

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires March 31, 1995

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

1. Type of Well

☐

Oil Well

☒

Gas Well

☐

Other

2. Name of Operator

Synergy Operating, LLC

OGRID # 163458

3. Address and Telephone No.

PO Box 5513

(505) 325-5449

Farmington, NM 87499

4. Location of Well (Footage, Sec, T, R., M, or Survey Description)

888' FNL, 1678' FWL, Sec 24, T29N - R12W

5. Lease Designation and Serial No.

NMNM-013885

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Federal # 1

9. API Well No.

30-045-22723

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. County or Parish, State

San Juan County

New Mexico

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

TYPE OF SUBMISSION

TYPE OF ACTION

☒

Notice of Intent

☐

Subsequent Report

☐

Final Abandonment Notice

☐

Abandonment

☒

Recompletion

☐

Plugging Back

☐

Casing Repair

☐

Altering Casing

☐

Other

☐

Change of Plans

☐

New Construction

☐

Non-Routine Fracturing

☐

Water Shut-Off

☐

Conversion to Injection

☐

Dispose Water

(Note: Report results of multiple completion 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.

Per prior Synergy Sundry Notice covering the tubing changeout dated 03-01-04.

Synergy Operating, LLC plans to recomple this wellbore to the Fruitland Coal.

The existing Pictured Cliffs formation will be temporarily abandoned underneath a CIBP, which will facilitate possible future commingle of the Fruitland Coal and the Pictured Cliffs.

Please review the attached procedure and existing wellbore diagram.

ACCEPTED FOR RECORD

AUG 27 2004

FARMINGTON FIELD OFFICE

BY

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

Signed:

Thomas E. Mullins

Title:

Engineering Manager

Date:

07-01-2004

This space for federal or state office use

Approved by:

Conditions of approval if any

Title:

Date:

## **PROCEDURE TO: Recomplete to the Fruitland Coal.**

### **Federal #1 (Fruitland Coal)**

**Well History (Prior to Synergy's Ownership):** The well was drilled by the United Company, of Lubbock, Texas in the fall of 1977, to a depth of 1783' (Lewis Shale), and 4-1/2" casing was cemented at this depth. The plug-back depth is 1744'. Two Pictured Cliffs intervals were shot from 1610-30' and 1634-40' with two (2) shot per foot with 0.375" holes. The perforations were then sand fraced with 42,000-Gals of fluid plus 40,000-lbs of 20/40 sand at an average rate of 39-BPM (No treatment pressures were recorded). The well recorded an initial potential of 700-MCF/D during a five-hour pitot test, with a 60-PSIG flowing casing pressure.

The well was acquired by the Alpine Oil and Gas Corporation effective August 1, 1988. The original 2-3/8" production tubing was replaced, in November 1989, with a 1-1/4" velocity string. Due to a suspected tubing leak, a rig was moved onto the well in February 1992. No leaks were found, but the tubing was landed a joint higher up the hole at 1610'. In March of the same year, an acid wash was performed, 650-gals of 15% HCl acid were pumped down the tubing-casing annulus and allowed to soak for 30-minutes before a second volume of 650-gals were pumped down the annulus, followed by 30-Bbls of flush water. The well continued to produced 40-70 MCF/D with a wellhead compressor until late 1998. The well was produced intermittently since late 1998 (see attached production curve).

In February of 2004, Synergy Operating, laid down the 1-1/4" tubing, ran a 4-1/2" scraper to PBTD, Set an RBP, ran a GR-CBL-CCL log, Tested the Casing, and acidized the existing Pictured Cliffs perforations with ball sealers. No ball-off occurred. A new string of 2-3/8" tubing was placed in the well. We have been unable to restore production at present. The wellhead has been changed out to a 3000# screwed by flanged head.

**NOTE:** All depths are referenced to a KB elevation of 5549' (5' above graded ground elevation of 5544').

Two (2) – 400 bbl Frac Tanks

One (1) – Flowback Tank.

1. **If any excavation is necessary to facilitate the workover activities, notify Glen Papp or Larry Starkey w/ L&R Anchor Service for a One Call a minimum of 48 hours prior to commencing any work.**
2. **Locate nearest area that an emergency rescue helicopter can land and document approximate distance and direction from well pad on Emergency Response page located at the back of this procedure and in rig's doghouse.**
3. **Coordinate with San Juan County Sheriff's Office for drive by checks during the evening to prevent vandalism.**
4. **Check rig anchors (two were tested and two new were set in February 2004).**

5. Set Two (2) 400-Bbl frac tanks & fill with city water mixed w/ 2% KCl. KCl from Key Energy only, no other providers authorized. Set Laydown Flowback tank as directed.
6. (Have L&R construct a new wellhead guard out of 4" pipe w/ two – 4" side rails on three of the four sides with each of the four legs 6' in length, 2' of each leg to be buried, giving a 4' top rail height)
7. Hold Pre-Job Safety Meetings.
8. MIRU Completion Rig and associated equipment (Rig pit-have load of 2% KCl water delivered, rig pump, BOP)
9. Record casing and tubing pressures, lay flow-back line to rig pit, blow down well if necessary.
10. Kill well, if necessary, using 2% KCl water, well should blow dead.
11. ND upper wellhead.
12. NU BOPE w/ 2-3/8" pipe rams & Pressure Test w/ rig pump.
13. Unset tubing, COOH & stand-back 52-Jts 2-3/8" 4.7# J-55 EUE 8-Rd tubing. (1-Jt, 2 - 6' subs, 51-Jts, 1.78" ID Lok Collar, 2' sub)
14. RU Blue Jet. NU W/L pack-off.
15. RIH w/ 4-1/2" 10.5# CIBP on W/L and set @ 1604', correlate to Blue Jet GR-CCL-CBL run on 2-20-2004, collars @ 1298+, 1320+, 1353-, 1369+, 1383+, 1404, 1426+, 1450-, 1472+, 1494+, 1517, 1536-. Also correlate with Gearhart Owen GR-Neutron log run 1-26-78. POOH. **Note slight depth shift.**
16. Load hole w/ 2% KCl water (vacant hole volume = 25.5 Bbls).
17. ND BOP, NU 7-1/16" WSI full opening frac valve. NU BOPE.
18. Pressure Test CIBP @ 1604' to 2500#, and BOPE.
19. RU Blue Jet. RIH w/ 3-1/8" HSC perforating guns to Perforate Fruitland Coal (Owen 302) – 0.34" dia hole, 120 deg phase. Perforate Btm-up, perms per Gearhart Log. CIBP @ 1604'.

Zone # 1	1592'-1596' (4') – 2 SPF – 8 holes
Zone # 2	1581'-1583' (2') – 2 SPF – 4 holes
Zone # 3	1560'-1564' (4') – 2 SPF – 8 holes
Zone # 4	1550'-1552' (2') – 2 SPF – 4 holes
Zone # 5	1443'-1448' (5') – 2 SPF – 10 holes
Zone # 6	1352'-1354' (2') – 2 SPF – 4 holes
Total of 19 feet Coal, 38 holes	

20. RD Blue Jet.
21. TIH w/ Baker 4-1/2" Model G RBP and PKR combination assembly. GIH on 2-3/8" tubing. Set RBP below all perforations at 1600'. Set PKR at 1570'. Have 2-3/8" tubing subs on location (6', 8', and 10' subs). Obtain at rig equipment, or Cave Enterprises.
22. MIRU Acid Frac Pump, NO ACID REQUIRED.
23. Breakdown Fruitland Coal down 2-3/8" tubing as follows: Breakdown Zone # 1 and Zone # 2 together underneath PKR at the first setting. Pump as directed estimated volume 20 bbls. Release PKR and recover RBP. Move RBP and set RBP at 1570'. Set PKR at 1500'+/-. Breakdown Zone # 3 and Zone # 4 together underneath PKR at 2<sup>nd</sup> setting. Pump as directed estimated volume 20 bbls. Release PKR and recover RBP. Move RBP and set RBP at 1500', Set PKR at 1400'+/-. Breakdown Zone # 5 independently in 3<sup>rd</sup> setting. Pump as directed estimated volume 20 bbls. Release PKR and recover RBP. Move RBP and set at 1400'. Set PKR at 1300'+/-. Breakdown Zone # 6 in 4<sup>th</sup> setting. Pump as directed volume 20 bbls. Release tools.
24. RD Acid Frac Pump.
25. COOH w/ 2-3/8" standing-back 2-3/8" 4.7# J-55 EUE Tubing. Lay down PKR and Tools. It may be necessary to laydown tubing and move rig off the location because of frac scheduling concerns.
26. ND BOP. RU flange adaptor on top of 7-1/16" frac valve for 4" 1002 connection. RU immediate flowback lines to come off of divertor spool, below 7-1/16" frac valve assembly.
27. RU Stimulation/Frac Crew.
28. Test Lines. Fracture Stimulate down 4-1/2" 10.5# Casing with 65 Quality Nitrogen X-linked Foam at 25 BPM, 38 perforations, 80,000 lbs of 20/40 Super LC. See attached detailed procedure.
29. Place well on immediate flow-back after fracture stimulation through 1/2" choke, flow-back well 36-Hrs+/-, record manifold pressures hourly, denoting fluids, sand and gas returns qualitatively.
30. SI Well. NU BOPE & Test. RU Air package. *OR use Baker?*
31. TIH w/ notched collar on 2-3/8" tbg & cleanout sand fill with air to CIBP @ 1604', note fluid level and depth of sand fill on report.
32. TOOH w/ notched collar, standing back 2-3/8" tbg.
33. TIH w/ 2-3/8" half-mule-shoe expendable check (if well is blowing), 1.78" ID Lok Collar on 2-3/8" tbg & land tbg @ 1594'+/-.

34. Land tubing hanger, ND BOPE and Frac Valve. NU upper WH (pump off expendable check with air...placing ball on top of CIBP, if one was run)
35. If necessary, RU line to swab well, swab well to kick off. Record the number of swab runs, fluid depths and fluid recoveries.
36. RD workover rig, air package and auxiliary equipment.
37. Release workover rig, air package and any rental equipment.
38. Dispose of produced workover fluids to Key Energy SWD.

If it is necessary to run a downhole pump, Synergy will need to DO CIBP, then run the following BHA: 1-Jt 2-7/8" tbg w/ orange peeled/welded bottom(thus slick OD) and 4 – 1" x 4" slits two feet down from top of the upset, 2-7/8" x 2-3/8" x-over, 1.78" ID Lok Collar, 2' 2-3/8" tbg sub (for lift). Rod pump will be top hold down with 12" gas strainer on bottom.

# Federal #1

Field: Fulcher-Kutz (PC)

Mete 00005  
API # 50-045-22723

Completion Date: March 18, 1978

888' FNL & 1678' FWL, Sec 24, T29N-R12W  
San Juan Co., New Mexico

Lease # NMNM-013885

TOC @ Surface by CBL 2/20/04

Logs: GO International  
GR-Neutron (API Neutron Units)

2/20/04: GR-CCL-CBL  
F/1577-Surf (Cmt to Surf)

Tubing: 52-Jts 2-3/8" 4.7# J-55 EUE  
@ 1632', SN = 1630'

**PC Perfs:**  
1610-30', 1634-40' w/ 2-3/8" SPF (52-Total)

3/4/92: Pumped 650-Gals 15% HCl  
down Tbg/Csg Annulus, let soak  
30-Mins, pump 650-Gals 15% HCl  
& flush w/ 30-Bbls water  
Total load = 56 Bbls.

IP: F 700 MCF/D Pitot test (5-Hr)  
FCP = 60#

GL: 5544'  
KB: 5549'

Wellhead: Screwed by Flanged 3000#  
with two 2" LP Outlets

9-7/8" Hole

7" 20# K-55 @ 93'  
Cmt'd w/ 120-sxs 'B' - Circ to surf?

Hole - 6-1/4"

**Ojo Alamo @ 260-440'**

**Kirtland Top @ 440'**

**Fruitland Top @ 1296'**

**PC Top @ 1604'**

4-1/2" 10.5# K-55 @ 1783'  
Cmt'd w/ 210-sxs:

**Lewis Shale @ 1710'**

**Initial Completion**  
- Frac'd w/ 42,000-Gals &  
40,000 # 20/40 SD. Avg Q=39-BPM,  
ATP=?, ISIP=?

PBTD = 1744'

TD = 1785'

Configuration As of: 2-20-2004