

Form 1000-7  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED  
OMB NO. 1004-0137  
Expires: November 30, 2000

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry Other

b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☒ Plug Back ☐ Diff. Resvr. 15

Other \_\_\_\_\_

2. Name of Operator

ConocoPhillips Company

3. Address

5525 Highway 64 Farmington NM 87401

3.a Phone No. (Include area code)

(505)599-3419

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*

At Surface NWSE 1700 FSL 1500 FEL SEC 21 T30N R5W

At top prod. interval reported below

At total depth

14. Date Spudded

08/15/2004

15. Date T.D. Reached

10/02/2004

16. Date Completed

☐ D & A ☒ Ready to Prod.

10/07/2004

5. Lease Serial No.

NMSF078739

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and no.

NMNM 78419D

8. Lease Name and Well No.

SAN JUAN 30-5 UNIT 229A

9. API Well No.

30-039-27773

10. Field and Pool, or Exploratory

BASIN FRUITLAND COAL

11. Sec., T., R., M., on Block and

Survey or Area J Sec: 21 Twn: 30N

12. County or Parish

RIO ARRIBA

13. State

NM

17. Elevations (DF, RKB, RT, GL)\*

6401 GL

18. Total Depth: MD 3215

TVD 3215

19. Plug Back T.D.: MD 3214

TVD 3214

20. Depth Bridge Plug Set: MD

TVD

21. Type of Electric & Other Mechanical Logs Run (Submit copy of each)

Mud Logs

22. Was well cored? ☒ No ☐ Yes (Submit analysis)

Was DST run? ☒ No ☐ Yes (Submit analysis)

Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.25	9.625	32.3	0	243		150		0	5 bbls
8.75	7.0 J-55	20.0	0	2995		485		0	20 BBLS
6.25	5.5 J-55	15.5	2941	3215		0			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	3199							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Basin Fruitland Coal	3028	3138	3028-3138	.75	180	Open
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval

Amount and Type of Material

Underrammed 6.25" hole to 9.5" from 3000' to 3215'. Well was not cavitated.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/07/04	10/06/04	1	→	0	970	0			Gas Pumping Unit
Choice Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
2" Pitot	n/a	2.5	→					Gas Well Shut-in	

Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ACCEPTED FOR RECORD

OCT 26 2004

FARMINGTON FIELD OFFICE  
BY JB

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	

## 29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones or porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Nacimiento	1349				
Ojo Alamo	2449				
Kirtland	2649				
Fruitland	2924				

## 32. Additional remarks (include plugging procedure):

This well is a single well producing from the Basin Fruitland Coal. Attached is the Wellbore Schematic, Daily Summaries, and comments from engineer.

## 33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)    2. Geological Report    3. DST Report    4. Directional Survey  
5. Sundry Notice for plugging and cement verification    6. Core Analysis    7. Other

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Juanita FarrellTitle Regulatory Analyst

Signature

Juanita Farrell

Date

10/18/2004

Title 18 U.S.C. Section 101 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States and false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## Farrell, Juanita R

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**From:** Moore, Steven O.  
**Sent:** Tuesday, October 12, 2004 8:59 AM  
**To:** Farrell, Juanita R  
**Subject:** Comments for Completion Report for San Juan 30-5 # 229A

Juanita,

Please include the following in the Completion Report for San Juan 30-5 # 229A

On Friday, 1-Oct-2004, we drilled out of the 7" intermediate casing shoe and drilled through the Fruitland Coal and Picture Cliffs formation to the authorized TD of 3215' MD RKB. We found the bottom of the lowest coal at 3138' MD RKB.

While drilling the rat hole / sump hole (per the approved program) we lost circulation while drilling at 3200' MD RKB. We continued to drill to approved TD of 3215' MD RKB and regained circulation. We circulated out several slugs of water - and the formation cuttings circulated to surface indicated that we had drilled into a water bearing sand at approximately 3200' MD RKB. Our observations after regaining circulation were that the well was making water at a rate of approximately ½ bbl per minute (or approximately 500 bbls water per day), and it appeared to us that the water was coming from the bottom 15 ft of the hole.

Therefore, because of these observations, we felt that we might need to plug back part of the sump hole / rat hole to shut off the water influx from the bottom of the hole. Steve Moore, ConocoPhillips Company, contacted Jim Lovato, BLM, Adrienne Brumley, BLM, and Charlie Perrin, NMOCD and proposed a plan to plug back part of the rat hole / sump hole to shut off the water. Permission was given for the proposed plan - however, approximately 2 hrs after the initial influx of water was observed, the water rate dropped off to approximately 1 gallon per 40 minutes (approximately 0.85 bbls water per day), thus eliminating the need to plug back the rat hole / sump hole.

We performed a flow test and a shut-in pressure build up test – and released the shut in pressure as a natural surge. We underreamed the 6-1/4" hole and obtained a post-underreamed flow test and shut-in pressure build up test. Both of the flow tests were dry – no observable mist or water was produced in these tests. And we did not circulate out any more slugs of water.

Therefore, because the well stopped making water, we decided not to perform the plug back procedure that we had proposed. Steve Moore discussed this with Jim Lovato on Monday, October 4, 2004, and with Charlie Perrin on Tuesday, October 5, 2004.

We ran the 5-1/2" liner on Monday, October 4, 2004. We perforated the liner and ran the tubing string on Tuesday, October 5, 2004. We ran the insert pump and rods on Wednesday, October 6, 2004. This concluded our drilling and completion operations for this well.

Sincerely,  
Steve Moore

**Operations Summary Report**

Legal Well Name: SAN JUAN 30-5 UNIT 229A

Common Well Name: SAN JUAN 30-5 UNIT 229A

Event Name: COMPLETION

Contractor Name: KEY ENERGY SVCS

Rig Name: KEY 27

Start: 9/27/2004

Rig Release: 10/6/2004

Rig Number: 27

Spud Date:

End: 10/6/2004

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
10/7/2004	10:00 - 12:00	2.00	STIMOP	ALFT	COMPZN	LOAD TBG W/ 12 BBLS CLEAN PRODUCED Kfc WATER-PT STANDING VALVE, TBG, STUFFING BOX T/ 500 PSIG (OK)-STROKE PUMP T/500 PSIG & CHECK TRAVELING VALVE (OK). HANG OFF PUMP.
	12:00 - 18:00	6.00	STIMOP	RURD	COMPZN	RIG DOWN AND PREPARE TO MOVE RIG. RIG RELEASED @ 1800 HRS TO THE SAN JUAN 30-5 #234A

## Operations Summary Report

Legal Well Name: SAN JUAN 30-5 UNIT 229A  
 Common Well Name: SAN JUAN 30-5 UNIT 229A  
 Event Name: COMPLETION  
 Contractor Name: KEY ENERGY SVCS  
 Rig Name: KEY 27

Start: 9/27/2004 Spud Date:  
 Rig Release: 10/6/2004 End: 10/6/2004  
 Rig Number: 27 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
10/6/2004	07:30 - 09:30	2.00	STIMOP	PERF	COMPZN	RIG UP BLUE JET AND TEST LUBRICATOR TO 445PSI. PERFORATE AT FOLLOWING INTERVALS. 3132' - 3138' = 6' 24 SHOTS 3100' - 3108' = 8' 32 SHOTS 3111' - 3130' = 19' 76 SHOTS 3075' - 3078' = 3' 12 SHOTS 3048' - 3050' = 2' 8 SHOTS 3040' - 3044' = 4' 16 SHOTS 3028' - 3031' = 3' 12 SHOTS  4 SHOTS PER FOOT, 180 TOTAL SHOTS. 3 WIRELINE RUNS.
	09:30 - 11:00	1.50	FLOWT	PRDT	COMPZN	BLOW WELL DOWN. 2" OPEN FLOW TEST IFP 7.0 # ON GAUGE 1.75 # 801 MCFD 15 MINUTES - 10.0 # ON GAUGE 2.50 # 970 MCFD 30 MINUTES - 10.0 # ON GAUGE 2.50 # 970 MCFD 45 MINUTES - 10.0 # ON GAUGE 2.50 # 970 MCFD 60 MINUTES - 10.0 # ON GAUGE 2.50 # 970 MCFD
	11:00 - 13:00	2.00	STIMOP	RCST	COMPZN	GIH W/ 32.68" X 2-7/8" 8RD EUE BOX ORANGE PEELED MUD ANCHOR W/ 8-(1/4" X 8") SLOTS, 2-7/8" X 2-3/8" EUE 8RD X-O COLLAR (0.43") , W/ 0.82" x 2-3/8" OD X 1.78" ID "F" NIPPLE CONTAINING BLANKING PLUG, W/ 2-3/8" X 8" PUP JOINTS- W/ 100 JTS 2-3/8" EUE 8RD 4.7 PPF J-55 TBG MEASURING (3147.67")- LAND TBG W/ 2-3/8" EUE 8RD X 7-1/16" TBG HGR CONTAINING A BPV PBTB @ 3198'KB EOT / MUD ANCHOR @ 3199'KB 1/4" X 8" SLOTS 3170'KB. 1.78" FN @ 3168'KB. PERF INTERVAL 3028-3138'KB. TOP OF LINER @ 2941'KB.
	13:00 - 17:00	4.00	STIMOP	NUND	COMPZN	RIG DOWN FLOOR, NIPPLE DOWN AND LOAD OUT BOPS. NIPPLE UP RADAGAN AND RIG UP TO RUN RODS. SECURE WELL AND SHUT DOWN FOR THE NIGHT.
10/7/2004	07:00 - 07:30	0.50	STIMOP	SFTY	COMPZN	PJSM WITH ALL PERSONNEL ON LOCATION.
	07:30 - 09:30	2.00	STIMOP	SLKL	COMPZN	PULL BLANKING PLUG FROM F-NIPPLE WITH SLICKLINE.
	09:30 - 10:00	0.50	STIMOP	OTHR	COMPZN	RIG UP FLOOR TO RUN RODS. BLOW WELL DOWN.
	10:00 - 12:00	2.00	STIMOP	ALFT	COMPZN	RU TO RUN RODS- FUNCTION TEST INSERT PUMP (OK)- GIH W/ 12" STRAINER ATTACHED BELOW 2" X 1 1/4" X 12' RHAC-ZDV INSERT PUMP SN: (CP180) W/ 3 SINKER BARS AND 123 3/4" NORRIS, TYPE 78, API GRADE "D" RODS & SPACE OUT W/ 6', PONY RODS, RUN 1 1/4" X 22' POLISHED ROD W/ 2' PONY ROD ON TOP. RIG UP ABOVE 2-3/8" COLLAR 1-1/4" ROD RATAGAN, 2-3/8" PUMPING TEE W/ 2" & 1" OUTLETS W/ BALL VALVES, STUFFING BOX. PUMP SEATED @ 3168'KB, FN.

## Operations Summary Report

Legal Well Name: SAN JUAN 30-5 UNIT 229A

Common Well Name: SAN JUAN 30-5 UNIT 229A

Event Name: COMPLETION

Start: 9/27/2004

Spud Date:

End: 10/6/2004

Contractor Name: KEY ENERGY SVCS

Rig Release: 10/6/2004

Group:

Rig Name: KEY 27

Rig Number: 27

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
10/4/2004	10:30 - 12:00	1.50	EVALWB	CIRC	COMPZN	CONDITIONS TO PASS OVER"
	12:00 - 12:30	0.50	RPCOMP	TRIP	COMPZN	PULL UP INTO 7" CASING @ 2973'KB.
	12:30 - 13:30	1.00	EVALFM	PRDT	COMPZN	FLOW TEST THRU 2"
						TIME CHOKER MANIFOLD #S PITOT #S MSCFD /
						CONSISTENCY
						15MIN 9.0 2.25 913 / DRY
						30MIN 9.0 2.25 913 / DRY
						45MIN 9.0 2.25 913 / DRY
						60MIN 9.0 2.25 913 / DRY
	13:30 - 20:30	7.00	EVALFM	SIPB	COMPZN	SIPBU
10/5/2004						SURGE # ISIP 15MIN 30MIN 45MIN 60MIN
						7 25# 105# 110# 110# 110#
						8 20# 100# 110# 110# 110#
						9 28# 105# 105# 110# 110#
						PERFORM NATURAL SURGES #7-#9 W/ 110 PSIG-
						RETURNS: VERY LIGHT AMOUNT OF FINE COAL DUST.
	20:30 - 21:00	0.50	RPCOMP	TRIP	COMPZN	GIH W/ 6-1/4" DRLG ASSEMBLY F/ 2973'KB & TAG @ 3201'KB, 0' OF NEW FILL.
	21:00 - 05:00	8.00	EVALWB	CIRC	COMPZN	CLEANOUT FILL F/ 3201-T/3215'KB-
						CIRCULATE AND CONDITION HOLE FOR LINER @ 3215'TD, PBTD W/ 1500 CFM AIR & 6 BPH MIST CONTAINING 1-GAL F-450 FOAMER & 1/2 GAL OF CORROSION INHIBITOR / 10 BBLS PRODUCED Kfc WATER @ 400 PSIG-
						RETURNS: 1/2+ DOWN T/ 1/10 BUCKET / HR OF COAL FINES OFF MUD LOGGER SAMPLER VALVE.
10/6/2004	05:00 - 06:00	1.00	RPCOMP	TRIP	COMPZN	SHORT TRIP UP INTO 7" @ 2973'KB-
	06:00 - 08:30	2.50	WELLPR	RURD	PROD1	HANG BACK POWER SWIVEL.
						SAFETY MEETING PRIOR TO STARTING OPERATIONS-
						MU "H" LATCH LINER HANGER ASSEMBLY ON FIRST JOINT OF DRILL PIPE.
	08:30 - 09:30	1.00	WELCTL	BOPE	PROD1	MU 6-1/16" TIW BLADED SHOE ON 1ST JOINT OF CASING.-
						X-O & PT PIPE RAMS T/ 110 PSIG- (OK)
	09:30 - 12:00	2.50	CASING	RUNC	PROD1	BLEED WELL DOWN TO PIT SLOWLY.
						GIH W/ 5-1/2" 15.5 PPF J-55 LT&C CASING / LINER AS FOLLOWS:
						6-1/16" OD BLADED SHOE W/ FLOAT VALVE
						1.00'
10/6/2004						6- JTS 5-1/2" CASING
						270.86'
						6-1/8" TIW "H" ROTATING SET COLLAR
						2.40'
						TOTAL LINER ASSEMBLY
						274.26'
	12:00 - 13:00	1.00	CASING	HOSO	PROD1	GIH & SET 5-1/2" LINER ASSEMBLY F/2980-T/3215'KB EOL-
						W/ PBTD @ 3214'KB-
						RELEASE OFF OF LINER ASSEMBLY TOL @ 2941KB.
						7" SHOE @ 2990'KB.
10/6/2004	13:00 - 17:00	4.00	RPCOMP	PULD	COMPZN	COOH & LAYDOWN 2-7/8" DP AND SETTING TOOL-
						TRIP IN & LAYDOWN DC'S.
	17:00 - 19:00	2.00	WELLPR	RURD	COMPZN	RU TO PERFORATE-
						PREP 2-3/8" PRODUCTION TBG.
	19:00 - 19:30	0.50	WELLPR	OTHR	COMPZN	SDON.
	07:00 - 07:30	0.50	STIMOP	SFTY	COMPZN	PJSM AND JSA WITH ALL PERSONEL ON LOCATION.

## Operations Summary Report

Legal Well Name: SAN JUAN 30-5 UNIT 229A  
 Common Well Name: SAN JUAN 30-5 UNIT 229A  
 Event Name: COMPLETION  
 Contractor Name: KEY ENERGY SVCS  
 Rig Name: KEY 27

Start: 9/27/2004 Spud Date: 10/6/2004  
 Rig Release: 10/6/2004 Group:  
 Rig Number: 27

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
10/2/2004	04:00 - 06:00	2.00	RPCOMP	TRIP	PROD1	HANG BACK POWER SWIVEL- COOH W/ DRLG ASSEMBLY.
10/3/2004	06:00 - 10:00	4.00	RPCOMP	TRIP	COMPZN	SAFETY MEETING PRIOR TO STARTING OPERATIONS- COOH W/ 6-1/4" DRLG ASSEMBLY - MU 5-7/8" X 9.5" BAKER OIL TOOLS UNDER-REAMER W/ (ROLLER CUTTERS), W/ 14/32" INCH JET W/ SHOCK SUB, W/ 10-(3-1/2") DC'S,- GIH W/ BHA W/ 2-7/8" AOH DRILL PIPE W/ 1.875" ID "F" NIPPLE RUN 1-JT ABOVE DRILL COLLARS T/3000'KB, 7" SHOE @ 2990'KB. RU POWER SWIVEL.
	10:00 - 14:30	4.50	DRILL	REAM	PROD1	BREAK CIRCULATION & UNDER-REAM @ 600+ PSIG W/ 1500 CFM AIR & 12 BPH MIST- F/3000-3215'KB/PBTD W/ 700-1500-FT-LBS OF TORQUE, W/ ~4K WOB @ 80+ RPM'S.
	14:30 - 17:30	3.00	EVALWB	CIRC	PROD1	CIRCULATE AND CONDITION HOLE @ 3215'TD, PBTD W/ 1500 CFM & 12-6 BBL / HR MIST- RETURNS: FINE SAND & COAL.
	17:30 - 18:00	0.50	RPCOMP	TRIP	PROD1	SHORT TRIP UP INTO 7" @ 2988'KB.
	18:00 - 19:00	1.00	EVALFM	PRDT	PROD1	FLOW TEST THRU 2"
						TIME CHOKER MANIFOLD #S PITOT #S MSCFD / CONSISTENCY
						15MIN 7.5 1.88 816 / DRY
						30MIN 8.5 2.13 901 / DRY
						45MIN 8.5 2.13 901 / DRY
						60MIN 8.5 2.13 901 / DRY
	19:00 - 20:00	1.00	EVALFM	SIPB	PROD1	SIPBU ISIP 15MIN 30MIN 45MIN 60MIN 20# 105# 110# 110# 110#
	20:00 - 01:00	5.00	RPCOMP	TRIP	PROD1	BLEED WELL SLOWLY DOWN TO PIT. COOH & LAYDOWN UNDER-REAMER- GIH W/ 6-1/4" DRLG ASSEMBLY & TAG 8' OF FILL @ 3207'KB- PULL UP INTO 7" @ 2973'KB.
	01:00 - 06:00	5.00	EVALFM	SIPB	COMPZN	SIPBU SURGE # ISIP 15MIN 30MIN 45MIN 60MIN 2 25# 95# 105# 110# 110# 3 20# 100# 110# 110# 110# 4 27# 105# 110# 110# 110#
						PERFORM NATURAL SURGES #2-#4 W/ 110 PSIG- RETURNS: VERY LIGHT AMOUNT OF FINE COAL DUST.
10/4/2004	06:00 - 10:00	4.00	EVALFM	SIPB	COMPZN	SAFETY MEETING PRIOR TO STARTING OPERATIONS- SIPBU SURGE # ISIP 15MIN 30MIN 45MIN 60MIN 5 20# 105# 110# 110# 110# 6 20# 100# 105# 110# 110#
	10:00 - 10:30	0.50	RPCOMP	TRIP	COMPZN	PERFORM NATURAL SURGES #5-#6 W/ 110 PSIG- RETURNS: VERY LIGHT AMOUNT OF FINE COAL DUST.
	10:30 - 12:00	1.50	EVALWB	CIRC	COMPZN	GIH & TAG TOP OF FILL @ 3201'KB, 14' OF FILL. R&R @ 3201'KB W/ 1500 CFM AIR & 6 BPH MIST CONTAINING 1-GAL F-450 FOAMER & 1/2 GAL OF CORROSION INHIBITOR / 10 BBLs PRODUCED KfC WATER @ 400 PSIG- RETURNS: 1+ DOWN T/ 1/4 BUCKET / HR OF COAL FINES OFF MUD LOGGER SAMPLER VALVE. "PERIODIC SHUT DOWNS TO ALLOW INCLIMATE WEATHER

## Operations Summary Report

Legal Well Name: SAN JUAN 30-5 UNIT 229A  
 Common Well Name: SAN JUAN 30-5 UNIT 229A  
 Event Name: COMPLETION  
 Contractor Name: KEY ENERGY SVCS  
 Rig Name: KEY 27

Start: 9/27/2004  
 Rig Release: 10/6/2004  
 Rig Number: 27

Spud Date: 10/6/2004  
 End: 10/6/2004  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
10/2/2004	07:00 - 15:30	8.50	DRILL	DRLG	PROD1	BREAK CIRCULATION W/ 1500 CFM AIR & 6-8 BPH MIST CONTAINING 1 GAL F-450 FOAMER & 1/2 GAL CORRISSION INHIBITOR / 10 BBLs PRODUCED Kfc WATER@ ~400 PSIG- CLEANOUT CMT/FC @2947'KB/CMT/FS @ 2990'/8-3/4" HOLE T/2995'KB DRILLING 6-1/4" OPEN HOLE SECTION F/2995 - T/ 3215'KB,PBTD- W/ 6K WOB @ 70-80 RPM'S @ 1100-1400 FT-LBS OF TORQUE- COAL INTERVALS      NET FEET OF COAL      MAX GAS UNITS 3004-3005'                      (1')                      50 3029-3030'                      (1')                      39 3040-3041'                      (1')                      42 3048-3049'                      (1')                      57 3074-3076'                      (2')                      57 3100-3108'                      (8')                      164 3110-3120'                      (10')                      184 3121-3130'                      (9')                      186 3131-3138'                      (7')                      183  TOTAL NET FEET OF COAL 40'.  PICTURED CLIFF TOP @ 3184'KB. LOST CIRCULATION ~3200'KB WHILE DRILLING- REGAIN CIRCULATION AND CIRCULATE @ TD. R&R @ 3215'TD, PBTD W/ 1500 CFM & 8 BBL / HR MIST RATE W/ ABOVE CHEMICALS @ 400 PSIG- RETURNS: 3/4+ DOWN T/ 1/4 OF A BUCKET / HR OFF MUD LOGGER SAMPLER VALVE OF FINE COAL. SEVERAL SLUGS OF WATER AND INITIAL WATER RATE SHOWED WATER INFLUX FROM POROUS SAND BELOW PC- NOTIFY BLM & OCD @ 18:00, 10-1-2004 OF POSSIBLE PLUG BACK ABOVE PC TOP-
	15:30 - 17:30	2.00	EVALWB	CIRC	PROD1	DRY UP WELLBORE W/ 1500 CFM AIR- 1 GAL / 40 MIN YIELDS~3/4 BWPD. SHORT TRIP UP INTO 7" @ 2973'KB. FLOW TEST THRU 2" TIME      CHOKE      MANIFOLD #S      PITOT #S      MSCFD      / CONSISTENCY 15MIN                      8                      2.0                      869      /      DRY 30MIN                      10                      2.5                      970      /      DRY 45MIN                      10                      2.5                      970      /      DRY 60MIN                      10                      2.5                      970      /      DRY
	17:30 - 20:00	2.50	EVALFM	CIRC	PROD1	SIPBU
	20:00 - 20:30	0.50	RPCOMP	TRIP	PROD1	ISIP 15MIN 30MIN 45MIN 60MIN
	20:30 - 21:30	1.00	EVALFM	PRDT	PROD1	25 90 100 110 110
	21:30 - 00:30	3.00	EVALFM	SIPB	PROD1	NATURAL SURGE #1 W/ 110#S- BLOW AROUND TO PIT W/ AIR MIST- RETURNS: VERY LITTLE IF ANY COAL FINES- DRY UP W/ AIR ONLY.
	00:30 - 01:00	0.50	RPCOMP	TRIP	PROD1	GIH W/ 6-1/4" DRLG ASSEMBLY & TAG @ 3210'KB, 5' OF FILL.
	01:00 - 04:00	3.00	EVALWB	CIRC	PROD1	UNLOAD WELLBORE W/ 1500 CFM AIR ONLY- NO WATER / DRY.
	04:00 - 06:00	2.00	RPCOMP	TRIP	PROD1	PULL UP INTO 7"-



## Operations Summary Report

Legal Well Name: SAN JUAN 30-5 UNIT 229A  
 Common Well Name: SAN JUAN 30-5 UNIT 229A  
 Event Name: COMPLETION  
 Contractor Name: KEY ENERGY SVCS  
 Rig Name: KEY 27

Start: 9/27/2004 Spud Date:  
 End: 10/6/2004  
 Rig Release: 10/6/2004 Group:  
 Rig Number: 27

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
9/28/2004	07:00 - 07:30 07:30 - 19:00	0.50 11.50	DRILL MOVE	SFTY RURD	COMPZN COMPZN	PJSM AND JSA WITH ALL PERSONEL ON LOCATION. MOVE RIG AND SPOT EQUIPMENT, RIG UP, NIPPLE UP BOPS. MOVED TO THE SAN JUAN 30-5 #229A SEC 21 - T30N - R5W 1700'FSL 1500'FEL NEAREST HELI PAD IS A LOCATION APPROXIMATELY 1/4 MILE NORTHWEST OF THIS LOCATION ON THE SAN JUAN 30-5 #223A. NOTIFIED LAND OWNER ARMONDO ESPINOSA OF RIG MOVE SUNDAY 9/26/2004 AT 10:00HRS. CALLED THE BLM HOTLINE PHONE FOR PRESSURE TEST @ 1200HRS, 9/27/2004  TALKED TO CHARLIE PERRIN WITH THE OCD @ 1215HRS ABOUT PRESSURE TEST. 9/27/2004
9/29/2004	07:00 - 19:00	12.00	STIMOP	RURD	COMPZN	FINISH RIGGING UP, REPLACE PISTONS IN #1 BOP, WELD MUFFLER ON BLOOEIE LINE, INSPECT DRILL COLLARS AND ALL SUBS, INSTALL ELECTRIC PUMP ON BOP CLOSING UNIT, CHANGE OILS ON RIG. SECURE WELL AND RIG, SHUT DOWN FOR THE NIGHT.
9/30/2004	06:00 - 09:00	3.00	STIMOP	OTHR	COMPZN	MONTHLY SAFETY BREAKFAST, SHUT DOWN OPERATIONS BECAUSE OF RAIN AND MUD.
10/1/2004	07:00 - 07:30	0.50	WELLPR	SFTY	COMPZN	SAFETY MEETING PRIOR TO STARTING OPERTION- SICP -0- PSIG.
	07:30 - 10:30	3.00	WELCTL	BOPE	COMPZN	MUDDY LOCATION & ACCESS ROAD CONDITIONS. PT BLIND RAMS / 7" CASING T/ 275 PSIG -3MIN. PERFORM CASING INTEGRITY / BLIND RAM TEST T/ 1800 PSIG-30 MIN (OK) NOTIFY BLM @12:00, 9-27-2004 OF PENDING TEST. MU 2-7/8" AOH X 7-1/16" TEST PLUG AND LOCK DOWN IN TBG HEAD- PT #2 PIPE RAMS CHOKE MANIFOLD T/300 PSIG -3 MIN & 1800 PSIG -10MIN (OK) PT #1 PIPE RAMS & HCR VALVES T/250 PSIG-3MIN & 1800 PSIG-10MIN (OK) PULL AND LAYDOWN TEST PLUG- PT AIR LINES & MIST PUMP T/1700 PSIG (OK).
	10:30 - 14:30	4.00	RPCOMP	PULD	COMPZN	SLIP, TALLY, & CALIPER DC'S- SLIP & TALLY 2-7/8" AOH DRILL PIPE- MU 6-1/4" RR TRI-CONE INSERT BIT JETTED W/ 3-20'S W/ 3-1/2" REG BOX x 2-3/8"IF BOX BIT SUB BORED, TAPPED, AND CONTAINING A FLOAT VALVE, W/ 10-(3-1/2") DC'S-TBHA 307', W/ 2-3/8"IF X 2-7/8" AOH X-O SUB, W/ 83- JOINTS 2-7/8" AOH DRILL PIPE T/2900'KB, TOC/STRINGERS.
	14:30 - 15:30	1.00	WELLPR	RURD	COMPZN	RU POWER SWIVEL- PT STANDPIPE / KELLY HOSE / POWER SWIVEL / & 2-7/8" TIW VALVE T/ 2000 PSIG-10 MIN (OK) .
	15:30 - 16:30	1.00	WELLPR	SFTY	COMPZN	RIG & AIR EQUIPMENT INSPECTION AND CORRECTIONS- ACCUMULATOR ELECTRIC/ DIAPHRAM PUMP REVIEW.
	16:30 - 17:00	0.50	WELLPR	OTHR	COMPZN	SPOT MUD LOGGER TRAILER- SDON.
10/2/2004	07:00 - 15:30	8.50	DRILL	DRLG	PROD1	SAFETY MEETING PRIOR TO STARTING OPERATIONS-

**END OF WELL SCHEMATIC**Well Name: San Juan 30-5 # 229AAPI #: 30-039-27773Location: 1700' FSL & 1500' FELSec. 21 - T30N - R5WRio Arriba County, NMElevation: 6401' GL (above MSL)Drl Rig RKB: 13' above Ground LevelDatum: Drl Rig RKB = 13' above GLSpud: 15-Aug-04Release Drl Rig: 19-Aug-04Move In Cav Rig: 27-Sep-04Release Cav Rig: 6-Oct-04

Note - this well is equipped with rods &amp; pump

7-1/16" 3M x 2-3/8" EUE 8rd Bonnet11" 3M x 7-1/16" 3M Tubing Head9-5/8" 8 RD x 11" 3M Casing Head**Surface Casing** Date set: 16-Aug-04Size 9 5/8 inSet at 243 ftWt. 32.3 ppfHole Size 12 1/4 inExcess Cmt 125 %T.O.C. SURFACECsg Shoe 243 ftTD of 12-1/4" hole 243 ft

Notified BLM @ \_\_\_\_\_ hrs on \_\_\_\_\_

Notified NMOCD @ \_\_\_\_\_ hrs on 13-Aug-04☒ New  
☐ Used**Intermediate Casing** Date set: 18-Aug-04Size 7 inSet at 2995 ftWt. 20 ppfHole Size 8 3/4 inExcess Cmt 160 %T.O.C. SURFACEBottom of Casing Shoe 2995 ft

Pup @ \_\_\_\_\_ ft

Pup @ \_\_\_\_\_ ft

Notified BLM @ 10:30 hrs on 17-Aug-04Notified NMOCD @ 10:30 hrs on 17-Aug-04☒ New  
☐ Used**Production Liner** Date set: 04-Oct-04Size 5 1/2 inNominal Wt. 15.5 ppfGrade J-55# Jnts: 6Hole Size 6.25 / 9.5 inches

Underreamed 6-1/4" hole to 9.5" from 3000' to 3215'

Top of Liner 2941 ftPBTd 3214 ftBottom of Liner 3215 ft☒ New  
☐ Used**Surface Cement**Date cmt'd: 16-Aug-04Lead : 150 sx Class G Cement+ 2% BWOC S001 CaCl2+ 0.25 lb/sx D029 Cellophane Flakes1.16 cuft/sx, 174 cuft slurry at 15.8 ppgDisplacement: 15.8 bbls fresh wtrBumped Plug at: 01:00 hrs w/ 310 psiFinal Circ Press: 150 psiReturns during job: YESCMT Returns to surface: 5 bblsFloats Held: No floats usedW.O.C. for 6.00 hrs (plug bump to start NU BOP)W.O.C. for 19.00 hrs (plug bump to test csg)**Intermediate Cement**Date cmt'd: 18-Aug-04Lead : 385 sx Class G Cement+ 3% D079 Extender+ 0.25 lb/sx D029 Cellophane Flakes+ 0.2% D046 Antifoam2.61cuft/sx, 1004.9 cuft slurry at 11.7 ppgTail : 100 sx 50/50 POZ : Class G cement+ 2% D020 Bentonite+ 2% S001 Calcium Chloride+ 5 lb/sx D024 Gilsonite+ 0.25 lb/sx D029 Cellophane Flakes+ 0.1% D046 Antifoam1.27 cuft/sx, 127 cuft slurry at 13.5 ppgDisplacement: 119.6 bblsBumped Plug at: 23:30 hrs w/ 1150 psiFinal Circ Press: 650 psi @ 2 bpmReturns during job: YESCMT Returns to surface: 20 bblsFloats Held: X Yes    No**UNCEMENTED LINER**

Schematic prepared by:

Steven O. Moore, Drilling Engineer

11-Oct-2004

This well was NOT cavitated.

TD 3,215 ft**COMMENTS:**

9-5/8" Surf:	No float equipment was run. Ran a guide shoe and an aluminum baffle plate 1 jt above the guide shoe @ 201'. Displaced top wiper plug with water. Shut in casing head and WOC before backing out landing jt. CENTRALIZERS @ 233', 146', 102', & 69'. Total: 4
7" Intermediate	DISPLACED W/ 119.6 BBLs. FRESH WATER. CENTRALIZERS @ 2985', 2907', 2823', 2737', 2694', 2651', 212', 83', & 40'. TURBOLIZERS @ 2608', 2564', 2525', 2482', 2439', & 2396'. Total: 9 Total: 6
5.5" Liner	Ran 6-1/16" bladed shoe and w/ float on btm of liner. Ran liner w/ TIW H-Latch Drop Off Tool (no liner hanger).
Perforations	Perforated 5-1/2" liner with guns on E-line at 4 spf, 0.75" diameter, 120 degree phased holes Perf. Intervals: 3028'-3031', 3040'-3044', 3048'-3050', 3075'-3078', 3111'-3130', 3100'-3108', 3132'-3138'. TOTAL SHOTS = 180.
Tubing	32.68' x 2-7/8" EUE 8rd box Orange Peeled Mud Anchor with eight each 0.25" x 8" slots just below the upset, 2-7/8" x 2-3/8" EUE 8rd crossover collar, 2-3/8" OD (1.78" ID) F-Nipple, 1 ea 8' x 2-3/8" EUE pup jt and 100 jts 2-3/8" 4.7# J-55 EUE 8rd tubing, Bottom of Mud Anchor at 3199'. F-Nipple at 3168' MD RKB.
Pump	12" long strainer attached below 1-1/4" RHAC-Z insert pump with 3 ea 25' x 1-1/4" OD sinker bars on top of pump
&	123 ea 3/4" OD rods, 1 ea 6' x 3/4" OD pony rod, 1 ea 1-1/4" OD x 22' polished rod, and 1 ea 2' pony rod on top.
Rods	Set pump in F-Nipple at 3168' MD RKB