

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. NMNM110838

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator EOG RESOURCES INCORPORATED

3a. Address 1111 BAGBY SKY LOBBY 2, HOUSTON, TX 77030 3b. Phone No. (include area code)
(713) 651-70004. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 18/T25S/R33E/NMP

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No. ICY 18 FED/503H

9. API Well No. 30-025-46690

10. Field and Pool or Exploratory Area
WC025 G08 S253235G; LOWER BONE SPRING11. Country or Parish, State
LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes:

Change name from Icy 18 Fed 503H to Icy 18 Fed 581H.

Change BHL from T-25-S, R-33-E, Sec 19, 2540' FNL, 1485' FWL, Lea Co., NM, to T-25-S, R-33-E, Sec 19, 2540' FNL, 1030' FWL, Lea Co., N.M.

Change target formation to Third Bone Spring Ruby Sand.

Update casing and cement program to current design.

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
STAR HARRELL / Ph: (432) 848-9161

Title Regulatory Specialist

Signature

Date 11/08/2022

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

KEITH P IMMATTY / Ph: (575) 988-4722 / Approved

Title ENGINEER

Date 01/17/2023

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office CARLSBAD

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Additional Remarks

EOG requests execution of Variance 3a (attached) to offline cement the intermediate sections.

Location of Well

0. SHL: NENW / 260 FNL / 1524 FWL / TWSP: 25S / RANGE: 33E / SECTION: 18 / LAT: 32.1371436 / LONG: -103.6149655 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 100 FNL / 1485 FWL / TWSP: 25S / RANGE: 33E / SECTION: 18 / LAT: 32.1375847 / LONG: -103.6150924 (TVD: 10703 feet, MD: 10713 feet)

BHL: SESW / 2540 FNL / 1485 FWL / TWSP: 25S / RANGE: 33E / SECTION: 19 / LAT: 32.1163635 / LONG: -103.6151136 (TVD: 10968 feet, MD: 18536 feet)

CONFIDENTIAL

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-46690	² Pool Code 97903	³ Pool Name WC-025 G-08 S253235G; Lower Bone Spring
⁴ Property Code 326336	⁵ Property Name ICY 18 FED	⁶ Well Number 581H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3488'

¹⁰Surface Location

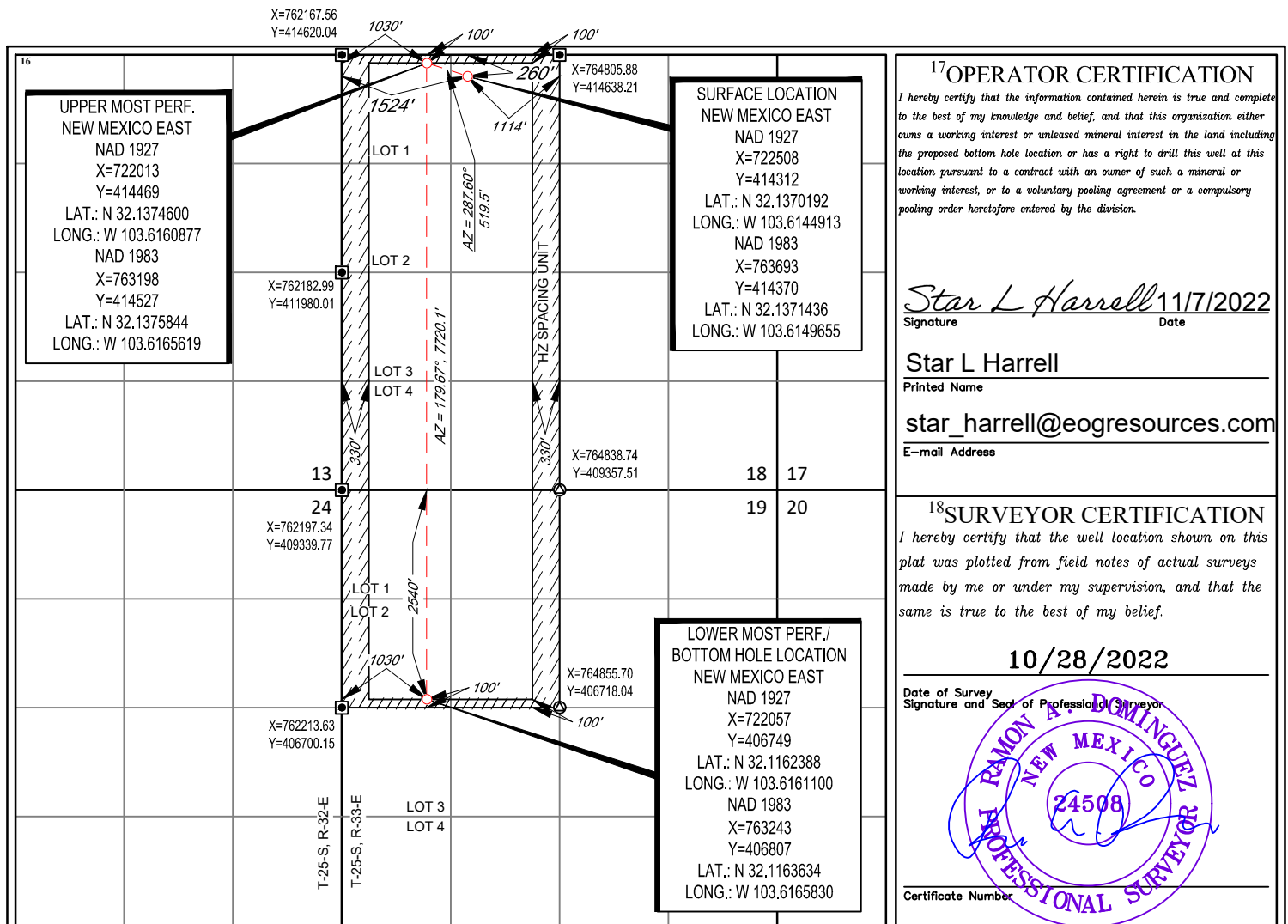
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	18	25-S	33-E	-	260'	NORTH	1524'	WEST	LEA

¹¹Bottom 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
2	19	25-S	33-E	-	2540'	NORTH	1030'	WEST	LEA

¹² Dedicated Acres 480.28	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--	-------------------------------	----------------------------------	-------------------------

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.





Icy 18 Fed 581H

Revised Permit Information 10/17/2022:

Well Name: Icy 18 Fed 581H

Location: SHL: 260' FNL & 1524' FWL, Section 18, T-25-S, R-33-E, Lea Co., N.M.

BHL: 2540' FNL & 1030' FWL, Section 19, T-25-S, R-33-E, Lea Co., N.M.

Casing Program A:

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
16"	0	1,110	0	1,110	13-3/8"	54.5#	J-55	STC
12-1/4"	0	4,023	0	4,000	9-5/8"	40#	J-55	LTC
12-1/4"	4,023	4,823	4,000	4,800	9-5/8"	40#	HCK-55	LTC
6-3/4"	0	18,868	0	11,280	5-1/2"	17#	HCP-110	LTC

Variance is requested to waive the centralizer requirements for the 9-5/8" casing in the 12-1/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 12-1/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,110' 13-3/8"	340	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	100	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 910')
4,800' 9-5/8"	700	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	300	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 3,840')
18,868' 5-1/2"	380	11.0	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4,300')
	570	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 10830')



Icy 18 Fed 581H

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

Mud Program:

Depth (TVD)	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,110'	Fresh - Gel	8.6-8.8	28-34	N/c
1,110' – 4,800'	Brine	8.6-8.8	28-34	N/c
4,800' – 18,868'	Oil Base	8.8-9.5	58-68	N/c - 6

Wellhead & Offline Cementing:

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



260' FNL
1524' FWL
Section 18
T-25-S, R-33-E

Revised Wellbore A:

KB: 3513'
GL: 3488'

API: 30-025-46690

Bit Size: 16"
13-3/8", 54.5#, J-55, STC
@ 0' - 1,110'

Bit Size: 12-1/4"
9-5/8", 40#, J-55, LTC
@ 0' - 4,000'
9-5/8", 40#, HCK-55, LTC
@ 4,000' - 4,800'

TOC: 4,300'

Bit Size: 6-3/4"
5-1/2", 17#, HCP-110, LTC
@ 0' - 18,868'

Lateral: 18,868' MD, 11,280' TVD
Upper Most Perf:
100' FNL & 1030' FWL Sec. 18
Lower Most Perf:
2540' FNL & 1030' FWL Sec. 19
BH Location: 2540' FNL & 1030' FWL
Sec. 19
T-25-S R-33-E

KOP: 10,826' MD, 10,802' TVD
EOC: 11,576' MD, 11,280' TVD



Icy 18 Fed 581H

Revised Permit Information 10/17/2022:

Well Name: Icy 18 Fed 581H

Location: SHL: 260' FNL & 1524' FWL, Section 18, T-25-S, R-33-E, Lea Co., N.M.

BHL: 2540' FNL & 1030' FWL, Section 19, T-25-S, R-33-E, Lea Co., N.M.

Casing Program B:

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
13-1/2"	0	1,110	0	1,110	10-3/4"	40.5#	J-55	STC
9-7/8"	0	4,823	0	4,000	8-5/8"	32#	J-55	BTC-SC
9-7/8"	4,023	4,823	4,000	4,800	8-5/8"	32#	P110-EC	BTC-SC
6-3/4"	0	18,868	0	11,280	5-1/2"	17#	HCP-110	LTC

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,110' 10-3/4"	370	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	110	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 910')
4,800' 8-5/8"	320	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	150	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 3,840')
18,868' 5-1/2"	630	11.0	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4,300')
	590	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 10830')



Icy 18 Fed 581H

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

Wellhead & Offline Cementing:

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



Icy 18 Fed 581H

260'

Revised Wellbore B:

KB: 3513'

1524'

GL: 3488'

Section 18

T-25-S, R-33-E

API: 30-025-46690

Bit Size: 13-1/2"
 10-3/4", 40.5#, J-55, STC
 @ 0' - 1,110'

Bit Size: 9-7/8"
 8-5/8", 32.#, J-55, BTC-SC
 @ 0' - 4,000'
 8-5/8", 32.#, P110-EC, BTC-SC
 @ 4,000' - 4,800'

TOC: 4,300'

Bit Size: 6-3/4"
 5-1/2", 17.#, HCP-110, LTC
 @ 0' - 18,868'

Lateral: 18,868' MD, 11,280' TVD
 Upper Most Perf:
 100' FNL & 1030' FWL Sec. 18
 Lower Most Perf:
 2540' FNL & 1030' FWL Sec. 19
 BH Location: 2540' FNL & 1030'
 FWL

Sec. 19
 T-25-S R-33-E

KOP: 10,826' MD, 10,802' TVD
 EOC: 11,576' MD, 11,280' TVD



Midland

Lea County, NM (NAD 83 NME)

Icy 18 Fed

#581H

OH

Plan: Plan #0.1 RT

Standard Planning Report

07 November, 2022





Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3514.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3514.0usft
Site:	Icy 18 Fed	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Icy 18 Fed					
Site Position:		Northing:	414,414.00	usft	Latitude:	32.1372825°N
From:	Map	Easting:	762,703.00	usft	Longitude:	103.6181640°W
Position Uncertainty:		0.0	usft	Slot Radius:	13-3/16	"

Well	#581H					
Well Position	+N/-S	0.0 usft	Northing:	414,370.00 usft	Latitude:	32.1371435°N
	+E/-W	0.0 usft	Easting:	763,693.00 usft	Longitude:	103.6149668°W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,488.0 usft
Grid Convergence:		0.38 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/6/2022	6.39	59.77	47,292.39211837

Design	Plan #0.1 RT				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	183.41	

Plan Survey Tool Program	Date	11/7/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	18,868.5	Plan #0.1 RT (OH)	EOG MWD+IFR1	
				MWD + IFR1	



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3514.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3514.0usft
Site:	Icy 18 Fed	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,452.4	5.05	292.69	1,452.1	4.3	-10.3	2.00	2.00	0.00	292.69	
7,296.9	5.05	292.69	7,273.9	202.7	-484.7	0.00	0.00	0.00	0.00	
7,549.3	0.00	0.00	7,526.0	207.0	-495.0	2.00	-2.00	0.00	180.00	
10,825.8	0.00	0.00	10,802.5	207.0	-495.0	0.00	0.00	0.00	0.00	KOP(Icy 18 Fed #581
11,046.3	26.46	180.00	11,015.2	157.0	-495.0	12.00	12.00	81.65	180.00	FTP(Icy 18 Fed #581I
11,575.8	90.00	179.66	11,279.9	-270.5	-493.2	12.00	12.00	-0.06	-0.38	
18,868.5	90.00	179.66	11,280.0	-7,563.0	-450.0	0.00	0.00	0.00	0.00	PBHL(Icy 18 Fed #58



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3514.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3514.0usft
Site:	Icy 18 Fed	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	2.00	292.69	1,300.0	0.7	-1.6	-0.6	2.00	2.00	0.00
1,400.0	4.00	292.69	1,399.8	2.7	-6.4	-2.3	2.00	2.00	0.00
1,452.4	5.05	292.69	1,452.1	4.3	-10.3	-3.7	2.00	2.00	0.00
1,500.0	5.05	292.69	1,499.5	5.9	-14.1	-5.1	0.00	0.00	0.00
1,600.0	5.05	292.69	1,599.1	9.3	-22.2	-8.0	0.00	0.00	0.00
1,700.0	5.05	292.69	1,698.7	12.7	-30.4	-10.9	0.00	0.00	0.00
1,800.0	5.05	292.69	1,798.3	16.1	-38.5	-13.8	0.00	0.00	0.00
1,900.0	5.05	292.69	1,897.9	19.5	-46.6	-16.7	0.00	0.00	0.00
2,000.0	5.05	292.69	1,997.5	22.9	-54.7	-19.6	0.00	0.00	0.00
2,100.0	5.05	292.69	2,097.2	26.3	-62.8	-22.5	0.00	0.00	0.00
2,200.0	5.05	292.69	2,196.8	29.7	-70.9	-25.4	0.00	0.00	0.00
2,300.0	5.05	292.69	2,296.4	33.1	-79.1	-28.3	0.00	0.00	0.00
2,400.0	5.05	292.69	2,396.0	36.5	-87.2	-31.2	0.00	0.00	0.00
2,500.0	5.05	292.69	2,495.6	39.9	-95.3	-34.1	0.00	0.00	0.00
2,600.0	5.05	292.69	2,595.2	43.2	-103.4	-37.0	0.00	0.00	0.00
2,700.0	5.05	292.69	2,694.8	46.6	-111.5	-39.9	0.00	0.00	0.00
2,800.0	5.05	292.69	2,794.4	50.0	-119.7	-42.8	0.00	0.00	0.00
2,900.0	5.05	292.69	2,894.1	53.4	-127.8	-45.8	0.00	0.00	0.00
3,000.0	5.05	292.69	2,993.7	56.8	-135.9	-48.7	0.00	0.00	0.00
3,100.0	5.05	292.69	3,093.3	60.2	-144.0	-51.6	0.00	0.00	0.00
3,200.0	5.05	292.69	3,192.9	63.6	-152.1	-54.5	0.00	0.00	0.00
3,300.0	5.05	292.69	3,292.5	67.0	-160.3	-57.4	0.00	0.00	0.00
3,400.0	5.05	292.69	3,392.1	70.4	-168.4	-60.3	0.00	0.00	0.00
3,500.0	5.05	292.69	3,491.7	73.8	-176.5	-63.2	0.00	0.00	0.00
3,600.0	5.05	292.69	3,591.3	77.2	-184.6	-66.1	0.00	0.00	0.00
3,700.0	5.05	292.69	3,691.0	80.6	-192.7	-69.0	0.00	0.00	0.00
3,800.0	5.05	292.69	3,790.6	84.0	-200.8	-71.9	0.00	0.00	0.00
3,900.0	5.05	292.69	3,890.2	87.4	-209.0	-74.8	0.00	0.00	0.00
4,000.0	5.05	292.69	3,989.8	90.8	-217.1	-77.7	0.00	0.00	0.00
4,100.0	5.05	292.69	4,089.4	94.2	-225.2	-80.6	0.00	0.00	0.00
4,200.0	5.05	292.69	4,189.0	97.6	-233.3	-83.5	0.00	0.00	0.00
4,300.0	5.05	292.69	4,288.6	101.0	-241.4	-86.4	0.00	0.00	0.00
4,400.0	5.05	292.69	4,388.2	104.4	-249.6	-89.4	0.00	0.00	0.00
4,500.0	5.05	292.69	4,487.9	107.8	-257.7	-92.3	0.00	0.00	0.00
4,600.0	5.05	292.69	4,587.5	111.2	-265.8	-95.2	0.00	0.00	0.00
4,700.0	5.05	292.69	4,687.1	114.5	-273.9	-98.1	0.00	0.00	0.00
4,800.0	5.05	292.69	4,786.7	117.9	-282.0	-101.0	0.00	0.00	0.00
4,900.0	5.05	292.69	4,886.3	121.3	-290.2	-103.9	0.00	0.00	0.00
5,000.0	5.05	292.69	4,985.9	124.7	-298.3	-106.8	0.00	0.00	0.00
5,100.0	5.05	292.69	5,085.5	128.1	-306.4	-109.7	0.00	0.00	0.00
5,200.0	5.05	292.69	5,185.1	131.5	-314.5	-112.6	0.00	0.00	0.00



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3514.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3514.0usft
Site:	Icy 18 Fed	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
5,300.0	5.05	292.69	5,284.7	134.9	-322.6	-115.5	0.00	0.00	0.00
5,400.0	5.05	292.69	5,384.4	138.3	-330.7	-118.4	0.00	0.00	0.00
5,500.0	5.05	292.69	5,484.0	141.7	-338.9	-121.3	0.00	0.00	0.00
5,600.0	5.05	292.69	5,583.6	145.1	-347.0	-124.2	0.00	0.00	0.00
5,700.0	5.05	292.69	5,683.2	148.5	-355.1	-127.1	0.00	0.00	0.00
5,800.0	5.05	292.69	5,782.8	151.9	-363.2	-130.0	0.00	0.00	0.00
5,900.0	5.05	292.69	5,882.4	155.3	-371.3	-133.0	0.00	0.00	0.00
6,000.0	5.05	292.69	5,982.0	158.7	-379.5	-135.9	0.00	0.00	0.00
6,100.0	5.05	292.69	6,081.6	162.1	-387.6	-138.8	0.00	0.00	0.00
6,200.0	5.05	292.69	6,181.3	165.5	-395.7	-141.7	0.00	0.00	0.00
6,300.0	5.05	292.69	6,280.9	168.9	-403.8	-144.6	0.00	0.00	0.00
6,400.0	5.05	292.69	6,380.5	172.3	-411.9	-147.5	0.00	0.00	0.00
6,500.0	5.05	292.69	6,480.1	175.7	-420.0	-150.4	0.00	0.00	0.00
6,600.0	5.05	292.69	6,579.7	179.1	-428.2	-153.3	0.00	0.00	0.00
6,700.0	5.05	292.69	6,679.3	182.4	-436.3	-156.2	0.00	0.00	0.00
6,800.0	5.05	292.69	6,778.9	185.8	-444.4	-159.1	0.00	0.00	0.00
6,900.0	5.05	292.69	6,878.5	189.2	-452.5	-162.0	0.00	0.00	0.00
7,000.0	5.05	292.69	6,978.2	192.6	-460.6	-164.9	0.00	0.00	0.00
7,100.0	5.05	292.69	7,077.8	196.0	-468.8	-167.8	0.00	0.00	0.00
7,200.0	5.05	292.69	7,177.4	199.4	-476.9	-170.7	0.00	0.00	0.00
7,296.9	5.05	292.69	7,273.9	202.7	-484.7	-173.6	0.00	0.00	0.00
7,300.0	4.99	292.69	7,277.0	202.8	-485.0	-173.7	2.00	-2.00	0.00
7,400.0	2.99	292.69	7,376.7	205.5	-491.4	-175.9	2.00	-2.00	0.00
7,500.0	0.99	292.69	7,476.7	206.8	-494.6	-177.1	2.00	-2.00	0.00
7,549.3	0.00	0.00	7,526.0	207.0	-495.0	-177.2	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,576.7	207.0	-495.0	-177.2	0.00	0.00	0.00
7,700.0	0.00	0.00	7,676.7	207.0	-495.0	-177.2	0.00	0.00	0.00
7,800.0	0.00	0.00	7,776.7	207.0	-495.0	-177.2	0.00	0.00	0.00
7,900.0	0.00	0.00	7,876.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,976.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,100.0	0.00	0.00	8,076.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,200.0	0.00	0.00	8,176.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,300.0	0.00	0.00	8,276.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,400.0	0.00	0.00	8,376.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,500.0	0.00	0.00	8,476.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,600.0	0.00	0.00	8,576.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,700.0	0.00	0.00	8,676.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,800.0	0.00	0.00	8,776.7	207.0	-495.0	-177.2	0.00	0.00	0.00
8,900.0	0.00	0.00	8,876.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,000.0	0.00	0.00	8,976.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,100.0	0.00	0.00	9,076.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,200.0	0.00	0.00	9,176.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,300.0	0.00	0.00	9,276.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,400.0	0.00	0.00	9,376.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,500.0	0.00	0.00	9,476.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,600.0	0.00	0.00	9,576.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,700.0	0.00	0.00	9,676.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,800.0	0.00	0.00	9,776.7	207.0	-495.0	-177.2	0.00	0.00	0.00
9,900.0	0.00	0.00	9,876.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,000.0	0.00	0.00	9,976.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,100.0	0.00	0.00	10,076.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,200.0	0.00	0.00	10,176.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,300.0	0.00	0.00	10,276.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,400.0	0.00	0.00	10,376.7	207.0	-495.0	-177.2	0.00	0.00	0.00



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3514.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3514.0usft
Site:	Icy 18 Fed	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
10,500.0	0.00	0.00	10,476.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,600.0	0.00	0.00	10,576.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,700.0	0.00	0.00	10,676.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,800.0	0.00	0.00	10,776.7	207.0	-495.0	-177.2	0.00	0.00	0.00
10,825.8	0.00	0.00	10,802.5	207.0	-495.0	-177.2	0.00	0.00	0.00
10,850.0	2.90	180.00	10,826.7	206.4	-495.0	-176.6	12.00	12.00	0.00
10,875.0	5.90	180.00	10,851.6	204.5	-495.0	-174.7	12.00	12.00	0.00
10,900.0	8.90	180.00	10,876.4	201.2	-495.0	-171.5	12.00	12.00	0.00
10,925.0	11.90	180.00	10,901.0	196.7	-495.0	-167.0	12.00	12.00	0.00
10,950.0	14.90	180.00	10,925.3	190.9	-495.0	-161.2	12.00	12.00	0.00
10,975.0	17.90	180.00	10,949.3	183.9	-495.0	-154.2	12.00	12.00	0.00
11,000.0	20.90	180.00	10,972.8	175.6	-495.0	-145.9	12.00	12.00	0.00
11,025.0	23.90	180.00	10,995.9	166.1	-495.0	-136.4	12.00	12.00	0.00
11,046.3	26.46	180.00	11,015.2	157.0	-495.0	-127.3	12.00	12.00	0.00
11,050.0	26.90	179.99	11,018.5	155.3	-495.0	-125.7	12.00	12.00	-0.18
11,075.0	29.90	179.95	11,040.5	143.4	-495.0	-113.8	12.00	12.00	-0.16
11,100.0	32.90	179.92	11,061.8	130.4	-495.0	-100.8	12.00	12.00	-0.13
11,125.0	35.90	179.89	11,082.5	116.3	-495.0	-86.7	12.00	12.00	-0.11
11,150.0	38.90	179.87	11,102.3	101.1	-494.9	-71.5	12.00	12.00	-0.10
11,175.0	41.90	179.85	11,121.4	84.9	-494.9	-55.4	12.00	12.00	-0.08
11,200.0	44.90	179.83	11,139.5	67.7	-494.8	-38.2	12.00	12.00	-0.08
11,225.0	47.90	179.81	11,156.8	49.6	-494.8	-20.1	12.00	12.00	-0.07
11,250.0	50.90	179.80	11,173.0	30.6	-494.7	-1.2	12.00	12.00	-0.06
11,275.0	53.90	179.78	11,188.3	10.8	-494.6	18.6	12.00	12.00	-0.06
11,300.0	56.90	179.77	11,202.5	-9.7	-494.6	39.1	12.00	12.00	-0.05
11,325.0	59.90	179.76	11,215.6	-31.0	-494.5	60.3	12.00	12.00	-0.05
11,350.0	62.90	179.75	11,227.5	-53.0	-494.4	82.2	12.00	12.00	-0.05
11,375.0	65.90	179.74	11,238.3	-75.5	-494.3	104.7	12.00	12.00	-0.04
11,400.0	68.90	179.73	11,247.9	-98.6	-494.2	127.8	12.00	12.00	-0.04
11,425.0	71.90	179.72	11,256.3	-122.1	-494.1	151.3	12.00	12.00	-0.04
11,450.0	74.90	179.71	11,263.5	-146.1	-493.9	175.2	12.00	12.00	-0.04
11,475.0	77.90	179.70	11,269.3	-170.4	-493.8	199.4	12.00	12.00	-0.04
11,500.0	80.90	179.69	11,273.9	-195.0	-493.7	223.9	12.00	12.00	-0.04
11,525.0	83.90	179.68	11,277.2	-219.7	-493.5	248.7	12.00	12.00	-0.04
11,550.0	86.90	179.67	11,279.2	-244.7	-493.4	273.5	12.00	12.00	-0.04
11,575.8	90.00	179.66	11,279.9	-270.5	-493.2	299.3	12.00	12.00	-0.04
11,600.0	90.00	179.66	11,279.9	-294.7	-493.1	323.4	0.00	0.00	0.00
11,700.0	90.00	179.66	11,279.9	-394.6	-492.5	423.2	0.00	0.00	0.00
11,800.0	90.00	179.66	11,279.9	-494.6	-491.9	523.0	0.00	0.00	0.00
11,900.0	90.00	179.66	11,279.9	-594.6	-491.3	622.8	0.00	0.00	0.00
12,000.0	90.00	179.66	11,279.9	-694.6	-490.7	722.6	0.00	0.00	0.00
12,100.0	90.00	179.66	11,279.9	-794.6	-490.1	822.4	0.00	0.00	0.00
12,200.0	90.00	179.66	11,279.9	-894.6	-489.5	922.1	0.00	0.00	0.00
12,300.0	90.00	179.66	11,279.9	-994.6	-489.0	1,021.9	0.00	0.00	0.00
12,400.0	90.00	179.66	11,280.0	-1,094.6	-488.4	1,121.7	0.00	0.00	0.00
12,500.0	90.00	179.66	11,280.0	-1,194.6	-487.8	1,221.5	0.00	0.00	0.00
12,600.0	90.00	179.66	11,280.0	-1,294.6	-487.2	1,321.3	0.00	0.00	0.00
12,700.0	90.00	179.66	11,280.0	-1,394.6	-486.6	1,421.1	0.00	0.00	0.00
12,800.0	90.00	179.66	11,280.0	-1,494.6	-486.0	1,520.9	0.00	0.00	0.00
12,900.0	90.00	179.66	11,280.0	-1,594.6	-485.4	1,620.6	0.00	0.00	0.00
13,000.0	90.00	179.66	11,280.0	-1,694.6	-484.8	1,720.4	0.00	0.00	0.00
13,100.0	90.00	179.66	11,280.0	-1,794.6	-484.2	1,820.2	0.00	0.00	0.00
13,200.0	90.00	179.66	11,280.0	-1,894.6	-483.6	1,920.0	0.00	0.00	0.00
13,300.0	90.00	179.66	11,280.0	-1,994.6	-483.0	2,019.8	0.00	0.00	0.00



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3514.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3514.0usft
Site:	Icy 18 Fed	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
13,400.0	90.00	179.66	11,280.0	-2,094.6	-482.4	2,119.6	0.00	0.00	0.00
13,500.0	90.00	179.66	11,280.0	-2,194.6	-481.8	2,219.4	0.00	0.00	0.00
13,600.0	90.00	179.66	11,280.0	-2,294.6	-481.2	2,319.1	0.00	0.00	0.00
13,700.0	90.00	179.66	11,280.0	-2,394.6	-480.6	2,418.9	0.00	0.00	0.00
13,800.0	90.00	179.66	11,280.0	-2,494.6	-480.1	2,518.7	0.00	0.00	0.00
13,900.0	90.00	179.66	11,280.0	-2,594.6	-479.5	2,618.5	0.00	0.00	0.00
14,000.0	90.00	179.66	11,280.0	-2,694.6	-478.9	2,718.3	0.00	0.00	0.00
14,100.0	90.00	179.66	11,280.0	-2,794.6	-478.3	2,818.1	0.00	0.00	0.00
14,200.0	90.00	179.66	11,280.0	-2,894.6	-477.7	2,917.9	0.00	0.00	0.00
14,300.0	90.00	179.66	11,280.0	-2,994.6	-477.1	3,017.7	0.00	0.00	0.00
14,400.0	90.00	179.66	11,280.0	-3,094.6	-476.5	3,117.4	0.00	0.00	0.00
14,500.0	90.00	179.66	11,280.0	-3,194.6	-475.9	3,217.2	0.00	0.00	0.00
14,600.0	90.00	179.66	11,280.0	-3,294.6	-475.3	3,317.0	0.00	0.00	0.00
14,700.0	90.00	179.66	11,280.0	-3,394.6	-474.7	3,416.8	0.00	0.00	0.00
14,800.0	90.00	179.66	11,280.0	-3,494.6	-474.1	3,516.6	0.00	0.00	0.00
14,900.0	90.00	179.66	11,280.0	-3,594.6	-473.5	3,616.4	0.00	0.00	0.00
15,000.0	90.00	179.66	11,280.0	-3,694.6	-472.9	3,716.2	0.00	0.00	0.00
15,100.0	90.00	179.66	11,280.0	-3,794.6	-472.3	3,815.9	0.00	0.00	0.00
15,200.0	90.00	179.66	11,280.0	-3,894.6	-471.8	3,915.7	0.00	0.00	0.00
15,300.0	90.00	179.66	11,280.0	-3,994.6	-471.2	4,015.5	0.00	0.00	0.00
15,400.0	90.00	179.66	11,280.0	-4,094.6	-470.6	4,115.3	0.00	0.00	0.00
15,500.0	90.00	179.66	11,280.0	-4,194.6	-470.0	4,215.1	0.00	0.00	0.00
15,600.0	90.00	179.66	11,280.0	-4,294.6	-469.4	4,314.9	0.00	0.00	0.00
15,700.0	90.00	179.66	11,280.0	-4,394.6	-468.8	4,414.7	0.00	0.00	0.00
15,800.0	90.00	179.66	11,280.0	-4,494.6	-468.2	4,514.5	0.00	0.00	0.00
15,900.0	90.00	179.66	11,280.0	-4,594.6	-467.6	4,614.2	0.00	0.00	0.00
16,000.0	90.00	179.66	11,280.0	-4,694.6	-467.0	4,714.0	0.00	0.00	0.00
16,100.0	90.00	179.66	11,280.0	-4,794.6	-466.4	4,813.8	0.00	0.00	0.00
16,200.0	90.00	179.66	11,280.0	-4,894.6	-465.8	4,913.6	0.00	0.00	0.00
16,300.0	90.00	179.66	11,280.0	-4,994.6	-465.2	5,013.4	0.00	0.00	0.00
16,400.0	90.00	179.66	11,280.0	-5,094.6	-464.6	5,113.2	0.00	0.00	0.00
16,500.0	90.00	179.66	11,280.0	-5,194.6	-464.0	5,213.0	0.00	0.00	0.00
16,600.0	90.00	179.66	11,280.0	-5,294.6	-463.5	5,312.7	0.00	0.00	0.00
16,700.0	90.00	179.66	11,280.0	-5,394.6	-462.9	5,412.5	0.00	0.00	0.00
16,800.0	90.00	179.66	11,280.0	-5,494.6	-462.3	5,512.3	0.00	0.00	0.00
16,900.0	90.00	179.66	11,280.0	-5,594.6	-461.7	5,612.1	0.00	0.00	0.00
17,000.0	90.00	179.66	11,280.0	-5,694.6	-461.1	5,711.9	0.00	0.00	0.00
17,100.0	90.00	179.66	11,280.0	-5,794.6	-460.5	5,811.7	0.00	0.00	0.00
17,200.0	90.00	179.66	11,280.0	-5,894.6	-459.9	5,911.5	0.00	0.00	0.00
17,300.0	90.00	179.66	11,280.0	-5,994.6	-459.3	6,011.2	0.00	0.00	0.00
17,400.0	90.00	179.66	11,280.0	-6,094.5	-458.7	6,111.0	0.00	0.00	0.00
17,500.0	90.00	179.66	11,280.0	-6,194.5	-458.1	6,210.8	0.00	0.00	0.00
17,600.0	90.00	179.66	11,280.0	-6,294.5	-457.5	6,310.6	0.00	0.00	0.00
17,700.0	90.00	179.66	11,280.0	-6,394.5	-456.9	6,410.4	0.00	0.00	0.00
17,800.0	90.00	179.66	11,280.0	-6,494.5	-456.3	6,510.2	0.00	0.00	0.00
17,900.0	90.00	179.66	11,280.0	-6,594.5	-455.7	6,610.0	0.00	0.00	0.00
18,000.0	90.00	179.66	11,280.0	-6,694.5	-455.2	6,709.8	0.00	0.00	0.00
18,100.0	90.00	179.66	11,280.0	-6,794.5	-454.6	6,809.5	0.00	0.00	0.00
18,200.0	90.00	179.66	11,280.0	-6,894.5	-454.0	6,909.3	0.00	0.00	0.00
18,300.0	90.00	179.66	11,280.0	-6,994.5	-453.4	7,009.1	0.00	0.00	0.00
18,400.0	90.00	179.66	11,280.0	-7,094.5	-452.8	7,108.9	0.00	0.00	0.00
18,500.0	90.00	179.66	11,280.0	-7,194.5	-452.2	7,208.7	0.00	0.00	0.00
18,600.0	90.00	179.66	11,280.0	-7,294.5	-451.6	7,308.5	0.00	0.00	0.00
18,700.0	90.00	179.66	11,280.0	-7,394.5	-451.0	7,408.3	0.00	0.00	0.00



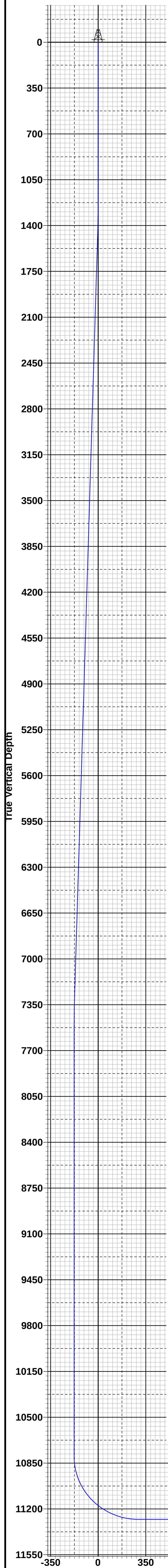
Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3514.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3514.0usft
Site:	Icy 18 Fed	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
18,800.0	90.00	179.66	11,280.0	-7,494.5	-450.4	7,508.0	0.00	0.00	0.00
18,868.5	90.00	179.66	11,280.0	-7,563.0	-450.0	7,576.4	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Icy 18 Fed #581H) - plan hits target center - Point	0.00	0.00	10,802.5	207.0	-495.0	414,577.00	763,198.00	32.1377215°N	103.6165614°W
FTP(Icy 18 Fed #581H) - plan hits target center - Point	0.00	0.00	11,015.2	157.0	-495.0	414,527.00	763,198.00	32.1375841°N	103.6165625°W
PBHL(Icy 18 Fed #581H) - plan hits target center - Point	0.00	0.00	11,280.0	-7,563.0	-450.0	406,807.00	763,243.00	32.1163630°N	103.6165831°W



To convert a Magnetic Direction to a Grid Direction, Add 6.01°
To convert a Magnetic Direction to a True Direction, Add 6.39° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

WELL DETAILS: #581H			
kb = 26' @ 3514.0usft			
3488.0			
Northing	Easting	Latitude	Longitude
414370.00	763693.00	32.1371434°N	103.6149668°W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1452.4	5.05	292.69	1452.1	4.3	-10.3	2.00	292.69	-3.7	
4	7296.9	5.05	292.69	7273.9	202.7	-484.7	0.00	0.00	-173.6	
5	7549.3	0.00	0.00	7526.0	207.0	-495.0	2.00	180.00	-177.2	
6	10825.8	0.00	0.00	10802.5	207.0	-495.0	0.00	0.00	-177.2	KOP(Icy 18 Fed #581H)
7	11046.3	26.46	180.00	11015.2	157.0	-495.0	12.00	180.00	-127.3	FTP(Icy 18 Fed #581H)
8	11575.8	90.00	179.66	11279.9	-270.5	-493.2	12.00	-0.38	299.3	
9	18868.5	90.00	179.66	11280.0	-7563.0	-450.0	0.00	0.00	7576.4	PBHL(Icy 18 Fed #581H)

CASING DETAILS
No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Icy 18 Fed #581H)	10802.5	207.0	-495.0	414577.00	763198.00
FTP(Icy 18 Fed #581H)	11015.2	157.0	-495.0	414527.00	763198.00
PBHL(Icy 18 Fed #581H)	11280.0	-7563.0	-450.0	406807.00	763243.00

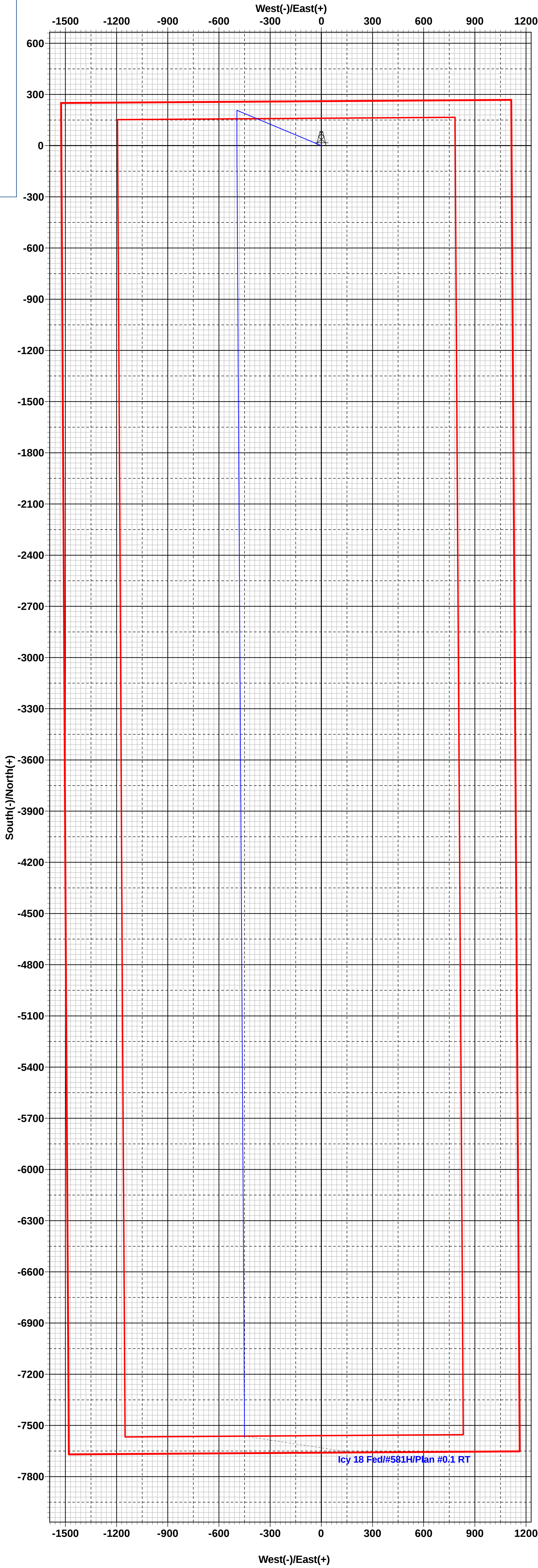
Lea County, NM (NAD 83 NME)

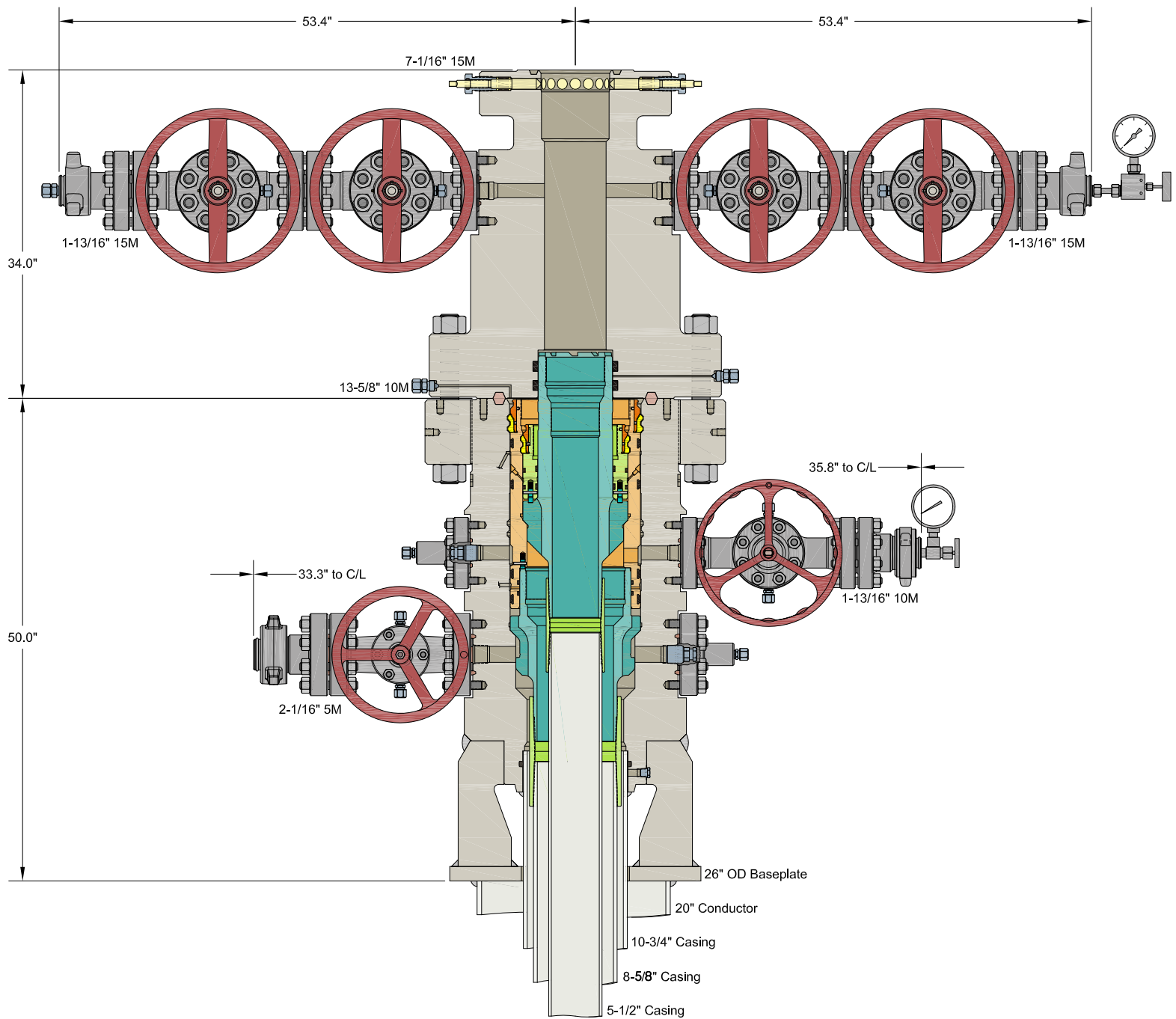
Icy 18 Fed #581H

Plan #0.1 RT

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level





INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC		EOG RESOURCES	
10-3/4" x 8-5/8" x 5-1/2" MBU-3T-SF-SOW Wellhead System With 8-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers And 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head	DRAWN	DLE	14APR21
	APPRV		
	DRAWING NO.	SDT-3141	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 177406

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 177406
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	1/19/2023