		3112.		
	UNITED STATES DEPARTMENT OF THE ID BUREAU OF LAND MANA	NTERIOR	OM	RM APPROVED B NO. 1004-0135 res: July 31, 2010
	Y NOTICES AND REPO		5. Lease Serial No NMNM9465	
Do not use t	his form for proposals to rell. Use form 3160-3 (API	drill or to re-enter an	6. If Indian, Allott	
SUBMIT IN TI	RIPLICATE - Other instruc	tions on reverse side.	7. If Unit or CA/A	greement, Name and/or No.
1. Type of Well ☑ Oil Well □ Gas Well □ 0	Dther		8. Well Name and CEDAR CAN	No. YON 29 FEDERAL COM 2H
2. Name of Operator OXY USA INCORPORATE		JANA MENDIOLA endiola@oxy.com	9. API Well No. 30-015-4299	02-00-X1
3a. Address 5 GREENWAY PLAZA STE HOUSTON, TX 77046-052		3b. Phone No. (include area code Ph: 432-685-5936 Fx: 432-685-5742	e) 10. Field and Poo PIERCE CR	
4. Location of Well (Footage, Sec.	, T., R., M., or Survey Description,)	11. County or Par	ish, and State
Sec 29 T24Š R29E NENE 2 32.194454 N Lat, 103.9986			EDDY COU	NTY, NM
12. CHECK AP	PROPRIATE BOX(ES) TO) INDICATE NATURE OF	NOTICE, REPORT, OR OT	HER DATA
TYPE OF SUBMISSION		TYPE C	F ACTION	
Notice of Intent	C Acidize	Deepen	Production (Start/Resume) 🔲 Water Shut-Off
_	Alter Casing	Fracture Treat	Reclamation	Well Integrity
Subsequent Report	Casing Repair	New Construction	Recomplete	Other Change to Original A
Final Abandonment Notice	Change Plans	Plug and Abandon	Temporarily Abandon	PD
	Convert to Injection	Plug Back	Water Disposal	
Attach the Bond under which the following completion of the involu-	onally or recomplete horizontally, work will be performed or provide yed operations. If the operation re Abandonment Notices shall be fil	give subsurface locations and meas the Bond No. on file with BLM/BI sults in a multiple completion or rec	ured and true vertical depths of all p A. Required subsequent reports sha completion in a new interval, a Form ding reclamation, have been comple	ertinent markers and zones. Il be filed within 30 days .3160-4 shall be filed once
OXY USA INC. respectfully	requests approval for the fo	blowing changes to the drillin	g plan:	
Proposed TD - 13423'M 854				IL CONSERVATION
1. Request casing design m 14-3/4" surface hole w/ 10-3 hole w/ 5-1/2 & 4-1/2" csg. l	odification, to drill the well v 8/4" csg, 9-7/8" intermediate Details are below.	e hole W17-5/87 csg.and 6-3/4		AUG 1 8 2015
a.Surface Casing 10-3/4" 45.5# J-55 BT&C n	ew csg @ 0 [:] 400', 14-3/4" ho	CONDITIONS (SIB/15	RECEIVED
Coll Rating (psi)-2090 Burs	t Rating (psi)-3580	Accept	ed for rebord MOCD	
14. I hereby certify that the foregoin	Electronic Submission # For OXY USA	309795 verified by the BLM W A INCORPORATED, sent to th ing by CHRISTOPHER WALLS		;)
	STEWART		LATORY ADVISOR	·/
			· . · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Signature (Electron	ic Submission)	Date 077217	2015	
	THIS SPACE FO	OR FEDERAL OR STATE	OFFICEUSEKUVE	D
Approved By		Title	PETROLEUM ENGI	Date
Conditions of approval, if any, are atta certify that the applicant holds legal or which would entitle the applicant to co	equitable title to those rights in the		AUG 1 1 2015. Kenneth Renni	ck
Title 18 U.S.C. Section 1001 and Title States any false, fictitious or fraudule	43 U.S.C. Section 1212, make it a nt statements or representations as	crime for any person knowingly an s to any matter within its jurisfliction	d will fully to make to any departme	nt of agency of the United
** BLM RE	EVISED ** BLM REVISE	D ** BLM REVISED *-BL	CARLSBAD FIELD OFF M-REVISED ** BLM-REVI	ICE ISED **

....

LATAS I

··:,..:

THE YEAR

1

Additional data for EC transaction #309795 that would not fit on the form

-32- Additional remarks, continued

11.1

SF Coll-15.99 SF Burst-1.42 SF Ten-5.96

b.Intermediate Casing 7-5/8" 26.4# L80 BT&C new csg @ 0-2850', 9-7/8" hole w/ 10.0# mud

Coll Rating (psi)-3400 Burst Rating (psi)-6020 SF Coll-5.30 SF Burst-1.37 SF Ten-3.58

c.Production Casing 5-1/2" 20# P-110 USF new csg @ 0-9077'M, 6-3/4" hole w/ 9.2# mud Coll Rating (psi)-11100 Burst Rating (psi)-12600 SF Coll-2.67 SF Burst-1.26 SF Ten-2.30

4-1/2" 13.5# P-110 BT&C new csg @ 9077-13423'M, 6-3/4" hole w/ 9.2# mud Coll Rating (psi)-10670 Burst Rating (psi)-12#10 SF Coll-2.57 SF Burst-1.25 SF Ten-2.70

Collapse and burst loads calculated using Stress Check with anticipated loads, see attached for design assumptions

2. Cement program adjustment to the new bit/casing sizes. Cement program modifications detailed below.

a. Surface - Circulate cement to surface w/ 430sx PP cmt w/ 2% CaCl2, 14.8ppg 1:35 yield 1415# 24hr CS 150% Excess.

b. Intermediate - Circulate cement to surface w/ 570sx HES light PP cmt w/ 5% Salt + .1% HR-800, 12\9ppg 1.85 yield 824# 24hs CS 125% Excess followed by 200sx PP cmt, 14.8ppg 1.33 yield 1789# 24hr CS\125%/Excess.

c. Production - Cement w/ 210sx Tuned Light (TM) system cmt w/ 3#/sx Kol-Seal + .125#/sx Poly-E-Flake + .8% HR-601, 10.2ppg 3.05 yield 555# 24hr CS 25% Excess followed by 520sx Super H cmt w/ 3#/sx salt + .1% HR-800 + .3% CFR-3 + .5% Halad(R)-344 + 2#/sx Kol-Seal, 13.2ppg 1.65 yield 1462# 24hr CS 25% Excess. Estimated TOC @ 1925'.

Description of Cement Additives: Calcium Chloride, Salt (Accelerator); CFR-3 (Dispersant); Kol-Seal, Poly-E-Flake (Lost Circulation Additive); Halad-344 (Low Fluid Loss Control); HR-601, HR-800 (Retarder)

The above cement volumes could be revised pending the caliper measurement.

3. Mud Program Depth Mud WT Vis Sec Fluid Loss Type 0-400' 8.5-9.0 40-55 50-75cc/30min EnerSeal Spud Mud (MMH) 400-2850' 9.8-10 28-32 NC NaCl Brine 2850'-TD 8.8-9.6 38-50 50-75cc/30min EnerSeal (MMH)

4. The Operator will connect the BOP choke outlet to the choke manifold using a hose that meets all BLM requirements and will be inspected and approved by BLM personnel prior to spud.

Revisions to Operator-Submitted EC Data for Sundry Notice #309795

and a second s

Contraction of the second

ATPJI.

	Operator Submitted	BLM Re
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM94651	NMNM94
Agreement:		
Operator:	OXY USA INC. P.O. BOX 50250 MIDLAND, TX 79710 Ph: 432-685-5936	OXY USA 5 GREEN HOUSTO Ph: 713.3
Admin Contact:	JANA MENDIOLA REGULATORY COORDINATOR E-Mail: janalyn_mendiola@oxy.com	JANA ME REGULA E-Mail: ja
	Ph: 432-685-5936 Fx: 432-685-5742	Ph: 432-6 Fx: 432-6
Tech Contact:	DAVID STEWART SR. REGULATORY ADVISOR E-Mail: david_stewart@oxy.com Cell: 432-634-5688	DAVID S REGULA
	Ph: 432-685-5717 Fx: 432-685-5742	Ph: 432.0
Location: State: County:	NM EDDY	NM EDDY
Field/Pool:	PIERCECROSSING BONESPRING	PIERCE
Well/Facility:	CEDAR CANYON 29 FEDERAL COM 2H Sec 29 T24S R29E NENE 230FNL 320FEL 32.194924 N Lat, 103.998617 W Lon	CEDAR (Sec 29 T 32.19445

Revised (AFMSS)

N. 10. 11 en rep

AVIB.

1. St. 6 5 . 1. 1. 1

-----7

.......

.

• •••

4651

SA INCORPORATED ENWAY PLAZA STE 110 ON, TX 77046-0521 3.350.4816

IENDIOLA ATORY COORDINATOR janalyn_mendiola@oxy.com

2-685-5936 -685-5742

STEWART ATORY ADVISOR

2.685.5717

CROSSING

CANYON 29 FEDERAL COM 2H T24S R29E NENE 230FNL 320FEL 154 N Lat, 103.998682 W Lon

OXY USA Inc. Cedar Canyon 29 Federal Com. #2H

Casing Design Assumptions:

Burst Loads

- CSG Test (Surface)
 - Internal: Displacement fluid + 70% CSG Burst rating
 - External: Pore Pressure from section TD to surface

CSG Test (Intermediate)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from the Intermediate hole TD to Surface CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

CSG Test (Production)

- Internal: Fresh water displacement fluid + 80% CSG Burst rating
- External: Pore Pressure from the well TD the Intermediate CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Gas Kick (Surface/Intermediate)

- Internal: Gas Kick based on Pore Pressure or Fracture Gradient @ CSG shoe with a gas 0.115psi/ft Gas gradient to surface while drilling the next hole section (e.g. Gas Kick while drilling the production hole section is a burst load used to design the intermediate CSG)
- External: Pore Pressure from section TD to previous CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Stimulation (Production)

- Internal: Displacement fluid + Max Frac treating pressure (not to exceed 80% CSG Burst rating)
- External: Pore Pressure from the well TD to the Intermediate CSG shoe and 8.5 ppg MWE to surface

Collapse Loads

Lost Circulation (Surface/Intermediate)

- Internal: Losses experienced while drilling the next hole section (e.g. losses while drilling the production hole section are used as a collapse load to design the intermediate CSG). After losses there will be a column of mud inside the CSG with an equivalent weight to the Pore Pressure of the lost circulation zone
- External: MW of the drilling mud that was in the hole when the CSG was run

Cementing (Surface/Intermediate/Production)

- Internal: Displacement Fluid
- External: Cement Slurries to TOC, MW to surface

Full Evacuation (Production)

- Internal: Atmospheric Pressure
- External: MW of the drilling mud that was in the hole when the CSG was run

Tension Loads

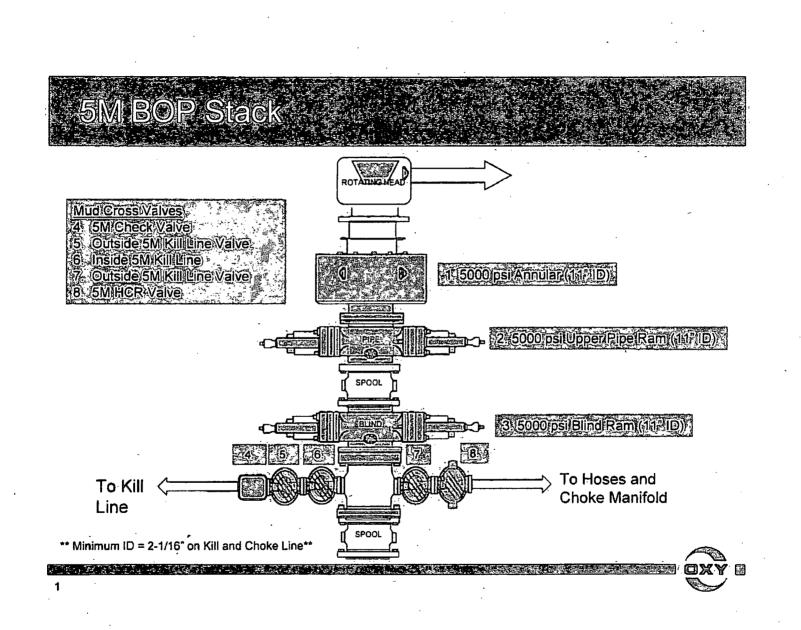
Running CSG (Surface/Intermediate/Production)

• Axial load of the buoyant weight of the string plus either 100 klb over-pull or string weight in air, whichever is less

Green Cement (Surface/Intermediate/Production)

• Axial load of the buoyant weight of the string plus the cement plug bump pressure (Final displacement pressure + 500 psi)

Burst, Collapse and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software.



A CALLER AND A CAL

CAMERON

11¹⁰ 10M MES Wellheed

1-13/16%10M 100 Ground Level

1-13/16-10M

1/167 5M

10-3/4" Casing)

C6815

Conductor

7-5/8" Casing 5-1/2" Casing)

8.63

2-7/8"LP

7-1/16710M

11510M

11**-5**M

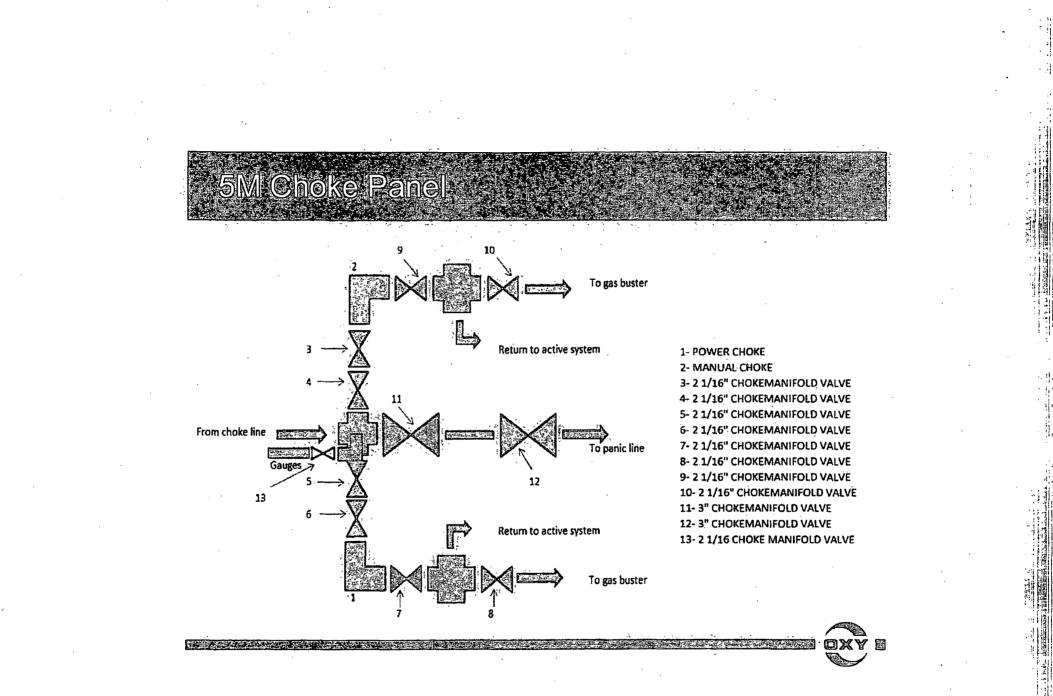
Barilla Draw

OD

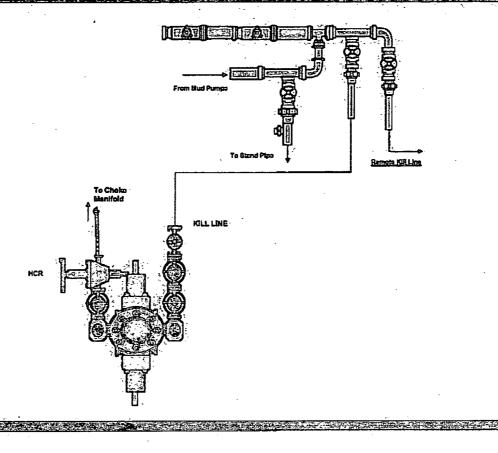
Ground Level

17.505

5.00

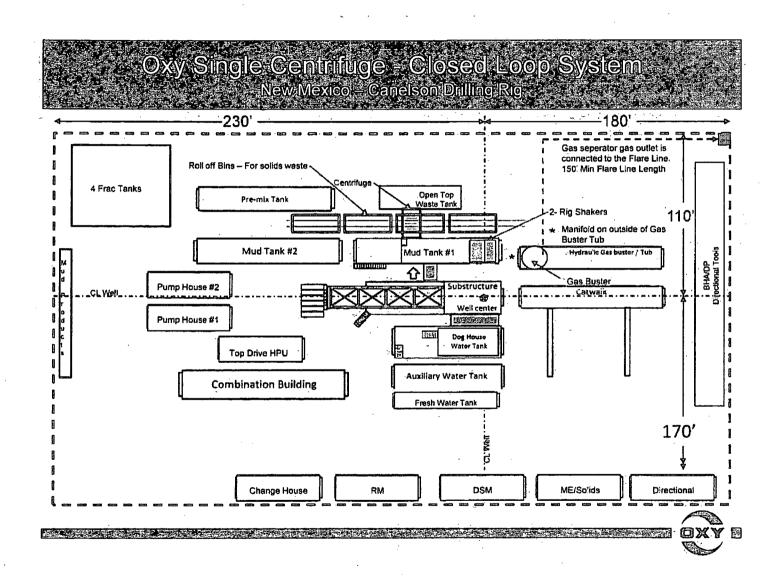






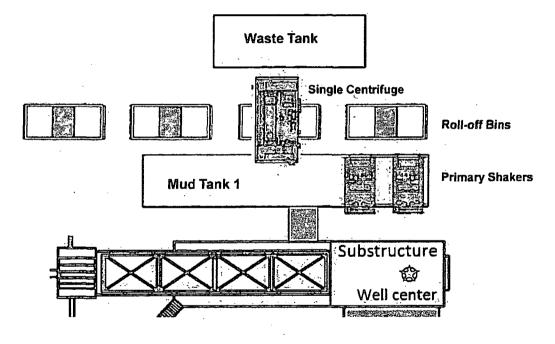
OXY

龗



. .

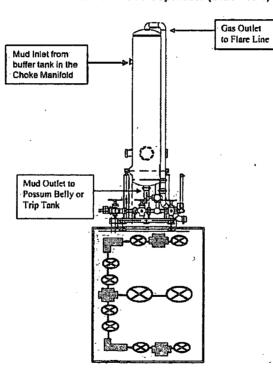
Oxy Single Centrifuge - Closed Loop System New Mexico - Canelson Dilling Rig



oxy I

Choke Manifold — Gas Separator NewMexico = Canelson Drilling Rig

Choke Manifold - Gas Separator (Side View)



 $(a,b,c,c,d) \in \mathcal{F}(a,b,c)$

10. 6 2 2 2 2 2 2 2

OXYE

a la car

SXY Parererisent

ΟΧΥ

Eddy County, New Mexico Cedar Canyon 29 Federal 2H CC 29 F 2H

Wellbore #1

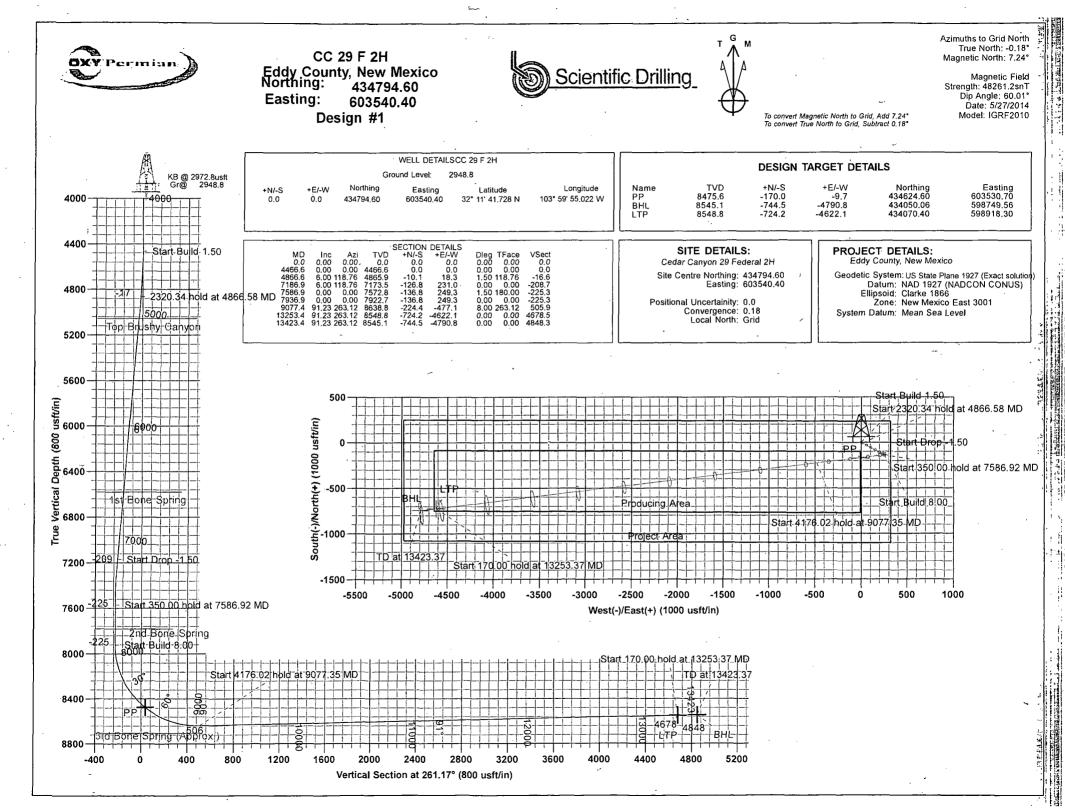
Plan: Design #1

Standard Planning Report

12 June, 2014



clantificatilling.com



	~			Sci	entific Drill	ing				
OXY Permi				. P	lanning Repo	rt				-
itabase:	EDM(500)	0.1 Single User	Db		illocal/Co-ordi	nate)Reference	Well	CC1291F12H1	iza renares partore ta Isle Pater	
	OXY,			an a	J:TVD Referenc	e: 10.00	Ге КВ @	2972 8usft	1997 - 1997 - 1997 - 1997 - 1997 1997 -	
oject: Alto Antonio Anto e:		nty: New Mexic nyon 29 Feder			MD Reference		China KB @	2972.8usft		
iller stads of several	24 CC 29 F/2	A CARLES AND A CARLES			Survey Calcul	and and and an	HALL GREATER BELLEVILLE IN A STATE OF A	num:Curvature	0	
llbore: sign:	Wellbore / Design #1									
oject	l Eddy Cour	ity:\New\Mexic	o: New/Mexico					and a second second state of the second s The second se The second se	Sources: No.	
ap System:	US State Pla	ane 1927 (Exa	ct solution)	CHERRING STREET, FLIG	System Datum:		Mean S	Sea Level		alun baya da sa
eo Datum:	-		IUS)							
lap Zone:	New Mexico	East 3001		•						
te	Cedar Can	iyon 29 Federa	1.2H							
ite Position:			Northing	:	434,794		tude:			32° 11' 41.7
rom: osition Uncertainty	Map /:	0.0 us	Easting: sft Slot Radi	ius:			gitude: I Convergence	:		103° 59' 55.02 0
	7. DA		สสรณสะเวลา	apping to discont fraction		and many states and				
ell a statistication of the	1 CC:29 Fi2H	House with	and the second second	NEW CHARGE AND				to she we see a		and the state of the
						34,794.60 usft	Latitude	:		32° 11' 41.7
ell Position	+N/-S +E/-W/	0.0 t		-			Longitu	de:	•	103° 59' 55 02
	+E/-W	0.0 t 0.0 t 0.0 t	usit Easti i	-	e	03,540.40 usft 0.0 usft	Longitu Ground			103° 59' 55.02 2,948.8
osition Uncertainty	+E/-W	0.0 L 0.0 L	usit Easti i	ng:	e	603,540.40 usft	, e			
Vell Position Position Uncertainty Nellbore	+E/-W	0.0 L 0.0 L	usit Easti i	ng:	6 n:	03,540.40 usft 0.0 usft	, e			
osition Uncertainty Veilbore	+E/-W	0.0 L 0.0 L	usit Easti i	ng: nead Elevatio	e	03,540.40 usft 0.0 usft	Ground	Level:	av nField∖St	2,948.8
osition Uncertainty Veilbore	+E/-W	0.0 u 0.0 u #1::::::::::::::::::::::::::::::::::::	usft Eastin usft Wellh	ng: nead Elevatio	6 n:	03,540.40 usft 0.0 usft	Ground	Level:	sen Field St	2,948.8 rength
osition Uncertainty Veilbore	+E/-W	0.0 L 0.0 L #12448.2 PH 224	usft Eastin usft Wellh	ng: nead Elevatio	6 n:	03,540.40 usft 0.0 usft	Ground	Level:	CONTRACTOR OF THE OWNER OF THE	2,948.8
osition Uncertainty Vellbore	+E/-W	0.0 u 0.0 u #1::::::::::::::::::::::::::::::::::::	usft Eastin usft Wellh	ng: nead Elevatio	6 n:	03,540.40 usft 0.0 usft	Ground	Level:	CONTRACTOR OF THE OWNER OF THE	2,948.8 rength
osition Uncertainty Vellbore	+E/-W	0.0 u 0.0 u #1::::::::::::::::::::::::::::::::::::	usft Eastin usft Wellh Sample/D 5/2	ng: nead Elevatio ate 27/2014	e n: Declination 	0.0 usft 0.0 usft 7.42	Ground	Level:	(n) 	2,948.8 rength
Vosition Uncertainty Velibore Aagnetics Designt Designt Audit Notes: /ersion:	+E/-W	0.0 u 0.0 u 11 Name IGRF2010	usft Eastin usft Wellh Sample/D 5/2 Phase:	ng: nead Elevatio ate 27/2014 PR	n: Declination (i))	303,540.40 usft 0.0 usft 7.42 Tie On	Ground	Level: 60.01	0 (n)	2,948.8 rength
Vosition Uncertainty Vellbore Aagnetics Aagnetics Design(+E/-W	0.0 u 0.0 u 11 Name IGRF2010	usft Eastin usft Wellh Sample:D 5/2 Phase: thEcom((IVD)	ng: nead Elevatio ate 27/2014 PR	n: Declination t (i) OTOTYPE	303,540.40 usft 0.0 usft 7.42 Tie On	Ground	Level: 60.01 0. (Direc	- (n. 	2,948.8 rength
osition Uncertainty Vellbore	+E/-W	0.0 u 0.0 u 11 Name IGRF2010	usft Eastin usft Wellh Sample/D 5/2 Phase:	ng: nead Elevatio ate 27/2014 PR	n: Declination (i))	303,540.40 usft 0.0 usft 7.42 Tie On	Ground	Level: 60.01	0 tion	2,948.8 rength
osition Uncertainty Vellbore	+E/-W	0.0 u 0.0 u 11 Name IGRF2010	Usft Eastin Usft Wellh Sample D 5/2 5/2 Phase: thiFrom (IVD) (usft) 0.0	ng: lead Elevatio ate 27/2014 PR	n: 	003,540.40 usft 0.0 usft 7.42 Tie On +E/W (usft) 0.0	Ground	Level: 60.01 0. Direc (1)	0 tion	2,948.8 rength
osition Uncertainty Vellbore lagnetics lagnetics lagnetics version: version: vertical Section; lan Sections	+E/-W	0.0 u 0.0 u #11 Name IGRF2010 Dep	usft Eastin usft Wellh Sample/D 5/2 Phase: thiFrom (1VD) (usft)	ng: nead Elevatio ate 27/2014 PR	n: Declination ((i)) OTOTYPE (usti) 0.0	303,540.40 usft 0.0 usft 7.42 7.42 Tie On 2.42 (usft) 0.0	Ground Dip Angle (i)	Level: 60.01 0. (Direc (1) 261.	0 tion	2,948.8 rength
osition Uncertainty Vellbore lagnetics lagnetics lesign udit Notes: Version: ertical(Section: aniSections) Measured Depth sinci	+E/-W	0.0 u 0.0 u 1920 10 10 10 10 10 10 10 10 10 10 10 10 10	usft Eastin usft Wellh Sample/D 5/2 Phase: thiFrom (IVD) (usft) 0.0	ng: lead Elevatio	n: 	003,540.40 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0	Ground	Level: 60.01 0. 0. 261. Turn Rate	0 tion	2,948.8 rength
esiion Uncertainty agnetics agnetics esiigni udit Notes: ertical(Section: aniSections) Measured Depthin sinci	+E/-W	0.0 u 0.0 u 1915 (mame) 1977 (usft Eastin usft Wellh Sample/D 5/2 Phase: thiFrom (IVD) (usft) 0.0	ng: iead Elevatio	n: 	003,540.40 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0	Ground	Level: 60.01 0. 0. 261. Turn Rate	0 17	2,948.8 rength
veilion Uncertainty leilibore lagnetics lagnetics lesignif udit Notes: ersion: ertical/Sections measured Depth lincl (usft)	+E/-W	0.0 u 0.0 u 10 u 10 u 10 u 10 u 10 u 10 u 10 u 1	usft Eastin usft Wellh Sample D 5/2 Phase: th From (TVD) (usft) Depth (usft) 0.0	ng: lead Elevatio ate 27/2014 PR	n: 	003,540.40 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0	Ground	Level: 60.01 0. 0. 261. Turn Rate	0 tion 17 	2,948.8
osition Uncertainty Vellbore	+E/-W	0.0 u 0.0 u 0.0 u 100 u	usft Eastin usft Wellh Sample D 5/2 Phase: th From (IVD) (usft) Depth (usft) Usft) 0.0 4,466.6	ng: lead Elevatio 27/2014 27/2014 PR	n: Declination Declination (i)) OTOTYPE +N/:S) (usft) 0.0 +E/-W, (usft) 0.0 (vsft) 0.0 0.0 0.0	003,540.40 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0 000 100usft) 0.00 0.00 0.00	Ground Dip Angle (i) Depth: Build Rate? 100usft), st(2/ 0.00 0.00	Level: 60.01 0. 0. 0. 261. Turn Rate 1000istr) 0.00 0.00	0 tion 17 TTFOI (()) 0.00 0.00	2,948.8
esition Uncertainty lellbore agnetics agnetics esigni udit Notes: ersion: ertical/Sections ertical/Sections Measured Depth (usft)k 0.0 4,466.6 4,866.6	+E/-W / / / / / / / / / / / / / / / / / /	0.0 u 0.0 u 0.0 u 1000 1000 2000 118.76	Usft Eastin Usft Wellh Sample D 5/2 Phase: th From (IVD) (usft) Depth (usft) Usft) 0.0 4,466.6 4,865.9	ng: lead Elevatio 27/2014 27/2014 PR 9 0.0 0.0 0.0 0.0 -10.1	n: Declination Declination (i)) OTOTYPE +N/:S) (usft) 0.0 +E/-W, (usft) 0.0 (vsft) (vsft) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0 200[eg/, 4 (Rate) 100usft) 2.3 (7 (100usft) 2.3 (7) 0.00 0.00 0.00 1.50	Ground Dip Angle () Dip Angle () Depth: Build Rate 1000usft) 0.00 0.00 0.00 1.50	Level: 60.01 0. 0. 0. 0. 0. 261. 3. 0.00 0.00 0.00 0.00 0.00 0.00	0 tion 17 (TFO) (()) 0.00 0.00 118.76	2,948.8
Allbore Agnetics agnetic	+E/-W	0.0 u 0.0 u 0.0 u 100 u	sft Eastin usft Wellh sample/D size Phase: th[From(1/VD) (usft) 0.0 ertical] Depth (usft) (usft) usft) 0.0 4,466.6 4,865.9 7,173.5	ng: lead Elevatio 27/2014 27/2014 PR	n: Declination Declination (i)) OTOTYPE +N/:S) (usft) 0.0 +E/-W, (usft) 0.0 (vsft) 0.0 0.0 0.0	003,540.40 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0 000 100usft) 0.00 0.00 0.00	Ground Dip Angle (i) Depth: Build Rate? 100usft), st(2/ 0.00 0.00	Level: 60.01 0. 0. 0. 0. 261. Turn Rate 1000istr) 0.00 0.00	0 tion 17 TTFOI (()) 0.00 0.00	2,948.8
Average of the section of the sectio	+E/-W	0.0 u 0.0 u 0.0 u 100 u 100 u 100 u 100 u 200 u 100 u 118.76 118.76	Usft Eastin Usft Wellh Sample D 5/2 Phase: th From (IVD) (usft) Depth (usft) Usft) 0.0 4,466.6 4,865.9	ng: lead Elevatio 27/2014 27/2014 PR PR VISS (usft)) 0.0 0.0 0.0 -10.1 -126.8	n: Declimation Declimation (i)) OTOTYPE +N/S) (usft) 0.0 +E/-W, (usft) 0.0 (usft) ((i))	003,540.40 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 100usft) 1.50 0.00	Ground Dip Angle () Depth: Build Rate? 100ust() 0.00 0.00 1.50 0.00	Level: 60.01 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	0 tion 17 TFO (1) 0.00 0.00 118.76 0.00	2,948.8
osition Uncertainty Vellbore	+E/-W	0.0 u 0.0 u 0.0 u 0.0 u 100 u 100 u 100 u 100 u 100 u 118.76 118.76 0.00	Lisft Eastin Lisft Wellh Sample D 5/2 Phase: th From (17VD) (usft) 0.0 ertical Depth (usft) (usft) 0.0 4,466.6 4,865.9 7,173.5 7,572.7	ng: lead Elevatio 27/2014 27/2014 PR PR • N/SS (usft)) 0.0 0.0 0.0 -10.1 -126.8 -136.8	n: Declination Declination (i) OTOTYPE +N/S) (usft) 0.0 +E/-W, (usft) 0.0 (i) (i) (i) (i) (i) (i) (i) (i)	0.0 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0 200[eg/, 44 (usft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 0.0 200[eg/, 44 (asft) 100usft) 1.50 1.50	Ground Dip Angle () Depth: Build Rate? 100ust() 0.00 0.00 1.50 0.00 -1.50	Level: 60.01 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	0 17 17 17 17 17 17 17 17 10 10 10 10 10 10 10 10 10 10	2,948.8
osition Uncertainty Velibore	+E/-W	0.0 u 0.0 u 0.0 u 100 u 100 u 100 u 100 u 100 u 100 u 100 u 118.76 118.76 118.76 0.00 0.00	Lisft Eastin Lisft Wellh Sample D 5/2 5/2 Phase: th [From (JVD) (usft) 0.0 Fritical Depth (usft) 0.0 4,466.6 4,865.9 7,173.5 7,572.7 7,922.7	ng: lead Elevatio 27/2014 27/2014 PR PR • N/SS *useti) 0.0 0.0 0.0 -10.1 -126.8 -136.8 -136.8	n: Declination Declination (i) OTOTYPE +N/S) (usft) 0.0 +E/-W, (usft) 0.0 (i) (i) (i) (i) (i) (i) (i) (i)	0.0 usft 0.0 usft 7.42 7.42 Tie On (usft) 0.0 200[eg/, (asft) 0.0 200[eg/, (asft) 0.0 200[eg/, (asft) 0.0 200[eg/, (asft) 100usft) 200[eg/, (asft) 200[eg/,	Ground Dip Angle () Depth: Buildd Rate? 100ust() 0.00 0.00 1.50 0.00 1.50 0.00 1.50 0.00	Level: 60.01 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	0 tion 17 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	2,948.8

4-4-

. . . .

• , •

APRESE.

A MARIA

TT TT

. <u>. . . .</u>

. بنه ا

and the second



:

Scientific Drilling

NAVILI.

÷

1977) - 4

Planning Report

										NIT 711-11 111-11-11-11-11-11-11-11-11-11-11-
	Database: EDM	5000 1 Sing	le User Db		Local Co-o	rdinate Referen	ice: W	ell CC 29 F 2H		
	TAST AND AND AND THE PROPERTY AND A DESCRIPTION OF A DESC	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2						3'@ 2972.8usf		
	THE A MEMORY STATE REAL ASSESSMENT ALLOWING THE	County New	w Mexicos	al estimation of the second	12:00 B 200 B 40 C 4	in the state to design i	40. State of SEA & 1. 124	1		The relative with
	日本、西方、中、大学、中、中、中、中、	1. A.L	100 S 10 S 100 S		1 5 20 30 50 50 50	CONTRACTOR STRATE IN STRATE	CODED TRAINE SHE	1. S.		
	A STREET AND A ST	1. S. S. S. C. C. C. S.		and the second second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	"你的人们没有了?""我是是我的问题。	医硷尿细胞 建始 加州			
	APPATTER AND AND A PART OF A PART OF A PART OF A PART OF A PART	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			Survey.ca	Maria Metho	u.manada ivi			
Market Part 1 Control of the second sec	TOT HARDBOARD THE MET OF ALL SALE DRIVE IN		الا بي المحمد المحم المحمد المحمد							in a stranger a daver dave Gran stranger a deventer daver
Meaning Deep 1 Annual Link The constrained Link The constrained Link Annual Link The constrained Link 0.0 0.00 0	Design: Design: Design: Design:	gn#1	التب المتركة الشاد الالاخط					1	S. Marthan	
Meaning Deep 1 Annual Link The constrained Link The constrained Link Annual Link The constrained Link 0.0 0.00 0	DISCONTRACTOR	and the second second second	Stand Strategy and	Contractor and the second	State apprendict of the second		A STATE AND A S	A State State State	A CONTRACTOR OF STREET	
Anti-Distantial Anti-Dista	Flamed Survey				tiving and a shirt call in the	ter since fool as all	APP OF CHAR	A ANT A PESS	Time we want	WE STREET
Anti-Distantial Anti-Dista										
Attabil Attabili <	· · · · · · · · · · · · · · · · · · ·		************	TENEDE TOL OF THE PARTY	Value and the set	五次9月1日,百日二百日	(TAME	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	ULT: LING & U. T. B. D. T. D.Y.	We all the go B P. ASPA Bert
Jack Control Jack Control<	WEAT GOOD THE TRUCT OF THE PRODUCT OF A SUPPLY A	nation. 🖗 A	zimuth	and the man of the state of the	Collection De march of the work	THE LOW ALL COLUMN SHOP	153 - Lin U. A. M. Bo. M.	SALCUR HANGE TO SALERT	Present Stational on The Stored	1.46.9.5元11.00.65元111年7月1日至19月1日
100 0 0.00 0.00 0.00 0.0 0.00 <th< th=""><th>(USR); (USR); (U</th><th>〕時時代了</th><th></th><th>(USIT) h an A</th><th>(usft)()2 files.*.)</th><th>usft): a lu</th><th>isπ);;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;</th><th>100usn):</th><th>100ust()/5-16(i/</th><th>100usπ)</th></th<>	(USR); (U	〕 時時代了		(USIT) h an A	(usft)()2 files.*.)	usft): a lu	isπ);;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	100usn):	100ust()/5-16(i/	100usπ)
100 0 0.00 0.00 0.00 0.0 0.00 <th< td=""><th>0.0</th><td>0.00</td><td>0.00</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.00</td><td>0.00</td></th<>	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 400.0 0.00										
317.8 0.00 0.00 0.00 0.00 0.00 0.00 0.00 400.0 0.00	200.0	0.00	0.00	200.0	0.0	. 0.0			0.00	0.00
Horse Horse <th< td=""><th>300.0</th><td>0.00</td><td>0.00</td><td>300.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.00</td><td>0.00</td></th<>	300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400 0.00 400.0 0.00 <th< td=""><th>317.8</th><td>0.00</td><td>0.00</td><td>317.8</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.00</td><td>0.00</td></th<>	317.8	0.00	0.00	317.8	0.0	0.0	0.0	0.00	0.00	0.00
500.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 700.0 0.00 0.00 700.0 0.00 <td< td=""><th>Top Rustler</th><td></td><td>1</td><td>A. 34 15 13</td><td>a set a traction</td><td></td><td>i stant en</td><td></td><td>and the second</td><td>the state of the</td></td<>	Top Rustler		1	A. 34 15 13	a set a traction		i stant en		and the second	the state of the
500.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 700.0 0.00 0.00 700.0 0.00 <td< td=""><th>400.0</th><td>0.00</td><td>0.00</td><td>400.0</td><td>0.0</td><td>0.0</td><td></td><td>0.00</td><td>0.00</td><td>0.00</td></td<>	400.0	0.00	0.00	400.0	0.0	0.0		0.00	0.00	0.00
600.0 0.00 <t< td=""><th></th><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>										
700.0 0.00 700.0 0.00 0.00 0.00 0.00 0.00 17.8 0.00 0.00 0.00 0.00 0.00 0.00 0.00 800.0 0.00 0.00 800.0 0.00 0										
717.8 0.00 717.8 0.0 0.0 0.00 0.00 0.00 Top, Statute (smit) 717.8 0.00 <th></th> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>										
Top Saids (smit) Sec.						-				
800.0 0.00 800.0 0.00 800.0 0.00			والمراجع وتأبيه المعد		V. TA MERICA	6. LAN (7.8% 97-1)	Ne Water a	NU AREA IN	W. SPACES	
900.0 0.00 0.00 1.000.0 0.00 1.000.0 0.00			n îtaka îrakan ûri. a		Total (March March	and a second second	n an air seolaig an an ann	af stan in the stand of the stand	al survive period and survive	an a state sector of
1,000,0 0,00 1,000,0 0,00 1,000,0 0,00		,								
1,100.0 0.00 1,000.0 0.00										
1,200.0 0.00 1,200.0 0.0 0.0 0.00	· ·									•
1,300.0 0.00 1,300.0 0.00 1,300.0 0.00	1									
1.339.8 0.00 1.339.8 0.0 0.0 0.00 0.00 0.00 1.400.0 0.00 1.400.0 0.00 1.400.0 0.00			0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Castle (any ortic) Solution Solutio										
1400.0 0.00 1400.0 0.0 0.0 0.00 0.00 0.00 0.00 1,500.0 0.00 0.00 1,500.0 0.00			0.00	1,339.8	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0 0.00 1,500.0 0.00 1,500.0 0.00					a second south the second		이상 '가격경감감과 가 있 		A BURNESS AND A PARTY	
1,600.0 0.00 1,600.0 0.0 0.0 0.00 0.00 0.00 1,700.0 0.00 1,700.0 0.00 1,700.0 0.00 0.00 0.00 1,800.0 0.00 0.00 1,800.0 0.0 0.00 0.00 0.00 0.00 1,900.0 0.00 0.00 1,900.0 0.0 0.00 0.00 0.00 0.00 2,000.0 0.00 0.00 2,200.0 0.0 0.00 0.00 0.00 0.00 2,200.0 0.00 0.00 2,200.0 0.0 0.00 0.00 0.00 0.00 2,200.0 0.00 2,200.0 0.0 0.0 0.00 0.										
1,700.0 0.00 1,700.0 0.0 0.00 0.00 0.00 0.00 1,800.0 0.00 1,900.0 0.00 1,900.0 0.00 0.										
1.800.0 0.00 1.800.0 0.00 1.900.0 0.00	1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0 0.00 1,900.0 0.00 2,000.0 0.00	1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0 0.00 2,000.0 0.0 0.0 0.00	1,800.0	0.00	0.00	1,800.0 s	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0 0.00 2,100.0 0.0 0.0 0.00 0.00 0.00 2,200.0 0.00 0.00 2,200.0 0.0 0.00 0.00 0.00 2,300.0 0.00 0.00 2,300.0 0.00 0.00 0.00 0.00 2,400.0 0.00 0.00 2,400.0 0.0 0.00 0.00 0.00 2,600.0 0.00 0.00 2,600.0 0.0 0.0 0.00 0.00 0.00 2,600.0 0.00 0.00 2,600.0 0.0 0.0 0.00		0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0 0.00 2,200.0 0.0 0.0 0.00										
2,300.0 0.00 2,300.0 0.0 0.0 0.00	2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0 ·	0.00	0.00	0.00
2,300.0 0.00 0.00 2,300.0 0.0 0.0 0.00	2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0,00	0.00
2,500.0 0.00 0.00 2,500.0 0.00	2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0 0.00 2,600.0 0.00	· 2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0 0.00 0.00 2,700.0 0.0 0.0 0.00	1				0,0	0.0	0.0	0.00		
2,800.0 0.00 2,800.0 0.0 0.0 0.0 0.00 0.00 0.00 2,895.8 0.00 0.00 2,895.8 0.00	2,600.0	0.00	0.00	2,600.0	· 0.0	0.0	0.0	0.00	0.00	0.00
2,800.0 0.00 2,800.0 0.0 0.0 0.0 0.00 0.00 0.00 2,895.8 0.00 0.00 2,895.8 0.00	2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2.895.8 0.00 0.00 2.895.8 0.0 0.0 0.00 0.00 0.00 0.00 2,900.0 0.00 0.00 2,900.0 0.00 0.00 2,900.0 0.00										
Top Lamar, / Delaware 0.00 0.00 2,900.0 0.00 0	2,895.8	0.00								
2,900.0 0.00 0.00 2,900.0 0.00	Top Lamar / Delaw	are 5	1	1	the part and a section			1		
Top:Bell Canyon	2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
3,000.0 0.00 0.00 3,000.0 0.00		0.00	0.00			0.0	0.0	0.00	0.00	0.00
3,000.0 0.00 0.00 3,000.0 0.00	Top Bell Canyon	The Manual to a	h and a second	and the start way	And the second			$(\lambda + \lambda_{i}) \in \{1, \dots, n\}$	同時大学時代	e transfer
3,100.0 0.00 3,100.0 0.00 3,100.0 0.00	3 000 0	0.00						0.00	0.00	0.00
3,200.0 0.00 0.00 3,200.0 0.0 0.0 0.00										
3,300.0 0.00 0.00 3,300.0 0.0 0.0 0.00										
3,400.0 0.00 0.00 3,400.0 0.0 0.0 0.00										
3,500.0 0.00 0.00 3,500.0 0.0 0.0 0.0 0.00										
3,600.0 0.00 0.00 3,600.0 0.0 0.0 0.0 0.00										
3,643.8 0.00 0.00 3,643.8 0.0 0.0 0.00										
Top Cherry Canyon 3,700.0 0.00 3,700.0 0.00 0.										
3,700.0 0.00 0.00 3,700.0 0.0 0.0 0.00				مر و د الار مراجع المراجع المر مراجع المراجع ال						
3,800.0 0.00 0.00 3,800.0 0.0 0.0 0.0 0.00										
3,900.0 0.00 0.00 3,900.0 0.0 0.0 0.0 0.00 0.00 0.00										
										0.00
<u>4,000.0 0.00 0.00 4,000.0 0.0 0.0 0.0 0.00 0.0</u>										
	4,000.0	0.00	0.00	4,000.0	0:0	0.0	0.0	0.00	0.00	0.00

6/12/2014 10:00:32AM



Scientific Drilling

17.3.7

*****.-

MC K.L.

Planning Report

REPAIR OF THE ACTION OF THE PARTY	STRAT TO THE TAPE OF THE	เสรามีสะวงกับครามสะหน	1.00100 107 0 1000 10 10 10 10 10 10 10 10 10 10 10	V. ALLANS ST. A. AND	1. 1 C		Patting and a second second	ACTEVACIONAL OF ASTERN	and the second
	M 5000.1 Sin	Contraction of the second s	Č,	1. 19 19 19 19 19 19 19 19 19 19 19 19 19	ordinate Refere	Internet to the state of the state	Vell CC 29 F 2H		
Company:	(Y		يلحم المجري المحاج	TVD Refe	rence: E	于这些论也。如何 第	B @ 2972.8usf		
Project: Ed	dy County Ne	w Mexico	Sala Salar	MD Refer	ence:	Contraction K	B @ 2972 8ust		
- トレビス ついけいば わりちれた。 じじり かたた はいけい ようう	dar Canyon 2	9 Federal 2H		North Re	TANDIN WALKER TRAINET	Carl Carl Carl	frid the state		· · · · · · · · · · · · · · · · · · ·
据编》2017年1月1月1日,1月1日,1月1日,1月1日,1月1日,1月1日,1月1日,1月	The West out Part	A STATE OF A		5	OF OFFICE DESCRIPTION OF A TH	的问题是任何的发行也行为中	Caller Street Street	n Burren (d. 1997). Un	
Well: Well: CC	29 F 2H	a funda and		Survey	alculation Meth	00.7.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	linimum Curvat	ule	
	ellbore #1	Y	1. N. P. MARA 14 1			A DATE OF THE OWNER		A second second	
Design:	sign #1				A A A A A A A A A A A A A A A A A A A	ALL			
La Mart - Are State and Area - Area -	and and a second se		And a state of the second state		A MARKAGEN AND AND A MARKA	Total Action of the second	Manadalan I Tanan Angara International Statements	TANK STREET, ST	66 XU(11711XXLS(11)XXK66//_556
Planned Survey		The states in the		1. 1. 1. 1. 1. 1. 1. 1.	a standard and a standard and a standard a s	ALL	STE LOS AND	h Carrier Hill Public	a fame
						Concerner of the Aster			
Measured			Vertical			ertical 7297	Dogleg	Build	Turna
A COLORANT COT ALC ALCOLOR DE CAL	A DE CARE	Marian Carling	12 - C		3 1 West 10 . B'	ection:	3.14. II I	Rate	Rate
·····································	lination 55	MACHEN TO DOLLAR S. S.	44242 1 2 4 4 72 1 4	+N/-S	THE PARTY AND THE PARTY A	Logi 4" La Propisi Real A	to HL . THE WEST AT	Prostati Chailentar Cr 2 r B	/100usft)
(usft), (sft),			a using a su	s(usft)	USTIR part in		b pais as	TOOUSIU, AND	1000SICIAN PROVIDENCE
4,100.0	0.00	0.00	4,100,0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	· 0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,466.6	0.00	0.00	4,466.6	0.0	0.0	0.0	0.00	-0.00	0.00
Start Build 1:50	:		و به الد مولی ولیل او معروف معرفی میلی مراجع	بالأولية والمراجع المترابع المرابع	يد وي المحقق الذر الذي	الم	al a function of the second states of the second st	计特别分词分子	
4,500.0	0.50	118.76	4,500.0	-0.1	0.1	-0.1	1.50	1.50	0.00
4,600.0	2.00	118.76	4,600.0	-1.1	2:0	-1.8	1.50	1.50	0.00
4,700.0	3.50	118.76	4,699,9	-3.4	· 6.2	-5.6	1.50	1.50	0.00
				7.0	40.7	44.5	•	1.50	0.00
4,800.0	5.00	118.76	4,799.6	-7.0	12.7	-11.5	1.50	1.50	0.00
4,866.6	6.00	118.76	4,865.9	-10.1	18.3	-16.6	1.50	1.50	0.00
Start 2320.34 hold			A AN AN AN AN AN	Sec. S. C. S. S. M. S.				and the first of the second	at a fundation of the
4,900.0	6.00	118.76	4,899.1	-11.8	21.4	-19.3	0.00	0.00	0.00
5,000.0	6.00	118.76	4,998.5	-16.8	30.6	-27.6	0.00	0.00	0.00
5,056.6	6.00	118.76	5,054.8	-19.6	35.8	-32.3	0.00	0.00	0.00
Top Brushy Cany	on 👘			and the second sec				in initiation	
5,100.0	6.00	118.76	5,098.0	-21.8	39.7	-35.9	0.00	0.00	0.00
5,200.0	6.00	118.76	5,197.4	-26.8	48.9	-44.2	0.00	0.00	0.00
5 300.0	6.00	118.76	5,296.9	-31.9	58.1	-52.5	0.00	0.00	0.00
5,400.0	6.00	118.76	5,396.3	-36.9	67.2	-60.8	0.00	0.00	0.00
5,500.0	6.00	118.76	5,495.8	-41.9	76.4	-69.0	0.00	0.00	0.00
5,600.0	6,00	118.76	5,595.3	-47.0	85.5	-77.3	0.00	0.00	0.00
5,700.0	6.00	118.76	5,694.7	-52.0	94.7	-85.6	0.00	0.00	0.00
5,800.0	6.00	118.76	5,794.2	-57.0	103.9	-93.9	0.00	0.00	0.00
5,900.0	6.00	118.76	5,893.6	-62.0	113.0	-102.2	0.00	0.00	0.00
6,000.0	6.00	118.76	5,993.1	-67.1	122.2	-110.4	0.00	0.00	0.00
1									
6,100.0	6.00	118.76	6,092.5	-72.1	131.4	-118.7	0.00	0.00	0.00
.6,200.0	6.00	118.76	6,192.0	-77.1	140.5	-127.0	0.00	0.00	0.00
· 6,300.0	6.00	118,76	6,291.4	-82.2	149.7	-135.3	0.00	.0.00	0.00
6,400.0	6.00	118.76	6,390.9	-87.2	158.9	-143.6	0.00	0.00	0.00
6,500.0	6.00 .	118.76	6,490.3	-92.2	168.0	-151.9	0.00	0.00	0.00
6,590.0	6.00	118.76	6,579.8	-96.8	176.3	-159.3	0.00	0.00	0.00
			0,079.0						
1st Bone Spring			0.000.0			460 A	a		
6,600.0	, 6.00	118.76	6,589.8	-97.3 r	177.2	-160.1	0.00	0.00	0.00
6,700.0	6.00	118.76	6,689.2	-102.3	186.3	-168.4	0.00	0.00	0.00
6,800.0	6.00	118.76	6,788.7	-107.3	195.5	-176.7	0.00	0.00	0.00
6,900.0	6.00	118.76	6,888.1	-112.3	204.7	-185.0	0.00	0.00	0.00
7,000.0	6.00	118.76	6,987.6	-117.4	213.8	-193.3	0.00	0.00	0.00
7,100.0	6.00	118.76	7,087.0	-122.4	223.0	-201.5	0.00	0.00	0.00
7,186.9	6,00	118.76	7,173.5	-126.8	231.0	-208.7	0.00	0.00	0.00
Start Drop -1.50		i carati na i a		States and		a she a			
7,200.0	5.80	118.76	7,186.5	-127.4	232.1	-209.8	1.50	-1.50	0.00
7,300.0	4.30	118.76	7,286.1	-131.7	239.9	-216.8	1.50	-1.50	0.00
				r					
7,400.0	2.80	118.76	7,385.9	-134.6	245.3	-221.7	1.50	-1.50	0.00
7,500.0	1.30	118.76	7,485.8	-136.4	248.4	-224.5	1.50	-1.50	0.00
7,586.9	0.00	0.00	7,572.7	-136.8	249.3	-225.3	1.50	-1.50	-136.63
- Start 350 00 hold	at 7586.92 M	D.《学家》:#		, the major it with	in distant	inter the least	a a a	4 1 5	
7,600.0	0.00	0.00	7,585.8	-136.8	249.3	-225.3	0.00	0.00	0.00
7,700.0	0.00	0.00	7,685.8	-136.8	249.3	-225.3	0.00	0.00	0.00
7,797.0	0.00	0.00	7,782.8	-136.8	249.3	-225.3	0.00	0.00	0.00
2nd Bone Spring					an na na singing dipasi pan an na na singing dipasi pan				ا و الانتخاب الله الله الله الله الله الله الله ال
7,800.0	0.00	0.00	7,785.8	-136.8	249.3	-225.3	0.00	0.00	0.00
7,900.0	. 0.00	0.00	7,885.8	-136.8	249.3	-225.3	0.00	0.00	0.00

6/12/2014 10:00:32AM



12.8124.31.

1

Scientific Drilling

Planning Report

								-		
F		11.1. a. 116 b. 200 a.							Salar Tana Abarana Salar	HUNA HAIRS HELP HAIRS HELP
Datab		DM 5000 1 Sin			1494 ALANKA X	o-ordinate Refe	SET X 355 5	Vell CC 29 F 2H	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Comp	D. Mr. M. W. S. C. M. S. C. Haven	XY: wester in	وياله أوجر بمنظم أورج والمتح فالمتح والمحالي	n han han han han han han han han han ha	TVDRe		Alter State Maria & Dates	B:@ 2972 8usf	difference in the state of the	And the second
Proje	the stand of the second stand of the	ddy,County, Ni	25 C 16 C 16 P 16 C 1 C 16 C	A	MD/Refe	rence:	Read to Ark	B @ 2972 Busf		
Site:	C	edar Canyon 2	9,Federal 2H		North R	eférence:	C Startes	and a start of the		
Well:	C	C 29:F(2H:4)			Survey	Calculation Me	thod: Note: N	linimum Curvati	ure -	
Wellb	ore: With With W	Vellbore #1						1997 - 1997 -		
Desig	n: Ster D	esign #1						and a state of the second s		
a risting	Inc. Alta Ch. St. L. St. St. State March	a line and such as a state		alle dage and the Second	rianis de la carente de la com Riane de la carente de la compositione de la compositione de la compositione de la compositione de la compositi		ALL			New Article States and Antice States
Plan	ned Survey, 144-53		S-1-1-5-5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	ing in the state of the second se	مرين من ترين من	and the second of the	- States of Barrier		the part of the second	-
	A Measured of the			Vertical	的现在分词是	传导、管理学	Vertical A Los		Build	Turn
医 凝	Depth di	clination.	Azimuth A	Depth	+N/{S) +	+E/-W	Section	Rate	Rate	Rate - U.S.
	hara (usft); f ∰		224(c) (c) (c) (c)	(usft)	(usft)	(usft)	(usft)	/100usft)	100usft)(;//	100usft) - 511 231
1.2.2.2	7,936.9	0.00	0.00	7,922.7	-136.8	249.3	-225.3	0.00	0.00	0.00
	Start Build 8:00				-130.8 Alia - 150.8					
1	8,000.0	ిశిహి≓ఉ≓∿శాషనా 5.05	263.12	7,985.7	-137.2	246.5	-222.6	8.00	8.00	0.00
	8,100.0	13.05	263.12	8,084.4	-139.1	230.9	-206.9	8.00	8.00	0.00
	8,200.0	21.05	263.12	8,180.0 8,270.5	-142.6	201.9	-177.6	8.00	8.00	. 0.00
	8,300.0 8,400.0	29.05 37.05	263.12 263.12	8,270.5 8,354.2	-147.6 -154.2	159.9 105.8	-135.3	8.00 8.00	8.00 8.00	0.00 0.00
1	8,500.0	45.05	263.12	8,429.6	-154.2	40.6	-80.8 -15.3	8.00	8.00	0.00
.										
	8,600.0	53.05	263.12	8,495.1	-171.0	-34.3	60.1	8.00	8.00	0.00
	8,700.0 8,800.0	61.05 69.05	263.12 263.12	8,549.4 8,591.6	-181.1 -191.9	-117.5 -207.5	143.9 234.5	8.00 8,00	8.00 8.00	0.00 0.00
	. 8,900.0	69.05 77.05	263.12	8,620,7	-191.9 -203.4	-207.5 -302.4	234.5 330.0	8.00	8.00	0.00
1	9,000.0	85.05	263.12	8,636.3	-215.2	-400.4	428.6	8.00	8.00	0.00
1		91.23								•
	9,077.4	A CONTRACTOR OF COMPANY	263.12	8,638.8	-224.4	-477.1	505.9	8.00	8.00	0.00
	Start 4176:02 ho 9,100.0	91.23	263.12	8,638.3	-227.1	-499.5	528.5	0.00	0.00	0.00
	9,200.0	91.23	263.12	8,636.1	-239.1	-598.8	628.4	0.00	0.00	0.00
	9,300.0	91.23	263.12	8,634.0	-251.1	-698.1	728.3	0.00	0.00	0.00
	9,400.0	[*] 91.23	263.12	8,631.8	-263.0	-797.3	828.3	0.00	0.00	0.00
	9,500.0	91.23	263.12	8,629.7	-275.0	-896.6	928.2	0.00	0.00	0.00
	9,600.0	91.23	263.12	8,627.5	-287.0	-995.8	1,028.1	0.00	0.00	0.00
	9,700.0	91.23	263.12	8,625.4	-298.9	-1,095.1	1,128.0	0.00	0.00	0.00
	9,800.0	91.23	263.12	8,623.2	-310.9	-1,194.4	1,227.9	0.00	0.00	0.00
	9,900.0	91.23	263.12	8,621.1	-322.9	-1,293.6	1,327.9	0.00	0.00	0.00
	10,000.0	91.23	263.12	8,618.9	-334.8	-1,392.9	1,427.8	0.00	0.00	0.00
	10,100.0	91.23	263.12	8,616.7	-346.8	-1,492.1	1,527.7	0.00	0.00	0.00
	10,200.0	91.23	263.12	8,614.6	-358.8	-1,591.4	1,627.6	0.00	0.00	0.00
	10,300.0	91.23 91.23	263.12	8,612.4	-370.8	-1,690.6	1,727.5	0.00	0.00	0.00
	10,400.0		263.12	8,610.3	-382.7	-1,789.9	1,827.4	0.00	0.00	0.00
1	10,500.0	91.23	263.12	8,608.1	-394.7	-1,889.2	1,927.4	· 0.00	0.00	0.00
	10,600.0	91.23	263.12	8,606.0	-406.7	-1,988.4	2,027.3	0.00	0.00	0.00
	10,700.0 10,800.0	91.23 91.23	263.12 263.12	8,603.8 8,601.7	-418.6 -430.6	-2,087.7 -2,186.9	2,127.2 2,227.1	0.00 0.00	0.00 0.00	0.00 0.00
	10,900.0	91.23	263.12	8,599.5	-442.6	-2,186.9	2,327.0	0.00	0.00	0.00
	11,000.0	91.23	263.12	8,597.4	-454.5	-2,385.4	2,427.0	0.00	0.00	0.00
	11,100.0	91.23	263.12	8,595.2	-454.5	-2,385.4 -2,484.7	2,427.0	0.00	0.00	0.00
	11,200.0	91.23	263.12	8,593.0	-478.5	-2,584.0	2,626.8	0.00	0.00	0.00
ĺ	11,300.0	91.23	263.12	8,590.9	-490.4	-2,683.2	2,726.7	0.00	0.00	0.00
	11,400.0	91.23	263.12	8,588.7	-502.4	-2,782.5	2,826.6	0.00	0.00	0.00
	11,500.0	91.23	263.12	8,586.6	-514.4	-2,881.7	2,926.5	0.00	0.00	0.00
	11,600.0	91.23	263.12	8,584.4	-526.3	-2,981.0	3,026.5	0.00	0.00	0.00
	11,700.0	91.23	263.12	8,582.3	-538.3	-3,080.3	3,126.4	0.00	0.00	0.00
	11,800.0	91.23	263.12	8,580.1	-550.3	-3,179.5	3,226.3	0.00	0.00	0.00
	11,900.0	91.23	263.12	8,578.0	-562.2	-3,278.8	3,326.2	0.00	0.00	0.00
	12,000,0	91.23	263.12	8,575.8	-574.2	-3,378.0	3,426.1	0.00	0.00	0.00
	12,100.0	91.23	263.12	8,573.7	-586.2	-3,477.3	3,526.1	0.00	0.00	0.00
	12,200.0	· 91.23	263.12	8,571.5	-598.1	-3,576.5	3,626.0	0.00	0.00	0.00
	12,300.0	91.23	263.12	8,569.3	-610.1	-3,675.8	3,725.9	0.00	0.00	0.00
	12,400.0	91.23	263.12	8,567.2	-622.1	-3,775.1	3,825.8	0.00	0.00	0.00
	12,500.0	91.23	263.12	8,565.0	-634.0	-3,874.3	3,925.7	0.00	0.00	0.00
.	12,600.0	91.23	263.12	8,562.9	-646.0	-3,973.6	4,025.6	0.00	0.00	0.00
	12,700.0 12,800.0	91.23 91.23	263.12 263.12	8,560.7 8,558.6	-658.0 -669.9	-4,072.8	4,125.6	0.00 0.00	0.00	0.00
1	12,900.0	91.23	263.12	8,556.4	-689.9 -681.9	-4,172.1 -4,271.3	4,225.5 4,325.4	0.00	0.00 0.00	0.00 0.00
L	,						1,020.7	0.00	3.30	

6/12/2014 10:00:32AM

		~
OXY	Perminn	A
S.		Ì

Scientific Drilling

T. TRUTTER ī.

SATER.

÷.

Planning Report

Database: LEDM/5000.1: Single User. Db. PLocal Co-ordinate Reference: Well CC 29 F. 2H. Company: OXY TVD Reference: KB @ 2972 Busit Project: Eddy County: New Mexico. MD Reference: KB @ 2972 Busit Site Cedar Canyon 29 Federal 2H North: Reference: Grid Well: CC 29 F. 2H Survey/Calculation/Method: Minimum Curvature Wellbore: Wellbore #11 Design #1 Velloge #11	
Planned Survey	A DESCRIPTION OF A DESC

a low star is an time. (1711)	THE TRACT	THE PERSON		المرجع بالمرجع المرجع المر المرجع المرجع	A PARTY STATE			Section of the section	Teres of the second
	化学生的社会								
The Measured The	ANT BALLEN		Vertical			Vertical	Dogleg	Build	Turne
Depth 2 In	clination 3	Azimuth	Depth Star	+N/-S	+E/-W	Section Star	Rate	Rate	Rate
(usft)	S (°) S S S S		(usft)	(usft)			/100usft)	/100usft):	/100usft)
and the second		1. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	本文写 # 并 不可能是	al-用和12-1997-1.63	En abols 7-19 Louis				
13,000.0	91.23	263.12	8,554.3	-693.9	-4,370.6	4,425.3	. 0.00	0.00	0.00
13,100.0	91.23	263.12	8,552.1	-705.8	-4,469.9	4,525.2	0.00	0.00	0.00
13,200.0	91.23	263.12	8,549.9	-717.8	-4,569.1	4,625.2	0.00	0.00	0.00
13,253.4	91.23	263.12	8,548.8	-724.2	-4,622.1	4,678.5	0.00	0.00	0.00
Start 170.00 hold	at 13253.37 M	AD		i shi shi ta	Sec. Star		的權利的	the state of the s	and the second
13,300.0	91.23	263.12	8,547.8	-729.8	-4,668.4	4,725.1	0.00	0.00	0.00
13,400:0	91.23	263.12	8,545.6	-741.7	-4,767.6	4,825.0	0.00	0.00	0.00
13,423.4	91.23	263.12	8,545.1	-744.5	-4,790.8	4,848.3	0.00	0.00	0.00
180'FWLL - 335	FSLL	* 法资源和的条件	. A Backer	and the second second					品件。1988年上第 8 8

Designifiargets Target Name hit/miss target : Dip/Anglete Dip/Dir? TVD Shape 317 1931 +N/S +E/W Northing Easting (usft) (usft) (usft) (usft) (usft)

8-011-04-01-01-04-02-01-04-01-04-04-04-04-04-04-04-04-04-04-04-04-04-		20389-04-04-04-04-04-04-04-04-04-04-04-04-04-			International Contraction of the				CONTRACTOR OF THE OWNER OF THE STOCKED CONTRACTOR OF THE STOCKED CONTR
CC29F 2H PP	0.00	0.00	8,475.6	-170.0	-9.7	434,624.60	603,530,70	32° 11' 40.046 N	103° 59' 55,141 W
- plan misses target center	er by 1.9usf	t at 8568.7	usft MD (847	5.7 TVD, -168	3.1 N, -9.8 E)			•	
- Point									
CC29F 2H BHL - plan hits target center - Point	0.00	0.00	8,545.1	-744.5	-4,790.8	434,050.06	598,749.56	32° 11' 34.504 N	104° 0' 50.801 W '
CC29F LTP - plan hits target center	0.00	0.00	8,548.8	-724.2	-4,622.1	434,070.40	598,918.30	32° 11' 34.700 N	104° 0' 48.837 W

No. 1

and the second second

Latitude

12.54 .

> Dip Dire

- Point

Formations Measured 4.6. Vertical Depth Measured His Vertical Depth J Depth (usft) (usft)

	Correspondence and a surger strand of the second strands	100 Think E 192	The second states of the secon	
	. 317.8	317.8	Top Rustler	0.00
	717.8	717.8	Top Salado (salt)	0.00
	1,339.8	1,339.8	Top Castile (anhydrite)	0.00
	2,895.8	2,895.8	Top Lamar / Delaware	0.00
	2,965.8	2,965.8	Top Bell Canyon	0.00
	3,643.8	3,643.8	Top Cherry Canyon	0.00
İ	5,056.6	5,054.8	Top Brushy Canyon	0.00
	6,590.0	6,579.8	1st Bone Spring	0.00
	7,797.0	7,782.8	2nd Bone Spring	0.00

L'ATTRI C

به فطر ما تنب

OXY	Permian
S.	and the second se

Scientific Drilling

STREET.

Planning Report

Company : OXV Project: Eddy Co Site: Company : Eddy Co Cedar Co Well: Company : Company : Company : Wellbore: Company : Company : Company : Wellbore: Company : Compan	0 11 Single Usen (unty: New Mexico anyon 29 Federal 21 4 1 1 2 1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2		TVD(Refer MD Refer North Ref Survey[C:	ordinate Reference: rence: ence: ence: accilationi/Method: Well/CC 29 F 2H KB @ 2972 Bush Grid Grid Minimum Curvature
Measured.	Vertical Depth	r≢ Local Coordin (+N/S) (usft)	iates +E/-W	Comment
4,466.6	4,466.6	0.0	0.0	Start Build 1.50
4,866.6	4,865.9	-10.1	18.3	Start 2320.34 hold at 4866.58 MD
7,186.9	7,173.5	-126.8	231.0	Start Drop -1.50
7,586.9	7,572.7	-136.8	249.3	Start 350.00 hold at 7586.92 MD
7,936.9	7,922.7	-136.8	249.3	Start Build 8.00
9,077.4	8,638.8	-224.4	-477.1	Start 4176.02 hold at 9077.35 MD
13,253.4	8,548.8	-724.2	-4,622.1	Start 170.00 hold at 13253.37 MD
13,423.4	8,545.1	-744.5	-4,790.8	180' FWLL
13,423.4	8,545.1	-744.5	-4,790.8	335' FSLL
13,423.4	8,545.1	-744.5	-4,790.8	TD at 13423.37

6/12/2014 10:00:32AM

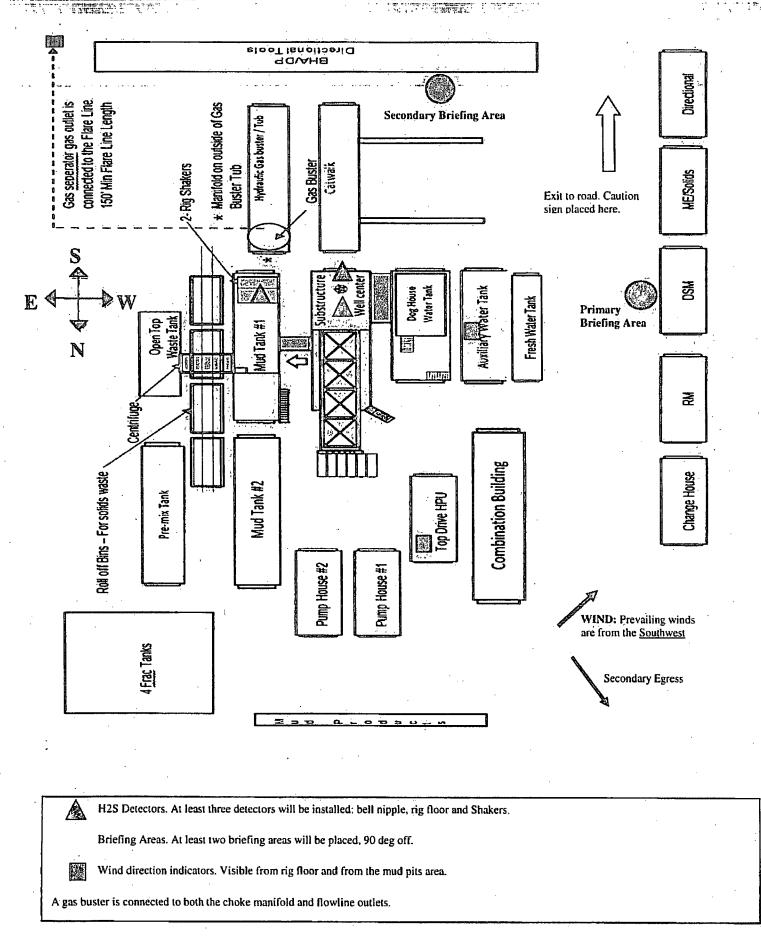


Permian Drilling Hydrogen Sulfide Drilling Operations Plan Cedar Canyon 29 Federal Com 2H

Open drill site. No homes or buildings are near the proposed location.

1. Escape

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the SOUTHWEST side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.



- 2 -

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA Inc
LEASE NO.:	NM94651
WELL NAME & NO.:	2H-Cedar Canyon 29 Federal Com
SURFACE HOLE FOOTAGE:	230'/N & 320'/E
BOTTOM HOLE FOOTAGE	991'/N & 181'/W
LOCATION:	Section 29, T.24 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#).

Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possibility of water flows in the Castile and Salado. Possibility of lost circulation in the Rustler, Salado, and Delaware. Medium Cave/Karst

- 1. The 10-3/4 inch surface casing shall be set at approximately 400 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 10-3/4 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing, which shall be set at approximately **2850** feet, is:

Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

Formation below the 7-5/8 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the $5-1/2 \times 4-1/2$ inch production casing is:

Cement as proposed by operator. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
- 3. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
 - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - d. The results of the test shall be reported to the appropriate BLM office.
 - e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

KGR 08112015