# **UNITED STATES**

FORM APPROVED

Farm 3160-3 (April 2004)	DUDEALLOE LAND MANAGEMENT				OMB No. 1004-0137 Expires March 31, 2007			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	APPLICATION FOR PERM			<b>§</b> 5 OCT 7	SF-C	ignation and Seri		
				REUE		Mottee or Tribe Na	ame	
1a. Type	of Work DRILL	REENTER		L		A, Agreement, Na	ame and No.	
1b. Type	1b. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone					Lease Name and Well No. White 29-11-19 #106		
	of Operator gy Operating, LLC	N	M OGRID # 1634	58	9. API Well No. 30 - 645 - 33378			
	PO Box 5513		Discount of the second			Pool, or Explorat	•	
3a. Addr	Farmington, NM 87499		Phone Number 05) 325-5449	1	Basin Fruitland Coal  11. Sec., T., R., M., or Blk. and Survey or Area			
At surface	on of Well (Footage, Sec, T. R., M, or Survey D	escription)				9, T-29-N, F	•	
14. Dista	nce in miles and direction from nearest town or	post office*			12. County o	r Parish,	13. State	
3 mi	es northwest of Bloomfield, NM				San J	uan	tory Coal d Survey or Area  R-11-W  13. State New Mexico this well	
_	nce from proposed*		16. No of Acres	in lease	17. Spacing Unit dedicated to this well			
location to	nearest 1885' from We	est Line			200 1	(0/0)		
	r lease line, ft.		^	cres	314	cres (S/2)		
	earest drlg. Unit line, if any)		40. 5				SI- '	
	nce from proposed* o nearest 1670' from Sc	with Line	19. Proposed D 1750'	eptn	20. BLM/BIA Bond No. on file NM-2559			
location t		dui Line	1730		14W-2000			
	r lease line, ft. ation (Show whether DF, KDB, RT, GL, etc.)		22 Approximate	date work will start*	23 Estim	nated duration		
	Ground Level			ecember 15, 2005 30 days				
		24. A	ttachments					
TI	ne following, completed in accordance with the i	equirements of Onsho						
	Well plat certified by a registered surveyor.		4.	Bond to cover the oper	rations unless co	vered by an exist	ing bond on file (see	
	A Drilling Plan A Surface Use Plan (if the location is on Nation	nal Forest System Lan	ds.the 5.	Item 20 above).  Operator certification.				
<del>-</del> .	SUPO shall be filed with the appropriate Fore	•		Such other site specif	ic information an	d/or plans as may	be required by the	
				authorized officer	····			
Size of H			t per Foot	Setting Depth		Quantity of Cen		
12-1 7-7/			1 # 5.5#	220' 1750'			3 - 100% Excess 3 - 100% OH Excess	
1-170	3-1/2 3-33		J. J <del>.</del>	1730		30-3X3, <del>1</del> 02 II	3 100 % OTT LACESS	
		SEE ATTA	ACHED APD INF	FORMATION			Min, 31.7 Sec N 02 Min, 07.4 Sec W	
25. Signature D-Vafil			Name (Printed/Typed)		Date			
				Glen O. Papp	Glen O. Papp 10-5		-5-05	
Title	Operations Manager	77						
Approve	by (Signature)		N	ame (Printed/Typed)		Date	/_	

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 knowlingly 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.

\*(Instructions on reverse)

Title

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

Tobby Name Oction

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

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

### 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

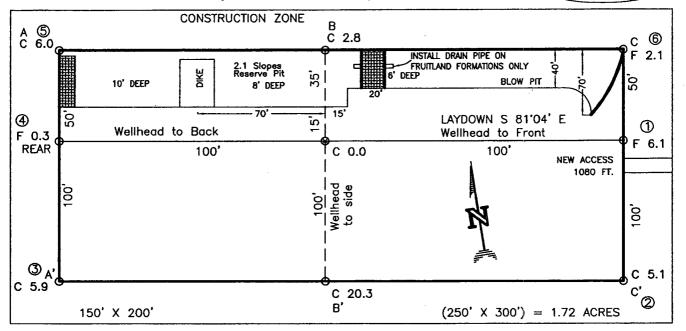
2005 00T 7 AM 9 16 AMENDED REPORT

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

#### WELL LOCATION AND ACREAGE DEDICATION PLAT <sup>2</sup>Pool Code Pool Name 71629 <sup>5</sup>Property Name Well Number <sup>4</sup>Property Code WHITE 29-11-19 106 35372 Operator Name OGRID No. Elevation 5566 SYNERGY OPERATING LLC <sup>10</sup> Surface Location Feet from the North/South line East/West line UL or lot no. Feet from the Section Township Range Lot Idn County 29-N 11-W SOUTH 1855 WEST 1670 SAN JUAN 19 <sup>11</sup> Bottom Hole Location If Different From Surface North/South line Feet from the Feet from the East/West line UL or lot no. Lot Idn Section Township County 12 Dedicated Acres <sup>13</sup> Joint or Infill <sup>14</sup> 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 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Printed Title FD 3 1/4" BC 1974 BLM Date SURVEYOR CERTIFICATION 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. 1855 LAT: 36-42-31.7 N. (NAD 83) LONG: 108-02-07.4 W. (NAD 83) 670, S 89-10 2568.50 TD 3 1/4<sup>\*</sup> 1974 BLM FD 3 1/4" BC Certificate Number

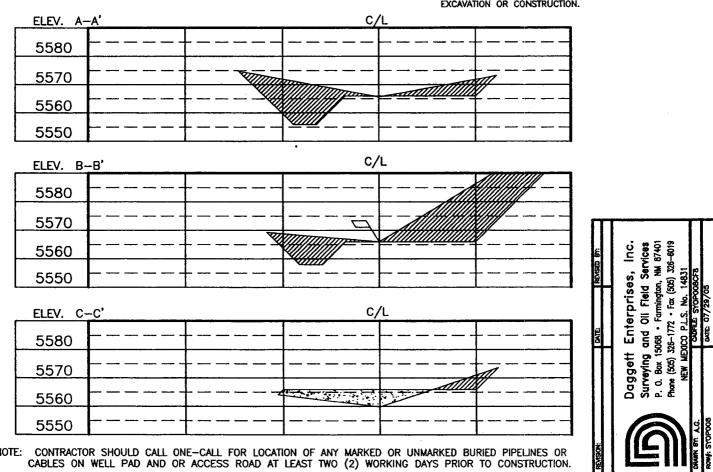
SYNERGY OPERATING LLC
WHITE 29-11-19 No. 106, 1670' FSL 1855' FWL
SECTION 19, T29N, R11W, N.M.P.M., SAN JUAN COUNTY, N. M.
GROUND ELEVATION: 5566', DATE: JULY 13, 2005

LAT. = 36°42'31.7" N. LONG. = 108°02'07.4" 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.



# Synergy Operating LLC Operations Plan

Well Name: White 29-11-19 #106

Location: Unit K, 1670' FSL, 1885' FWL, Sec. 19, T-29-N, R-11-W, San Juan Co. NM

Latitude 36° 42' 31.7" N, Longitude 108° 02' 07.4" W

Field: Basin Fruitland Coal

Elevation: 5566' GL

#### **GEOLOGIC PROGRAM**

Formations:	Tops/Depth	Fluids
Nacimiento	Surface	None
Ojo Alamo	391'	Possible fresh water aquifer
Kirtland	546'	None
Fruitland	1216'	Natural gas & produced water
Pictured Cliffs	1621'	Natural gas & produced water
TOTAL Depth	1750'	- •

#### **Logging Program:**

A) Open Hole: De

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

<sup>\*</sup> 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 5-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(1750'+/-)	0.9125"
2-3/8"	2.375"	4.7#/ft	J-55	Unknown	

#### Float Equipment & Centralizers:

<u>8-5/8" Surface Casing</u>: 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-ft<sup>3</sup>) Type III Cement w/ 3%  $CaCl_2 + \frac{1}{4}$ -#/sx Celloflake. Yield = 1.42 ft<sup>3</sup>/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 150-sxs (323-ft<sup>3</sup>) Premium Lite FM Cement w/ 3% CaCl<sub>2</sub> +  $\frac{1}{4}$ - $\frac{4}{5}$ x Celloflake + 0.4% FL-52 + 8% Bentonite + 0.4% Sodium Metasilicate +  $3-\frac{4}{5}$ x Pheno-Seal. Yield = 2.15 ft<sup>3</sup>/sx, Slurry Weight = 12.1 PPG.

**Tail Slurry**: Pump 100-sxs (139-ft<sup>3</sup>) Type III Cement w/ 1%  $CaCl_2 + \frac{1}{4}$ -#/sx Celloflake + 0.2% FL-52 + 2-#/sx Pheno-Seal. Yield = 1.39 ft<sup>3</sup>/sx, Slurry Weight = 14.6 PPG. Total slurry volume is 547.5-ft<sup>3</sup>.

The projected annular open hole volume from 1750' to surface is: 308.3-ft<sup>3</sup>. 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 water production tank and a well-site compressor. No oil production is anticipated from this well.

#### **Reserve Pit Construction/Closure:**

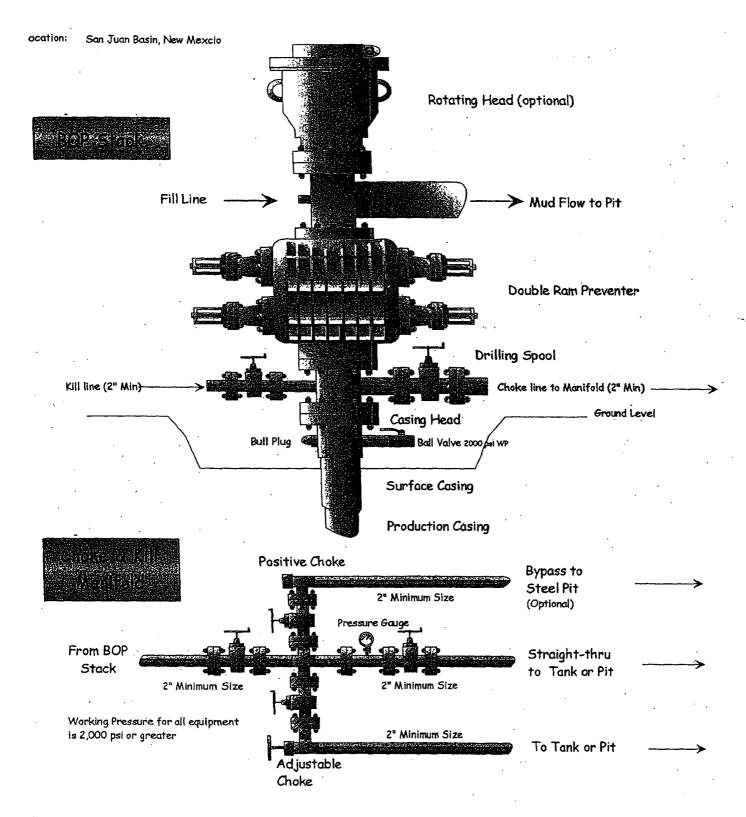
The attached plat depicts the planned reserve pit and the proposed dimensions. The pit will be lined with an approved lining material, a minimum of a 12 mils in thickness. The pit will be constructed and closed per the November 1, 2004 NMOCD pit guideline information. A form C-144 will be prepared and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



Form 3160-5 (June 1990)	UNITED S DEPARTMENT OF BUREAU OF LAND	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			5. Lease Designation and Serial No. SF-077056		
	Use "APPLICATION FOR PE		6. If Indian, Allottee or Tribe Name		
1. Typ	SUBMIT IN TI	RIPLICATE	7. If Unit or CA, Agreement Designation		
	Oil Well X Gas Well	Other	8. Well Name and No.		
2. Na	me of Operator Synergy Operating LLC		White 29-11-19 #106		
3. Add	dress and Telephone No. PO Box 5513, Farmington, NM 8749	99 (505) 325-5449	N/A 3004533378		
4. Loc	cation of Well (Footage, Sec, T. R., M, or Surve	y Description)	10. Field and Pool, or Exploratory Basin Fruitland Coal		
	1670' FSL, 1855' FWL, Sec 19 (K), 1	Г29N-R11W, NMPM	11. County or Parish, State San Juan Co., NM		
12. (	CHECK APPROPRIATE BOX(S) TO TYPE OF SUBMISSION	INDICATE NATURE OF NOTICE, REPORT, O			
	TYPE OF SUBMISSION	TIPE OF ACTION			
L X	Notice of Intent  Subsequent Report	Abandoment Recompletion Plugging Back	Change of Plans New Construction Non-Routine Fracturing		
	Final Abandonment Notice	Casing Repair Altering Casing X Other	Water Shut-Off Converion to Injection Dispose Water		
		<u> </u>	(Note: Report results of multiple compleiton on Well  Completion or recompletion Report and Log Form)		
		y state all pertinent details, and give pertinent dates, includir and measured and true vertical depths for all markers and z			
	The APD was submitted with a	an incorrect footage from the west line for this ne	ew drill.		
	CORRECTED LOCATION: 16	370' FSL, <b>1855'</b> FWL, Sec 19 (K), T29N-R11W,	\$ B B		
1891077	INCORRECT LOCATION: 16	370' FSL, <b>1885</b> ' FWL, Sec 19 (K), T29N-R11W,	NMPM PROTON 11		
JAN 2006 L. OR C. OR DIS: 3			5		
92.52 72.52 Signe	I he by certify that the foregoing is true ed:	and correct  Title: Operations Mana	ager Date: Jan 4, 2006		
Appr	roved by:	liesey Title: AFN	Date: 1/5/06		

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