



February 9, 2010

Bureau of Land Management (3 copies)
Farmington Resource Area
Attn: Wayne Townsend
1235 La Plata Highway
Farmington, New Mexico 87401

State of New Mexico (2 copies)
Commissioner of Public Lands
Attn: Mr. Pete Martinez
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

State of New Mexico (2 copies)
Oil Conservation Division
Attn: Ed Martin
1200 South St. Francis Drive
P.O. Box 2308
Santa Fe, New Mexico 87504-2308

Re: Rosa Unit I, Sec. No 587
Rosa Dakota Formation
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF COMMERCIAL AND NON-
COMMERCIAL WELLS

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Williams Production Company, LLC, as Unit Operator, has determined that the Rosa Unit #146B, #188C, and #14C are capable of producing unitized substances in paying quantities from the Dakota Formation and the #186, #184C, & #22B are not capable of producing unitized substances in paying quantities from the Dakota Formation.

WELL DATA

The Rosa Unit #146B Dakota Well (commercial) is located 1980 feet from the South Line and 800 feet from the West Line, Section 28 Township 31 North, Range 05 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spud on July 15, 2007, and completed in the Dakota formation on October 9, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths:

7983' to 8072'

This well has a 2 1/16" tubing string. This well was shut in with a SICP of 1858 psig. On September 24, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 175 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 15% and is therefore determined commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM C-104
- BLM Form 1004-0137 (Well Completion Report)

The Rosa Unit #188C Dakota Well (commercial) is located 880 feet from the South Line and 2450 feet from the West line, Section 34, T31N R5W, N.M.P.M., Rio Arriba County, New Mexico. This well was spud on August 30, 2007 and completed in the Dakota formation on November 4, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths:

8172' to 8266'

This well has a 2 1/16" tubing string. This well was shut in with a SICP of 2152 psig. On October 23, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 480 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 22% and is therefore determined commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM C-104
- BLM Form 1004-0137 (Well Completion Report)

The Rosa Unit #14C Dakota Well (commercial) is located 2505 feet from the North Line and 895 feet from the East Line, Section 23, T31N R6W, N.M.P.M., Rio Arriba County, New Mexico. This well was spud on October 6, 2007 and completed in the Dakota formation on November 29, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths:

7796' to 7894'

This well has 2 1/16" tubing string. This well was shut in with a SICP of 655 psig. On November 28, 2007 the well was tested and after flowing for 1.5 hours through a 2" choke on the 2 1/16" tubing, the well gauged 190 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 13% and is therefore determined commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM C-104
- BLM Form 1004-0137 (Well Completion Report)

The Rosa Unit #186 Dakota Well (non-commercial) is located 1660 feet from the North Line and 930 feet from the West Line, Section 27, T31N R5W, N.M.P.M., Rio Arriba County, New Mexico. This well was spud on August 1, 2007 and completed in the Dakota formation on October 10, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths:

8302' to 8402'

This well has 2 1/16" tubing string. This well was shut in with a SICP of 1930 psig. On September 25, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 200 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 0% and is therefore determined non-commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM C-104
- BLM Form 1004-0137 (Well Completion Report)

The Rosa Unit #184C Dakota Well (non-commercial) is located 845 feet from the North Line and 2525 feet from the East Line, Section 34, T31N R5W, N.M.P.M., Rio Arriba County, New Mexico. This well was spud on September 17, 2007 and completed in the Dakota formation on November 5, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths:

8298' to 8392'

This well has 2 1/16" tubing string. This well was shut in with a SICP of 0 psig. On October 24, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 175 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 0% and is therefore determined non-commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM C-104
- BLM Form 1004-0137 (Well Completion Report)

The Rosa Unit #22B Dakota Well (non-commercial) is located 900 feet from the North Line and 1330 feet from the East Line, Section 18, T31N R5W, N.M.P.M., Rio Arriba County, New Mexico. This well was spud on October 10, 2007 and completed in the Dakota formation on December 2, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths:

8206' to 8282'

This well has 2 1/16" tubing string. This well was shut in with a SICP of 0 psig. On November 19, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 158 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 0% and is therefore determined commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM C-104
- BLM Form 1004-0137 (Well Completion Report)

If these determinations meet with your approval, please indicate such approval in the space provided and return an approved copy for our files.

The Well Data, Reserves and Economics are attached.

This information is also being sent to the Rosa Unit working interest owners on the attached sheet.

Sincerely,

A handwritten signature in cursive script that reads "Kris Russell".

Kris Russell
Land Data Technician Sr
Williams Production Company, LLC
P.O. Box 3102
Tulsa, OK 74101
918/573-6181
Kris.russell@williams.com

APPROVED _____ DATE _____

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commission of Public Lands
And the Oil Conservation Commission

APPROVED _____ DATE _____

Commissioner of Public Lands
Subject to like approval by the
Bureau of Land Management
And The Commissioner of Public Lands

APPROVED _____ DATE _____

Oil Conservation Commission
Subject to like approval by the
Bureau of Land Management
And The Commissioner of Public Lands

The forgoing is the approval of Notice of Completion of Commercial wells for the Rosa #146B, #188C, #14C, and on the non-commercial wells #186, #184C, & #22B Dakota formation wells.

ROSA UNIT WORKING INTEREST OWNERS . DO NOT USE OLD

AMOCO PRODUCTION COMPANY
ATTN: HILARY SEARLES
P O BOX 800
DENVER, CO 80201

MR. FRANK A SCHULTZ
LINCOLN PLAZA, #2160 LO-1
500 NORTH ARARD
DALLAS, TX 75606-4079

MS. ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MR. FRED E. TURNER LLC
ONE ENERGY SQUARE, #852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

COASTAL OIL & GAS CORPORATION
ATTN: BART VALLS
P O BOX 719
BELLAIRE, TX 77402-0719

CROSS TIMBERS OIL COMPANY
ATTN: EDWIN S. RYAN, JR.
810 HOUSTON ST, STE 2000
FORT WORTH, TX 76102-6298

MR. J. GLENN TURNER, JR. LLC
3131 TURTLE CREEK BLVD.
#1201
DALLAS, TX 57219

J. K. EDWARDS ASSOCIATES
ATTN: KEITH EDWARDS
1401 17th STREET, SUITE 1400
DENVER, CO 80202

MARY FRANCES TURNER, JR TRUST
ATTN: IRIS GLEISER
P O BOX 660197
DALLAS, TX 75266-0197

MR. JOHN TURNER
P O BOX 33610
KERRVILLE, TX 78029-3610

MS. PATRICIA PENROSE SCHIEFFER, TRUSTEE
ATTN: J. THOMAS SCHIEFFER
1000 BALLPARK WAY, #300
ARLINGTON, TX 76102

THE WISER OIL COMPANY
ATTN: LAURIE BLOCK
8115 PRESTON ROAD, #400
DALLAS, TX 75225

VIRGINIA WEBB PAYNE
8226 DOUGLAS AVENUE, SUITE 709
DALLAS, TX 75225-5929

PHILLIPS PETROLEUM CO.
ATTN: S. SCOTT PRATHER
5525 HWY 64 NBU 3004
FARMINGTON, NM 87401

MALLON OIL COMPANY
999 18th STREET, SUITE 1700
DENVER, CO 80202

January 21, 2010

The Rosa Unit #146B Dakota Well (commercial) is located 1980 feet from the South Line and 800 feet from the West Line, Section 28 Township 31 North, Range 05 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on July 15, 2007, and completed in the Dakota formation on October 9, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths: 7983' to 8072'. This well has a 2 1/16" tubing string. This well was shut in with a SICP of 1858 psig. On September 24, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 175 MCFD.

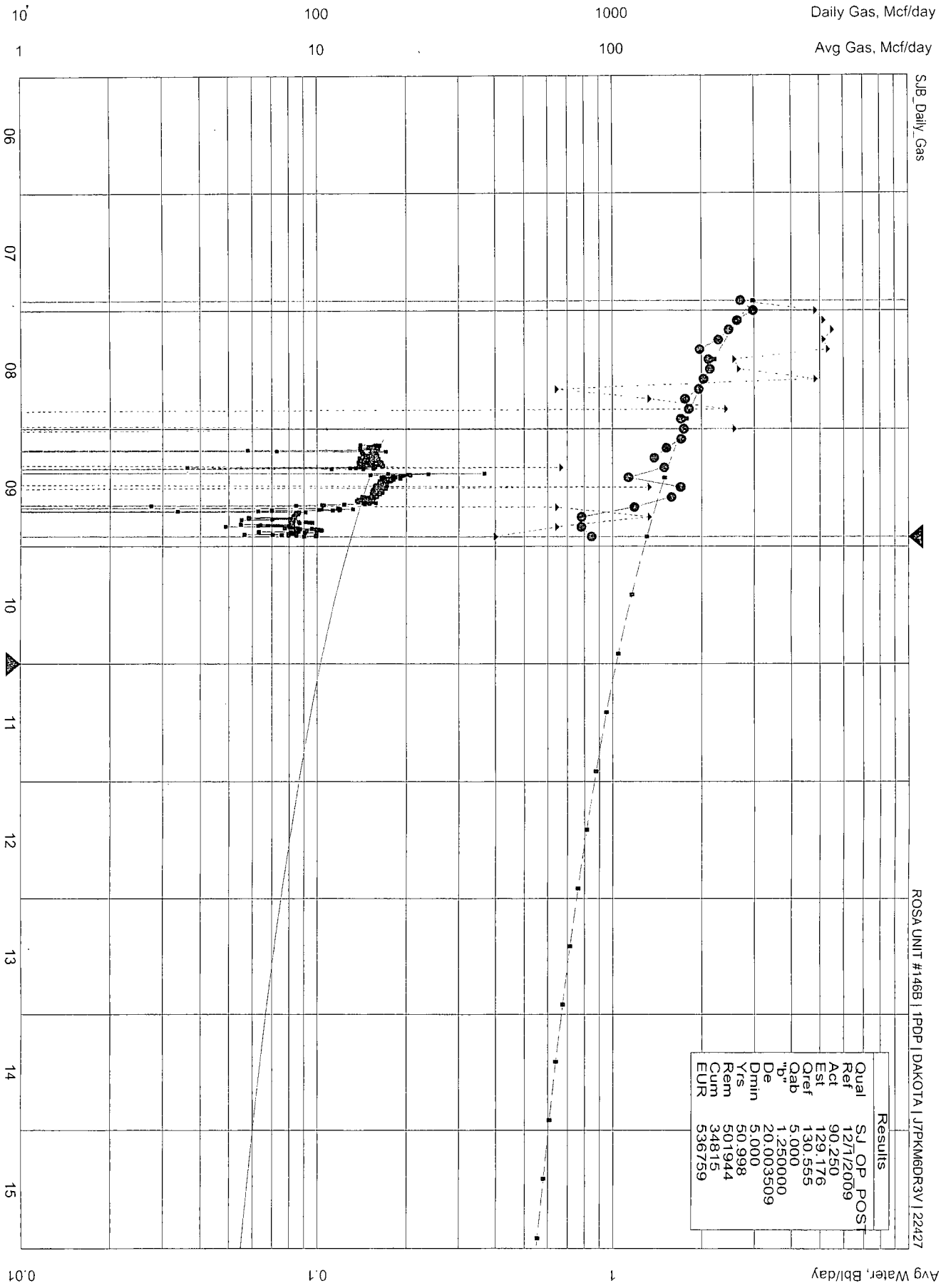
Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 15% and is therefore determined commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM Form C-104
- BLM Form 1004-0137 (Well Completion Report)

Evaluating Engineer

Marcia Brueggenjohann
Manager, Reservoir Engineering
Williams Exploration and Production, San Juan Basin Unit



SJB_Daily_Gas

ROSA UNIT #146B | 1PDP | DAKOTA | J7PKM6DR3V | 22427

Daily Gas, Mcf/day

Avg Gas, Mcf/day

Avg Water, Bbl/day

Rosa Unit #146B DK economic output.txt

PropID: 22427 RSV CAT: 1PDP
 Date: 01/21/2010
 Well Name: ROSA UNIT #146B
 Time: 13:56:56
 Field: BASIN
 DBS: SJB
 Cnty: RIO ARRIBA St: NM
 Settings: SETDATA_JCM
 Reservoir: DAKOTA
 Scenario: SJB-OP-PostAudit
 Operator: WPC

T I A L C A L C U L A T E D C O M B I N E D I N P U T D A T A I N I
 KEYWORD & -----

Ref. Code	Beginning, Ending Rates	Schedule Limit	Method & Value	Ultimate
@ End Pt. Init. Deff	Init. Rate Final Rate			

400 START 12/2007

401 GAS	298.00	X	M/D	5.00	EXP	B/1.2500	40.23
550.535 5/2022	40.2300		9064.	1092.			
402 "	X	5.00	M/D	X	YRS	EXP	5.00
770.529 11/2060	5.0000		1092.	152.			

500 PRI/GAS 01/2007 5.617 6.487 6.677 5.957 #/M

4/2007

501 " X 6.627 6.827 6.197 4.987 #/M

8/2007

502 " X 4.587 5.117 6.057 6.497 #/M

12/2007

503 " 01/2008 6.377 7.277 8.087 8.277 #/M

4/2008

504 " X 9.427 9.846 11.356 7.637 #/M

8/2008

505 " X 6.427 4.267 2.837 4.627 #/M

12/2008

506 " 01/2009 4.827 3.107 2.687 2.617 #/M

4/2009

507 " X 2.497 2.647 2.977 3.177 #/M

8/2009

508 " X 2.467 3.417 4.257 4.679 #/M

12/2009

509 " 01/2010 5.72 #/M

1/2010

510 "	5.72	X	\$/M	TO	LIFE	PC	0.00
11/2060		5.720		5.720			

600 ATX	2.10	X	%	TO	LIFE	PC	0.00
11/2060		0.021		0.021			

601 STX/GAS	9.00	X	%	TO	LIFE	PC	0.00
11/2060		0.090		0.090			

602 OPC/T	750.00	X	\$/M	TO	LIFE	PC	0.00
11/2060		750.000		750.000			

705 LSE/WI	1.0000	D	FRAC	TO	LIFE	FLAT	0.00
11/2060		1.000		1.000			

Rosa Unit #146B DK economic output.txt

720 NET/OIL	0.8650	D	FRAC	TO	LIFE	FLAT	0.00
11/2060		0.865		0.865			
740 NET/GAS	0.8650	D	FRAC	TO	LIFE	FLAT	0.00
11/2060		0.865		0.865			

OVERLAYS	Beginning, Ending Rates	Schedule Limit	Method & Value	Ultimate
@ End Pt. Init. Deff	Init. Rate Final Rate			

901 S 92	S/95	X	FRAC	TO	LIFE	DIV	146.00
11/2060							
903 S /89	0.54	X	FRAC	TO	LIFE	MUL	92.00
11/2060							
905 S /89	0.98	X	FRAC	TO	LIFE	MUL	89.00
11/2060							
907 S /196	S/196	X	FRAC	TO	LIFE	MINUS	89.00
11/2060							
909 S /92	S/95	X	FRAC	TO	LIFE	DIV	146.00
11/2060							
911 S /88	0.06	X	FRAC	TO	LIFE	MUL	92.00
11/2060							
913 S /88	1.00	X	FRAC	TO	LIFE	MINUS	88.00
11/2060							
915 S /196	S/196	X	FRAC	TO	LIFE	MUL	88.00
11/2060							

916 GAS 01/2007 0 0 0 0 0 0 0 0 0 0 8126 9245 8180 7173 #
 163.142 2/2008
 917 " X 7071 5926 6560 6410 6308 6079 5287 5623 5122 5415 #
 222.943 12/2008
 918 " X 5304 4267 4294 4494 3504 5104 4911 3666 2349 2421 #
 263.257 10/2009
 919 " X 2541 #
 265.798 11/2009

INVESTMENTS	Tangible Intang Units	Invest. Point	Method & Value	Total
T&I Month Risk Inv. Tot. T&I&R Esc. T&I&R				

800 CAPITAL	161.96	647.85 M\$G	12/2007 AD	ESC INV
809.814 12/2007	0	809.8	0.0	

MISCELLANEOUS DATA PARAMETERS

201 BTU	0.98			
202 WELLS	0.00	1.00		
203 CUMO, MB	0.00	CUMG, MMF	130.42	CUML, MB
250 LOSS	NO			

PROJECT RUN SETTINGS

Base Date	: 01/2000	Time Frames	: 64*12	
P.W. Date	: 01/2007	Primary PW%	: 10.0	Discount Freq. : MID
Report Date	: 01/2007			
Qualifiers	: Prod = SJ_OP_POST	Price = SJ_OP_POST	Cost = SJ_OP_POST	
Owner	= SJ_OP_POST			
	Title = BASE	Misc = BASE	Invest = SJ_OP_POST	
Overlay	= SJ_OP_POST			

Rosa Unit #146B DK economic output.txt
 PropID: 22427 RSV CAT: 1PDP
 DATE : 01/21/20
 10
 Well Name: ROSA UNIT #146B
 TIME : 13:56:56
 Field: BASIN
 DBS : SJB
 Cnty: RIO ARriba St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

R E S E R V E S A N D E C O N O M I C

S

EFFECTIVE DATE: 01/2007

-----OPERATIONS, M\$-----				-----PRICES-----				
--END--	---GROSS PRODUCTION---		---NET PRODUCTION---		OIL	GAS	NO. OF	
OIL	GAS	OTHER	OIL	GAS				
MO-YEAR	OIL, MBBL	GAS, MMCF	OIL, MBB	GAS, MMC	\$/B	\$/M	WELLS	
REVENUE	REVENUE	REVENUE						
01~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
02~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
03~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
04~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
05~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
06~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
07~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
08~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
09~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
10~2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
11~2007	0.000	8.126	0.000	0.000	0.00	0.000	1.0	
0.000	0.000	0.000						
12~2007	0.000	9.245	0.000	7.997	0.00	5.364	1.0	
0.000	42.898	0.000						
01~2008	0.000	8.180	0.000	7.076	0.00	5.255	1.0	
0.000	37.181	0.000						
02~2008	0.000	7.173	0.000	6.205	0.00	6.077	1.0	
0.000	37.707	0.000						
03~2008	0.000	7.071	0.000	6.116	0.00	6.818	1.0	
0.000	41.699	0.000						
04~2008	0.000	5.926	0.000	5.126	0.00	6.991	1.0	
0.000	35.837	0.000						
05~2008	0.000	6.560	0.000	5.674	0.00	8.042	1.0	
0.000	45.635	0.000						
06~2008	0.000	6.410	0.000	5.545	0.00	8.425	1.0	

Rosa Unit #146B DK economic output.txt

0.000	46.714	0.000					
07-2008	0.000	6.308	0.000	5.456	0.00	9.805	1.0
0.000	53.501	0.000					
08-2008	0.000	6.079	0.000	5.258	0.00	6.406	1.0
0.000	33.686	0.000					
S TOT	0.000	71.078	0.000	54.453	0.00	6.884	1.0
0.000	374.858	0.000					
AFTER	0.000	552.973	0.000	478.322	0.00	4.425	1.0
0.000	2116.511	0.000					
TOTAL	0.000	624.051	0.000	532.775	0.00	4.676	1.0
0.000	2491.369	0.000					

-----OPERATIONS, M\$-----				-----CAPITAL		
COSTS, M\$-----				10.0%		
--END--	SEVERANCE	AD VAL	NET OPER	OPERATION	TANGIBLE	INTANG.
SALVAGE	TOTAL	CASH	FLOW CUM.	DISC		
MO-YEAR	TAXES	TAXES	EXPENSES	CASH FLOW	INV.	INV.
VALUE	EQUITY INV	BTAX,	M\$ BTAX,	M\$		

01-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
02-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
03-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
04-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
05-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
06-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
07-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
08-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
09-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
10-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
11-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
12-2007	3.861	0.820	0.750	37.468	161.963	647.851
0.000	809.814	-772.346	-707.868			
01-2008	3.346	0.711	0.750	32.374	0.000	0.000
0.000	0.000	32.374	-678.554			
02-2008	3.394	0.721	0.750	32.843	0.000	0.000
0.000	0.000	32.843	-649.050			
03-2008	3.753	0.797	0.750	36.399	0.000	0.000
0.000	0.000	36.399	-616.611			
04-2008	3.225	0.685	0.750	31.177	0.000	0.000
0.000	0.000	31.177	-589.046			
05-2008	4.107	0.872	0.750	39.905	0.000	0.000
0.000	0.000	39.905	-554.042			
06-2008	4.204	0.893	0.750	40.867	0.000	0.000
0.000	0.000	40.867	-518.478			
07-2008	4.815	1.022	0.750	46.914	0.000	0.000
0.000	0.000	46.914	-477.975			

Rosa Unit #146B DK economic output.txt						
08-2008	3.032	0.644	0.750	29.261	0.000	0.000
0.000	0.000	29.261	-452.912			
S TOT	33.737	7.164	6.750	327.207	161.963	647.851
0.000	809.814	-482.607	-452.912			
AFTER	190.486	40.447	414.000	1471.579	0.000	0.000
0.000	0.000	1471.579	152.669			
TOTAL	224.223	47.610	420.750	1798.786	161.963	647.851
0.000	809.814	988.972	152.669			

PropID: 22427 RSV CAT: 1PDP
 DATE : 01/21/20
 10
 Well Name: ROSA UNIT #146B
 TIME : 13:56:56
 Field: BASIN
 DBS : SJB
 Cnty: RIO ARRIBA St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

A F T E R T A X E C O N O M I C S

EFFECTIVE DATE: 01/2007

--END-- TAXABLE		10.0% DEPRECIA-		DEPLETION	INTANG.	INTEREST	TAXABLE	TAX
TAXES		CASH	FLOW	CUM.	DISC			
MO-YEAR	CASH FLOW	TION				EXPENSED	PAID & CAP	INCOME
PAYABLE	ATAX		ATAX					CREDIT
M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000			
12-2007	37.468	23.128	0.000	647.851	0.000	-633.512		
0.000	-221.729	-550.617	-505.494					
01-2008	32.374	3.305	0.000	0.000	0.000	29.068		

Rosa Unit #146B DK economic output.txt						
0.000	10.174	22.200	-485.392			
02-2008	32.843	3.305	0.000	0.000	0.000	29.537
0.000	10.338	22.505	-465.176			
03-2008	36.399	3.305	0.000	0.000	0.000	33.094
0.000	11.583	24.816	-443.059			
04-2008	31.177	3.305	0.000	0.000	0.000	27.871
0.000	9.755	21.422	-424.119			
05-2008	39.905	3.305	0.000	0.000	0.000	36.600
0.000	12.810	27.095	-400.351			
06-2008	40.867	3.305	0.000	0.000	0.000	37.562
0.000	13.147	27.721	-376.228			
07-2008	46.914	3.305	0.000	0.000	0.000	43.608
0.000	15.263	31.651	-348.902			
08-2008	29.261	3.305	0.000	0.000	0.000	25.955
0.000	9.084	20.176	-331.621			
09-2008	20.845	3.305	0.000	0.000	0.000	17.540
0.000	6.139	14.706	-319.124			
10-2008	13.663	3.305	0.000	0.000	0.000	10.358
0.000	3.625	10.038	-310.662			
11-2008	7.221	3.305	0.000	0.000	0.000	3.915
0.000	1.370	5.850	-305.769			
12-2008	14.503	3.305	0.000	0.000	0.000	11.198
0.000	3.919	10.584	-296.987			
12-2009	78.753	28.327	0.000	0.000	0.000	50.426
0.000	17.649	61.104	-248.838			
12-2010	140.600	20.229	0.000	0.000	0.000	120.371
0.000	42.130	98.470	-178.299			
12-2011	114.281	14.463	0.000	0.000	0.000	99.818
0.000	34.936	79.345	-126.627			
12-2012	96.530	14.463	0.000	0.000	0.000	82.067
0.000	28.723	67.807	-86.484			
12-2013	83.664	14.463	0.000	0.000	0.000	69.201
0.000	24.220	59.444	-54.491			
12-2014	73.866	7.224	0.000	0.000	0.000	66.642
0.000	23.325	50.541	-29.762			
S-TOT	971.134	161.963	0.000	647.851	0.000	161.320
0.000	56.462	104.858	-29.762			
AFTER	827.652	0.000	0.000	0.000	0.000	827.652
0.000	289.678	537.974	89.033			
TOTAL	1798.786	161.963	0.000	647.851	0.000	988.972
0.000	346.140	642.832	89.033			

BTAX RATE OF RETURN (PCT)	15.67	ATAX RATE OF RETURN (PCT)	14.73
PRESENT WORTH PROFILE			
BTAX PAYOUT YEARS	5.96	ATAX PAY OUT YEARS	6.09
BTAX PAYOUT YEARS (DISC)	9.03	ATAX PAY OUT YEARS (DISC)	9.68
P.W. B.F.I.T. A.F.I.T			
BTAX NET INCOME/INVEST	2.22	ATAX NET INCOME/INVEST	1.79
FACTOR WORTH WORTH			
BTAX NET INCOME/INVEST(DISC)	1.21	ATAX NET INCOME/INVEST(DISC)	1.12
%----- M\$----- M\$-----			

0.00	989.0	642.8	
PRODUCTION START DATE	12/2007	PROJECT LIFE (YEARS)	47.67
10.00	152.7	89.	
		DISCOUNT - RATE (PCT)	10.00
15.00	12.8	-5.0	
17.00	-25.7	-31.1	

		Rosa Unit #146B DK economic output.txt	
INITIAL OIL PRICE (\$/B)	0.000	INITIAL GAS PRICE (\$/M)	5.952
18.00 -42.5 -42.5			
MAXIMUM OIL PRICE (\$/B)	0.000	MAXIMUM GAS PRICE (\$/M)	4.654
20.00 -71.8 -62.4			
GROSS OIL WELLS	0.	GROSS GAS WELLS	1.
25.00 -126.8 -99.9			
30.00 -164.1 -125.5			
CUMULATIVE OIL (MBBL)	0.000	CUMULATIVE GAS (MMF)	122.292
40.00 -208.6 -156.1			
REMAINING OIL (MBBL)	0.000	REMAINING GAS (MMCF)	624.051
50.00 -231.2 -171.7			
ULTIMATE OIL (MBBL)	0.000	ULTIMATE GAS (MMCF)	746.343
60.00 -242.3 -179.4			
70.00 -247.0 -182.5			
INITIAL WI (PCT)	100.000	FINAL WI (PCT)	100.000
80.00 -247.8 -183.0			
INITIAL NET OIL (PCT)	0.000	FINAL NET OIL (PCT)	0.000
90.00 -246.3 -181.8			
INITIAL NET GAS (PCT)	98.412	FINAL NET GAS (PCT)	86.500
100.00 -243.3 -179.7			

In Lieu of
Form 3160-4
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

(See other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION:
☒ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF.RESVR. ☐ OTHER

2. NAME OF OPERATOR

WILLIAMS PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6254

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At Surface: 1980' FSL & 800' FWL

At top production interval reported below:

At total depth:

7. UNIT AGREEMENT NAME

Not in PA

8. FARM OR LEASE NAME, WELL NO.

ROSA UNIT #146B

9. API WELL NO.

30-039-29833 - 0001

10. FIELD AND POOL, OR WILDCAT

BASIN DAKOTA

11. SEC., T., R., M., OR BLOCK AND
SURVEY OR AREA

NW/4 SW/4 SEC 28-31N-5W

12. COUNTY OR

RIO ARriba

13. STATE

NEW MEXICO

19. ELEVATION CASINGHEAD

15. DATE
SPUDDED
07/15/07

16. DATE T.D.
REACHED
07/27/07

17. DATE COMPLETED (READY TO PRODUCE)
10/09/07

14. PERMIT NO.

DATE ISSUED

18. ELEVATIONS (DK. RKB, RT.GR. ETC.)*
6451' GR

20. TOTAL DEPTH, MD & TVD
8105' MD

21. PLUG, BACK T.D., MD & TVD
8060' MD

22. IF MULTICOMP.,
HOW MANY

23. INTERVALS
DRILLED BY

ROTARY TOOLS
x

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*

BASIN DAKOTA 7983' - 8072'

25. WAS DIRECTIONAL SURVEY MADE

YES

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORED

NO

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB/FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
10 3/4", K-55	45.5#	326'	14 3/4"	315 SX - SURFACE	
7 7/8", J-55	26.4#	3803'	9 7/8"	983 SX - SURFACE	905'

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
5 1/2", 17#, J-55	0'	8104'	230 SX		2-1/16", J-55, 3.25#	8033'	6114' ✓

31. PERFORATION RECORD (Interval, size, and number)

DAKOTA: 7983' - 8072'. Total of 57, 0.34" holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL
(MD)

AMOUNT AND KIND OF MATERIAL USED

7983' - 8072'

Fraced w/ 9380# Lite Prop 108.

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump)				WELL STATUS (PRODUCING OR SI)	
		Flowing				Producing	
DATE OF TEST	TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF	WATER - BBL.	GAS-OIL RATIO
09/24/07	1 hrs	2"			175		
FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL - BBL.	GAS - MCF	WATER - BBL.	OIL GRAVITY-API (CORR.)
0	1.5						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): TO BE SOLD

TEST WITNESSED BY: Craig Ward

35. LIST OF ATTACHMENTS:

SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Nancy Ross TITLE Sr. Production Analyst DATE October 29, 2007

OPERATOR

ACCEPTED FOR RECORD

OCT 30 2007

PARANATION FIELD OFFICE

T. Salvetti

ROSA UNIT #146B
BLANCO MV/BASIN DK

Spud Date 07-15-07
 Completed 10-09-07
 1st Delivered 10-00-07 MV
 10-00-07 DK

Location: 1980' FSL & 800' FWL
 NW/4 SW/4 Section 28(L), T31N, R05W
 Rio Arriba Co, NM

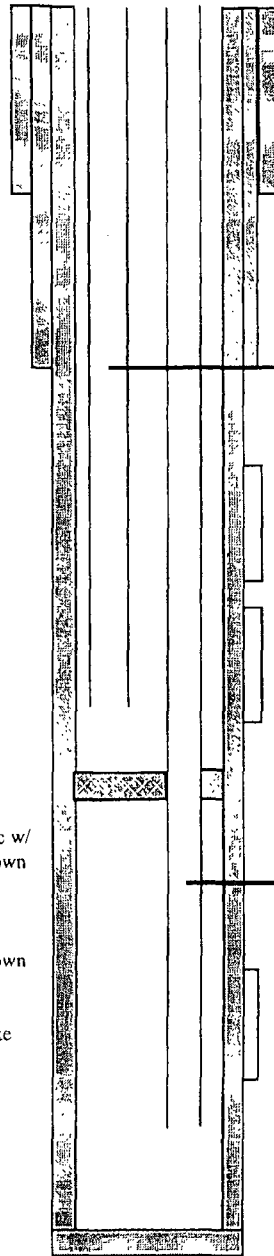
Elevation: 6451' GR 6467' KB
API #: 30-039-29833

<u>Tops</u>	<u>Depth</u>
Kirtland	2727'
Pictured Cliffs	3498'
Cliff House	5516'
Menefee	5560'
Point Lookout	5769'
Mancos	6224'
Dakota	7982'

CliffHouse/Menefee 5278' - 5610' (50, 0.34" holes) Frac w/
 10,140# 14/30 LiteProp 125 followed by 3220# 20/40 brown
 sand.

Point Lookout 5770' - 6008' (42, 0.34" holes) Frac w/
 10,140# 14/30 LiteProp 125 followed by 3220# 20/40 brown
 sand.

Dakota 7983' - 8072' (57, 0.34" holes) Frac w/ 9380# Lite
 Prop 108



7 jts of 10 3/4", 45.5#, K-55, ST&C csg Set @ 326'

84 jts of 7-5/8", 26.4#, J-55, LT&C csg. Set @ 3803'

Mesaverde Tubing: 190 jts 2-1/16", 3.25#, J-55 tbg
 landed @ 6013' as follows: orange peeled perf sub, 1 50"
 SN @ 6008' & 190 jts tbg.

5278'

5610'

5770'

6008'

Arrow model "B" packer @ 6114'

Dakota Tubing: 254 jts 2-1/16", 3.25#, J-55
 tbg landed @ 8033' as follows: 1/2" mule shoe
 pup jt, 1.50" SN @ 8029', 61 jts tbg, 2.688"
 seal assembly, 192 jts tbg, 2', 6' & 8' pup jts &
 1 jt tbg.

7983'

8072'

199 jts of 5-1/2", 17#, J-55, ST&C csg Set @ 8104'

TD @ 8105'
 PBTD @ 8060'

RCVD OCT 31 '07
 OIL CONS. DIV.
 DIST. 3

<u>HOLE SIZE</u>	<u>CASING</u>	<u>CEMENT</u>	<u>CU. FT.</u>	<u>CMT TOP</u>
14 3/4"	10 3/4", 45.5#	314 sxs	443 cu.ft.	surface
9 7/8"	7 5/8", 26.4#	983 sxs	1976 cu.ft.	surface
6 3/4"	5 1/2", 17#	230 sxs	495 cu.ft.	4000'

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 & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104
Revised June 10, 2003

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address WILLIAMS PRODUCTION COMPANY P O BOX 3102, MS 25-2 TULSA OK 74101		² OGRID Number 120782
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 039-29833	⁵ Pool Name BASIN DAKOTA	⁶ Pool Code 71599
⁷ Property Code 17033	⁸ Property Name ROSA UNIT	⁹ Well Number 146B

II. ¹⁰ Surface Location

UL or lot no. L	Section 28	Township 31N	Range 5W	Lot Idn	Feet from the 1980'	North/South Line SOUTH	Feet from the 800'	East/West line WEST	County Rio Arriba
--------------------	---------------	-----------------	-------------	---------	------------------------	---------------------------	-----------------------	------------------------	----------------------

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Use Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
009018	GIANT REFINING P O BOX 12999 SCOTTSDALE AZ 85267	O
025244	WILLIAMS FIELD SERVICES P O BOX 645 TULSA OK 74102	G
		RCVD OCT 31 '07 OIL CONSERVATION DIV.

IV. Well Completion Data

DIST. 3

²¹ Spud Date 07/15/07	²² Ready Date 10/09/07	²³ TD 8105'	²⁴ PBSD 8060'	²⁵ Perforations 7983' - 8072'	²⁶ DHC, MC 4114'
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
14 3/4"	10 3/4", 45.5#, K-55	326'	314		
9 7/8"	7 7/8", 26.4#, J-55	3803'	983		
6 3/4"	5 1/2", 17#, J-55	8104'	230		
	2-1/16", 3.25#, J-55	8033'	Pkr @ 6114'		

VI. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date 09/24/07	³⁴ Test Length 1 hrs	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 1.5
³⁷ Choke Size 2"	³⁸ Oil	³⁹ Water	⁴⁰ Gas 175	⁴¹ Test Method Pitot	
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: Tracy Ross			⁴³ 11/6/07 OIL CONSERVATION DIVISION		
Printed name: Tracy Ross			Approved by: [Signature]		
Title: Sr. Production Analyst			Title: DEPUTY OIL & GAS INSPECTOR, DIST. 3		
E-mail Address: Tracy.ross@williams.com			Approval Date: NOV 09 2007		
Date: 10/29/07		Phone: 918-573-6254			

File PLT by 11/18/07

8

January 21, 2010

The Rosa Unit #188C Dakota Well (commercial) is located 880 feet from the South Line and 2450 feet from the West Line, Section 34 Township 31 North, Range 05 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on August 30, 2007, and completed in the Dakota formation on November 4, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths: 8172' to 8266'. This well has a 2 1/16" tubing string. This well was shut in with a SICP of 2152 psig. On October 23, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 480 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 22% and is therefore determined commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM Form C-104
- BLM Form 1004-0137 (Well Completion Report)

Evaluating Engineer

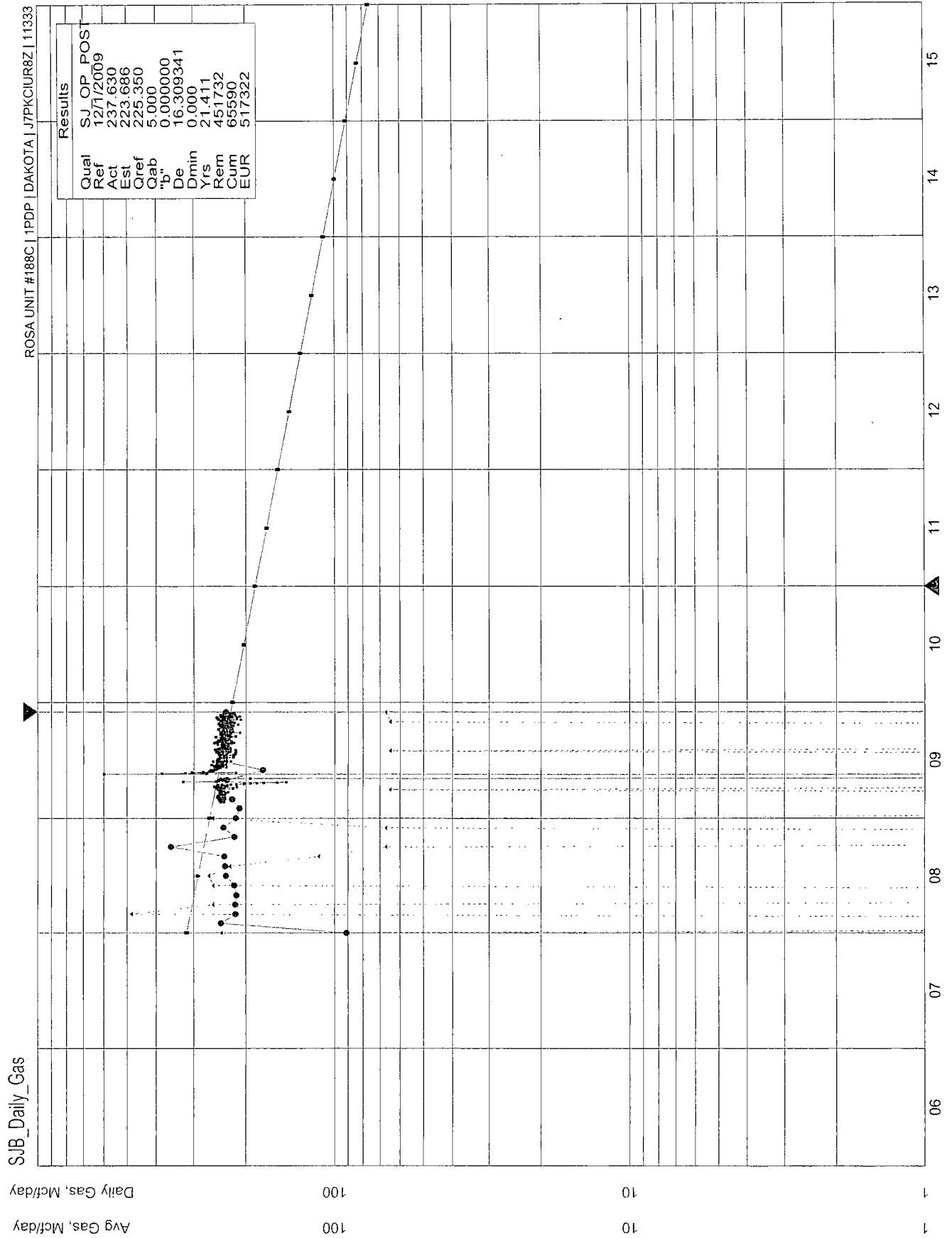
Marcia Brueggenjohann
Manager, Reservoir Engineering
Williams Exploration and Production, San Juan Basin Unit

Avg Water, Bbl/day

1

0.1

0.01



Rosa Unit #188C DK economic output.txt

PropID: 11333 RSV CAT: 1PDP
 Date: 01/22/2010
 Well Name: ROSA UNIT #188C
 Time: 09:01:53
 Field: BASIN
 DBS: SJB
 Cnty: RIO ARriba St: NM
 Settings: SETDATA_JCM
 Reservoir: DAKOTA
 Scenario: SJB-OP-PostAudit
 Operator: WPC

COMBINED INPUT DATA I N I
 T I A L C A L C U L A T E D D A T A
 KEYWORD & -----

Ref. Code	Beginning, Ending Rates	Schedule Limit	Method & value	Ultimate
@ End Pt. Init. Deff	Init. Rate Final Rate			

400 START	01/2008						
401 GAS	317.00	5.00 M/D	X	YRS	EXP	16.31	
791.018 4/2031	16.3093	9642.	151.				
500 PRI/GAS	01/2007	5.617 6.487 6.677 5.957 #/M					
4/2007							
501 "	X 6.627 6.827 6.197 4.987 #/M						
8/2007							
502 "	X 4.587 5.117 6.057 6.497 #/M						
12/2007							
503 "	01/2008 6.377 7.277 8.087 8.277 #/M						
4/2008							
504 "	X 9.427 9.846 11.356 7.637 #/M						
8/2008							
505 "	X 6.427 4.267 2.837 4.627 #/M						
12/2008							
506 "	01/2009 4.827 3.107 2.687 2.617 #/M						
4/2009							
507 "	X 2.497 2.647 2.977 3.177 #/M						
8/2009							
508 "	X 2.467 3.417 4.257 4.679 #/M						
12/2009							
509 "	01/2010 5.72 #/M						
1/2010							
510 "	5.72 X \$/M TO	LIFE	PC	0.00			
4/2031	5.720 5.720						
600 ATX	2.10 X % TO	LIFE	PC	0.00			
4/2031	0.021 0.021						
601 STX/GAS	9.00 X % TO	LIFE	PC	0.00			
4/2031	0.090 0.090						
602 OPC/T	600.00 X \$/M TO	LIFE	PC	0.00			
4/2031	600.000 600.000						
705 LSE/WI	1.0000 D FRAC TO	LIFE	FLAT	0.00			
4/2031	1.000 1.000						
720 NET/OIL	0.8650 D FRAC TO	LIFE	FLAT	0.00			
4/2031	0.865 0.865						

Rosa Unit #188C DK economic output.txt
 740 NET/GAS 0.8650 D FRAC TO LIFE FLAT 0.00
 4/2031 0.865 0.865

OVERLAYS @ End Pt.	Init.	Beginning, Deff	Ending Rates Init. Rate	Schedule Limit Final Rate	Method & Value	Ultimate
901 S 92	S/95	X	FRAC	TO	LIFE	DIV 146.00
4/2031						
903 S /89	0.54	X	FRAC	TO	LIFE	MUL 92.00
4/2031						
905 S /89	0.99	X	FRAC	TO	LIFE	MUL 89.00
4/2031						
907 S /196	S/196	X	FRAC	TO	LIFE	MINUS 89.00
4/2031						
909 S /92	S/95	X	FRAC	TO	LIFE	DIV 146.00
4/2031						
911 S /88	0.06	X	FRAC	TO	LIFE	MUL 92.00
4/2031						
913 S /88	1.00	X	FRAC	TO	LIFE	MINUS 88.00
4/2031						
915 S /196	S/196	X	FRAC	TO	LIFE	MUL 88.00
4/2031						

916 GAS 01/2007 0 0 0 0 0 0 0 0 0 0 0 2821 7527 6285 6726 #
 174.706 3/2008
 917 " X 6453 6790 7015 7298 7332 10679 6771 7152 6691 6513 #
 247.400 1/2009
 918 " X 6224 7521 6950 5421 7403 7348 7372 7055 7230 7010 #
 316.934 11/2009

INVESTMENTS T&I Month	Tangible Risk Inv.	Intang Units Tot. T&I&R	Invest. Point Esc. T&I&R	Method & Value	Total
800 CAPITAL	194.31	777.24 M\$G	01/2008 AD	ESC INV	
971.552 1/2008	0	971.5	0.0		

MISCELLANEOUS DATA PARAMETERS

201 BTU	0.99			
202 WELLS	0.00	1.00		
203 CUMO, MB	0.00	CUMG, MMF	151.35	CUML, MB
250 LOSS	NO			

PROJECT RUN SETTINGS

Base Date : 01/2000 Time Frames : 64*12
 P.W. Date : 01/2007 Primary PW% : 10.0 Discount Freq. : MID
 Report Date : 01/2007
 Qualifiers : Prod = SJ_OP_POST Price = SJ_OP_POST Cost = SJ_OP_POST
 Owner = SJ_OP_POST Title = BASE Misc = BASE Invest = SJ_OP_POST
 Overlay = SJ_OP_POST
 PropID: 11333 RSV CAT: 1PDP
 DATE : 01/22/20
 10
 Well Name: ROSA UNIT #188C

Rosa Unit #188C DK economic output.txt
TIME : 09:01:53

Field: BASIN

DBS : SJB

Cnty: RIO ARriba St: NM

SETTINGS : SETDATA_JCM

Reservoir: DAKOTA

SCENARIO : SJB-OP-PostAudit

Operator: WPC

RESERVES AND ECONOMIC

S

EFFECTIVE DATE: 01/2007

-----OPERATIONS, M\$-----				-----PRICES-----			
---END---	---GROSS	PRODUCTION---	---NET PRODUCTION---	OIL	GAS	NO. OF	
OIL	GAS	OTHER	OIL, MBB	GAS, MMC	\$/B	\$/M	WELLS
MO-YEAR	OIL, MBBL	GAS, MMCF	OIL, MBB	GAS, MMC	\$/B	\$/M	WELLS
REVENUE	REVENUE	REVENUE					
01-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
02-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
03-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
04-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
05-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
06-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
07-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
08-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
09-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
10-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
11-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
12-2007	0.000	2.821	0.000	0.000	0.00	0.000	1.0
0.000	0.000	0.000					
01-2008	0.000	7.527	0.000	6.511	0.00	5.267	1.0
0.000	34.293	0.000					
02-2008	0.000	6.285	0.000	5.437	0.00	6.092	1.0
0.000	33.117	0.000					
03-2008	0.000	6.726	0.000	5.818	0.00	6.834	1.0
0.000	39.758	0.000					
04-2008	0.000	6.453	0.000	5.582	0.00	7.008	1.0
0.000	39.116	0.000					
05-2008	0.000	6.790	0.000	5.873	0.00	8.061	1.0
0.000	47.346	0.000					
06-2008	0.000	7.015	0.000	6.068	0.00	8.445	1.0
0.000	51.244	0.000					
07-2008	0.000	7.298	0.000	6.313	0.00	9.828	1.0
0.000	62.044	0.000					
08-2008	0.000	7.332	0.000	6.342	0.00	6.421	1.0

Rosa Unit #188C DK economic output.txt

0.000	40.725	0.000					
S TOT	0.000	58.247	0.000	47.943	0.00	7.251	1.0
0.000	347.643	0.000					
AFTER	0.000	558.005	0.000	482.674	0.00	4.283	1.0
0.000	2067.346	0.000					
TOTAL	0.000	616.252	0.000	530.618	0.00	4.551	1.0
0.000	2414.990	0.000					

COSTS, M\$		OPERATIONS, M\$				CAPITAL	
--END--		10.0%					
SALVAGE	SEVERANCE	AD VAL	NET	OPER	OPERATION	TANGIBLE	INTANG.
MO-YEAR	TOTAL	CASH	FLOW	CUM.	DISC		
VALUE	TAXES	TAXES	EXPENSES	CASH FLOW	INV.	INV.	
	EQUITY INV	BTAX,	M\$	BTAX,	M\$		

01-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
12-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000			
01-2008	3.086	0.655	0.600	29.951	194.310	777.242	
0.000	971.552	-941.601	-856.108				
02-2008	2.981	0.633	0.600	28.904	0.000	0.000	
0.000	0.000	28.904	-830.144				
03-2008	3.578	0.760	0.600	34.820	0.000	0.000	
0.000	0.000	34.820	-799.112				
04-2008	3.520	0.748	0.600	34.248	0.000	0.000	
0.000	0.000	34.248	-768.831				
05-2008	4.261	0.905	0.600	41.580	0.000	0.000	
0.000	0.000	41.580	-732.358				
06-2008	4.612	0.979	0.600	45.053	0.000	0.000	
0.000	0.000	45.053	-693.151				
07-2008	5.584	1.186	0.600	54.674	0.000	0.000	
0.000	0.000	54.674	-645.948				
08-2008	3.665	0.778	0.600	35.682	0.000	0.000	
0.000	0.000	35.682	-615.386				
S TOT	31.288	6.643	4.800	304.912	194.310	777.242	

Rosa Unit #188C DK economic output.txt
 0.000 971.552 -666.640 -615.386

AFTER	186.061	39.507	159.000	1682.778	0.000	0.000
0.000	0.000	1682.778	323.514			
TOTAL	217.349	46.150	163.800	1987.690	194.310	777.242
0.000	971.552	1016.138	323.514			

PropID: 11333 RSV CAT: 1PDP
 DATE : 01/22/20
 10
 Well Name: ROSA UNIT #188C
 TIME : 09:01:53
 Field: BASIN
 DBS : SJB
 Cnty: RIO ARRIBA St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

AFTER TAX ECONOMICS

EFFECTIVE DATE: 01/2007

10.0%							
--END--	TAXABLE	DEPRECIA-	DEPLETION	INTANG.	INTEREST	TAXABLE	TAX
TAXES	CASH FLOW	CUM.	DISC	EXPENSED	PAID & CAP	INCOME	CREDIT
MO-YEAR	CASH FLOW	TION					
PAYABLE	ATAX	ATAX					
M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
12-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
01-2008	29.951	2.312	0.000	777.242	0.000	-749.603	
0.000	-262.361	-679.240	-618.544				
02-2008	28.904	2.312	0.000	0.000	0.000	26.591	
0.000	9.307	19.597	-600.940				
03-2008	34.820	2.312	0.000	0.000	0.000	32.508	

Rosa Unit #188C DK economic output.txt						
0.000	11.378	23.442	-580.047			
04-2008	34.248	2.312	0.000	0.000	0.000	31.935
0.000	11.177	23.070	-559.649			
05-2008	41.580	2.312	0.000	0.000	0.000	39.268
0.000	13.744	27.836	-535.232			
06-2008	45.053	2.312	0.000	0.000	0.000	42.741
0.000	14.959	30.094	-509.044			
07-2008	54.674	2.312	0.000	0.000	0.000	52.362
0.000	18.327	36.348	-477.663			
08-2008	35.682	2.312	0.000	0.000	0.000	33.370
0.000	11.679	24.003	-457.104			
09-2008	43.122	2.312	0.000	0.000	0.000	40.810
0.000	14.283	28.839	-432.599			
10-2008	16.797	2.312	0.000	0.000	0.000	14.485
0.000	5.070	11.727	-422.713			
11-2008	10.556	2.312	0.000	0.000	0.000	8.243
0.000	2.885	7.671	-416.297			
12-2008	18.292	2.312	0.000	0.000	0.000	15.980
0.000	5.593	12.699	-405.760			
12-2009	147.686	47.587	0.000	0.000	0.000	100.099
0.000	35.035	112.651	-316.993			
12-2010	259.688	33.985	0.000	0.000	0.000	225.703
0.000	78.996	180.692	-187.554			
12-2011	216.160	24.269	0.000	0.000	0.000	191.891
0.000	67.162	148.998	-90.522			
12-2012	179.732	17.352	0.000	0.000	0.000	162.380
0.000	56.833	122.899	-17.763			
12-2013	149.244	17.352	0.000	0.000	0.000	131.892
0.000	46.162	103.082	37.716			
12-2014	123.729	17.352	0.000	0.000	0.000	106.377
0.000	37.232	86.497	80.037			
S-TOT	1469.917	185.644	0.000	777.242	0.000	507.032
0.000	177.461	320.904	80.037			
AFTER	517.772	8.666	0.000	0.000	0.000	509.106
0.000	178.187	339.585	194.260			
TOTAL	1987.690	194.310	0.000	777.242	0.000	1016.138
0.000	355.648	660.490	194.260			

BTAX RATE OF RETURN (PCT)	21.75	ATAX RATE OF RETURN (PCT)	19.65
PRESENT WORTH PROFILE			
BTAX PAYOUT YEARS	4.79	ATAX PAY OUT YEARS	4.94
BTAX PAYOUT YEARS (DISC)	5.92	ATAX PAY OUT YEARS (DISC)	6.32
P.W. B.F.I.T. A.F.I.T			
BTAX NET INCOME/INVEST	2.05	ATAX NET INCOME/INVEST	1.68
FACTOR WORTH WORTH			
BTAX NET INCOME/INVEST(DISC)	1.37	ATAX NET INCOME/INVEST(DISC)	1.22
%----- M\$----- M\$-----			
0.00 1016.1 660.5			
PRODUCTION START DATE	01/2008	PROJECT LIFE (YEARS)	23.75
10.00 323.5 194.			
		DISCOUNT - RATE (PCT)	10.00
15.00 148.8 76.0			
17.00 95.8 40.0			
INITIAL OIL PRICE (\$/B)	0.000	INITIAL GAS PRICE (\$/M)	6.400
18.00 72.0 23.9			
MAXIMUM OIL PRICE (\$/B)	0.000	MAXIMUM GAS PRICE (\$/M)	4.665
20.00 29.4 -5.0			

Rosa Unit #188C DK economic output.txt				
GROSS OIL WELLS		0.	GROSS GAS WELLS	1.
25.00	-54.6	-62.1		
30.00	-115.0	-103.1		
	CUMULATIVE OIL (MBBL)	0.000	CUMULATIVE GAS (MMF)	148.526
40.00	-191.9	-155.1		
	REMAINING OIL (MBBL)	0.000	REMAINING GAS (MMCF)	616.252
50.00	-234.3	-183.6		
	ULTIMATE OIL (MBBL)	0.000	ULTIMATE GAS (MMCF)	764.778
60.00	-257.7	-199.0		
70.00	-269.9	-206.8		
	INITIAL WI (PCT)	100.000	FINAL WI (PCT)	100.000
80.00	-275.4	-209.9		
	INITIAL NET OIL (PCT)	0.000	FINAL NET OIL (PCT)	0.000
90.00	-276.6	-210.2		
	INITIAL NET GAS (PCT)	230.800	FINAL NET GAS (PCT)	86.500
100.00	-275.1	-208.6		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

(See other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

NOV 29 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: ☒ OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION:
☒ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR
WILLIAMS PRODUCTION COMPANY

Bureau of Land Management
Farmington Field Office

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6254

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At Surface: 880' FSL & 2450' FWL
At top production interval reported below:
At total depth:

5. LEASE DESIGNATION AND LEASE NO.
NMSF-078773

6. IF INDIAN, ALLOTTEE OR

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
ROSA UNIT #188C

9. API WELL NO.
30-039-29902-0001

10. FIELD AND POOL, OR WILDCAT
BASIN DAKOTA

11. SEC., T., R., M., OR BLOCK AND
SURVEY OR AREA
SE/4 SW/4 SEC 34-31N-5W

12. COUNTY OR
RIO ARriba

13. STATE
NEW MEXICO

15. DATE
SPUDDED
08/30/07

16. DATE T.D.
REACHED
09/26/07

17. DATE COMPLETED (READY TO PRODUCE)
11/04/07

18. ELEVATIONS (DK. RKB, RT, GR, ETC.)*
6712' GR

19. ELEVATION CASINGHEAD

20. TOTAL DEPTH, MD & TVD
8316' MD

21. PLUG. BACK T.D., MD & TVD
8312' MD

22. IF MULTICOMP.,
HOW MANY
2

23. INTERVALS
DRILLED BY

ROTARY TOOLS
x

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
BASIN DAKOTA 8172' - 8266'

25. WAS DIRECTIONAL SURVEY MADE
YES

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORED
NO

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
10 3/4", K-55	40.5#	329'	14 3/4"	298 SX - SURFACE	
7 1/2", K-55	26.4#	4038'	9 7/8"	1150 SX - SURFACE	
5 1/2", J-55	17#	8286'	6 3/4"	220 SX - 4400'	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
4", 11.7# J-55	8266'	8312'	50 SX		2-1/16", J-55, 3.25#	8289'	6400'

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size, and number)

DAKOTA: 8172' - 8266'. Total of 48, 0.36" holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED

8172' - 8266'

Faced w/ 12,900# Lite Prop 108 followed w/ 3000# SB Excel 20/40.

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump)				WELL STATUS (PRODUCING OR SI)	
		Flowing				SI - waiting on approved C-104	
DATE OF TEST	TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF	WATER - BBL.	GAS-OIL RATIO
10/23/07	1 hr	2"			480		
FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL - BBL.	GAS - MCF	WATER - BBL.	OIL GRAVITY-API (CORR.)
0	7						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): TO BE SOLD

TEST WITNESSED BY: Buddy Banks

35. LIST OF ATTACHMENTS: SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Gracy Ross TITLE Sr. Production Analyst DATE November 7, 2007

OPERATOR

T. Salas

ROSA UNIT #188C BLANCO MV/BASIN DK

Spud Date: 08-30-07
Completed: 11-04-07
1st Delivered: 11-00-07 MV
11-00-07 DK

Location:
880' FSL & 2450' FWL
SE/4 SW/4 Section 34(N), T31N, R05W
Rio Arriba Co., NM

Elevation: 6712' GR 6728' KB
API #: 30-039-29909

<u>Tops</u>	<u>Depth</u>
Fruitland	3340'
Pictured Cliffs	3714'
Cliff House	5696'
Menefee	5746'
Point Lookout	5953'
Mancos	6415'
Dakota	8171'

CliffHouse/Menefee 5454' - 5820' (55, 0.36" holes) Frac w/ 9950# 14/30 LiteProp 125 followed w/ 3220# 20/40 brown sand.

Point Lookout 5882' - 6304' (66, 0.36" holes) Frac w/ 9950# 14/30 LiteProp 125 followed w/ 3220# 20/40 brown sand.

Dakota 8172' - 8266' (48, 0.36" holes) Frac w/ 12,900# Lite Prop 108 followed w/ 3000# SB Excel 20/40.

TOL @ 8266'

1 jt of 4", 11.7#, J-55 csg Set @ 8266' - 8312'.

7 jts of 10 3/4", 40.5#, K-55, ST&C csg. Set @ 329'.

90 jts of 7-5/8", 26.4#, K-55, LT&C csg. Set @ 4038'.

Mesaverde Tubing: 201 jts 2-1/16", 3.25#, J-55 tbg landed @ 6304' as follows: orange peeled perf sub, 1.50" SN @ 6299' & 201 jts tbg.

Arrow model "B" packer @ 6400'

Dakota Tubing: 258 jts 2-1/16", 3.25#, J-55 tbg landed @ 8289' as follows: 1/2" mule shoe pup jt, 1.50" SN @ 8262', 58 jts tbg, 2.688" seal assembly, 199 jts tbg, 6', 6', 8' & 8' pup jts & 1 jt tbg.

8172'

8266'

195 jts of 5-1/2", 17#, N-80, LT&C csg. Set @ 8286', float collar @ 8274'.

TD @ 8316'
PBTd @ 8312'

HOLE SIZE	CASING	CEMENT	CU. FT.	CMT TOP
14 3/4"	10 3/4", 40.5#	298 sxs	620 cu.ft.	surface
9 7/8"	7 5/8", 26.4#	1150 sxs	2345 cu.ft.	surface
6 3/4"	5 1/2", 17#	220 sxs	473 cu.ft.	4400'
4 3/4"	4", 11.7#	50 sxs	69 cu.ft.	8240'

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 & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104
Revised June 10, 2003

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address WILLIAMS PRODUCTION COMPANY P O BOX 3102, MS 25-2 TULSA OK 74101		² OGRID Number 120782
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 039-29902 9	⁵ Pool Name BASIN DAKOTA	⁶ Pool Code 71599
⁷ Property Code 17033	⁸ Property Name ROSA UNIT	⁹ Well Number 188C

II. ¹⁰ Surface Location

UL or lot no. N	Section 34	Township 31N	Range 5W	Lot.Idn	Feet from the 880'	North/South Line SOUTH	Feet from the 2450'	East/West line WEST	County Rio Arriba
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¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
009018	GIANT REFINING P O BOX 12999 SCOTTSDALE AZ 85267	O
025244	WILLIAMS FIELD SERVICES P O BOX 645 TULSA OK 74102	G
		RCUD NOV 19'07

IV. Well Completion Data

OIL CONS. DIV.

²¹ Spud Date 08/30/07	²² Ready Date 11/04/07	²³ TD 8316'	²⁴ PBTD 8312'	²⁵ Perforations 8172' - 8266'	²⁶ DHC, MC DIST. MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
14 3/4"	10 3/4", 45.5#, K-55	329'	298 sxs		
9 3/4"	7 3/4", 26.4#, J-55	4038'	1150 sxs		
6 3/4"	5 1/2", 17#, J-55	8286'	220 sxs		
4 3/4"	4", 11.7#, J-55	8266' - 8312'	50 sxs		
	2-1/16", 3.25#, J-55	8289'	Pkr set @ 6400'		

VI. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date 10/23/07	³⁴ Test Length 1 hr	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 7
³⁷ Choke Size 2"	³⁸ Oil	³⁹ Water	⁴⁰ Gas 480	⁴¹ Test Method Pitot	
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: Tracy Ross			12/6/07 OIL CONSERVATION DIVISION		
Printed name: Tracy Ross			Approved by: Henry Villanueva 12/6/07		
Title: Sr. Production Analyst			Title: DEPUTY OIL & GAS INSPECTOR, DIST. 04		
E-mail Address: Tracy.ross@williams.com			Approval Date: DEC 06 2007		
Date: 11/15/07		Phone: 918-573-6254		BCHM approval	

8

January 21, 2010

The Rosa Unit #14C DK Well (commercial) is located 2505 feet from the North Line and 0895 feet from the East Line, Section 23 Township 31 North, Range 06 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on October, 2007, and completed in the Dakota formation on November 29, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths: 7796' to 7894'. This well has a 2 1/16" tubing string. This well was shut in with a SICP of 655 psig. On November 28, 2007 the well was tested and after flowing for 1.5 hours through a 2" choke on the 2 1/16" tubing, the well gauged 190 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 13% and is therefore determined commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM Form C-104
- BLM Form 1004-0137 (Well Completion Report)

Evaluating Engineer

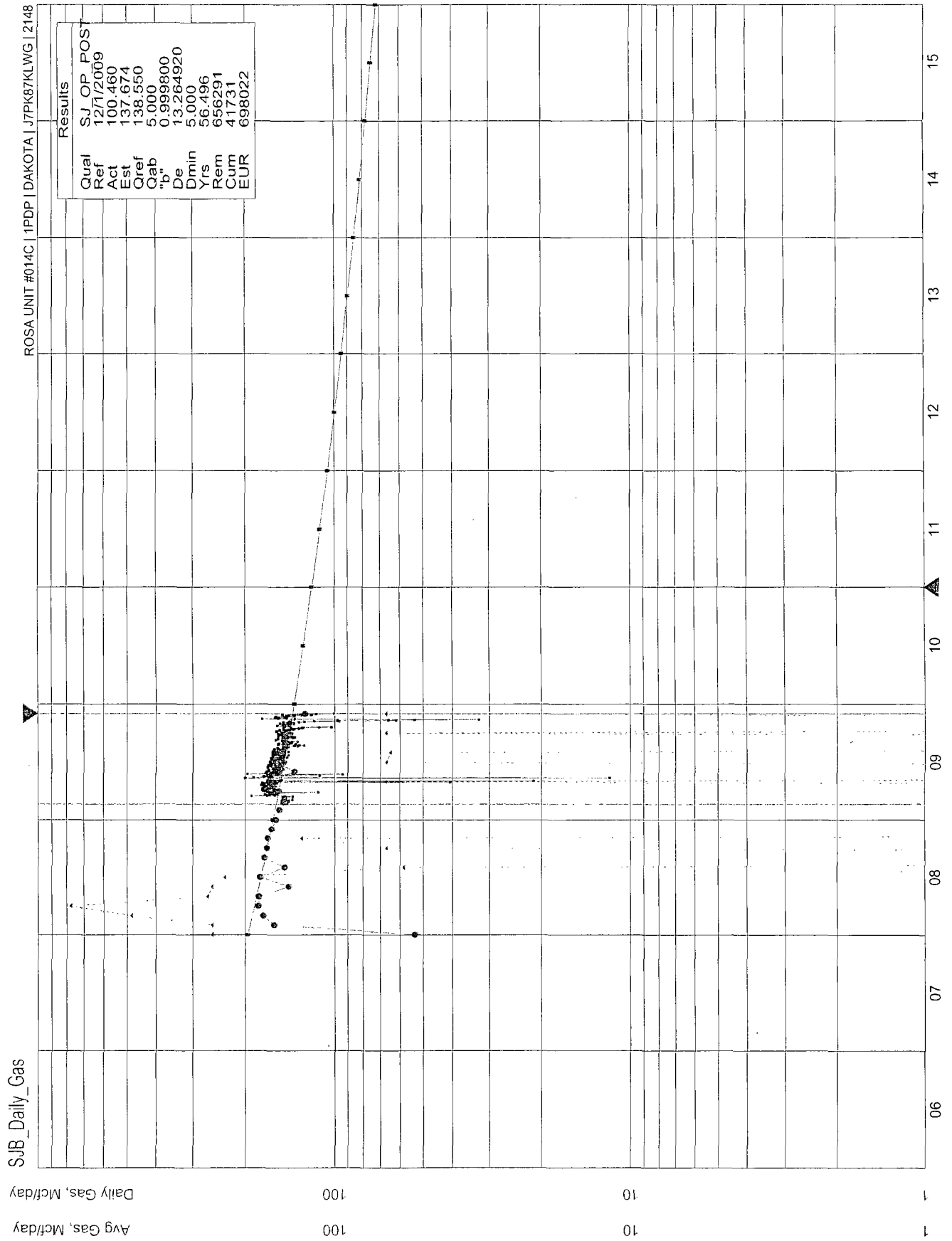
Marcia Brueggenjohann
Manager, Reservoir Engineering
Williams Exploration and Production, San Juan Basin Unit

Avg Water, Bbl/day

1

0.1

0.01



Rosa Unit #014C DK economic output.txt

PropID: 2148 RSV CAT: 1PDP
 Date: 01/22/2010
 Well Name: ROSA UNIT #014C
 Time: 09:31:47
 Field: BASIN
 DBS: SJB
 Cnty: RIO ARriba St: NM
 Settings: SETDATA_JCM
 Reservoir: DAKOTA
 Scenario: SJB-OP-PostAudit
 Operator: WPC

COMBINED INPUT DATA
 T I A L C A L C U L A T E D D A T A I N I
 KEYWORD & -----

Ref. Code	Beginning, Ending Rates	Schedule Limit	Method & Value	Ultimate
@ End Pt. Init. Deff	Init. Rate Final Rate			
400 START	01/2008			
401 GAS	196.00 X M/D 5.00 EXP	B/0.9998	17.79	
580.329 11/2022	17.7860 5962. 1410.			
402 "	X 5.00 M/D X YRS	EXP	5.00	
874.812 5/2066	5.0000 1410. 151.			
500 PRI/GAS	01/2007 5.617 6.487 6.677 5.957 #/M			
4/2007				
501 "	X 6.627 6.827 6.197 4.987 #/M			
8/2007				
502 "	X 4.587 5.117 6.057 6.497 #/M			
12/2007				
503 "	01/2008 6.377 7.277 8.087 8.277 #/M			
4/2008				
504 "	X 9.427 9.846 11.356 7.637 #/M			
8/2008				
505 "	X 6.427 4.267 2.837 4.627 #/M			
12/2008				
506 "	01/2009 4.827 3.107 2.687 2.617 #/M			
4/2009				
507 "	X 2.497 2.647 2.977 3.177 #/M			
8/2009				
508 "	X 2.467 3.417 4.257 4.679 #/M			
12/2009				
509 "	01/2010 5.72 #/M			
1/2010				
510 "	5.72 X \$/M TO	LIFE	PC	0.00
5/2066	5.720 5.720			
600 ATX	2.10 X % TO	LIFE	PC	0.00
5/2066	0.021 0.021			
601 STX/GAS	9.00 X % TO	LIFE	PC	0.00
5/2066	0.090 0.090			
602 OPC/T	650.00 X \$/M TO	LIFE	PC	0.00
5/2066	650.000 650.000			
705 LSE/WI	1.0000 D FRAC TO	LIFE	FLAT	0.00
5/2066	1.000 1.000			

Rosa Unit #014C DK economic output.txt

720 NET/OIL	0.8650	D	FRAC	TO	LIFE	FLAT	0.00
5/2066		0.865		0.865			
740 NET/GAS	0.8650	D	FRAC	TO	LIFE	FLAT	0.00
5/2066		0.865		0.865			

OVERLAYS	Beginning, Ending Rates	Schedule Limit	Method & Value	Ultimate
@ End Pt. Init. Deff Init. Rate Final Rate				
901 S 92 S/95 X FRAC TO LIFE			DIV 146.00	
5/2066				
903 S /89 0.54 X FRAC TO LIFE			MUL 92.00	
5/2066				
905 S /89 0.99 X FRAC TO LIFE			MUL 89.00	
5/2066				
907 S /196 S/196 X FRAC TO LIFE			MINUS 89.00	
5/2066				
909 S /92 S/95 X FRAC TO LIFE			DIV 146.00	
5/2066				
911 S /88 0.06 X FRAC TO LIFE			MUL 92.00	
5/2066				
913 S /88 1.00 X FRAC TO LIFE			MINUS 88.00	
5/2066				
915 S /196 S/196 X FRAC TO LIFE			MUL 88.00	
5/2066				

916 GAS 01/2007 0 0 0 0 0 0 0 0 0 0 0 1656 4952 5042 5595 #
 120.908 3/2008
 917 " X 5395 4419 5338 4566 5346 5072 5203 4887 4883 4753 #
 170.770 1/2009
 918 " X 4150 4782 4972 4236 4716 4778 4549 4373 4390 3763 #
 215.479 11/2009

INVESTMENTS	Tangible	Intang Units	Invest. Point	Method & Value	Total
T&I Month Risk Inv. Tot. T&I&R Esc. T&I&R					
800 CAPITAL	186.65	734.60 M\$G	12/2007 AD	ESC INV	
921.254 12/2007	0	921.2	0.0		

MISCELLANEOUS DATA PARAMETERS

201 BTU	0.99			
202 WELLS	0.00	1.00		
203 CUMO, MB	0.00	CUMG, MMF	103.66	CUML, MB
250 LOSS	NO			

PROJECT RUN SETTINGS

Base Date : 01/2000	Time Frames : 64*12	
P.W. Date : 01/2007	Primary PW% : 10.0	Discount Freq. : MID
Report Date : 01/2007		
Qualifiers : Prod = SJ_OP_POST	Price = SJ_OP_POST	Cost = SJ_OP_POST
Owner = SJ_OP_POST		
Title = BASE	Misc = BASE	Invest = SJ_OP_POST
Overlay = SJ_OP_POST		

PropID: 2148 RSV CAT: 1PDP
 DATE : 01/22/20

Rosa Unit #014C DK economic output.txt

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Well Name: ROSA UNIT #014C

TIME : 09:31:47

Field: BASIN

DBS : SJB

Cnty: RIO ARriba St: NM

SETTINGS : SETDATA_JCM

Reservoir: DAKOTA

SCENARIO : SJB-OP-PostAudit

Operator: WPC

R E S E R V E S A N D E C O N O M I C

S

EFFECTIVE DATE: 01/2007

-----OPERATIONS, M\$-----				-----PRICES-----			
---END---	---GROSS PRODUCTION---	---NET PRODUCTION---		OIL	GAS	NO. OF	
OIL	GAS	OTHER	OIL	GAS			WELLS
MO-YEAR	OIL, MMBL	GAS, MMCF	OIL, MBB	GAS, MMC	\$/B	\$/M	
REVENUE	REVENUE	REVENUE					
01-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
02-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
03-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
04-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
05-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
06-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
07-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
08-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
09-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
10-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
11-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
12-2007	0.000	1.656	0.000	0.000	0.00	0.000	1.0
0.000	0.000	0.000					
01-2008	0.000	4.952	0.000	4.283	0.00	5.299	1.0
0.000	22.699	0.000					
02-2008	0.000	5.042	0.000	4.361	0.00	6.129	1.0
0.000	26.729	0.000					
03-2008	0.000	5.595	0.000	4.840	0.00	6.875	1.0
0.000	33.274	0.000					
04-2008	0.000	5.395	0.000	4.667	0.00	7.050	1.0
0.000	32.902	0.000					
05-2008	0.000	4.419	0.000	3.822	0.00	8.110	1.0
0.000	31.001	0.000					
06-2008	0.000	5.338	0.000	4.617	0.00	8.496	1.0
0.000	39.231	0.000					
07-2008	0.000	4.566	0.000	3.950	0.00	9.888	1.0

Rosa Unit #014C DK economic output.txt

08-2008	0.000	39.054	0.000	0.000	4.624	0.00	6.460	1.0
	0.000	0.000	5.346	0.000				
	0.000	29.875	0.000					
S TOT	0.000	0.000	42.309	0.000	35.165	0.00	7.245	1.0
	0.000	254.765	0.000					
AFTER	0.000	0.000	719.341	0.000	622.230	0.00	4.494	1.0
	0.000	2796.585	0.000					
TOTAL	0.000	0.000	761.649	0.000	657.394	0.00	4.642	1.0
	0.000	3051.351	0.000					

COSTS, M\$		OPERATIONS, M\$				CAPITAL	
END	SEVERANCE	AD VAL	NET OPER	OPERATION	TANGIBLE	INTANG.	
SALVAGE	TOTAL	CASH	FLOW CUM.	DISC			
MO-YEAR	TAXES	TAXES	EXPENSES	CASH FLOW	INV.	INV.	
VALUE	EQUITY INV	BTAX, M\$	BTAX, M\$	M\$			
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
12-2007	0.000	0.000	0.000	0.000	0.000	186.651	
0.000	921.254	-921.254	-844.182			734.603	
01-2008	2.043	0.434	0.650	19.572	0.000	0.000	
0.000	0.000	19.572	-826.460				
02-2008	2.406	0.511	0.650	23.163	0.000	0.000	
0.000	0.000	23.163	-805.652				
03-2008	2.995	0.636	0.650	28.993	0.000	0.000	
0.000	0.000	28.993	-779.813				
04-2008	2.961	0.629	0.650	28.662	0.000	0.000	
0.000	0.000	28.662	-754.471				
05-2008	2.790	0.592	0.650	26.968	0.000	0.000	
0.000	0.000	26.968	-730.815				
06-2008	3.531	0.750	0.650	34.301	0.000	0.000	
0.000	0.000	34.301	-700.965				
07-2008	3.515	0.746	0.650	34.143	0.000	0.000	
0.000	0.000	34.143	-671.488				
08-2008	2.689	0.571	0.650	25.965	0.000	0.000	
0.000	0.000	25.965	-649.248				

Rosa Unit #014C DK economic output.txt

S TOT	22.929	4.869	5.200	221.768	186.651	734.603
0.000	921.254	-699.486	-649.248			
AFTER	251.693	53.443	424.450	2067.000	0.000	0.000
0.000	0.000	2067.000	119.092			
TOTAL	274.622	58.311	429.650	2288.767	186.651	734.603
0.000	921.254	1367.513	119.092			

□

PropID: 2148 RSV CAT: 1PDP
 DATE : 01/22/20
 10
 Well Name: ROSA UNIT #014C
 TIME : 09:31:47
 Field: BASIN
 DBS : SJB
 Cnty: RIO ARRIBA St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

A F T E R T A X E C O N O M I C S

EFFECTIVE DATE: 01/2007

--END-- TAXABLE		10.0% DEPRECIA-		DEPLETION	INTANG.	INTEREST	TAXABLE	TAX
MO-YEAR	TAXES	CASH FLOW	TION	CUM. DISC	EXPENSED	PAID & CAP	INCOME	CREDIT
	PAYABLE	ATAX	ATAX					
	M\$	M\$	M\$	M\$	M\$	M\$	M\$	
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000				
12-2007	0.000	0.000	0.000	0.000	734.603	0.000	-734.603	
0.000	-257.111	-664.143	-609.515					
01-2008	19.572	2.221	0.000	0.000	0.000	0.000	17.351	
0.000	6.073	13.499	-597.291					
02-2008	23.163	2.221	0.000	0.000	0.000	0.000	20.942	

Rosa Unit #014C DK economic output.txt						
0.000	7.330	15.833	-583.068			
03-2008	28.993	2.221	0.000	0.000	0.000	26.772
0.000	9.370	19.623	-565.579			
04-2008	28.662	2.221	0.000	0.000	0.000	26.441
0.000	9.254	19.408	-548.420			
05-2008	26.968	2.221	0.000	0.000	0.000	24.747
0.000	8.662	18.307	-532.362			
06-2008	34.301	2.221	0.000	0.000	0.000	32.080
0.000	11.228	23.073	-512.283			
07-2008	34.143	2.221	0.000	0.000	0.000	31.922
0.000	11.173	22.970	-492.451			
08-2008	25.965	2.221	0.000	0.000	0.000	23.744
0.000	8.310	17.655	-477.330			
09-2008	20.242	2.221	0.000	0.000	0.000	18.021
0.000	6.307	13.935	-465.488			
10-2008	12.800	2.221	0.000	0.000	0.000	10.579
0.000	3.702	9.097	-457.819			
11-2008	7.019	2.221	0.000	0.000	0.000	4.798
0.000	1.679	5.340	-453.353			
12-2008	13.221	2.221	0.000	0.000	0.000	11.000
0.000	3.850	9.371	-445.578			
12-2009	92.468	45.711	0.000	0.000	0.000	46.757
0.000	16.365	76.103	-385.610			
12-2010	160.409	32.645	0.000	0.000	0.000	127.764
0.000	44.717	115.692	-302.734			
12-2011	139.642	23.313	0.000	0.000	0.000	116.330
0.000	40.715	98.927	-238.310			
12-2012	123.444	16.668	0.000	0.000	0.000	106.776
0.000	37.372	86.072	-187.353			
12-2013	110.455	16.668	0.000	0.000	0.000	93.787
0.000	32.825	77.629	-145.573			
12-2014	99.807	16.668	0.000	0.000	0.000	83.139
0.000	29.099	70.708	-110.977			
S-TOT	1001.274	178.326	0.000	734.603	0.000	88.345
0.000	30.921	49.100	-110.977			
AFTER	1287.493	8.325	0.000	0.000	0.000	1279.168
0.000	447.709	839.784	61.552			
TOTAL	2288.768	186.651	0.000	734.603	0.000	1367.513
0.000	478.630	888.884	61.552			

BTAX RATE OF RETURN (PCT)	13.22	ATAX RATE OF RETURN (PCT)	12.46
PRESENT WORTH PROFILE			
BTAX PAYOUT YEARS	7.20	ATAX PAY OUT YEARS	7.31
BTAX PAYOUT YEARS (DISC)	12.90	ATAX PAY OUT YEARS (DISC)	14.35
P.W. B.F.I.T. A.F.I.T			
BTAX NET INCOME/INVEST	2.48	ATAX NET INCOME/INVEST	1.96
FACTOR WORTH WORTH			
BTAX NET INCOME/INVEST(DISC)	1.14	ATAX NET INCOME/INVEST(DISC)	1.07
%----- M\$----- M\$-----			

0.00	1367.5	888.9		
PRODUCTION START DATE	01/2008	PROJECT LIFE (YEARS)	56.08	
10.00	119.1	61.		
		DISCOUNT - RATE (PCT)	10.00	
15.00	-65.9	-63.4		
17.00	-115.3	-97.1		
INITIAL OIL PRICE (\$/B)	0.000	INITIAL GAS PRICE (\$/M)	6.439	
18.00	-136.5	-111.5		

Rosa Unit #014C DK economic output.txt			
MAXIMUM OIL PRICE (\$/B)	0.000	MAXIMUM GAS PRICE (\$/M)	4.694
20.00 -173.1 -136.5			
GROSS OIL WELLS	0.	GROSS GAS WELLS	1.
25.00 -240.0 -182.5			
30.00 -283.4 -212.6			
CUMULATIVE OIL (MBBL)	0.000	CUMULATIVE GAS (MMF)	102.007
40.00 -331.8 -246.2			
REMAINING OIL (MBBL)	0.000	REMAINING GAS (MMCF)	761.649
50.00 -352.9 -261.0			
ULTIMATE OIL (MBBL)	0.000	ULTIMATE GAS (MMCF)	863.656
60.00 -360.5 -266.3			
70.00 -360.8 -266.5			
INITIAL WI (PCT)	100.000	FINAL WI (PCT)	100.000
80.00 -357.1 -263.7			
INITIAL NET OIL (PCT)	0.000	FINAL NET OIL (PCT)	0.000
90.00 -351.0 -259.4			
INITIAL NET GAS (PCT)	258.664	FINAL NET GAS (PCT)	86.500
100.00 -343.7 -254.1			

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

(See other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*						5 LEASE DESIGNATION AND LEASE NO. NMSF-078771	
1a TYPE OF WELL OIL WELL ☒ GAS WELL DRY OTHER						6 IF INDIAN ALLOTTEE OR RCVD DEC 7 '07	
b TYPE OF COMPLETION ☒ NEW WELL WORKOVER DEEPEN PLUG BACK DIFF RESVR OTHER						7 UNIT AGREEMENT NAME OIL CONS. DIV. DIST. 3	
2 NAME OF OPERATOR WILLIAMS PRODUCTION COMPANY						8 FARM OR LEASE NAME, WELL NO ROSA UNIT #14C	
3 ADDRESS AND TELEPHONE NO P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6254						9 API WELL NO 30-039-30132 - 0001	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At Surface: 2505' FNL & 895' FEL At top production interval reported below: At total depth:						10 FIELD AND POOL, OR WILDCAT BASIN DAKOTA	
14 PERMIT NO DATE ISSUED 6275' GR						11 SEC., T.R.M., OR BLOCK AND SURVEY OR AREA SE/4 NE/4 SEC 23-31N-6W	
						12 COUNTY OR RIO ARriba	
15 DATE SPUDDED 10/06/07						13 STATE NEW MEXICO	
16 DATE T D REACHED 10/19/07						19 ELEVATION CASINGHEAD	
17 DATE COMPLETED (READY TO PRODUCE) 11/29/07						20 TOTAL DEPTH, MD & TVD 7920' MD	
21. PLUG, BACK T D, MD & TVD						22 IF MULTICOMP, HOW MANY 2	
23 INTERVALS DRILLED BY						24 PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* BASIN DAKOTA 7796' - 7894'	
25 TYPE ELECTRIC AND OTHER LOGS RUN						26 WAS DIRECTIONAL SURVEY MADE YES	
27 WAS WELL CORED NO						28 CASING REPORT (Report all strings set in well)	
29 LINER RECORD						30 TUBING RECORD	
31 PERFORATION RECORD (Interval, size, and number) Dakota 7796' - 7894' Total of 60, 0 34" holes						32 ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC DEPTH INTERVAL (MD) 7796' - 7894' Amount and kind of material used Fraced w/ 9980# Lite Prop 108.	
33 PRODUCTION						34 DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TO BE SOLD	
35 LIST OF ATTACHMENTS SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM						36 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records	

SIGNED Inacy Ross TITLE Sr Production Analyst DATE December 3, 2007

NMOCD
18

ACCEPTED FOR RECORD
DEC 03 2007
FARMINGTON FIELD OFFICE
BY T. Salveys

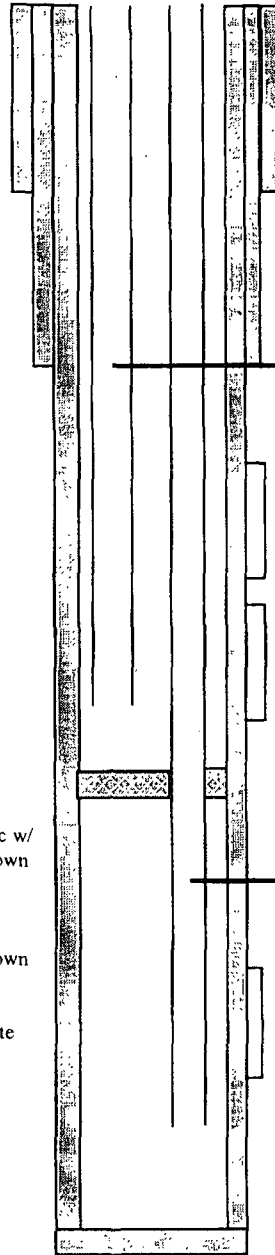
ROSA UNIT #14C BLANCO MV/BASIN DK

Spud Date 10-06-07
Completed 11-29-07
1st Delivered 12-00-07 MV
12-00-07 DK

Location:
2505' FNL & 895' FEL
SE/4 NE/4 Section 23(H), T31N, R06W
Rio Arriba Co., NM

Elevation: 6275' GR 6291' KB
API #: 30-039-30132

<u>Tops</u>	<u>Depth</u>
Kirtland	3304'
Pictured Cliffs	3545'
Cliff House	5304'
Menefee	5348'
Point Lookout	5598'
Mancos	6041'
Dakota	7794'



7 jts of 10 3/4", 40.5#, K-55, ST&C csg. Set @ 328'.

81 jts of 7-5/8", 26.4#, K-55, LT&C csg. Set @ 3609'.

Mesaverde Tubing. 186 jts 2-1/16", 3 25#, J-55 tbg landed @ 5895' as follows: orange peeled perf sub, 1.50" SN @ 5890' & 186 jts tbg.

5320'

5536'

5598'

5881'

Arrow model "B" packer @ 5960'

Cliff House/Menefee 5320' - 5536' (32, 0.34" holes) Frac w/ 10,560# 14/30 LiteProp 125 followed by 3200# 20/40 brown sand.

Point Lookout 5598' - 5881' (54, 0.34" holes) Frac w/ 10,760# 14/30 LiteProp 125 followed by 3200# 20/40 brown sand.

Dakota 7796' - 7894' (60, 0.34" holes) Frac w/ 9980# Lite Prop 108.

Dakota Tubing. 247 jts 2-1/16", 3 25#, J-55 tbg landed @ 7855' as follows. 3' mule shoe, 1.50" SN @ 7852', 61 jts tbg, 2.688" seal assembly, 185 jts tbg, 3' & 2' pup jts & 1 jt tbg.

7796'

7894'

177 jts of 5-1/2", 17#, N-80, LT&C csg. Set @ 7918'.

TD @ 7920'

RCVD DEC 4'07
OIL CONS. DIV.

DIST. 3

HOLE SIZE	CASING	CEMENT	CU. FT.	CMT TOP
14 3/4"	10 3/4", 40.5#	280 sxs	395 cu.ft.	surface
9 7/8"	7 5/8", 26.4#	834 sxs	1681 cu.ft.	surface
6 3/4"	5 1/2", 17#	286 sxs	612 cu.ft.	1934'

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 & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104
Revised June 10, 2003

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address WILLIAMS PRODUCTION COMPANY P O BOX 3102, MS 25-2 TULSA OK 74101		² OGRID Number 120782
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 039-30132	⁵ Pool Name 320 N/2 BASIN DAKOTA NSL-5661	⁶ Pool Code 71599
⁷ Property Code 17033	⁸ Property Name ROSA UNIT	⁹ Well Number 14C

II. ¹⁰ Surface Location

UL or lot no. H	Section 23	Township 31N	Range 6W	Lot Idn	Feet from the 2505'	North/South Line NORTH	Feet from the 895'	East/West line EAST	County Rio Arriba
--------------------	---------------	-----------------	-------------	---------	------------------------	---------------------------	-----------------------	------------------------	----------------------

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
009018	GIANT REFINING P O BOX 12999 SCOTTSDALE AZ 85267	O
025244	WILLIAMS FIELD SERVICES P O BOX 645 TULSA OK 74102	G
		RCVD DEC 4 '07
		OIL CON. DIV.

IV. Well Completion Data

DIST. 3

²¹ Spud Date 10/06/07	²² Ready Date 11/29/07	²³ TD 7920'	²⁴ PBTD	²⁵ Perforations 7796' - 7894'	²⁶ DHC, MC MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
14 3/4"	10 3/4", 40.5#, K-55	328'	280		
9 7/8"	7 7/8", 26.4#, K-55	3609'	834		
6 3/4"	5 1/2", 17#, N-80	7918'	286		
	2-1/16", 3.25#, J-55	7855'	Pkr set @ 5960'		

VI. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date 11/28/07	³⁴ Test Length 1.5 hrs	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 0
³⁷ Choke Size 2"	³⁸ Oil	³⁹ Water	⁴⁰ Gas 3040/190		⁴¹ Test Method Pitot
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: Tracy Ross			12/18/07 OIL CONSERVATION DIVISION		
Printed name: Tracy Ross			Approved by: <i>Charles H. Ross</i> 12-18-07		
Title: Sr. Production Analyst			Title: SUPERVISOR DISTRICT # 3		
E-mail Address: Tracy.ross@williams.com			Approval Date: DEC 18 2007		
Date: 12/03/07		Phone: 918-573-6254			

January 21, 2010

The Rosa Unit #186 Dakota Well (non-commercial) is located 1660 feet from the North Line and 930 feet from the West Line, Section 27 Township 31 North, Range 05 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on August 01, 2007, and completed in the Dakota formation on October 10, 2007. The Formation formation was completed with a pre-perforated liner between the following depths: 8302' to 8402'. This well has a 2 1/16" tubing string. This well was shut in with a SICP of 1930 psig. On September 25, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16 tubing, the well gauged 200 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 0% and is therefore determined (non-)commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM Form C-104
- BLM Form 1004-0137 (Well Completion Report)

Evaluating Engineer

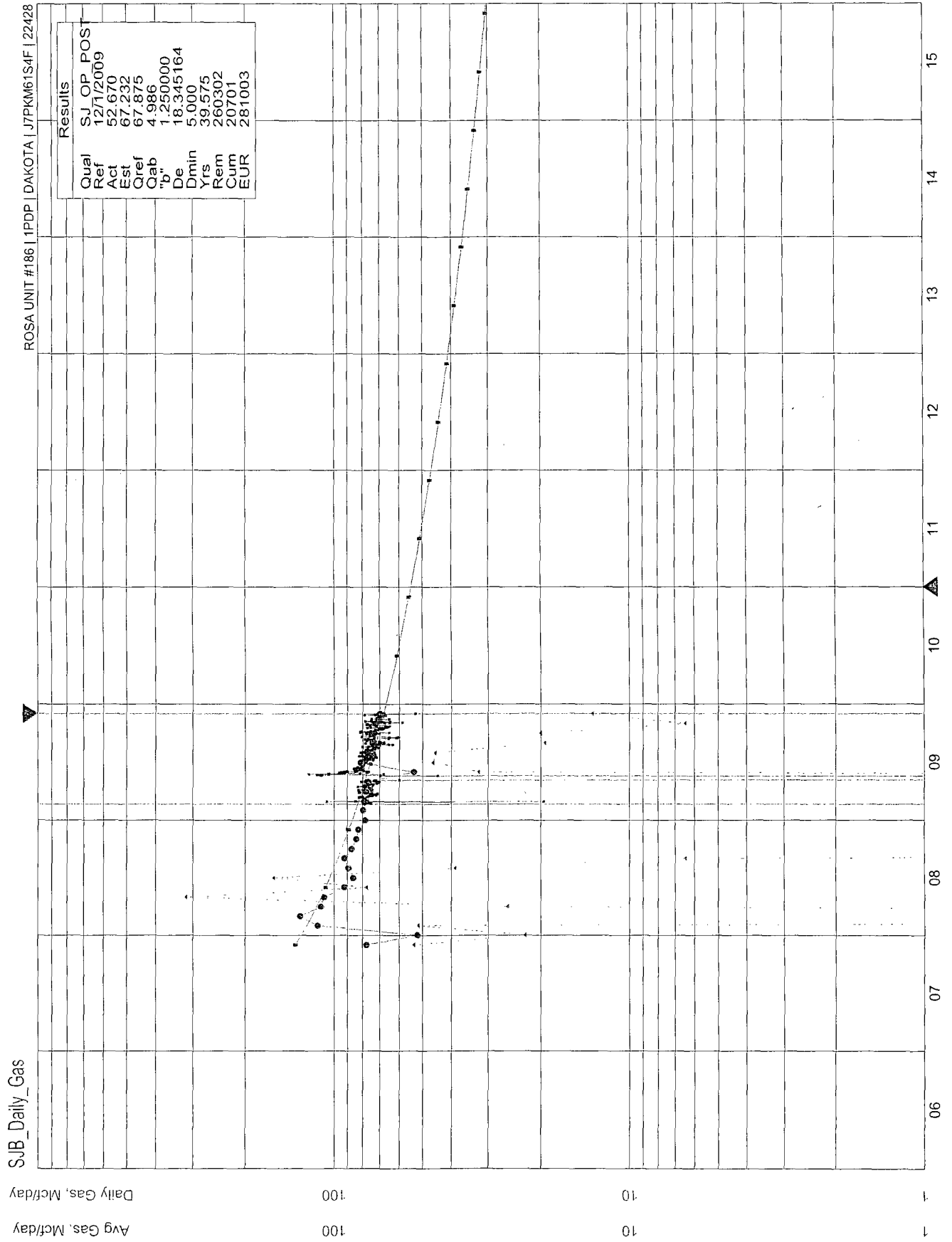
Marcia Brueggenjohann
Manager, Reservoir Engineering
Williams Exploration and Production, San Juan Basin Unit

Avg Water, Bbl/day

10

1

0.1



Rosa Unit #186 DK economic output.txt

PropID: 22428 RSV CAT: 1PDP
 Date: 01/21/2010
 Well Name: ROSA UNIT #186
 Time: 14:32:18
 Field: BASIN
 DBS: SJB
 Cnty: RIO ARriba St: NM
 Settings: SETDATA_JCM
 Reservoir: DAKOTA
 Scenario: SJB-OP-PostAudit
 Operator: WPC

T I A L C A L C U L A T E D I N P U T D A T A I N I
 KEYWORD & -----

Ref. Code Beginning, Ending Rates Schedule Limit Method & Value Ultimate
 @ End Pt. Init. Deff Init. Rate Final Rate -----

400 START 12/2007

401 GAS 135.00 X M/D 5.00 EXP B/1.2500 34.00
 237.466 1/2022 34.0000 4106. 619.
 402 " X 5.00 M/D X YRS EXP 5.00
 346.781 6/2049 5.0000 619. 152.

500 PRI/GAS 01/2007 5.617 6.487 6.677 5.957 #/M
 4/2007

501 " X 6.627 6.827 6.197 4.987 #/M

8/2007

502 " X 4.587 5.117 6.057 6.497 #/M

12/2007

503 " 01/2008 6.377 7.277 8.087 8.277 #/M

4/2008

504 " X 9.427 9.846 11.356 7.637 #/M

8/2008

505 " X 6.427 4.267 2.837 4.627 #/M

12/2008

506 " 01/2009 4.827 3.107 2.687 2.617 #/M

4/2009

507 " X 2.497 2.647 2.977 3.177 #/M

8/2009

508 " X 2.467 3.417 4.257 4.679 #/M

12/2009

509 " 01/2010 5.72 #/M

510 " 5.72 X \$/M TO LIFE PC 0.00
 6/2049 5.720 5.720

600 ATX 2.10 X % TO LIFE PC 0.00
 6/2049 0.021 0.021

601 STX/GAS 9.00 X % TO LIFE PC 0.00
 6/2049 0.090 0.090

602 OPC/T 850.00 X \$/M TO LIFE PC 0.00
 6/2049 850.000 850.000

705 LSE/WI 1.0000 D FRAC TO LIFE FLAT 0.00
 6/2049 1.000 1.000

Rosa Unit #186 DK economic output.txt

720 NET/OIL	0.8650	D	FRAC	TO	LIFE	FLAT	0.00
6/2049		0.865		0.865			
740 NET/GAS	0.8650	D	FRAC	TO	LIFE	FLAT	0.00
6/2049		0.865		0.865			

OVERLAYS	Beginning, Ending Rates	Schedule Limit	Method & Value	Ultimate
@ End Pt. Init. Deff	Init. Rate Final Rate			

901 S 92	S/95	X	FRAC	TO	LIFE	DIV	146.00
6/2049							
903 S /89	0.54	X	FRAC	TO	LIFE	MUL	92.00
6/2049							
905 S /89	0.98	X	FRAC	TO	LIFE	MUL	89.00
6/2049							
907 S /196	S/196	X	FRAC	TO	LIFE	MINUS	89.00
6/2049							
909 S /92	S/95	X	FRAC	TO	LIFE	DIV	146.00
6/2049							
911 S /88	0.06	X	FRAC	TO	LIFE	MUL	92.00
6/2049							
913 S /88	1.00	X	FRAC	TO	LIFE	MINUS	88.00
6/2049							
915 S /196	S/196	X	FRAC	TO	LIFE	MUL	88.00
6/2049							

916 GAS 01/2008 3521 3777 3426 3238 2858 2580 2762 2855 #
 43.639 8/2008
 917 " X 2612 2601 2473 2426 2470 2164 2406 2298 1656 2436 #
 67.181 6/2009
 918 " X 2377 2294 2183 2237 2092 #
 78.364 11/2009

INVESTMENTS	Tangible	Intang	Units	Invest. Point	Method & Value	Total
T&I Month Risk Inv.	Tot. T&I&R	Esc.	T&I&R			

800 CAPITAL	202.81	811.23	M\$G	12/2007 AD	ESC INV	
1014.033 12/2007	0	1014.0		0.0		

MISCELLANEOUS DATA PARAMETERS

201 BTU	0.98				
202 WELLS	0.00	1.00			
203 CUMO, MB	0.00	CUMG, MMF	18.62	CUML, MB	
250 LOSS	NO				

PROJECT RUN SETTINGS

Base Date	: 01/2000	Time Frames	: 64*12		
P.W. Date	: 01/2007	Primary PW%	: 10.0	Discount Freq.	: MID
Report Date	: 01/2007				
Qualifiers	: Prod = SJ_OP_POST	Price = SJ_OP_POST	Cost = SJ_OP_POST		
Owner	= SJ_OP_POST	Title = BASE	Misc = BASE	Invest = SJ_OP_POST	
Overlay	= SJ_OP_POST				

PropID: 22428 RSV CAT: 1PDP
 DATE : 01/21/20

Rosa Unit #186 DK economic output.txt

10

Well Name: ROSA UNIT #186

TIME : 14:32:18

Field: BASIN

DBS : SJB

Cnty: RIO ARRIBA St: NM

SETTINGS : SETDATA_JCM

Reservoir: DAKOTA

SCENARIO : SJB-OP-PostAudit

Operator: WPC

R E S E R V E S A N D E C O N O M I C

S

EFFECTIVE DATE: 01/2007

-----OPERATIONS, M\$-----					-----PRICES-----		
--END--	---GROSS	PRODUCTION---	---NET PRODUCTION---		OIL	GAS	NO. OF
OIL	GAS	OTHER					
MO-YEAR	OIL, MBBL	GAS, MMCF	OIL, MBB	GAS, MMC	\$/B	\$/M	WELLS
REVENUE	REVENUE	REVENUE					
-----	-----	-----	-----	-----	-----	-----	-----
01-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
02-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
03-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
04-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
05-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
06-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
07-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
08-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
09-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
10-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
11-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0
0.000	0.000	0.000					
12-2007	0.000	4.016	0.000	3.474	0.00	5.364	1.0
0.000	18.634	0.000					
01-2008	0.000	3.521	0.000	3.046	0.00	5.254	1.0
0.000	16.003	0.000					
02-2008	0.000	3.777	0.000	3.267	0.00	6.077	1.0
0.000	19.853	0.000					
03-2008	0.000	3.426	0.000	2.963	0.00	6.817	1.0
0.000	20.202	0.000					
04-2008	0.000	3.238	0.000	2.801	0.00	6.991	1.0
0.000	19.580	0.000					
05-2008	0.000	2.858	0.000	2.472	0.00	8.042	1.0
0.000	19.880	0.000					
06-2008	0.000	2.580	0.000	2.232	0.00	8.424	1.0
0.000	18.801	0.000					
07-2008	0.000	2.762	0.000	2.389	0.00	9.804	1.0

Rosa Unit #186 DK economic output.txt

0.000	23.424	0.000					
08-2008	0.000	2.855	0.000	2.470	0.00	6.406	1.0
0.000	15.819	0.000					
S TOT	0.000	29.033	0.000	25.114	0.00	6.857	1.0
0.000	172.197	0.000					
AFTER	0.000	275.165	0.000	238.018	0.00	4.399	1.0
0.000	1047.136	0.000					
TOTAL	0.000	304.199	0.000	263.132	0.00	4.634	1.0
0.000	1219.333	0.000					

COSTS, M\$		OPERATIONS, M\$				CAPITAL	
--END--		10.0%					
SALVAGE	SEVERANCE	AD VAL	NET OPER	OPERATION	TANGIBLE	INTANG.	
MO-YEAR	TOTAL	CASH	FLOW CUM.	DISC			
VALUE	TAXES	TAXES	EXPENSES	CASH FLOW	INV.	INV.	
	EQUITY INV	BTAX,	M\$ BTAX,	M\$			
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	
12-2007	1.677	0.356	0.850	15.751	202.806	811.227	
0.000	1014.033	-998.282	-914.823				
01-2008	1.440	0.306	0.850	13.407	0.000	0.000	
0.000	0.000	13.407	-902.684				
02-2008	1.787	0.379	0.850	16.837	0.000	0.000	
0.000	0.000	16.837	-887.558				
03-2008	1.818	0.386	0.850	17.148	0.000	0.000	
0.000	0.000	17.148	-872.276				
04-2008	1.762	0.374	0.850	16.594	0.000	0.000	
0.000	0.000	16.594	-857.604				
05-2008	1.789	0.380	0.850	16.861	0.000	0.000	
0.000	0.000	16.861	-842.814				
06-2008	1.692	0.359	0.850	15.900	0.000	0.000	
0.000	0.000	15.900	-828.978				
07-2008	2.108	0.448	0.850	20.018	0.000	0.000	
0.000	0.000	20.018	-811.695				
08-2008	1.424	0.302	0.850	13.243	0.000	0.000	
0.000	0.000	13.243	-800.352				

Rosa Unit #186 DK economic output.txt

S TOT	15.498	3.291	7.650	145.758	202.806	811.227
0.000	1014.033	-868.275	-800.352			
AFTER	94.242	20.011	328.100	604.783	0.000	0.000
0.000	0.000	604.783	-519.305			
TOTAL	109.740	23.301	335.750	750.541	202.806	811.227
0.000	1014.033	-263.492	-519.305			

□

PropID: 22428 RSV CAT: 1PDP
 DATE : 01/21/20
 10
 Well Name: ROSA UNIT #186
 TIME : 14:32:18
 Field: BASIN
 DBS : SJB
 Cnty: RIO ARriba St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

A F T E R T A X E C O N O M I C S

EFFECTIVE DATE: 01/2007

--END-- TAXABLE		10.0% DEPRECIA- DEPLETION		INTANG.	INTEREST	TAXABLE	TAX
TAXES	CASH FLOW	CUM.	DISC	EXPENSED	PAID & CAP	INCOME	CREDIT
MO-YEAR	CASH FLOW	TION					
PAYABLE	ATAx	ATAx					
M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
12-2007	15.751	28.961	0.000	811.227	0.000	-824.437	
0.000	-288.553	-709.729	-651.459				
01-2008	13.407	4.139	0.000	0.000	0.000	9.268	
0.000	3.244	10.163	-642.256				
02-2008	16.837	4.139	0.000	0.000	0.000	12.698	

Rosa Unit #186 DK economic output.txt						
0.000	4.444	12.393	-631.123			
03-2008	17.148	4.139	0.000	0.000	0.000	13.009
0.000	4.553	12.595	-619.899			
04-2008	16.594	4.139	0.000	0.000	0.000	12.455
0.000	4.359	12.234	-609.082			
05-2008	16.861	4.139	0.000	0.000	0.000	12.722
0.000	4.453	12.408	-598.197			
06-2008	15.900	4.139	0.000	0.000	0.000	11.761
0.000	4.116	11.783	-587.943			
07-2008	20.018	4.139	0.000	0.000	0.000	15.879
0.000	5.558	14.461	-575.459			
08-2008	13.243	4.139	0.000	0.000	0.000	9.105
0.000	3.187	10.057	-566.845			
09-2008	9.818	4.139	0.000	0.000	0.000	5.679
0.000	1.988	7.830	-560.191			
10-2008	5.817	4.139	0.000	0.000	0.000	1.678
0.000	0.587	5.229	-555.782			
11-2008	2.998	4.139	0.000	0.000	0.000	-1.141
0.000	-0.399	3.397	-552.941			
12-2008	5.983	4.139	0.000	0.000	0.000	1.844
0.000	0.645	5.338	-548.512			
12-2009	39.694	35.471	0.000	0.000	0.000	4.223
0.000	1.478	38.216	-518.399			
12-2010	68.549	25.330	0.000	0.000	0.000	43.218
0.000	15.126	53.422	-480.130			
12-2011	55.722	18.111	0.000	0.000	0.000	37.612
0.000	13.164	42.558	-452.415			
12-2012	46.812	18.111	0.000	0.000	0.000	28.702
0.000	10.046	36.767	-430.648			
12-2013	40.225	18.111	0.000	0.000	0.000	22.115
0.000	7.740	32.485	-413.164			
12-2014	35.137	9.045	0.000	0.000	0.000	26.092
0.000	9.132	26.005	-400.441			
S-TOT	456.513	202.806	0.000	811.227	0.000	-557.520
0.000	-195.132	-362.388	-400.441			
AFTER	294.028	0.000	0.000	0.000	0.000	294.028
0.000	102.910	191.118	-350.324			
TOTAL	750.541	202.806	0.000	811.227	0.000	-263.492
0.000	-92.222	-171.270	-350.324			

BTAX RATE OF RETURN (PCT)	0.00	ATAX RATE OF RETURN (PCT)	0.00
PRESENT WORTH PROFILE			
BTAX PAYOUT YEARS	33.83	ATAX PAY OUT YEARS	33.83
BTAX PAYOUT YEARS (DISC)	33.83	ATAX PAY OUT YEARS (DISC)	33.83
P.W. B.F.I.T. A.F.I.T.			
BTAX NET INCOME/INVEST	0.74	ATAX NET INCOME/INVEST	0.83
FACTOR WORTH WORTH			
BTAX NET INCOME/INVEST(DISC)	0.44	ATAX NET INCOME/INVEST(DISC)	0.62
%----- M\$----- M\$-----			

0.00	-263.5	-171.3			
	PRODUCTION START DATE		12/2007	PROJECT LIFE (YEARS)	33.83
10.00	-519.3	-350.			
				DISCOUNT - RATE (PCT)	10.00
15.00	-557.1	-378.9			
17.00	-565.7	-385.7			
	INITIAL OIL PRICE (\$/B)		0.000	INITIAL GAS PRICE (\$/M)	5.364
18.00	-569.0	-388.5			

Rosa Unit #186 DK economic output.txt				
MAXIMUM OIL PRICE (\$/B)	0.000	MAXIMUM GAS PRICE (\$/M)	4.654	
20.00 -574.0 -392.8				
GROSS OIL WELLS	0.	GROSS GAS WELLS	1.	
25.00 -579.6 -398.7				
30.00 -578.8 -399.8				
CUMULATIVE OIL (MBBL)	0.000	CUMULATIVE GAS (MMF)	18.622	
40.00 -566.8 -394.2				
REMAINING OIL (MBBL)	0.000	REMAINING GAS (MMCF)	304.199	
50.00 -548.9 -383.6				
ULTIMATE OIL (MBBL)	0.000	ULTIMATE GAS (MMCF)	322.821	
60.00 -528.9 -371.2				
70.00 -508.7 -358.2				
INITIAL WI (PCT)	100.000	FINAL WI (PCT)	100.000	
80.00 -489.1 -345.4				
INITIAL NET OIL (PCT)	0.000	FINAL NET OIL (PCT)	0.000	
90.00 -470.4 -333.0				
INITIAL NET GAS (PCT)	86.500	FINAL NET GAS (PCT)	86.500	
100.00 -452.8 -321.2				

C.H.W
C: W

In Lieu of
Form 3160-4
(July 1992)

RECEIVED
NOV 07 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

(See other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

5. LEASE DESIGNATION AND LEASE NO.
NMSF-078770
6. IF INDIAN, ALLOTTEE OR

7. UNIT AGREEMENT NAME

Not in PA

8. FARM OR LEASE NAME, WELL NO.
ROSA UNIT #186

9. API WELL NO.
30-039-30160 -0001

10. FIELD AND POOL, OR WILDCAT
BASIN DAKOTA

11. SEC., T.R., M. OR BLOCK AND
SURVEY OR AREA
SW/4 NW/4 SEC 27-31N-5W

12. COUNTY OR
RIO ARriba
13. STATE
NEW MEXICO

19. ELEVATION CASINGHEAD

14. PERMIT NO.

DATE ISSUED

18. ELEVATIONS (DK, RKB, RT, GR, ETC.)*

6765' GR

1a. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION:
☒ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR
WILLIAMS PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6254

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At Surface: 1660' FNL & 930' FWL
At top production interval reported below:
At total depth:

15. DATE
SPUDDED
08/01/07
16. DATE T.D.
REACHED
08/26/07
17. DATE COMPLETED (READY TO PRODUCE)
10/10/07

20. TOTAL DEPTH, MD & TVD
8434' MD
21. PLUG, BACK T.D., MD & TVD
8419' MD

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
BASIN DAKOTA 8302' - 8402'

26. TYPE ELECTRIC AND OTHER LOGS RUN

22. IF MULTICOMP.,
HOW MANY
23. INTERVALS
DRILLED BY

ROTARY TOOLS
x
CABLE TOOLS

25. WAS DIRECTIONAL SURVEY MADE
YES

27. WAS WELL CORED
NO

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB/FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
10 3/4", K-55	40.5#	315'	14 3/4"	314 SX - SURFACE	
7 7/8", J-55	26#	4158'	9 7/8"	897 SX - SURFACE	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
5 1/2", 17#, N-80	0'	8433'	205 SX		2-1/16", J-55, 3.25#	8408'	6480'

31. PERFORATION RECORD (Interval, size, and number)

DAKOTA: 8302' - 8402'. Total of 22, 0.34" holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)

AMOUNT AND KIND OF MATERIAL USED

8302' - 8402' Fraced w/ 9900# Lite Prop 108.

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump)				WELL STATUS (PRODUCING OR SI)	
		Flowing				Producing	
DATE OF TEST	TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF	WATER - BBL.	GAS-OIL RATIO
09/25/07	1 hrs	2"			200		
FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL - BBL.	GAS - MCF	WATER - BBL.	OIL GRAVITY-API (CORR.)
0	2						

34. DISPOSITION OF GAS (Solid, used for fuel, vented, etc.): TO BE SOLD

TEST WITNESSED BY: Buddy Banks

35. LIST OF ATTACHMENTS: SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Inaey Ross TITLE Sr. Production Analyst DATE October 29, 2007

ACCEPTED FOR RECORD

NOV 02 2007

OPERATOR

FIELD OFFICE
T. Solvers

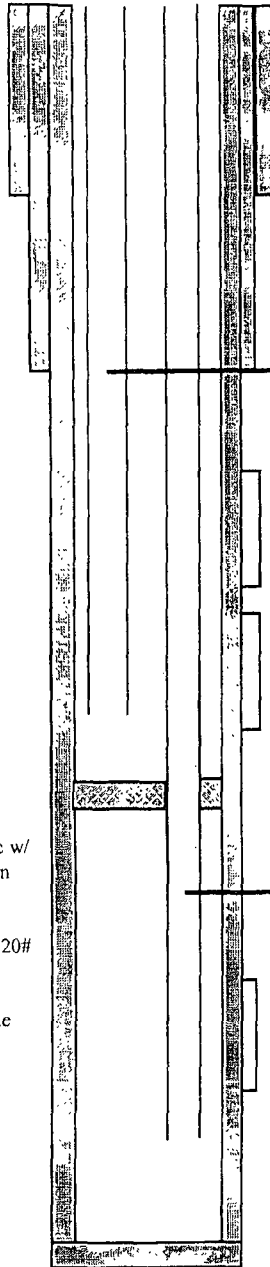
ROSA UNIT #186 BLANCO MV/BASIN DK

Spud Date 08-01-07
Completed 10-10-07
1st Delivered 10-00-07 MV
10-00-07 DK

Location: 1660' FNL & 930' FWL
SW/4 NW/4 Section 27(E), T31N, R05W
Rio Arriba Co, NM

Elevation: 6765' GR 6781' KB
API #: 30-039-30160

<u>Tops</u>	<u>Depth</u>
Kirtland	3034'
Pictured Cliffs	3797'
Cliff House	5853'
Menefec	5898'
Point Lookout	6097'
Mancos	6653'
Dakota	8298'



8 jts of 10 3/4", 40 5#, K-55, ST&C csg. Set @ 315'.

84 jts of 7-5/8", 26#, J-55, LT&C csg. Set @ 4158'.

Mesaverde Tubing: 204 jts 2-1/16", 3.25#, J-55 tbg landed @ 6412' as follows. orange peeled perf sub, 1.50" SN @ 6410' & 204 jts tbg.

5634'

6002'

6098'

6420'

Arrow model "B" packer @ 6480'

Dakota Tubing: 270 jts 2-1/16", 3.25#, J-55 tbg landed @ 8408' as follows. 1/2" mule shoe pup jt, 1.50" SN @ 8406', 62 jts tbg, 2.688" seal assembly, 207 jts tbg, 4' & 8' pup jts & 1 jt tbg.

8302'

8402'

106 jts of 5-1/2", 17#, N-80, LT&C csg. Set @ 8433'.

TD @ 8434'
PBD @ 8419'

RCUD NOV 1 '07

OIL CONS. DIV.

DIST. 3

CliffHouse/Menefee 5634' - 6002' (52, 0.36" holes) Frac w/ 9920# 14/30 LiteProp 125 followed by 3280# 20/40 brown sand.

Point Lookout 6098' - 6420' (52, 0.36" holes) Frac w/ 9920# 14/30 LiteProp 125 followed by 3280# 20/40 brown sand.

Dakota 8302' - 8402' (22, 0.34" holes) Frac w/ 9900# Lite Prop 108.

HOLE SIZE	CASING	CEMENT	CU. FT.	CMT TOP
14 3/4"	10 3/4", 40.5#	314 s xs	444 cu.ft.	surface
9 7/8"	7 5/8", 26#	897 s xs	1802 cu.ft.	surface
6 3/4"	5 1/2", 17#	205 s xs	441 cu.ft.	5100'

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 & Natural Resources

Form C-104
Revised June 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address WILLIAMS PRODUCTION COMPANY P O BOX 3102, MS 25-2 TULSA OK 74101		² OGRID Number 120782
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 039-30160	⁵ Pool Name BASIN DAKOTA	⁶ Pool Code 71599
⁷ Property Code 17033	⁸ Property Name ROSA UNIT	⁹ Well Number 186

II. ¹⁰ Surface Location

UL or lot no. E	Section 27	Township 31N	Range 5W	Lot Idn	Feet from the 1660'	North/South Line NORTH	Feet from the 930'	East/West line WEST	County Rio Arriba
--------------------	---------------	-----------------	-------------	---------	------------------------	---------------------------	-----------------------	------------------------	----------------------

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
009018	GIANT REFINING P O BOX 12999 SCOTTSDALE AZ 85267	O
025244	WILLIAMS FIELD SERVICES P O BOX 645 TULSA OK 74102	G

IV. Well Completion Data

²¹ Spud Date 08/01/07	²² Ready Date 10/10/07	²³ TD 8434'	²⁴ PBTD 8419'	²⁵ Perforations 8302' - 8402'	²⁶ DHC MC phr @ 6480'
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
14 1/4"	10 3/4", 40.5#, K-55	315'	314		
9 7/8"	7 7/8", 26#, J-55	4158'	897		
6 3/4"	5 1/2", 17#, N-80	8433'	205		
	2-1/16", 3.25#, J-55	8408'	RCVD NOV 1 '07 OIL CONS. DIV.		

VI. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date 09/25/07	³⁴ Test Length 1 hrs	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 2
³⁷ Choke Size 2"	³⁸ Oil	³⁹ Water	⁴⁰ Gas 200' 4800		⁴¹ Test Method Pitot

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: Tracy Ross		11/19/07 OIL CONSERVATION DIVISION	
Printed name: Tracy Ross		Approved by: <i>Charles H. Ross</i> 11-19-07	
Title: Sr. Production Analyst		Title: SUPERVISOR DISTRICT # 3	
E-mail Address: Tracy.ross@williams.com		Approval Date: NOV 19 2007	
Date: 10/29/07	Phone: 918-573-6254	File PLT by 12/19/07 CBL	

8

January 21, 2010

The Rosa Unit #184C Dakota Well (non-commercial) is located 845 feet from the North Line and 2525 feet from the East Line, Section 34 Township 31 North, Range 05 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on September 17, 2007, and completed in the Dakota formation on November 5, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths: 8298' to 8392'. This well has a 2 1/16" tubing string. This well was shut in with a SICP of 0 psig. On October 24, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 175 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 0% and is therefore determined (non-)commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM Form C-104
- BLM Form 1004-0137 (Well Completion Report)

Evaluating Engineer

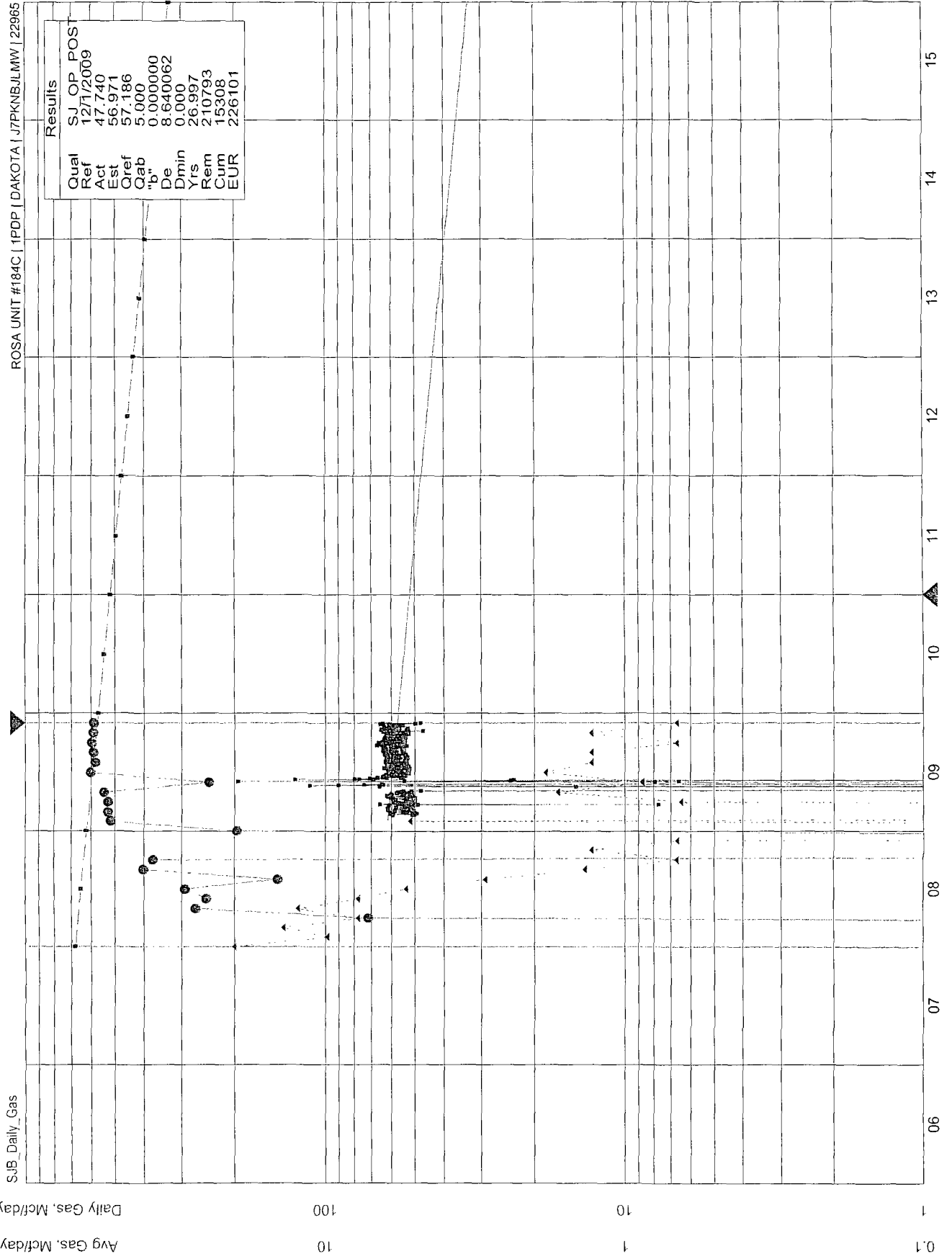
Marcia Brueggenjohann
Manager, Reservoir Engineering
Williams Exploration and Production, San Juan Basin Unit

Avg Water, Bbl/day

10

1

0.1



Rosa Unit #184C DK economic output.txt

PropID: 22965 RSV CAT: 1PDP
 Date: 01/22/2010
 Well Name: ROSA UNIT #184C
 Time: 08:47:43
 Field: BASIN
 DBS: SJB
 Cnty: RIO ARriba St: NM
 Settings: SETDATA_JCM
 Reservoir: DAKOTA
 Scenario: SJB-OP-PostAudit
 Operator: WPC

T I A L C A L C U L A T E D C O M B I N E D I N P U T D A T A I N I
 KEYWORD & -----

Ref. Code Beginning, Ending Rates Schedule Limit Method & value Ultimate
 @ End Pt. Init. Deff Init. Rate Final Rate -----

400 START 01/2008

401 GAS 68.00 5.00 M/D X YRS EXP 8.64
 274.961 11/2036 8.6400 2068. 152.

500 PRI/GAS 01/2007 5.617 6.487 6.677 5.957 #/M
 4/2007

501 " X 6.627 6.827 6.197 4.987 #/M
 8/2007

502 " X 4.587 5.117 6.057 6.497 #/M
 12/2007

503 " 01/2008 6.377 7.277 8.087 8.277 #/M
 4/2008

504 " X 9.427 9.846 11.356 7.637 #/M
 8/2008

505 " X 6.427 4.267 2.837 4.627 #/M
 12/2008

506 " 01/2009 4.827 3.107 2.687 2.617 #/M
 4/2009

507 " X 2.497 2.647 2.977 3.177 #/M
 8/2009

508 " X 2.467 3.417 4.257 4.679 #/M
 12/2009

509 " 01/2010 5.72 #/M
 1/2010

510 " 5.72 X \$/M TO LIFE PC 0.00
 11/2036 5.720 5.720

600 ATX 2.10 X % TO LIFE PC 0.00
 11/2036 0.021 0.021

601 STX/GAS 9.00 X % TO LIFE PC 0.00
 11/2036 0.090 0.090

602 OPC/T 750.00 X \$/M TO LIFE PC 0.00
 11/2036 750.000 750.000

705 LSE/WI 1.0000 D FRAC TO LIFE FLAT 0.00
 11/2036 1.000 1.000

720 NET/OIL 0.8650 D FRAC TO LIFE FLAT 0.00
 11/2036 0.865 0.865

Rosa Unit #184C DK economic output.txt

740 NET/GAS 0.8650 D FRAC TO LIFE FLAT 0.00
11/2036 0.865 0.865

OVERLAYS @ End Pt.	Beginning Init.	Ending Deff	Init.	Rate	Final	Rate	Schedule	Limit	Method & Value	Ultimate
-----------------------	--------------------	----------------	-------	------	-------	------	----------	-------	----------------	----------

901 S	92	S/95	X	FRAC	TO	LIFE	DIV	146.00		
11/2036										
903 S	/89	0.54	X	FRAC	TO	LIFE	MUL	92.00		
11/2036										
905 S	/89	1.20	X	FRAC	TO	LIFE	MUL	89.00		
11/2036										
907 S	/196	S/196	X	FRAC	TO	LIFE	MINUS	89.00		
11/2036										
909 S	/92	S/95	X	FRAC	TO	LIFE	DIV	146.00		
11/2036										
911 S	/88	0.06	X	FRAC	TO	LIFE	MUL	92.00		
11/2036										
913 S	/88	1.00	X	FRAC	TO	LIFE	MINUS	88.00		
11/2036										
915 S	/196	S/196	X	FRAC	TO	LIFE	MUL	88.00		
11/2036										

916 GAS 01/2007 0 0 0 0 0 0 0 0 0 0 0 2 0 0 222 810 #
21.463 4/2008
917 " X 772 880 447 1244 1119 0 0 609 1602 1481 1637 1630 #
32.884 4/2009
918 " X 755 1805 1800 1825 1789 1826 1764 #
44.448 11/2009

INVESTMENTS T&I	Tangible Month	Intang Risk Inv.	Units Tot. T&I&R	Esc.	Invest. Point T&I&R	Method & Value	Total
800 CAPITAL	174.36	697.44	M\$G	12/2007	AD	ESC INV	
871.799 12/2007	0	871.7		0.0			

MISCELLANEOUS DATA PARAMETERS

201 BTU	1.20					
202 WELLS	0.00	1.00				
203 CUMO, MB	0.00	CUMG, MMF	20.43		CUML, MB	
250 LOSS	NO					

PROJECT RUN SETTINGS

Base Date : 01/2000 Time Frames : 64*12
P.W. Date : 01/2007 Primary PW% : 10.0 Discount Freq. : MID
Report Date : 01/2007
Qualifiers : Prod = SJ_OP_POST Price = SJ_OP_POST Cost = SJ_OP_POST
Owner = SJ_OP_POST Title = BASE Misc = BASE Invest = SJ_OP_POST
Overlay = SJ_OP_POST
PropID: 22965 RSV CAT: 1PDP
DATE : 01/22/20
10
Well Name: ROSA UNIT #184C

Rosa Unit #184C DK economic output.txt
TIME : 08:47:43

Field: BASIN

DBS : SJB

Cnty: RIO ARRIBA St: NM

SETTINGS : SETDATA_JCM

Reservoir: DAKOTA

SCENARIO : SJB-OP-PostAudit

Operator: WPC

R E S E R V E S A N D E C O N O M I C

S

EFFECTIVE DATE: 01/2007

-----OPERATIONS, M\$-----				-----PRICES-----				
--END--	---GROSS PRODUCTION---		---NET PRODUCTION---		OIL	GAS	NO. OF	
OIL	GAS	OTHER	OIL, MBB	GAS, MMC				
MO-YEAR	OIL, MBBL	GAS, MMCF			\$/B	\$/M	WELLS	
REVENUE	REVENUE	REVENUE						
01-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
02-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
03-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
04-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
05-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
06-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
07-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
08-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
09-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
10-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
11-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
12-2007	0.000	0.002	0.000	0.000	0.00	0.000	1.0	
01-2008	0.000	0.000	0.000	0.000	0.00	0.000	1.0	
02-2008	0.000	0.000	0.000	0.000	0.00	0.000	1.0	
03-2008	0.000	0.222	0.000	0.192	0.00	8.318	1.0	
04-2008	0.000	0.810	0.000	0.701	0.00	8.530	1.0	
05-2008	0.000	0.772	0.000	0.668	0.00	9.813	1.0	
06-2008	0.000	0.880	0.000	0.761	0.00	10.280	1.0	
07-2008	0.000	0.447	0.000	0.387	0.00	11.964	1.0	
08-2008	0.000	1.244	0.000	1.076	0.00	7.816	1.0	

Rosa Unit #184C DK economic output.txt

0.000	8.411	0.000					
S TOT	0.000	4.377	0.000	3.784	0.00	9.245	1.0
0.000	34.988	0.000					
AFTER	0.000	227.916	0.000	197.147	0.00	5.448	1.0
0.000	1074.057	0.000					
TOTAL	0.000	232.293	0.000	200.932	0.00	5.520	1.0
0.000	1109.045	0.000					

-----OPERATIONS, M\$-----		-----CAPITAL	
COSTS, M\$	10.0%		
--END--	SEVERANCE	AD VAL	NET OPER
SALVAGE	TOTAL	CASH	FLOW CUM.
MO-YEAR	TAXES	TAXES	EXPENSES
VALUE	EQUITY INV	BTAX, M\$	BTAX, M\$
01-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
02-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
03-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
04-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
05-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
06-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
07-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
08-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
09-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
10-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
11-2007	0.000	0.000	0.000
0.000	0.000	0.000	0.000
12-2007	0.000	0.000	0.000
0.000	871.799	-871.799	-798.864
01-2008	0.000	0.000	0.750
0.000	0.000	-0.750	-799.544
02-2008	0.000	0.000	0.750
0.000	0.000	-0.750	-800.217
03-2008	0.144	0.031	0.750
0.000	0.000	0.673	-799.617
04-2008	0.538	0.114	0.750
0.000	0.000	4.575	-795.573
05-2008	0.590	0.125	0.750
0.000	0.000	5.088	-791.110
06-2008	0.704	0.150	0.750
0.000	0.000	6.221	-785.696
07-2008	0.416	0.088	0.750
0.000	0.000	3.371	-782.786
08-2008	0.757	0.161	0.750
0.000	0.000	6.743	-777.010
S TOT	3.149	0.669	6.000

0.000	871.799	Rosa Unit #184C DK economic output.txt	-846.628	-777.010		
AFTER	96.665	20.525	242.250	714.616	0.000	0.000
0.000	0.000	714.616	-445.876			
TOTAL	99.814	21.194	248.250	739.787	174.360	697.439
0.000	871.799	-132.012	-445.876			

PropID: 22965 RSV CAT: 1PDP
 DATE : 01/22/20
 10
 Well Name: ROSA UNIT #184C
 TIME : 08:47:43
 Field: BASIN
 DBS : SJB
 Cnty: RIO ARRIBA St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

AFTER TAX ECONOMICS

EFFECTIVE DATE: 01/2007

MO-YEAR	TAXABLE TAXES CASH FLOW PAYABLE	DEPRECIATION CASH FLOW ATAX	DEPLETION CUM. DISC ATAX	INTANG. EXPENSED	INTEREST PAID & CAP	TAXABLE INCOME	TAX CREDIT
	M\$	M\$	M\$	M\$	M\$	M\$	
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
12-2007	0.000	0.000	0.000	697.439	0.000	-697.439	
0.000	-244.104	-627.695	-576.069				
01-2008	-0.750	2.075	0.000	0.000	0.000	-2.825	
0.000	-0.989	0.239	-575.853				
02-2008	-0.750	2.075	0.000	0.000	0.000	-2.825	
0.000	-0.989	0.239	-575.638				
03-2008	0.673	2.075	0.000	0.000	0.000	-1.402	

Rosa Unit #184C DK economic output.txt						
0.000	-0.491	1.164	-574.601			
04-2008	4.575	2.075	0.000	0.000	0.000	2.500
0.000	0.875	3.700	-571.330			
05-2008	5.088	2.075	0.000	0.000	0.000	3.013
0.000	1.054	4.033	-567.792			
06-2008	6.221	2.075	0.000	0.000	0.000	4.146
0.000	1.451	4.770	-563.641			
07-2008	3.371	2.075	0.000	0.000	0.000	1.296
0.000	0.454	2.917	-561.123			
08-2008	6.743	2.075	0.000	0.000	0.000	4.668
0.000	1.634	5.109	-556.746			
09-2008	4.827	2.075	0.000	0.000	0.000	2.752
0.000	0.963	3.864	-553.463			
10-2008	-0.750	2.075	0.000	0.000	0.000	-2.825
0.000	-0.989	0.239	-553.262			
11-2008	-0.750	2.075	0.000	0.000	0.000	-2.825
0.000	-0.989	0.239	-553.062			
12-2008	1.343	2.075	0.000	0.000	0.000	-0.732
0.000	-0.256	1.599	-551.735			
12-2009	36.339	42.701	0.000	0.000	0.000	-6.362
0.000	-2.227	38.565	-521.346			
12-2010	77.683	30.496	0.000	0.000	0.000	47.187
0.000	16.516	61.167	-477.529			
12-2011	70.193	21.778	0.000	0.000	0.000	48.416
0.000	16.946	53.248	-442.853			
12-2012	63.351	15.570	0.000	0.000	0.000	47.781
0.000	16.723	46.628	-415.248			
12-2013	57.100	15.570	0.000	0.000	0.000	41.529
0.000	14.535	42.564	-392.340			
12-2014	51.389	15.570	0.000	0.000	0.000	35.818
0.000	12.536	38.852	-373.330			
S-TOT	385.895	166.584	0.000	697.439	0.000	-478.128
0.000	-167.345	-318.560	-373.330			
AFTER	353.892	7.776	0.000	0.000	0.000	346.116
0.000	121.141	232.752	-304.647			
TOTAL	739.787	174.360	0.000	697.439	0.000	-132.012
0.000	-46.204	-85.808	-304.647			

BTAX RATE OF RETURN (PCT)	0.00	ATAX RATE OF RETURN (PCT)	0.00
PRESENT WORTH PROFILE			
BTAX PAYOUT YEARS	28.58	ATAX PAY OUT YEARS	28.58
BTAX PAYOUT YEARS (DISC)	28.58	ATAX PAY OUT YEARS (DISC)	28.58
P.W. B.F.I.T. A.F.I.T.			
BTAX NET INCOME/INVEST	0.85	ATAX NET INCOME/INVEST	0.90
FACTOR WORTH WORTH			
BTAX NET INCOME/INVEST(DISC)	0.44	ATAX NET INCOME/INVEST(DISC)	0.62
%----- M\$----- M\$-----			
0.00 -132.0 -85.8			
PRODUCTION START DATE	01/2008	PROJECT LIFE (YEARS)	28.58
10.00 -445.9 -304.			
		DISCOUNT - RATE (PCT)	10.00
15.00 -500.5 -344.6			
17.00 -514.1 -354.8			
INITIAL OIL PRICE (\$/B)	0.000	INITIAL GAS PRICE (\$/M)	7.790
18.00 -519.6 -359.0			
MAXIMUM OIL PRICE (\$/B)	0.000	MAXIMUM GAS PRICE (\$/M)	5.679
20.00 -528.5 -366.0			

Rosa Unit #184C DK economic output.txt					
GROSS OIL WELLS			0.	GROSS GAS WELLS	1.
25.00	-541.6	-376.8			
30.00	-545.7	-381.2			
	CUMULATIVE OIL (MBBL)		0.000	CUMULATIVE GAS (MMF)	20.427
40.00	-539.7	-379.4			
	REMAINING OIL (MBBL)		0.000	REMAINING GAS (MMCF)	232.293
50.00	-524.8	-370.7			
	ULTIMATE OIL (MBBL)		0.000	ULTIMATE GAS (MMCF)	252.720
60.00	-506.4	-359.1			
70.00	-487.2	-346.6			
	INITIAL WI (PCT)		100.000	FINAL WI (PCT)	100.000
80.00	-468.2	-333.9			
	INITIAL NET OIL (PCT)		0.000	FINAL NET OIL (PCT)	0.000
90.00	-449.8	-321.6			
	INITIAL NET GAS (PCT)		9601.499	FINAL NET GAS (PCT)	86.500
100.00	-432.5	-309.8			

In Lieu of
Form 3160-4
(July 1992)

RECEIVED

NOV 21 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

(See other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

5. LEASE DESIGNATION AND LEASE NO.
NMSF-078773 ✓

6. IF INDIAN, ALLOTTEE OR

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
ROSA UNIT #184C

9. API WELL NO.
30-039-30143 - 0001

10. FIELD AND POOL, OR WILDCAT
BASIN DAKOTA

11. SEC., T., R., M., OR BLOCK AND
SURVEY OR AREA
NW/4 NE/4 SEC 34-31N-5W

12. COUNTY OR
RIO ARRIBA

13. STATE
NEW MEXICO

19. ELEVATION CASINGHEAD

ROTARY TOOLS
X

CABLE TOOLS

25. WAS DIRECTIONAL SURVEY MADE
YES

27. WAS WELL CORED
NO

1a. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION:
☒ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR
WILLIAMS PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6234
Bureau of Land Management
Farrington Field Office

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At Surface: 845' FNL & 2525' FEL ✓
At top production interval reported below:
At total depth:

14. PERMIT NO.

DATE ISSUED

18. ELEVATIONS (DK, RKB, RT, GR, ETC.)*

6776' GR

15. DATE
SPUDED
09/17/07

16. DATE T.D.
REACHED
10/03/07

17. DATE COMPLETED (READY TO PRODUCE)
11/05/07

20. TOTAL DEPTH, MD & TVD
8420' MD

21. PLUG, BACK T.D., MD & TVD

22. IF MULTICOMP.,
HOW MANY
2

23. INTERVALS
DRILLED BY

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*

BASIN DAKOTA 8298' - 8392'

26. TYPE ELECTRIC AND OTHER LOGS RUN

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
10 3/4", K-55	40.5#	325'	14 3/4"	298 SX - SURFACE	
7 7/8", J-55	26.4#	4092'	9 7/8"	850 SX - SURFACE	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
5 1/2", 17#, N-80	0'	8418'	205 SX		2-1/16", J-55, 3.25#	8376'	6390' ✓

31. PERFORATION RECORD (Interval, size, and number)

DAKOTA: 8298' - 8392'. Total of 90, 0.38" holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL
(MD)

8298' - 8292'

AMOUNT AND KIND OF MATERIAL USED

Fracced w/ 10,000# Lite Prop 108, followed w/ 3300# SB Excel
20/40.

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump)				WELL STATUS (PRODUCING OR SI)	
		Flowing				SI - Waiting for C-104 approval	
DATE OF TEST	TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF	WATER - BBL.	GAS-OIL RATIO
10/24/07	1 hr	2"			175		
FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL - BBL.	GAS - MCF	WATER - BBL.	OIL GRAVITY-API (CORR.)
0	1.5						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): TO BE SOLD

TEST WITNESSED BY: AJ Rector

35. LIST OF ATTACHMENTS: SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Tracy Rose TITLE Sr. Production Analyst DATE November 12, 2007

OPERATOR

T. Salyers

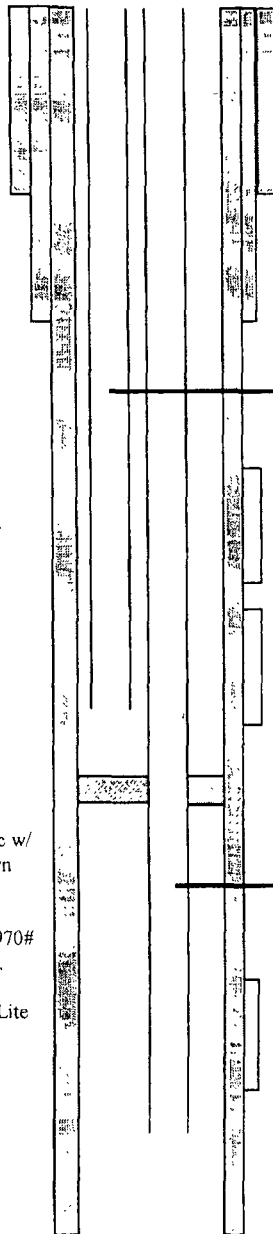
ROSA UNIT #184C
BLANCO MV/BASIN DK

Spud Date: 09-17-07
Completed: 11-05-07
1st Delivered: 11-00-07 MV
11-00-07 DK

Location:
845' FNL & 2525' FEL
NW/4 NE/4 Section 34(B), T31N, R05W
Rio Arriba Co., NM

Elevation: 6776' GR 6792' KB
API #: 30-039-30143

<u>Tops</u>	<u>Depth</u>
Fruitland	3387'
Pictured Cliffs	3769'
Cliff House	5834'
Menefee	5878'
Point Lookout	6090'
Mancos	6542'
Dakota	8297'



7 jts of 10 3/4", 40.5#, K-55, ST&C csg. Set @ 325'.

89 jts of 7-5/8", 26.4#, J-55, LT&C csg. Set @ 4092'.

Mesaverde Tubing: 198 jts 2-1/16", 3.25#, J-55 tbg landed @ 6327' as follows: orange peeled perf sub, 1 50" SN @ 6323' & 198 jts tbg.

5618'

5950'

6021'

6334'

Arrow model "B" packer @ 6390'

CliffHouse/Menefee 5618' - 5950' (53, 0 38" holes) Frac w/ 9970# 14/30 LiteProp 125 followed w/ 3030# 20/40 brown sand

Point Lookout 6021' - 6334' (55, 0.38" holes) Frac w/ 9970# 14/30 LiteProp 125 followed w/ 3030# 20/40 brown sand.

Dakota 8298' - 8392' (90, 0 38" holes) Frac w/ 10,000# Lite Prop 108 followed w/ 3300# SB Excel 20/40.

Dakota Tubing: 262 jts 2-1/16", 3.25#, J-55 tbg landed @ 8376' as follows. 3' mule shoe sub, 1 50" SN, 62 jts tbg, 6' & 2' subs, 2.688" seal assembly, 199 jts tbg, 8', 6' & 6' subs & 1 jt tbg.

8298'

8392'

188 jts of 5-1/2", 17#, N-80, LT&C csg. Set @ 8418'.

TD @ 8420'
PBD @ 8395'

<u>HOLE SIZE</u>	<u>CASING</u>	<u>CEMENT</u>	<u>CU. FT.</u>	<u>CMT TOP</u>
14 3/4"	10 3/4", 40.5#	298 sxs	420 cu.ft.	surface
9 7/8"	7 5/8", 26.4#	850 sxs	1715 cu.ft.	surface
6 3/4"	5 1/2", 17#	205 sxs	431 cu.ft.	4230'

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 & Natural Resources

Form C-104
Revised June 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address WILLIAMS PRODUCTION COMPANY P O BOX 3102, MS 25-2 TULSA OK 74101		² OGRID Number 120782
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 039-30143	⁵ Pool Name BASIN DAKOTA NSL-5658	⁶ Pool Code 71599
⁷ Property Code 17033	⁸ Property Name ROSA UNIT	⁹ Well Number 184C

II. ¹⁰ Surface Location

UL or lot no. B	Section 34	Township 31N	Range 5W	Lot Idn	Feet from the 845'	North/South Line NORTH	Feet from the 2525'	East/West line EAST	County Rio Arriba
--------------------	---------------	-----------------	-------------	---------	-----------------------	---------------------------	------------------------	------------------------	----------------------

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
009018	GIANT REFINING P O BOX 12999 SCOTTSDALE AZ 85267	O
025244	WILLIAMS FIELD SERVICES P O BOX 645 TULSA OK 74102	G
	RCVD NOV 15 '07	

IV. Well Completion Data

OIL CONS. DIV.

²¹ Spud Date 09/17/07	²² Ready Date 11/05/07	²³ TD 8420'	²⁴ PBDT	²⁵ Perforations 8298' - 8392'	²⁶ DHC MC DIST. 3
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
14 3/4"	10 3/4", 40.5#, K-55	325'	298		
9 7/8"	7 5/8", 26.4#, J-55	4092'	850		
6 3/4"	5 1/2", 17#, N-80	8418'	205		
	2-1/16", 3.25#, J-55	8376'	Prk set @ 6390'		

VI. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date 10/24/07	³⁴ Test Length 1 hr	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 1.5
³⁷ Choke Size 2"	³⁸ Oil	³⁹ Water	⁴⁰ Gas 175		⁴¹ Test Method Pitot
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: Tracy Ross			11/20/07 OIL CONSERVATION DIVISION		
Printed name: Tracy Ross			Approved by: Charles 11-21-07		
Title: Sr. Production Analyst			Title: SUPERVISOR DISTRICT # 3		
E-mail Address: Tracy.ross@williams.com			Approval Date: NOV 21 2007		
Date: 11/12/07			File PLT by Dec. 15, '07 Bum approval		
Phone: 918-573-6254					

8

January 21, 2010

The Rosa Unit #022B Dakota Well (non-commercial) is located 0990 feet from the North Line and 1330 feet from the East Line, Section 18 Township 31 North, Range 05 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on October 2007, and completed in the Dakota formation on December 2, 2007. The Dakota formation was completed with a pre-perforated liner between the following depths: 8206' to 8282'. This well has a 2 1/16" tubing string. This well was shut in with a SICP of 0 psig. On November 19, 2007 the well was tested and after flowing for 1 hour through a 2" choke on the 2 1/16" tubing, the well gauged 158 MCFD.

Based on the historic and projected production, the lease operating expenses, and the gas price, this well is expected to have a Before Tax Rate of Return (BTAXROR) of 0% and is therefore determined (non-)commercial.

Attached to this document are the following:

- ARIES economic model output including gas price assumptions
- Historic production plot with forecast
- Well-bore schematic
- State of NM Form C-104
- BLM Form 1004-0137 (Well Completion Report)

Evaluating Engineer

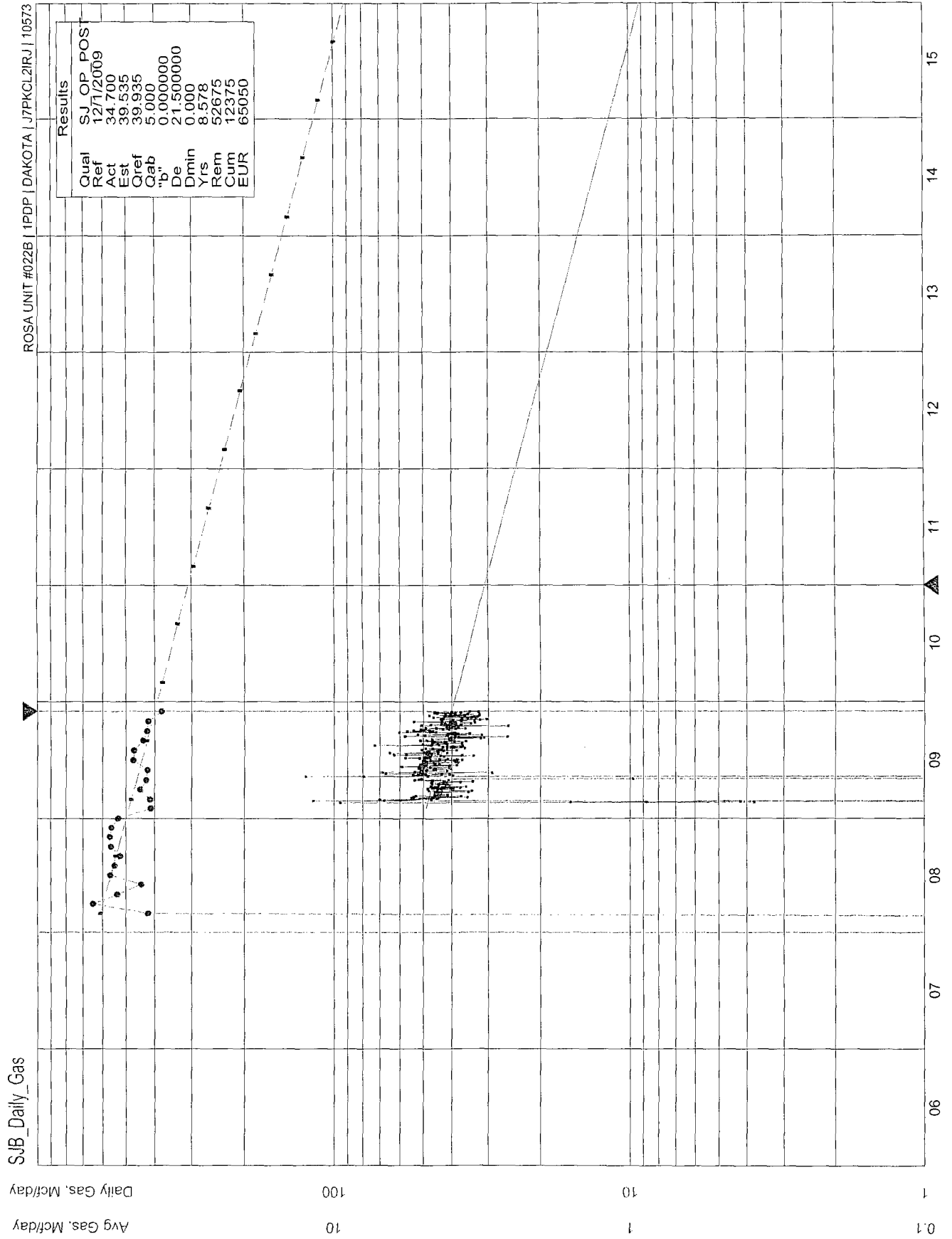
Marcia Brueggenjohann
Manager, Reservoir Engineering
Williams Exploration and Production, San Juan Basin Unit

Avg Water, Bbl/day

1000

100

10



Rosa Unit #22B DK economic output.txt

PropID: 10573 RSV CAT: 1PDP
 Date: 01/22/2010
 Well Name: ROSA UNIT #022B
 Time: 10:21:03
 Field: BASIN
 DBS: SJB
 Cnty: RIO ARriba St: NM
 Settings: SETDATA_JCM
 Reservoir: DAKOTA
 Scenario: SJB-OP-PostAudit
 Operator: WPC

T I A L C A L C U L A T E D D A T A I N I
 KEYWORD & -----

Ref. Code Beginning, Ending Rates Schedule Limit Method & Value Ultimate
 @ End Pt. Init. Deff Init. Rate Final Rate

400 START 03/2008

401 GAS 61.00 5.00 M/D X YRS EXP 21.50
 134.581 6/2018 21.5000 1855. 152.

500 PRI/GAS 01/2007 5.617 6.487 6.677 5.957 #/M
 4/2007

501 " X 6.627 6.827 6.197 4.987 #/M
 8/2007

502 " X 4.587 5.117 6.057 6.497 #/M
 12/2007

503 " 01/2008 6.377 7.277 8.087 8.277 #/M
 4/2008

504 " X 9.427 9.846 11.356 7.637 #/M
 8/2008

505 " X 6.427 4.267 2.837 4.627 #/M
 12/2008

506 " 01/2009 4.827 3.107 2.687 2.617 #/M
 4/2009

507 " X 2.497 2.647 2.977 3.177 #/M
 8/2009

508 " X 2.467 3.417 4.257 4.679 #/M
 12/2009

509 " 01/2010 5.72 #/M
 1/2010

510 " 5.72 X \$/M TO LIFE PC 0.00
 6/2018 5.720 5.720

600 ATX 2.10 X % TO LIFE PC 0.00
 6/2018 0.021 0.021

601 STX/GAS 9.00 X % TO LIFE PC 0.00
 6/2018 0.090 0.090

602 OPC/T 550.00 X \$/M TO LIFE PC 0.00
 6/2018 550.000 550.000

705 LSE/WI 1.0000 D FRAC TO LIFE FLAT 0.00
 6/2018 1.000 1.000

720 NET/OIL 0.8650 D FRAC TO LIFE FLAT 0.00
 6/2018 0.865 0.865

Rosa Unit #22B DK economic output.txt
 740 NET/GAS 0.8650 D FRAC TO LIFE FLAT 0.00
 6/2018 0.865 0.865

OVERLAYS @ End Pt.	Beginning Init.	Ending Deff	Rates Init. Rate	Schedule Final Rate	Limit	Method & Value	Ultimate
-----------------------	--------------------	----------------	---------------------	------------------------	-------	----------------	----------

901 S 92 6/2018	S/95	X	FRAC	TO	LIFE	DIV 146.00	
903 S /89 6/2018	0.42	X	FRAC	TO	LIFE	MUL 92.00	
905 S /89 6/2018	0.99	X	FRAC	TO	LIFE	MUL 89.00	
907 S /196 6/2018	S/196	X	FRAC	TO	LIFE	MINUS 89.00	
909 S /88 6/2018	0.07	X	FRAC	TO	LIFE	MUL 92.00	
911 S /88 6/2018	1.00	X	FRAC	TO	LIFE	MINUS 88.00	
913 S /196 6/2018	S/196	X	FRAC	TO	LIFE	MUL 88.00	

914 GAS 01/2007 0 0 0 0 0 0 0 0 0 0 0 1 0 1218 2003 1602 #
 54.967 4/2008
 915 " X 1373 1694 1690 1618 1687 1754 1675 1645 1275 1157 #
 70.535 2/2009
 916 " X 1386 1280 1307 1413 1456 1355 1269 1302 1135 #
 82.438 11/2009

INVESTMENTS T&I Month	Tangible Risk Inv.	Intang Tot. T&I&R	Units Esc.	Invest. Point T&I&R	Method & Value	Total
800 CAPITAL 1043.441 3/2008	208.69 0	834.75 M\$G 1043.4		03/2008 AD 0.0	ESC INV	

MISCELLANEOUS DATA PARAMETERS

201 BTU	0.99			
202 WELLS	0.00	1.00		
203 CUMO, MB	0.00	CUMG, MMF	50.14	CUML, MB
250 LOSS	NO			

PROJECT RUN SETTINGS

Base Date : 01/2000 Time Frames : 64*12
 P.W. Date : 01/2007 Primary PW% : 10.0 Discount Freq. : MID
 Report Date : 01/2007
 Qualifiers : Prod = SJ_OP_POST Price = SJ_OP_POST Cost = SJ_OP_POST
 Owner = SJ_OP_POST Title = BASE Misc = BASE Invest = SJ_OP_POST
 Overlay = SJ_OP_POST
 PropID: 10573 RSV CAT: 1PDP
 DATE : 01/22/20
 10
 Well Name: ROSA UNIT #022B
 TIME : 10:21:03
 Field: BASIN

Rosa Unit #22B DK economic output.txt

DBS : SJB
 Cnty: RIO ARriba St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

R E S E R V E S A N D E C O N O M I C

S

EFFECTIVE DATE: 01/2007

-----OPERATIONS, M\$-----						-----PRICES-----		
---END---	---GROSS PRODUCTION---		---NET PRODUCTION---		OIL	GAS	NO. OF	
OIL	GAS	OTHER	OIL	MBB	GAS	MMC	WELLS	
MO-YEAR	OIL, MBBL	GAS, MMCF	OIL, MBB	GAS, MMC	\$/B	\$/M		
REVENUE	REVENUE	REVENUE						
-----	-----	-----	-----	-----	-----	-----	-----	
01-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
02-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
03-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
04-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
05-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
06-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
07-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
08-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
09-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
10-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
11-2007	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
12-2007	0.000	0.001	0.000	0.000	0.00	0.000	1.0	
0.000	0.000	0.000						
01-2008	0.000	0.000	0.000	0.000	0.00	0.000	0.0	
0.000	0.000	0.000						
02-2008	0.000	1.218	0.000	0.000	0.00	0.000	1.0	
0.000	0.000	0.000						
03-2008	0.000	2.003	0.000	1.733	0.00	6.884	1.0	
0.000	11.926	0.000						
04-2008	0.000	1.602	0.000	1.386	0.00	7.056	1.0	
0.000	9.777	0.000						
05-2008	0.000	1.373	0.000	1.188	0.00	8.096	1.0	
0.000	9.616	0.000						
06-2008	0.000	1.694	0.000	1.465	0.00	8.476	1.0	
0.000	12.419	0.000						
07-2008	0.000	1.690	0.000	1.462	0.00	9.842	1.0	
0.000	14.388	0.000						
08-2008	0.000	1.618	0.000	1.400	0.00	6.476	1.0	
0.000	9.064	0.000						

Rosa Unit #22B DK economic output.txt

S TOT	0.000	11.199	0.000	8.633	0.00	7.783	1.0
0.000	67.190	0.000					

AFTER	0.000	73.771	0.000	63.812	0.00	4.173	1.0
0.000	266.261	0.000					

TOTAL	0.000	84.970	0.000	72.445	0.00	4.603	1.0
0.000	333.451	0.000					

-----OPERATIONS, M\$-----				-----CAPITAL		
COSTS, M\$-----				10.0%		
SEVERANCE	AD VAL	NET OPER	OPERATION	TANGIBLE	INTANG.	
TOTAL	CASH	FLOW CUM.	DISC			
MO-YEAR	TAXES	EXPENSES	CASH FLOW	INV.	INV.	
VALUE	EQUITY INV	BTAX, M\$	BTAX, M\$			
01-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
02-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
03-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
04-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
05-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
06-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
07-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
08-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
09-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
10-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
11-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
12-2007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
01-2008	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
02-2008	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000			
03-2008	1.073	0.228	0.550	10.075	208.688	834.753
0.000	1043.441	-1033.366	-924.654			
04-2008	0.880	0.187	0.550	8.160	0.000	0.000
0.000	0.000	8.160	-917.439			
05-2008	0.865	0.184	0.550	8.016	0.000	0.000
0.000	0.000	8.016	-910.408			
06-2008	1.118	0.237	0.550	10.514	0.000	0.000
0.000	0.000	10.514	-901.258			
07-2008	1.295	0.275	0.550	12.268	0.000	0.000
0.000	0.000	12.268	-890.666			
08-2008	0.816	0.173	0.550	7.525	0.000	0.000
0.000	0.000	7.525	-884.221			
S TOT	6.047	1.284	3.300	56.559	208.688	834.753
0.000	1043.441	-986.882	-884.221			

			Rosa Unit #22B DK economic output.txt			
AFTER	23.963	5.088	64.900	172.309	0.000	0.000
0.000	0.000	172.309	-771.026			
TOTAL	30.011	6.372	68.200	228.868	208.688	834.753
0.000	1043.441	-814.573	-771.026			

PropID: 10573 RSV CAT: 1PDP
 DATE : 01/22/20
 10
 Well Name: ROSA UNIT #022B
 TIME : 10:21:03
 Field: BASIN
 DBS : SJB
 Cnty: RIO ARRIBA St: NM
 SETTINGS : SETDATA_JCM
 Reservoir: DAKOTA
 SCENARIO : SJB-OP-PostAudit
 Operator: WPC

AFTER TAX ECONOMICS

EFFECTIVE DATE: 01/2007

	10.0%						
--END--	TAXABLE	DEPRECIATION	DEPLETION	INTANG.	INTEREST	TAXABLE	TAX
TAXES	CASH FLOW	CUM. DISC					
MO-YEAR	CASH FLOW	ATAX	ATAX	EXPENSED	PAID & CAP	INCOME	CREDIT
PAYABLE	ATAX	ATAX					
M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----	M\$-----
01-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
02-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
03-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
04-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
05-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
06-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
07-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
08-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
09-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
10-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
11-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
12-2007	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
01-2008	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
02-2008	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000				
03-2008	10.075	2.980	0.000	834.753	0.000	-827.658	
0.000	-289.680	-743.686	-666.486				
04-2008	8.160	2.980	0.000	0.000	0.000	5.180	

Rosa Unit #22B DK economic output.txt

0.000	1.813	6.347	-660.874			
05-2008	8.016	2.980	0.000	0.000	0.000	5.036
0.000	1.763	6.254	-655.389			
06-2008	10.514	2.980	0.000	0.000	0.000	7.534
0.000	2.637	7.877	-648.534			
07-2008	12.268	2.980	0.000	0.000	0.000	9.288
0.000	3.251	9.017	-640.749			
08-2008	7.525	2.980	0.000	0.000	0.000	4.545
0.000	1.591	5.934	-635.666			
09-2008	6.446	2.980	0.000	0.000	0.000	3.466
0.000	1.213	5.233	-631.219			
10-2008	4.081	2.980	0.000	0.000	0.000	1.101
0.000	0.385	3.696	-628.104			
11-2008	2.202	2.980	0.000	0.000	0.000	-0.778
0.000	-0.272	2.474	-626.034			
12-2008	4.206	2.980	0.000	0.000	0.000	1.226
0.000	0.429	3.777	-622.900			
12-2009	23.408	51.108	0.000	0.000	0.000	-27.700
0.000	-9.695	33.103	-596.816			
12-2010	39.757	36.500	0.000	0.000	0.000	3.257
0.000	1.140	38.617	-569.153			
12-2011	29.790	26.065	0.000	0.000	0.000	3.725
0.000	1.304	28.486	-550.602			
12-2012	21.966	18.636	0.000	0.000	0.000	3.330
0.000	1.166	20.801	-538.287			
12-2013	15.824	18.636	0.000	0.000	0.000	-2.811
0.000	-0.984	16.808	-529.241			
12-2014	11.003	18.636	0.000	0.000	0.000	-7.633
0.000	-2.671	13.675	-522.550			
S-TOT	215.242	199.381	0.000	834.753	0.000	-818.891
0.000	-286.612	-541.587	-522.550			
AFTER	13.626	9.308	0.000	0.000	0.000	4.318
0.000	1.511	12.114	-517.386			
TOTAL	228.868	208.688	0.000	834.753	0.000	-814.573
0.000	-285.101	-529.472	-517.386			

BTAX RATE OF RETURN (PCT)	0.00	ATAX RATE OF RETURN (PCT)	0.00
PRESENT WORTH PROFILE			
BTAX PAYOUT YEARS	11.50	ATAX PAY OUT YEARS	11.50
BTAX PAYOUT YEARS (DISC)	11.50	ATAX PAY OUT YEARS (DISC)	11.50
P.W. B.F.I.T. A.F.I.T.			
BTAX NET INCOME/INVEST	0.22	ATAX NET INCOME/INVEST	0.49
FACTOR WORTH WORTH			
BTAX NET INCOME/INVEST(DISC)	0.17	ATAX NET INCOME/INVEST(DISC)	0.45
%----- M\$----- M\$-----			
0.00 -814.6 -529.5			
PRODUCTION START DATE	03/2008	PROJECT LIFE (YEARS)	11.50
10.00 -771.0 -517.			
		DISCOUNT - RATE (PCT)	10.00
15.00 -745.9 -505.7			
17.00 -735.7 -500.5			
INITIAL OIL PRICE (\$/B)	0.000	INITIAL GAS PRICE (\$/M)	6.400
18.00 -730.6 -497.9			
MAXIMUM OIL PRICE (\$/B)	0.000	MAXIMUM GAS PRICE (\$/M)	4.741
20.00 -720.4 -492.4			
GROSS OIL WELLS	0.	GROSS GAS WELLS	1.
25.00 -695.2 -478.3			

Rosa Unit #22B DK economic output.txt

30.00	-670.7	-464.0			
	CUMULATIVE OIL (MBBL)		0.000	CUMULATIVE GAS (MMF)	48.924
40.00	-624.7	-435.8			
	REMAINING OIL (MBBL)		0.000	REMAINING GAS (MMCF)	84.970
50.00	-582.9	-409.3			
	ULTIMATE OIL (MBBL)		0.000	ULTIMATE GAS (MMCF)	133.894
60.00	-545.3	-384.8			
70.00	-511.5	-362.4			
	INITIAL WI (PCT)	100.000		FINAL WI (PCT)	100.000
80.00	-481.1	-342.0			
	INITIAL NET OIL (PCT)	0.000		FINAL NET OIL (PCT)	0.000
90.00	-453.7	-323.5			
	INITIAL NET GAS (PCT)	173259.484		FINAL NET GAS (PCT)	86.500
100.00	-429.0	-306.6			

O: TE
C: RU
C: W

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

(See other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

5. LEASE DESIGNATION AND LEASE NO.
NMSF-078764

6. IF INDIAN, ALLOTTEE OR

7. UNIT AGREEMENT NAME

8. LAND OR LEASE NAME, WELL NO.
ROSA UNIT #22B

9. API WELL NO.

30-039-30244-0101

10. FIELD AND POOL, OR WILDCAT
BASIN DAKOTA

11. SEC., T., R., M., OR BLOCK AND
SURVEY OR AREA
NW/4 NE/4 SEC 18-31N-5W

12. COUNTY OR
RIO ARRIBA

13. STATE
NEW MEXICO

19. ELEVATION CASINGHEAD

25. WAS DIRECTIONAL SURVEY MADE
YES

27. WAS WELL CORED
NO

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION:
☒ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR. ☐ OTHER

2. NAME OF OPERATOR

WILLIAMS PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6254

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At Surface: 990' FNL & 1330' FEL

At top production interval reported below :

At total depth: 1010' FNL & 2456' FEL

14. PERMIT NO.

DATE ISSUED

18. ELEVATIONS (DK, RKB, RT, GR, ETC.)*
6465' GR

15. DATE
SPUDDED
10/10/07

16. DATE T.D.
REACHED
10/26/07

17. DATE COMPLETED (READY TO PRODUCE)
12/02/07

20. TOTAL DEPTH, MD & TVD
8300' MD

21. PLUG, BACK T.D., MD & TVD

22. IF MULTICOMP.,
HOW MANY
2

23. INTERVALS
DRILLED BY

ROTARY TOOLS
x

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*

26. TYPE ELECTRIC AND OTHER LOGS RUN

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
10 3/4", K-55	40.5#	328'	14 3/4"	265 SX - SURFACE	
7 3/4", K-55	26.4#	3989'	9 1/4"	900 SX - SURFACE	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
5 1/2", 17#, N-80	0'	8298'	220 SX		2-1/16", J-55, 3.25#	8271'	6365'

31. PERFORATION RECORD (Interval, size, and number)

Dakota: 8206' - 8282'. Total of 51, 0.34" holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED

8206' - 8282'

Fraced w/ 9900# Lite Prop 108 & 3000# SB-Excel

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump)				WELL STATUS (PRODUCING OR SI)	
		Flowing				SI - waiting on C-104 approval	
DATE OF TEST	TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL	GAS - MCF	WATER - BBL	GAS-OIL RATIO
11/19/07	1 hrs	2"			158		
FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL - BBL	GAS - MCF	WATER - BBL	OIL GRAVITY-API (CORR.)
0	5						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): TO BE SOLD

TEST WITNESSED BY: Ellis King

35. LIST OF ATTACHMENTS: SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Tracy Ross TITLE Sr. Production Analyst DATE December 6, 2007

OPERATOR

T. Salves

**ROSA UNIT #22B
BLANCO MV/BASIN DK**

Spud: 10/10/07

Completed: 12/03/07

1st Delivery: 12/00/07

Surface Location:

990' FNL and 1330' FEL
NW/4 NE/4 Sec 18(B), T31N, R05W
Rio Arriba, NM

Bottom Hole Location:

1010' FNL and 2456' FEL
NW/4 NE/4 Sec 18(B), T31N, R05W
Rio Arriba, NM

Elevation: 6465' GR
API # 30-039-30244

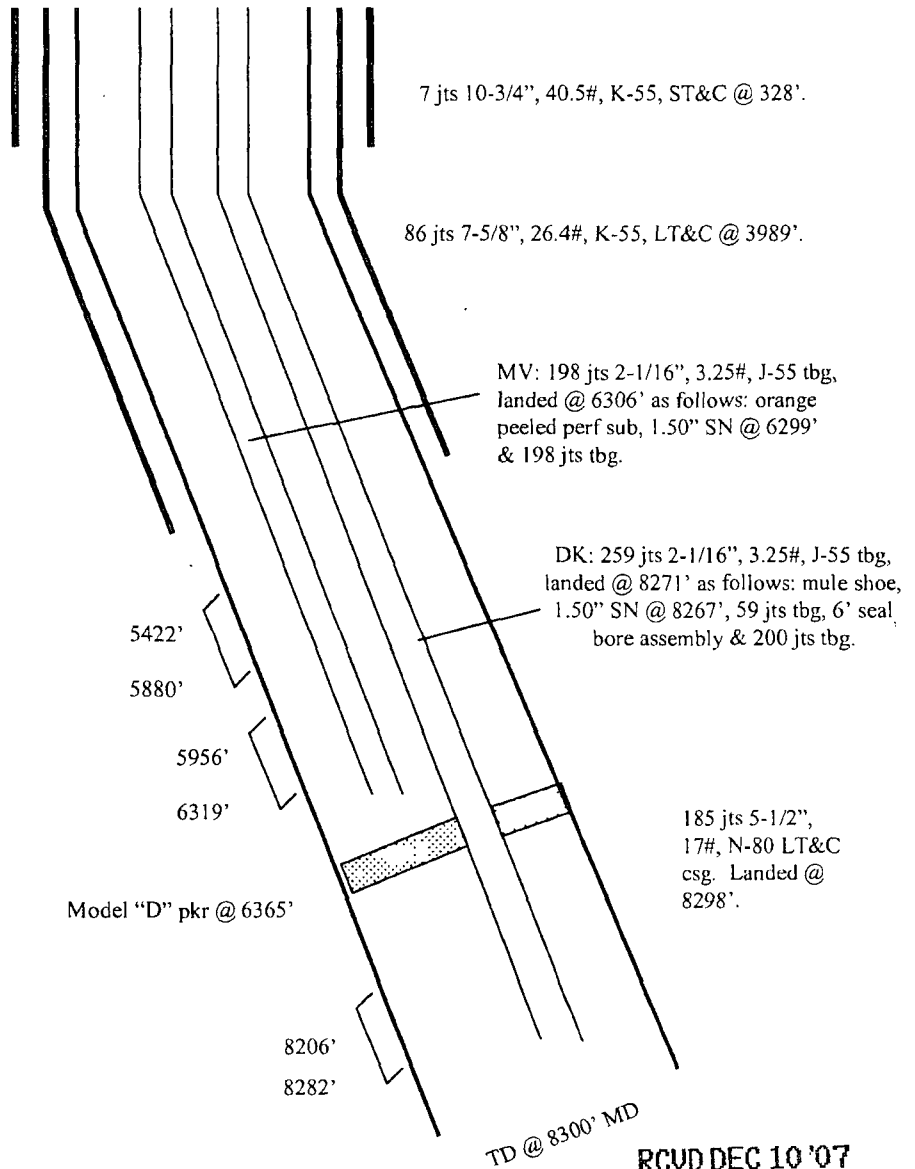
Top	MD Depth
Pictured Cliffs	3671'
Lewis	3792'
Cliffhouse Ss.	5694'
Menefee	5743'
Point Lookout	5955'
Mancos	6462'
Dakota	8206'

Stimulation:

Cliffhouse/Menefee: 5422' - 5880' (57, 0.34" holes) Frac with 9900# 14/30 LiteProp 125 followed w/ 2000# 20/40 brown sand.

Point Lookout: 5956' - 6319' (55, 0.34" holes) Frac with 9900# 14/30 LiteProp 125 followed w/ 2000# brown sand.

Dakota: 8206' - 8282' (51, 0.34" holes) Frac with 9900# Lite Prop 108 & 3000# SB-Excel.



**RCVD DEC 10 '07
OIL CONS. DIV.
DIST. 3**

Hole Size	Casing	Cement	Volume	Top of Cmt
14-3/4"	10-3/4", 40.5#	265 sxs	371 cu.ft.	Surface
9-7/8"	7-5/8", 26.4#	900 sxs	1820 cu.ft.	Surface
6-3/4"	5-1/2", 17#	220 sxs	462 cu.ft.	3680'

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 & Natural Resources

Form C-104
Revised June 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address WILLIAMS PRODUCTION COMPANY P O BOX 3102, MS 25-2 TULSA OK 74101		² OGRID Number 120782
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 039-30244	⁵ Pool Name BASIN DAKOTA	⁶ Pool Code 71599
⁷ Property Code 17033	⁸ Property Name ROSA UNIT	⁹ Well Number 22B

II. ¹⁰ Surface Location

UL or lot no. B	Section 18	Township 31N	Range 5W	Lot.Idn	Feet from the 990'	North/South Line NORTH	Feet from the 1330'	East/West line EAST	County Rio Arriba
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¹¹ Bottom Hole Location

UL or lot no. B	Section 18	Township 31N	Range 5W	Lot Idn	Feet from the 1010'	North/South line NORTH	Feet from the 2456'	East/West line EAST	County Rio Arriba
¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
009018	GIANT REFINING P O BOX 12999 SCOTTSDALE AZ 85267	O
025244	WILLIAMS FIELD SERVICES P O BOX 645 TULSA OK 74102	G
	RCVD	
	OIL CONS. DIV.	

IV. Well Completion Data

²¹ Spud Date 10/10/07	²² Ready Date 12/02/07	²³ TD 8300'	²⁴ PBTB	²⁵ Perforations 8206' - 8282'	²⁶ DHC, MC MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
14 3/4"	10 3/4", 40.5#, K-55	328'	265		
9 5/8"	7 5/8", 26.4#, K-55	3989'	900		
6 3/4"	5 1/2", 17#, N-80	8298'	220		
	2-1/16", 3.25#, J-55	8271'	Pkr set @ 6365'		

VI. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date 11/19/07	³⁴ Test Length 1 hrs	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 5
³⁷ Choke Size 2"	³⁸ Oil	³⁹ Water	⁴⁰ Gas 158		⁴¹ Test Method Pitot

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: Tracy Ross		12/21/07 OIL CONSERVATION DIVISION	
Printed name: Tracy Ross		Approved by: <i>Charles Ross</i> 12-24-07	
Title: Sr. Production Analyst		Title: SUPERVISOR DISTRICT # 3	
E-mail Address: Tracy.ross@williams.com		Approval Date: DEC 24 2007	
Date: 12/06/07	Phone: 918-573-6254	<i>ben appal</i>	

File pkr lbg test by 1/20/08

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