Form 3160-3 (September 2001)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0136 Expires January 31, 2004

			_
,	Lease	Serial No	

NM03189

APPLICATION FOR PERMIT TO		EENTER 1 R	7 9 5	8 6. If Indian, Allottee or T	ribe Name	
la. Type of Work: DRILL REEN		RECEIV	ED	7. If Unit or CA Agreemen	•	
1b. Type of Well: Oil Well 🛛 Gas Well 🔲 Other	S	ingle Zone ARMIN	GTON N' ple Zone	8. Lease Name and Well N	0.	
2. Name of Operator	12343	\		9. API Well No.	339	
Williams Production Company, I.I.C. 3a. Address	A COLOR	o. (include area code)		30-045-3 10. Field and Pool, or Expl	oratory	
P.O. Box 640, Aztec, NM 87410 SE	P 2 (505) 634-4	634-4208 Blanco MV/Basin DK				
4. Location of Well (Report location clearly and in accordance with	any State requirem	ents.*)		11. Sec., T., R., M., or Blk.	and Survey or Area	
At surface 860 FNL & 2130 FEL At proposed prod. zone same				<i>B</i> Sec 20, T32N, R11W		
14. Distance in miles and direction from nearest town or post office	e*	M.		12. County or Parish	13. State	
Approximately 8 miles northwest of Aztec, NM	<u> </u>			San Juan	NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 431'	320	Acres in lease	320 (N/2)	g Unit dedicated to this well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1250'	19. Propos 8195' GR	ed Depth		BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		kimate date work will s		23. Estimated duration		
6726" GR	March 1, 20	, 2006 1 month				
	24. Atta	chments				
 The following, completed in accordance with the requirements of O. Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Sys SUPO shall be filed with the appropriate Forest Service Off 	tem Lands, the	4. Bond to cover the least 10 above). 5. Operator certification	ne operations cation. specific info	form: s unless covered by an exist primation and/or plans as ma	,	
25. Signature	Nam	e (Printed Typed)		Dat	te	
(any 1/99~	Larry	Higgins		12-	20-05	
Title						
Approved by (Signature)	Nam	e (Printed Typed)		Dat	8/31/6	
Title AFM	Offic	PU				
Application approval does not warrant or certify that the applicant hoperations thereon.	olds legal or equita	able title to those rights	in the subject	lease which would entitle the	applicant to conduct	

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)

Conditions of approval, if any, are attached.

Williams Production Company, LLC, proposes to drill a vertical well to develop the Blanco Mesa Verde and Basin Dakota formations at the above described location in accordance with the attached drilling and surface use plans. This LOCATION HAS BEEN BUILT UNDER PREVIOUS APPROVED PERMIT, API #30-045-31239.

The surface is located on Fee lands. Copy of SOA available.

This location has been archaeologically surveyed by ICA. Copies of their report has been sent and reviewed at the FFO. Copies are available.

253 foot pipeline tie would be required for this location and it is also located on BLM lands.

1150' new access road will be needed to access this well.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED LEAVEN TO TRANSPORT OF THE PROPERTY OF



District I PO Box 1980, Hobbs, NM 88241-1980

District II PO Drawer DD, Artesia, NM 88211-0719

District III 1000 Rio Brazos Rd., Aztec, NM 87410

District IV PO Box 2088, Santa Fe, NM 87504-2088

20-045- 33493

API Number 33924

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

Form C-102 Revised February 21, 1994 Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

PO Box 2088 Santa Fe, NM 87504-2088 DEC 21 AM 9 58 AMENDED REPORT

RECEIVED

Pool Name

BLANCO MESAVERDE / BASIN DAKOTA

070 FARMINGTON MM

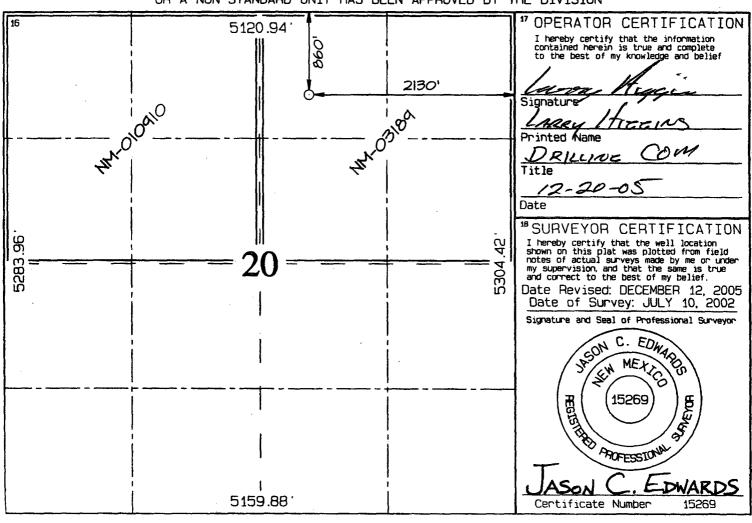
WELL LOCATION AND ACREAGE DEDICATION PLAT

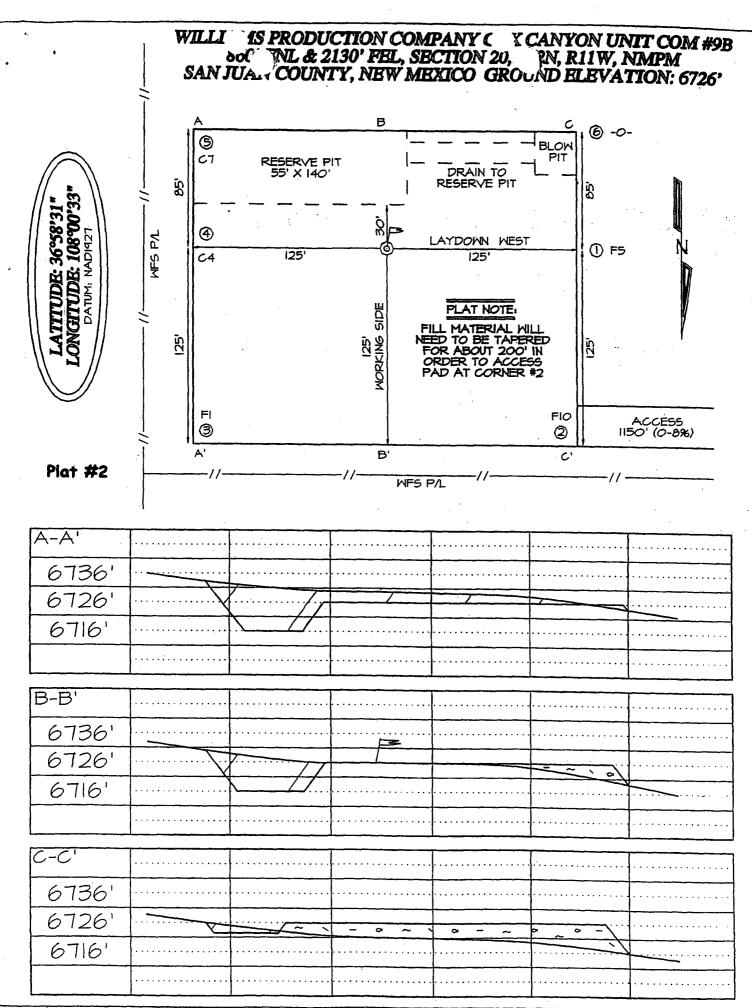
*Pool Code

72319 / 71599

*Property Code			Property Name COX CANYON UNIT COM					*Well Number 9B	
OGRID No. *Operator Name 120782 WILLIAMS PRODUCTION COMPANY						1 Y		*Elevation 6726	
		····			¹⁰ Surface	Location			
UL or lot no.	Section	Township	Range	Lat Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	20	32N	1 1W		860	NORTH	2130	EAST	SAN JUAN
		11 B	ottom	Hole L	ocation I	f Different	From Surf	ace	
UL or lot no.	Section	Томпяћір	Ranga	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	320	0.0 Acres	s - (N	/2)	¹⁹ Joint or Infill	³⁴ Consolidation Code	⁸⁵ Order No.	<u> </u>	1

OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



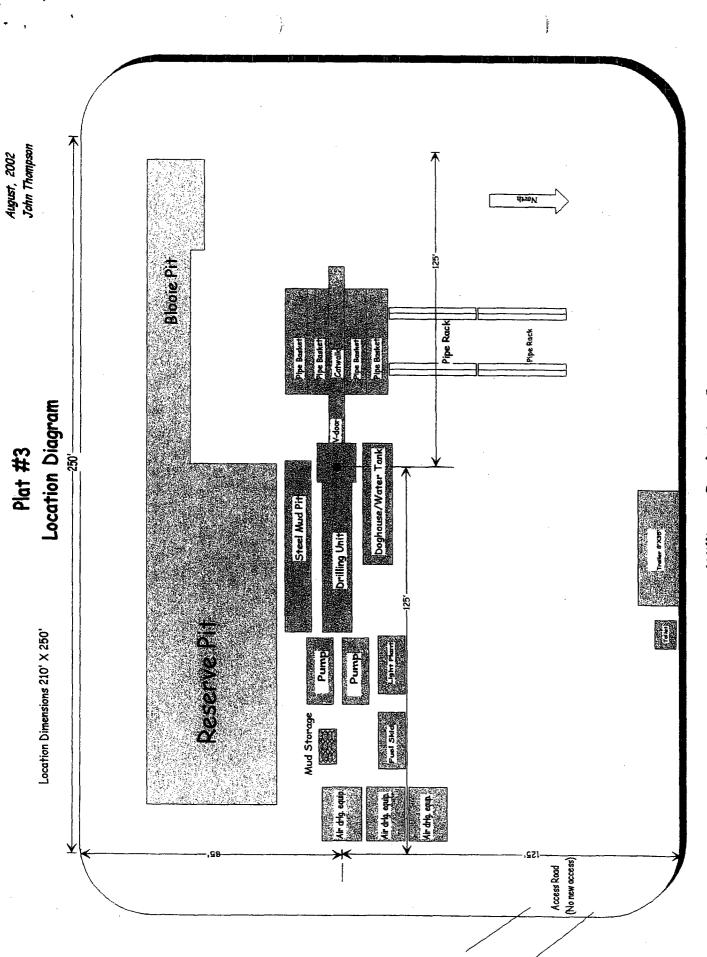


FILENAME: 321120BT

SHEET 2 OF 3

NCE SURVIEVS INC

DOAWN BY AL



Williams Production Company
Cox Canyon #9B
860' fnl & 2130' fel, Sec 20, T32N, R11W
San Juan, New Mexico



WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

DATE: 12/20/2005 FIELD:

Basin DK/Blanco MV

WELL NAME:

Cox Canyon #9B

SURFACE:

FEE - K. Decker

BH LOCATION:

NWNE Sec 20-32N-11W

MINERALS:

FED

ELEVATION:

6,726' GR

San Juan, NM

LEASE #

NM-03189

MEASURED DEPTH: 8,195'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	MD	Name	MD
Ojo Alamo	1,565	Cliff House	5,155
Kirtland	1,620	Menefee	5,315
Fruitland	2,935	Point Lookout	5,695
Pictured Cliffs	3,375	Mancos	6,020
Lewis	3,580	Gallup	7,065
Huerfanito Bentonite	4,075	Greenhorn	7,765
		Graneros	7,830
		Dakota	7,900
		Morrison	8,165
		TD	8.195

- B. MUD LOGGING PROGRAM: Mud logger on location from approximately 7,850' to TD.
- C. LOGGING PROGRAM: High Resolution Induction/ GR and Density/ Neutron log over zones of interest from surface casing to intermediate casing then to protection casing TD. Cased hole logs over Dakota/ Morrison Onsite geologist will pick Density/ Neutron log intervals logging runs.
- D. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

- A. <u>MUD PROGRAM:</u> Clear water with benex to 7" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer from 7 in. csg.to TD.
- B. <u>BOP TESTING</u>: While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to 250 psi (Low) for 5 minutes and 1500 psi (High) for 10 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. All tests and inspections will be recorded in the tour book as to time and results.

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	HOLE SIZE	DEPTH (MD)	CASING SIZE	WT. & GRADE
Surface	14-3/4"	+/- 300'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/-2,860'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 7,850'	5-1/2"	17.0# N-80
Production Liner	4-3/4"	+/-7,750 - 8,195	3-1/2"	9.3#

B. FLOAT EQUIPMENT:

- 1. <u>SURFACE CASING:</u> 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
- 2. <u>INTERMEDIATE CASING</u>: cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
- 3. PRODUCTION LINER / CASING: 3-1/2" & 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

C. <u>CEMENTING:</u>

(Note: Volumes may be adjusted onsite due to actual conditions)

- 1. <u>SURFACE</u>: Slurry: <u>255sx</u> (356 cu.ft.) of "Type III" + 2% CaCl₂ + ½ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
- 2. <u>INTERMEDIATE:</u> Lead 450 sx (950) cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl₂ and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail 100 sx (139cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% CaCl₂ (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use 100% excess in Lead Slurry to circulate to surface. No excess in Tail Slurry. Total volume = 1089 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
- 3. PRODUCTION CASING: 10 bbl Gelled Water space. Lead: $100sx (259ft^3)$ of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Cement: $120 sx (251 ft^3)$ of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 5.0ft³. WOC 12 hours
- 4. PRODUCTION LINER: 10 bbl Gelled Water space. Cement: 50_{sx} (100 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ½ #/sk cello flake. (Yield = 2.15 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess should cover 100 ft above liner top. Total volume 100ft³. WOC 12 hours

IV COMPLETION

A. CBL

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement not circulated to surface..

B. PRESSURE TEST

1. Pressure test 7 5/8" & 5-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

- 1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
- 2. Isolate Dakota with a RBP.
- 3. Stimulate Point Lookout with approximately 80,000# of 20/40 sand in slick water.
- 4. Isolate Point Lookout with a RBP.
- 5. Perforate the Menefee/Cliff House as determined from the open hole logs.
- 6. Stimulate with approximately 80,000# of 20/40 sand in slick water.
- 7. Test each zone before removing bridge plugs.

D. RUNNING TUBING

- 1. <u>Dakota</u>: Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top of adeem joint and 5 Seal Units. Land tubing approximately 100' below top Dakota perf.
- 2. Mesa Verde: Run 2-1/16", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land

villiams reduction company, LLC

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Typical BOP setup

