



June 20, 2016

CML Exploration, LLC
P.O. Box 890
Snyder, Texas 79550

HOBBS OCD

OCT 28 2016

RECEIVED

Attn: Drilling Department

Re: Cameron 22 State No. 001

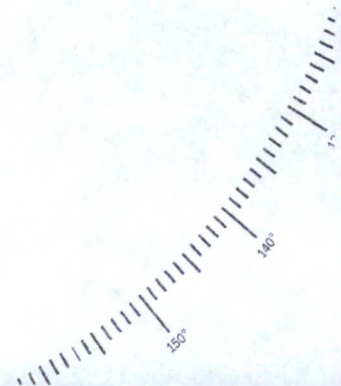
Please find enclosed a copy of the survey from 0' to 4900' ran on the above referenced well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

A handwritten signature in black ink, appearing to read "JB" or "J. Byerly", written over the word "Sincerely,".

Jennifer Byerly
Operations





Company: CML Exploration
Lease/Well: Cameron 22 State No./001

Rig Name: UDI 41
State/County: New Mexioc/Lea
VS-Azi: 0.00 Degrees
Latitude: 31.81438, Longitude: -103.64850
Grid North = True North -0.36 degs (NAD 27)
Grid Correction Applied = -0.36 degs



Depth Reference : RKB = 15 Foot

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...ron 22 state 1_gyro survey.ut

Minimum Curvature Method

Report Date/Time: 6/20/2016 / 08:54

VES Survey International

Midland Tx

(432) 563-5444

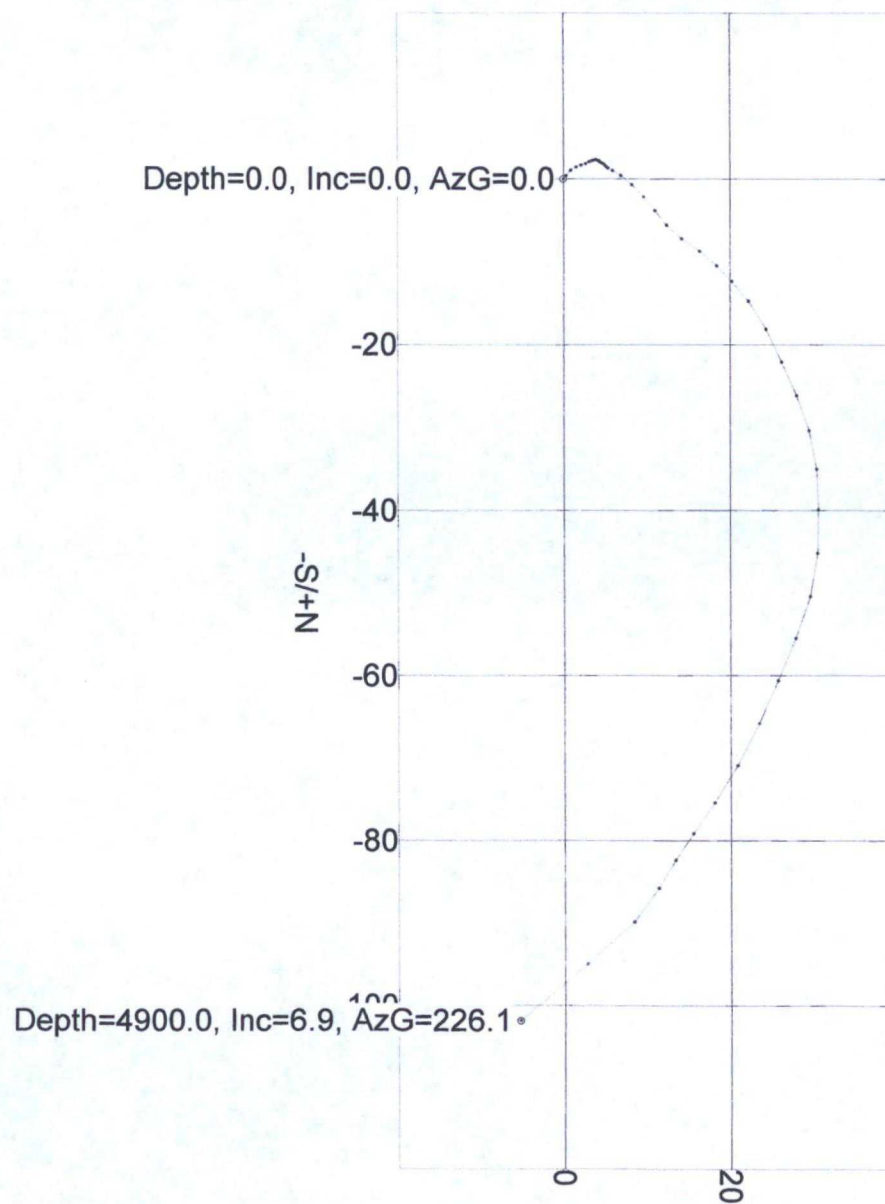
Surveyor: Gene Heiss

Cameron 22 State No 001 / API 30-025-43241

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.56	34.04	100.00	0.40	0.27	0.40	0.48	34.04	0.56
200.00	0.44	53.46	199.99	1.03	0.85	1.03	1.34	39.54	0.20
300.00	0.40	63.92	299.99	1.42	1.48	1.42	2.05	46.18	0.09
400.00	0.38	72.38	399.99	1.67	2.11	1.67	2.69	51.58	0.06
500.00	0.29	68.38	499.99	1.86	2.65	1.86	3.24	54.94	0.10
600.00	0.22	60.33	599.99	2.05	3.05	2.05	3.67	56.12	0.08
700.00	0.12	79.80	699.99	2.16	3.32	2.16	3.96	56.94	0.11
800.00	0.18	66.38	799.99	2.24	3.57	2.24	4.22	57.85	0.07
900.00	0.14	93.75	899.99	2.30	3.84	2.30	4.47	59.05	0.09
1000.00	0.13	111.32	999.99	2.25	4.06	2.25	4.64	61.02	0.04
1100.00	0.06	113.87	1099.99	2.19	4.22	2.19	4.75	62.60	0.07
1200.00	0.03	129.32	1199.99	2.15	4.29	2.15	4.80	63.43	0.03
1300.00	0.03	172.74	1299.99	2.10	4.32	2.10	4.80	64.03	0.02
1400.00	0.08	122.29	1399.99	2.04	4.38	2.04	4.83	65.03	0.07
1500.00	0.16	111.17	1499.99	1.95	4.57	1.95	4.97	66.86	0.08
1600.00	0.12	121.54	1599.98	1.85	4.78	1.85	5.13	68.87	0.04



VES Survey International
Midland Tx
(432) 563-5444
Surveyor: Gene Heiss
Cameron 22 State No 001 / API 30-025-43241



VES Survey Date: 6/12/2016



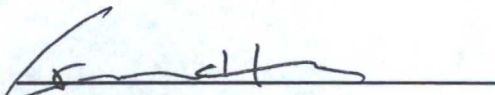
I Gene Heiss certify that I am employed by VES Survey International. That I did on the day(s) of 06/12/16 through 06/12/16 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 4,900.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of CML Exploration for the Cameron 22 State Well # 1 API # 30-025-43241 in Lea County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in black ink, appearing to read "Gene Heiss", is written over a horizontal line.

Gene Heiss
Service Technician
VES Survey International



I Gene Heiss certify that I am employed by VES Survey International. That I did on the day(s) of 06/12/16 through 06/12/16 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 4,900.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of CML Exploration for the Cameron 22 State Well # 1 API # 30-025-43241 in Lea County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.


Gene Heiss
Service Technician
VES Survey International

CML Exploration, LLC

Lea County, New Mexico

Sec 22 T17-S R33-E

Cameron 22 State #1

Wellbore #1

Survey: MWD Surveys

QES Survey Report

20 July, 2016



Quintana Energy Services

11390 FM 830
Willis, TX 77318
Phone: (936) 856-4332
Fax: (936) 856-8678



Survey Certification Sheet

Company	Job Number	Date
CML Exploration, LLC	WT-160247	7/19/2016

Lease	Well Name	County & State
Sec22, T17-S, R33-E	Cameron 22 State #1	Lea, NM

API No.	Survey Depth Range	Survey Type
30-025-43241	6416 feet to 11420 feet MD	MWD

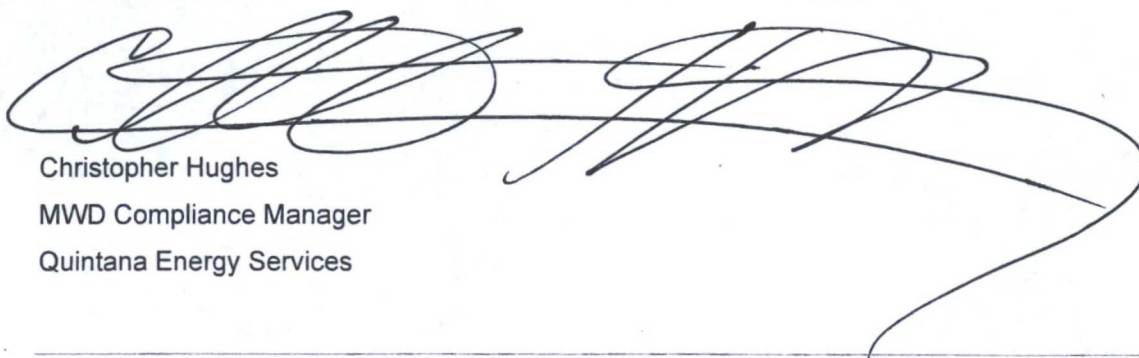
Sidetrack Information	Directional Supervisor/Surveyor
N/A	Shane Chandler

Certification Statement

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by Quintana Energy Services (QES). This report represents a true and correct directional survey of this well based on the original data obtained at the well site. Wellbore coordinates are calculated using minimum curvature.

Christopher Hughes

Digitally signed by Christopher Hughes
DN: cn=Christopher Hughes, o=QES, ou=compliance,
email=chrish@qeslp.com, c=US
Date: 2016.07.20 14:26:46 -05'00'



Christopher Hughes
MWD Compliance Manager
Quintana Energy Services

Survey Report



Company:	CML Exploration, LLC	Local Co-ordinate Reference:	Well Cameron 22 State #1
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 4191.0usft (UDI # 44)
Site:	Sec 22 T17-S R33-E	MD Reference:	WELL @ 4191.0usft (UDI # 44)
Well:	Cameron 22 State #1	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5002

Project	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec 22 T17-S R33-E				
Site Position:		Northing:	660,664.00 usft	Latitude:	32° 48' 51.769 N
From:	Map	Easting:	710,399.20 usft	Longitude:	103° 38' 54.598 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	Cameron 22 State #1					
Well Position	+N/-S	0.0 usft	Northing:	660,664.00 usft	Latitude:	32° 48' 51.769 N
	+E/-W	0.0 usft	Easting:	710,399.20 usft	Longitude:	103° 38' 54.598 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	4,175.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/18/2016	7.14	60.60	48,378

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0		0.00

Survey Program	Date 7/20/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	2,600.0	VES GYRO (Wellbore #1)	Good_gyro	Good Gyro
2,717.0	6,416.0	QES MWD (Wellbore #1)	MWD default	MWD - Standard
10,343.0	11,420.0	MWD Surveys (Wellbore #1)	MWD default	MWD - Standard

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Tie in @ 6416' MD / 6415' TVD									
6,416.0	0.30	107.50	6,415.1	-15.9	0.6	-15.9	0.00	0.00	0.00
6,530.0	0.40	109.00	6,529.1	-16.1	1.3	-16.1	0.09	0.09	1.32
6,625.0	0.30	110.00	6,624.1	-16.3	1.9	-16.3	0.11	-0.11	1.05
6,756.0	0.20	91.30	6,755.1	-16.4	2.4	-16.4	0.10	-0.08	-14.27
6,817.0	0.60	56.10	6,816.0	-16.3	2.8	-16.3	0.74	0.66	-57.70
7,074.0	0.40	61.00	7,073.0	-15.1	4.7	-15.1	0.08	-0.08	1.91
7,105.0	0.20	85.00	7,104.0	-15.0	4.8	-15.0	0.75	-0.65	77.42
7,237.0	0.30	54.70	7,236.0	-14.8	5.3	-14.8	0.12	0.08	-22.95

Survey Report



Company: CML Exploration, LLC
Project: Lea County, New Mexico
Site: Sec 22 T17-S R33-E
Well: Cameron 22 State #1
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Cameron 22 State #1
TVD Reference: WELL @ 4191.0usft (UDI # 44)
MD Reference: WELL @ 4191.0usft (UDI # 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,295.0	0.50	67.40	7,294.0	-14.6	5.7	-14.6	0.38	0.34	21.90
7,484.0	0.50	86.40	7,483.0	-14.3	7.3	-14.3	0.09	0.00	10.05
7,675.0	0.50	99.80	7,674.0	-14.3	8.9	-14.3	0.06	0.00	7.02
7,865.0	0.40	87.10	7,864.0	-14.5	10.4	-14.5	0.07	-0.05	-6.68
8,050.0	0.60	78.70	8,049.0	-14.2	12.0	-14.2	0.11	0.11	-4.54
8,147.0	0.40	94.20	8,146.0	-14.2	12.8	-14.2	0.25	-0.21	15.98
8,340.0	0.30	80.10	8,339.0	-14.1	14.0	-14.1	0.07	-0.05	-7.31
8,529.0	0.20	34.00	8,528.0	-13.8	14.7	-13.8	0.11	-0.05	-24.39
8,718.0	0.40	68.80	8,717.0	-13.2	15.5	-13.2	0.14	0.11	18.41
8,908.0	0.20	98.40	8,907.0	-13.1	16.4	-13.1	0.13	-0.11	15.58
9,096.0	0.60	58.20	9,095.0	-12.6	17.6	-12.6	0.25	0.21	-21.38
9,351.0	0.50	74.40	9,350.0	-11.6	19.8	-11.6	0.07	-0.04	6.35
9,604.0	0.70	62.50	9,603.0	-10.6	22.2	-10.6	0.09	0.08	-4.70
9,857.0	0.90	92.70	9,855.9	-10.0	25.6	-10.0	0.18	0.08	11.94
10,343.0	4.10	72.30	10,341.4	-4.8	46.0	-4.8	0.67	0.66	-4.20
10,407.0	2.70	80.10	10,405.3	-3.9	49.6	-3.9	2.30	-2.19	12.19
10,471.0	2.10	76.90	10,469.3	-3.4	52.2	-3.4	0.96	-0.94	-5.00
10,534.0	1.80	85.90	10,532.2	-3.0	54.4	-3.0	0.68	-0.48	14.29
10,598.0	1.70	86.40	10,596.2	-2.9	56.3	-2.9	0.16	-0.16	0.78
10,661.0	1.60	85.20	10,659.2	-2.8	58.1	-2.8	0.17	-0.16	-1.90
10,725.0	1.70	80.60	10,723.1	-2.5	59.9	-2.5	0.26	0.16	-7.19
10,788.0	1.60	80.10	10,786.1	-2.2	61.7	-2.2	0.16	-0.16	-0.79
10,851.0	1.70	80.10	10,849.1	-1.9	63.5	-1.9	0.16	0.16	0.00
10,915.0	1.70	81.10	10,913.1	-1.6	65.4	-1.6	0.05	0.00	1.56
10,978.0	1.50	87.80	10,976.0	-1.4	67.1	-1.4	0.43	-0.32	10.63
11,042.0	1.60	97.70	11,040.0	-1.5	68.9	-1.5	0.45	0.16	15.47
11,105.0	1.40	98.20	11,103.0	-1.8	70.5	-1.8	0.32	-0.32	0.79
11,168.0	0.90	83.10	11,166.0	-1.8	71.8	-1.8	0.92	-0.79	-23.97
11,231.0	0.80	75.80	11,229.0	-1.6	72.7	-1.6	0.23	-0.16	-11.59
11,295.0	1.30	84.60	11,293.0	-1.5	73.8	-1.5	0.82	0.78	13.75
11,373.0	2.00	99.90	11,370.9	-1.6	76.0	-1.6	1.05	0.90	19.62
TD @ 11420' MD / 11418' TVD									
11,420.0	2.00	99.90	11,417.9	-1.9	77.7	-1.9	0.00	0.00	0.00

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
6,416.0	6,415.1	-15.9	0.6	Tie in @ 6416' MD / 6415' TVD
11,420.0	11,417.9	-1.9	77.7	TD @ 11420' MD / 11418' TVD

Checked By: _____ Approved By: _____ Date: _____



SURVEY CALCULATION PROGRAM

HOBBS OCD

OCT 28 2016

RECEIVED

TARGET DETAILS

OPERATOR: CML Explorations

WELL: Cameron 22 State # 1

LOCATION: Lea / New Mexico

JOB NUMBER: WT-160217

Supervisors:

Will Ellison DD

Brian Hulsey DD

Daniel Longoria MWD

Bill Kitchens MWD

TARGET N-S Directional

TARGET E-W

TARGET RADIUS

TARGET DISPLACEMENT

TARGET CLOSURE

TARGET KBTVD Horizontal

DIP AZ

DIP DEG UP+/DN-

TARGET INCLINATION

Magnetic Declination

Curr< Prev< DIFF

0.0

S/Ahead PROJ

#DIV/0!

#DIV/0!

JT Co. Rep

0.0 Co. Rep

UDI # 44 Rig

Slide/Seen

BR/FT

A/BR

BRN

JNT

D/S

0.00

#DIV/0!

#DIV/0!

#N/A

#DIV/0!

32.00

#N/A

0.0

0.0

Target #PBHL

MD

TVD

Vertical Section

N-S

E-W

Sec/Plane

0.00

TARGET TRACKING

TO CENTER

SVY

NUM

MD

INC

AZM

COURSE

LENGTH

TVD

SECT

N-S

E-W

DLS/

100

ABOVE(+)

BELOW(-)

RIGHT(+)

LEFT(-)

DIR

(DEG AZ)

CLOSURE

DISTANCE

BUILD

RATE/

WALK

RATE/

TIE	MD	INC	AZM	COURSE LENGTH	TVD	SECT	N-S	E-W	DLS/ 100	ABOVE(+) BELOW(-)	RIGHT(+) LEFT(-)	DIR (DEG AZ)	CLOSURE DISTANCE (FEET)	BUILD RATE/ °/100'	WALK RATE/ °/100'
1	2717	1.80	127.00	117.00	2716.81	-9.19	-9.19	16.90	0.29	-2716.81	16.90	118.53	19.23	0.28	0.05
2	2748	1.70	130.20	31.00	2747.80	-9.78	-9.78	17.64	0.45	-2747.80	17.64	119.00	20.17	-0.32	0.32
3	2780	1.30	141.20	32.00	2779.79	-10.37	-10.37	18.23	1.53	-2779.79	18.23	119.62	20.97	-1.25	0.90
4	2843	1.90	261.00	63.00	2842.77	-11.09	-11.09	17.64	4.42	-2842.77	17.64	122.14	20.84	0.95	4.39
5	2969	6.10	288.20	126.00	2968.45	-9.32	-9.32	9.22	3.57	-2968.45	9.22	135.32	13.11	3.33	1.49
6	3096	0.20	144.10	127.00	3095.21	-7.39	-7.39	2.93	4.93	-3095.21	2.93	158.37	7.95	-4.65	-4.72
7	3191	0.30	6.40	95.00	3190.21	-7.28	-7.28	3.05	0.49	-3190.21	3.05	157.23	7.89	0.11	-0.49
8	3286	0.20	359.40	95.00	3285.21	-6.86	-6.86	3.08	0.11	-3285.21	3.08	155.83	7.52	-0.11	0.03
9	3381	0.10	217.20	95.00	3380.21	-6.76	-6.76	3.03	0.30	-3380.21	3.03	155.88	7.41	-0.11	-0.30
10	3476	0.40	232.10	95.00	3475.21	-7.03	-7.03	2.72	0.32	-3475.21	2.72	158.88	7.54	0.32	0.07
11	3571	0.40	228.40	95.00	3570.21	-7.46	-7.46	2.21	0.03	-3570.21	2.21	163.51	7.78	0.00	-0.03
12	3666	0.80	240.70	95.00	3665.20	-8.00	-8.00	1.38	0.44	-3665.20	1.38	170.21	8.12	0.42	0.14
13	3761	0.60	201.10	95.00	3760.20	-8.79	-8.79	0.62	0.54	-3760.20	0.62	175.94	8.81	-0.21	0.00
14	3856	0.80	199.10	95.00	3855.19	-9.88	-9.88	0.23	0.21	-3855.19	0.23	178.68	9.89	0.21	0.00
15	3951	1.00	202.90	95.00	3950.18	-11.27	-11.27	-0.31	0.22	-3950.18	-0.31	181.58	11.28	0.21	0.00
16	4045	1.20	208.60	94.00	4044.16	-12.89	-12.89	-1.10	0.24	-4044.16	-1.10	184.89	12.94	0.21	0.00
17	4141	0.10	47.90	96.00	4140.15	-13.72	-13.72	-1.52	1.35	-4140.15	-1.52	186.33	13.80	-1.15	0.00
18	4236	0.10	75.20	95.00	4235.15	-13.64	-13.64	-1.38	0.05	-4235.15	-1.38	185.77	13.71	0.00	0.00
19	4331	0.10	141.40	95.00	4330.15	-13.69	-13.69	-1.25	0.11	-4330.15	-1.25	185.21	13.74	0.00	0.00
20	4426	0.10	211.60	95.00	4425.15	-13.82	-13.82	-1.24	0.12	-4425.15	-1.24	185.12	13.88	0.00	0.00
21	4521	0.40	192.90	95.00	4520.15	-14.22	-14.22	-1.36	0.32	-4520.15	-1.36	185.45	14.28	0.32	0.00



SURVEY CALCULATION PROGRAM

TARGET DETAILS

OPERATOR: CML Explorations
WELL: Cameron 22 State # 1
LOCATION: Lea / New Mexico
JOB NUMBER: WT-160217

Supervisors:

Will Ellison DD
Brian Hulsey DD
Daniel Longoria MWD
Bill Kitchens MWD

TARGET N-S Directional

TARGET E-W

TARGET RADIUS

TARGET DISPLACEMENT

TARGET CLOSURE

TARGET KBTVD Horizontal

DIP AZ

DIP DEG UP+/DN-

TARGET INCLINATION

Magnetic Declination

Curr< Prev< DIFF
0.0

S/Ahead PROJ

#DIV/0! #DIV/0!

JT Co. Rep

0.0 Co. Rep

UDI # 44 Rig

Slide/Seen BR/FT A/BR BRN JNT D/S

0.00 #DIV/0! #DIV/0! #N/A #DIV/0! 32.00 #N/A

Target #PBHL MD TVD Vertical Section N-S E-W

Sec/Plane 0.00

TARGET TRACKING

TO CENTER

CLOSURE CLOSURE BUILD WALK

DIR DISTANCE RATE/ RATE/

(DEG AZ) (FEET) %/100' %/100'

SVY COURSE

NUM MD INC AZM LENGTH TVD SECT N-S E-W DLS/

22 4615 0.70 204.40 94.00 4614.15 -15.06 -15.06 -1.67 0.34

23 4710 0.60 201.90 95.00 4709.14 -16.05 -16.05 -2.09 0.11

24 4805 0.80 203.80 95.00 4804.13 -17.12 -17.12 -2.55 0.21

25 4900 0.70 213.10 95.00 4899.13 -18.21 -18.21 -3.13 0.17

26 4994 0.80 197.70 94.00 4993.12 -19.32 -19.32 -3.64 0.24

27 5089 0.70 208.00 95.00 5088.11 -20.46 -20.46 -4.12 0.18

28 5184 1.10 203.60 95.00 5183.10 -21.81 -21.81 -4.76 0.43

29 5279 0.40 36.30 95.00 5278.09 -22.38 -22.38 -4.92 1.57

30 5373 0.80 50.20 94.00 5372.09 -21.69 -21.69 -4.23 0.45

31 5468 0.40 51.40 95.00 5467.08 -21.06 -21.06 -3.46 0.42

32 5563 0.80 42.10 95.00 5562.08 -20.36 -20.36 -2.75 0.43

33 5657 0.50 65.30 94.00 5656.07 -19.70 -19.70 -1.94 0.42

34 5752 0.70 47.70 95.00 5751.07 -19.14 -19.14 -1.13 0.28

35 5847 0.50 5.90 95.00 5846.06 -18.34 -18.34 -0.66 0.49

36 5941 0.30 20.30 94.00 5940.06 -17.70 -17.70 -0.54 0.24

37 6036 0.30 24.40 95.00 6035.06 -17.24 -17.24 -0.35 0.02

38 6131 0.30 31.90 95.00 6130.06 -16.80 -16.80 -0.11 0.04

39 6226 0.30 31.00 95.00 6225.06 -16.38 -16.38 0.15 0.00

40 6321 0.20 27.50 95.00 6320.05 -16.02 -16.02 0.35 0.11

41 6416 0.30 107.50 95.00 6415.05 -15.94 -15.94 0.67 0.35

42 6530 0.40 109.00 114.00 6529.05 -16.16 -16.16 1.33 0.09

43 6625 0.30 110.00 95.00 6624.05 -16.36 -16.36 1.87 0.11

ABOVE(+) RIGHT(+)

BELOW(-) LEFT(-)

-4614.15 -1.67

-4709.14 -2.09

-4804.13 -2.55

-4899.13 -3.13

-4993.12 -3.64

-5088.11 -4.12

-5183.10 -4.76

-5278.09 -4.92

-5372.09 -4.23

-5467.08 -3.46

-5562.08 -2.75

-5656.07 -1.94

-5751.07 -1.13

-5846.06 -0.66

-5940.06 -0.54

-6035.06 -0.35

-6130.06 -0.11

-6225.06 0.15

-6320.05 0.35

-6415.05 0.67

-6529.05 1.33

-6624.05 1.87

186.32 15.15 0.32 0.00

187.43 16.18 -0.11 0.00

188.46 17.30 0.21 0.00

189.75 18.48 -0.11 0.00

190.68 19.66 0.11 0.00

191.38 20.87 -0.11 0.00

192.30 22.32 0.42 0.00

192.41 22.91 -0.74 0.00

191.02 22.10 0.43 0.00

189.32 21.34 -0.42 0.00

187.70 20.55 0.42 0.00

185.62 19.80 -0.32 0.00

183.39 19.17 0.21 0.00

182.07 18.35 -0.21 0.00

181.73 17.71 -0.21 0.00

181.15 17.24 0.00 0.00

180.38 16.80 0.00 0.00

179.48 16.38 0.00 0.00

178.74 16.02 -0.11 0.00

177.61 15.96 0.11 0.00

175.31 16.22 0.09 0.00

173.46 16.46 -0.11 0.00



SURVEY CALCULATION PROGRAM

TARGET DETAILS

OPERATOR: CML Explorations

WELL: Cameron 22 State # 1

LOCATION: Lea / New Mexico

JOB NUMBER: WT-160217

Supervisors:

Will Ellison DD

Brian Hulsey DD

Daniel Longoria MWD

Bill Kitchens MWD

TARGET N-S Directional

TARGET E-W

TARGET RADIUS

TARGET DISPLACEMENT

TARGET CLOSURE

TARGET KBTVD Horizontal

DIP AZ

DIP DEG UP+/DN-

TARGET INCLINATION

Magnetic Declination

Curr< Prev< DIFF

0.0

S/Ahead PROJ

#DIV/0!

#DIV/0!

JT Co. Rep

0.0 Co. Rep

UDI # 44 Rig

Slide/Seen

BR/FT

A/BR

BRN

JNT

D/S

0.00

#DIV/0!

#DIV/0!

#N/A

#DIV/0!

32.00

#N/A

0.00

0.00

Target #PBHL

MD

TVD

Vertical Section

N-S

E-W

Sec/Plane

0.00

TARGET TRACKING

TO CENTER

SVY

NUM

MD

INC

AZM

COURSE

LENGTH

TVD

SECT

N-S

E-W

DLS/

100

ABOVE(+)

BELOW(-)

RIGHT(+)

LEFT(-)

DIR

(DEG AZ)

CLOSURE

DISTANCE

BUILD

RATE/

°/100'

WALK

RATE/

°/100'

44	6756	0.20	91.30	131.00	6755.05	-16.48	-16.48	2.42	0.10	-6755.05	2.42	171.63	16.66	-0.08	0.00
45	6817	0.60	56.10	61.00	6816.05	-16.30	-16.30	2.80	0.74	-6816.05	2.80	170.27	16.54	0.66	0.00
46	7074	0.40	61.00	257.00	7073.04	-15.12	-15.12	4.70	0.08	-7073.04	4.70	162.74	15.83	-0.08	0.00
47	7105	0.20	85.00	31.00	7104.04	-15.06	-15.06	4.85	0.75	-7104.04	4.85	162.16	15.82	-0.65	0.00
48	7237	0.30	54.70	132.00	7236.04	-14.84	-14.84	5.36	0.12	-7236.04	5.36	160.15	15.78	0.08	0.00
49	7295	0.50	67.40	58.00	7294.03	-14.65	-14.65	5.72	0.38	-7294.03	5.72	158.69	15.73	0.34	0.00
50	7484	0.50	86.40	189.00	7483.03	-14.29	-14.29	7.30	0.09	-7483.03	7.30	152.93	16.04	0.00	0.00
51	7675	0.50	99.80	191.00	7674.02	-14.38	-14.38	8.95	0.06	-7674.02	8.95	148.09	16.94	0.00	0.00
52	7865	0.40	87.10	190.00	7864.01	-14.48	-14.48	10.43	0.07	-7864.01	10.43	144.23	17.85	-0.05	0.00
53	8050	0.60	78.70	185.00	8049.01	-14.26	-14.26	12.03	0.11	-8049.01	12.03	139.86	18.66	0.11	0.00
54	8147	0.40	94.20	97.00	8146.00	-14.19	-14.19	12.86	0.25	-8146.00	12.86	137.80	19.15	-0.21	0.00
55	8340	0.30	80.10	193.00	8339.00	-14.15	-14.15	14.03	0.07	-8339.00	14.03	135.24	19.93	-0.05	0.00
56	8529	0.20	34.00	189.00	8528.00	-13.79	-13.79	14.70	0.11	-8528.00	14.70	133.16	20.16	-0.05	0.00
57	8718	0.40	68.80	189.00	8717.00	-13.28	-13.28	15.50	0.14	-8717.00	15.50	130.58	20.41	0.11	0.00
58	8908	0.20	98.40	190.00	8906.99	-13.09	-13.09	16.45	0.13	-8906.99	16.45	128.50	21.02	-0.11	0.00
59	9096	0.60	58.20	188.00	9094.99	-12.62	-12.62	17.61	0.25	-9094.99	17.61	125.62	21.66	0.21	0.00
60	9351	0.50	74.40	255.00	9349.98	-11.61	-11.61	19.82	0.07	-9349.98	19.82	120.37	22.97	-0.04	0.00
61	9604	0.70	62.50	253.00	9602.96	-10.60	-10.60	22.25	0.09	-9602.96	22.25	115.48	24.65	0.08	0.00
62	9857	0.90	92.70	253.00	9855.94	-9.98	-9.98	25.61	0.18	-9855.94	25.61	111.30	27.48	0.08	0.00
63	10343	4.10	72.30	486.00	10341.42	-4.88	-4.88	45.98	0.67	-10341.42	45.98	96.06	46.24	0.66	0.00
64	10407	2.70	80.10	64.00	10405.31	-3.92	-3.92	49.64	2.30	-10405.31	49.64	94.52	49.80	-2.19	0.00
65	10471	2.10	76.90	64.00	10469.25	-3.40	-3.40	52.27	0.96	-10469.25	52.27	93.72	52.38	-0.94	0.00



SURVEY CALCULATION PROGRAM

TARGET DETAILS

OPERATOR: CML Explorations
WELL: Cameron 22 State # 1
LOCATION: Lea / New Mexico
JOB NUMBER: WT-160217

Supervisors:

Will Ellison DD
 Brian Hulsey DD
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 Bill Kitchens MWD

TARGET N-S Directional
 TARGET E-W
 TARGET RADIUS
 TARGET DISPLACEMENT
 TARGET CLOSURE

Curr< Prev< DIFF
 0.0

S/Ahead PROJ

#DIV/0! #DIV/0!

JT Co. Rep

TARGET KBTVD Horizontal

Slide/Seen BR/FT A/BR BRN JNT D/S

0.0 Co. Rep

0.00 #DIV/0! #DIV/0! #N/A #DIV/0! 32.00 #N/A

UDI # 44 Rig

DIP AZ
 DIP DEG UP+/DN-
 TARGET INCLINATION

Target #PBHL MD TVD Vertical Section N-S E-W

Sec/Plane 0.00

TARGET TRACKING TO CENTER

Magnetic Declination

SVY NUM	MD	INC	AZM	COURSE LENGTH	TVD	SECT	N-S	E-W	DLS/ 100	ABOVE(+) BELOW(-)	RIGHT(+) LEFT(-)	DIR (DEG AZ)	CLOSURE DISTANCE (FEET)	BUILD RATE/ °/100'	WALK RATE/ °/100'
66	10534	1.80	85.90	63.00	10532.21	-3.07	-3.07	54.38	0.68	-10532.21	54.38	93.23	54.47	-0.48	0.00
67	10598	1.70	86.40	64.00	10596.18	-2.94	-2.94	56.33	0.16	-10596.18	56.33	92.98	56.41	-0.16	0.00
68	10661	1.60	85.20	63.00	10659.16	-2.80	-2.80	58.14	0.17	-10659.16	58.14	92.76	58.21	-0.16	0.00
69	10725	1.70	80.60	64.00	10723.13	-2.57	-2.57	59.97	0.26	-10723.13	59.97	92.46	60.02	0.16	0.00
70	10788	1.60	80.10	63.00	10786.10	-2.27	-2.27	61.75	0.16	-10786.10	61.75	92.10	61.80	-0.16	0.00
71	10851	1.70	80.10	63.00	10849.08	-1.96	-1.96	63.54	0.16	-10849.08	63.54	91.76	63.57	0.16	0.00
72	10915	1.70	81.10	64.00	10913.05	-1.65	-1.65	65.41	0.05	-10913.05	65.41	91.44	65.44	0.00	0.00
73	10978	1.50	87.80	63.00	10976.03	-1.47	-1.47	67.16	0.43	-10976.03	67.16	91.25	67.18	-0.32	0.00
74	11042	1.60	97.70	64.00	11040.00	-1.56	-1.56	68.88	0.45	-11040.00	68.88	91.30	68.90	0.16	0.00
75	11105	1.40	98.20	63.00	11102.98	-1.79	-1.79	70.52	0.32	-11102.98	70.52	91.45	70.54	-0.32	0.00
76	11168	0.90	83.10	63.00	11165.97	-1.84	-1.84	71.77	0.92	-11165.97	71.77	91.47	71.79	-0.79	0.00
77	11231	0.80	75.80	63.00	11228.96	-1.67	-1.67	72.69	0.23	-11228.96	72.69	91.32	72.71	-0.16	0.00
78	11295	1.30	84.60	64.00	11292.95	-1.49	-1.49	73.84	0.82	-11292.95	73.84	91.16	73.86	0.78	0.00
79	11373	2.00	99.90	78.00	11370.92	-1.64	-1.64	76.07	1.05	-11370.92	76.07	91.24	76.08	0.90	0.00
Proj	11420	2.00	99.90	47.00	11417.89	-1.92	-1.92	77.68	0.00	-11417.89	77.68	91.42	77.71	0.00	0.00