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070 Farmington, NM

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
NMNM-18327

6. If Indian, Allottee or Tribe Name

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

7. If Unit or CA, Agreement Designation

2. Name of Operator
Synergy Operating, LLC OGRID # 163458

8. Well Name and No.
Conoco 29-4 # 3

3. Address and Telephone No.
PO Box 5513 (505) 325-5449
Farmington, NM 87499

9. API Well No.
30-039-20681

4. Location of Well (Footage, Sec, T. R., M, or Survey Description)
1820' FSL & 970' FWL Sec 28, T29N, R04W
Unit Letter L

10. Field and Pool, or Exploratory
Wildcat 29N4W28L Gallup

11. County or Parish, State
Rio Arriba County
New Mexico

AUG 2003 OIL CON. DIV. DIST. 3

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☐ Subsequent Report	☒ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☒ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Converion to Injection
	☐ Other	☐ Dispose Water

(Note: Report results of multiple completon on Well Completion or recompletion Report and Log Form)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including, estimated date of starting work. If well is directionally drilled give subsurface locations and measured and true vertical depths for all markers and zones of pertinent to this work.

Existing Gallup Perforations from 7799' to 8039'

Synergy Operating, LLC plans to permanently abandon the Gallup perforations below a cement retainer @ ~~7350~~ 7700'. Cement will be dump bailed on top of the retainer, and the plug tested. ~ 7532'

A Cement Bond Log will be run to verfiy cement coverage and remedial cement placed across zones of interest.

A recompletion attempt will be made in the Pt. Lookout member of the Mesaverde from 6579' to 6694'.

Synergy will file an acreage dedication with the NMOCD for a W/2 - 320 Acre Blanco Mesaverde Spacing Unit, since the Gallup acreage dedication was 160 acres in the SW/4.

This will make the acreage dedication the same as the Fruitland Coal, which is the W/2 - 320 Acres (29-4 Carson 28 # 1)

Attached is a detailed procedure and wellbore diagram. We would like to commence operations on/or before August 15th.

14. I hereby certify that the foregoing is true and correct

Signed: Thomas E. Mullins Title: Engineering Manager Date: 07-28-2003

This space for federal or state office use

Approved by: **Original Signed: Stephen Mason** Title: _____ Date: JUL 31 2003

Conditions of approval if any

Title 18 U.S.C. Section 1001, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, ficticious, or fraudulent statements or representations as to any matter within its jurisdiction

NMOCD

Synergy Operating, LLC
Conoco 29-4 28 # 3
API # 030-039-2068100
T29NR04W Sec 28, Unit Letter L
1820' FSL, 970' FWL
Temporarily Abandon Gallup, Perform Remedial Cement Work, &
Recomplete to Pt. Lookout Member of the Mesaverde

Directions: Take Hwy 64 East out of Bloomfield. Drive just past mile marker 102 to Forest Road # 314. Turn Right and follow FR314 for 10.5 miles to the intersection of FR-357. Turn Left on FR-357 and go 1.2 miles (through locked gate). Turn Left on FR-357B and travel North 2.0 miles to the location. See Carson forest Road Map. You will need Synergy Key to access wellsite.

Well History: The Conoco 29-4 28 # 3 was one of four (4) wells drilled by Conoco in this township to test the productive capabilities of the Gallup formation. This well was spud on 11/16/73, with a 15" hole. 512' of 10-3/4" surface casing was run and cemented to surface requiring a 1" top job. Initially air was used to drill the start of the 8-3/4" production hole, but water was encountered at 815', requiring mist drilling. The well was mist drilled to 1694', at which depth it was mudded up. Lost circulation was encountered at 4569', 5995', and 7178'. 7" 26# casing was run and cemented at 7530', after several good Gallup gas shows. A DV tool was run at 4574'. A two (2) stage primary cement job was performed, with anticipated TOC for the 1st stage at 5620' (100% Efficiency) and 3829' (100% Efficiency). A 6-1/8" hole was then mud drilled with 10.1 ppg mud to TD of 8135', followed by the placement of a 4-1/2" 11.6# liner from 7364' to 8133'. The packoff was not set on this liner, but 15 bbls good cement was reversed. The drilling rig moved off the location on 12/23/73 (36 days).

On 01-17-74 MIRU Big A. Run 6-1/8" bit to 7313' Tag Cement. Drill to Liner Top @ 7364', COOH, Run 3-7/8" Bit, Tag cmt 6' below Liner Top. Drill small cement plug, then CO to 8110'. Displace hole w/ 1% KCl, COOH. RU GO, Run GR-CCL. Perforate Gallup 1st Stage from 8006'-8009' (3'), 8012'-8039' (27') 4 JSPF. Land 2-3/8" at 8038'. Swab well Dry. RDMO.

On 02-27-74 MIRU Big A. Tbg 50, Csg 200. ND WH, NU BOPE. Raise Tubing to 7341'. Land. RU Dowell for WF-25 Frac. Load hole, BD at 3875, Frac Gallup Stg # 1 w/ 55,692 gals 25# gel & 34,000 lbs 20/40 at 23 BPM 3300 ATP. ISIP 2000 with sand plug placed to try & serve as a BP. All fluid contained 1% KCl. SDFN. Open in AM. Tbg 1350#. Flow well to pit same day, kill tubing, pull tbg. Perforate Gallup Stage # 2 from 7847'-7867' (20') 4 JSPF. RU to Csg to Frac. Pumped a 258 bbl sand plug down csg. SI 1.5 hrs to fall out. Resume, Pressure to 4500#. No good. Open well to the pit overnight. Well still flowing good in the AM. GIH w/ tubing, spot 300 gals 15% HCl across perfs. Pull up & land tubing at 7341'.
BD perfs, pressured up. Spot additional 300 gals 15%, COOH w/ tubing. RU GO. Perforate Gallup at 7799'-7814' (15') 4 JSPF. RU Dowell to Frac. Pump at 25 BPM 2200 ATP, Frac w/ 56,280 gals 25# gel & 42,500 lbs 20/40 sand, ISIP 1650 ? Blender sucked air. Open well to pit in AM. CP 1350#. GIH w/ tubing, tag sand at 7313', no 2ppg into formation, all left in casing.

RU Dowell reverse out 772' feet of sand fill to 8085', well flowing on tubing, have to kill tubing to make connections. Land tubing at 8023', w/ F-nipple on btm (256 jts). ND BOPE, NU WH. Flow well to pit. Flowed 2 days, Swab well back. Set intermitter, flow well to remove frac fluid. 03-11-74
05-30-74 Flowing Gradient run Tbg 78#, BHFP 287#, Temp 197F. SI for build-up
06-06-74 Run BHP bomb. Csg 1505, Tbg 1104, FL at 6500', condensate? BHP at 7907' 1842 psi, Temp 197F, 06-10-74 Csg 1640, Tbg 1247, 07-18-74 Csg 1975, Tbg 1575, 07-19-77 Csg 2100, Tbg 2100, BH 5#, blew down gas in 1 min, 08-15-77 Run Deliverability Test, Csg 2075, Tbg 2020. Test at 1,070 MCFD, 08-19-77 SIBHP listed at 2149#, 07-16-78 Seven day SI deliverability test, Csg 892, Tbg 732, Test at 217 mcfd.
07-13-83 BH Test, Csg 390, Tbg 388 Flowing, BH zero.
10-09-98 Tbg 200, Csg 390. RU B&R slickline, Tag sand fill at 8102' GL, EOT at 7990' GL, FL @ 7300'. Well SI.

Well is currently producing 2 MCFD. Current well Shut-in pressures are very low, casing integrity is suspect, although no failure is indicated from the bradenhead testing.

Notify BLM (Farmington) and NMOCD of the commencement of completion activities. Comply with all company and regulatory safety and environmental requirements. Designate a smoking area on location.

Well facilities in place, include: 4" WFS Meter Run, WFS Dehy, & Synergy PESCO Hi-Lo Separator. Line pressure is 50 psig.

7" 26" K-55 Casing @ 7530' (DV Tool @ 4574')
4-1/2" 11.6# K-55 Liner from 8133' to 7364'
4-1/2" Burns Liner Hanger, No Packoff @ 7364'
2-3/8" 4.7# J-55 EUE Tubing @ 8023' (256 jts) in the well, f-nipple on btm.
Gallup Perfs from 7799' to 7814', 7847' to 7867', 8006' to 8009', 8012' to 8039'
Current PBTD @ 8102' (GL)

Need 7000' of 3-1/2" 9.6# Workstring for Drillout and Frac String. Need to ensure location size is adequate to allow for pipe float placement, including laydown.

1) Perform One Call. Dig Flowback Pit, Fence & Line per specifications.
2) Install and Test Rig Anchors.
3) Spot and fill Four (4) – 400 bbl frac tanks with 2% KCl water for all completion activities. Spot Flowback tank, and run flowback lines to the WH.
4) MIRU workover rig, with auxiliary equipment. Leave empty float on location.
5) Check pressures on the WH, Bradenhead, Casing, & Tubing. Blow down casing as necessary. ND WH. NU BOPE.
6) Unseat Tubing and remove hanger.
7) COOH with 2-3/8" tubing from 8023', visually inspect pins and boxes. If corrosion is present, then lay down bad joints. Tally out of the hole. (256 Joints total).
8) PU 7" 26# Casing Scraper, and used 6-1/8" bit. GIH on 2-3/8" to liner top at 7364'.
9) Tag Liner top and COOH w/ 2-3/8" and Scraper.
10) PU 7" 26# Cement Retainer, and GIH on 2-3/8" tubing.

11) Set Cement Retainer at 7350'+/- above liner top at 7364'. Abandon Gallup. Test 2-3/8" Tubing to 2500 psi. Load Casing string from bottom with 240 bbls. Test Casing to 2500 psi.
12) COOH w/ 2-3/8" tubing and setting tool. Lay down unneeded jts 2-3/8".
13) Change out any necessary wellhead casing wing valves.
14) MIRU Blue Jet. Under Pack-Off, Run GR-CCL-CBL from PBTD (7350' to surface). Note DV tool @ 4574'. Record Tops on each string of cement.
15) RIH w/ Dump Bailer. Dump Bail 2 sxs cement on top of Cement Retainer at 7350', to PERMANENTLY abandon Gallup Zone. POOH w/ Bailer.
16) RU Squeeze Gun. GIH and perforate 4 Squeeze holes at 6850', and 3 Squeeze holes at 6310'. POOH. Distance between holes is 540'. Release Blue Jet.
17) PU 7" 26# cement retainer. GIH w/ retainer & set retainer above lower squeeze holes at 6800'. Test tubing string to 2500 psi. Hold 5 minutes. Establish rate down casing and BD squeeze holes at 6310' to 2500 psi. Bleed off Pressure.
18) Establish rate below retainer, around casing, and through upper squeeze holes. With Water.
19) Start of cementing day here (Allow for full day). Confirm all cement volumes and cement yields prior to pumping. MIRU BJ Services. PT pumps & lines to 3500 psi. Establish rate with water, and, mix and pump xxx sacks (30 bbls) of cement below retainer, around casing, and through upper squeeze holes. Sting out of retainer.
20) Pull 2-3/8" tubing to 6350' (Pull up 450'), one jt below top squeeze holes. Reverse down casing and up tubing, minimum of 50 bbls water to pit.
21) Mix xx sacks (16 bbls), and spot across upper squeeze holes. Pull 2-3/8" tubing to 5900'. Reverse tubing clean, minimum of 50 bbls water to pit.
22) Close pipe rams, closing in on well. Hesitate squeeze cement into upper squeeze perforations at 1 BPM or less. Maximum 1000 psi squeeze pressure. Hold pressure 15 mins. Bleed pressure back slowly, until zero. Verify no flow. If casing did not originally hold pressure, use a second retainer.
23) COOH with 2-3/8" tubing, standing tubing back in the derrick.
24) Leave 1000 psi on casing for 4 hours to harden squeeze cement.
25) If casing did not pressure test previously perform additional remedial cement work to eliminate casing leaks and cover freshwater intervals. Have on hand additional 7" 26# cement retainers for squeeze work. Blue Jet may be necessary for this work. If casing did not hold, it will be difficult to perform 1st squeezes because of lack of reversing.
26) Changeout any necessary wellhead valving & equipment at this point, if not completed already.
27) Pick-Up 3-1/2" 9.6# J-55 Tubing workstring, bit sub, and 6-1/8" bit. GIH and test casing squeezes to a minimum of 500 psi, and drill out cement and any retainers. Pipe needed on location to be 7000' (2 floats needed). Drill out squeezes to retainer at 6850'.
28) COOH w/ 3-1/2" tubing, standing back.
29) MIRU Blue Jet Wireline. Run short GR-CCL-CBL to evaluate squeeze work from 6850' to top of cement at 6200'+/-, or as directed.
30) Blue Jet. Perforate Pt. Lookout (Mesaverde) perforations as follows: Bottom-Up. Correlate to recent cased hole GR-CCL-CBL to Schlumberger GR-Density OH log (12-14-73). Note depth of DV tool @ 4574'. Perforate bottom up, using 3-1/8" HSC guns.

6694', 6692', 6664', 6662', 6612', 6610', 6606', 6605', 6604', 6603', 6602', 6601', 6600', 6599', 6590', 6582', 6580', 6579' (Total of 18 perforations). POOH. Release Blue Jet.

31) PU and GIH w/ 7" retreivamatic PKR on 3-1/2" tubing, w/ nipple above PKR. Set PKR at 6450'.
32) MIRU BJ services acid crew.
33) Perform Acid breakdown and ball-off from 6579' to 6694' with 1000 gallons of 15% HCl acid, double inhibited, w/ 36 – 1.3 SG, RCN ball sealers. Space balls as directed.
34) Release PKR and GIH knocking ball sealers past all perforations.
35) Pull up and reset PKR, and Flange up 3-1/2" tubing in BOPE for stimulation. RU immediate flowback equipment.
36) MIRU BJ Services to Fracture Stimulate Pt. Lookout Perforations (6579' to 6694') with 50,000 lbs of 20/40 Super LC proppant in 60Q Linear Foam (30# Base Gel). PT pumps and all lines to 5000 psi. Maximum Stimulation pressure to be 4900 psi. See attached sheet.
37) Place well on immediate flowback after stimulation on ½" positive choke, have manifold set-up with 2 choke lines. Flowback well 36 hrs +/-. SI Well.
38) MIRU slickline company. Set plug in nipple above PKR. Release PKR.
39) COOH laying down 3-1/2" frac tubing string on floats.
40) GIH w/ 2-3/8" production tubing as follows. Expendable Check, 1 jt 2-3/8", 1.78" Extended SN, and remaining 2-3/8" tubing.
41) Cleanout sand fill to PBTD of 6850'+/-. Pull above perforations, and validate flowrate through ½" choke on manifold for 1 hr. Check for sand fill one more time.
42) Land 2-3/8" tubing in wellhead. ND BOPE, NU WH. Drop ball and pump off expendable check.
43) Flow both tubing and casing to pit to remove air from flow stream.
44) RD & release workover rig and all auxillary equipment.
45) Report production activities.

Contact List

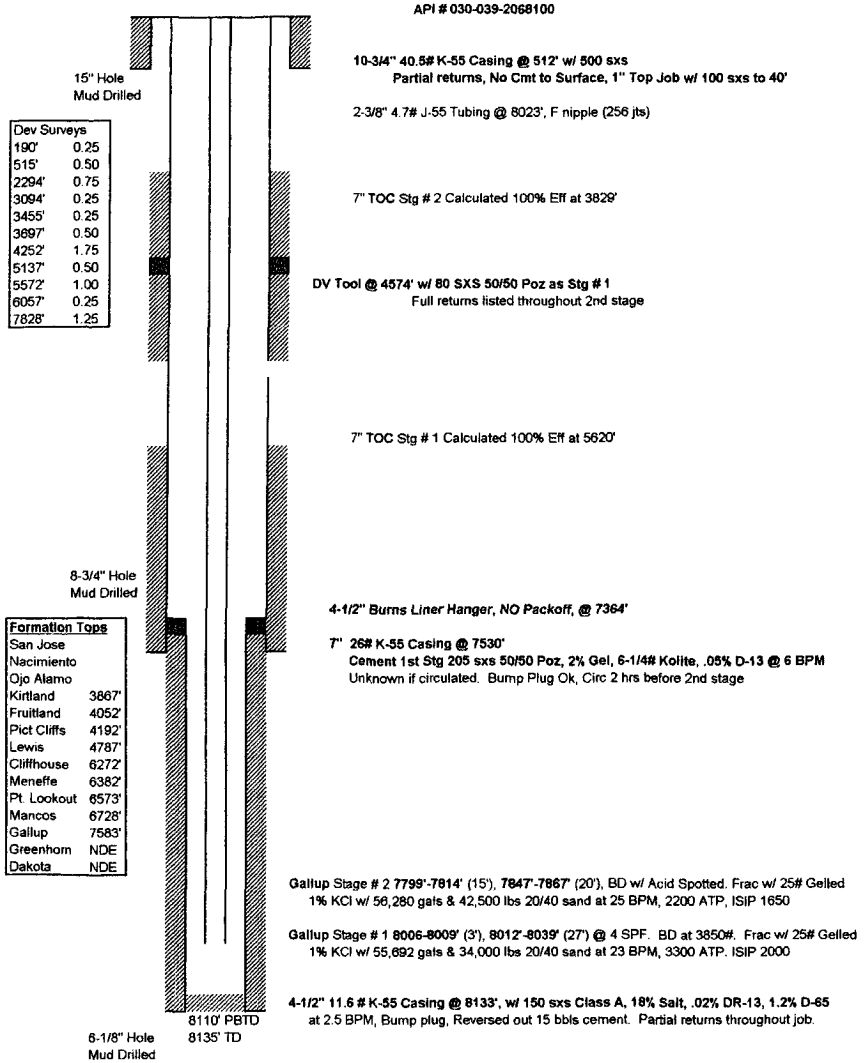
PT, Acid, & Stimulation	BJ Services	(505) 327-6222
Wellhead, Isolation Tools	WSI Machine	(505) 326-0308
DH Tools	Baker Oil Tools	(505) 325-0216
Perforating Services	Blue Jet	(505) 325-5584
Supervision (Tom Mullins)	Synergy Operating	(505) 320-1751
Water Hauling	Three Rivers Trucking	(505) 325-8017
KCl Water	Key Energy Services	(505) 327-0416
Work String	Cave Enterprises	(505) 325-3401

Conoco 29-4 28 # 3
Unit L, Section 28-T29N-R04W
1820' FSL, 970' FWL
7403' GL, 12' KB

Araphoe Drilling

Spud: 11/16/73
Completed:

API # 030-039-2068100



Dev Surveys	
190'	0.25
515'	0.50
2294'	0.75
3094'	0.25
3455'	0.25
3697'	0.50
4252'	1.75
5137'	0.50
5572'	1.00
6057'	0.25
7828'	1.25

10-3/4" 40.5# K-55 Casing @ 512' w/ 500 sxs
Partial returns, No Cmt to Surface, 1" Top Job w/ 100 sxs to 40'

2-3/8" 4.7# J-55 Tubing @ 8023', F nipple (256 jts)

7" TOC Stg # 2 Calculated 100% Eff at 3829'

DV Tool @ 4574' w/ 80 SXS 50/50 Poz as Stg # 1
Full returns listed throughout 2nd stage

7" TOC Stg # 1 Calculated 100% Eff at 5620'

4-1/2" Burns Liner Hanger, NO Packoff, @ 7364'

7" 26# K-55 Casing @ 7530'
Cement 1st Stg 205 sxs 50/50 Poz, 2% Gel, 6-1/4# Kolite, .05% D-13 @ 6 BPM
Unknown if circulated. Bump Plug Ok, Circ 2 hrs before 2nd stage

Formation Tops	
San Jose	
Nacimiento	
Ojo Alamo	
Kirtland	3867'
Fruitland	4052'
Pict Cliffs	4192'
Lewis	4787'
Cliffhouse	6272'
Meneffe	6382'
Pt Lookout	6573'
Mancos	6728'
Gallup	7583'
Greenhorn	NDE
Dakota	NDE

Gallup Stage # 2 7799'-7814' (15'), **7847'-7867'** (20'), BD w/ Acid Spotted. Frac w/ 25# Gelled 1% KCl w/ 56,280 gals & 42,500 lbs 20/40 sand at 25 BPM, 2200 ATP, ISIP 1650

Gallup Stage # 1 8006-8009' (3'), **8012'-8039'** (27') @ 4 SPF. BD at 3850#. Frac w/ 25# Gelled 1% KCl w/ 55,692 gals & 34,000 lbs 20/40 sand at 23 BPM, 3300 ATP. ISIP 2000

4-1/2" 11.6 # K-55 Casing @ 8133', w/ 150 sxs Class A, 18% Salt, .02% DR-13, 1.2% D-65 at 2.5 BPM, Bump plug, Reversed out 15 bbls cement. Partial returns throughout job.

Specialty Logs, Misc
Mud Log 3500' to TD

Water Samples
None

Open Hole Logs (Dresser-Atlas)
SP-IES (Surf to 8144' - 3 Runs)
GR-Sonic Log (Surf to 7450' - 1 Run)
GR-CNL-Den (3700'-4570', 6275'-6800', 7200'-8120' - 2 Runs)

Cased Hole Logs
GR-CCL (7550'-8106') (01/21/74) - GO International

TEM 07-05-2001

Formation Name: **Gallup**
01-17-74 MIRU Big A. Run 6-1/8" bit to 7313' Tag Cement. Drill to Liner Top @ 7364', COOH, Run 3-7/8" Bit, Tag cmt 6' below Liner Top. Drill small cement plug, then CO to 8110'. Displace hole w/ 1% KCl, COOH. RU GO, Run GR-CCL. Perforate Gallup 1st Stage from **8006'-8009'** (3'), **8012'-8039'** (27') 4 JSPF. Land 2-3/8" at 8038'. Swab well Dry. RDMO.
02-27-74 MIRU Big A. Tbg 50, Csg 200. ND WH, NU BOPE. Raise Tubing to 7341'. Land. RU Dowell for WF-25 Frac. Load hole, BD at 3875, Frac Gallup Stg # 1 w/ 55,692 gals 25# gel & 34,000 lbs 20/40 at 23 BPM 3300 ATP. ISIP 2000 with sand plug placed to try & serve as a BP. All fluid contained 1% KCl. SDFN. Open in AM. Tbg 1350#. Flow well to pit same day, kill tubing, pull tbg. Perforate Gallup Stage # 2 from **7847'-7867'** (20') 4 JSPF. RU to Csg to Frac. Pumped a 258 bbl sand plug down csg. SI 1.5 hrs to fall out. Resume, PU to 4500#. No good. Open well to the pit overnight. well still flowing good in the AM. GIH w/ tubing, spot 300 gals 15% HCl across perfs. Pull up & land tubing at 7341'. BD perfs, pressured up. Spot additional 300 gals 15%, COOH w/ tubing. RU GO. Perfoate Gallup at **7799'-7814'** (15') 4 JSPF RU Dowell to Frac.Pump at 25 BPM 2200 ATP, Frac w/ 56,280 gals 25# gel & 42,500 lbs 20/40 sand, ISIP 1650 ? Blender sucked air. Open well to pit in AM. CP 1350#. GIH w/ tubing, tag sand at 7313', no 2ppg into formation, all in csg. RU dowell reverse out 772' feet of sand fill to 8085', well flowing on tubing, have to kill tubing to make connections. Land tubing at 8023' w/ F-nipple on btm (256 jts). ND BOPE, NU WH. Flow well to pit. Flowed 2 days, Swab well back. Set intermitter, flow well to remove frac fluid. 03-11-74
05-30-74 Flowing Gradient run Tbg 78#, BHFP 267#, Temp 197F. SI for build-up
06-06-74 Run BHP bomb. Csg 1505, Tbg 1104, FL at 6500', condensate? BHP at 7907' 1842, Temp 197F
06-10-74 Csg 1640, Tbg 1247
07-18-74 Csg 1975, Tbg 1575
07-19-77 Csg 2100, Tbg 2100, BH 5#, blew down gas in 1 min
08-15-77 Run Deliverability Test, Csg 2075, Tbg 2020. Test at 1,070 MCFD.
08-19-77 SIBHP listed at 2149#
07-18-78 Seven day SI deliverability test, Csg 892, Tbg 732, Test at 217 mcfd.
07-13-83 BH Test, Csg 390, Tbg 388 Flowing, BH zero.
10-09-98 Tbg 200, Csg 390. RU B&R slickline, Tag sand fill at 8102' GL, EOT at 7990' GL, FL @ 7300'. Well SI.

Other Items of Note:
11-19-73 Attempted to Air Drill out from Under Surface Casing. No Success. Quit dusting at 815'.
Switched to mist drilling at 815'. Water flow continued to increase from 815' to 1694'. Mist overcome by water at this depth. Blowing "heads of gas" and full 7" stream of water on blooie line. Could not unload hole. Mud up.
Lost Circulation at 4569' (570 bbls from 4569' to 4846')
Lost 50 bbls mud at 5995'. Continually losing mud since 4569'
Lost returns at 7178'
Total lost mud volume greater than 2000 bbls during hole drilling. Mostly in PC & Mesaverde Intervals.