

Results of Directional Survey

API number:	30-025-40877		
OGRID:		Operator:	CIMAREX ENERGY CO. OF COLORADO
		Property:	TRISTE DRAW 25 FEDERAL # 1H

surface	ULSTR:	P	25	T	23S	R	32E
				330	FSL	660	FEL

BH Loc	ULSTR:	A	25	T	23S	R	32E
15390	MD	10960.9	TVD	329	FNL	717	FEL
				4951	FSL		

Top Perf/OH	ULSTR:	P	25	T	23S	R	32E
10750	MD	10733.9	TVD	386	FSL	681	FEL

Bot Perf/OH	ULSTR:	A	25	T	23S	R	32E
15357	MD	10961.7	TVD	362	FNL	717	FEL
				4918	FSL		

	MD	N/S	E/W	VD
	10722	41.46	-24.88	10710.45
TOP PERFS/OH	10750	56.36	-21.08	10733.85
	10754	58.49	-20.54	10737.19
	15337	4567.58	-56.50	10962.25
BOT PERFS/OH	15357	4587.57	-56.68	10961.74
	15390	4620.56	-56.98	10960.90

NEXT TO LAST	15337	4567.58	-56.50	10962.25
LAST READING	15390	4620.56	-56.98	10960.90
TD	15390	4620.56	-56.98	10960.90

Surface Location	330	FS	660	FE
Projected BHL	4951	FS	717	FE
Location of				
Top Perfs/OH	386	FS	681	FE
Bottom Perfs/OH	4918	FS	717	FE

SUMMARY of Subsurface Locations

Surface Location	P-25-23S-32E	330	FS	660	FE	Vert. Depth
Top Perfs/OH	P-25-23S-32E	386	FS	681	FE	10733.85
Bottom Perfs/OH	A-25-23S-32E	4918	FS	717	FE	10961.74
Projected TD	A-25-23S-32E	4951	FS	717	FE	10960.90

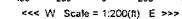
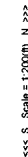
OCT 03 2013



PATHFINDER
A Schlumberger Company

Legend

Grid North
Tot Corr (M->G 7.1458°)
Mag Dec (7.526°)
Grid Conv (0.380°)



Drawn By: R. Schneider
Date Created: January 30, 2013 02:18 14 PM
Checked By:
Checked Date:
Approved By:
Approved Date:

PathFinder Energy Services, Inc.

Survey Report

HOBBS OCD

SEP 09 2013

CIMAREX ENERGY CO.
TRISTE DRAW 25 FEDERAL #1H ST01
LEA COUNTY, NM
Rig:CACTUS 104
PathFinder Office Supervisor: JOE HOGAN
PathFinder Field Engineers: DAVID PFENNINGER
ERNESTO GALLEGOS

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.16.9.9152 N LON:103.37.18.7058 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 761240.0000 Y: 462477.3000
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.03° EAST TO GRID
Vertical Section Plane: 359.54
Survey Vert. Reference: 20.00' Rotary Table To Ground
Altitude:3698.00' Ground To MSL

Survey Calculations by PathCalc v2.01 using Minimum Curvature

RECEIVED

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	Build Rate (dg/100ft)	Walk Rate (dg/100ft)	TEMP (F)
THE FOLLOWING ARE GYRODATA DIRECTIONAL SURVEYS.												
0.00	0.00	0.00	-0.00	0.00	-0.06	0.06 S	0.06 E	0.09@ 135.77	0.00	0.00	0.00	0.00
139.00	0.44	83.03	139.00	139.00	-0.00	0.00 N	0.59 E	0.59@ 89.78	0.32	0.32	59.73	0.00
339.00	0.46	101.99	338.99	200.00	-0.09	0.07 S	2.14 E	2.14@ 91.91	0.07	0.01	9.48	0.00
539.80	0.34	120.66	539.79	200.80	-0.57	0.54 S	3.44 E	3.48@ 98.97	0.09	-0.06	9.30	0.00
723.30	0.40	146.38	723.28	183.50	-1.39	1.35 S	4.26 E	4.47@ 107.62	0.10	0.03	14.02	0.00
912.70	0.41	162.08	912.68	189.40	-2.59	2.55 S	4.84 E	5.47@ 117.79	0.06	0.01	8.29	0.00
1102.20	0.31	258.26	1102.17	189.50	-3.33	3.30 S	4.54 E	5.61@ 125.98	0.28	-0.05	50.75	0.00
1291.30	0.42	281.57	1291.27	189.10	-3.29	3.26 S	3.36 E	4.69@ 134.14	0.10	0.06	12.33	0.00
1480.60	0.29	233.96	1480.57	189.30	-3.42	3.41 S	2.30 E	4.11@ 146.01	0.16	-0.07	-25.15	0.00
1670.00	0.36	110.11	1669.97	189.40	-3.91	3.89 S	2.47 E	4.61@ 147.63	0.30	0.04	-65.39	0.00
1861.10	0.20	298.04	1861.06	191.10	-3.96	3.94 S	2.74 E	4.80@ 145.23	0.29	-0.08	-90.04	0.00
2051.30	0.38	258.01	2051.26	190.20	-3.93	3.92 S	1.83 E	4.32@ 155.00	0.14	0.09	-21.05	0.00
2241.20	0.38	144.70	2241.16	189.90	-4.57	4.56 S	1.57 E	4.83@ 160.95	0.33	-0.00	-59.67	0.00
2430.60	0.34	52.06	2430.56	189.40	-4.75	4.73 S	2.38 E	5.29@ 153.28	0.28	-0.02	-48.91	0.00
2621.20	0.26	22.65	2621.16	190.60	-4.01	3.98 S	2.99 E	4.98@ 143.07	0.09	-0.04	-15.43	0.00
2811.30	0.60	25.02	2811.25	190.10	-2.71	2.68 S	3.58 E	4.47@ 126.84	0.18	0.18	1.25	0.00
3001.20	0.52	323.57	3001.14	189.90	-1.12	1.09 S	3.49 E	3.66@ 107.32	0.30	-0.04	-32.36	0.00
3192.20	0.50	278.44	3192.14	191.00	-0.29	0.27 S	2.15 E	2.17@ 97.11	0.21	-0.01	-23.63	0.00
3381.50	0.51	254.97	3381.43	189.30	-0.37	0.37 S	0.52 E	0.64@ 125.12	0.11	0.01	-12.40	0.00
3571.40	0.46	211.46	3571.32	189.90	-1.23	1.23 S	0.69 W	1.42@ 209.35	0.19	-0.03	-22.91	0.00
3761.10	0.56	179.83	3761.02	189.70	-2.80	2.81 S	1.09 W	3.02@ 201.18	0.16	0.05	-16.67	0.00
3950.50	0.76	167.17	3950.40	189.40	-4.96	4.96 S	0.81 W	5.03@ 189.24	0.13	0.10	-6.69	0.00
4140.70	0.70	130.92	4140.59	190.20	-6.96	6.95 S	0.35 E	6.96@ 177.11	0.24	-0.03	-19.06	0.00
4329.90	1.88	90.97	4329.74	189.20	-7.80	7.76 S	4.33 E	8.89@ 150.86	0.75	0.62	-21.12	0.00
4520.40	1.38	45.30	4520.17	190.50	-6.27	6.20 S	9.08 E	11.00@ 124.33	0.71	-0.26	-23.97	0.00

PathFinder Energy Services, Inc.

Survey Report

CIMAREX ENERGY CO.
TRISTE DRAW 25 FEDERAL #1H ST01
LEA COUNTY, NM
RIG:CACTUS 104

Page 02/06

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	Build Rate (dg/100ft)	Walk Rate (dg/100ft)	TEMP (F)
4710.90	0.99	52.05	4710.63	190.50	-3.67	3.58 S	12.01 E	12.53@	106.58	0.22	-0.20	3.54	0.00
THE FOLLOWING ARE EXTREME ENGINEERING SURVEYS.													
4901.30	0.50	41.62	4901.01	190.40	-2.05	1.94 S	13.86 E	13.99@	97.98	0.27	-0.26	-5.48	0.00
THE FOLLOWING ARE XTREME ENGINEERING SURVEYS.													
4928.00	0.31	60.77	4927.71	26.70	-1.93	1.82 S	14.00 E	14.12@	97.41	0.86	-0.71	71.72	0.00
5022.00	0.40	80.90	5021.71	94.00	-1.76	1.64 S	14.55 E	14.64@	96.45	0.16	0.10	21.41	0.00
5117.00	0.48	54.40	5116.71	95.00	-1.48	1.36 S	15.20 E	15.26@	95.12	0.23	0.08	-27.89	0.00
5212.00	0.40	41.70	5211.70	95.00	-1.01	0.88 S	15.74 E	15.77@	93.21	0.13	-0.08	-13.37	0.00
5307.00	0.40	36.29	5306.70	95.00	-0.50	0.37 S	16.16 E	16.16@	91.30	0.04	-0.00	-5.69	0.00
5401.00	0.31	12.30	5400.70	94.00	0.01	0.15 N	16.41 E	16.41@	89.49	0.18	-0.10	-25.52	0.00
5496.00	0.31	3.07	5495.70	95.00	0.52	0.65 N	16.47 E	16.49@	87.73	0.05	0.00	-9.72	0.00
5591.00	0.31	341.49	5590.70	95.00	1.02	1.15 N	16.41 E	16.45@	85.98	0.12	0.00	-22.72	0.00
5686.00	0.31	341.80	5685.70	95.00	1.51	1.64 N	16.24 E	16.33@	84.23	0.00	0.00	0.33	0.00
5781.00	0.22	345.27	5780.69	95.00	1.93	2.06 N	16.12 E	16.25@	82.71	0.10	-0.09	3.65	0.00
5875.00	0.22	35.37	5874.69	94.00	2.25	2.38 N	16.18 E	16.35@	81.61	0.20	-0.00	53.30	0.00
5970.00	0.31	236.40	5969.69	95.00	2.26	2.39 N	16.07 E	16.25@	81.54	0.55	0.09	-167.34	0.00
6065.00	0.31	213.79	6064.69	95.00	1.91	2.04 N	15.71 E	15.84@	82.62	0.13	0.00	-23.80	0.00
6160.00	0.40	219.50	6159.69	95.00	1.44	1.57 N	15.36 E	15.44@	84.18	0.10	0.09	6.01	0.00
6255.00	0.48	233.39	6254.69	95.00	0.95	1.07 N	14.83 E	14.87@	85.86	0.14	0.08	14.62	0.00
6349.00	0.48	236.77	6348.68	94.00	0.51	0.62 N	14.18 E	14.20@	87.49	0.03	0.00	3.60	0.00
6444.00	0.22	220.60	6443.68	95.00	0.16	0.27 N	13.73 E	13.73@	88.89	0.29	-0.27	-17.02	0.00
6540.00	0.22	229.17	6539.68	96.00	-0.10	0.00 N	13.47 E	13.47@	89.98	0.03	-0.00	8.93	0.00
6634.00	0.31	247.27	6633.68	94.00	-0.32	0.21 S	13.10 E	13.10@	90.92	0.13	0.10	19.26	0.00
6730.00	0.22	266.08	6729.68	96.00	-0.43	0.32 S	12.68 E	12.68@	91.47	0.13	-0.09	19.59	0.00
6825.00	0.31	257.07	6824.68	95.00	-0.49	0.39 S	12.24 E	12.25@	91.84	0.10	0.09	-9.48	0.00
6920.00	0.22	245.56	6919.68	95.00	-0.62	0.53 S	11.83 E	11.84@	92.55	0.11	-0.09	-12.12	0.00
7015.00	0.22	232.38	7014.68	95.00	-0.81	0.71 S	11.52 E	11.54@	93.55	0.05	-0.00	-13.87	0.00
7111.00	0.31	234.09	7110.68	96.00	-1.07	0.98 S	11.16 E	11.20@	95.01	0.09	0.09	1.78	0.00
7206.00	0.31	233.87	7205.67	95.00	-1.37	1.28 S	10.74 E	10.82@	96.80	0.00	0.00	-0.23	0.00

PathFinder Energy Services, Inc.

Survey Report

CIMAREX ENERGY CO.
TRISTE DRAW 25 FEDERAL #1H ST01
LEA COUNTY, NM
RIG:CACTUS 104

Page 03/06

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	Build Rate (dg/100ft)	Walk Rate (dg/100ft)	TEMP (F)
7300.00	0.40	221.70	7299.67	94.00	-1.76	1.68 S	10.32 E	10.46@	99.23	0.12	0.10	-12.95	0.00
7395.00	0.09	183.99	7394.67	95.00	-2.08	2.00 S	10.09 E	10.29@	101.20	0.35	-0.33	-39.70	0.00
7490.00	0.22	270.30	7489.67	95.00	-2.15	2.07 S	9.91 E	10.12@	101.81	0.24	0.14	90.85	0.00
7585.00	0.31	294.07	7584.67	95.00	-2.04	1.97 S	9.49 E	9.69@	101.70	0.15	0.09	25.02	0.00
7680.00	0.22	283.40	7679.67	95.00	-1.89	1.82 S	9.08 E	9.26@	101.33	0.11	-0.09	-11.23	0.00
7775.00	0.40	281.46	7774.67	95.00	-1.78	1.71 S	8.58 E	8.74@	101.28	0.19	0.19	-2.04	0.00
7870.00	0.40	276.89	7869.67	95.00	-1.67	1.61 S	7.92 E	8.08@	101.45	0.03	-0.00	-4.81	0.00
7965.00	0.31	270.86	7964.66	95.00	-1.62	1.56 S	7.34 E	7.50@	102.02	0.10	-0.09	-6.35	0.00
8060.00	0.31	238.97	8059.66	95.00	-1.75	1.69 S	6.86 E	7.06@	103.84	0.18	0.00	-33.57	0.00
8154.00	0.40	241.30	8153.66	94.00	-2.03	1.98 S	6.35 E	6.65@	107.30	0.10	0.10	2.48	0.00
8249.00	0.48	241.30	8248.66	95.00	-2.37	2.33 S	5.71 E	6.17@	112.18	0.08	0.08	0.00	0.00
8344.00	0.62	236.29	8343.65	95.00	-2.84	2.81 S	4.94 E	5.68@	119.61	0.16	0.15	-5.27	0.00
8439.00	0.70	237.30	8438.65	95.00	-3.44	3.40 S	4.02 E	5.27@	130.26	0.09	0.08	1.06	0.00
8535.00	0.79	237.56	8534.64	96.00	-4.10	4.08 S	2.97 E	5.04@	143.94	0.09	0.09	0.27	0.00
8629.00	0.70	224.77	8628.63	94.00	-4.85	4.83 S	2.02 E	5.24@	157.34	0.20	-0.10	-13.61	0.00
8724.00	0.70	227.67	8723.62	95.00	-5.64	5.63 S	1.18 E	5.76@	168.18	0.04	-0.00	3.05	0.00
8819.00	0.88	234.18	8818.62	95.00	-6.45	6.45 S	0.16 E	6.45@	178.59	0.21	0.19	6.85	0.00
8914.00	0.79	254.26	8913.61	95.00	-7.05	7.06 S	1.06 W	7.14@	188.57	0.32	-0.09	21.14	0.00
9009.00	1.01	258.48	9008.59	95.00	-7.38	7.40 S	2.51 W	7.82@	198.76	0.24	0.23	4.44	0.00
9104.00	1.19	263.80	9103.58	95.00	-7.64	7.67 S	4.32 W	8.80@	209.35	0.22	0.19	5.60	0.00
9198.00	1.48	269.29	9197.55	94.00	-7.74	7.80 S	6.50 W	10.15@	219.82	0.34	0.31	5.84	0.00
9293.00	1.71	267.40	9292.51	95.00	-7.80	7.87 S	9.14 W	12.07@	229.26	0.25	0.24	-1.99	0.00
9388.00	2.11	266.87	9387.46	95.00	-7.94	8.03 S	12.30 W	14.70@	236.86	0.42	0.42	-0.56	0.00
9484.00	2.02	278.56	9483.40	96.00	-7.75	7.88 S	15.74 W	17.60@	243.41	0.45	-0.09	12.18	0.00
9579.00	2.20	271.40	9578.33	95.00	-7.43	7.59 S	19.22 W	20.66@	248.46	0.34	0.19	-7.54	0.00
9674.00	2.20	255.80	9673.27	95.00	-7.80	7.99 S	22.81 W	24.17@	250.70	0.63	-0.00	-16.42	0.00
9769.00	2.90	242.97	9768.17	95.00	-9.31	9.53 S	26.72 W	28.37@	250.37	0.95	0.74	-13.50	0.00
9864.00	1.71	226.40	9863.09	95.00	-11.36	11.60 S	29.89 W	32.06@	248.79	1.42	-1.25	-17.44	0.00

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Page 04/06

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	Build Rate (dg/100ft)	Walk Rate (dg/100ft)	TEMP (F)
9959.00	1.89	227.50	9958.05	95.00	-13.38	13.63 S	32.07 W	34.85@	246.97	0.19	0.19	1.16	0.00
10054.00	1.32	251.36	10053.01	95.00	-14.77	15.04 S	34.26 W	37.42@	246.30	0.91	-0.60	25.12	0.00
10149.00	1.19	253.38	10147.99	95.00	-15.38	15.67 S	36.24 W	39.49@	246.61	0.14	-0.14	2.13	0.00
10244.00	1.41	256.02	10242.96	95.00	-15.93	16.24 S	38.32 W	41.62@	247.04	0.24	0.23	2.78	0.00
10339.00	1.01	255.97	10337.94	95.00	-16.40	16.72 S	40.27 W	43.60@	247.45	0.42	-0.42	-0.05	0.00
** TIED INTO EXTREME ENGINEERING SURVEYS AT 10434' MD.													
10434.00	0.79	240.37	10432.93	95.00	-16.92	17.25 S	41.65 W	45.08@	247.50	0.34	0.00	0.00	0.00
ST01 DEPARTS ORIGINAL WELLBORE AT 10481' MD. THE FOLLOWING ARE PATHFINDER MWD SURVEYS.													
10498.00	5.89	348.75	10496.82	64.00	-13.90	14.24 S	42.68 W	44.99@	251.54	9.66	7.97	169.34	144.39
10530.00	5.01	10.72	10528.68	32.00	-10.92	11.26 S	42.74 W	44.19@	255.24	7.02	-2.75	68.66	144.39
10562.00	7.12	17.23	10560.50	32.00	-7.66	7.99 S	41.89 W	42.64@	259.20	6.92	6.59	20.34	148.01
10593.00	11.43	21.18	10591.09	31.00	-2.97	3.29 S	40.21 W	40.34@	265.32	14.05	13.90	12.74	148.01
10625.00	16.97	20.83	10622.10	32.00	4.34	4.03 N	37.40 W	37.62@	276.16	17.31	17.31	-1.09	148.01
10659.00	22.34	18.90	10654.10	34.00	15.06	14.79 N	33.54 W	36.66@	293.80	15.91	15.79	-5.68	140.78
10690.00	26.29	18.46	10682.35	31.00	27.12	26.88 N	29.46 W	39.88@	312.39	12.76	12.74	-1.42	140.78
10722.00	30.78	16.52	10710.45	32.00	41.66	41.46 N	24.88 W	48.36@	329.03	14.33	14.03	-6.06	144.39
10754.00	35.88	12.39	10737.19	32.00	58.65	58.49 N	20.54 W	61.99@	340.65	17.44	15.94	-12.91	148.01
10785.00	41.15	7.91	10761.44	31.00	77.61	77.48 N	17.18 W	79.36@	347.50	19.23	17.00	-14.45	148.01
10818.00	46.25	5.45	10785.29	33.00	100.23	100.11 N	14.55 W	101.17@	351.73	16.29	15.46	-7.46	148.01
10849.00	49.77	4.83	10806.03	31.00	123.16	123.06 N	12.49 W	123.69@	354.20	11.45	11.35	-2.00	151.62
10881.00	52.67	4.66	10826.07	32.00	148.00	147.92 N	10.43 W	148.28@	355.97	9.07	9.06	-0.53	151.62
10913.00	55.22	4.39	10844.90	32.00	173.77	173.71 N	8.39 W	173.91@	357.23	8.00	7.97	-0.84	151.62
10944.00	56.63	2.20	10862.27	31.00	199.39	199.34 N	6.92 W	199.46@	358.01	7.41	4.55	-7.06	155.24
10976.00	58.74	0.17	10879.37	32.00	226.42	226.37 N	6.37 W	226.46@	358.39	8.50	6.59	-6.34	155.24
11008.00	61.38	359.03	10895.34	32.00	254.14	254.10 N	6.56 W	254.18@	358.52	8.81	8.25	-3.56	155.24
11039.00	63.66	359.12	10909.65	31.00	281.64	281.59 N	7.01 W	281.68@	358.57	7.36	7.35	0.29	158.85
11071.00	66.39	358.68	10923.16	32.00	310.64	310.59 N	7.56 W	310.69@	358.60	8.62	8.53	-1.37	158.85
11102.00	68.94	357.98	10934.94	31.00	339.31	339.25 N	8.40 W	339.36@	358.58	8.49	8.23	-2.26	158.85

PathFinder Energy Services, Inc.

Survey Report

CIMAREX ENERGY CO.
 TRISTE DRAW 25 FEDERAL #1H ST01
 LEA COUNTY, NM
 RIG:CACTUS 104

Page 05/06

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	Build Rate (dg/100ft)	Walk Rate (dg/100ft)	TEMP (F)
11134.00	71.67	356.66	10945.72	32.00	369.41	369.34 N	9.81 W	369.47@	358.48	9.37	8.53	-4.12	158.85
11166.00	74.83	355.60	10954.94	32.00	399.99	399.91 N	11.88 W	400.09@	358.30	10.37	9.88	-3.31	158.85
11197.00	77.73	355.96	10962.29	31.00	430.04	429.94 N	14.10 W	430.17@	358.12	9.42	9.36	1.16	158.85
11229.00	81.34	356.04	10968.11	32.00	461.44	461.33 N	16.29 W	461.62@	357.98	11.28	11.28	0.25	158.85
11260.00	85.30	356.13	10971.71	31.00	492.17	492.04 N	18.39 W	492.38@	357.86	12.78	12.77	0.29	158.85
11280.00	87.05	355.20	10973.05	20.00	512.08	511.94 N	19.90 W	512.32@	357.77	9.90	8.75	-4.65	137.17
11375.00	90.22	356.67	10975.31	95.00	606.85	606.66 N	26.63 W	607.24@	357.49	3.68	3.34	1.55	137.17
11469.00	90.92	356.28	10974.37	94.00	700.71	700.47 N	32.41 W	701.22@	357.35	0.85	0.74	-0.42	137.17
11564.00	90.40	357.86	10973.28	95.00	795.61	795.34 N	37.27 W	796.21@	357.32	1.75	-0.55	1.66	140.78
11659.00	90.75	357.19	10972.33	95.00	890.55	890.25 N	41.37 W	891.21@	357.34	0.80	0.37	-0.71	140.78
11754.00	89.08	358.39	10972.47	95.00	985.50	985.17 N	45.03 W	986.20@	357.38	2.16	-1.76	1.26	140.78
11849.00	89.34	358.26	10973.78	95.00	1080.47	1080.12 N	47.81 W	1081.18@	357.47	0.31	0.27	-0.14	144.39
11944.00	88.90	358.46	10975.24	95.00	1175.44	1175.07 N	50.53 W	1176.16@	357.54	0.51	-0.46	0.21	144.39
12039.00	89.78	358.29	10976.33	95.00	1270.41	1270.02 N	53.22 W	1271.14@	357.60	0.94	0.93	-0.18	148.01
12134.00	90.31	358.14	10976.26	95.00	1365.39	1364.98 N	56.18 W	1366.13@	357.64	0.58	0.56	-0.16	148.01
12230.00	89.69	0.26	10976.26	96.00	1461.38	1460.96 N	57.52 W	1462.09@	357.75	2.30	-0.65	2.21	151.62
12325.00	89.34	0.16	10977.06	95.00	1556.37	1555.96 N	57.17 W	1557.01@	357.90	0.38	-0.37	-0.10	151.62
12421.00	89.60	0.42	10977.95	96.00	1652.35	1651.95 N	56.69 W	1652.93@	358.03	0.38	0.27	0.27	151.62
12516.00	89.60	0.47	10978.61	95.00	1747.34	1746.95 N	55.95 W	1747.84@	358.17	0.05	0.00	0.05	155.24
12611.00	90.22	359.93	10978.76	95.00	1842.33	1841.95 N	55.62 W	1842.79@	358.27	0.87	0.65	-0.57	155.24
12707.00	89.69	359.25	10978.84	96.00	1938.33	1937.94 N	56.31 W	1938.76@	358.34	0.90	-0.55	-0.71	155.24
12802.00	90.40	358.96	10978.76	95.00	2033.33	2032.93 N	57.79 W	2033.75@	358.37	0.81	0.75	-0.31	155.24
12897.00	90.57	358.63	10977.96	95.00	2128.32	2127.91 N	59.79 W	2128.75@	358.39	0.39	0.18	-0.35	155.24
12992.00	91.01	358.51	10976.65	95.00	2223.30	2222.87 N	62.16 W	2223.74@	358.40	0.48	0.46	-0.13	155.24
13087.00	90.84	358.98	10975.11	95.00	2318.27	2317.83 N	64.24 W	2318.72@	358.41	0.53	-0.18	0.49	155.24
13182.00	90.22	0.85	10974.23	95.00	2413.26	2412.82 N	64.38 W	2413.68@	358.47	2.07	-0.65	1.97	155.24
13277.00	90.31	0.80	10973.79	95.00	2508.24	2507.81 N	63.01 W	2508.60@	358.56	0.11	0.09	-0.05	158.85
13372.00	90.40	0.11	10973.21	95.00	2603.22	2602.81 N	62.26 W	2603.55@	358.63	0.73	0.09	-0.73	158.85

PathFinder Energy Services, Inc.

Survey Report

CIMAREX ENERGY CO.
TRISTE DRAW 25 FEDERAL #1H ST01
LEA COUNTY, NM
RIG:CACTUS 104

Page 06/06

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	Build Rate (dg/100ft)	Walk Rate (dg/100ft)	TEMP (F)
13466.00	90.22	359.96	10972.70	94.00	2697.22	2696.81 N 62.20 W	2697.52@ 358.68	0.25	-0.19	-0.16	158.85
13561.00	89.16	0.92	10973.21	95.00	2792.20	2791.80 N 61.47 W	2792.47@ 358.74	1.51	-1.12	1.01	158.85
13657.00	88.72	0.82	10974.99	96.00	2888.16	2887.77 N 60.01 W	2888.40@ 358.81	0.47	-0.46	-0.10	162.46
13751.00	89.25	1.03	10976.65	94.00	2982.12	2981.74 N 58.50 W	2982.32@ 358.88	0.61	0.56	0.22	162.46
13846.00	89.78	0.64	10977.46	95.00	3077.09	3076.73 N 57.11 W	3077.26@ 358.94	0.69	0.56	-0.41	162.46
13941.00	90.40	0.49	10977.31	95.00	3172.07	3171.72 N 56.17 W	3172.22@ 358.99	0.67	0.65	-0.16	162.46
14036.00	90.66	359.82	10976.43	95.00	3267.06	3266.72 N 55.92 W	3267.20@ 359.02	0.76	0.27	-0.71	162.46
14131.00	91.45	0.18	10974.68	95.00	3362.04	3361.70 N 55.92 W	3362.17@ 359.05	0.91	0.83	0.38	162.46
14226.00	89.96	0.68	10973.51	95.00	3457.02	3456.69 N 55.20 W	3457.13@ 359.09	1.65	-1.57	0.53	162.46
14322.00	90.13	0.00	10973.44	96.00	3553.01	3552.69 N 54.63 W	3553.11@ 359.12	0.73	0.18	-0.71	166.08
14417.00	90.48	359.89	10972.93	95.00	3648.01	3647.69 N 54.73 W	3648.10@ 359.14	0.39	0.37	-0.12	166.08
14513.00	90.84	359.56	10971.82	96.00	3744.00	3743.68 N 55.19 W	3744.09@ 359.16	0.51	0.38	-0.34	166.08
14607.00	89.52	359.96	10971.53	94.00	3838.00	3837.67 N 55.58 W	3838.08@ 359.17	1.47	-1.40	0.43	166.08
14702.00	90.22	359.82	10971.74	95.00	3932.99	3932.67 N 55.76 W	3933.07@ 359.19	0.75	0.74	-0.15	166.08
14798.00	90.57	359.84	10971.08	96.00	4028.99	4028.67 N 56.05 W	4029.06@ 359.20	0.37	0.36	0.02	166.08
14893.00	91.36	359.48	10969.48	95.00	4123.98	4123.65 N 56.61 W	4124.04@ 359.21	0.91	0.83	-0.38	166.08
14989.00	90.40	0.57	10968.01	96.00	4219.96	4219.64 N 56.57 W	4220.02@ 359.23	1.51	-1.00	1.14	162.46
15084.00	90.57	0.42	10967.20	95.00	4314.94	4314.63 N 55.75 W	4314.99@ 359.26	0.24	0.18	-0.16	162.46
15180.00	91.10	359.99	10965.80	96.00	4410.92	4410.62 N 55.41 W	4410.97@ 359.28	0.71	0.55	-0.45	166.08
15275.00	91.36	359.41	10963.77	95.00	4505.90	4505.60 N 55.90 W	4505.94@ 359.29	0.67	0.27	-0.61	166.08
15337.00	91.45	359.48	10962.25	62.00	4567.88	4567.58 N 56.50 W	4567.93@ 359.29	0.18	0.14	0.11	166.08
STRAIGHT LINE PROJECTION TO BIT AT 15390' MD.											
15390.00	91.45	359.48	10960.90	53.00	4620.87	4620.56 N 56.98 W	4620.91@ 359.29	0.00	0.00	0.00	166.10

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.