

Ocean Munds-Dry Associate

omundsdry@hollandhart.com

2005

June 6, 2006

# **HAND-DELIVERED**

Mark E. Fesmire, P. E.
Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

•

Re: Application of Williams 1

Application of Williams Production Company for Horizontal Drilling and Unorthodox Surface and Bottomhole Location in the Basin-Fruitland Coal Gas Pool, Rio Arriba County, New Mexico.

Care 13744

Dear Mr. Fesmire:

Enclosed is the Application of Williams Production Company in the above-referenced case as well as a copy of a legal advertisement. Williams requests that this application be placed on the docket for the July 6, 2006 Examiner hearings.

Sincerely,

Ocean Munds-Dry

# **Enclosures**

cc: Vern Hansen (w/enclosures)

CASE 13744:

Application of Williams Production Co. for Horizontal Drilling and an Unorthodox Surface and Bottomhole Location in the Basin-Fruitland Coal Gas Pool, Rio Arriba County, New Mexico. Applicant in the above-styled cause seeks an exception to the requirements of Rule 7 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool to authorize the drilling of its Rosa Unit Well No. 350 as an intentionally deviated horizontal wellbore on a standard coalbed methane gas spacing unit comprised of the N/2 of Section 10, Township 31 North, Range 5 West, NMPM, Rio Arriba County, New Mexico. The spacing unit will be the Project Area for this horizontal well. The surface location for said well is 1290 feet from the North line and 170 feet from the West line in the offsetting Section 11. The Point of Entry into the Fruitland Coal is 1165 feet from the North line and 315 feet from the East line and the terminus is 660 feet from the North line and 2310 feet from the East line of Section 10. Said area is located approximately 9 miles southeast of Arbolies, Colorado.

DATE IN	SUSPENSE	ENGINEER	LOGGEDIN	TYPE	APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

# **NEW MEXICO OIL CONSERVATION DIVISION**

- Engineering Bureau -

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



# ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE **Application Acronyms:** [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion] [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase] [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response] [1] **TYPE OF APPLICATION - Check Those Which Apply for [A]** Location - Spacing Unit - Simultaneous Dedication [A] │ NSL │ NSP │ SD Check One Only for [B] or [C] Commingling - Storage - Measurement ☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery ☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR [D] Other: Specify ത [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply Working, Royalty or Overriding Royalty Interest Owners [A] Offset Operators, Leaseholders or Surface Owner **[B]** Application is One Which Requires Published Legal Notice [C] [D] Notification and/or Concurrent Approval by BLM or SLO U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office [E] For all of the above, Proof of Notification or Publication is Attached, and/or, [F] Waivers are Attached [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE. **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative [4] approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division. Note: Statement must be completed by an individual with managerial and/or supervisory capacity. Title Date

Locarr Cholandhart. com

-mail Address Print or Type Name



June 6, 2006

# HAND DELIVERED

Mark Fesmire, P.E.
Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
1220 Saint Francis Drive
Santa Fe, New Mexico 87505

Case 13744

Re: Application of Williams Production Company, L.L.C. for Administrative Approval of Horizontal Drilling and an Unorthodox Surface and Bottomhole Location in the Basin-Fruitland Coal Gas Pool, Rio Arriba County, New Mexico.

# Dear Mr. Fesmire:

Pursuant to the provisions of Division Rule 111.C(2) and Rules 8 and 9 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool, as promulgated by Division Order No. R-8768 dated October 17, 1988, Williams Production Company, L.L.C. hereby files its application for an administrative exception to the requirements of Rule 7 as amended by Division Order No. R-8768-B, effective February 10, 2000, for the drilling of its Rosa Unit Well No. 350 as an intentionally deviated horizontal wellbore on a standard coalbed methane gas spacing unit comprised of the N/2 of Section 10, Township 31 North, Range 5 West, NMPM, Rio Arriba County, New Mexico. This spacing unit will be the Project Area for this horizontal well.

Rule 7 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool provides that wells shall be located in the NE/4 or SW/4 of a single governmental section and shall be located no closer than 660 feet to any outer boundary of the spacing unit nor closer than 10 feet to any interior quarter or quarter-quarter section line.

The Rosa Unit Well No. 350 has been drilled by Williams Production Company as operator of the Rosa Unit. The surface location for the well will be in offsetting Section 11. This unorthodox surface location is necessary to enable Williams to enter the Fruitland Coal at the proposed Entry Point and thereby have as much of the horizontal portion of the wellbore as possible in the Project Area for the well. The horizontal portion of the wellbore of the Rosa Unit Well No. 350 will be entirely

# HOLLAND&HART.

confined within the N/2 of Section 10. However, the point of entry for the horizontal portion of the wellbore will be only 315 feet from the east line of Section 10 and therefore 345 feet closer to the outer boundary of the Project Area for the well (N/2 of Section 10) than permitted by the rules of the Division. The surface location for the proposed Rosa Unit Well No. 350 well is 1290 feet from the North line and 170 feet from the West line of said Section 11, Township 31 North, Range 5 West, and is therefore does not comply with Rule 7 of the Special Rules and Regulations for the Basin Fruitland Coal Gas Pool. The point of entry into the Fruitland Coal is 1165 feet from the North line and 315 feet from the East line of Section 10. The wellbore is therefore unorthodox under to Division Rule 111.C (2) and Rule 7 of the Special Pool Rules and Regulations for the Basin-Fruitland Coal Gas Pool.

Williams proposes to drill a vertical well to a kick-off point at a depth of 3123.6 feet and build a curve at a rate of 12.00 degrees per 100 feet and drill until a 90 degree curve is achieved at a true vertical depth of 3856.93 feet. Williams proposes to then drill a lateral in a westerly direction along an azimuth of 104 degrees for a bottomhole displacement of approximately 2063.7 feet to a terminus in the NE/4 of Section 10 at a point 660 feet from the North line and 2310 feet from the East line of said Section 10.

The spacing unit for the proposed horizontal well comprised of the N/2 of said Section 10 is located within the Rosa Unit, a voluntary exploratory unit operated by Williams Production Company, LLC. This spacing unit/project area is offset on all sides by the Rosa Unit except for Section 2 which offsets this spacing unit project/area to the northeast that is located in the Carracas Canyon Unit which is operated by Energen Resources Corporation. Pursuant to Rules 8 and 9(A)of the Special Pool Rules for the Basin Fruitland Coal Gas Pool, Energen Resources Corporation has been notified of this application by certified mail and have been advised that if they have objections to this application the objection must be filed in writing with the Santa Fe Office of the Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within 20 days of the date of this application or the application may be approved.

Attached to this application are the following documents:

- Exhibit A. Plats showing the proposed spacing unit, the unorthodox surface location, projected horizontal wellbore and the proposed lateral end of the wellbore and the boundary of the offsetting Carracas Unit;
- **Exhibit B.** A copy of Division Form C-102 identifying the proposed 320-acre standard gas spacing or proration unit/project area to be dedicated to the well; and
- Exhibit C. The Halliburton Sperry-Sun Proposal Report for the Rosa Unit Well No. 350 which contains schematic drawings of the proposed



well that fully describe the casing, tubing, perforated or openhole interval, kick-off point, and proposed trajectory of the directional drainhole.

Enclosed in hard copy is a proposed order granting this application.

Your attention to this matter is appreciated.

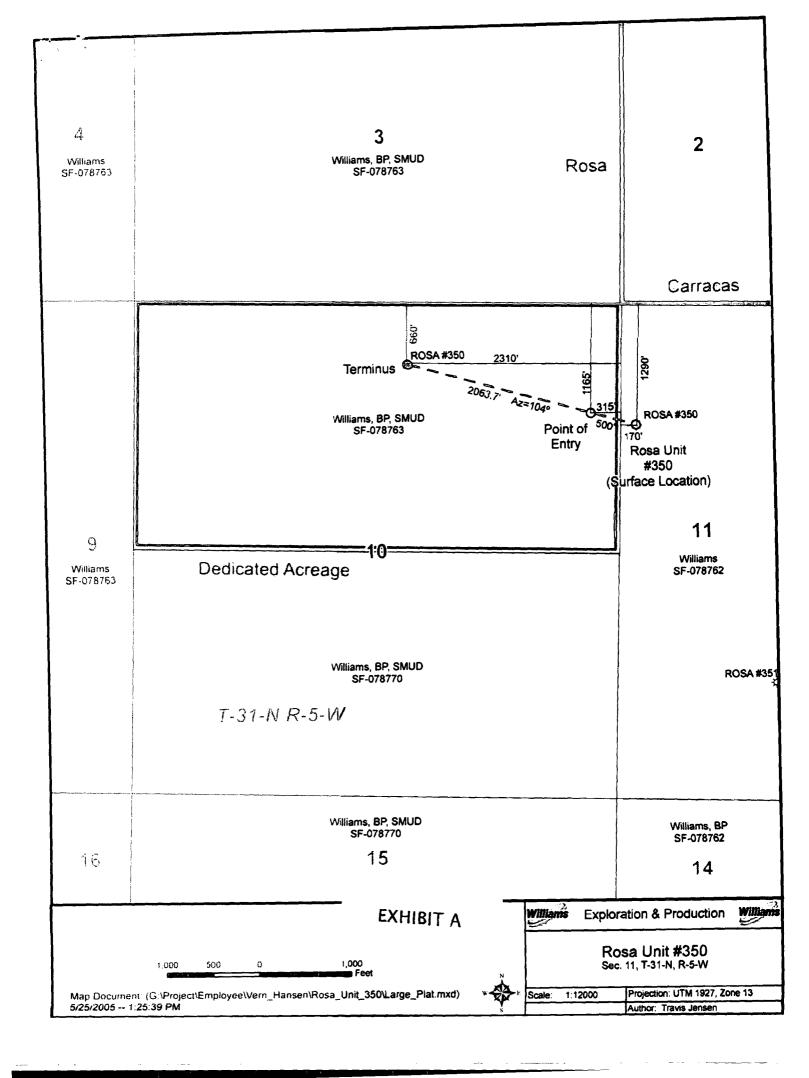
Very truly yours

William F. Carr

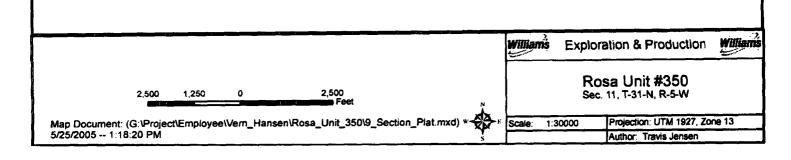
Attorney for Williams Production Company

**Enclosures** 

cc: Oil Conservation Division-Aztec



32	33 Rio Arriba	<sub>34</sub> T-32-N	35	36
5	Rosa Rosa Williams SF-078783	T-31-N Williams, BP, SMUD. SF 078763 3	carracas 2a #11 分	1
			Carracas	
8	Williams SF-078763 9	Terminus  Terminus  Williams, BP, SMUD SF-078763  Williams, BP, SMUD SF-078770	ROSA #350 Rosa Unit #350 urface Location)  11  Williams SF-078762  ROSA#351	12
17	Williams, BP, SMUD SF-078769 16	Williams, BP. SMUD SF-078770 15	Williams. BP SF-078762 14	13
20	21	22	23	24



District I PO Box 1980, Hobbs. NM B8241-1980

Pool Code

State of New Mexico Energy, Minerals & Natural Resources Depart

Form C-102 Revised February 21, 1994 Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District II PO Orawer DO, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

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

'API Number

AMENDED REPORT

Pool Name

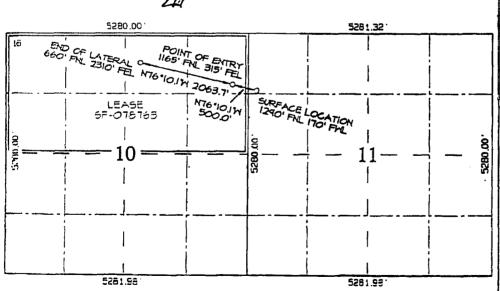
District IV PO Box 2088. Santa Fe, NM 87504-2088

# WELL LOCATION AND ACREAGE DEDICATION PLAT

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*Property 1703	· · · · · · · · · · · · · · · · · · ·				*Property ROSA (				dell Number 350
' <b>06</b> Ai0				WILL	*Operator IAMS PRODUC	Name CTION COMPAN	IY		Elevation 6826
					<sup>10</sup> Surface	Location			
LL or lat ro.	Section 11	Township 31N	5W	Lat las	Feet from the 1290	NORTH	Feet from the 170	East/Nest Ture WEST	RIO ARRIBA
	·	11 8	ottom	Hole L	ocation I	f Different	From Surf	ace	

		11 8	lottom	Hole L	_ocation I	f Different	From Surf	ace	
ul or lat ra.	Section	Townsnip	Range	Let ion	Feet from the	אסרטת/פטנת וורפ	Feet from the	East/Hest line	RIO
В	10	31N	5W		660	NORTH	2310	EAST	ARRIBA
Dedicated Acres		0 4	() (		U Joint or Intill	14 Corsolisation Code	<sup>3</sup> Organito.	<u> </u>	
	320	.0 Acres	5 - (N	/2)					

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



**EXHIBIT B** 

Certificate Number

Proposal Report

14 October, 2004

Surface Coordinates: 2153709.82 N, 644378.72 E (36° 55' 04.0000" N, 107° 20' 22.0000" W) Grid Coordinate System: NAD27 New Mexico State Planes, Western Zone

Kelly Bushing Elevation: 6841.00ft above Mean Sea Level

Proposal Ref: pro10704

ISCIBLISHON

**EXHIBIT C** 



Williams Production Co.

Rio Arriba County, NM Sec. 11 - T31N - R5W

**New Mexico** 

Rosa Unit #350

**Version 1** 

Revised: 14 October, 2004

Proposal Report for Sec. 11 - T31N - R5W - Rosa Unit #350 - Version 1

Measured Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates N-S E-W (ft) (ft)	Jinates E-W (ft)	Dogleg Severtly (*/100ft)	Lease Calls FNL-FSL FE (ft)	Calls FEL-FWL (ft)	Global Coordinates Grid Y Grid (ft) (ft)	ordinates Grid X (ft)
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Ojo Alamo 2941.00 300.00	0000	0000	<b>2941.00</b> 3000.00	000	N N 000 N N	000 E	000	1290.00 FNL 1290.00 FNL	170.00 FW. 170.00 FW.	2153709,82 N 2153709,82 N	644378.72 E 644378.72 E
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22200 224000 224000 326000 326000	11.568 13.968 16.368 18.788 21.168	28	2219.35 3228.85 3258.15 3277.22 3296.01	6.44 6.44 6.44 6.44 6.44 6.44 6.44 6.44	228 248 876 876 876 877 878 878 878 878 878 87	940 W 13.68 W 18.76 W 24.61 W 31.22 W	1200 1200 1200 1200 1200 1200	1286.52 PML 1286.52 PML 1285.24 PML 1283.75 PML 128207 PML	160,60 PW. 156,22 PW. 151,24 PW. 145,39 PW. 138,78 PW.	2153712.21 N 2153713.30 N 2153714.58 N 2153716.07 N 2153717.75 N	64369.2E 64365.04E 64359.96E 64354.11E 64347.50E

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	Measured Depth (ft)	Incl. Angle (Deg)	Driff Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates N-S E-W (ft) (ft)	xdinates E-W (ft)	Dogleg Severity (*/100ft)	Lease Calls FNL-FSL FE (ft)	Calls FEL-FWL (ft)	Global Coordinates Grid Y Grid (ft) (ft)	ordinates Grid X (ft)
	00 0000	22 550	264.263	2314 61	30 83	2	38 GO W	12.00	1280.19 FNL	131.40 FWL	2153719.63 N	644340.12 E
	3340.00	25.968	284.253	3332.67	48.21	11.87 N	46.72 W	12.00	1278.13 FNL	123.28 FWL	2153721.69 N	644332.00 E
Fruith	Fruitland Fm.			;				9	4077 44 CAU	110 25 EWI	2153722 71 N	644327.97 E
	3349.31	27.086	284.253	3341.00	52.36	12.89 N	50.75 W	20.27 20.05 20.05	1275 88 FNL	114.43 FWL	2153723.94 N	644323.15 E
	3360.00	28.30 30.30	284.253	3350.46	57.54 27.24	16.55 N	65.14 W	12.00	1273.45 FNL	104.86 FWL	2153726.37 N	644313.58 E
	3400.00	33.168	284.253	3384.82	97.77	19.15 N	75.40 W	12.00	1270.85 FNL	94.60 FWL	2153728.97 N	644303.32 E
	3420.00	35.568	284.253	3401.33	89.08	21.93 N	86.34 W	12.00	1268.07 FNL	83.56 FWL	NIC/11C/CC17	O44434.30 L
	3440 00	37 968	284 253	3417.35	101.05	24.88 N	97.94 W	12.00	1265.12 FNL	72.06 FWL	2153734.70 N	644280.78 E
	3460.00	40.368	284.253	3432.85	113.68	27.99 N	110.18 W	12.00	1262.01 FNL	59.82 FWL	2153737.81 N	644268.54 E
	3480.00	42.768	284.253	3447.81	126.95	31.26 N	123.05 W	12.00	1258.74 FNL	46.95 FWL	2153741.08 N 2153744 49 N	644242.22 E
	3500.00	45.168 47.568	284.253 284.253	3462.21	140.84 155.31	34.67 N 38.24 N	136.50 W 150.53 W	12.00 12.00	1251.76 FNL	19.47 FWL	2153748.06 N	644228.19 E
	3750.00	3								300	04E97E4 76 M	644213 61 E
	3540.00	49.968	284.253	3489.19	170.35	41.94 N	165.11 W	12.00	1248.06 FNL	4.89 FWL	N 97.1678217	2 : 0:51 Z#40
Ton Coal	jeo											1
) }	3542.83	50.307	284.253	3491.00	172.52	42.48 N	167.21 W	12.00	1247.52 FNL	2.79 FWL	2153752.30 N	644211.51 E 644198 51 E
	3560.00	52.368	284.253	3501.73	185.93	45.78 N	180.21 W	12.00	1244.22 FNL 1240.26 FNL	10.21 FEL 25.80 FEL	2153759.56 N	644182.92 E
	3580.00	7.78 5.68	264.253	3513.60	218 59	53.87 N	211.87 W	12.00	1236.18 FNL	41.87 FEL	2153763.64 N	644166.85 E
	3620.00	59.568	284.253	3535.28	235.62	58.01 N	228.37 W	12.00	1231.99 FNL	58.37 FEL	2153767.83 N	644150.35 E
	90	90.75	204 052	36.46.06	269.07	2 24 N	245 28 W	12.00	1227.69 FNL	75.28 FEL	2153772.13 N	644133.44 E
	3660.00	01.900 64.368	284.253	3554 08	270.92	66.70 N	262.58 W	12.00	1223.30 FNL	92.58 FEL		644116.14 E
	3680.00	66.768	284.253	3562.35	289.13	71.18 N	280.23 W	12.00	1218.82 FNL	110.23 FEL	2153781.00 N	644098.49 E
	3700.00	69.168	284.253	3569.85	307.66	75.75 N	298.19 W	12.00 20.00	1214.25 FNL 1209.61 FNI	128.19 FEL 146.45 FEL	2153790.21 N	644062.27 E
	3720.00	7.368	204.203	35/6.5/	320.30	N 60.00	200.43	3				1
	3740.00	73.968	284.253	3582.50	345.60	85.09 N	334.96 W	12.00	1204.91 FNL	164.96 FEL	2153794.91 N	644043.76 E
	3760.00	76.368	284.253	3587.61	364.93	89.85 N	353.70 W	12.5 8.5 8.5	1200.15 FML	163.70 FEL	2153804.48 N	644006.09 E
	3780.00	78.768	284.253	3591.92	25.45 3.45 3.45 3.45 3.45 3.45 3.45 3.45	2 2 3 5 3 5 3 5 3 5	391 72 W	12.00	1190,50 FNL	221.72 FEL	2153809.32 N	643987.00 E
	3820.00	83.568	284.253	3598.06	423.98	104.38 N	410.93 W	12.00	1185.62 FNL	240.93 FEL	2153814,20 N	643967.79 E
	3840.00	85.968	284.253	3599.88	443.89	109.29 N	430.23 W	12.00	1180.71 FNL	260.23 FEL	2153819.11 N	643948.49 E
End o	End of Build at 3856.93ft 3856.93 88.000	856.93ft 88.000	284.253	3600.77	460.80	113.45 N	446.62 W	12.00	1176.55 FNL	276.62 FEL	2153823.27 N	643932.10 E
7" Cas	7" Casing, Top Target Coal	Target C	;oal					,			100000000000000000000000000000000000000	3 60 3000
	3863.41	88.000	284.253	3601.00	467.27	115.04 N	452.89 W	00.00	1174.96 FNL	262.89 FEL	Z153624.66 N	043923.03 E
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4	Measured	inci.	Ę	٠	Vertical	Local Co	ordinates	Dogleg	Lease	Lease Calls	Global Coordinates	ordinates
	Depth	Angle	Direction		Section	Ŷ	N.S E-W	Severity	FNLFSL	FEL-FWL	Grld Y	Grid X
	(¥)	(Deg)	(Deg)		€	£	€	(°/100ft)	€	<b>(£</b> )	Ê	Ê
1												
Start Bu	ild/Tum	Start Build/Turn at 3916.03ft	.03ft									
	3916.03	88.000	284.253	3602.84	519.87	127.99 N	503.86 W	0.00	1162.01 FNL	333.86 FEL	2153837.81 N	643874.86 E
End of B	Suild/Tus	End of Build/Turn at 3982.70ft	12,70ft									
	3982.70	90.000	284.254	3604.00	586.52	144.40 N	568.47 W	3.00	1145.60 FNL	398.47 FEL	2153854.22 N	643810.25 E
•	4000.00	90.00	284,254	3604.00	603.82	148.66 N	585.23 W	0	1141.34 FNL	415.23 FEL	2153858.48 N	643793.49 E
•	4500.00	90.00	284.254	3604.00	1103.82	271.77 N	1069.84 W	000	1018.23 FNL	899.84 FEL	2153981.59 N	643308.88 E
	5000.00	90.000	284.254	3604.00	1603.82	394.88 N	1554.45 W	0.00	895.12 FNL	1384.45 FEL	2154104.70 N	642824.27 E
	5500.00	90.000	284.254	3604.00	2103.82	517.98 N	2039.05 W	0.00	772.02 FNL	1869.05 FEL	2154227.80 N	642339.67 E
Total De	nth at 50	054 Q5#	6 1/4" O	aloh Hole			int Tannot					
	5954.95	90.000	5954.95 90.000 284.254 360	3604.00		2558.77 630.00 N 2480.00 W	2480.00 W	0.00	660.00 FNL	2310.00 FEL	2154339.82 N	641898.72 E

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to RKB (6826\* + 15 est). Northings and Eastings are relative to Welthead.

Based upon Minimum Curvature type calcutations, at a Measured Depth of 5954.95ft., The Bottom Hole Displacement is 2558.77ft., in the Direction of 284.253" (Grid).

Rio Arriba County, NM

DrillQuest 3.03.06.007

# Proposal Report for Sec. 11 - T31N - R5W - Rosa Unit #350 - Version 1

# Comments

Comment		Kick-Off at 3123.60ft	End of Build at 3856.93ft	Start Build/Turn at 3916.Ust	End of Build/Tum at 3982./UII	Total Depth at 5954.95it
n a t e s Eastings	£	0.00 E	446.62 W	503.86 W	568.47 W	2480.00 W
Station Coordinates	<b>£</b>	0.00 N	113.45 N	127.99 N	144.40 N	630.00 N
Stat	€	3123.60	3600.77	3602.84	3604.00	3604.00
Measured	E	3123.60	3856.93	3916.03	3982.70	5954.95

# Formation Tops

_		
Formation Name	Nacimiento Ojo Alamo Kirtiand Shale Fruittand Fm. Top Coal	Top Target Coal
Dn-Dlp Dlm.	0.000	0.000
Dip Angle	0.000	0.000
Eastings (ft)	0.00 E 0.00 E 0.00 E 50.75 W 167.21 W	452.89 W
Northings (ft)	0.00 N 0.00 N 12.89 N 42.48 N	115.04 N
Sub-Sea Depth (ft)	-5240.00 -3900.00 -3785.00 -3500.00	-3240.00
Vertical Depth (ft)	1601.00 2941.00 3056.00 3341.00	3601.00
Measured Depth (ft)	1601.00 2841.00 3056.00 3349.31 3542.83	3863.41

Rio Arriba County, NM

DrillQuest 3.03.06.007

# Proposal Report for Sec. 11 - T31N - R5W - Rosa Unit #350 - Version 1

# Casing details

	Casing Detail	9 5/8" Casing 7" Casing 6 1/4" Open Hole
•	Vertical Depth (ft)	300.00 3601.00 <run-td></run-td>
۲	Measured Depth (ft)	300.00 3863.41 <run-td></run-td>
Eo	Vertical Depth (ft)	<surface> <surface> <surface></surface></surface></surface>
Fron	Measured Depth (ft)	<surface> <surface> <surface></surface></surface></surface>

# Targets associated with this wellpath

*	Current Target
Target Type	
Target Shape	Point
rdinates Eastings (ft)	630.00 N 2480.00 W 2154339.82 N 641898.72 E 36° 55' 10.3555" N 107° 20' 52.5003" W
Target Entry Coordinates TVD Northings Eastings (ft) (ft)	630.00 N 2154339.82 N 36° 55' 10.3555" N
F ₹	3604.00 -3237.00
	Mean Sea Level/Global Coordinates: Geographical Coordinates:
Target Name	PBHL

Rio Arriba County, NM

# North Reference Sheet for Sec. 11 - T31N - R5W - Rosa Unit #350

Coordinate System is NAD27 New Mexico State Planes, Western Zone, US Foot Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1866

Equatorial Radius: 6378206.400m.

Polar Radius: 6356583.800m.

Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection

Central Meridian is -107.833°

Longitude Origin: 0.000°

False Easting: 152400.00m Latitude Origin: 31.000

False Northing: 0.00m

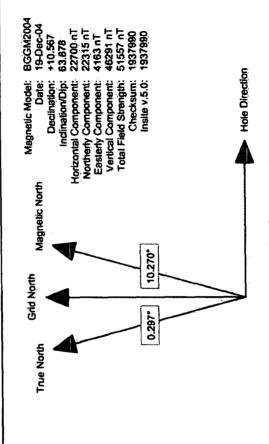
Scale Reduction: 0.99991667

Grid Coordinates of Well: 2153709.82 N, 644378.72 E Geographical Coordinates of Well: 36° 55' 04.0000" N, 107° 20' 22.0000" W

Grid Convergence at Surface is +0.297\* Surface Elevation of Well: 6841.00ft

Magnetic Convergence at Surface is -10.270° (19 December, 2004)





Magnetic North is 10.567\* East of True North (Magnetic Declination) Magnetic North is 10.270\* East of Grid North (Magnetic Convergence) Grid North is 0.297" East of True North (Grid Convergence)

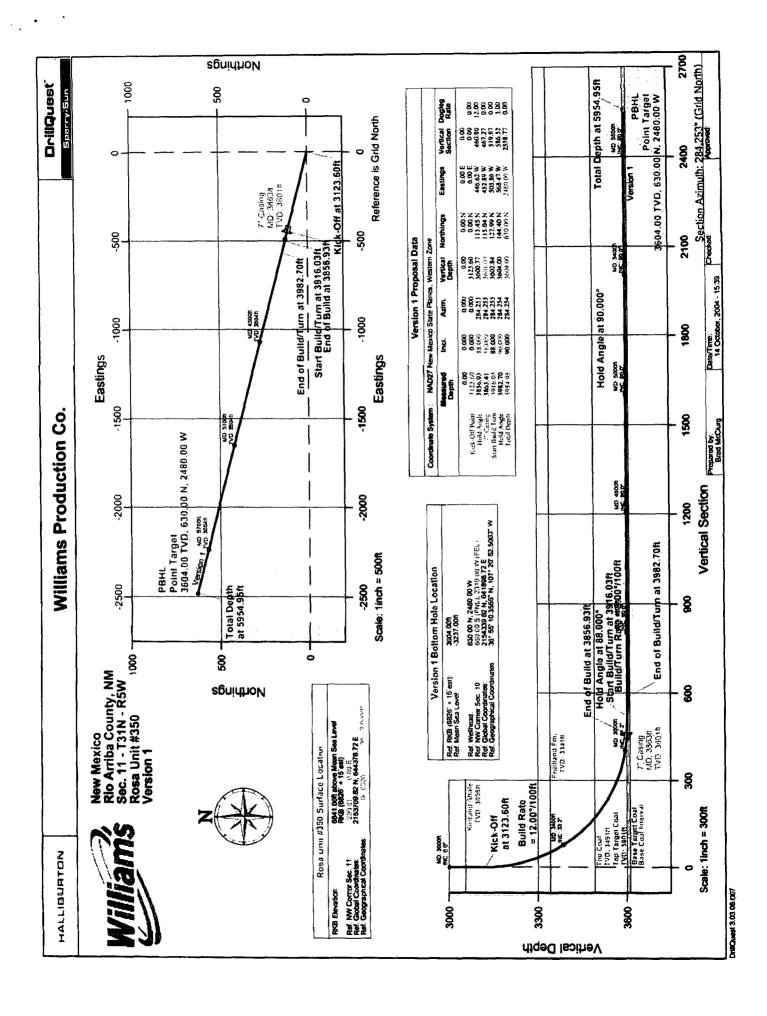
To convert a Magnetic Direction to a True Direction, Add 10.567 degrees To convert a Magnetic Direction to a Grid Direction, Add 10.270 degrees To convert a True Direction to a Grid Direction, Subtract 0.297 degrees

Halliburton Sperry-Sun Survey Report for Rosa Unit #350 - Version 1

	Minimum Curvature	NAD27 New Mexico State Planes, Western Zone	0.999917	10.567	51558 nT	63.878	19-Dec-04	BGGM2004	Grid North	-10.27	d To Wellhead	
	Calculation Method:	Grid Coordinate System:	Grid Scale Factor:	Unit Magnetic Declination:	Total Field Strength:	Magnetic Dip:	Declination Date:	0000 Declination Model:	720 f North Reference:	Mag North to Grid North:	Local Coordinates Referenced To Wellhead	Sea Level
DrillQuest 3.03.06.007	14-Oct-04	Williams Production Co.	New Mexico	Sec. 11 - T31N - R5W / Rosa Unit Magnetic Declination:	Rosa Unit #350	zimu 284.253	Vertical Section Origin N 0.000 ft, E 0.000 ft	Location Grid Lat / Lor 36 55 04.0000 N, 107 20 22.0000 Declination Model:	Location Grid N/E Y/X: N 2153709.820 ft, E 644378.720 f North Reference:	Ang 0.296668	TVD Reference Datur RKB (6826' + 15'est)	TVD Reference Elevat 6841.000 ft relative to Mean Sea Level
Source:	Report Date:	Client	Field:	Structure / Slot:	Well:	Vertical Section Azimu 284.253	Vertical Section Or	Location Grid Lat /	Location Grid N/E	Grid Convergence Ang 0.296668	TVD Reference Da	TVD Reference Ek

≥	0	0	0	0	0	0	0	0	-0.27	 8.	-3.22	-5.91	-9.4	-13.68	-18.76	-24.61	-31.22	-38.6	-46.72
E/-W	0	0	0	0	0	0	0	0	0.07	0.34 4	0.82	<del>1.</del>	2.39	3.48	4.76	6.25	7.93	9.81	11.87
V.Sect. N/-S	0	0	0	0	0	0	0	0	0.28	1.39	3.33	6.1	9.7	14.12	19.35	25.39	32.22	39.83	48.21
Dogleg V.S	0	0	0	0	0	0	0	0	12	12	12	12	12	12	12	12	12	12	12
OVT O	0	200	1000	1500	2000	2500	3000	3123.6	3140	3159.96	3179.87	3199.67	3219.35	3238.85	3258.15	3277.22	3296.01	3314.51	3332.67
Azim.	0	0	0	0	0	0	0	0	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25
<u>1</u> 20	0	0	0	0	0	0	0	0	1.97	4.37	6.77	9.17	11.57	13.97	16.37	18.77	21.17	23.57	25.97
QW	0	200	1000	1500	2000	2500	3000	3123.6	3140	3160	3180	3200	3220	3240	3260	3280	3300	3320	3340

-55.57	-65.14	-75.4	-86.34	-97.94	-110.18	-123.05	-136.5	-150.53	-165.11	-180.21	-195.8	-211.87	-228.37	-245.28	-262.58	-280.23	-298.19	-316.45	-334.96	-353.7	-372.63	-391.72	-410.93	-430.23	-446.62	-452.89	-503.86	-568.47	-585.23	-1069.84	-1554.45	-2039.05	-2480
14.12	16.55	19.15	21.93	24.88	27.99	31.26	34.67	38.24	41.94	45.78	49.74	53.82	58.01	62.31	96.7	71.18	75.75	80.39	85.09	89.82	94.66	99.5	104.38	109.29	113.45	115.04	127.99	144.4	148.66	271.77	394.88	517.98	630
57.34	67.21	77.79	89.08	101.05	113.68	126.95	140.84	155.31	170.35	185.93	202.02	218.59	235.62	253.07	270.92	289.13	307.66	326.5	345.6	364.93	384.46	404.16	423.98	443.89	460.8	467.27	519.87	586.52	603.82	1103.82	1603.82	2103.82	2558.77
12	42	12	12	12	12	12	12	12	12	12	12	12	12	42	42	12	12	12	4	12	4	12	12	12	42	0	0	က	0	0	0	0	0
3350.46	3367.85	3384.82	3401.33	3417.35	3432.85	3447.81	3462.21	3476.01	3489.19	3501.73	3513.6	3524.8	3535.28	3545.05	3554.08	3562.35	3569.85	3576.57	3582.5	3587.61	3591.92	3595.4	3598.06	3599.88	3600.77	3601	3602.84	3604	3604	3604	3604	3604	3604
284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25	284.25
28.37	30.77	33.17	35.57	37.97	40.37	42.77	45.17	47.57	49.97	52.37	54.77	57.17	59.57	61.97	64.37	22.99	69.17	71.57	73.97	76.37	78.77	81.17	83.57	85.97	88	88	88	6	8	6	8	8	06
3360	3380	3400	3420	3440	3460	3480	3200	3520	3540	3560	3580	3600	3620	3640	3660	3680	3700	3720	3740	3760	3780	3800	3820	3840	3856.93	3863.41	3916.03	3982.7	4000	4500	2000	2200	5954.95



June \_\_\_, 2006

Williams Production Company, L.L.C. c/o Holland & Hart LLP
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
Attention: William F. Carr

Telefax No. (505) 983-6043

Administrative Order NSL-\_\_\_\_ (Non-Standard Subsurface Location/Producing Area)

Dear Mr. Carr:

Reference is made to the following: (i) your application on behalf of the operator, Williams Production Company, L.L.C. ("Williams") dated June 6, 2006 (application reference No. \_\_\_\_\_\_\_\_); (ii) the records of the New Mexico Oil Conservation Division ("Division") in Aztec and Santa Fe: all concerning William's request for exception to Division Rules 111.A (13) and 111.C (2) and Rule 7 of the "Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool," as promulgated by Division Order No. R-8768, as amended.

# The Division Director Finds That:

- (1) The subject application has been duly filed under the provisions of Division Rule 111.C (2) and the applicable provisions of the special rules governing the Basin-Fruitland Coal (Gas) Pool (71629);
- (2) The special rules governing the Basin-Fruitland Coal (Gas) Pool provides for 320-acre gas spacing units and wells to be located within either the NE/4 or SW/4 of the section and not closer than 660 feet from any outer boundary of the spacing unit nor closer than 10 feet from any quarter-quarter section line or subdivision inner boundary;
- (4) The "project area" proposed by Williams is to consist of a single standard 320-acre slay-down gas spacing unit comprising the N/2 of Section 10, Township 31 North, Range 5 West, NMPM, Rio Arriba County, New Mexico;
- (5) It is our understanding that Williams has drilled its Rosa Unit Well No. 350 (API No. 30-039-29366) from a surface location 1290 feet from the North line and 170 feet from the West line (Unit D) of Section 11, Township 31 North, Range 5 West, and directionally drill a vertical wellbore to an approximate depth of 3123.6 feet, kick-off in a westerly

direction, build angle at a rate of 12 degrees per 100 feet until 90 degrees of vertical is achieved at a depth of 3856.93 feet (TVD). The point of entry into the Fruitland Coal will be at a point 1165 feet from the North line and 315 feet from the East line of Section 10, Township 31 North, Range 5 West and Williams will then directionally drill a horizontal drainhole a lateral distance of 2063.7 feet to an unorthodox location at a point 660 feet from the North line and 2310 feet from the East line of said Section 10;

- (6) It appears that the applicant has satisfied all of the appropriate requirements prescribed in Division Rule 111.C (2) and Rule 9 (B) of the Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool; therefore the subject application should be approved; and
- (7) The provisions contained within this order and all other applicable provisions of Division Rule 111 and Division Order No. R-8768, as amended, should govern the subject well and 320-acre gas spacing unit.

## It Is Therefore Ordered That:

. . .

- By the authority granted me under the provisions of Rule 9 (B) of the "Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool," as promulgated by Division Order No. R-8768, as amended, the application of Williams Production Company, L.L.C. ("Williams") for exception to Division Rules 111.A (13) and 111.C (2) and Rule 7 of the Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool (71629), is hereby approved. Williams is further authorized to drill its Rosa Unit Well No. 350 (API No. 30-039-29366) at a surface location 1290 feet from the North line and 170 feet from the West line (Unit D) of Section 11, Township 31 North, Range 5 West, NMPM, Rio Arriba County, New Mexico, drill vertical to an approximate depth of 3123.6 feet, kick-off in a westerly direction, build angle at a rate of 12 degrees per 100 feet until 90 degrees off of vertical is achieved at a depth of 3856.93 feet (TVD). The point of entry into the Fruitland Coal will be at a point 1165 feet from the North line and 315 feet from the East line of Section 10, Township 31 North, Range 5 West and Williams will then directionally drill a horizontal drainhole a lateral distance of 2,063.7 feet to an unorthodox location at a point 660 feet from the North line and 2310 feet from the East line of said Section 10.
- (2) The "project area" for this well shall consist of a single standard 320-acre lay-down gas spacing unit comprising the N/2 of Section 10.

- (3) An exception to the provisions of Rule 7 of the Special Rules for the Basin-Fruitland Coal (Gas) Pool is hereby granted to permit the horizontal portion of the wellbore to be within a drilling window or producing area for the within the Basin-Fruitland Coal (Gas) Pool for this wellbore 315 feet from the outer boundary of the project area.
- (4) The operator shall comply with all applicable requirements and conditions set forth in Division Rule 111 and Division Order No. R-8768, as amended.
- (6) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E. Director

cc: New Mexico Oil Conservation Division – Aztec U. S. Bureau of Land Management - Farmington

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June 6, 2006

# CERTIFIED MAIL -RETURN RECEIPT REQUESTED

## AFFECTED INTEREST OWNERS

Re:

Application of Williams Production Company, L.L.C. for Administrative Approval of Horizontal Drilling and an Unorthodox Surface and Bottomhole Location in the Basin-Fruitland Coal Gas Pool, Rio Arriba County, New Mexico.

## Ladies and Gentlemen:

Enclosed is a copy of the above-referenced application which was filed with the Oil Conservation Division on this date by Williams Production Company, L.L.C. for administrative approval of horizontal drilling and an unorthodox surface and bottomhole location in the Basin-Fruitland Coal Gas Pool for its proposed Rosa Unit Well No. 350. The Project Area for the well will be a standard Fruitland Coal Gas Unit comprised of the N/2 of Section 10, Township 31 North, Range 5 West, NMPM, and the horizontal portion of the wellbore will be entirely confined to the N/2 of Section 10. The surface location for the well will be at a point 1290 feet from the North line and 170 feet from the West line of offsetting Section 11. Williams proposes to drill a vertical well to a kick-off point at a depth of 3123.6 feet and build a curve at a rate of 12.00 degrees per 100 feet and drill until a 90 degree curve is achieved at a true vertical depth of 3856.93 feet. Williams proposes to then drill a lateral in a westerly direction along an azimuth of 104 degrees for a bottomhole displacement of approximately 2063.7 feet to a terminus in the NE/4 of Section 10 at a point 660 feet from the North line and 2310 feet from the East line of Section 10.

As the owner of an interest which will be affected by the proposed well, you may object to this application. Objections must be filed in writing at the Division's Santa Fe office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within twenty days from the date this notice was sent to you. If no objection is received within twenty days after the Division Director receives this application, the unorthodox location may be approved.

Very truly yours,

William F. Carr ATTORNEY FOR WILLIAMS PRODUCTION COMPANY enc.