

PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288



September 7, 2012

COG, LLC
One Concho Center
600 W. Illinois Ave.
Midland, TX 79701

30-015-40459

RE: Tumak Federal #3
245' FSL & 230' FWL
Sec. 14, T17S, R28E
Eddy County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Eddie LaRue".

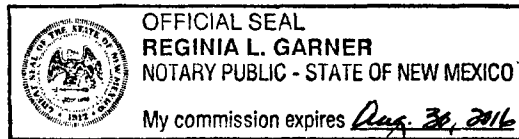
Eddie LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 7th day of September, 2012.

A handwritten signature in cursive script, appearing to read "Regina L. Garner".

Notary Public



Tumak Federal #3

Date	Depth	Deviation	Direction	TVD
8/29/2012	138	0.30		
8/30/2012	451	0.40		
8/20/2012	933	0.20		
9/1/2012	995	0.40	180.00	
9/1/2012	1090	1.30	38.40	
9/1/2012	1184	2.30	41.40	
9/1/2012	1308	2.60	44.20	
9/1/2012	1371	2.60	40.90	
9/1/2012	1461	2.50	46.00	
9/1/2012	1559	2.90	43.50	
9/1/2012	1660	2.30	41.10	
9/1/2012	1753	2.60	45.50	
9/2/2012	1940	2.60	46.00	1939.21
9/2/2012	2221	2.90	44.60	2219.82
9/2/2012	2502	3.30	46.20	2500.41
9/2/2012	2597	3.30	44.90	
9/2/2012	2692	2.90	42.60	
9/2/2012	2785	2.60	44.90	
9/2/2012	2879	2.60	47.40	
9/2/2012	2973	2.60	47.60	
9/2/2012	3068	2.60	40.20	
9/2/2012	3163	2.50	41.40	
9/2/2012	3255	3.00	46.90	
9/2/2012	3349	3.20	46.30	
9/3/2012	3443	3.30	48.80	
9/3/2012	3536	3.00	47.60	
9/3/2012	3630	3.00	48.30	
9/3/2012	3725	2.60	47.60	
9/3/2012	3818	2.60	51.60	
9/3/2012	4099	2.80	45.80	
9/3/2012	4194	2.60	44.60	
9/3/2012	4289	2.60	46.30	
9/4/2012	4382	2.60	40.50	4378.15
9/4/2012	4475	2.50	39.30	
9/4/2012	4569	2.90	33.50	
9/4/2012	4663	2.80	29.80	
9/4/2012	4757	3.30	48.10	
9/4/2012	4851	3.00	49.50	
9/4/2012	4945	2.90	50.20	
9/4/2012	5038	2.60	51.80	
9/4/2012	5133	2.30	47.70	
9/4/2012	5165	2.40	41.90	