NAVAJO NATION

APD

Tribal Operations on Tribal Lands

PERMIT ACCEPTED FOR RECORD ONLY

Preliminary

RECEIVED
AUG 09 2012
Farmington Field Office
Bureau of Land Management

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NO-G-1008-1773

6. If Indian, Allotee or Tribe Name
NAVAJO NATION

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☐ Single Zone ☑ Multiple Zone

8. Lease Name and Well No.
CBM A Pod 9 Indigo #1

2. Name of Operator NNOGC Exploration and Production LLC

9. API Well No.
30-045- 35399

3a. Address 1675 BROADWAY, SUITE 1100
DENVER, CO 80202

3b. Phone No. *(include area code)*
303 534 8300

10. Field and Pool, or Expl
BASIN FRUIT. COAL, WC GLLP, & DK

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 1573' FSL & 1197' FEL
At proposed prod. zone SAME

11. Sec., T. R. M. or Blk. and Survey or Area
NESE 9-27N-14W NMPM

14. Distance in miles and direction from nearest town or post office*
11 AIR MILES SW OF FARMINGTON, NM

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
17,037'	150,000	S2 (Fruit. Coal & Dakota) & NESE (GLLP)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
3,349' (A Pod 10 J 1)	6,000'	RLB0006712
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
5,861' UNGRADED	07/01/2012	1 MONTH

RCVD MAY 2 '13
OIL CONS. DIV.
DIST. 3

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must 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 BLM.

25. Signature	Name *(Printed/Typed)*	Date
BStWood	BRIAN WOOD (505 466-8120)	03/10/2012
Title: CONSULTANT	(FAX 505 466-9682)	

ACCEPTED FOR RECORD

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
		MAY 1 2013
Title	Office	
		FARMINGTON FIELD OFFICE BY TL Salyers

Application approval does not warrant or certify that 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.

(Continued on page 2)

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

*(Instructions on page 2)

HOLD C104 FOR NSL - Gallup

NOTIFY AZTEC OCD 24 HRS PRIOR TO CASING & CEMENT

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

NMOCD
AV

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

MAY 0 8 2013 ca

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

AUG 09 2012
Farmington Field Office
Bureau of Land Management

Form C - 102
Revised July 16, 2010
Submit one copy to appropriate Distric Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045- 35399	71629	BASIN FRUITLAND COAL (GAS)

4 Property Code	5 Property Name	6 Well Number
39879	CBM A Pod 9 INDIGO	1

7 OGRID No.	8 Operator Name	9 Elevation
~~242841~~ 292875	NNOGC Exploration and Production LLC	5861'

10 Surface Location

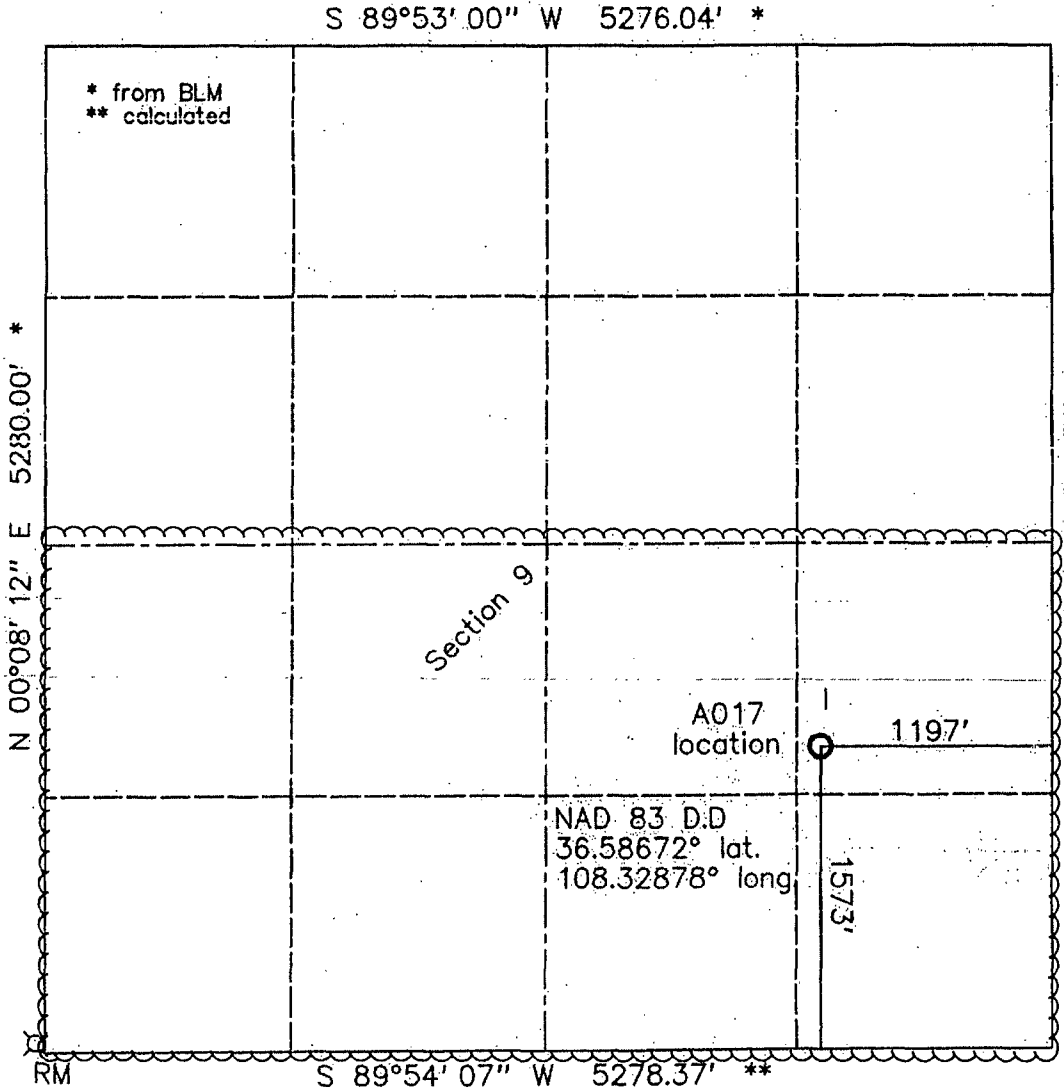
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
I	9	27 N.	14 W.	UOO	1573'	SOUTH	1197'	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320 S/2			

No allowable will assigned to this completion until all interests have been consolidated or a non standard unit has been approved by the division.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the bottom hole location or has the right to drill this well at this location pursuant to a contract with an owner of a mineral interest or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

3-10-12

Signature Date

BRIAN WOOD

Printed Name

brian@permitswest.com

E-mail Address

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.

06/08/' 11

Date of Survey

Signature and Seal of Professional Surveyor

GERALD G. HUDDLESTON
NEW MEXICO
6844
REGISTERED LAND SURVEYOR

Certificate Number 6844

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. grand Avenue, Artesia, NM 88210
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Submit one copy to appropiate
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Nat
30-045- 35399	98024	WC 27N14W09; GALLUP OIL

[4] Property Code	[5] Property Name	[6] Well Number
39879	CBM A Pod 9 INDIGO	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
242841	NNOGC Exploration and Production LLC	5861'

[10] Surface Location

UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
I	9	27 N.	14 W.		1573'	SOUTH	1197'	EAST	SAN JUAN

[11] Bottom Hole Location If Different From Surface

UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40			

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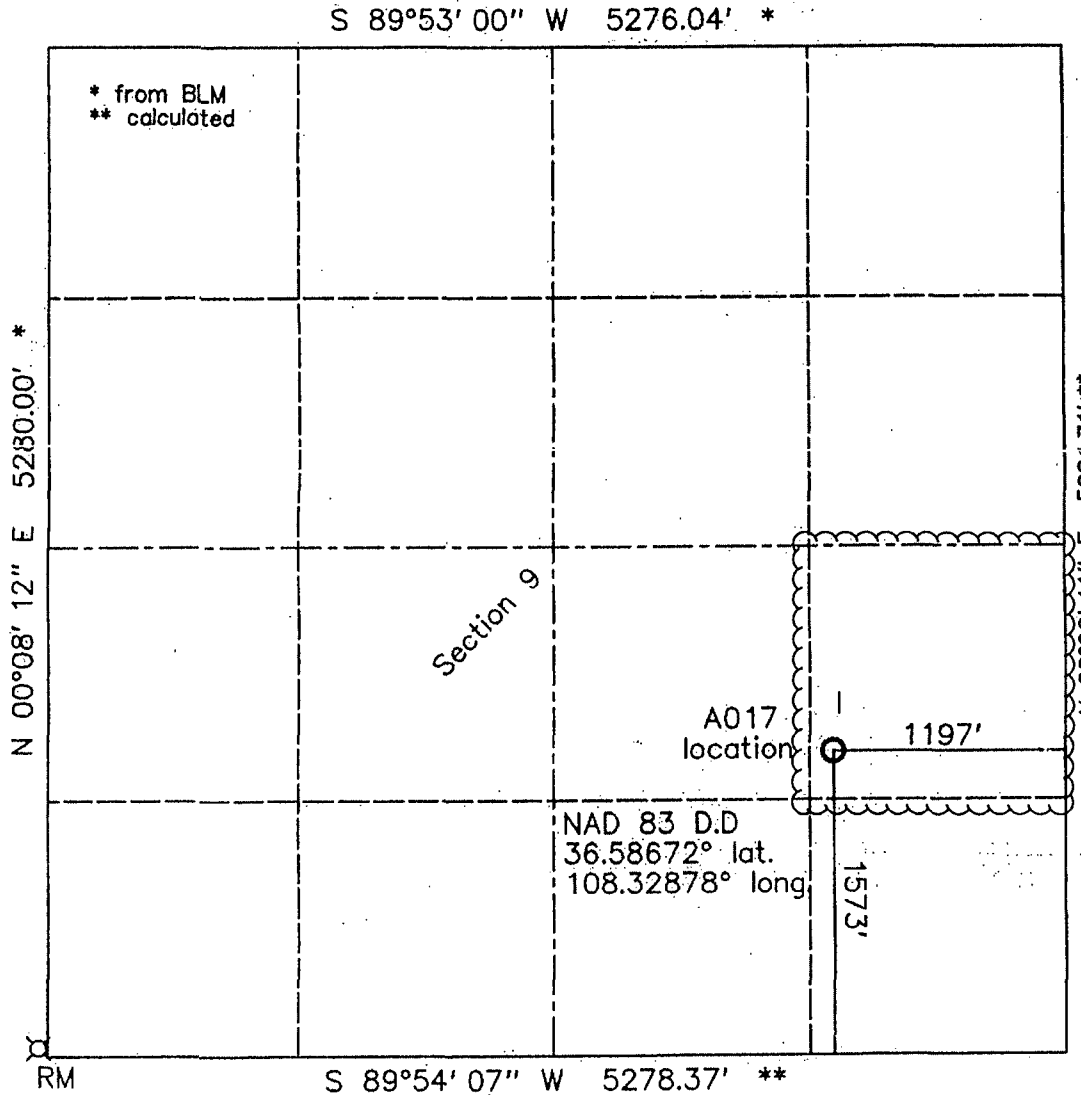

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Signature — Date: 3-10-12

BRIAN WOOD
Printed Name

brian@permitswest.com
E-mail Address

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Form C - 102
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Submit one copy to appropiate Distric Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045- 35399	71599	BASIN DAKOTA

[4] Property Code	[5] Property Name	[6] Well Number
39879	CBM A Pod 9 INDIGO	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
242841	NNOGC Exploration and Production LLC	5861'

[10] Surface Location

UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
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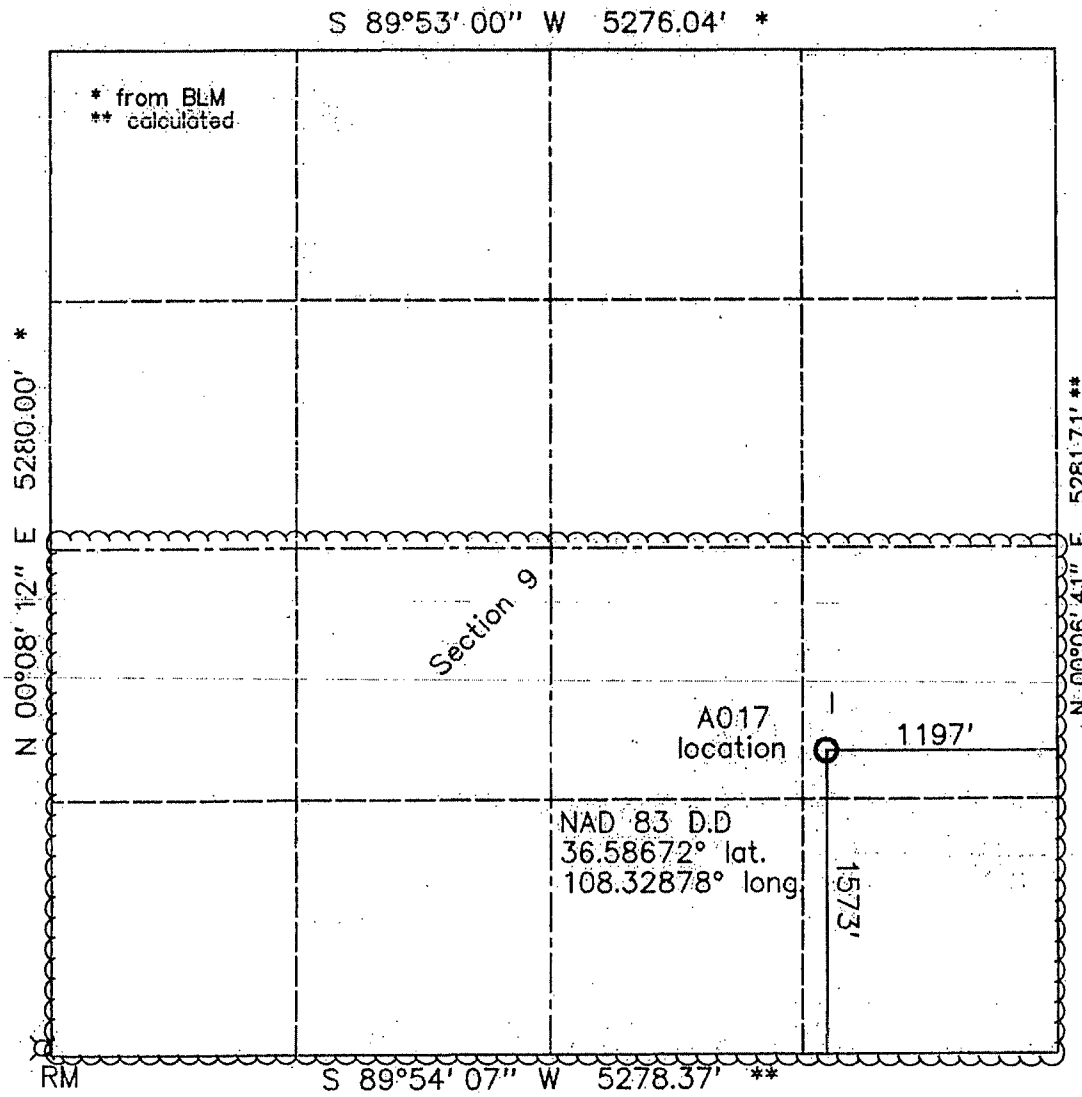

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REGISTERED LAND SURVEYOR

Certificate Number 6844

NNOGC Exploration and Production LLC
CBM A Pod 9 Indigo #1
1573' FSL & 1197' FEL
Sec. 9, T. 27 N., R. 14 W.
San Juan County, New Mexico

Drilling Program

1. FORMATION TOPS

The estimated tops of important geologic markers are:

Formation	GL Depth	KB Depth	Elevation
Kirtland Shale	0'	10'	+5,861'
Fruitland Formation	836'	846'	+5,025'
Pictured Cliffs Sandstone	1,061'	1,071'	+4,800'
Lewis Shale	1,401'	1,411'	+4,460'
Mesa Verde Sandstone	1,986'	1,996'	+3,875'
Point Lookout Sandstone	3,736'	3,746'	+2,125'
Mancos Shale	3,926'	3,936'	+1,935'
Upper Gallup Sandstone	4,826'	4,836'	+1,035'
Lower Gallup Sandstone	5,011'	5,021'	+850'
Sanostee	5,286'	5,296'	+575'
Dakota Sandstone	5,711'	5,721'	+150'
Morrison Formation	5,886'	5,896'	-25'
Total Depth (TD)	6,000'	6,010'	-139'

2. NOTABLE ZONES

Fruitland coal gas is the primary goal. Gallup and Dakota are the secondary goals. Oil and gas shows which appear to the well geologist to be commercial will be tested. All fresh water and prospectively valuable minerals will be recorded by depth and protected with casing and cement. Water could be found in the Fruitland, Pictured Cliffs, Point Lookout, Gallup, and Dakota formations.

3. PRESSURE CONTROL

A double ram type ≥2,000 psi working pressure BOP with a rotating head system will be used. See the preceding page for a diagram of the typical BOP equipment. All ram type preventers and related equipment will be hydraulically tested to ≈1,500 psi at nipple-up and after any use under pressure. A typical diagram is attached.

The blind rams will be hydraulically activated and checked for operational readiness each time the pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold. All will be rated to ≥2,000 psi.

4. CASING & CEMENT

Hole Size	O. D.	Weight	Grade	Age	Coupling	Depth Set
12-1/4"	8-5/8"	24#	J-55	New	ST&C	350'
7-7/8"	4-1/2"	10.5#	J-55	New	LT&C	6,000'

Surface casing will be cemented to the surface with 245 sacks (289 cubic feet) Class B with 3% $CaCl_2$. Yield = 1.18 cubic feet per sack. Slurry weight = 15.6 pounds per gallon. Excess = 100%. W.O.C.=12 hours. Pressure test the surface casing to ≈1,500 psi for 30 minutes. A notched collar and 3 centralizers will be used on the bottom 3 collars.

Production casing will be cemented to the surface. A DV tool will be set at ≈3,000'. Hole will first be circulated with ≥150% hole volume of mud and ≈30 barrels of fresh water. Total cement volume = 2,284 cubic feet (≈65% excess). A 4-1/2" cement guide shoe and self filling float collar will be used. Place the float one joint above the shoe. Place 10 centralizers spaced every

other joint above the shoe, 2 turbolizers on the collar below the DV tool, and 2 turbolizers above the DV tool. Place 5 turbolizers every third joint from the top of the well.

First Stage: Lead with 570 sacks (1,003 cubic feet) Class B 65/35 poz with 6% gel + 1% CaCl2 + 4% phenoseal + 1/4 pound per sack cello flake. Yield = 1.76 cubic feet per sack. Slurry weight = 12.8 pounds per gallon.

First Stage: Tail with 100 sacks (146 cubic feet) Class B 50/50 poz with 0.15% dispersant + 1% $CaCl_2$ + 1/4 pound per sack cello flake. Yield = 1.46 cubic feet per sack. Slurry weight = 13.0 pounds per gallon.

Second Stage: Precede cement with ≈20 barrels of water. Cement with ≈645 sacks (1,135 cubic feet) Class B 65/35 poz with 6% gel + 1% CaCl2 + 1/4 pound per sack cello flake. Yield = 1.76 cubic feet per sack. Slurry weight = 12.8 pounds per gallon.

5. MUD PROGRAM

The surface hole will be drilled with a fresh water mud. The production hole will be drilled with a fresh water polymer. Weighting materials will be drill solids or, if conditions dictate, barite. Maximum expected mud weight = 9.5 pounds per gallon.

6. CORES, LOGS, & TESTS

No cores or drill stem tests are currently planned. FDC/CNL/GR/SP and DIL logs will be run from the base of the surface casing to TD.

7. DOWN HOLE CONDITIONS

No abnormal temperatures, abnormal pressures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be ≈2,598 psi.

8. OTHER INFORMATION

It is expected it will take ≈10 days to drill and ≈2 weeks to complete the well.

Surface Use Plan

1. DIRECTIONS (See PAGES 11 - 13)

From the NM 371 San Juan River bridge in southwest Farmington ....
Go South ≈6-1/2 miles on NM 371 to the equivalent of Mile Post 99.8
Then turn right and go West 2.3 miles on paved N-3003
Then turn left and go South 3.0 miles on paved N-4055
Then turn right and go West 3.0 miles on paved N-4050
Then turn left and go South 1.0 mile on paved N-4065
Then turn left and go SE 0.4 mile on a dirt NAPI field road
Then turn right and go 75' South cross country to the 9 Indigo 1 pad

Roads will be maintained to at least equal to their present condition.

2. ROAD WORK (See PAGES 12 & 13)

NM One Call (811) and NAPI (505 566-2623 or 505 793-4923) will be called at least 2 working days before construction starts. The last 3,252.23' of road will be built to BLM Gold Book standards. Road will be crowned and ditched, have a ≈14' wide running surface, and will be rocked as needed. No culvert, vehicle turn out, or cattle guard is needed. Maximum land use width will be 20'. Maximum cut or fill = 3'. Maximum grade = 1%. Upgrading the existing road will consist of rocking sandy spots.

3. EXISTING WELLS

There are no plugged, water, oil, gas, or injection wells within a mile radius.

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Exhibit #1
Typical BOP setup

Location: San Juan Basin, New Mexcio

Date: Janurary, 2012
By: John Thompson (Walsh E&P)