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**

2005 OCT 31 PM 3 14

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

RECEIVED
070 FARMINGTON NM

*SUBMIT IN TRIPLICATE*

5. Lease Designation and Serial No.
NM-99705

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

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

8. Well Name and No.
Eagle Springs "8" Federal # 2M

2. Name of Operator
Synergy Operating, LLC (163458)

9. API Well No.
30-043-20950

3. Address and Telephone No.
PO Box 5513 (505) 325-5549
Farmington, NM 87499

10. Field and Pool, or Exploratory
Menefee (Oil) - WC19N4W8B

4. Location of Well (Footage, Sec, T. R., M, or Survey Description)
Unit B, 330' FNL, 2310' FEL, Sec 08, T19N - R04W

11. County or Parish, State
Sandoval
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 | ☒ 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 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.

SYNERGY REQUESTS APPROVAL TO PLUG AND ABANDON THE SUBJECT WELLBORE PER THE ATTACHED PROCEDURE AND WELLBORE DIAGRAM.

A SMALL LINED EARTHEN CEMENT RETURN PIT WILL BE PLACED NEAR THE WELLHEAD AND CLOSED FOLLOWING THE COMPLETED RIG ACTIVITY.

NOV 2005
OIL CONS. DIV.
DIST. 3

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

Signed: Thomas E. Mullins Title: Engineering Manager Date: 10-31-2005
Telephone: (505) 566-3725

This space for federal or state office use

Approved by Original Signed: Stephen Mason Title: _____ Date: NOV 0 4 2005
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

**PLUG AND ABANDONMENT PROCEDURE**

Eagle Springs "8" Federal # 2M
Unit B, Section 08-T19N-R04W
330' FNL, 2310' FEL
6737' GL, 13' KB

Secure all approvals before commencing plugging operations. NMOCD, BLM, & Partner Approvals.

9-5/8" 36# J-55 Casing at 353'. 8-3/4" hole drilled out.
7" 23# J-55 Casing to 3850', DV tool at 3215' (6.366" ID, 0.039365 bbls/ft)
2-7/8" 6.5# J-55 Tubing at 2540' (78 Jts) (2.441" ID, 0.002371 bbls/ft)
Mancos Abandoned under CIBP at 3150' w/ 2 sxs cement on top
PBTD 2978'
Menefee Perforations from 2154' to 2342'
TOC on 7" estimated at 1400' from lift pressures (Will verify w/ CBL)

1) Perform NM One Call. Test Anchors. Dig and Line Small Pit for Cement Returns during plugging operation, near the wellhead.
2) Contact both the BLM and the NMOCD 24 hrs prior to commencing plugging operations.
3) MIRU Workover Rig with Auxiliary Equipment. Need Trailer to Lay Down Rods, & Tubing, and Work Tank for Cement Mix Water.
4) Check & Record Pressures on Bradenhead, 7" Casing, and Tubing.
5) BD all.
6) LD Horse's Head. Unseat Pump. COOH w/ rod string and DH pump laying down all.
7) ND WH. NU BOPE.
8) Unseat Hanger
9) COOH w/ 2-7/8" tubing.

Place cement on top of bridge plug @ 3150' to 3050'

10) GIH w/ 7" cement retainer on 2-7/8" tubing. Set Retainer at 2110'. Test Tubing.
11) **PLUG # 1A** (2110' to 2342')– Establish rate below Retainer at 2110' and into perforations. Mix and pump (20 bbls cement – 100% excess), below retainer. Displace with an additional 2 bbls cement. Sting out of retainer, placing the 2 bbls on top of the Retainer for cement **PLUG # 1B** from 2060' to 2110'
12) COOH w/ tubing.
13) RU wireline company.
14) Run GR-CBL from 2110' to surface. Identify TOC.
15) Perforate Squeeze holes for **PLUG # 2** at Perforate four (4) squeeze holes at 900'+/-. POOH.
16) Establish rate down 7" casing, note returns on bradenhead if any.
17) GIH w/ all tubing. COOH, Laying down unneeded Jts.
18) GIH w/ 7" 23# Cement Retainer on 2-7/8" tubing. Set Retainer at ~~900~~'.

19) **PLUG # 2** (~~825~~ 900' to ~~950~~ 800')– Establish rate below retainer, monitor returns on Bradenhead. Annular volume (0.026773 bbls/ft). Mix and Pump 10 bbls cement below retainer, covering 100' plug outside 7" casing w/ 100% excess. Sting out of retainer, placing 3 bbls cement on top of retainer. Displace as appropriate. This plug covers the Mesaverde Top.
20) COOH w/ 2-7/8". LD remaining Tubing. LD setting tool.
21) Wireline. RIH and perforate squeeze gun 3-1/8" HSC (or equivalent). Perforate four (4) squeeze holes at 400'+/-. POOH.
22) Establish rate down 7" casing, note returns on bradenhead.
23) **PLUG # 3** (275' to 400'). Mix and Pump 30 bbls cement down casing and out squeeze hole. Displace w/ 12 bbls water, ensuring cement to surface on the annulus and top of Plug # 3 inside 7" casing at 275'. WOC 2 hrs.
24) Release pressure slowly. Clean BOP Stack. Plug surface casing from 199' - Surface
25) Cut-Off Wellhead. to cover Pictured Cliffs / Fruitland.
26) **PLUG # 4** - Install Dryhole Marker w/ 5 sxs cement above ground level as required.
27) Close out Cement wash-up pit per NMOCD guidelines.
28) Remove Surface equipment from wellsite, rip location and reseed location per BLM specifications.
29) Submit all documentation. Secure final abandonment approvals.

Prepared by Tom Mullins
10/31/2005

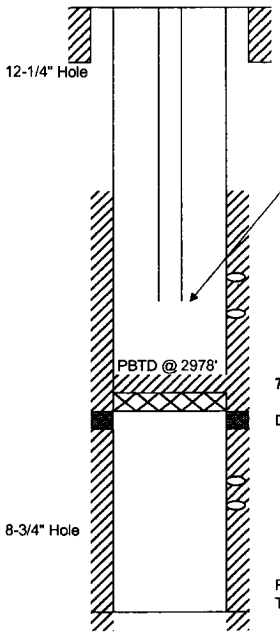
**Eagle Springs "8" Federal # 2M**
Unit B, Section 08-T19N-R04W
330' FNL, 2310' FEL
6737' GL, 13' KB

Bear Cat # 3
BHWS # 2

Spud: 01/18/2001
Completed: 03/23/01

Lease # NMNM-99705

**API # 030-043-2095000**




**9-5/8" 36# J-55 Casing @ 353' w/ 250 sxs**
**Circulated 114 sxs cement to surface**

**7/8" Rod String and DH pump in the well.**

**2-7/8" 6.5# J-55 EUE Tubing set @ 2540' (78 Jts)**

**Calculated 7" TOC following Sqz Job at 1400' (base on lift pressure)**

**Menefee**
2154' to 2168' (14') (Stg # 2)
Fracture Stimulated with 23,000# 20/40 Super DC in 14,322 gals 25# X-Linked Gel
2250' to 2254' (4'), 2261'-2263' (2'), 2282'-2284' (2'), 2306'-2308' (2'), 2339'-2342' (4') - (Stg # 1)
Fracture Stimulated with 7,100# 20/40 Super DC in 10,080 gals 25# X-Linked Gel

**4 - sqz holes at 2308'.** Original TOC 7" 2nd Stage at 2310'
**7" CIBP @ 3150' (2 sxs Cement Dump bailed on top)**

DV Tool @ 3215' (WL Depth)

**Mancos**
*3200' to 3270' - 30 holes*
Fracture Stimulated w/ 54,917 gals gelled diesel & 47,500# 12/20 Brady & 6,250# 40/70 Arizona

PBTD @ 2978'
TD @ 3850'

**7" 23# J-55 Casing. Set at 3850'**
1st Stage Cement w/ 75 sxs ( 128 ft3) Lead Cement. Set ECP. Circ 26 sxs to surface.
2nd Stage Cement w/ 280 sxs Lead (557 ft3) Cement, Tail w/ 105 sxs (125 ft3). Lost 90% of returns w/ 6 bbls left on final displacement

| Formation Tops | |
|---|---|
| Pict Cliffs | 400' |
| Lewis | |
| Cliffhouse | 860' |
| Menefee | 1425' |
| Pt. Lookout | 2205' |
| Mancos | 2470' |
| Gallup | 3270' |
| TD | 3850' |

Specialty Logs, Misc
Mud Log (353'-TD)
GR-USIT (200' to 3700')

Open Hole Logs (Schlum)
GR-Ind, Neutron-Density
Platform Express

Formation Name: **Mancos**
03-10-2001 MIRU Completion Rig. PU 6-1/2" Mill tooth Bit & scraper, & 3 - 3-1/2" DCs on 2-7/8" tubing. GIH tag at 3195'. DO DV tool.
Work Scraper through also. Test to 1000#. Good test. GIH to PBTD of 3765'. LD 7 Jts.
03-13-2001 RU Schlumberger. Run GR USIT after problems. Listed on daily that TOC was at 200' WRONG.
GIH openended. Roll hole clean w/ diesel. Run Gyro Survey.
Perforate Mancos from 3270' to 3275' (5') - 6 holes, 3250'-3256' (6') - 7 holes, 3234' to 3238' (4') - 5 holes, 3220'-3224' (4') - 5 holes, and 3200'-3206' (6') - 7 holes. Total of 30 holes. No Change in Fluid Level
03-16-2001 GIH w/ RTTS and RBP. Lost RBP. Fell to PBTD. LD RTTS. GIH w/ retreiving head. Recover RBP. GIH w/ same
RTTS, set PKR at 3147'. RU HES. BD perfs w/ diesel at 934#. Ball out to 4468#. ISIP 428#. Good ball action 46 bbls diesel to recover.
RU to swab. Swab well back. Recover 100% water on 3rd run. Release PKR. Load 12,487 gallons diesel for Frac.
Fracture Stimulate Mancos Perforations (Gallup) w/ 54,917 gallons My-T-Oil IV gelled diesel carrying 47,500# 12/20 Brady & 6,250# 40/70 Arizona
Traced Stimulation. ISIP 416#, No rates listed. 17 Hr - SICP 50#. Blow down.
03-20-2001 RIH w/ Post frac GR tool to 3770'. Log well. Frac in Zone. ND Frac Valve. NU BOP.
GIH w/ tubing tag sand at 3585'. Pull up set tubing at 3200'. Swab well. Recover 320 bbls diesel, no water.
Swab well back recover diesel and some formation oil. Estimated, and 3 bbls water. Total 750 bbls recovered diesel.
GIH tag fill at 3575'. Landed 2-7/8" tubing string. Total 105 jts at 3343' KB.
Run rod string 7/8" string 130 rods plus ponys, pump 2.25" x 1.5" x 18' RWBC.
03-25-2001 Place well on pump.
04-03-2001 Fluid Level shot at 3115'. Poor recover 50 % oil, 50% water, Averagingg 4 BOPD, 4 BWPD.
Well inactive. No records of when pump jack was removed or rods removed from the well.

Formation Name: **Mesaverde**
08-06-2003 MIRU BHWS. SICP = SITP = 20#. Blow down. COOH w/ 105 jts 2-7/8" from 3343'. Run Bit & Scraper to 3200'.
GIH w/ tubing set CIBP on 2-7/8" tubing. Set CIBP at 3150'. Load hole from Btm & test Casing to 3000#. Good. COOH.
08-07-2003 RU wireline. Dumpbail 2 sxs cement on top of CIBP at 3150'. Abandon Mancos.
RIH w/ Squeeze Perf Gun. Shoot 4 holes at 2308'. BD perfs at 900#. Establish circulation to surfacw w/ 20 bbls water.
GIH w/ 7" retainer. Set retainer at 2293'. Test tubing 3500#. Squeeze 88.5 sxs (33 bbls - 185 ft3) at 12.5 ppg. Good circulation
Bridged off. Displace cement w/ 13.2 bbls wwater. Final pressure 1800#. Sting out. X-O casing valves. Install Frac Valve.
08-08-2003 GIH w/ 6-1/4" bit and DCs on 2-7/8" tubing. Tag and Drill Cement retainer at 2293' plus 25' cement.
SM. Rig repairs. RU Blue Jet. Perforate Menefee Coal Intervals 2250' to 2342' (32 holes). RD. GIH w/ BP & PKR combo.
Zone # 1 (2339' to 2342') - 4.3 BPM @ 2300 psi, ISIP 703, Closure 661 psi. 20 bbls 2% KCl.
Zone # 2 (2306' to 2308') - 4.3 BPM @ 2150 psi, ISIP 760, Closure 730 psi, 20 bbls 2% KCl.
Zone # 3 (2282' to 2284') - 4.3 BPM @ 2560 psi, ISIP 1160, Closure 1041 psi, 20 bbls 2% KCl
Zone # 4 (2261' to 2263') - 4.3 BPM @ 3650 psi, ISIP 2403, Closure 1101 psi, 10 bbls 2% KCl
Zone # 5 (2250' to 2254') - 4.3 BPM @ 3900 psi, ISIP 2908, Closure 1495 psi, 20 bbls 2% KCl
All Zones 2250' to 2342' - 7.3 BPM @ 2200 psi, ISIP 788 psi....Treating just zone # 2.....20 bbls
Isolate and perform injection pump ins across each coal interval. Monitor fall-off. Total fluid pumpd as 120 bbls
Indicated Frac gradient above 1.4 psi/ft for majority of intervals. Modify stimulation to be pumped down tubing string.
COOH w/ BP & PKR.
08-12-2003
SM. GIH w/ 7" fullbore PKR & 2-7/8" tubing, set PKR at 2201'. Flange down tubing to WH. SM. BJ Services.
Frac Meneffe Coal interval from 2250' to 2342' w/ 7,100 lbs 20/40 Super DC proppant in 240 bbls (10,080 gals) 25# X-link
gel. ATP 3300 psi. MTP 2500 psi, from 15 BPM down to 4 BPM. ISIP 3050. Release PKR. ND Valves. COOH w/
tubing. RU Blue Jet. Set RBP at 2211'. POOH. Perforate Meneffe Sand from 2154' to 2168' (14') - 28 holes.
Breakdown w/ 2% KCl water, and frac down casing w/ 23,000 lbs 20/40 Super DC at 23 BPM 1000 ATP. Flush well.
RD BJ Services. SI well overnight.
08-13-2003. LD Collars. Ld PKR. GIH w/ retreiving head on 2-7/8". Circulate 15' sand off of RBP. Recover RBP from 2211'
GIH w/ 6-1/4" bit. Tag sand bridge at 2308'. Cleanout to PBTD of 2978'. LD unneeded tubing.
Run post frac GR log through 2-7/8" tubing. Land 2-7/8" production tubing (78 jts) at 2540'.
Run rods & pump. 2.25" x 2" x 14' & 98 - 7/8" rods & 3 pony rods. RD & Release Rig.
09-22-2003 Add 4' pony rod. Well still not pumping properly.
10-20-2003 MIRU BHWS Rig. LD ponys, add single 7/8" rod, total of 99 - 7/8" rods & 2' pony rod.
Hang well on.
Pump well 10-22-2003, recovered 340 bbls water, ZERO Oil, Running on Propane.
Pumped well the month of May 2004. Recovered 100% water, 280 BWPD, No Oil.
05-06-2005 Obtain Gas Sample. SICP = 158#.

Updated 10-31-05