harlowe

3025S

Customer: Samson Resources Company

Midland, TX 79703

Attention: Floyd Steed

Lease: St C A/C1

Formation:

Target Name: St C A/C 1 1 | Sample Point: St C A/C 1 1 | Sample Date: 01/15/2001 | Test Date: 01/23/2001

Water Analysis(mg/L)

alcium	2165
agnesium	680
arium	
trontium	
odium(calc.)	18590
icarbonate Alkalinity	1098
ulfate	2495
hloride	32000

Appended Data(mg/L)

CO2	290
H2S	0
Iron	0

Physical Properties

Ionic Strength(calc.)	1.08
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	8.66

Additional Data

Specific Gravity	1.04
Total Dissolved Solids(Mg/L)	57028
Total Hardness(CaCO3 Eq Mg/L)	8199

Dew Point	
Lead	
Zinc	

alcite Calculation Information

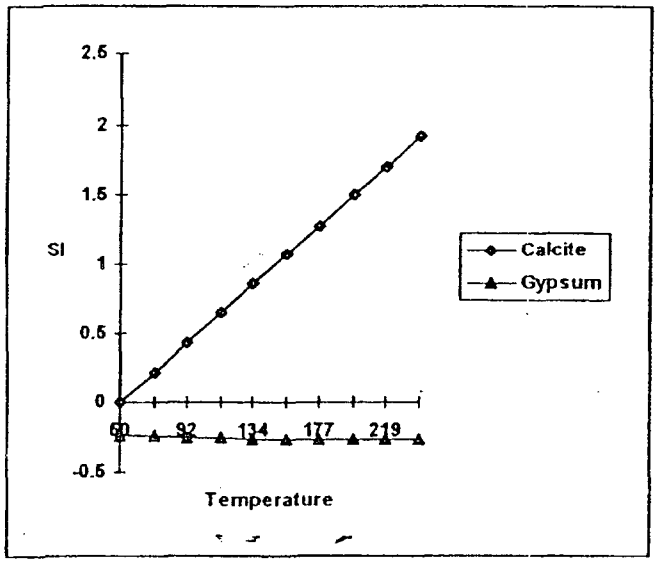
Calculation Method	Value
Known pH	6.90

emarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)	0.41	211.90
Gypsum (Calcium Sulfate)	-0.25	
Hemihydrate (Calcium Sulfate)	-0.23	
Anhydrite (Calcium Sulfate)	-0.43	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

Saturation Indices



Saturation Index Data Points

	Calcite	Gypsum
50	0.01	-0.23
71	0.22	-0.24
92	0.43	-0.25
113	0.65	-0.25
134	0.86	-0.26
156	1.07	-0.26
177	1.28	-0.26
198	1.50	-0.26
219	1.71	-0.26
240	1.92	-0.26

API # 30-025-01034
Basley Field
Silvro-Devonian Formation
Within 1 mile of
State C A/C 1 #3 SWD
Sec. 2 - T12S - R33E

Champion Technologies

Water Analysis Rep

1/24/01

3025

Address: 4419 Harlowe

Midland, TX 79703

Customer: Samson Resources Company

Attention: Floyd Steed

Lease: St C A/C1

Formation:

Target Name: St C A/C 1 2 | Sample Point: St C A/C 1 2 | Sample Date: 01/15/2001 | Test Date: 01/23/2001

Water Analysis(mg/L)

Calcium	2005
Magnesium	535
Barium	
Strontium	
Sodium(calc.)	19006
Bicarbonate Alkalinity	1171
Sulfate	2350
Chloride	32000

Appended Data(mg/L)

CO2	320
H2S	0
Iron	2

Physical Properties

Ionic Strength(calc.)	1.07
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	8.66

Additional Data

Specific Gravity	1.04
Total Dissolved Solids(Mg/L)	57067
Total Hardness(CaCO3 Eq Mg/L)	7205

Dew Point	
Lead	
Zinc	

Calcite Calculation Information

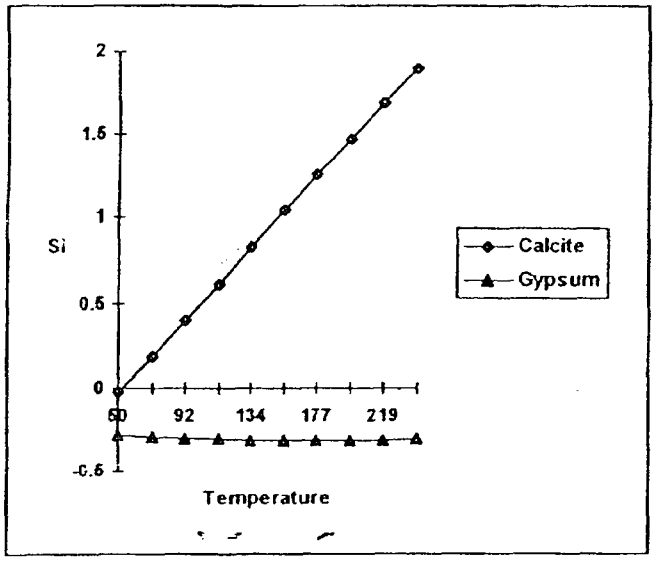
Calculation Method	Value
Known pH	6.87

Remarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)	0.38	210.20
Gypsum (Calcium Sulfate)	-0.30	
Hemihydrate (Calcium Sulfate)	-0.28	
Anhydrite (Calcium Sulfate)	-0.48	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

Saturation Indices



Saturation Index Data Points

	Calcite	Gypsum
50	-0.02	-0.28
71	0.19	-0.29
92	0.40	-0.30
113	0.61	-0.30
134	0.83	-0.31
156	1.04	-0.31
177	1.25	-0.31
198	1.46	-0.31
219	1.68	-0.31
240	1.89	-0.30

API # 30-025-01035
Bagley Field
Devonian Formation
within 1 mile of
State C A/C 1 #3 SWD

Champion Technologies, Inc.

Committed To Improvement

Water Analysis Report

12/10/01

Address: 4419 Harlowe
Midland, TX 79703

Customer: Samson Resources Company
Attention: Floyd Steed
CC:

Lease: State BD
Formation:

Target Name: State West Water Well Sample Point: State West Water Well Sample Date: 11/25/2001 Test Date: 12/06/2001

Water Analysis(mg/L)

Calcium	160
Magnesium	170
Barium	
Strontium	
Sodium(calc.)	909
Bicarbonate Alkalinity	
Sulfate	245
Chloride	2000

Appended Data(mg/L)

CO2	
H2S	
Iron	4

Physical Properties

Ionic Strength(calc.)	0.08
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	

Additional Data

Specific Gravity	
Total Dissolved Solids(Mg/L)	
Total Hardness(CaCO3 Eq Mg/L)	1097

Dew Point	
Lead	
Zinc	

Calcite Calculation Information

Calculation Method	Value
CO2 in Brine(mg/L)	

Remarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)		
Gypsum (Calcium Sulfate)	-1.86	
Hemihydrate (Calcium Sulfate)	-1.66	
Anhydrite (Calcium Sulfate)	-2.11	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

NOTATION: Within 1 Mile of
State C A/C 1 #3 SWD

Champion Technologies, Inc.

Committed To Improvement

Water Analysis Report

12/10/01

Address: 4419 Harlowe
Midland, TX 79703

Customer: Samson Resources Company
Attention: Floyd Steed
CC:

Lease: State BD
Formation:

Target Name: State East Water Well | Sample Point: State East Water Well | Sample Date: 11/25/2001 | Test Date: 12/06/2001

Water Analysis (mg/L)

Calcium	160
Magnesium	170
Barium	
Strontium	
Sodium(calc.)	2185
Bicarbonate Alkalinity	
Sulfate	200
Chloride	4000

Appended Data (mg/L)

CO2	
H2S	
Iron	3

Physical Properties

Ionic Strength(calc.)	0.13
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	

Additional Data

Specific Gravity	
Total Dissolved Solids(Mg/L)	
Total Hardness(CaCO3 Eq Mg/L)	1097

Dew Point	
Lead	
Zinc	

Calcite Calculation Information

Calculation Method	Value
CO2 in Brine(mg/L)	

Remarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)		
Gypsum (Calcium Sulfate)	-1.98	
Hemihydrate (Calcium Sulfate)	-1.80	
Anhydrite (Calcium Sulfate)	-2.23	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

NOTATION: Within 1 Mile of
State C A/C 1 #3 SWD

AFFIRMATIVE STATEMENT
Geologic Data

Reference: **Samson Resources Company**
Injection Permit Modification – Order No. R-6646
State C A/C 1 #3 SWD
Lea County, NM

	Formation	Lithologic Detail	Top	Bottom
Injection Interval:	Devonian	Lime	11,034'	11,370'
Underground Sources of Drinking Water	Santa Rosa	Red Beds	Unknown	Above 1700'
	Dewey Lake	Red Beds	Unknown	Above 1700'

I 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.

Kenneth Krawietz

Kenneth Krawietz
Samson Resources Company
Manager, Division Operations

6/2/10

Date

AFFIDAVIT OF MAILING

Reference: API #30-025-01036
Application to Modify Order No. R-6646,
State C A/C 1 #3 in Sec. 2-T12S-R33E
Lea County, NM

I, the undersigned (Debbie Bedingfield), do hereby declare that on June 4, 2010, I posted a true copy of the above referenced application in Certified U.S. Mail in sealed envelopes addressed to the following, postage pre-paid:

State of New Mexico (Surface Owner)
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, NM 87504-1148

Amerada Hess Corporation (Leasehold Operator within ½ Mile Radius)
P.O. Box 840
Seminole, TX 79360

Paladin Energy Corporation (Leasehold Operator within ½ Mile Radius)
10290 Monroe Drive, Suite 301
Dallas, Texas 75229

Debbie Bedingfield
Environmental & Safety Technician

Subscribed and sworn to before me this the 4th day of June of 2010.

Notary Public
State of Oklahoma
LINDA K. POWELL
TULSA COUNTY
COMMISSION #01014945
Exp. 10-18-2013

Notary Public

My commission expires 10-18-2013

Samson

Samson Plaza
Two West Second Street
Tulsa, Oklahoma 74103-3103
USA
918/591-1791

SENT VIA CERTIFIED MAIL
Certified Article Number
7160 3901 9848 3819 2162
SENDERS RECORD

June 4, 2010

State of New Mexico (Surface Owner)
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, NM 87504-1148

Reference: Samson Resources Company
State C A/C 1 #3 SWD – Lea County, NM
Application to Amend Disposal Permit Order No. R-6646

Gentlemen:

In an effort to comply with the State of New Mexico Oil Conservation Division requirements to modify the above referenced disposal order, please find enclosed a copy of the Form C-108 Application amendment, to allow a packer setting depth of 10,380' for injection intervals from 11,034 feet to 11,370 feet. The formations underlying and overlying the packer, are as follows:

Mississippian	–	Top of Formation 10,330' (not productive in field)
Devonian	-	Top of Formation 10,848'
Penn	-	Top of Formation 8,897'

The amended packer setting depth of 10,380', is in the Mississippian formation. The Mississippian is tight and not productive. The Devonian will take water on a vacuum; therefore, the injected water is entering the permitted zone. The Devonian formation and Penn formation are isolated from each other.

Interested parties must file objections or requests for hearing with the Oil and Gas Conservation Division, at 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days from the date this application was mailed.

Please do not hesitate to contact Kenneth Krawietz, Manager, Division Operations at (432) 686-6337 or kkrawietz@samson.com if additional information is required.

Thank you.

Sincerely,

SAMSON

Debbie Bedingfield

Debbie Bedingfield
Environmental & Safety Technician
DB:

Samson

Samson Plaza
Two West Second Street
Tulsa, Oklahoma 74103-3103
USA
918/591-1791

SENT VIA CERTIFIED MAIL
Certified Article Number
7160 3901 9848 3819 2179
SENDERS RECORD

June 4, 2010

Amerada Hess Corporation (Leasehold Operator within ½ Mile Radius)
P.O. Box 840
Seminole, TX 79360

Reference: Samson Resources Company
State C A/C 1 #3 SWD – Lea County, NM
Application to Amend Disposal Permit Order No. R-6646

Gentlemen:

In an effort to comply with the State of New Mexico Oil Conservation Division requirements to modify the above referenced disposal order, please find enclosed a copy of the Form C-108 Application amendment, to allow a packer setting depth of 10,380' for injection intervals from 11,034 feet to 11,370 feet. The formations underlying and overlying the packer, are as follows:

Mississippian	–	Top of Formation 10,330' (not productive in field)
Devonian	-	Top of Formation 10,848'
Penn	-	Top of Formation 8,897'

The amended packer setting depth of 10,380', is in the Mississippian formation. The Mississippian is tight and not productive. The Devonian will take water on a vacuum; therefore, the injected water is entering the permitted zone. The Devonian formation and Penn formation are isolated from each other.

Interested parties must file objections or requests for hearing with the Oil and Gas Conservation Division, at 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days from the date this application was mailed.

Please do not hesitate to contact Kenneth Krawietz, Manager, Division Operations at (432) 686-6337 or kkrawietz@samson.com if additional information is required.

Thank you.

Sincerely,

SAMSON

Debbie Bedingfield
Environmental & Safety Technician
DB:

Samson

Samson Plaza
Two West Second Street
Tulsa, Oklahoma 74103-3103
USA
918/591-1791

SENT VIA CERTIFIED MAIL
Certified Article Number
7160 3901 9848 3819 2148
SENDERS RECORD

June 4, 2010

Paladin Energy Corporation (Leasehold Operator within ½ Mile Radius)
10290 Monroe Drive Suite 301
Dallas, Texas 75229

Reference: Samson Resources Company
State C A/C 1 #3 SWD – Lea County, NM
Application to Amend Disposal Permit Order No. R-6646

Gentlemen:

In an effort to comply with the State of New Mexico Oil Conservation Division requirements to modify the above referenced disposal order, please find enclosed a copy of the Form C-108 Application amendment, to allow a packer setting depth of 10,380' for injection intervals from 11,034 feet to 11,370 feet. The formations underlying and overlying the packer, are as follows:

Mississippian	–	Top of Formation 10,330' (not productive in field)
Devonian	-	Top of Formation 10,848'
Penn	-	Top of Formation 8,897'

The amended packer setting depth of 10,380', is in the Mississippian formation. The Mississippian is tight and not productive. The Devonian will take water on a vacuum; therefore, the injected water is entering the permitted zone. The Devonian formation and Penn formation are isolated from each other.

Interested parties must file objections or requests for hearing with the Oil and Gas Conservation Division, at 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days from the date this application was mailed.

Please do not hesitate to contact Kenneth Krawietz, Manager, Division Operations at (432) 686-6337 or kkrawietz@samson.com if additional information is required.

Thank you.

Sincerely,

SAMSON

Debbie Bedingfield
Environmental & Safety Technician
DB:

Samson

Samson Plaza
Two West Second Street
Tulsa, Oklahoma 74103-3103
USA
918/591-1791

SENT VIA FEDERAL EXPRESS

June 11, 2010

State of New Mexico
Energy, Minerals and Natural Resources Department
Attention: Mr. William V. Jones
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Reference: Samson Resources Company
Injection Permit Modification – Order No. R-6646
State C A/C 1 #3 SWD
Lea County, NM

Dear Mr. Jones:

As required by the State of New Mexico, Oil Conservation Division, please find enclosed an original and one photocopy of the Legal Notice Publication and Affidavit of same, regarding the above referenced permit modification for the State C A/C 1 #3 SWD in Lea County, New Mexico.

Please do not hesitate to contact Kenneth Krawietz, Manager, Division Operations at (432) 686-6337 or kkrawietz@samson.com, or me at (918) 591-1388, if additional information is required.

Thank you.

Sincerely,

SAMSON

Debbie Bedingfield
Environmental & Safety Technician

DB:

Enclosures

Cc: State of New Mexico
Energy, Minerals and Natural Resources Department
District 1
1625 N. French Drive
Hobbs, New Mexico

Engineering- File

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertisting Director of **THE LOVINGTON LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

was published in a regular and entire issue of **THE LOVINGTON LEADER** and not in any supplement thereof, for one (1) day, beginning with the issue of June 8, 2010 and ending with the issue of June 8, 2010.

And that the cost of publishing said notice is the sum of $47.69 which sum has been (Paid) as Court Costs.

Subscribed and sworn to before me this 10th day of June 2010

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2010

LEGAL NOTICE

NOTICE OF APPLICATION FOR PRODUCED SALT WATER DISPOSAL WELL PERMIT AMENDMENT

Samson Resources Company, Two West Second Street, Tulsa, OK 74103, contact Kenneth Krawietz (432) 686-6337, is applying to the New Mexico Oil and Gas Conservation Division for a disposal well permit amendment to Order No. R-6646, which injects produced salt water into a formation not productive of oil and gas.

The applicant proposes to amend the permit packer setting depth to 10,380 feet of the State C A/C 1 Lease, Well Number 3, and to inject produced salt water into the Devonian formation. The injection well is located approximately 15 miles West of Tatum County on US 380, latitude: 33.30600; longitude: -103.59110, Unit L, Section 2, Township 12S, Range 33E, in Bagley Field, Lea County, New Mexico. The produced salt water will be injected into strata in the subsurface depth interval from 11,034 to 11,370 feet, maximum injection volume rate per day of 5,525 barrels, and maximum injection pressure rate not to exceed 2200 psi.

The amended packer setting depth is 10,380', which is in the Mississippian formation. The Mississippian is tight and not productive. The Devonian will take water on a vacuum, so injected water is entering the permitted zone. The Devonian formation and Penn formation are isolated from each other.

Interested parties must file objections or request for hearing with the State of New Mexico Oil and Gas Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days of this notice.

Published in the Lovington Leader June 8, 2010.

Theresa; Deadline 6/1/10
WISE BOX, THANK YOU

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Tuesday, May 04, 2010 11:05 AM
To: 'Kenneth Krawietz'
Cc: Brown, Maxey G, EMNRD; Kautz, Paul, EMNRD; Ezeanyim, Richard, EMNRD
Subject: RE: State C AC 1 #3 Devonian SWD Well 30-025-01036 Bagley Caprock area Lea County, New Mexico

Hello Kenneth:
I have looked over this situation and understand this has been the case for years. This is only one of many wells from many operators in Lea county we are finding have packer specified depths and the packers were set higher for myriad reasons – likely good ones. The on the spot permissions to set these packers at higher depths should have been followed up by the operators with requests to "amend" the disposal permits to allow these higher depths. Many times field operations dictate what must be done to a well, but this also means permits must be obtained to match the field conditions.

Packer setting depths within 100 feet of the disposal interval allows an annulus that can be tested regularly to within 100 feet of the disposal interval. The packer setting depths are part of an agreement the State of New Mexico made with the EPA in the early 1980's in order to administer the nationwide UIC program within New Mexico.

In this case hearing order R-6646 allowed disposal into a Devonian open hole from 11034 to 11370. I pulled production/completion records in the 9 sections surrounding and including this one and see the Lower Penn has a Gas Pool – so we must stay either below this or laterally out of it. I did not see anything in the Mississippian but with the interest in the Shale plays, some of the surrounding owners may be concerned about exposure to disposal assuming the pipe has any holes and there are any permeable intervals.

Since the time of that hearing order permit R-6646, the Division has allowed operators to make application administratively for disposal wells on form C-108. Samson must come into compliance with this permit by either lowering the disposal packer or obtain a new permit allowing disposal into the intervals from your current packer setting depth to the bottom of the open hole.

Assuming you do not want to lower this packer or it is not feasible to lower this packer, a new permit is warranted.

Let me know otherwise, send in a new form C-108 asking for a new administrative permit allowing disposal from depths of 10385 (or however deep you are able to set your packer) to the bottom of the open hole interval.

a. The C-108 should include the geologist picked "tops" of all formations from surface to the formation below the Devonian.
b. All "affected parties" should be noticed by sending a copy of the complete form C-108 by certified mail.
c. Definitions of "affected parties" are not correct on form C-108 and should be obtained in the Division rules at NMAC 19.15.26.7
http://www.emnrd.state.nm.us/OCD/documents/20098-5currentrules-new17and39.pdf
d. After sending notices, if there are any concerns as to waters invading holes in the pipe above the Devonian, you could at that time run an injection survey through that stuck packer to determine what is happening below the packer. And this may be a condition in any new permit – let me know your thoughts on this.
e. All well bores within ½ mile of this well should be either cemented across the entire new disposal interval or be abandoned.
f. What is the condition of the casing below 10385? Do you have any casing integrity logs or other diagnostics on this interval? What is in the hole below this depth?

Kenneth – please pass this email on to whomever you assign this to and ask them to call or email me with any questions. There are many examples of C-108 submittals on the Division's web site:
http://ocdimage.emnrd.state.nm.us/imaging/AEOrderCriteria.aspx
select "SWD" and hit "Continue" to see the latest approved disposal permits.

Please send in the C-108 to the Santa Fe office by June 1, 2010.

Regards,

William V Jones
Engineering Bureau, Oil Conservation Division
Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

From: Kenneth Krawietz [mailto:KKRAWIETZ@samson.com]
Sent: Tuesday, May 04, 2010 8:41 AM
To: Jones, William V., EMNRD
Subject: RE: State C AC 1 #3 Devonian SWD Well 30-025-01036 Bagley Caprock area Lea County, New Mexico

I called earlier and got your voicemail. I understand the issue with this well is that packer is set too high. I have not reviewed the permit but the packer has been set at this depth for years. We replaced tubing and put packer back where it was. I can be reached at 432 686 6337. Thanks.

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Tuesday, May 04, 2010 9:32 AM
To: Kenneth Krawietz; Gerry Petree
Cc: Brown, Maxey G, EMNRD
Subject: State C AC 1 #3 Devonian SWD Well 30-025-01036 Bagley Caprock area Lea County, New Mexico

Hello Mr. Krawietz and Mr. Petree:
Please let me know who is in charge of the oil and gas regulatory overview of Lea County New Mexico – specifically permitting of disposal wells?

We have discovered the above well will likely need to be re-permitted. If the pertinent person will contact me, I will give additional details.

If no one contacts myself or anyone else in the Engineering and Geological Services Bureau of the Oil Conservation Division in Santa Fe, the matter must be turned over to our compliance attorneys and the well could be shut in with loss of oil production by Samson.

For your convenience, here is contact link:
http://www.emnrd.state.nm.us/OCD/AboutUs.htm

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, July 19, 2010 11:39 AM
To: 'Kenneth Krawietz'
Cc: Sanchez, Daniel J., EMNRD; Gonzales, Elidio L, EMNRD; Brown, Maxey G, EMNRD
Subject: RE: Disposal application from Samson: State "C" A/C 1 Well No. 3 (30-025-01036) Devonian

Hello Kenneth:
I apologize – you may have sent answers to these questions, or we may have talked? I did get the newspaper notice. You won't believe the number of disposal applications from various operators I have here waiting on further information....

I did check the Rule 5.9 status for Samson and it is getting better but still one well too many are "inactive".
Also, Samson needs to send Dorothy Phillips of this office a couple of Single Well Bonds – this should be easy enough, just call Dorothy.

If you folks answer these questions and get the bonds posted and one more well back on, I will be free to issue this permit.

Regards,

Will Jones
New Mexico
Oil Conservation Division
Images Contacts

From: Jones, William V., EMNRD
Sent: Monday, June 07, 2010 4:54 PM
To: 'Kenneth Krawietz'
Cc: Ezeanyim, Richard, EMNRD; Kautz, Paul, EMNRD; Sanchez, Daniel J., EMNRD
Subject: Disposal application from Samson: State "C" A/C 1 Well No. 3 (30-025-01036) Devonian

Hello Kenneth and Debbie:
Thank you for sending in this application to allow the packer to be set in the upper Mississippian which is much higher than normally allowed for lower Devonian disposal.

Just a couple questions.

a. On the deep, non-plugged wells in the AOR (4 wells)
    a. Please send the cement tops or estimated cement tops.
    b. Send the completed producing or formerly producing Devonian intervals.
b. This #3 well appears to be disposing into the lower (originally wet) interval of the Devonian – is this true? Are any of the surrounding wells producing from these structural depths?
c. Have you tried to check PBTD of the well since the packers were left in the hole – is this possible to get into the well or otherwise confirm fluid is only entering the Open Hole?
d. Why did all these packers/etc get left in this hole? Is it simply because of the age of the well?
e. The Miss is not produced in this area, do you have any facts to support why? What do the logs say? Has it ever been tried? Please discuss a bit.
f. Please send a plot of Disposed Rate vs Time (monthly or annually) going back several years.
g. What has been the well's injection pressure trend? Is it still on a vacuum? Send a Hall plot if you have one.

h. Send a copy of the actual Newspaper Notice when it appears in the paper and the date it appears.

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

Jones, William V., EMNRD

From: Debbie Bedingfield [DBEDINGFIELD@samson.com]
Sent: Friday, July 23, 2010 10:08 AM
To: Jones, William V., EMNRD
Cc: Kenneth Krawietz; Gina Saddler
Subject: FW: Disposal application from Samson: State "C" A/C 1 Well No. 3 (30-025-01036) Devonian
Attachments: State C AC 1 #3 SWD Disposed Rate vs Time.BMP; State C AC 1 #3 Area of Review Table (2).xls

Mr. Jones, the following is in response to your questions, per your emails dated 6/7/10 and 7/19/10 to Mr. Kenneth Krawietz. Please note, Samson is addressing the bond and "inactive" well issues; responses to be sent under separate cover.

Done, checked 9/21/10

Please contact Mr. Krawietz at (432) 686-6337 x3337 or kkrawietz@samson.com for technical information.

Thank you.

Debbie Bedingfield
Telephone: (918) 591-1388
Fax: (918) 591-7388

From: Kenneth Krawietz
Sent: Thursday, July 22, 2010 5:42 PM
To: Gina Saddler; Debbie Bedingfield
Subject: FW: Disposal application from Samson: State "C" A/C 1 Well No. 3 (30-025-01036) Devonian

Here are answers to the questions. Pls let me know what else we need. Thanks.

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Monday, July 19, 2010 12:39 PM
To: Kenneth Krawietz
Cc: Sanchez, Daniel J., EMNRD; Gonzales, Elidio L, EMNRD; Brown, Maxey G, EMNRD
Subject: RE: Disposal application from Samson: State "C" A/C 1 Well No. 3 (30-025-01036) Devonian

Hello Kenneth:
I apologize – you may have sent answers to these questions, or we may have talked? I did get the newspaper notice. You won't believe the number of disposal applications from various operators I have here waiting on further information....

I did check the Rule 5.9 status for Samson and it is getting better but still one well too many are "inactive".
Also, Samson needs to send Dorothy Phillips of this office a couple of Single Well Bonds – this should be easy enough, just call Dorothy.

If you folks answer these questions and get the bonds posted and one more well back on, I will be free to issue this permit.

Regards,

Will Jones
New Mexico
Oil Conservation Division
Images Contacts

From: Jones, William V., EMNRD
Sent: Monday, June 07, 2010 4:54 PM
To: 'Kenneth Krawietz'
Cc: Ezeanyim, Richard, EMNRD; Kautz, Paul, EMNRD; Sanchez, Daniel J., EMNRD
Subject: Disposal application from Samson: State "C" A/C 1 Well No. 3 (30-025-01036) Devonian

Hello Kenneth and Debbie:
Thank you for sending in this application to allow the packer to be set in the upper Mississippian which is much higher than normally allowed for lower Devonian disposal.

Just a couple questions.

a. On the deep, non-plugged wells in the AOR (4 wells) See Attached; Source: OCD Database.
    a. Please send the cement tops or estimated cement tops.
    b. Send the completed producing or formerly producing Devonian intervals.
b. This #3 well appears to be disposing into the lower (originally wet) interval of the Devonian – is this true? Yes Are any of the surrounding wells producing from these structural depths? No, the only Devonian producer in the area is the ~~Samson State C A/C #2 which is completed in the top of the Devonian~~
c. Have you tried to check PBTD of the well since the packers were left in the hole – is this possible to get into the well or otherwise confirm fluid is only entering the Open Hole? Have not tagged up since 1989 when the first packer was stuck. ~~The last record I have from OCD files is a cleanout in 1983 when Sun was the operator.~~ Cannot run survey below the top stuck packer located at 10608. Since the Devonian takes water on a vacuum, this is where the water will go as long as it is on a vacuum.
d. Why did all these packers/etc get left in this hole? Is it simply because of the age of the well? These wells have a very bad scale problem. We are not sure why they stuck. Oryx tried to fish the bottom packer and were unsuccessful. Samson did not fish the top packer in 2005. The decision was to set another packer. The engineer at the time is not with Samson anymore and we cannot verify if any verbal approval was obtained. We do not know why packer stuck. We suspect scale buildup since these wells have bad scale problems.
e. The Miss is not produced in this area, do you have any facts to support why? What do the logs say? Has it ever been tried? Please discuss a bit. The Miss clearly has no porosity or permeability as indicated by open hole logs. It does not produce in the area and there are no records indicating it was even tested. It is clearly tight and not productive.
f. Please send a plot of Disposed Rate vs Time (monthly or annually) going back several years. See Attached.
g. What has been the well's injection pressure trend? Is it still on a vacuum? Send a Hall plot if you have one. We do not have a Hall plot. This well takes water on a vacuum. When injecting it may have 130 psi which is just tubing friction pressure.
h. Send a copy of the actual Newspaper Notice when it appears in the paper and the date it appears.

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

Injection Permit Checklist (03/15/2010)

Case _____ R- _____ SWD 1246 WFX _____ PMX _____ IPI _____ Permit Date 9/28/10 UIC Qtr JFMS

Wells 1 Well Name: State "C" A/C 1 #3

API Num: (30-) 025-01036 Spud Date: 4/3/54 New/Old: O (UIC primacy March 7, 1982)

Footages 1980 FSL/660 FWL Unit L Sec 2 Tsp 12S Rge 33E County Lea

Operator: Samson Resources Company Contact Kenneth Krawietz/Bobbie Bedingfield

OGRID 20165 RULE 5.9 Compliance (Wells) 6/93 (Finan Assur) 2 IS 5.9 OK? X

Operator Address: Two West Second Street, Tulsa, OK 74103-3103

Current Status: See R-6646 Pending inj. PSI

Planned Work to Well: RE-Permit only Planned Tubing Size/Depth: 2 7/8 @ 10,380'

	Sizes Hole.....Pipe	Setting Depths	Cement Sx or Cf	Cement Top and Determination Method
Existing ✓ Surface	17 13 3/8	324	350	CIRC
Existing ✓ Intermediate	12 1/4 9 5/8	3894	2700	Surf.
Existing ✓ Long String	8 7/8 5 1/2	11,034	3000	Surf. 9980 TS, TH on Squeezed

DV Tool _____ Liner _____ Open Hole 11034-11370 Total Depth 11370

Well File Reviewed ✓

Diagrams: Before Conversion ✓ After Conversion ✓ Elogs in Imaging File: ✓

Limit of Future PKR Depth

Packer Depth

Intervals:	Depths	Formation	Producing (Yes/No)
Above (Name and Top)	8597	Penrose	
Above (Name and Top)	10336	MISS Top	Not Prod.
Above (Name and Top)	10848	Dev Top	
Injection.... Interval TOP:	10380 ~~11034~~ ✓	~~Perf~~ OH.	No Lower Dev ~~Perfs~~
Injection..... Interval BOTTOM:	11370 ✓	OH. & TD	Lower Dev.
Below (Name and Top)			

1000 PSI Max. WHIP

Yes Open Hole (Y/N)

~~Deviated Hole?~~

10380 - 11370

Sensitive Areas: ~~Capitan Reef~~ ~~Cliff House~~ Salt Depths 1685

.... ~~Potash Area (R-111-P)~~ ~~Potash Lessee~~ ~~Noticed?~~

Fresh Water: Depths: 0-1700' Wells yes Analysis? yes Affirmative Statement ✓

Disposal Fluid Sources: Dev/Silurian Dev Analysis?

Disposal Interval Production Potential/Testing/Analysis Analysis: OK

Notice: Newspaper(Y/N) ✓ Surface Owner SLO. Mineral Owner(s)

RULE 26.7(A) Affected Parties: Amerada / Paladin Energy

Area of Review: Adequate Map (Y/N) ✓ and Well List (Y/N) ✓

Active Wells 4 Num Repairs 0 Producing in Injection Interval in AOR No

..P&A Wells 3 Num Repairs 0 All Wellbore Diagrams Included? yes (11025 ± Top of water in 1950)

ID

Questions/Required Work:

CNT/CNT Tops on Active wells in AOR + Active Perfs/FMS

AD - 10380 - 11370 (MISS + DEV)

FMS Prod. in AOR = ? What Depths

Discuss MISS, Production Request Sent _____ Reply: _____

Discuss Effect of inj on Dev. Off Request Sent _____ Reply: _____

Inj Rates & Pressures Request Sent _____ Reply: _____