

WELL LOGS

K Z

API number:	30-025-39951		
OGRID:		Operator:	COG OPERATING LLC
		Property:	MAGNUM PRONTO STATE COM # 4H

surface	ULSTR:	P	32	T	19S	R	32E
			330	FSL	330	FEL	

BH Loc	ULSTR:	A	32	T	19S	R	32E
			4958	FSL	511	FEL	

Ground Level:	3535	DF:	3552	KB:	3553	
Datum:	KB			TD:	3946	

Completion Date: (1)	3/1/2011
Date Logs Received:	3/11/2011
Date C105 Received:	3/11/2011
Date Logs/C105 Due in: (2)	3/21/2011

Land: STATE

Confidential:	NO			Date out:	
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Confidential period: 90 Days for State & Fee, 1 Year for federal

Date Due In: (1) is equal to Completion Date (1) + 20 days

Logs	Depth interval	
DSN/SDL	200	8774 Spectral Density Dual Spaced Neutron
DLL/MGRD	4009	8774 Dual Laterolog Micro Guard Log

K Z

OCD TOPS

Rustler	928	Bone Spring	7345	
Tansill		1st Sd	8500	
Yates	2444	2nd Carb		
7 rvs		2nd Sd		
		3rd Carb		
		3rd Sd		
Queen		Wolfcamp		
Penrose				
Grayburg		Strawn		
San Andres		Atoka		
Glorieta		Morrow		
Yeso				
Abo				
		Barnett Sh		
Capitan Reef	2878	Miss Lime		
Getaway Bank				
Delaware Sd	4510			

Results of Directional Survey

API number:	30-025-39951		
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		Property:	MAGNUM PRONTO STATE COM # 4H

surface	ULSTR:	P	32	T 19S	R 32E
				330 FSL	330 FEL

BH Loc	ULSTR:	A	32	T 19S	R 32E
13740	MD	9345.6	TVD	4958 FSL	511 FEL

Top Perf/OH	ULSTR:	P	32	T 19S	R 32E
9400	MD	9302.0	TVD	635 FSL	341 FEL

Bot Perf/OH	ULSTR:	A	32	T 19S	R 32E
13630	MD	9350.0	TVD	4849 FSL	500 FEL

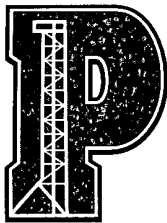
	MD	N/S	E/W	VD
	9380	287.71	-10.29	9292.3
TOP PERFS/OH	9400	305.16	-11.37	9302.00
	9412	315.63	-12.02	9307.82
	13511	4400.08	-159.85	9353.50
BOT PERFS/OH	13630	4518.57	-170.22	9350.02
	13638	4526.54	-170.92	9349.79

NEXT TO LAST	13638	4526.54	-170.92	9349.79
LAST READING	13692	4580.23	-176.29	9347.55
TD	13740	4627.95	-181.06	9345.56

Surface Location	330	FS	330	FE
Projected BHL	4958	FS	511	FE
Location of				
Top Perfs/OH	635	FS	341	FE
Bottom Perfs/OH	4849	FS	500	FE

SUMMARY of Subsurface Locations

Surface Location	P-32-19S-32E	330	FS	330	FE	Vert. Depth
Top Perfs/OH	P-32-19S-32E	635	FS	341	FE	9302.00
Bottom Perfs/OH	A-32-19S-32E	4849	FS	500	FE	9350.02
Projected TD	A-32-19S-32E	4958	FS	511	FE	9345.56



PATRIOT DRILLING, LLC

RECEIVED

MAR 11 2011
HOBBSOCD

OPERATOR:
WELL/LEASE:
COUNTY:

COG Operating, LLC.
Magnum Pronto State # 4 H
Lea Co., New Mexico
Sec. 32, T19S, R32E

**STATE OF NEW MEXICO
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
320	1/2	3,521	2 1/4
1,115	1/2	3,584	1 1/2
1,300	1	3,703	2 1/2
1,550	1	3,829	2 3/4
1,761	1	3,960	2 1/2
1,954	1 3/4	4,085	1 3/4
2,079	2 1/2	4,405	1 1/2
2,140	1 1/4	4,882	3/4
2,265	2 3/4	5,302	3/4
2,328	2 3/4	5,716	3/4
2,392	1 3/4	5,772	1 1/4
2,443	2	6,250	1 1/4
2,518	1 1/2	6,726	3/4
2,611	3/4	7,211	1/2
2,933	1/2	7,497	1 1/4
3,170	1/2	7,966	1/2
3,392	1 1/4		

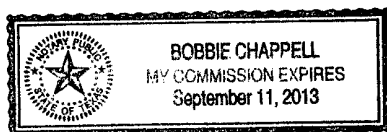
SUR: P-32-19s-32e, 330/S & 330/E
BHL: A-32-19s-32e, 4948/S & 511/E
API #30-025-39951

Patriot Drilling, LLC

M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 18th day of January, 2011 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 9/11/2013



Bobbie Chappell
Notary Public for Midland Co., Texas