District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, 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-104A
March 19, 2001

Submit 1 copy of the final affected wells list along with 1 copy of this form per number of wells on that list to appropriate District Office

Change of Operator

Previous Operator Information:

OGRID: 163458
Name: Synergy Operating, LLC.
Address: P.O. Box 5513
Address:
City, State, Zip: Farmington, NM 87499-5513

New Operator Information:

Effective Date: October 1, 2002
New Ogrid: 017470
New Name: Petroleum Development Corporation
Address: 4113 Eubank NE, STE 400
Address:
City, State, Zip: Albuquerque, NM 87111

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the attached list of wells is true and complete to the best of my knowledge and belief.

New Operator Signature:

Printed name: Mark Young

Title: Production Manager

Date: 9/17/02 Phone: (505) 293-4044 ext. 113

Previous operator complete below:

Previous Operator: SYNERGY OPERATING, LLC
Previous OGRID: 163458
Signature:
Printed Name: GLEN O. PAPP

NMOCD Approval

Signature:
Printed Name: SUPERVISOR DISTRICT #3
District: SEP 23 2002
Date:

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
2002 MAY -3 PM 1:42
070 FARMINGTON, NM

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.
NM-87227

6. If Indian, Allottee or Tribe Name

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

7. If Unit or CA, Agreement Designation
Eagle Mesa Entrada

2. Name of Operator
Synergy Operating LLC

8. Well Name and No.
EMU No. 1

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

9. API Well No.
30-043-20175

4. Location of Well (Footage, Sec, T. R., M, or Survey Description)
460' FSL & 330' FWL, Sec 12, T19N, R4W

10. Field and Pool, or Exploratory
Eagle Mesa Entrada

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 Operating proposes to Plug & Abandon the subject well according to the attached procedure

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

Signed: Lisa D. Papa Title: **Operations Manager** Date: **4/30/2002**

This space for federal or state office use

Approved by: _____ Title: _____ Date: 5/30/02

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 & Abandonment Procedure

Drafted: April 19, 2002

Eagle Mesa Unit #1 (13' KB to GL)
Eagle Mesa Entrada / Injection well

Note: All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.5 ppg, sufficient to balance all exposed formation pressures.

1. Test / Install all rig anchors on location. Dig, line and fence workover pit. Comply to all NMOCD, BLM, EPA, Indian and Synergy Operating regulations and safety practices. Report topic of daily safety mtgs on daily reports.

2. MI RU P&A rig & spot auxiliary equipment. RU circulating line to workover pit. Blow both casing and tubing to workover pit. ND WH, NU BOP & Pressure-test (PT).

3. Release 4-1/2" Baker Lok-Set Pkr @ 4833', TOOH laying down 154-Jts 3-1/2" 9.3# J-55 EUE Internally Plastic Coated tubing. (ON/OFF tool above Pkr if can not release)

4. GIH w/ 4-1/2" 11.6# guage ring to 5500'- (MD) on W/L (3-7/8" Horizontal OH Entrada Section from 5542' MD to 5752' MD).

5. PU & tally 2-3/8" 4.7# J-55 EUE workstring, TIH w/ 4-1/2" 11.6# Cmt Rtn on tbg & set @ 5500'+

6. PUH to 5470'+/- and circ hole w/ produced water to workover pit. PT casing to 500# for 15-Mins.

7. Sting into Cmt Rtr @ 5500+'- & establish injection rate into Entrada OH @ 5542-6078' (MD)

8. Plug #1 (Entrada OH): Mix and pump 60-sxs Cl 'B' cmt, squeeze 50-sxs below Cmt Rtr into OH. Sting out of Cmt Rtr & spot remaining 10-sxs Cl 'B' cmt on top of Cmt Rtr from 5500-5365'.

9. PUH to 4859', laying down 2-3/8" workstring.

10. Plug #2 (4-1/2" liner top): Spot 20-sxs Cl 'B' cmt balanced plug from 4859-4759' (50' inside 4-1/2" 11.6# csg & 50 above liner top in 7" 23# Csg).

11. PUH to 4542'. Laying down 2-3/8" workstring.

12. Plug #3 (Dakota): Spot 28-sxs Cl 'B' cmt balanced plug from 4542-4442' inside 7" 23# csg.

13. PUH to 3294', laying down 2-3/8" workstring.

14. Plug #4 (Gallup): Spot 28-sxs Cl 'B' cmt balanced plug from 3294-3194' inside 7" 23# csg.

15. PUH to 2305', laying down 2-3/8" workstring.

16. Plug #5 (MV/Pt Lookout): Spot 28-sxs Cl 'B' cmt balanced plug from 2305-2205' inside 7" 23# csg.

17. PUH to 900', laying down 2-3/8" workstring.

18. Plug #6 (La Ventana): Spot 28-sxs Cl 'B' cmt balanced plug from 900-800' inside 7" 23# csg.

19. PUH to 260', laying down 2-3/8" workstring.

20. Pressure Test Bradenhead to 300#.

21. Plug #7 (10-3/4" Surf Csg Shoe @ 207'): Circ 58-sxs Cl 'B' cmt from 260-Surface.

22. TOOH, laying down remaining 2-3/8" workstring.

23. ND BOP & companion flange. Dig Cellar, cut-off WH 3' below GL. RD PU. Install P&A marker.

Cement Plug Calculations

Liner Top: Inside 4-1/2" 11.6#/ft liner: (50')(.0872 ft^3/ft) = 4.36 ft^3
Inside 7" 23#/ft casing: (50')(.2210 ft^3/ft) = 11.05 ft^3
15.41 ft^3 (Yield=1.18 ft^3/sx) = 13.059 sxs

50' Excess: 6.530 sxs

TOTAL Cement: 19.589 sxs = 20 sxs

7" - 100' Plugs: Inside 7" 23#/ft casing: (100')(.2210 ft^3/ft) = 22.10 ft^3 (Yield=1.18 ft^3/sx) = 18.729 sxs

50' Excess: 9.364 sxs

TOTAL Cement: 28.093 sxs = 28 sxs

7" - Surface Plug: Inside 7" 23#/ft casing: (260')(.2210 ft^3/ft) = 57.46 ft^3 (Yield=1.18 ft^3/sx) = 48.69 sxs

50' Excess: 9.39 sxs

TOTAL Cement: 58.08 sxs = 58 sxs

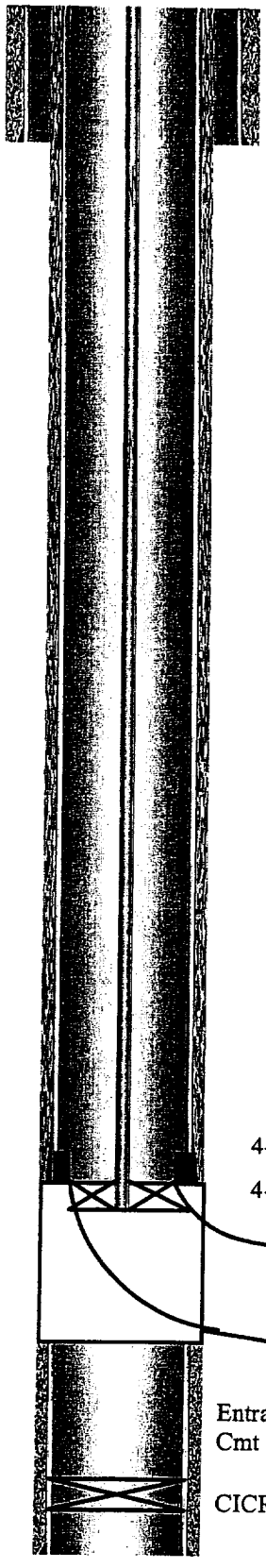
Synergy Operating LLC

Wellbore Schematic

EMU H No. 1

Location: FNL: 460' FS& 330 FW (Sec 12)
BHL: 196' FN & 43' FW (Sec 13)
T-19-N, R-4-W
Sandoval Co., NM

Elevation: 6698' GL
6711' RKB (13' GL - RKB)



Lewis Shale @ Surface

10-3/4" Csg @ 207'
Cmt'd w/ 250-sxs-Circ

Bit Size: 15"

Cretaceous

Cliffhouse - 446'

La Ventana - 850'

Sqz csg: 1675-1878' w/ 40-sxs, dry tested (10/94)

Pt. Lookout - 2255'

Sqz csg: 2106-2294' w/ 60-sxs, dry tested (10/94)

Mancos - 2402'

Sqz csg: 2150-2180' w/ 50-sxs 'B' & 2% CaCl-2 (11/19/96): Leaked

Spot 10-sxs sqz cmt @ 2179' (11/20/96): Held 550# - 15-Mins on 11/22/96

Gallup - 3244'

Est TOC - 3200'

DV Tool @ 3569', Cmt'd w/ 400-sxs 'G' 50/50 Poz, F/B 50-sxs 'G'
(No circulation during primary cement job)

Est TOC - 3850' (Poor bond)

Greenhorn - 4240'

3-1/2" 9.3# EUE Plastic Coated Tbg @ 4833' (154-Jts)

Dakota - 4492'

Morrison - 4618'

4-1/2" Liner top @ 4809' - Hole Size 6-1/4"

4-1/2" Lok-Set pkr @ 4833' w/ 1-Jt 2-3/8" inside 4-1/2" liner w/ 'F' & ON/OFF

4-1/2" 11.6# Liner set @ 5542' (MD) cmt'd w/ 125-sxs

3-3/8" PIP Pkr @ 5752'

Jurassic

Todilto - 5472'

Entrada - 5483'

Entrada Perf: 5483-5493'
Cmt Plug: 5329-5509', 34-sxs

OH Size: 3-7/8"
5542-6078'(TVD-5491')

CICR @ 5509', 2 sqz hole @ 5514' w/ 50-sxs'H' (10/94)

7" 23# J-55 Csg @ 5724'
Cmt'd w/ 167-sxs 'G' 50/50 Poz 4% Gel, F/B 75-sxs 'G'

TD @ 5735'

Bit Size: 8-3/4"

GOP: 1/21/02

Synergy Operating LLC

Wellbore Schematic (After P & A)

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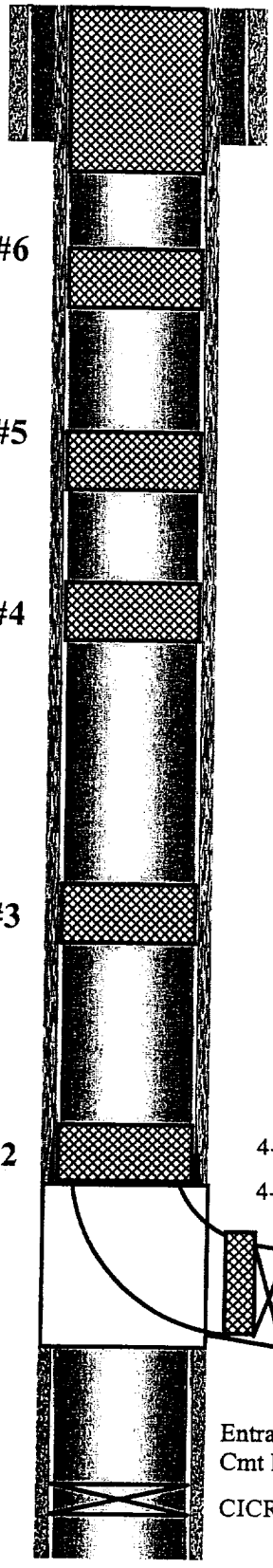

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Plug #7

Bit Size: 15"

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