

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 746-1203 Fax: (505) 746-0750

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 834-6170 Fax: (505) 834-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87605
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

HOBBS OCD

SEP 08 2015

RECEIVED

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30025-41808	Pool Code 50461	Pool Name Quail Ridge; Bone Spring, South
Property Code 315021	Property Name MALLON 27 FEDERAL COM	Well Number 3H
GRID No. 245099 228937	Operator Name MATADOR PRO CIMAREX ENERGY CO.	Elevation 3709'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	27	19 S	34 E		260	SOUTH	2080	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	22	19 S	34 E		2310	SOUTH	1980	WEST	LEA

Dedicated Acres 240	Joint or Infill	Consolidation Code	Order No.
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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

602171.2 780361.2 CALC BOTTOM HOLE LOCATION Lat - N 32°38'41.51" Long - W 103°33'00.89" NMSPC- N 598221.0 E 782373.3 (NAD-83)		602237.6 785639.5 CALC OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: Hope Knauls Date: 9/30/14 Printed Name: hknaults@cimarex.com Email Address: SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date Surveyed: 9/27/15 Signature and Seal of Professional Surveyor: Gary L. Jones Certificate No. Gary L. Jones 7977 BASIN SURVEYS
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SEP 14 2015



Cimarex

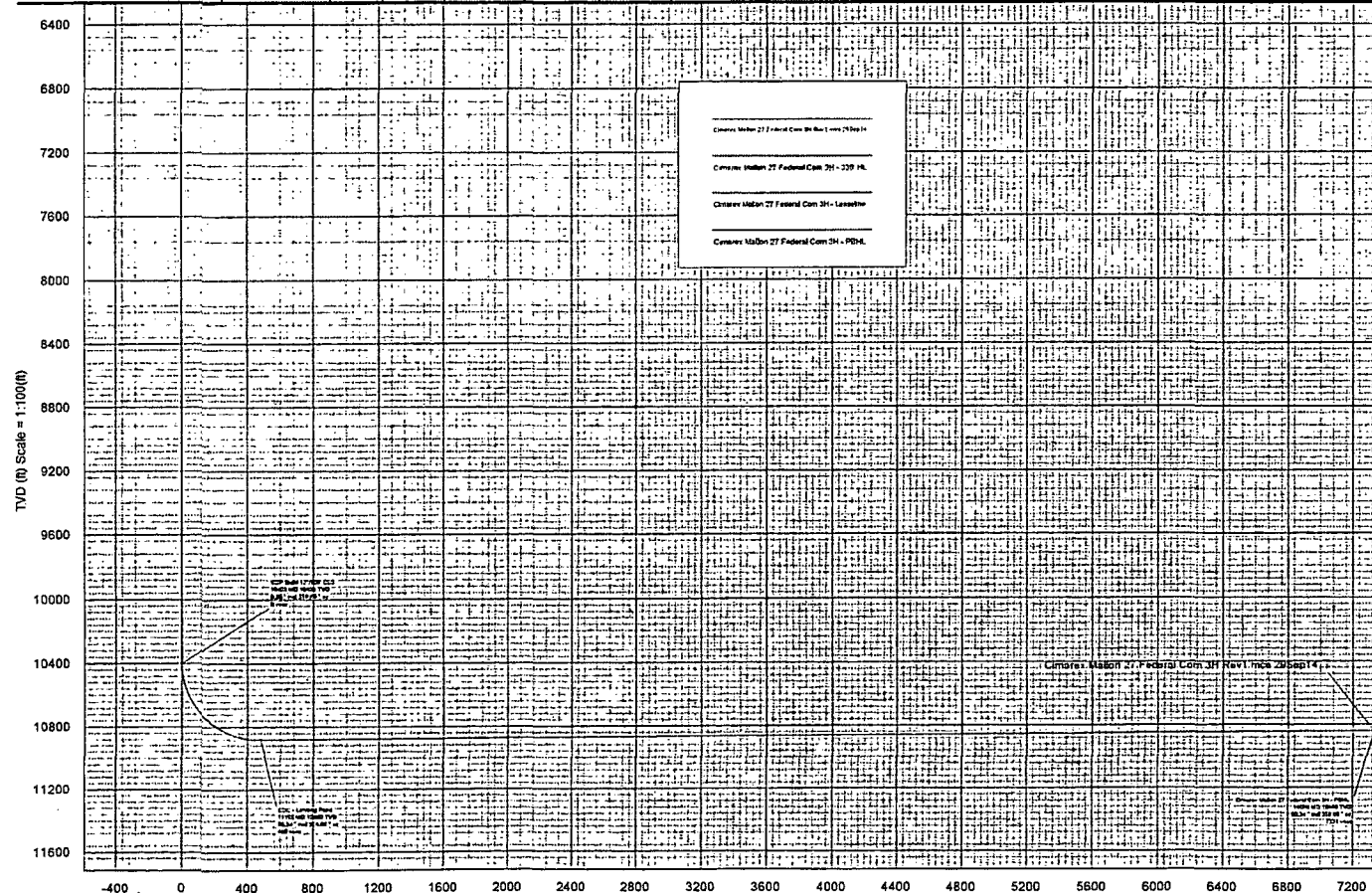
Rev1



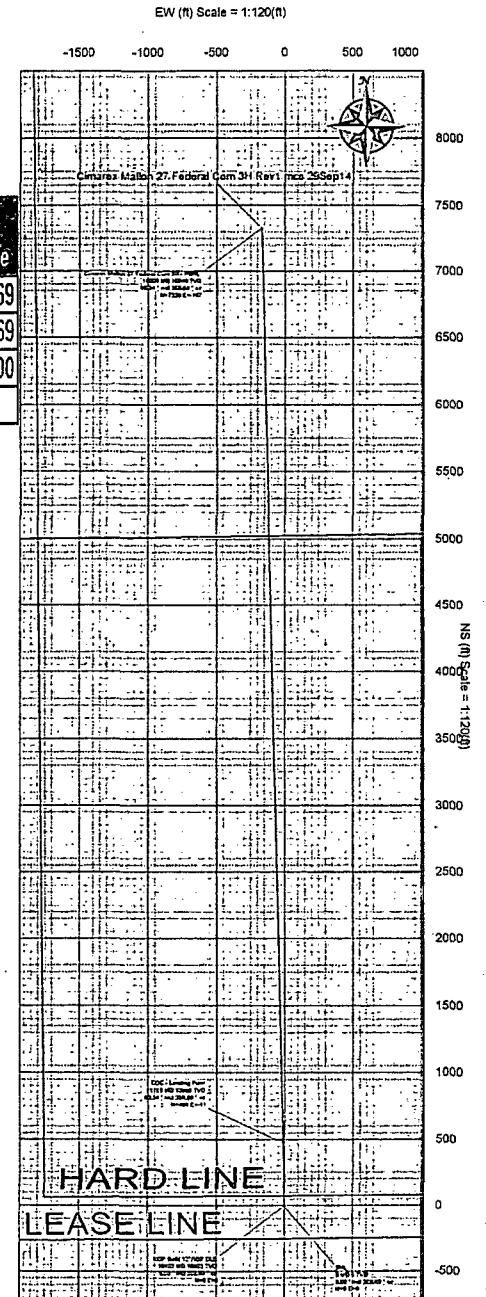
Borehole:	Well:	Field:	Structure:
Original Borehole	Mallon 27 Federal Com 3H	Lea County, NM	RIG TBD

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: HDGM 2014 Dip: 60.251° Date: 29-Sep-2014	MADE New Mexico State Plane, Eastern Zone, US Feet	Shot: Mallon 27
MagDec: 5.891° FB: 49804.327mT Gravity FB: 998.61mgals (9.80665 Based)	Lat: N 32 37 28.80 Northings: 691892.68US Grid Conv: 0.4324°	Well: Mallon 27
	Long: W 103 32 58.57 Eastings: 782540.88US Scale Fact: 0.99997572	Plan: Rev1 mcs 29Sep14
		TVD Ref: Ground Elevation (700m above MSL)

Critical Points													
Comments	Survey MD	Inc	Azim	TVD	SSTVD	VS	NS	EW	Longitude	Latitude	Eastings	Northings	DLS Tool Face
SHL	0.00	0.00	358.69	0.00	-3709.00	0.00	0.00	0.00	W 103 32 59.571	N 32 37 28.987	782540.50	591892.60	358.69
KOP Build 12"/100' DLS	10402.54	0.00	358.69	10402.54	6693.54	0.00	0.00	0.00	W 103 32 59.571	N 32 37 28.987	782540.50	591892.60	0.00 358.69
EOC - Landing Point	11155.33	90.33	358.69	10880.00	7171.00	480.25	480.13	-10.95	W 103 32 59.658	N 32 37 33.739	782529.55	592372.72	12.00 0.00
PBHL	18005.69	90.33	358.69	10840.00	7131.00	7330.50	7328.59	-167.20	W 103 33 0.894	N 32 38 41.510	782373.30	599221.00	0.00



Vertical Section (ft) Azim = 358.693° Scale = 1:100(ft) Origin = 0N/-S, 0E/-W





Cimarex Mallon 27 Federal Com 3H Rev1 mcs 29Sep14 Proposal Geodetic
Report
(Non-Def Plan)



Report Date:	September 29, 2014 - 04:51 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	358.693 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Mallon 27 Federal Com 3H / Cimarex Mallon 27 Federal Com 3H	TVD Reference Datum:	Ground Elevation
Well:	Cimarex Mallon 27 Federal Com 3H	TVD Reference Elevation:	3709.000 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3709.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	6.991 °
Survey Name:	Cimarex Mallon 27 Federal Com 3H Rev1 mcs 29Sep14	Total Gravity Field Strength:	998.5105mgn (9.80665 Based)
Survey Date:	September 29, 2014	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	90.335 ° / 7330.500 ft / 6.040 / 0.674	Total Magnetic Field Strength:	48604.327 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	60.691 °
Location Lat / Long:	N 32° 37' 28.96732", W 103° 32' 59.57103"	Declination Date:	September 29, 2014
Location Grid N/E Y/X:	N 591892.600 ftUS, E 782540.500 ftUS	Magnetic Declination Model:	HDGM 2014
CRS Grid Convergence Angle:	0.4224 °	North Reference:	Grid North
Grid Scale Factor:	0.99997572	Grid Convergence Used:	0.4224 °
Version / Patch:	2.7.1043.0	Total Corr Mag North->Grid North:	6.5687 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	358.69	0.00	-3709.00	0.00	0.00	0.00	N/A	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
KOP Build 12"/100' DLS	10402.54	0.00	358.69	10402.54	6693.54	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
EOC - Landing Point	11155.33	90.33	358.69	10880.00	7171.00	480.25	480.13	-10.95	12.00	358.69	480.25	592372.72	782529.55	N 32 37 33.74	W 103 32 59.66
Cimarex Mallon 27 Federal Com 3H - PBHL	18005.69	90.33	358.69	10840.00	7131.00	7330.50	7328.59	-167.20	0.00	358.69	7330.50	599221.00	782373.30	N 32 38 41.51	W 103 33 0.89

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	18005.692	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Mallon 27 Federal Com 3H Rev1



**Cimarex Mallon 27 Federal Com 3H Rev1 mcs 29Sep14 Proposal Geodetic
Report
(Non-Def Plan)**



Report Date: September 29, 2014 - 04:51 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Mallon 27 Federal Com 3H / Cimarex Mallon 27 Federal Com 3H
Well: Cimarex Mallon 27 Federal Com 3H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Mallon 27 Federal Com 3H Rev1 mcs 29Sep14
Survey Date: September 29, 2014
Tort / AHD / DDI / ERD Ratio: 90.335 * / 7330.500 ft / 6.040 / 0.674
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 37' 28.98732", W 103° 32' 59.57103"
Location Grid N/E Y/X: N 591892.600 ftUS, E 782540.500 ftUS
CRS Grid Convergence Angle: 0.4224 *
Grid Scale Factor: 0.99997572
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 358.693 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Elevation
TVD Reference Elevation: 3709.000 ft above MSL
Seabed / Ground Elevation: 3709.000 ft above MSL
Magnetic Declination: 6.991 *
Total Gravity Field Strength: 998.5105mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48604.327 nT
Magnetic Dip Angle: 60.691 *
Declination Date: September 29, 2014
Magnetic Declination Model: HDGM 2014
North Reference: Grid North
Grid Convergence Used: 0.4224 *
Total Corr Mag North->Grid: 6.5687 *
North: Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL	0.00	0.00	358.69	0.00	-3709.00	0.00	0.00	0.00	N/A	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	100.00	0.00	358.69	100.00	-3609.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	200.00	0.00	358.69	200.00	-3509.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	300.00	0.00	358.69	300.00	-3409.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	400.00	0.00	358.69	400.00	-3309.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	500.00	0.00	358.69	500.00	-3209.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	600.00	0.00	358.69	600.00	-3109.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	700.00	0.00	358.69	700.00	-3009.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	800.00	0.00	358.69	800.00	-2909.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	900.00	0.00	358.69	900.00	-2809.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1000.00	0.00	358.69	1000.00	-2709.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1100.00	0.00	358.69	1100.00	-2609.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1200.00	0.00	358.69	1200.00	-2509.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1300.00	0.00	358.69	1300.00	-2409.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1400.00	0.00	358.69	1400.00	-2309.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1500.00	0.00	358.69	1500.00	-2209.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1600.00	0.00	358.69	1600.00	-2109.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1700.00	0.00	358.69	1700.00	-2009.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1800.00	0.00	358.69	1800.00	-1909.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	1900.00	0.00	358.69	1900.00	-1809.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2000.00	0.00	358.69	2000.00	-1709.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2100.00	0.00	358.69	2100.00	-1609.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2200.00	0.00	358.69	2200.00	-1509.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2300.00	0.00	358.69	2300.00	-1409.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2400.00	0.00	358.69	2400.00	-1309.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2500.00	0.00	358.69	2500.00	-1209.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2600.00	0.00	358.69	2600.00	-1109.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2700.00	0.00	358.69	2700.00	-1009.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2800.00	0.00	358.69	2800.00	-909.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	2900.00	0.00	358.69	2900.00	-809.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3000.00	0.00	358.69	3000.00	-709.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3100.00	0.00	358.69	3100.00	-609.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3200.00	0.00	358.69	3200.00	-509.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3300.00	0.00	358.69	3300.00	-409.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3400.00	0.00	358.69	3400.00	-309.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3500.00	0.00	358.69	3500.00	-209.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3600.00	0.00	358.69	3600.00	-109.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3700.00	0.00	358.69	3700.00	-9.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3800.00	0.00	358.69	3800.00	91.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57
	3900.00	0.00	358.69	3900.00	191.00	0.00	0.00	0.00	0.00	0.00	0.00	591892.60	782540.50	N 32 37 28.99	W 103 32 59.57

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	10500.00	11.70	358.69	10499.32	6790.32	9.91	9.91	-0.23	12.00	358.69	9.91	591902.51	782540.27	N 32 37 29.09	W 103 32 59.57
	10600.00	23.70	358.69	10594.42	6885.42	40.25	40.24	-0.92	12.00	358.69	40.25	591932.84	782539.58	N 32 37 29.39	W 103 32 59.58
	10700.00	35.70	358.69	10691.13	6972.13	89.70	89.68	-2.05	12.00	358.69	89.70	591982.27	782538.45	N 32 37 29.87	W 103 32 59.59
	10800.00	47.70	358.69	10755.66	7046.66	156.10	156.05	-3.56	12.00	358.69	156.10	592046.65	782536.94	N 32 37 30.53	W 103 32 59.60
	10900.00	59.70	358.69	10814.76	7105.76	236.54	236.47	-5.40	12.00	358.69	236.54	592129.07	782535.10	N 32 37 31.33	W 103 32 59.61
	11000.00	71.70	358.69	10855.84	7146.84	327.51	327.42	-7.47	12.00	358.69	327.51	592220.01	782533.03	N 32 37 32.23	W 103 32 59.63
	11100.00	83.70	358.69	10877.12	7168.12	425.03	424.92	-9.69	12.00	358.69	425.03	592317.51	782530.81	N 32 37 33.19	W 103 32 59.65
	11155.33	90.33	358.69	10880.00	7171.00	480.25	480.13	-10.95	12.00	358.69	480.25	592372.72	782529.55	N 32 37 33.74	W 103 32 59.66
	11200.00	90.33	358.69	10879.74	7170.74	524.92	524.79	-11.97	0.00	358.69	524.92	592417.37	782528.53	N 32 37 34.18	W 103 32 59.67
EOC - Landing Point	11300.00	90.33	358.69	10879.15	7170.15	624.92	624.76	-14.25	0.00	358.69	624.92	592517.34	782526.25	N 32 37 35.17	W 103 32 59.68
	11400.00	90.33	358.69	10878.57	7169.57	724.92	724.73	-16.54	0.00	358.69	724.92	592617.31	782523.67	N 32 37 36.16	W 103 32 59.70
	11500.00	90.33	358.69	10877.98	7168.98	824.92	824.70	-18.82	0.00	358.69	824.92	592717.28	782521.68	N 32 37 37.15	W 103 32 59.72
	11600.00	90.33	358.69	10877.40	7168.40	924.92	924.68	-21.10	0.00	358.69	924.92	592817.25	782519.40	N 32 37 38.14	W 103 32 59.74
	11700.00	90.33	358.69	10876.82	7167.82	1024.92	1024.65	-23.38	0.00	358.69	1024.92	592917.22	782517.12	N 32 37 39.13	W 103 32 59.76
	11800.00	90.33	358.69	10876.23	7167.23	1124.91	1124.62	-25.66	0.00	358.69	1124.91	593017.19	782514.84	N 32 37 40.12	W 103 32 59.77
	11900.00	90.33	358.69	10875.65	7166.65	1224.91	1224.59	-27.94	0.00	358.69	1224.91	593117.16	782512.56	N 32 37 41.11	W 103 32 59.79
	12000.00	90.33	358.69	10875.06	7166.06	1324.91	1324.57	-30.22	0.00	358.69	1324.91	593217.13	782510.28	N 32 37 42.10	W 103 32 59.81
	12100.00	90.33	358.69	10874.48	7165.48	1424.91	1424.54	-32.50	0.00	358.69	1424.91	593317.10	782508.00	N 32 37 43.08	W 103 32 59.83
	12200.00	90.33	358.69	10873.90	7164.90	1524.91	1524.51	-34.78	0.00	358.69	1524.91	593417.07	782505.72	N 32 37 44.07	W 103 32 59.85
	12300.00	90.33	358.69	10873.31	7164.31	1624.91	1624.48	-37.06	0.00	358.69	1624.91	593517.04	782503.44	N 32 37 45.06	W 103 32 59.86
	12400.00	90.33	358.69	10872.73	7163.73	1724.90	1724.45	-39.34	0.00	358.69	1724.90	593617.01	782501.16	N 32 37 46.05	W 103 32 59.88
	12500.00	90.33	358.69	10872.15	7163.15	1824.90	1824.43	-41.62	0.00	358.69	1824.90	593717.08	782498.88	N 32 37 47.04	W 103 32 59.90
	12600.00	90.33	358.69	10871.56	7162.56	1924.90	1924.40	-43.91	0.00	358.69	1924.90	593816.95	782496.60	N 32 37 48.03	W 103 32 59.92
	12700.00	90.33	358.69	10870.98	7161.98	2024.90	2024.37	-46.19	0.00	358.69	2024.90	593916.92	782494.31	N 32 37 49.02	W 103 32 59.94
	12800.00	90.33	358.69	10870.39	7161.39	2124.90	2124.34	-48.47	0.00	358.69	2124.90	594016.89	782492.03	N 32 37 50.01	W 103 32 59.95
	12900.00	90.33	358.69	10869.81	7160.81	2224.90	2224.32	-50.75	0.00	358.69	2224.90	594116.86	782489.75	N 32 37 51.00	W 103 32 59.97
	13000.00	90.33	358.69	10869.23	7160.23	2324.89	2324.29	-53.03	0.00	358.69	2324.89	594216.83	782487.47	N 32 37 51.99	W 103 32 59.99
	13100.00	90.33	358.69	10868.64	7159.64	2424.89	2424.26	-55.31	0.00	358.69	2424.89	594316.80	782485.19	N 32 37 52.98	W 103 33 0.01
	13200.00	90.33	358.69	10868.06	7159.06	2524.89	2524.23	-57.59	0.00	358.69	2524.89	594416.77	782482.91	N 32 37 53.97	W 103 33 0.03
	13300.00	90.33	358.69	10867.47	7158.47	2624.89	2624.21	-59.87	0.00	358.69	2624.89	594516.74	782480.63	N 32 37 54.96	W 103 33 0.04
	13400.00	90.33	358.69	10866.89	7157.89	2724.89	2724.18	-62.15	0.00	358.69	2724.89	594616.71	782478.35	N 32 37 55.95	W 103 33 0.06
	13500.00	90.33	358.69	10866.31	7157.31	2824.88	2824.15	-64.43	0.00	358.69	2824.88	594716.68	782476.07	N 32 37 56.93	W 103 33 0.08
	13600.00	90.33	358.69	10865.72	7156.72	2924.88	2924.12	-66.71	0.00	358.69	2924.88	594816.65	782473.79	N 32 37 57.92	W 103 33 0.10
	13700.00	90.33	358.69	10865.14	7156.14	3024.88	3024.09	-69.00	0.00	358.69	3024.88	594916.61	782471.51	N 32 37 58.91	W 103 33 0.12
	13800.00	90.33	358.69	10864.56	7155.56	3124.88	3124.07	-71.28	0.00	358.69	3124.88	595016.58	782469.23	N 32 37 59.90	W 103 33 0.14
	13900.00	90.33	358.69	10863.97	7154.97	3224.88	3224.04	-73.56	0.00	358.69	3224.88	595116.55	782466.94	N 32 38 0.89	W 103 33 0.15
	14000.00	90.33	358.69	10863.39	7154.39	3324.88	3324.01	-75.84	0.00	358.69	3324.88	595216.52	782464.66	N 32 38 1.88	W 103 33 0.17
	14100.00	90.33	358.69	10862.80	7153.80	3424.87	3424.98	-78.12	0.00	358.69	3424.87	595316.49	782462.38	N 32 38 2.87	W 103 33 0.19
	14200.00	90.33	358.69	10862.22	7153.22	3524.87	3523.96	-80.40	0.00	358.69	3524.87	595416.46	782460.10	N 32 38 3.86	W 103 33 0.21
	14300.00	90.33	358.69	10861.64	7152.64	3624.87	3623.93	-82.68	0.00	358.69	3624.87	595516.43	782457.82	N 32 38 4.85	W 103 33 0.23
	14400.00	90.33	358.69	10861.05	7152.05	3724.87	3723.90	-84.96	0.00	358.69	3724.87	595616.40	782455.54	N 32 38 5.84	W 103 33 0.24
	14500.00	90.33	358.69	10860.47	7151.47	3824.87	3823.87	-87.24	0.00	358.69	3824.87	595716.37	782453.26	N 32 38 6.83	W 103 33 0.26
	14600.00	90.33	358.69	10859.89	7150.89	3924.87	3923.84	-89.52	0.00	358.69	3924.87	595816.34	782450.98	N 32 38 7.82	W 103 33 0.28
	14700.00	90.33	358.69	10859.30	7150.30	4024.86	4023.82	-91.80	0.00	358.69	4024.86	595916.31	782448.70	N 32 38 8.81	W 103 33 0.30
	14800.00	90.33	358.69	10858.72	7149.72	4124.86	4123.79	-94.09	0.00	358.69	4124.86	596016.28	782446.42	N 32 38 9.80	W 103 33 0.32
	14900.00	90.33	358.69	10858.13	7149.13	4224.86	4223.76	-96.37	0.00	358.69	4224.86	596116.25	782444.14	N 32 38 10.79	W 103 33 0.33
	15000.00	90.33	358.69	10857.55	7148.55	4324.86	4323.73	-98.65	0.00	358.69	4324.86	596216.22	782441.86	N 32 38 11.77	W 103 33 0.35
	15100.00	90.33	358.69	10856.97	7147.97	4424.86	4423.71	-100.93	0.00	358.69	4424.86	596316.19	782439.57	N 32 38 12.76	W 103 33 0.37
	15200.00	90.33	358.69	10856.38	7147.38	4524.86	4523.68	-103.21	0.00	358.69	4524.86	596416.16	782437.29	N 32 38 13.75	W 103 33 0.39
	15300.00	90.33	358.69	10855.80	7146.80	4624.85	4623.65	-105.49	0.00	358.69	4624.85	596516.13	782435.01	N 32 38 14.74	W 103 33 0.41
	15400.00	90.33	358.69	10855.21	7146.21	4724.85	4723.62	-107.77	0.00	358.69	4724.85	596616.10	782432.73	N 32 38 15.73	W 103 33 0.42
	15500.00	90.33	358.69	10854.63	7145.63	4824.85	4823.60	-110.05	0.00	358.69	4824.85	596716.07	782430.45	N 32 38 16.72	W 103 33 0.44
	15600.00	90.33	358.69	10854.05	7145.05	4924.85	4923.57	-112.33	0.00	358.69	4924.85	596816.04	782428.17	N 32 38 17.71	W 103 33 0.46
	15700.00	90.33	358.69	10853.46	7144.46	5024.85	5023.54	-114.61	0.00	358.69	5024.85	596916.01	782425.89	N 32 38 18.70	W 103 33 0.48
	15800.00	90.33	358.69	10852.88	7143.88	5124.85	5123.51	-116.89	0.00	358.69	5124.85	597015.98	782423.61	N 32 38 19.69	W 103 33 0.50
	15900.00	90.33	358.69	10852.29	7143.29	5224.84	5223.48	-119.18	0.00	358.69	5224.84	597115.95	782421.33	N 32 38 20.68	W 103 33 0.51
	16000.00	90.33	358.69	10851.71	7142.71	5324.84	5323.46	-121.46	0.00	358.69	5324.84	597215.92	782419.05	N 32 38 21.67	W 103 33 0.53
	16100.00	90.33	358.69	10851.13	7142.13	5424.84	5423.43	-123.74	0.00	358.69	5424.84	597315.89	782416.77	N 32 38 22.66	W 103 33 0.55
	16200.00	90.33	358.69	10850.54	7141.54	5524.84	5523.40	-126.02	0.00	358.69	5524.84	597415.86	782414.48	N 32 38 23.65	W 103 33 0.57
	16300.00	90.33	358.69	10849.96	7140.96	5624.84	5623.37	-128.30	0.00	358.69	5624.84	597515.83	782412.20	N 32 38 24.64	W 103 33 0.59
	16400.00	90.33	358.69	10849.38	7140.38	5724.84	5723.35	-130.58	0.00	358.69	5724.84	597615.80	782409.92	N 32 38 25.62	W 103 33 0.60
	16500.00	90.33	358.69	10848.79	7139.79	5824.83	5823.32	-132.86	0.						

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	17000.00	90.33	358.69	10845.87	7136.87	6324.83	6323.18	-144.27	0.00	358.69	6324.83	598215.61	782396.24	N 32 38 31.56	W 103 33 0.71
	17100.00	90.33	358.69	10845.29	7136.29	6424.82	6423.15	-146.55	0.00	358.69	6424.82	598315.58	782393.96	N 32 38 32.55	W 103 33 0.73
	17200.00	90.33	358.69	10844.70	7135.70	6524.82	6523.12	-148.83	0.00	358.69	6524.82	598415.55	782391.68	N 32 38 33.54	W 103 33 0.75
	17300.00	90.33	358.69	10844.12	7135.12	6624.82	6623.10	-151.11	0.00	358.69	6624.82	598515.52	782389.40	N 32 38 34.53	W 103 33 0.77
	17400.00	90.33	358.69	10843.54	7134.54	6724.82	6723.07	-153.39	0.00	358.69	6724.82	598615.49	782387.11	N 32 38 35.52	W 103 33 0.79
	17500.00	90.33	358.69	10842.95	7133.95	6824.82	6823.04	-155.67	0.00	358.69	6824.82	598715.46	782384.83	N 32 38 36.51	W 103 33 0.80
	17600.00	90.33	358.69	10842.37	7133.37	6924.81	6923.01	-157.95	0.00	358.69	6924.81	598815.43	782382.55	N 32 38 37.50	W 103 33 0.82
	17700.00	90.33	358.69	10841.78	7132.78	7024.81	7022.99	-160.23	0.00	358.69	7024.81	598915.40	782380.27	N 32 38 38.49	W 103 33 0.84
	17800.00	90.33	358.69	10841.20	7132.20	7124.81	7122.96	-162.51	0.00	358.69	7124.81	599015.37	782377.99	N 32 38 39.48	W 103 33 0.86
	17900.00	90.33	358.69	10840.62	7131.62	7224.81	7222.93	-164.79	0.00	358.69	7224.81	599115.34	782375.71	N 32 38 40.46	W 103 33 0.88
	18000.00	90.33	358.69	10840.03	7131.03	7324.81	7322.90	-167.07	0.00	358.69	7324.81	599215.31	782373.43	N 32 38 41.45	W 103 33 0.89
Cimarex Mallon 27 Federal Com 3H - PBHL	18005.69	90.33	358.69	10840.00	7131.00	7330.50	7328.59	-167.20	0.00	358.69	7330.50	599221.00	782373.30	N 32 38 41.51	W 103 33 0.89

Survey Type:

Non-Def Plan

Survey Error Model:

ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	18005.692	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Mallon 27 Federal Com 3H Rev1 mcs