Rec'd 6/10/2020 - NMOCD

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AS DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Numbe	er ² Pool Code	² Pool Code ³ Pool Name						
30-025-465	28435	GRAMA RIDGE; BONE SPRIN	NG, NE					
⁴ Property Code	5	Property Name	⁶ Well Number					
	GRAMA RIDO	GRAMA RIDGE EAST 34 STATE COM 2BS						
⁷ OGRID No.	8 ,	⁸ Operator Name						
372137	CHISHOLM E	3616'						

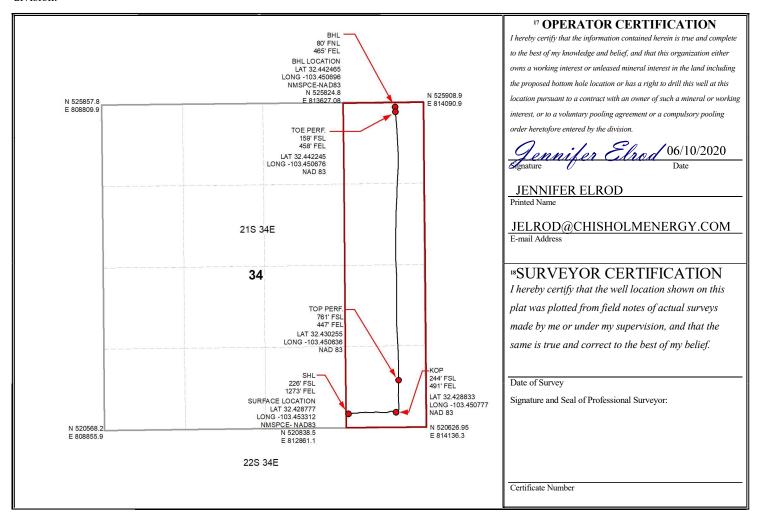
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	34	21S	34E		226	SOUTH	1273	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

			20	ttom m	e Lecumen ii	Dillerent From				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	(County
A	34	21S	1S 34E		80	NORTH	465	EAST	LEA	
12 Dedicated Acres	3 Joint o	r Infill ¹⁴ (Consolidation	Code 15 Or	der No.					
160	INF	ILL								

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Inten	t	As Dril	led X			Re	c'd 6	/10/2	2020	- NM	OCI)			
API #	ŧ														
Operator Name: CHISHOLM ENERGY OPERATING, LLC							Property Name: GRAMA RIDGE EAST 34 2BS STATE COM							Well Number 9H	
Kick (Off Point	(KOP)													
UL P	Section 34	Township 21S	Range 34E	Lot	Feet 244		From N		Feet 491		From	n E/W ST	County		
Latit		I			Longitu -103	ıde			1			<u></u>	NAD 83		
First	Take Poir	nt (FTP)													
UL P	Section 34	Township 21S	Range 34E	Lot	Feet 761		From N		Feet		Fron	n E/W	County		
	Latitude Long 32.430255 -103											<u> </u>	NAD 83		
Last ⁻	Гake Poin	t (LTP)													
UL A	Section 34	Township 21S	Range 34E	Lot	Feet 159		n N/S JTH	Feet		From		Coun	ty		
Latit	ude 442245	5	1	l	_	ongitude NAD 103.450676 83									
Is this	s well the	e defining v	vell for th	e Hori:	zontal Sp	pacing	Unit?		NO]					
ls thi	s well an	infill well?		YES											
	II is yes p ing Unit.	lease prov	ide API if	availak	ole, Opei	rator N	Name :	and v	vell n	umber	for [Definiı	ng well fo	r Horizontal	
API #	, 025-456	625													
-		me: /I ENERC	Y OPEI	RATII	NG,	GRA	erty N NMA I /I 2BS	RIDO		AST	34 S	STAT	E	Well Number	

Schlumberger

Chisholm Grama Ridge East 34 State 2BS 9H MWD Surveys 0ft to 15020ft **MD Survey Geodetic Report**



(Def Survey)

March 25, 2020 - 11:37 AM Report Date: Client: Field:

wald (2), 2020 - 11.07 Am Chisholm NM Lea County (NAD 83) Chisholm Grama Ridge East 34 State 2BS 9H / New Slot Grama Ridge East 34 State 2BS 9H Structure / Slot:

Well: Grama Ridge East 34 State 2BS 9H UWI / API#: Unknown / Unknown

Chisholm Grama Ridge East 34 State 2BS 9H MWD Surveys 0ft to Survey Name:

15020ft MD Survey Date:

March 21, 2020 203.819 ° / 5784.330 ft / 6.234 / 0.559 NAD83 New Mexico State Plane, Eastern Zone, US Feet Tort / AHD / DDI / ERD Ratio: Coordinate Reference System:

Location Lat / Long: Location Grid N/E Y/X: N 32° 25' 43.59771", W 103° 27' 11.92249" N 520838.500 ftUS, E 812861.100 ftUS

CRS Grid Convergence Angle: Grid Scale Factor: 0.4719 ° 0.99999353 Version / Patch: 2.10.810.1

Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: Vertical Section Origin: 359.510 ° (Grid North) 0.000 ft, 0.000 ft

TVD Reference Datum: RKB

3647.000 ft above MSL TVD Reference Elevation: Seabed / Ground Elevation: 3616.000 ft above MSL

Magnetic Declination: 6.538°

Total Gravity Field Strength: 998.4793mgn (9.80665 Based)

Gravity Model: GARM Total Magnetic Field Strength: Magnetic Dip Angle: 47950.313 nT 60.237 ° March 21, 2020 HDGM 2020 Declination Date: Magnetic Declination Model: North Reference: Grid Convergence Used: Total Corr Mag North->Grid Grid North 0.4719 ° 6.0664°

Version / Patch:	2.10.8	310.1			Norti	h: I Coord Referenc		664 ° ell Head		
					Loca	I Coord Referenc	ed 10: VVe	iii neau		
Comments	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing	Easting Latitude Longitude
SHL	(ft) 0.00	(°) 0.00	0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(°/ 100ft) N/A	(ftUS) 520838.50	(ftUS) (N/S ° ' ") (E/W ° ' ") 812861.10 N 32.25 43.60 W 103.27 11.92
First SLB MWD	178.00	0.75	121.59	177.99	-0.62	-0.61	0.99	0.42	520837.89	812862.09 N 32 25 43.59 W 103 27 11.91
Survey	304.00	0.67	125.74	303.99	-1.49	-1.47	2.29	0.08	520837.03	812863.39 N 32 25 43.58 W 103 27 11.90
	331.00	0.61	121.95	330.98	-1.66	-1.64	2.54	0.27	520836.86	812863.64 N 32 25 43.58 W 103 27 11.89
	388.00	0.56	112.84	387.98	-1.94	-1.91	3.06	0.18	520836.59	812864.16 N 32 25 43.58 W 103 27 11.89
	447.00 510.00	0.40 0.43	125.48 119.18	446.98 509.98	-2.17 -2.42	-2.14 -2.38	3.49 3.88	0.32 0.09	520836.36 520836.12	812864.59 N 32 25 43.58 W 103 27 11.88 812864.98 N 32 25 43.57 W 103 27 11.88
	636.00	0.28	124.92	635.97	2.83	-2.79	4.54	0.12	520835.71	812865.64 N 32 25 43.57 W 103 27 11.87
	731.00	0.25	152.67	730.97	-3.15	-3.11	4.83	0.14	520835.39	812865.93 N 32 25 43.57 W 103 27 11.87
	825.00 927.00	0.33 0.13	155.46 137.63	824.97 926.97	-3.58 -3.93	-3.54 -3.89	5,03 5,23	0.09 0.21	520834,96 520834,61	812866.13 N 32 25 43.56 W 103 27 11.86 812866.33 N 32 25 43.56 W 103 27 11.86
	1021.00	0.16	155.83	1020.97	-4.13	-4.09	5.36	0.06	520834.41	812866.46 N 32 25 43.56 W 103 27 11.86
	1115.00	0.08	158.72	1114.97	-4.31	-4.27	5.44	0.09	520834.23	812866.54 N 32 25 43.56 W 103 27 11.86 812866.56 N 32 25 43.55 W 103 27 11.86
	1210.00 1304.00	0.00 0.08	6.08 228.96	1209.97 1303.97	-4.38 -4.42	-4.33 -4.37	5.46 5.41	0.08 0.09	520834.17 520834.13	812866.56 N 32 25 43.55 W 103 27 11.86 812866.51 N 32 25 43.55 W 103 27 11.86
	1398.00	0.13	207.11	1397.97	-4.56	-4.51	5.31	0.07	520833.99	812866.41 N 32 25 43.55 W 103 27 11.86
	1493.00	0.13	209.08	1492.97	-4.75	-4.70	5.21	0.00	520833.80	812866.31 N 32 25 43 55 W 103 27 11.86
	1587.00 1682.00	0.13 0.11	179.58 332.63	1586.97 1681.97	-4.94 -4.97	-4.90 -4.93	5.16 5.12	0.07 0.25	520833.60 520833.57	812866.26 N 32 25 43.55 W 103 27 11.86 812866.22 N 32 25 43.55 W 103 27 11.86
	1703.00	0.17	242.44	1702.97	4.97	4.92	5.08	0.97	520833.58	812866.18 N 32 25 43.55 W 103 27 11.86
	1869.00	0.18	135.52	1868.97	-5.27	-5.22	5.05	0.17	520833.28	812866.15 N 32 25 43.55 W 103 27 11.86
	1964.00 2058.00	1.93 4.49	75.24 79.29	1963.95 2057.80	-4.98 -3.94	-4.92 -3.84	6.70 11.85	1.94 2.73	520833.58 520834.66	812867.80 N 32 25 43.55 W 103 27 11.84 812872.95 N 32 25 43.56 W 103 27 11.78
	2153.00	5.97	78.95	2152.40	-2.37	2.20	20.35	1.56	520836.30	812881.45 N 32.25.43.57 W 103.27.11.69
	2247.00	5.60	78.57	2245.92	-0.61	-0.35	29.64	0.40	520838.15	812890.74 N 32 25 43.59 W 103 27 11.58
	2341.00 2436.00	5.57 5.56	77.83 77.86	2339.47 2434.02	1.19 3.05	1.52 3.46	38.60 47.60	0.08 0.01	520840.02 520841.96	812899.70 N 32 25 43.61 W 103 27 11.47 812908.70 N 32 25 43.63 W 103 27 11.37
	2530.00	5.37	76.88	2527.60	4.93	5.41	56.34	0.01	520843.91	812917.44 N 32.25.43.65 W 103.27.11.37
	2625.00	5.22	74.48	2622.19	7.03	7.58	64.83	0.28	520846.08	812925.93 N 32 25 43.67 W 103 27 11.17
	2719.00	5.72	85.72 94.85	2715.77	8.44	9.07	73.62	1.26 1.08	520847.57	812934.72 N 32 25 43.68 W 103 27 11.06 812944.37 N 32 25 43.68 W 103 27 10.95
	2813.00 2908.00	6.10 5.91	90.33	2809.27 2903.75	8.29 7.75	9.00 8.55	83.27 93.19	0.54	520847.50 520847.05	812944.37 N 32 25 43.68 W 103 27 10.95 812954.29 N 32 25 43.67 W 103 27 10.83
	3002.00	6.20	88.79	2997.22	7.74	8.63	103.11	0.35	520847.13	812964.20 N 32 25 43.67 W 103 27 10.72
	3097.00	6.50	88.21	3091.64	7.93	8.90	113.61	0.32	520847.40	812974.71 N 32.25.43.68 W 103.27.10.60
	3192.00 3287.00	6.81 7.01	85.60 82.29	3186.00 3280.31	8.44 9.55	9.50 10.71	124.60 135.96	0.46 0.47	520848.00 520849.21	812985.70 N 32 25 43.68 W 103 27 10.47 812997.06 N 32 25 43.69 W 103 27 10.34
	3382.00	7.02	82.77	3374.60	10.96	12.22	147.46	0.06	520850.72	813008.56 N 32 25 43.71 W 103 27 10.20
	3477.00	7.19	80.83	3468.87	12.54	13.90	159.09	0.31	520852.40	813020.19 N 32 25 43.72 W 103 27 10.07
	3571.00 3666.00	7.22 7.51	79.40 79.16	3562.13 3656.34	14.46 16.62	15.92 18.19	170.71 182.67	0.19 0.31	520854.42 520856.69	813031.80 N 32 25 43.74 W 103 27 9.93 813043.77 N 32 25 43.76 W 103 27 9.79
	3761.00	7.07	88.34	3750.58	17.86	19.52	194.61	1.31	520858.02	813055.71 N 32 25 43.78 W 103 27 9.65
	3856.00	6.68	91.94	3844.90	17.74	19.51	205.98	0.61	520858.01	813067.08 N 32 25 43.77 W 103 27 9.52
	3950.00 4045.00	6.19 6.12	88.86 89.08	3938.30 4032.76	17.57 17.67	19.42 19.61	216.51 226.69	0.64 0.08	520857.92 520858.11	813077.61 N 32 25 43.77 W 103 27 9.39 813087.79 N 32 25 43.77 W 103 27 9.28
	4140.00	5.72	87.35	4127.25	17.88	19.91	236.49	0.46	520858.41	813097.58 N 32 25 43.77 W 103 27 9.16
	4234.00	5.53	85.51	4220.80	18.38	20.48	245.68	0.28	520858.98	813106.78 N 32 25 43.78 W 103 27 9.05
	4329.00 4424.00	5.35 5.39	84.24 82.54	4315.37 4409.95	19.10 20.05	21.28 22.30	254.65 263.48	0.23 0.17	520859.78 520860.80	813115.75 N 32 25 43 79 W 103 27 8.95 813124.58 N 32 25 43.80 W 103 27 8.85
	4518.00	5.20	81.99	4503.55	21.14	23.47	272.08	0.17	520861.97	813133.18 N 32 25 43.81 W 103 27 8.75
	4613.00	5.96	90.11	4598.10	21.65	24.06	281.27	1.15	520862.56	813142.37 N 32 25 43.81 W 103 27 8.64
	4707.00	6.83 6.37	97.81	4691.52 4785.89	20.80 19.33	23.29	291,69 302,52	1.30	520861.79 520860.42	813152.79 N 32 25 43.80 W 103 27 8.52 813163.62 N 32 25 43.79 W 103 27 8.39
	4802.00 4896.00	6.15	96.59 97.02	4879.33	18.03	21.92 20.71	312.70	0.51 0.24	520859.21	813173.80 N 32 25 43.78 W 103 27 8.39
	4991.00	5.91	94.75	4973.80	16.92	19.68	322.63	0.36	520858.18	813183.72 N 32 25 43.77 W 103 27 8.16
	5086.00	5.86	92.12	5068.30	16.25	19.09	332.35	0.29	520857.59	813193.44 N 32 25 43.76 W 103 27 8.04 813202.89 N 32 25 43.76 W 103 27 7.93
	5180.00 5275.00	5.69 5.53	92.32 90.62	5161.82 5256.37	15.80 15.49	18.73 18.49	341.80 351.08	0.18 0.24	520857.23 520856.99	813202.89 N 32 25 43.76 W 103 27 7.93 813212.18 N 32 25 43.75 W 103 27 7.82
	5370.00	5.32	89.26	5350.94	15.42	18.50	360.06	0.26	520857.00	813221.16 N 32 25 43 75 W 103 27 7 72
	5464.00	6.09	87.67	5444.48	15.59	18.75	369.40	0.84	520857.25	813230.50 N 32 25 43.75 W 103 27 7.61
	5559.00 5699.00	6.20 5.75	87.26 85.15	5538.93 5678.17	15.96 16.79	19.20 20.16	379.56 394.10	0.12 0.36	520857.70 520858.66	813240.66 N 32 25 43.76 W 103 27 7.49 813255.20 N 32 25 43.77 W 103 27 7.32
	5794.00	5.59	84.69	5772.71	17.54	20.99	403.45	0.18	520859.49	813264.54 N 32 25 43.77 W 103 27 7.21
	5889.00	5.92	81.77	5867.23	18.59	22.12	412.90	0.46	520860.62	813274.00 N 32 25 43.78 W 103 27 7.10
	5983.00 6077.00	5.95 5.78	78.63 76.67	5960.72 6054.23	20.16 22.13	23.77 25.83	422.48 431.86	0.35 0.28	520862.27 520864.33	813283.57 N 32 25 43.80 W 103 27 6.99 813292.96 N 32 25 43.82 W 103 27 6.88
	6172.00	5.80	73.67	6148.75	24.50	28.28	441.12	0.32	520866.78	813302.22 N 32 25 43.84 W 103 27 6.77
	6266.00	6.74	89.02	6242.19	25.85	29.71	451.20	2.04	520868.21	813312.29 N 32 25 43.85 W 103 27 6.66
	6361.00 6455.00	7.39 7.02	98.40 98.55	6336.47 6429.73	24.95 23.11	28.91 27.17	462.81 474.48	1.39 0.39	520867.41 520865.67	813323.91 N 32 25 43.85 W 103 27 6.52 813335.57 N 32 25 43.83 W 103 27 6.38
	6549.00	6.76	98.44	6523.05	21.35	25.51	485.63	0.39	520864.01	813346.72 N 32 25 43.81 W 103 27 6.25
	6644.00	6.71	95.41	6617.40	19.92	24.16	496.68	0.38	520862.66	813357.78 N 32 25 43.80 W 103 27 6.13
	6738.00	6.55	95.13	6710.77	18.83	23.17	507.49	0.17	520861.67	813368.59 N 32 25 43.79 W 103 27 6.00 813388.39 N 32 25 43.77 W 103 27 5.77
	6927.00 7022.00	5.52 5.07	94.28 91.87	6898.72 6993.31	17.01 16.46	21.52 21.05	527.29 536.04	0.55 0.53	520860.02 520859.55	813388.39 N 32 25 43.77 W 103 27 5.77 813397.14 N 32 25 43.76 W 103 27 5.67
	7116.00	4.48	90.96	7086.98	16.20	20.85	543.87	0.63	520859.35	813404.96 N 32 25 43 76 W 103 27 5 58
	7211.00	6.25	94.67	7181.56	15.64	20.37	552.73	1.90	520858.87	813413.83 N 32 25 43 75 W 103 27 5 47
	7305.00	6.24	98.53	7275.01	14.38	19.19	562.88	0.45	520857.69	813423.98 N 32 25 43.74 W 103 27 5.35

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude Longitude (N/S ° ' '') (E/W ° ' '')
	7400.00	6.34	90.18	7369.44	13.51	18.41	573.23	0.97	520856.91	813434.33	N 32 25 43 73 W 103 27 5 23
	7494.00	5.88	87.53	7462.90	13.61	18.60	583.24	0.57	520857.10	813444.33	N 32 25 43.73 W 103 27 5.12
	7588.00	5.30	85.08	7556.46	14.11	19.18	592.37	0.67 0.76	520857.68	813453.47	N 32 25 43.74 W 103 27 5.01
	7683.00 7777.00	4.69 6.06	80.70 87.40	7651.10 7744.68	15.05 15.82	20.18 21.03	600.58 609.33	1.60	520858.68 520859.53	813461.67 813470.42	N 32 25 43 75 W 103 27 4.91 N 32 25 43 76 W 103 27 4.81
	7872.00	5.52	85.95	7839.20	16.29	21.58	618.89	0.59	520860.08	813479.99	N 32 25 43.76 W 103 27 4.70
	7966.00	5.34	83,22	7932.77	17.05	22.42	627.75	0.33	520860.92	813488.84	N 32 25 43 77 W 103 27 4.60
	8155.00	4.73	81.07	8121.04	19.15	24.66	644.18	0.34	520863.16	813505.27	N 32 25 43.79 W 103 27 4.40
	8249.00 8344.00	4.04 4.64	77.17 69.11	8214.77 8309.50	20.43 22.49	26.00 28.11	651.23 658.09	0.80 0.90	520864.50 520866.61	813512.33 813519.18	N 32 25 43.80 W 103 27 4.32 N 32 25 43.82 W 103 27 4.24
	8439.00	6.99	60.94	8404.00	26.59	32.29	666.73	2.62	520870.79	813527.83	N 32 25 43.86 W 103 27 4.14
	8533.00	8.20	76.41	8497.19	30.85	36.65	678.25	2.52	520875.15	813539.34	N 32 25 43.90 W 103 27 4.01
	8628.00	7.58	84.51	8591.29	32.93	38.84	691.07	1.34	520877.34	813552.17	N 32 25 43.93 W 103 27 3.86
	8723.00	6.47	82.49	8685.57	34.13	40.14	702.62	1.20	520878.64	813563.71	N 32 25 43.94 W 103 27 3.72
	8817.00 8911.00	5.51 4.01	90.89 84.82	8779.06 8872.74	34.67 34.83	40.76 40.99	712.38 720.17	1.38 1.68	520879.26 520879.49	813573.47 813581.26	N 32 25 43.94 W 103 27 3.61 N 32 25 43.94 W 103 27 3.52
	9006.00	5.20	94.00	8967.43	34.76	40.99	727.77	1.47	520879.49	813588.86	N 32 25 43.94 W 103 27 3.43
	9100.00	5.75	90.41	9061.00	34.35	40.66	736.73	0.69	520879.15	813597.82	N 32 25 43.94 W 103 27 3.32
	9195.00	4.52	99.16	9155.62	33.65	40.03	745.18	1.53	520878.52	813606.27	N 32 25 43 93 W 103 27 3 22
	9289.00 9384.00	4.57 4.74	104.87 115.16	9249.32 9344.01	32.04 29.34	38.47 35.83	752.46 759.67	0.48 0.90	520876.97 520874.33	813613.55 813620.76	N 32 25 43 92 W 103 27 3.14 N 32 25 43 89 W 103 27 3.06
	9479.00	4.37	117.27	9438.71	25.95	32.51	766.44	0.43	520871.01	813627.53	N 32 25 43.86 W 103 27 2.98
	9573.00	3.83	120.50	9532.47	22.67	29.27	772.33	0.62	520867.77		N 32 25 43 82 W 103 27 2.91
	9592.00	3.51	121.86	9551.43	22.03	28.64	773.37	1.75	520867.14		N 32 25 43.82 W 103 27 2.90
	9690.00	7.23	94.12	9649.00	19.93	26.62	782.07	4.52	520865.12	813643.16	N 32 25 43.80 W 103 27 2.80
	9737.00 9785.00	12.41 15.29	78.87 65.21	9695.30 9741.91	20.62 24.18	27.38 31.03	789.98 800.79	12.24 9.04	520865.88 520869.53		N 32 25 43 80 W 103 27 2 70 N 32 25 43 84 W 103 27 2 58
	9832.00	16.48	46.62	9787.15	31,27	38.21	811,27	11.07	520876.71		N 32 25 43 91 W 103 27 2.45
	9879.00	16.97	31.19	9832.18	41.65	48.66	819.67	9.48	520887.16	813680.77	N 32 25 44.01 W 103 27 2.36
	9974.00	23.79	4.44	9921.37	72.64	79.73	828.37	11.98	520918.23		N 32 25 44.32 W 103 27 2.25
	10016.00 10068.00	28.65 35.30	359.51 356.98	9959.04	91.16	98.26 125.76	828.94 828.04	12.67 13.04	520936.76 520964.26		N 32 25 44.50 W 103 27 2.24 N 32 25 44.77 W 103 27 2.25
	10115.00	41.23	356.82	10003.13 10040.02	118.67 147.74	154.81	826.46	12.62	520993.31		N 32 25 45 06 W 103 27 2 27
	10163.00	45.01	356.41	10075.05	180.50	187.55	824.52	7.90	521026.05		N 32 25 45.39 W 103 27 2.29
	10210.00	49.17	357.30	10107.04	214.88	221.92	822.64	8.96	521060.42	813683.73	N 32 25 45.73 W 103 27 2.30
	10257.00	53.33	358.80	10136.45	251.51	258.54	821.41	9.19	521097.04		N 32 25 46.09 W 103 27 2.31
	10304.00 10352.00	57.22 62.55	0.22 0.96	10163.22 10187.30	290.13 331.63	297.16 338.67	821.09 821.52	8.64 11.18	521135.66 521177.16	813682.18 813682.62	N 32 25 46.47 W 103 27 2.31 N 32 25 46.88 W 103 27 2.31
	10399.00	67.08	0.16	10207.29	374.14	381.18	821.93	9.76	521219.68	813683.03	N 32 25 47.30 W 103 27 2.30
	10443.00	70.10	359.55	10223.35	415.10	422.14	821.83	6.98	521260.64	813682.92	N 32 25 47.71 W 103 27 2.29
	10490.00	72.88	359.87	10238.27	459.66	466.71	821.60	5.95	521305.20	813682.70	N 32 25 48.15 W 103 27 2.29
	10538.00	76.88	359.53	10250.79	505.99	513.03	821.36	8.36	521351.53	813682.45	N 32 25 48 61 W 103 27 2.29 N 32 25 49 06 W 103 27 2.29
	10585.00 10633.00	80.66 83.66	0.16 0.55	10259.94 10266.49	552.08 599.62	559.13 606.67	821.24 821.53	8.15 6.30	521397.62 521445.17	813682.33 813682.62	N 32 25 49.06 W 103 27 2.29 N 32 25 49.53 W 103 27 2.28
	10680.00	86.63	0.07	10270.46	646.44	653.50	821.78	6.40	521491.99	813682.88	N 32 25 50.00 W 103 27 2.27
	10727.00	89.27	0.23	10272.15	693.41	700.46	821.91	5.63	521538.96		N 32 25 50 46 W 103 27 2.27
	10822.00	90.90	359.99	10272.01	788.40	795.46	822.09	1.73	521633.95		N 32 25 51.40 W 103 27 2.25
	10885.00 10918.00	90.50 90.49	359.27 358.76	10271.24 10270.95	851.39 884.39	858.45 891.44	821.68 821.12	1.31 1.55	521696.94 521729.94	813682.78 813682.21	N 32 25 52 02 W 103 27 2.25 N 32 25 52 35 W 103 27 2.26
	11013.00	89.05	357,77	10270.33	979.36	986.40	818.24	1.84	521824.89	813679.33	N 32 25 53 29 W 103 27 2 28
	11108.00	89.17	357.37	10272.81	1074.30	1081.30	814.21	0.44	521919.79	813675.30	N 32 25 54 23 W 103 27 2 32
	11202.00	88.63	356.59	10274.61	1168.19	1175.15	809.26	1.01	522013.64	813670.35	N 32 25 55.16 W 103 27 2.37
	11296.00 11391.00	88,42 88,48	355.74 356.77	10277.03 10279.60	1262.00 1356.81	1268.91 1363.67	802.98 796.77	0.93 1.09	522107.40 522202.16	813664.07 813657.87	N 32 25 56 09 W 103 27 2.43 N 32 25 57 03 W 103 27 2.50
	11486.00	88.57	357.93	10279.00	1451.71	1458.53	792.38	1.22	522297.02		N 32 25 57.96 W 103 27 2.54
	11580,00	89,89	359,62	10283,31	1545.68	1552,50	790.37	2,28	522390,99		N 32 25 58 89 W 103 27 2.55
	11674.00	89.74	0.71	10283,61	1639.68	1646.50	790.64	1.17	522484.98		N 32 25 59.82 W 103 27 2.54
	11769.00	91.15	0.80	10282.88	1734.65	1741.48	791.90	1.49	522579.97		N 32 26 0.76 W 103 27 2.52 N 32 26 0.95 W 103 27 2.51
	11788.00 11883.00	91.51 91.96	0.74 0.10	10282.43 10279.56	1753.64 1848.58	1760.48 1855.43	792.15 792.85	1.92 0.82	522598.96 522693.91		N 32 26 0.95 W 103 27 2.51 N 32 26 1.89 W 103 27 2.49
	11977.00	92.07	0.04	10276.25	1942.52	1949.37	792.96	0.13	522787.86		N 32 26 2.82 W 103 27 2.48
	12072.00	92.24	0.13	10272.68	2037.45	2044.30	793.10	0.20	522882.79		N 32 26 3.76 W 103 27 2.47
	12166.00	90.45	359.30	10270.47	2131.42	2138.27	792.63	2.10	522976.75		N 32 26 4.69 W 103 27 2.47
	12260.00 12355.00	90.11 87.81	358.83 357.54	10270.02 10271.74	2225.41 2320.36	2232.26 2327.19	791.10 788.09	0.62 2.78	523070.74 523165.67		N 32 26 5.62 W 103 27 2.48 N 32 26 6.56 W 103 27 2.50
	12449.00	87.48	357.20	10275.60	2414.22	2421.01	783.78	0.50	523259.49	813644.88	N 32 26 7.49 W 103 27 2.55
	12543.00	87.42	357.65	10279.78	2508.06	2514.82	779.56	0.48	523353.30	813640.66	N 32 26 8.42 W 103 27 2.59
	12638.00	87.42	359.02	10284.06	2602.94	2609.68	776.81	1.44	523448.16	813637.90	N 32 26 9.36 W 103 27 2.61
	12732.00 12827.00	87.42 86.92	359.83 0.17	10288.29 10292.98	2696.85 2791.73	2703.58 2798.46	775.86 775.86	0.86 0.64	523542.06 523636.94	813636.96 813636.96	N 32 26 10.28 W 103 27 2.61 N 32 26 11.22 W 103 27 2.60
	12921.00	87.03	0.62	10297.94	2885.58	2892.33	776.51	0.49	523730.81		N 32 26 12.15 W 103 27 2.58
	13015.00	87.03	1.03	10302.81	2979.43	2986.19	777.86	0.44	523824.67		N 32 26 13.08 W 103 27 2.56
	13110.00	86.97	1.14	10307.79	3074.27	3081.05	779.66	0.13	523919.52		N 32 26 14.02 W 103 27 2.53
	13204.00	87.03	1.50	10312.71	3168.09	3174.89	781.82	0.39	524013.37		N 32 26 14.95 W 103 27 2.50
	13299.00 13393.00	86.92 87.09	1.91 2.53	10317.72 10322.63	3262,89 3356.66	3269.72 3363.52	784,64 788,28	0.45 0.68	524108.19 524201.99		N 32 26 15 89 W 103 27 2.45 N 32 26 16 81 W 103 27 2.40
	13488.00	85.96	1.97	10328.39	3451.37	3458.27	792.00	1.33	524296.74		N 32 26 17.75 W 103 27 2.35
	13582.00	86,19	2.09	10334.82	3545.06	3551.99	795.33	0.28	524390.46	813656.42	N 32 26 18 68 W 103 27 2 30
	13677.00	87.03	2.15	10340.44	3639.79	3646.76	798.83	0.89	524485.23		N 32 26 19.62 W 103 27 2.25
	13771.00	90.62	3.00	10342.37	3733.62	3740.63 3835.50	803.06 807.01	3.92	524579.10		N 32 26 20.54 W 103 27 2.19
	13866,00 13960.00	90,67 91,46	2,86 2,77	10341,30 10339,55	3828.45 3922.27	3835,50 3929,37	807.91 812.53	0.16 0.85	524673,97 524767,83		N 32 26 21 48 W 103 27 2.13 N 32 26 22 41 W 103 27 2.06
	14055.00	93.08	2.14	10335.79	4017.07	4024.20	816.59	1.83	524862.67		N 32 26 23.35 W 103 27 2.01
	14149.00	92.30	0.69	10331.38	4110.91	4118.07	818.91	1.75	524956.53	813680.01	N 32 26 24.28 W 103 27 1.97
	14244.00	92.47	359.06	10327.42	4205.83	4212.98	818.71	1.72	525051.44		N 32 26 25 22 W 103 27 1.96
	14338.00 14433.00	91.96	357.47 356.24	10323.79 10320.54	4299.73 4394.57	4306.86 4401.66	815.86 810.65	1.78 1.29	525145.33 525240.13		N 32 26 26 15 W 103 27 1.99 N 32 26 27 08 W 103 27 2.04
	14527.00	91.96 92.47	356.24 356.09	10320.54	4394.57 4488.34	4401.66	810.65	0.57	525240.13		N 32 26 27 08 W 103 27 2 10 N 32 26 28 01 W 103 27 2 10
	14622.00	92.69	355.80	10312.63	4583.06	4590.05	797.66	0.38	525428.51	813658.75	N 32 26 28.95 W 103 27 2.17
	14717.00	92.69	355.78	10308.17	4677.75	4684.69	790.69	0.02	525523.15	813651.79	N 32 26 29.89 W 103 27 2.25
	14811.00	92.64	355,43	10303.80	4771.43	4778.31	783.50	0.38	525616.77		N 32 26 30 81 W 103 27 2.32
Final Survey	14906.00 14985.00	92.63 92.75	355.17 355.06	10299.43 10295.73	4866.08 4944.76	4872.89 4951.52	775.72 769.00	0.27 0.21	525711.35 525789.97		N 32 26 31.75 W 103 27 2.40 N 32 26 32.53 W 103 27 2.47
HL Crossing	14998.68	92.75	355.06	10295.07	4958.38	4965.13	767.82	0.00	525803.59		N 32 26 32.66 W 103 27 2.49
Projection To Bit	15020.00	92.75	355.06	10294.05	4979.61	4986.35	765.99	0.00	525824.80		N 32 26 32.87 W 103 27 2.51
sjeddon 10 Dit	.5025.50	02.70	555.00	. 5254.55	.0.0.01	.500.50	, 55.55	5.50	5_552-7.00	2.0021.00	52 25 52.07 17 155 27 2.51

Survey Type: Def Survey

Survey Error Model: Survey Program: ISCWSA Rev 0 *** 3-D 95,000% Confidence 2,7955 sigma

Description Part MD From MD To EOU Freq Hole Size Casing Diameter Survey Tool Type Borehole / Survey

(ft) (ft) (ft) (in) (in)

Comments	MD (ft)	Incl (°)	Azim Grid	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	Ver	1	0.000	31.000	1/98.425	17.500				Grama Ridge East 3 9H / Chisholm Gram 34 State 2BS 9H M Grama Ridge East 3	ia Ridge East WD Surveys	
		1	31.000	31.000	Act Stns	17.500	13.375 NAL	_MWD_1.0_DE	G-Depth Only	9H / Chisholm Gram 34 State 2BS 9H M	a Ridge East	
		1	31.000	506.000	Act Stns	17.500	13.375	NAL_MWD_1.	0_DEG	Grama Ridge East : 9H / Chisholm Gram	34 State 2BS na Ridge East	
		1	506.000	1775.000	Act Stns	12.250	9.625	NAL_MWD_1	0_DEG	Grama Ridge East : 9H / Chisholm Gram	a Ridge East	
		1	1775.000	9643.000	Act Stns	8.750	0.000	NAL_MWD_1	0_DEG	Grama Ridge East: 9H / Chisholm Gram	a Ridge East	
		1	9643.000	15020.000	Act Stns	8.500	0.000	NAL_MWD_1.	0_DEG	Grama Ridge East : 9H / Chisholm Gram		