



Directional Survey

HOBBS OCD

DEC 24 2015

Well Name: GAUCHO 21 FEDERAL 4H

Sub-Division DELAWARE BASIN EAST		Region BASIN EAST		Field Name OJO CHISO		County LEA		RECEIVED		State/Province NM			
Surface Legal Location SEC21 T22S R34E		API/UWI 3002542137		Latitude (") 32° 22' 13.709" N		Longitude (") 103° 28' 43.469" W		Orig KB Elevation (ft) 3,457.20		Ground Elev MSL (ft) 3,432.20		KB - GL (ft) 25.00	
Wellbores													
Wellbore Name OH		Parent Wellbore OH				SAP Well ID 38690				Vertical Section Direction (") 0.00			
Kick Offs & Key Depths													
Date				Type					Top Depth (ftKB)				
Actual Deviation Survey EXTREME/MWD, Proposed? No				Definitive? No		Proposed? No		Proposed Deviation Survey					
Deviation Survey													
Date 7/31/2015		Description EXTREME/MWD											
MD Tie In (ftKB) 0.00		TVD Tie In (ftKB) 0.00		Inclination Tie In (") 0.00		Azimuth Tie In (") 0.00		NSTie In (ft) 0.00		EWTie In (ft) 0.00			
Survey Data													
Date	MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company			
7/31/2015	135.00	0.31	321.32	135.00	0.29	0.29	-0.23	0.23	MWD	EXTREME			
7/31/2015	219.00	0.30	296.62	219.00	0.56	0.56	-0.57	0.16	MWD	EXTREME			
7/31/2015	314.00	0.30	283.12	314.00	0.73	0.73	-1.03	0.07	MWD	EXTREME			
7/31/2015	439.00	0.40	275.81	438.99	0.85	0.85	-1.78	0.09	MWD	EXTREME			
7/31/2015	530.00	0.40	271.22	529.99	0.89	0.89	-2.42	0.04	MWD	EXTREME			
8/1/2015	615.00	0.40	253.70	614.99	0.81	0.81	-3.00	0.14	MWD	EXTREME			
8/1/2015	710.00	0.30	211.82	709.99	0.50	0.50	-3.45	0.28	MWD	EXTREME			
8/1/2015	808.00	0.31	170.91	807.99	0.03	0.03	-3.54	0.22	MWD	EXTREME			
8/1/2015	903.00	0.48	126.70	902.99	-0.47	-0.47	-3.18	0.35	MWD	EXTREME			
8/1/2015	998.00	0.48	73.70	997.98	-0.59	-0.59	-2.48	0.45	MWD	EXTREME			
8/1/2015	1,093.00	0.70	47.21	1,092.98	-0.09	-0.09	-1.67	0.36	MWD	EXTREME			
8/1/2015	1,187.00	1.01	36.13	1,186.97	0.97	0.97	-0.76	0.37	MWD	EXTREME			
8/1/2015	1,282.00	1.41	37.10	1,281.95	2.58	2.58	0.43	0.42	MWD	EXTREME			
8/1/2015	1,378.00	1.41	46.63	1,377.92	4.33	4.33	2.01	0.24	MWD	EXTREME			
8/1/2015	1,473.00	1.49	48.61	1,472.89	5.95	5.95	3.78	0.10	MWD	EXTREME			
8/1/2015	1,565.00	1.58	44.70	1,564.85	7.65	7.65	5.57	0.15	MWD	EXTREME			
8/1/2015	1,660.00	1.19	34.73	1,659.83	9.39	9.39	7.06	0.48	MWD	EXTREME			
8/1/2015	1,739.00	0.88	34.11	1,738.81	10.56	10.56	7.86	0.39	MWD	EXTREME			
8/4/2015	1,892.00	0.60	55.40	1,891.80	11.99	11.99	9.18	0.25	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	1,987.00	0.70	55.40	1,986.79	12.60	12.60	10.07	0.11	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,082.00	0.60	74.60	2,081.79	13.07	13.07	11.03	0.25	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,177.00	0.60	63.30	2,176.78	13.42	13.42	11.95	0.12	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,272.00	0.60	62.50	2,271.78	13.87	13.87	12.83	0.01	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,367.00	0.80	55.30	2,366.77	14.48	14.48	13.82	0.23	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,462.00	1.00	47.30	2,461.76	15.42	15.42	14.98	0.25	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,557.00	1.00	57.50	2,556.74	16.43	16.43	16.28	0.19	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,652.00	1.20	54.40	2,651.73	17.45	17.45	17.79	0.22	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,746.00	1.40	60.70	2,745.70	18.59	18.59	19.59	0.26	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,841.00	1.60	62.30	2,840.67	19.77	19.77	21.78	0.22	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	2,935.00	2.10	62.10	2,934.62	21.19	21.19	24.46	0.53	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	3,031.00	2.50	62.80	3,030.54	22.97	22.97	27.88	0.42	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	3,125.00	2.50	61.60	3,124.45	24.88	24.88	31.51	0.06	MWD	LEAM DRILLING SYSTEMS			
8/4/2015	3,220.00	1.60	61.10	3,219.39	26.51	26.51	34.49	0.95	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,315.00	2.60	55.60	3,314.33	28.37	28.37	37.43	1.07	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,409.00	2.40	58.40	3,408.24	30.60	30.60	40.87	0.25	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,504.00	2.10	60.20	3,503.16	32.51	32.51	44.07	0.32	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,599.00	1.80	59.70	3,598.11	34.13	34.13	46.87	0.32	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,692.00	1.40	60.00	3,691.07	35.43	35.43	49.11	0.43	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,787.00	1.20	50.90	3,786.05	36.64	36.64	50.89	0.30	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,882.00	0.90	57.90	3,881.03	37.66	37.66	52.30	0.34	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	3,977.00	0.50	56.00	3,976.02	38.29	38.29	53.27	0.42	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,071.00	0.50	51.70	4,070.02	38.77	38.77	53.93	0.04	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,166.00	0.40	57.20	4,165.02	39.21	39.21	54.54	0.11	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,261.00	0.10	356.40	4,260.02	39.47	39.47	54.81	0.38	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,354.00	0.40	333.30	4,353.02	39.84	39.84	54.66	0.33	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,449.00	0.40	41.40	4,448.01	40.39	40.39	54.73	0.47	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,544.00	0.90	67.00	4,543.01	40.93	40.93	55.64	0.60	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,639.00	0.80	74.40	4,638.00	41.40	41.40	56.96	0.16	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,733.00	0.90	66.30	4,731.99	41.87	41.87	58.27	0.17	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,828.00	0.60	69.50	4,826.98	42.35	42.35	59.42	0.32	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,922.00	0.70	50.00	4,920.97	42.89	42.89	60.32	0.26	MWD	LEAM DRILLING SYSTEMS			
8/5/2015	4,951.00	0.70	55.30	4,949.97	43.10	43.10	60.60	0.22	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,107.00	0.40	21.30	5,105.96	44.15	44.15	61.58	0.28	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,202.00	0.50	355.50	5,200.96	44.88	44.88	61.67	0.24	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,297.00	0.80	59.30	5,295.96	45.63	45.63	62.21	0.77	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,392.00	1.90	85.50	5,390.93	46.09	46.09	64.35	1.30	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,487.00	3.10	94.10	5,485.84	46.03	46.03	68.48	1.32	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,582.00	5.10	95.30	5,580.59	45.46	45.46	75.25	2.11	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,677.00	4.80	95.00	5,675.23	44.72	44.72	83.41	0.32	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,772.00	4.70	95.20	5,769.91	44.02	44.02	91.25	0.11	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,867.00	4.70	94.60	5,864.59	43.35	43.35	99.00	0.05	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	5,962.00	4.60	92.20	5,959.28	42.90	42.90	106.69	0.23	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	6,151.00	4.80	88.00	6,147.64	42.88	42.88	122.17	0.21	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	6,340.00	5.00	85.50	6,335.95	43.80	43.80	138.28	0.15	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	6,530.00	4.70	84.10	6,525.27	45.25	45.25	154.28	0.17	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	6,720.00	5.20	89.00	6,714.56	46.20	46.20	170.63	0.34	MWD	LEAM DRILLING SYSTEMS			

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Directional Survey

Well Name: GAUCHO 21 FEDERAL 4H

Sub-Division		Region		Field Name			County		State/Province				
DELAWARE BASIN EAST		BASIN EAST		OJO CHISO			LEA		NM				
Surface Legal Location		API/UWI		Latitude (")		Longitude (")		Orig KB Elevation (ft)		Ground Elev MSL (ft)		KB - GL (ft)	
SEC21 T22S R34E		3002542137		32° 22' 13.709" N		103° 28' 43.469" W		3,457.20		3,432.20		25.00	
Survey Data													
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company			
8/11/2015	6,910.00	4.60	90.90	6,903.87	46.23	46.23	186.85	0.33	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	7,099.00	5.10	93.90	7,092.19	45.54	45.54	202.81	0.30	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	7,288.00	4.40	100.60	7,280.54	43.64	43.64	218.32	0.47	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	7,478.00	4.10	105.90	7,470.02	40.44	40.44	232.02	0.26	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	7,667.00	2.60	103.10	7,658.69	37.61	37.61	242.69	0.80	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	7,762.00	2.10	84.60	7,753.61	37.29	37.29	246.52	0.95	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	7,858.00	1.70	81.60	7,849.56	37.66	37.66	249.68	0.43	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	8,047.00	1.10	82.90	8,038.50	38.30	38.30	254.26	0.32	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	8,237.00	0.50	108.70	8,228.48	38.26	38.26	256.85	0.36	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	8,427.00	0.30	107.60	8,418.48	37.84	37.84	258.11	0.11	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	8,616.00	0.40	358.50	8,607.48	38.35	38.35	258.57	0.30	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	8,805.00	0.50	300.10	8,796.47	39.42	39.42	257.83	0.24	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	8,994.00	0.50	302.60	8,985.46	40.28	40.28	256.43	0.01	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,184.00	1.10	341.40	9,175.45	42.46	42.46	255.15	0.41	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,373.00	1.40	331.40	9,364.40	46.20	46.20	253.46	0.20	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,563.00	1.20	244.40	9,554.37	47.38	47.38	250.56	0.95	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,752.00	1.10	224.70	9,743.33	45.24	45.24	247.50	0.21	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,816.00	1.20	237.70	9,807.32	44.44	44.44	246.50	0.44	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,846.00	1.30	239.30	9,837.31	44.10	44.10	245.94	0.35	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,891.00	2.60	80.00	9,882.30	44.02	44.02	246.51	8.54	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,909.00	4.70	80.70	9,900.26	44.21	44.21	247.64	11.67	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,942.00	8.50	79.90	9,933.04	44.85	44.85	251.37	11.52	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	9,989.00	11.00	44.50	9,979.39	48.67	48.67	257.94	13.54	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,036.00	15.80	24.10	10,025.13	57.71	57.71	263.70	14.19	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,083.00	20.80	9.20	10,069.76	71.81	71.81	267.66	14.49	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,131.00	26.00	2.00	10,113.80	90.75	90.75	269.39	12.34	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,178.00	31.90	0.90	10,154.91	113.49	113.49	269.94	12.60	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,226.00	37.10	2.00	10,194.46	140.65	140.65	270.65	10.91	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,272.00	43.00	2.20	10,229.66	170.22	170.22	271.73	12.83	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,321.00	48.70	2.70	10,263.77	205.33	205.33	273.24	11.66	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,369.00	55.10	2.30	10,293.37	243.05	243.05	274.88	13.35	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,415.00	60.40	3.00	10,317.91	281.90	281.90	276.69	11.59	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,462.00	64.20	2.90	10,339.76	323.45	323.45	278.83	8.09	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,510.00	70.20	2.70	10,358.35	367.62	367.62	280.99	12.51	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,557.00	74.00	2.20	10,372.79	412.30	412.30	282.90	8.15	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,605.00	79.40	2.50	10,383.83	458.96	458.96	284.81	11.27	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,652.00	85.60	3.00	10,389.96	505.48	505.48	287.05	13.23	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,716.00	92.40	2.70	10,391.08	569.35	569.35	290.23	10.64	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,811.00	91.10	3.60	10,388.18	664.16	664.16	295.45	1.66	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	10,906.00	90.40	3.40	10,386.93	758.97	758.97	301.25	0.77	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,001.00	90.10	3.40	10,386.52	853.81	853.81	306.88	0.32	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,096.00	90.60	4.80	10,385.94	948.56	948.56	313.67	1.56	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,191.00	90.50	5.20	10,385.03	1,043.19	1,043.19	321.95	0.43	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,285.00	90.50	3.80	10,384.21	1,136.90	1,136.90	329.33	1.49	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,380.00	90.20	2.20	10,383.63	1,231.76	1,231.76	334.30	1.71	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,475.00	90.50	0.80	10,383.04	1,326.72	1,326.72	336.79	1.51	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,570.00	90.70	0.40	10,382.05	1,421.71	1,421.71	337.78	0.47	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,664.00	91.20	0.20	10,380.49	1,515.70	1,515.70	338.27	0.57	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,759.00	91.10	359.50	10,378.58	1,610.68	1,610.68	338.02	0.74	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,854.00	91.00	0.60	10,376.84	1,705.66	1,705.66	338.11	1.16	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	11,949.00	91.50	2.00	10,374.77	1,800.61	1,800.61	340.26	1.56	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,044.00	91.90	1.80	10,371.95	1,895.52	1,895.52	343.41	0.47	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,139.00	91.30	1.80	10,369.30	1,990.43	1,990.43	346.39	0.63	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,234.00	90.40	1.80	10,367.89	2,085.37	2,085.37	349.38	0.95	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,328.00	90.50	1.10	10,367.15	2,179.34	2,179.34	351.76	0.75	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,424.00	91.10	1.30	10,365.81	2,275.31	2,275.31	353.77	0.66	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,519.00	89.30	2.00	10,365.48	2,370.27	2,370.27	356.50	2.03	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,614.00	89.90	2.00	10,366.14	2,465.20	2,465.20	359.82	0.63	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,708.00	90.70	1.80	10,365.65	2,559.15	2,559.15	362.93	0.88	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,803.00	91.40	2.00	10,363.91	2,654.08	2,654.08	366.08	0.77	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,896.00	90.50	1.30	10,362.37	2,747.03	2,747.03	368.76	1.23	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	12,991.00	89.60	0.90	10,362.29	2,842.01	2,842.01	370.58	1.04	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,086.00	90.30	2.20	10,362.37	2,936.97	2,936.97	373.15	1.55	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,180.00	91.20	3.00	10,361.14	3,030.87	3,030.87	377.42	1.28	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,275.00	91.90	3.20	10,358.57	3,125.69	3,125.69	382.55	0.77	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,370.00	92.50	3.40	10,354.92	3,220.46	3,220.46	388.02	0.67	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,464.00	91.10	3.40	10,351.97	3,314.25	3,314.25	393.59	1.49	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,559.00	90.50	3.80	10,350.64	3,409.05	3,409.05	399.55	0.76	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,654.00	91.20	3.90	10,349.23	3,503.83	3,503.83	405.93	0.74	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,749.00	91.00	4.30	10,347.41	3,598.57	3,598.57	412.72	0.47	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,844.00	89.10	3.80	10,347.33	3,693.32	3,693.32	419.43	2.07	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	13,938.00	88.70	3.80	10,349.13	3,787.10	3,787.10	425.66	0.43	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	14,032.00	89.30	3.20	10,350.77	3,880.91	3,880.91	431.40	0.90	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	14,127.00	89.30	3.00	10,351.93	3,975.76	3,975.76	436.53	0.21	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	14,221.00	89.50	2.70	10,352.92	4,069.64	4,069.64	441.21	0.38	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	14,316.00	90.60	2.70	10,352.83	4,164.54	4,164.54	445.68	1.16	MWD	LEAM DRILLING SYSTEMS			
8/11/2015	14,411.00	90.40	3.00	10,352.01	4,259.41	4,259.41	450.41	0.38	MWD	LEAM DRILLING SYSTEMS			
Page 2/3													
Report Printed: 12/16/2015													

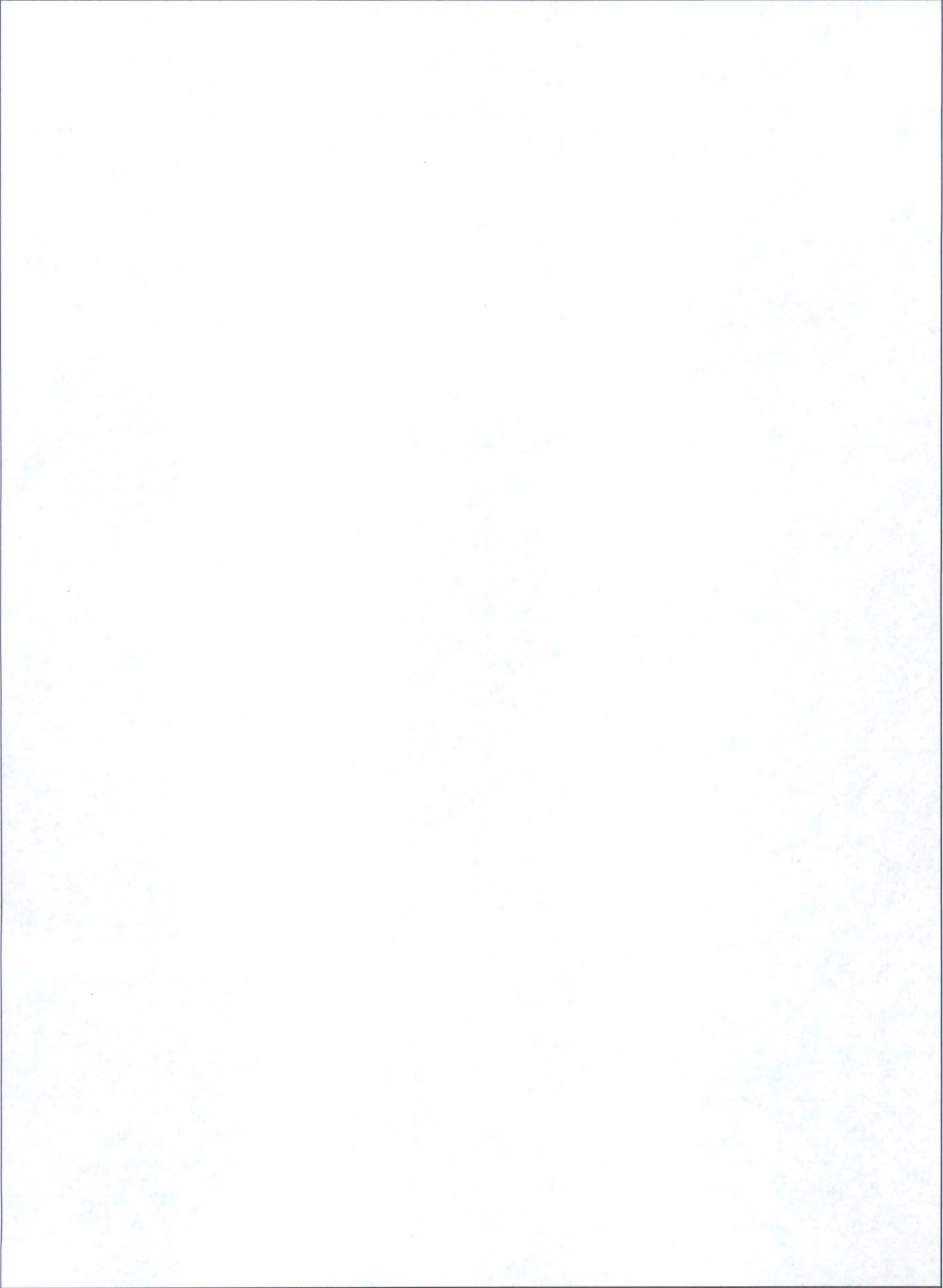


Directional Survey

Well Name: GAUCHO 21 FEDERAL 4H

Sub-Division DELAWARE BASIN EAST		Region BASIN EAST		Field Name OJO CHISO		County LEA		State/Province NM	
Surface Legal Location SEC21 T22S R34E		API/UWI 3002542137	Latitude (") 32° 22' 13.709" N	Longitude (") 103° 28' 43.469" W	Orig KB Elevation (ft) 3,457.20	Ground Elev MSL (ft) 3,432.20	KB - GL (ft) 25.00		

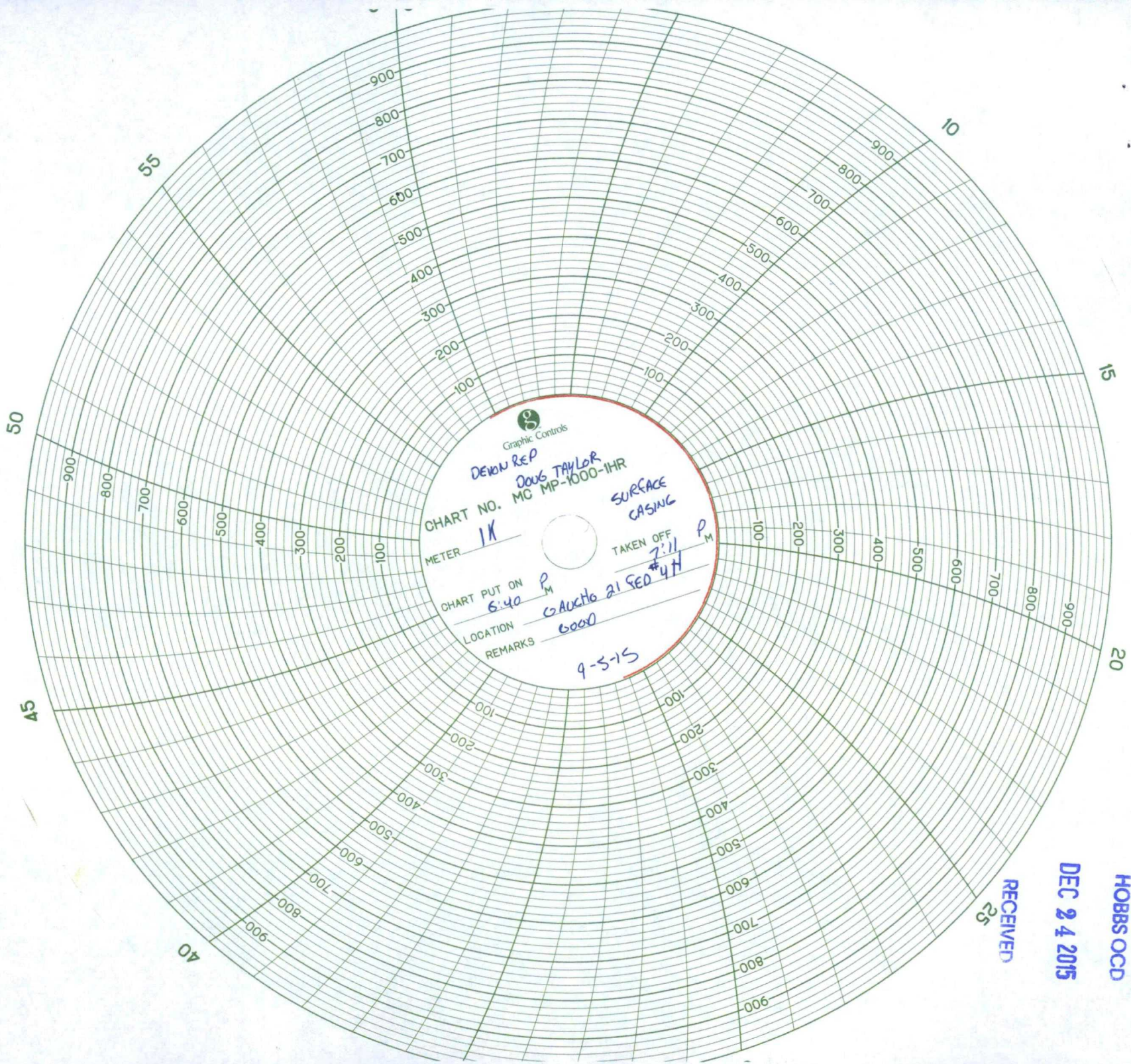
Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
8/11/2015	14,506.00	91.20	2.70	10,350.68	4,354.29	4,354.29	455.13	0.90	MWD	LEAM DRILLING SYSTEMS
8/11/2015	14,600.00	92.30	2.70	10,347.81	4,448.14	4,448.14	459.55	1.17	MWD	LEAM DRILLING SYSTEMS
8/11/2015	14,695.00	92.60	2.90	10,343.75	4,542.94	4,542.94	464.19	0.38	MWD	LEAM DRILLING SYSTEMS
8/11/2015	14,791.00	93.40	2.50	10,338.72	4,638.70	4,638.70	468.71	0.93	MWD	LEAM DRILLING SYSTEMS
8/11/2015	14,838.00	93.60	2.70	10,335.85	4,685.56	4,685.56	470.84	0.60	MWD	LEAM DRILLING SYSTEMS
8/11/2015	14,890.00	93.60	2.70	10,332.59	4,737.40	4,737.40	473.28	0.00	BIT	LEAM DRILLING SYSTEMS

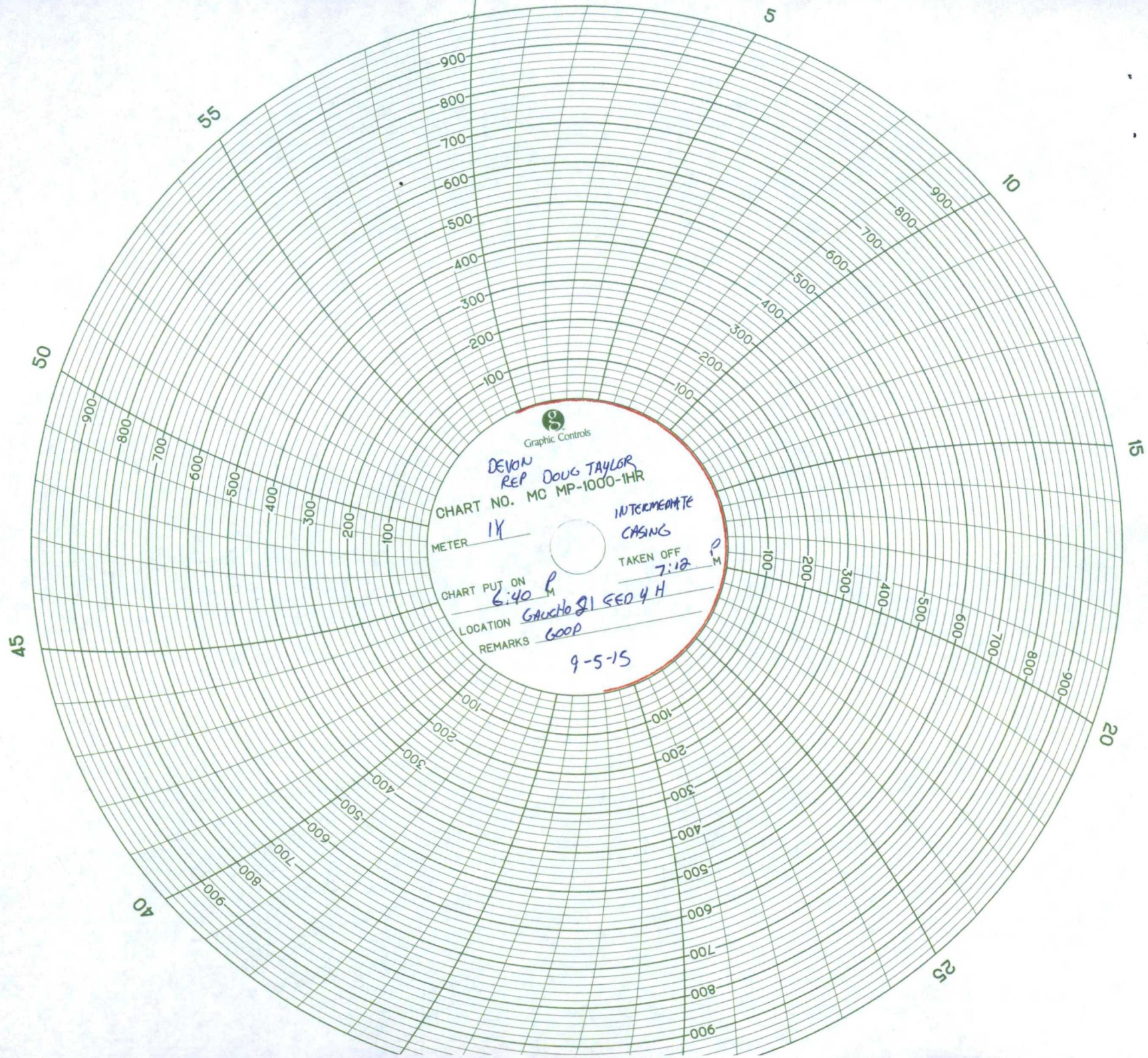


HOBBS OCD

DEC 24 2015

RECEIVED
25





DEVON
REP DOUG TAYLOR
CHART NO. MC MP-1000-1HR
METER 1X
INTERMEDIATE
CASING
TAKEN OFF 7:12 P
CHART PUT ON 6:40 P
LOCATION GAUCHO 21 SED 4 H
REMARKS GOOD
9-5-15

