

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.  
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 1S, 32N, 9W, 2434 FSL, 120 FEL

At top prod. interval reported below

At total depth

14. Date Spudded  
06/04/2005

15. Date T.D. Reached  
06/24/2005

16. Date Completed  
☐ D & A ☒ Ready to Prod.  
07/16/2005

18. Total Depth: MD 3768  
TVD 3768

19. Plug Back T.D.: MD 3766  
TVD 3766

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	9.625H-40	32.3	0	234		150		0	9 BBL
8.75	7.0 J-55	20.0	0	3343		540		0	33
6.25	5.5 Liner	15.5	3290	3768		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	3751							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Basin Fruitland Coal	3348	3706	3348-3706	.75	352	Open
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
	Underreamed 6.25" hole to 9.5" from 3349'-3768'.

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
07/16/05	07/14/05	1	→	0	1520	2 bbl			Gas Pumping Unit
Choice Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
2" Pitot	n/a	24 psi	→						

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. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
			→						

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

5. Lease Serial No.  
NMSF078687

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and no.

8. Lease Name and Well No.

SAN JUAN 32 FED 15 1A

9. API Well No.  
30-045-32850

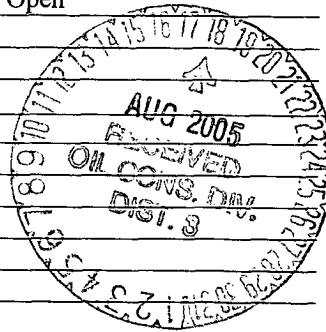
10. Field and Pool, or Exploratory  
BASIN FRUITLAND COAL

11. Sec., T., R., M., on Block and Survey or Area I Sec: 15 Twn: 32N

12. County or Parish  
SAN JUAN

13. State  
NM

17. Elevations (DF, RKB, RT, GL)\*  
6850 GL



ACCEPTED FOR RECORD

AUG 16 2005

FARMINGTON FIELD OFFICE  
BY *jd*

NMOC

## 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	963
				Ojo Alamo	2213
				Kirtland	2293
				Fruitland	3313
				Top Coal MD	3348
				B. Main Coal MD	3494
				PC Tongue MD	3617
				B. Lowest Coal MD	3700
				Top PCCF MD	3701

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

## 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 Farrell Title Regulatory AnalystSignature  Date 08/09/2005

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.

# Regulatory Summary

ConocoPhillips

SAN JUAN 32 FED 15 #001A

Initial Completion, 6/13/2005 07:00

API/Bottom UWI	County	State/Province	Surface Legal Location	N/S Dist (ft)	N/S Ref	E/W Dist (ft)	E/W Ref
300453285000	SAN JUAN	NEW MEXICO	NMPM-32N-09W-15-I	2,434.00	S	120.00	E
Ground Elevation (ft)	Latitude (DMS)	Longitude (DMS)	Spud Date	Rig Release Date			
6,850.00	36° 59' 0.9996" N	107° 45' 28.0008" E	6/4/2005				

<Report Date?> - <End Date?>

Last 24hr Summary

6/13/2005 07:00 - 6/13/2005 19:00

Last 24hr Summary

moving rig & equipment to location

6/14/2005 07:00 - 6/14/2005 17:00

Last 24hr Summary

ru ground line's, inspection of dc's & sub's, blooie line's, flowback tank, choke line's = rig sent to town to change out engine

6/15/2005 07:00 - 6/15/2005 17:00

Last 24hr Summary

standby in town working on new rig engine

6/16/2005 07:00 - 6/16/2005 17:00

Last 24hr Summary

standby in town working on new rig engine

6/17/2005 07:00 - 6/17/2005 17:00

Last 24hr Summary

standby in town installing new rig engine

6/18/2005 07:00 - 6/18/2005 17:00

Last 24hr Summary

install new rig engine & moved rig to location

6/19/2005 00:00 - 6/19/2005 00:00

Last 24hr Summary

shut down over sunday father's day

6/20/2005 07:00 - 6/20/2005 19:00

Last 24hr Summary

miru key rig # 18 & equipment

6/21/2005 07:00 - 6/21/2005 19:00

Last 24hr Summary

safety meeting & jsa review's @ start of all operation's, ru rig & equipment, nu bop's, hcr valve's, choke manifold & line's, blooie line's, all air & ground line's, test 7" csg & blind ram's 300# 10 min's & 1830# 30 min's for state integrity test, good test, test bop stack, pipe ram's, hcr valve's 300# 10 min's & 1820# 10 min's, good test, pu pipe out of pipe basket & put on pipe rack, tally pipe, gih w / 6 1/4" bit, bit sub, 14-3 1/2" dc's, 1-2 7/8" dp, 1-2 7/8" fn w / 1.81 profile & dp tag something solid @ 2946', ru power swivel, secured location & s.d.o.n.

6/22/2005 05:30 - 6/22/2005 00:00

Last 24hr Summary

stand down all key rig's safety meeting in town, travel time, safety meeting & jsa review's @ start of all operation's & crew change's, drilling out cmt f/ 2,946' to 7" float collar @ 3,297', drill out 7" float collar & 7" shoe @ 3,342', circ & correlate w / mud logger's, drilling ahead w / 6 1/4" bit to 3,700' w / air assist

6/23/2005 00:00 - 6/23/2005 00:00

Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, drill ahead w / 6 1/4" bit to td @ 3,768' w / air assist, r&r c/o to td w / air assist, puh, test well, cooh w / bha & dp, pu & mu under-reamer, rih w / bha & dp to 7" shoe @ 3,343', pu swivel, under-ream 6 1/4" hole to 9 1/2" hole f/ 3,349' - t/3,655' w / air assist.

6/24/2005 00:00 - 6/24/2005 00:00

Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, puh inside 7" csg w / bha, rd power swivel, w/o rental power swivel, ru rental power swivel, rih & under-reamed 6 1/4" hole to 9 1/2" hole f/ 3,655' - t/ 3,768' td w / air assist, circ bottom's up to clean up 7" csg, puh inside 7" csg w / bha, hang back swivel, cooh w / dp & bha, rih w / 6 1/4" bit, bha & dp to 3,343', pu swivel, r&r c/o to 3,706' w / air assist, puh inside 7" csg w / bha, test well & c/o rental swivel for key recondition swivel, surge well w / air assist

6/25/2005 00:00 - 6/25/2005 00:00

Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, surge well 3 time's w / hydraulic surge's, rih tag @ 3,675', r&r c/o to 3,706' w / air assist, puh inside 7" csg w / bha, surge well w / hydraulic surge.

6/26/2005 00:00 - 6/26/2005 00:00

Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o f/ 3,675' - t/ 3,706' w / air assist, puh inside 7" csg w / bha, surge well 3 time's w / water pad's, rih tag @ 3,467', r&r c/o f/ 3,467' - t/ 3,550' w / air assist

6/27/2005 00:00 - 6/27/2005 00:00

Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o f/ 3,550' - t/ 3,612' w / 1,800 to 1,200 scfm air, 10 to 6 bph mist, 1/2 gal of foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, return's to surface, med to heavy coal & shale w / 2 bph water gain, 85% coal, puh inside 7" csg w / bha, secured well & location, stand down for copc personnel safety review's, 550# shut in pressure during stand down time of 2.50 hr's, surge well natural, rih tag @ 3,581', r&r c/o t/ 3,612' w / air assist, return's to surface, heavy to med coal & shale w / 1.5 bph water gain, 11 down to 6 bucket's per hour off sample catcher.

# Regulatory Summary

ConocoPhillips

SAN JUAN 32 FED 15 #001A

6/28/2005 00:00 - 6/28/2005 00:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o f/ 3,612' - t/ 3,675' w / air assist, 1,200 to 1,800 scfm air, 6 to 10 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, return's to surface, heavy to med coal & shale w / 2 to 3 bph water gain, 12 down to 4 bucket's per hour off sample catcher, 80% to 90% coal

6/29/2005 00:00 - 6/29/2005 00:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o t/ 3,706' w / air assist, puh inside 7" csg w / bha, test well, rih tag @ 3,620', r&r c/o t/ 3,644' w / air assist

6/30/2005 00:00 - 6/30/2005 00:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o t/ 3,644' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, return's to surface, heavy to med coal & shale w / 2 to 3 bph water gain, 10 down to 3 bucket's per hour off sample catcher, 85% coal.

7/1/2005 06:00 - 7/2/2005 06:00

## Last 24hr Summary

r&r c/o t/ 3,644' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, return's , heavy to med coal & shale w / 2 to 3 bph water gain, 3 bucket's per hour off sample catcher, 85% coal crew change, pre job safty meeting, rig service. r&r c/o t/ 3,644' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, return's, heavy to med coal & shale w / 2 to 3 bph water gain, 3 bucket's down to 1 bkt per hour off sample catcher, 85% coal pull bit into 7" to conduct surges. conduct 3 pad surges as follow's

3 gal's of foamer ahead, pump 10 bbl water pads, 1,800 scfm air, 10 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, 1,300# to 1,450# dp pressure & 1,100# to 1,300# backside pressu, returns black water & foam, lite to med coal. tih from shoe, tag fill @ 3590'. r&r cleaning out @ 3590' to 3610' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, return's to surface, returns 3 bkts per hour off sample catcher, 85% coal, 2 to 3 bbls water gain per hr.

7/2/2005 06:00 - 7/3/2005 06:00

## Last 24hr Summary

r&r cleaning out @ 3590' to 3610' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, returns 3 bkts per hour off sample catcher, 85% coal, 2 to 3 bbls water gain per hr. crew change, pre job safty meeting, rig service. r&r cleaning out @ 3610' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, returns 3 bkts down to 1-1/2 bkts per hour off sample catcher, 85% coal, 2 to 3 bbls water gain per hr. make conection r&r clean out from 3610' to 3644' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, returns 3 bkts per hour off sample catcher, 85% coal, 2 to 3 bbls water gain per hr.

7/3/2005 06:00 - 7/4/2005 06:00

## Last 24hr Summary

r&r clean out @ 3644' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, returns 3 bkts per hour off sample catcher, 85% coal, 2 to 3 bbls water gain per hr. crew change, pre job safty meeting, rig service. r&r clean out @ 3644' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, returns 3 bkts down to 1-1/2 bkts per hour off sample catcher, 85% coal, 2 to 3 bbls water gain per hr. pull bit into 7", circulate casing clean, shut in secure well, shut down for holiday

7/5/2005 07:00 - 7/6/2005 06:00

## Last 24hr Summary

pre job safty meeting, check pressure, 1000 psi. bleed pressure down to 500 psi, open hcr's release natural surge. tih from shoe, tag fill @ 3620'. r&r clean out @ 3644' w / air assist, 1,500 to 1,200 scfm air, 8 bph mist, 1/2 gal foamer, 1/4 gal corrosion inhibitor per 15 bbl's of fluid pumped, returns 4 bkts per hour down to 2 bkts off sample catcher, 85% coal, 2 to 3 bbls water gain per hr.

7/6/2005 06:00 - 7/7/2005 06:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's, r&r c/o t/ 3,644' w / air assist, puh, surge well, rih tag bridge @ 3,480', r&r c/o t/ 3,500', puh, surge well w / air assist.

7/7/2005 06:00 - 7/8/2005 06:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, surge well & c/o to 3,487', several time's, working on breaking down top coal.

7/8/2005 06:00 - 7/9/2005 06:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's, r&r c/o t/ 3,487' w / air assist, puh inside 7" csg w / bha, surge well 3 time's w / 8 bbl water pad's, rih tag @ 3,350', r&r c/o t/ 3,395' w / air assist

7/9/2005 06:00 - 7/10/2005 06:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o f/ 3,395' - t/ 3,519' w / air assist, return's to surface, heavy to med coal & shale w / 1 bph water gain.

7/10/2005 06:00 - 7/11/2005 06:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o t/ 3,550' w / air assist, puh inside 7" csg w / bha, check & change oil on all equipment, rih tag fill @ 3,550', r&r c/o t/ 3,644' w / air assist.

7/11/2005 06:00 - 7/12/2005 06:00

## Last 24hr Summary

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o t/ 3,675' w / air assist

## Regulatory Summary

 **ConocoPhillips**

**SAN JUAN 32 FED 15 #001A**

**7/12/2005 06:00 - 7/13/2005 06:00**

**Last 24hr Summary**

safety meeting & jsa review's @ start of all operation's & crew change's, r&r c/o t/ 3,706' w / air assist

**7/13/2005 06:00 - 7/14/2005 06:00**

**Last 24hr Summary**

safety meeting & jsa review's @ start of all operation's & crew change's, trying to dry up well for test, puh, test well, rih tag @ 3,690', r&r c/o to td @ 3,768' w / air assist, short trip to check hole condition's

**7/14/2005 06:00 - 7/14/2005 19:00**

**Last 24hr Summary**

safety meeting & jsa review's @ start of all operation's & crew change's, puh, hang back swivel, cooh w/ pipe, run liner, release off liner, cooh laying down pipe, secured well & location, s.d.o.n.

**7/15/2005 07:00 - 7/15/2005 20:00**

**Last 24hr Summary**

safety meeting & jsa review's @ start of all operation's & crew change's = log & perforated 5 1/2" liner, ru 2 3/8" equipment, test, rih & c/o to pbtd @ 3,766' w / air assist, puh, land hanger, secured well & location, s.d.o.n.

**7/16/2005 07:00 - 7/16/2005 20:00**

**Last 24hr Summary**

safety meeting & jsa review's @ start of all operation's, had 650# on csg, nd bop's & nu pumping wellhead, ru rod equipment, run pump & rod's, space out, test tubing & pump, hang-off, rd & release rig & equipment,

Well Name: San Juan 32 Fed 15 #1A  
 API #: 30-045-32850  
 Location: 2434' FSL & 120' FEL  
Sec. 15- T32N- R9W  
San Juan County, NM  
 Elevation: 6850' GI (above MSL)  
 Drl Rig RKB: 13' above Ground Level  
 Datum: Drl Rig RKB = 13' above GL

Note - this well is equipped with rods & pump  
 7-<sup>1</sup>/<sub>16</sub>" 3M x 2-<sup>3</sup>/<sub>8</sub>" EUE 8rd Bonnet  
 11" 3M x 7-1/16" 3M Tubing Head  
 9-5/8" 8 RD x 11" 3M Casing Head

Patterson Rig: #747  
 Spud: 4-Jun-05  
 Spud Time: 5:00  
 Release Drl Rig: 8-Jun-05  
 Time Release Rig: 0:00  
 Move In Cav Rig: 13-Jun-05  
 Release Cav Rig: 16-Jul-05

**Surface Casing** Date set: 4-Jun-05  
 Size 9 5/8 in  
 Set at 234 ft # Jnts: 5  
 Wt. 32.3 ppf Grade H-40  
 Hole Size 12 1/4 in Conn STC  
 Excess Cmt 125 %  
 T.O.C. SURFACE Csg Shoe 234 ft  
 TD of 12-1/4" hole 240 ft

Notified BLM @ 8:00 hrs on 03-Jun-05  
 Notified NMOCD @ 8:00 hrs on 03-Jun-05

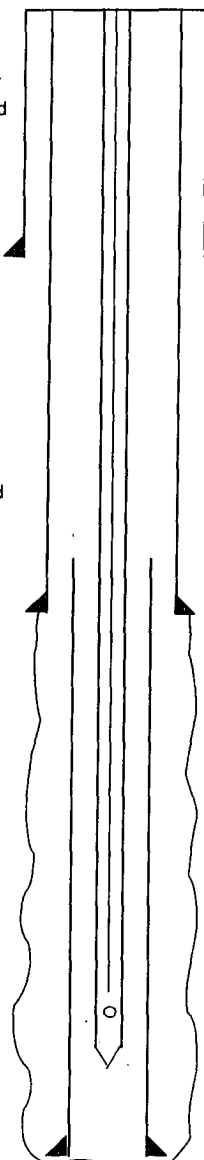
**Intermediate Casing** Date set: 7-Jun-05  
 Size 7 in 78 jts  
 Set at 3343 ft 0 pups  
 Wt. 20 ppf Grade J-55  
 Hole Size 8 3/4 in Conn STC  
 Excess Cmt 160 % Top of Float Collar 3297 ft  
 T.O.C. SURFACE Bottom of Casing Shoe 3343 ft  
 Pup @ 0 ft TD of 8-3/4" Hole 3348 ft  
 Pup @ 0 ft  
 Notified BLM @ 10:30 hrs on 06-Jun-05  
 Notified NMOCD @ 10:30 hrs on 06-Jun-05

**Production Liner** Date set: 14-Jul-05  
 Size 5 1/2 in  
 Nominal Wt. 15.5 ppf  
 Grade J-55 Connections:  
 # Jnts: 11  
 Hole Size 6.25" / 9.5" inches  
 Underreamed 6-1/4" hole to 9.5" from 3349' to 3768'  
 Top of Liner 3290 ft  
 PBTd 3766 ft  
 Bottom of Liner 3768 ft

☒ New  
☐ Used

☒ New  
☐ Used

☒ New  
☐ Used



TD 3,768 ft

#### Surface Cement

Date cmt'd: 4-Jun-05  
 Lead: 150 sx Class G Cement  
 + 3% BWOC Calcium Chloride  
 + 0.25 lb/sx D029 Cellohane Flakes  
1.16 cuft/sx, 174.0 cuft slurry at 15.8 ppg  
 Displacement: 15.0 bbls fresh wtr  
 Bumped Plug at: 14:44 hrs w/ 491 psi  
 Final Circ Press: 41 psi @ 1.3 bpm  
 Returns during job: YES  
 CMT Returns to surface: 9 bbls  
 Floats Held: No floats used  
 W.O.C. for 6.00 hrs (plug bump to start NU BOP)  
 W.O.C. for 8.50 hrs (plug bump to test csg)

#### Intermediate Cement

Date cmt'd: 7-Jun-05  
 Lead: 440 sx Class G cement  
 + 3% D079 Extender  
 + 0.25 lb/sx D029 Cellohane Flakes  
 + 0.2% D046 Antifoam  
2.61 cuft/sx, 1148.4 cuft slurry at 11.7 ppg  
 Tail: 100 sx 50/50 POZ: Standard cement  
 + 2% Bentonite  
 + 2% Calcium Chloride  
 + 5 lb/sx Gilsonite  
 + 0.25 lb/sx Flocele  
 + 0.1% D046 Antifoam  
1.27 cuft/sx, 127 cuft slurry at 13.5 ppg  
 Displacement: 133.5  
 Bumped Plug at: did not bump plug  
 Final Circ Press: 398 psi at 2 bpm  
 Returns during job: YES  
 CMT Returns to surface: 33  
 Floats Held: X Yes \_\_\_ No

#### UNCEMENTED LINER

Schematic prepared by:  
 Aaron Fuhr, Development Engineer  
 22-July-2005

#### 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 @ 190'. Displaced top wiper plug with water. Shut in casing head and WOC before backing out landing jt. CENTRALIZERS @ 224', 146', 103' & 59'. Total: 4
7" Intermediate	DISPLACED W/ 133.5 BBLs. 8.4 PPG SLIGHTLY POLYMERIZED DRILL WATER CENTRALIZERS @ 3333', 3254', 3168', 3082', 2996', 2909', 210', 82' & 39'. TURBOLIZERS @ 2308', 2265', & 2222' Total: 9 Total: 3
5.5" Liner	Ran 6 1/4" bit and bit sub with float valve on bottom of liner. Ran and set the 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: 3348'-3352', 3356'-3368', 3376'-3382', 3386'-3396', 3406'-3414', 3480'-3488', 3618'-3644', 3686'-3692', 3698'-3706': Total 352 holes
Tubing	2-3/8" Mud Anchor 31.3' long with 1- 1/2" hole set just below the upset, 2-3/8" x 2-1/16" EUE 8rd XO collar, 2-3/8" OD (1.78" ID) F-Nipple, and 118 jts 2-3/8" 4.7# J-55 EUE 8rd tubing Bottom of Mud Anchor at 3749'. Top of F-Nipple at 3718' MD RKB.
Pump & Rods	2" x 1-1/4" x 12' RHAC-ZDV insert pump, 3 each 1 1/4" x 25' sinker bars, 145 each 25' x 3/4" rods, spaced out with 1ea 6' x 3/4" OD pony rods & 1 ea 1-1/4" OD x 22' polished rod Set pump in F-Nipple at 3717' MD RKB