

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

2005 DEC 12

RECEIVED

070 FARM

1a. Type of Work ☒ DRILL ☐ REENTER
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

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

3a. Address PO Box 5513
Farmington, NM 87499 3b. Phone Number (505) 325-5449

4. Location of Well (Footage, Sec, T, R., M, or Survey Description)
At surface: Unit Letter J, 1980' FSL, 1660' FEL, Sec 19, T29N-R11W
At proposed prod. Zone: Same

14. Distance in miles and direction from nearest town or post office*
3 miles northwest of Bloomfield, NM

15. Distance from proposed*
location to nearest 1665' from East Line
property or lease line, ft.
(Also to nearest drlg. Unit line, if any)

18. Distance from proposed*
location to nearest 1980' from South Line
property or lease line, ft.

21. Elevation (Show whether DF, KDB, RT, GL, etc.)
5522' Ground Level

16. No of Acres in lease
____ Acres

19. Proposed Depth
1725'

22. Approximate date work will start*
February 15, 2006

5. Lease Designation and Serial No.
SF-077056

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement, Name and No.

8. Lease Name and Well No.
White 29-11-19 #107

9. API Well No.
30-045-33475

10. Field and Pool, or Exploratory
Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and Survey or Area

J Sec 19, T-29-N, R-11-W

12. County or Parish,
San Juan

13. State
New Mexico

17. Spacing Unit dedicated to this well
314.97
320 Acres (S/2)

20. BLM/BIA Bond No. on file
NM-2555

23. Estimated duration
30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan

3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office.

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be required by the authorized officer

Size of Hole	Grade, Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8" J-55	24 #	220'	150-sxs, 213 ft3 - 100% Excess
7-7/8"	5-1/2" J-55	15.5#	1725'	240-sxs, 440 ft3 - 100% OH Excess

SEE ATTACHED APD INFORMATION

Latitude: 36 Deg, 42 Min, 34.5 Sec N
Longitude: 108 Deg, 01 Min, 46.9 Sec W

25. Signature

Glen O. Papp

Name (Printed/Typed)

Glen O. Papp

Date

12-9-05

Title Operations Manager

Approved by (Signature)

D. Monticorpe
AFM

Name (Printed/Typed)

Office

PFO

Date

3/22/06

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOCD

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

2005 DEC 12 PM 1 44

☐ AMENDED REPORT

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-33475		² Pool Code 71429	³ Pool Name Basin Fruitland Coal
⁴ Property Code 35372	⁵ Property Name WHITE 29-11-19		⁶ Well Number 107
⁷ OGRID No. 103458	⁸ Operator Name SYNERGY OPERATING LLC		⁹ Elevation 5522

¹⁰ Surface Location

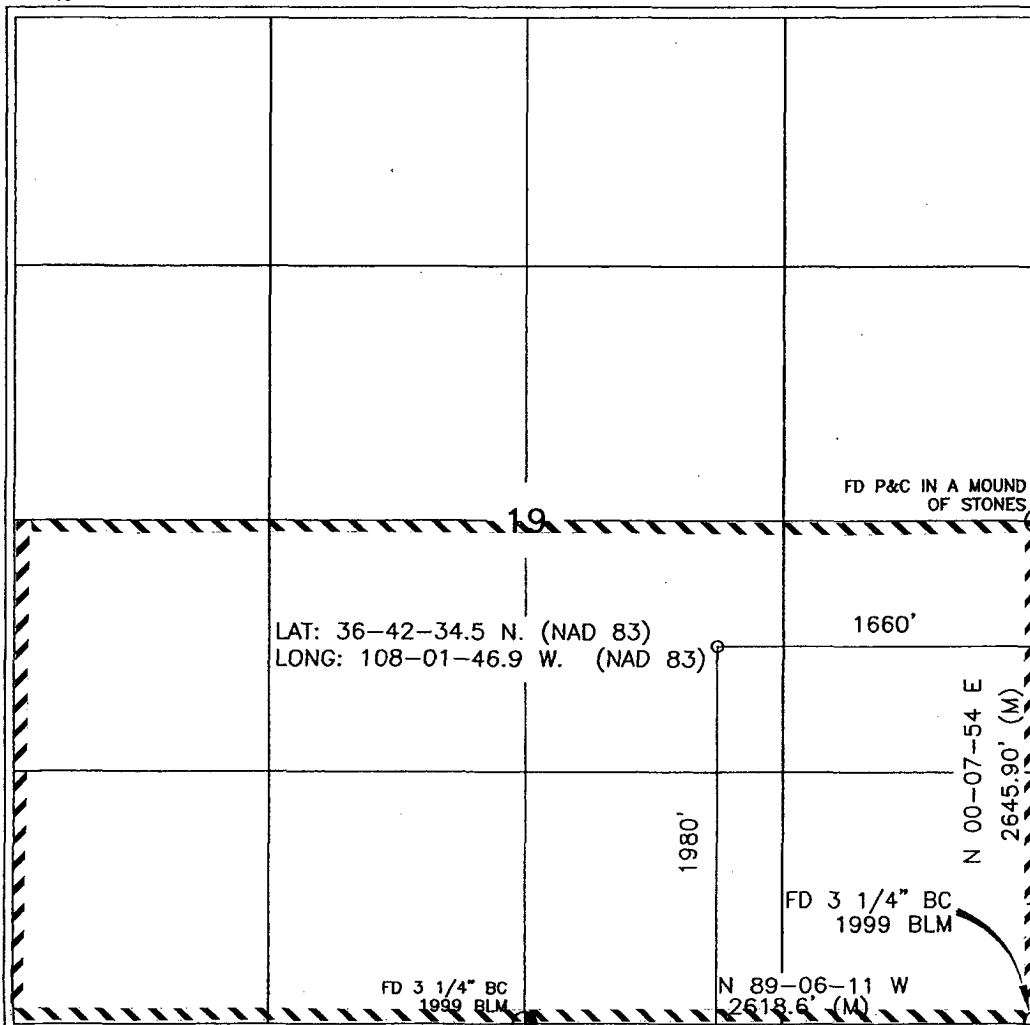
UL or lot no. J	Section 19	Township 29-N	Range 11-W	Lot Idn	Feet from the 1980	North/South line SOUTH	Feet from the 1660	East/West line EAST	County SAN JUAN
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 314.97		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



17 OPERATOR CERTIFICATION

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

Glen O. Papp
Signature
GLEN O. PAPP
Printed Name
OPERATIONS MANAGER
Title
DEC 1, 2005
Date

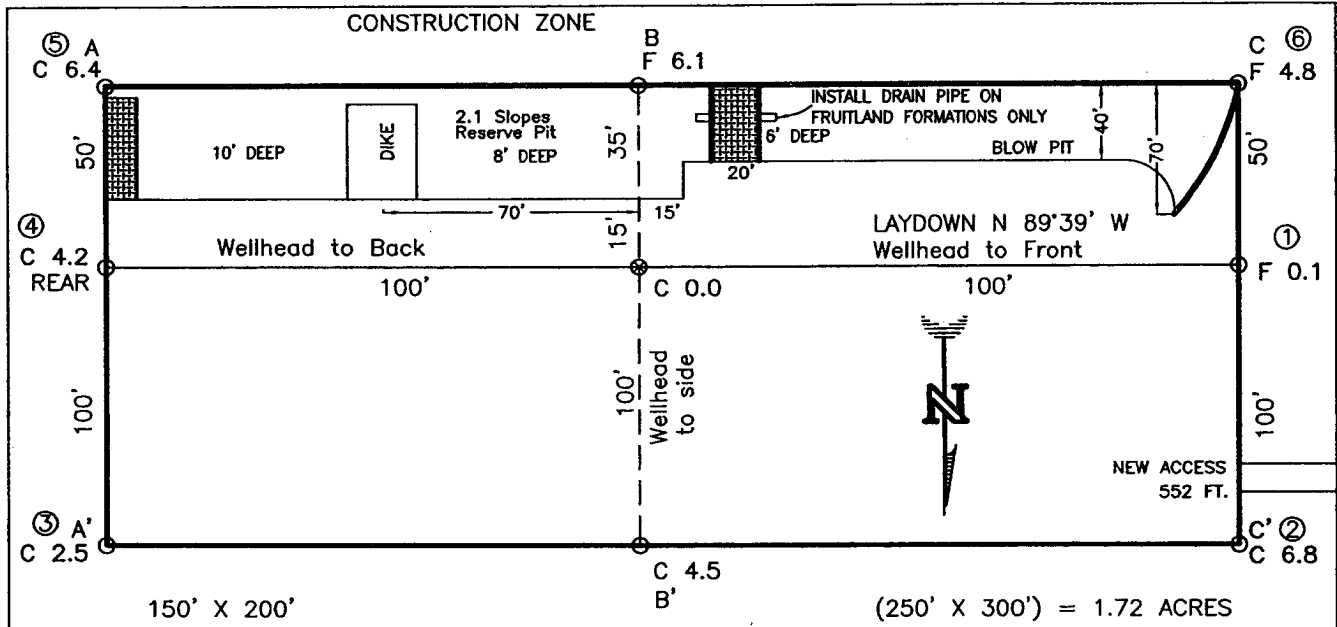
18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

2005
Date of Survey
JOHN A. VUKONICH
Signature
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
14881
Certificate Number

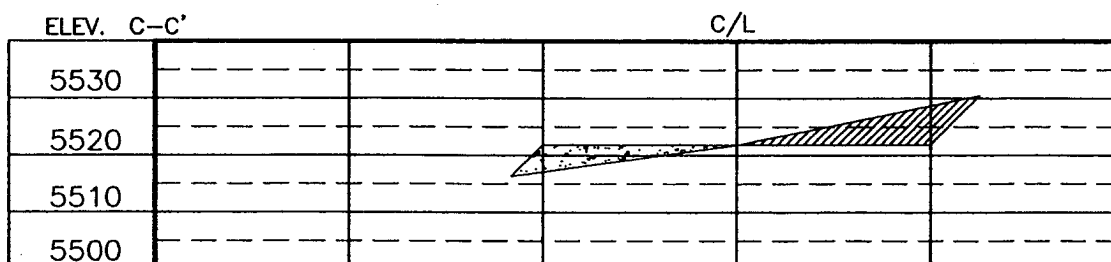
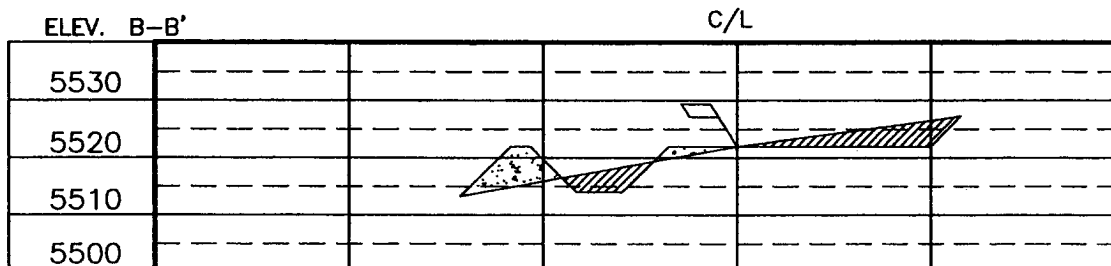
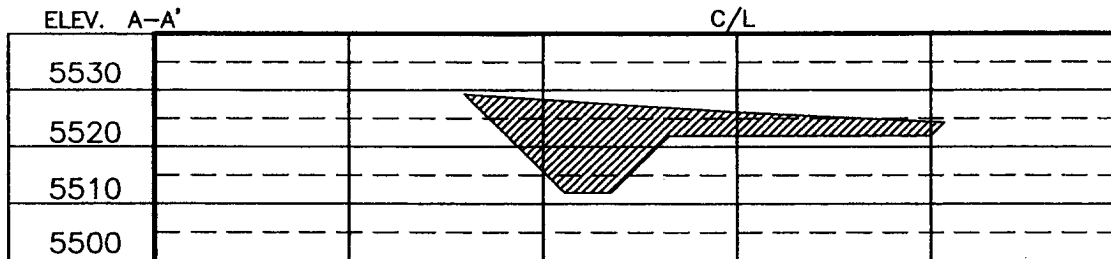
SYNERGY OPERATING LLC
 WHITE 29-11-19 No. 107, 1980' FSL 1660' FEL
 SECTION 19, T29N, R11W, N.M.P.M., SAN JUAN COUNTY, N. M.
 GROUND ELEVATION: 5522', DATE: JULY 13, 2005

LAT. = 36°42'34.5" N.
 LONG. = 108°01'46.9" W
 NAD 83



RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).
 BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.



NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

REVISION:	DATE:	REMOVED BY:
<p>Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15088 • Farmington, NM 87401 Phone (505) 326-1772 • Fax (505) 326-8019 NEW MEXICO P.L.S. No. 14831 CARLE STORP000CF8 DATE: 07/28/05</p>		
<p>DRAWN BY: A.G. ROW# ST0P009</p>		

Synergy Operating LLC

Operations Plan

Well Name: White 29-11-19 #107

Location: Unit J, 1980' FSL, 1660' FEL, Sec. 19, T-29-N, R-11-W, San Juan Co. NM
Latitude 36° 42' 34.5" N, Longitude 108° 01' 46.9" W

Field: Basin Fruitland Coal

Elevation: 5522' GL

GEOLOGIC PROGRAM

Formations:	Tops/Depth	Fluids
Nacimiento	Surface	None
Ojo Alamo	393'	Possible fresh water aquifer
Kirtland	517'	None
Fruitland	1154'	Natural gas & produced water
Pictured Cliffs	1572'	Natural gas & produced water
TOTAL Depth	1725'	

Logging Program:

- A) Open Hole: Density + Neutron: TD to Surface Csg Shoe
- B) Cased Hole: GR-CCL

Mudlogs, Cores, DST's:

Mud logging with coal desorption canisters through the Fruitland Coal and the Pictured Cliffs. No conventional coring or drill-stem testing (DST's) are scheduled.

Anticipated Downhole Conditions:

It is not anticipated that any abnormal temperatures, abnormal pressures or hydrogen sulfide gas will be encountered. The maximum anticipated formation pressures are expected to be less than 1000-PSIG.

DRILLING PROGRAM

Contractor: A local rotary drilling company is yet to be determined. Daylight drilling operations only will be employed.

Mud Program: Freshwater based mud system will be utilized. Water sourced from commercial suppliers.

Depth	Type	Viscosity	PPG
0-220'	Spud	40-50	8.4-8.9
220'-TD	Low Solids, Non-dispersed	30-60	8.4-9.5*

* Barite will be used as a weighting material if needed

Pressure Control / Blow Out Preventers (BOP's):

All BOP systems will be in accordance with MMS Onshore Oil & gas Order No 2. Until the drilling contract has been let, the exact make, model and pressure rating of BOP's is unknown. A typical double gate BOP with a rotating head is shown in the attached Exhibit #1. A typical Choke & Kill manifold is also shown in the attached Exhibit #1.

An upper kelly cock valve with handle and drill string safety valves for each size of drill pipe will be available on the rig floor.

BOP Testing:

220' (Surface Csg Shoe) – TD: An 11" 2000# or 3000# double gate BOP Stack & choke manifold will be utilized. All BOP systems will be tested in accordance with MMS Onshore Oil & gas Order No 2. A test plug will be used to test the BOPE, and the resultant pressures will be recorded using a test pump, calibrated test gauges and a calibrated chart recorder. A low pressure test of 250 PSIG will be held for 10-minutes, and a high pressure test will be tested to 1000 PSIG for 10-minutes. Prior to drilling out the surface casing, the 8-5/8" 24# surface casing will be tested to 1000 PSIG for 30-minutes.

Pipe rams will be hydraulically actuated at least once a day. The blind rams will be function tested on each pipe trip. All ram function testing and BOP pressure testing will be recorded on the daily IADC drilling logs.

Casing & Tubing Program:

All casing shall be new and constructed to API standards.

Hole Size	OD	Weight	Grade	GL Set Depth	Clearance Hole/Collar
12-1/4"	8.625"	24#/ft	J-55	0' – 220'	1.3125"
7-7/8"	5.500"	15.5#/ft	J-55	0' – TD(1725' +/-)	0.9125"
2-3/8"	2.375"	4.7#/ft	J-55	Unknown	

Float Equipment & Centralizers:

8-5/8" Surface Casing: Cement Guide Shoe, 1-Jt 8-5/8" casing as shoe joint and 8-5/8" casing to surface. Centralizers will be on the bottom three joints, the bottom most centralizer will be run 10' above the shoe, secured with a stop ring. The other two centralizers will be secured around the collars. Surface casing will be run to a minimum depth of 220' to ensure protection of surface waters.

5-1/2" Production Casing: A cement nose guide shoe, 1-Jt 5-1/2" casing as shoe joint, float collar w/ auto-fill, and 5-1/2" casing to surface. A centralizer will be run 10' above the shoe, secured with a stop ring, and two more centralizers will be applied around the collars of the bottom most casing joints. Additional centralizers will be deployed every sixth joint from the third most bottom joint to surface. Turbolizers will be used around the first casing collar below the base of the Ojo Alamo and a second on the first casing collar above the base of the Ojo Alamo. The Ojo Alamo will be covered with cement.

Wellhead Equipment:

A 8-5/8" x 5-1/2" 2000# bradenhead will be screwed on to the top joint of the 8-5/8" surface casing.

Cementing Program:

8-5/8" Surface Casing: Pump 150-sxs (213-ft³) Type III Cement w/ 3% CaCl₂ + ¼-#/sx Celloflake. Yield = 1.42 ft³/sx, Slurry Weight = 14.5 PPG. Cement volume is 100% of annular excess to ensure circulation to surface. Wait on Cement (WOC) for 8-Hours. Pressure test surface casing to 1000# for 30-Minutes.

5-1/2" Production Casing:

Lead Slurry: Pump 140-sxs (301-ft³) Premium Lite FM Cement w/ 3% CaCl₂ + ¼-#/sx Celloflake + 0.4% FL-52 + 8% Bentonite + 0.4% Sodium Metasilicate + 3-#/sx Pheno-Seal. Yield = 2.15 ft³/sx, Slurry Weight = 12.1 PPG.

Tail Slurry: Pump 100-sxs (139-ft³) Type III Cement w/ 1% CaCl₂ + ¼-#/sx Celloflake + 0.2% FL-52 + 2-#/sx Pheno-Seal. Yield = 1.39 ft³/sx, Slurry Weight = 14.6 PPG.

Total slurry volume is 440-ft³.

The projected annular open hole volume from 1725' to surface is: 304.0-ft³. Cement volume is 100% excess of annular openhole volume for the lead cement slurry, to ensure circulation to surface. The job is designed to circulate the cement to surface.

Estimated Drilling Time:

Spud date will occur after the APD has been approved, the location built and a drilling contractor selected. Once drilling operations commence, it is anticipated that the drilling phase should be completed within three (3) to five (5) days.

Estimated Completion Time:

Rig completion activities are estimated to take approximately five (5) days. Surface facilities anticipated will include a rod pumping unit, separator, and one five hundred (500) bbl or smaller water production tank and a well-site compressor with noise abating sound walls. No oil production is anticipated from this well.

Reserve Pit Construction/Closure:

The attached plat depicts the planned reserve pit and the proposed dimensions. The pit will be lined with an approved lining material, a minimum of a 12 mils in thickness. The pit will be constructed and closed per the November 1, 2004 NMOCD pit guideline information. A form C-144 will be prepared and submitted for the reserve pit in conjunction with this APD submittal.

Exhibit #1

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

