

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

(See other In-
structions on
reverse side)

RECEIVED

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	DRY <input type="checkbox"/>	Other <input type="checkbox"/>										
b. TYPE OF COMPLETION:		NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF RESVR. <input type="checkbox"/>	Other <input type="checkbox"/>								
2. NAME OF OPERATOR						070 Farmington, NM									
3. ADDRESS OF OPERATOR						HORTON									
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*						3 C									
At surface 700' FNL, 1870' FWL; SEC. 13, T32N, R12W NMPM						BLANCO MESA VERDE									
At top prod. interval reported below						SEC. 13, T32N, R12W									
At total depth						11. SEC., T., R., M. OR BLOCK AND SURVEY FOR AREA									
14. PERMIT NO.		DATE ISSUED		12. COUNTY OR PARISH		13. STATE									
30-045-31673		6/3/2003		SAN JUAN		NM									
15. DATE SPUDDED		16. DATE T.D. REACHED		17. DATE COMPL. (Ready to prod.)		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*		19. ELEV. CASINGHEAD							
7/11/2003		7/19/2003		8/20/2003		GL 6375', KB 6387'		6375'							
20. TOTAL DEPTH, MD & TVD		21. PLUG BACK T.D., MD & TVD		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY		ROTARY TOOLS CABLE TOOLS							
5715'		5532'				0 - TD		N/A							
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD & TVD)*								25. WAS DIRECTIONAL SURVEY MADE							
4458' - 5448' Mesaverde								NO							
26. TYPE ELECTRIC AND OTHER LOGS RUN								27. WAS WELL CORED							
GR, CCL, CRL, HRI, HRTT, SDL/ DSN								NO							
28. CASING RECORD (Report all strings set in well)															
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED					
9 5/8" K		36#		201'		12 1/4"		Howco 140 sx STD 2% CaC12 .25# Flocele.							
7" J		23#		3195'		8 3/4"		Howco Lead 66 sx poz, 296 sx STD 3% Econolite.							
29. LINER RECORD										30. TUBING RECORD					
10.5 SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)		PACKER SET (MD)					
4 1/2" IK		3051'		5715'		305 sx		Unable to kill well to run tbg.							
						300		2 3/8		4750					
31. PERFORATION RECORD (Interval, size and number)						32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.									
See attached Completion Procedure.						DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED									
						5040' - 5448' 48,943 gal foamed S/ W, 1,133.2 mscf N2, 112,139 lb									
						20/40 Brady Sand.									
						4700' - 4866' 38,589 gal foamed S/ W, 833.6 mscf N2, 84,431 lb									
						20/40 Brady Sand.									
						4458' - 4610' 23,622 gal foamed S/ W, 553.5 mscf N2, 55,557 lb									
						20/40 Brady Sand.									
33.* PRODUCTION															
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)				WELL STATUS (P (Producing or shut-in)									
8/26/2003		Flowing				Producing									
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD'N FOR TEST PERIOD		OIL - BBL.		GAS - MCF.		WATER - BBL.		GAS-OIL RATIO	
8/26/2003		24		20/64				0		900		0		N/A	
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		OIL - BBL.		GAS - MCF.		WATER - BBL.		OIL GRAVITY - API (CORR.)			
700		690				0		900		0		N/A			
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)										TEST WELL					
Will be sold.										ACCEPTED FOR RECORD Kirby Sanchez					
35. LIST OF ATTACHMENTS										SEP 29 2003					
Wellbore Diagram, Completion Procedure, Gas Analysis										FARMINGTON FIELD OFFICE					
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records										DATE 9/18/2003					
SIGNED <u>Dia Steele</u> TITLE <u>Sr. Engineering Analyst</u>															

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United State any false, fictitious or fraudulent statements or representations or to conspire to do so in any matter within its jurisdiction.

NMCOO

✓

Horton 3C
NMSF-078146A

37. SUMMARY OF POROUS ZONES: (Show all important zones of 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):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
				Nacimiento Fm.	Surface	
				kirtland Sh.	873'	
				Fruitland Fm.	2380'	
				pictured cliffs Ss.	2818'	
				Lewis Sh.	3000'	
				Cliff House Ss.	4697'	
				Menefee Fm.	4868'	
				Point Lookout Ss.	5182'	
				Mancos Sh.	5557'	

HORTON 3C

NENW Sec. 13, T32N, R12W

San Juan County, NM

Drilled by Questar Exploration and Production Co.

Spud date: 7/11/03

Schematic - not drawn to scale

Date: 9/15/2003

9-5/8" Surface Casing:

4 jts 9-5/8", 36#, K-55, 8rd LT&C, 8rd set @ 201' KB

Cemented w/ 140 sx STD 2% CaC12.

7" Intermediate Casing:

73 jts of 7", 23# / ft, J-55, P-110, LT&C 8rd set @ 3195'

KB, Float Collar @3150' KB.

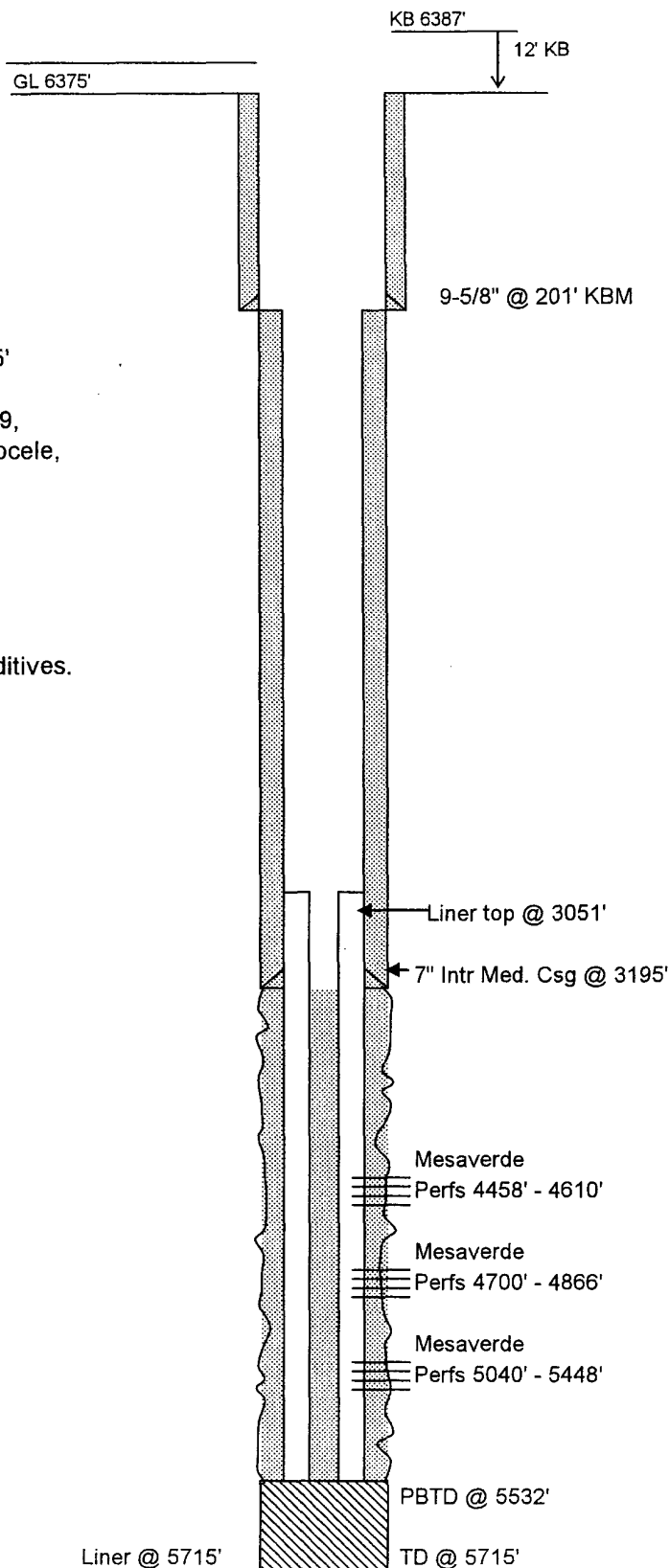
Cemented w/ Howco lead 66 sx poz, 4% gel, 2% Halad9,
15# fe-2, 296 sx std 3% Econolite, 10# gisonite, 1/2# flocele,
1% cfr, 2% CaCL2.

4-1/2" Liner:

Ran 63 jts of 4-1/2" 10.5#, K-55, ST&C set @ 5715',

Float Collar at +/- 5673' KB. TOL at 3051' KB.

Cemented w/ 65 sks poz, lead, 300 sx 50/50 poz w/ additives.



Questar Exploration and Production Company

Completion Procedure
July 25, 2003

Horton 3 C
700' FNL & 1870' FWL
Section 13, T32N-R12W
San Juan County, New Mexico

Well Data:

Elevation: GL = 6,375, KB = 6,387'

Surface Pipe: 4 jts – 9 5/8", 36 #/ft, K-55, LT&C, 8rd set @ 201' KB.
Cemented w/ 140 sx STD 2% CaCl₂. Recovered 14 bbls cement.

Intermediate: 73 jts – 7", 23 #/ft, J-55, P-110, LT&C, 8rd set @ 3195' KB, Float Collar @ 3150' KB. Cement with HOWCO lead 66 sx POZ, 4% gel, 2% Halad9, 15# FE-2, 296 sx STD 3% Econolite, 10# gilsonite, 1/2 # flocele, 1% CFR, 2% CaCl₂. Circulate 25 bbls to pit.

Liner: 63 jts – 4 1/2", 10.5 #, K-55, ST&C set @ 5715' KB. Float collar at +/- 5673' KB. TOL at 3051' KB. Cemented with 65 sx POZ, lead, 300 sx 50/50 POZ w/ additives. Bridged off approximately 10 bbls from landing plug. Approximately 600 foot cement left in pipe.

Open Hole Logs: Halliburton on July 17, 2003
HRI, HRTT, SDL/DSN.

Completion Procedure

Page 2

Horton 3C

July 25, 2003

1. MIRU. NU BOP. Set 7 – 400 bbl frac tanks and fill w/ 2% KCl water. Dowell will add biocide to tanks one day before frac.
2. PU 2 3/8" tubing and strap in hole w/ 3 7/8" bit and scraper. Drill/clean-out to float collar set @ 5673' KB. Circulate hole clean.
3. RU Computalog. Run GR/CCL/CBL from PBTD to liner top @ 3051' KB under 500 psig if necessary. RD Computalog and pressure test casing to 3500 psig for 15 minutes.
4. If CBL indicates Mesaverde formation has good bond and adequate isolation, perforate the 1st stage of the Mesaverde (per SDL dated 7/17/03) w/ 3 1/8" casing gun, 12 gram charges, 0.32" diameter hole as follows:

<u>Interval</u>	<u>Density</u>	<u>Shots</u>	<u>Phasing</u>
5040'	1	1	None
5074'	1	1	None
5082'	1	1	None
5122'	1	1	None
5134'	1	1	None
5184'	1	1	None
5194' - 5200'	1 every 2 ft	3	120
5216'	1	1	None
5226' - 40'	1 every 2 ft	7	120
5270' - 92'	1 every 2 ft	11	120
5316' - 22'	1 every 2 ft	3	120
5370' - 80'	1 every 2 ft	5	120
5410'	1	1	None
5422' - 28'	1 every 2 ft	3	120
5442' - 48'	1 every 2 ft	<u>3</u>	120
TOTAL		43	

MAXIMUM PRESSURE FOR ALL STAGES IS 3500 PSIG.

Completion Procedure

Page 3

Horton 3C

July 25, 2003

5. Immediately after fracing the 1st stage, wireline set a composite frac plug @ +/- 4950'. Pressure test plug to 3500 psig. If pressure holds, perforate as follows:

<u>Interval</u>	<u>Density</u>	<u>Shots</u>	<u>Phasing</u>
4700' - 10'	1 every 2 ft	5	120
4722'	1	1	None
4738'	1	1	None
4780' - 88'	1 every 2 ft	4	120
4800' - 18'	1 every 2 ft	9	120
4832' - 38'	1 every 2 ft	3	120
4854'	1	1	None
4866'	1	<u>1</u>	None
Total		25	

Frac the 2nd stage down casing per approved procedure.

6. Immediately after fracing the 2nd stage, wireline set a composite frac plug @ +/- 4650'. Pressure test plug to 3500 psig. If pressure holds, perforate as follows:

<u>Interval</u>	<u>Density</u>	<u>Shots</u>	<u>Phasing</u>
4458' - 64'	2 spf	12	120
4508'	2 spf	2	180
4556' - 64'	2 spf	16	120
4606' - 10'	2 spf	<u>8</u>	120
TOTAL		38	

Frac the 3rd stage down casing per approved procedure.

7. Flow back load immediately through a 20/64ths choke.
8. After well loads up and logs off, TIH with 2 3/8" tubing and 3 7/8" bit. Drill out frac plugs and clean out to PBTD. Land tubing with seating nipple open-ended at +/- 4750'.
9. Swab tbg as required to unload well and kickoff.
10. Turn well over to Hallador for production after well cleans up.

CGM, INC. ON-SITE GAS ANALYSIS U-1
 1523 W. AZTEC BLVD.
 AZTEC, NM 87410 505-333-2003

Source: QUESTAR E&P Report Date: 08/18/2003
 Station #: HORTON #3-C Sample Date: 08/18/2003
 Station Name: Flowing Pressure: 0 psig
 Field: Flowing Temp.: 0 F

Method: c:\ezchrom\methods\m200.met
 File: d:\0803\hor3c_2.2

Gas Analysis by Chromatograph

Name	Mole %	BTU	SG	GPM
Nitrogen	5.289	0.000	0.051	
Methane	79.889	808.746	0.443	
CO2	1.132	0.000	0.017	
Ethane	8.135	144.298	0.084	2.176
Propane	3.336	84.135	0.051	0.919
i-Butane	0.536	17.471	0.011	0.175
n-Butane	0.908	29.691	0.018	0.286
i-Pentane	0.338	13.554	0.008	0.124
n-Pentane	0.280	11.250	0.007	0.101
Hexanes	0.095	4.529	0.003	0.039
Heptanes	0.053	2.923	0.002	0.024
Octanes	0.009	0.564	0.000	0.005
Nonanes	0.000	0.000	0.000	

Ideal Total 100.000 1117.161 0.696 3.850

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730)	Gasoline Content
Dry = 1120.397	Propane GPM = 0.175
Sat. = 1102.171	Butane GPM = 0.410
Actual = 1120.397	Gasoline GPM = 0.170
(0.000 lbs. water/MMCF)	26# Gasoline GPM = 0.293
	Total GPM = 0.755

Real Specific Gravity Calculated = 0.6973

On-Site Specific Gravity = 0.0000

Gas Compressability = 0.9971