

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Notice of Intent

Type of Submission: Notice of Intent	Type of Action APD Change
Date Sundry Submitted: 01/23/2021	Time Sundry Submitted: 03:01
Date proposed operation will begin: 02/01/2021	

Procedure Description: COG Operating LLC respectfully requests approval for the following changes to the originally approved APD's. BHL Change. From: 50' FNL and 1680' FEL Section 4 T25S. R35E. To: 50' FSL and 1650' FEL Section 33 T24S. R35E. Dedicated Acres. From: 601.64 To: 801.64 C102 Attached

Application

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Section 1 - General

APD ID: 10400040538	Tie to previous NOS?	Submission Date:
BLM Office: CARLSBAD	User: MAYTE REYES	Title: Regulatory Analyst
Federal/Indian APD: FED	Is the first lease penetrated for production Federal or Indian? FED	
Lease number: NMNM125658	Lease Acres:	
Surface access agreement in place?	Allotted?	Reservation:
Agreement in place? NO	Federal or Indian agreement:	
Agreement number:		
Agreement name:		
Keep application confidential? Y		
Permitting Agent? NO	APD Operator: COG OPERATING LLC	
Operator letter of designation:		

Operator Info

Operator Organization Name: COG OPERATING LLC		
Operator Address: 600 West Illinois Ave	Zip: 79701	
Operator PO Box:		
Operator City: Midland	State: TX	
Operator Phone: (432)683-7443		
Operator Internet Address: RODOM@CONCHO.COM		

Section 2 - Well Information

Well in Master Development Plan? NO	Master Development Plan name:	
Well in Master SUPO? NO	Master SUPO name:	
Well in Master Drilling Plan? NO	Master Drilling Plan name:	
Well Name: FEZ FEDERAL COM	Well Number: 710H	Well API Number: 3002546247
Field/Pool or Exploratory? Field and Pool	Field Name: WC-025 G-09 S243532M	Pool Name: WOLFBONE
Is the proposed well in an area containing other mineral resources? USEABLE WATER		
Is the proposed well in a Helium production area? N	Use Existing Well Pad? N	New surface disturbance?
Type of Well Pad: MULTIPLE WELL	Multiple Well Pad Name: FEZ FEDERAL COM	Number: 710H, 707H
Well Class: HORIZONTAL	Number of Legs: 1	
Well Work Type: Drill		
Well Type: OIL WELL		
Describe Well Type:		

Received by OCD: 2/10/2021 3:10:05 PM

Page 3 of 41

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 9 Miles

Distance to nearest well: 30 FT

Distance to lease line: 50 FT

Reservoir well spacing assigned acres Measurement: 801.64 Acres

Well plat: COG_Fez_710H_C102_20190403092323.pdf
Fez_Federal_Com_710H_C102_20210123145854.pdf

Well work start Date: 10/01/2019

Duration: 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	330	FSL	1570	FEL	25S	35E	9	Aliquot SWSE	32.138547	-103.369005	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM125658	3239	0	0	Y
KOP Leg #1	330	FSL	1570	FEL	25S	35E	9	Aliquot SWSE	32.138547	-103.369005	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM125658	3239	0	0	Y
PPP Leg #1-1	100	FSL	1650	FEL	25S	35E	9	Aliquot SWSE	32.369264	-103.369264	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM125658	-9071	12375	12310	Y

Received by OCD: 2/10/2021 3:10:05 PM

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-2	2641	FSL	1650	FEL	25S	35E	9	Aliquot SWNE	32.144895	-103.369261	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-9154	15050	12393	Y
EXIT Leg #1	2540	FSL	1650	FEL	24S	35E	22	Aliquot NWSE	32.173709	-103.369247	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-9146	25293	12385	Y
BHL Leg #1	2590	FSL	1650	FEL	24S	35E	33	Aliquot NWSE	32.173847	-103.369247	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-9146	25243	12385	Y

Drilling Plan

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1506481	UNKNOWN	3239	0	0		NONE	N
1506465	RUSTLER	2479	760	760		NONE	N
1506466	TOP SALT	2134	1105	1105	SALT	NONE	N
1506467	BASE OF SALT	-1660	4899	4899	ANHYDRITE	NONE	N
1506468	LAMAR	-2041	5280	5280	LIMESTONE	NATURAL GAS, OIL	N
1506471	BELL CANYON	-2097	5336	5336		NONE	N
1506479	CHERRY CANYON	-3012	6251	6251		NATURAL GAS, OIL	N
1506480	BRUSHY CANYON	-4520	7759	7759		NATURAL GAS, OIL	N
1506469	BONE SPRING LIME	-5736	8975	8975	SANDSTONE	NATURAL GAS, OIL	N
1506474	UPPER AVALON SHALE	-5981	9220	9220		NATURAL GAS, OIL	N
1506475	---	-6433	9672	9672		NATURAL GAS, OIL	N
1506476	BONE SPRING 1ST	-7061	10300	10300		NATURAL GAS, OIL	N
1506477	BONE SPRING 2ND	-7582	10821	10821		NATURAL GAS, OIL	N
1506478	BONE SPRING 3RD	-8679	11918	11918		NATURAL GAS, OIL	N

Received by OCD: 2/10/2021 3:10:05 PM

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1506470	WOLFCAMP	-9055	12294	12294	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M

Rating Depth: 12458

Equipment: Annular, Blind Ram, Pipe Ram. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold

Requesting Variance? YES

Variance request: A 5M variance is requested on a 10M system. (A 5M variance is attached in section 8). A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

Choke Diagram Attachment:

COG_Fez_710H_10M_Choke_20190403094612.pdf

BOP Diagram Attachment:

COG_Fez_710H_10M_BOP_20190522140045.pdf

COG_Fez_710H_Flex_Hose_20190403094629.pdf

Pressure Rating (PSI): 5M

Rating Depth: 11850

Equipment: Annular. Accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

Choke Diagram Attachment:

COG_Fez_710H_5M_Choke_20190403094658.pdf

BOP Diagram Attachment:

COG_Fez_710H_5M_BOP_20190403094704.pdf

COG_Fez_710H_Flex_Hose_20190403094714.pdf

Received by OCD: 2/10/2021 3:10:05 PM

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	
1	SURFACE	17.5	13.375	NEW	API	N	0	1000	0	1000	3239	2239	1000	J-55	54.5	ST&C	2.53	7.05	DRY	9.43	DRY	9.43
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	11850	0	11850	-9411	-8611	11850	HCL-80	47	OTHER - BTC	1.49	1.05	DRY	2.01	DRY	2.01
3	PRODUCTION	8.5	5.5	NEW	API	N	0	25343	0	12841	-9411	-9602	25343	P-110	23	OTHER - BTC	1.8	2.12	DRY	2.53	DRY	2.53

Casing Attachments

Casing ID: 1

String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Fez_710H_Casing_Prog_20190403094801.pdf

COG_Fez_710H_Casing_Prog_20210122072040.pdf

Casing ID: 2

String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Fez_710H_Casing_Prog_20190403094747.pdf

COG_Fez_710H_Casing_Prog_20210122072053.pdf

Received by OCD: 2/10/2021 3:10:05 PM

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Casing Attachments

Casing ID: 3String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Fez_710H_Casing_Prog_20190403094753.pdf

COG_Fez_710H_Casing_Prog_20210122072154.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1000	410	1.75	13.5	717	50	Class C	4% Gel
SURFACE	Tail		0	1000	250	1.34	14.8	335	50	Class C	2% CaCl2
INTERMEDIATE	Lead	5200	0	5200	720	2.8	11	2016	50	NeoCem	As needed
INTERMEDIATE	Tail		0	5200	100	1.35	14.8	135	50	Class C	2% CaCl
INTERMEDIATE	Lead	5200	0	11850	1000	2.8	11	2800	50	Lead: NEOCEM. (Stage 2: Attached in section 8)	As needed
INTERMEDIATE	Tail		0	11850	300	1.1	16.4	330	50	Class H	As needed
PRODUCTION	Lead		10850	22713	400	2	12.7	800	35	Lead: 35:65:6 H BLEND	As needed
PRODUCTION	Tail		10850	22713	2990	1.24	14.4	3707	35	Tail: 50:50:2 Class H Blend	As needed

Received by OCD: 2/10/2021 3:10:05 PM

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
11850	22713	OIL-BASED MUD	10.5	12.5							OBM
0	1000	OTHER : FW Gel	8.4	8.6							FW Gel
1000	11850	OTHER : Diesel Brine Emulsion	8.6	9.4							Diesel Brine Emulsion

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

None planned

List of open and cased hole logs run in the well:

CNL,GR

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8100

Anticipated Surface Pressure: 5373

Anticipated Bottom Hole Temperature(F): 180

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Received by OCD: 2/10/2021 3:10:05 PM

Page 9 of 41

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

COG_Fez_710H_H2S_SUP_20190403095337.pdf

COG_Fez_710H_H2S_Schem_20190403095330.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Fez_710H_Direct_Plan_20190403095353.pdf

COG_Fez_710H_AC_Report_20190403095402.pdf

FEZ_FEDERAL_COM_710H_PWP1_SVY_RPT_20210122103608.pdf

FEZ_FEDERAL_COM_710H_PWP1_AC_RPT_20210122103631.pdf

Other proposed operations facets description:

Drilling program attached.

GCP Attached.

5M Variance attached.

Cementing program attached.

Other proposed operations facets attachment:

COG_Fez_710H_GCP_20190403095421.pdf

COG_Fez_710H_Cementing_Prog_20190522140339.pdf

COG_Fez_710H_Drilling_Prog_20190403095414.pdf

COG_Fez_710H_Drilling_Prog_20210122072344.pdf

COG_Fez_710H_Cementing_Prog_20210122072356.pdf

COG_Fez_710H_GCP_20210122072418.pdf

Other Variance attachment:

COG_5M_Variance_Well_Plan_20190314081725.pdf

COG_6.75_5M_Variance_WCP_20210122072513.pdf

SUPO

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:
COG_Fez_710H_Exisiting_Road_20190403095441.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:
COG_Fez_710H_Maps_Plats_20190408152534.pdf

New road type: TWO-TRACK

Length: 82.7 **Feet** **Width (ft.):** 30

Max slope (%): 33 **Max grade (%):** 1

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Offsite topsoil source description:

Onsite topsoil removal process: Blading

Access other construction information: No turnouts are planned. Re-routing access road around proposed well location.

Access miscellaneous information:

Number of access turnouts: Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: None necessary.

Road Drainage Control Structures (DCS) description: None needed.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

COG_Fez_710H_1Mile_Data_20190403095535.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: The Fez Federal 9P Central Tank Battery (CTB) is proposed in Section 9, T25S, R35E. Production from each of the 9 producing wells will be sent to the proposed Fez Federal 9P CTB. We plan to install 9 buried 4” FP 601HT production flowlines from each wellhead to the inlet manifold of the proposed CTB; the route for these flowlines will follow the “Mainline” route as shown in the attached plat. We will also install 1 buried 6” poly line for gas lift supply from the CTB to each production well pad; the route for this gas lift line will follow the “Mainline” route as shown in the attached plat. We will also install 1 buried 10” poly line for produced water transfer from the CTB to an existing pipeline connection in Section 16; this line will follow the “Mainline” route as shown in the attached plat.

Production Facilities map:

COG_Fez_710H_CTB_Layout_20190403095604.pdf

COG_Fez_710H_CTB_Flowlines_20190403095557.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER	
Describe type: Brine	
Water source use type:	INTERMEDIATE/PRODUCTION CASING
Source latitude:	Source longitude:
Source datum:	

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

	INTERMEDIATE/PRODUCTION CASING
Water source permit type:	PRIVATE CONTRACT
Water source transport method:	TRUCKING
Source land ownership:	COMMERCIAL
Source transportation land ownership:	COMMERCIAL
Water source volume (barrels): 30000	Source volume (acre-feet): 3.866793
Source volume (gal): 1260000	

Water source type:	OTHER
Describe type:	Fresh Water
Water source use type:	STIMULATION SURFACE CASING
Source latitude:	Source longitude:
Source datum:	
Water source permit type:	PRIVATE CONTRACT
Water source transport method:	PIPELINE
Source land ownership:	PRIVATE
Source transportation land ownership:	PRIVATE
Water source volume (barrels): 450000	Source volume (acre-feet): 58.001892
Source volume (gal): 18900000	

Water source and transportation map:

COG_Fez_710H_Fresh_H2O_20190403095630.pdf
COG_Fez_710H_BrineH2O_20190403095640.pdf

Water source comments: Fresh water will be obtained from Fez Fee Frac Pond located in Section 8, T25S, R35E. Brine water will be obtained from the Salty Dog Brine station located in Section 5. T19S. R36E.
New water well? NO

New Water Well Info

Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness of aquifer:	

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Aquifer comments:

Aquifer documentation:

Well depth (ft):	Well casing type:
Well casing outside diameter (in.):	Well casing inside diameter (in.):
New water well casing?	Used casing source:
Drilling method:	Drill material:
Grout material:	Grout depth:
Casing length (ft.):	Casing top depth (ft.):
Well Production type:	Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from Quail Ranch LLC (CONCHO) caliche pit located in Section 6, T24S, R35 Phone # (575) 748-6940 or Bert Madera caliche pit located in Section 6. T25S. R35E. Phone 575-631-4444.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids and produced oil and water during drilling and completion operations

Amount of waste: 6000 barrels

Waste disposal frequency : One Time Only

Safe containment description: All drilling waste will be stored safely and disposed of properly

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL FACILITY

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: SEWAGE

Waste content description: Human waste and gray water

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal facility

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

FACILITY

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations

Amount of waste: 125 pounds

Waste disposal frequency : Weekly

Safe containment description: Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY Disposal location ownership: COMMERCIAL FACILITY

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.) Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Roll off cuttings containers on tracks

Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.) Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments: GCP Attached.

Section 9 - Well Site Layout

Well Site Layout Diagram:

COG_Fez_710H_CTB_Layout_20190403095723.pdf
COG_Fez_710H_CTB_Flowlines_20190403095714.pdf
COG_Fez_710H_Layout_20190403095704.pdf

Comments: The Fez Federal 9P Central Tank Battery (CTB) is proposed in Section 9, T25S, R35E. Production from each of the 9 producing wells will be sent to the proposed Fez Federal 9P CTB. We plan to install 9 buried 4” FP 601HT production flowlines from each wellhead to the inlet manifold of the proposed CTB; the route for these flowlines will follow the “Mainline” route as shown in the attached plat. We will also install 1 buried 6” poly line for gas lift supply from the CTB to each production well pad; the route for this gas lift line will follow the “Mainline” route as shown in the attached plat. We will also install 1 buried 10” poly line for produced water transfer from the CTB to an existing pipeline connection in Section 16; this line will follow the “Mainline” route as shown in the attached plat.

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: FEZ FEDERAL COM
Multiple Well Pad Number: 710H, 707H

Recontouring attachment:

COG_Fez_710H_Reclamation_20190403095741.pdf

Drainage/Erosion control construction: Immediately following construction straw waddles will be placed as necessary at the well site to reduce to reduce sediment impacts to fragile/sensitive soils.
Drainage/Erosion control reclamation: West 50'

Well pad proposed disturbance (acres): 3.67	Well pad interim reclamation (acres): 0.15	Well pad long term disturbance (acres): 3.35
Road proposed disturbance (acres): 0.13	Road interim reclamation (acres): 0.13	Road long term disturbance (acres): 0.13
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0.04	Pipeline interim reclamation (acres): 0.04	Pipeline long term disturbance (acres): 0.04
Other proposed disturbance (acres): 5.74	Other interim reclamation (acres): 5.74	Other long term disturbance (acres): 5.74
Total proposed disturbance: 9.58	Total interim reclamation: 6.06	Total long term disturbance: 9.26

Disturbance Comments:

Reconstruction method: New construction of pad.

Topsoil redistribution: West 50'

Soil treatment: None

Received by OCD: 2/10/2021 3:10:05 PM

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Existing Vegetation at the well pad: Shinnery Oak/Mesquite grassland

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: N/A

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary		Total pounds/Acre:
Seed Type	Pounds/Acre	

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone: (432)260-7399

Email: gherrera@concho.com

Seedbed prep:

Seed BMP:

Seed method:

Received by OCD: 2/10/2021 3:10:05 PM

Page 17 of 41

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: N/A

Weed treatment plan attachment:

Monitoring plan description: N/A

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

COG_Fez_710H_Closed_Loop_20190403095813.pdf

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: USFS Ranger District:

Received by OCD: 2/10/2021 3:10:05 PM

Page 18 of 41

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Fee Owner: Quail Ranch (CONCHO)

Fee Owner Address:

Phone: (432)221-0342

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: Agreement signed on June 27th, 2016.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information: SUP attached.

Use a previously conducted onsite? YES

Previous Onsite information: Onsite completed on 10/09/2018 by Gerald Herrera (COG) and Jeff Robertson (BLM).

Other SUPO Attachment

COG_Fez_710H_1Mile_Data_20190403095852.pdf

COG_Fez_710H_Reclamation_20190403100029.pdf

COG_Fez_710H_Closed_Loop_20190403095923.pdf

COG_Fez_710H_Fresh_H2O_20190403095955.pdf

COG_Fez_710H_Maps_Plats_20190408152812.pdf

COG_Fez_710H_CTB_Layout_20190403095933.pdf

COG_Fez_710H_BrineH2O_20190403095905.pdf

COG_Fez_710H_Exisiting_Road_20190403095942.pdf

COG_Fez_710H_SUP_20190408152754.pdf

COG_Fez_710H_Layout_20190403100009.pdf

COG_Fez_710H_C102_20190403095913.pdf

Received by OCD: 2/10/2021 3:10:05 PM

Page 19 of 41

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

PWD

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Received by OCD: 2/10/2021 3:10:05 PM

Page 20 of 41

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Received by OCD: 2/10/2021 3:10:05 PM

Well Name: FEZ FEDERAL COM

Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005

County or Parish/State: LEA / NM

Well Number: 710H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM125658

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546247

Well Status: Approved Application for Permit to Drill

Operator: COG OPERATING LLC

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type: Injection well number: Injection well name:

Assigned injection well API number? Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Operator Certification

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: MAYTE REYES	Signed on: 01/23/2021
Title: Regulatory Analyst	
Street Address: 2208 West Main Street	
City: Artesia	State: NM
Zip: 88210	
Phone: (575)748-6940	
Email address: MREYES1@CONCHO.COM	

Field Representative

Representative Name: Gerald Herera		
Street Address: 2208 West Main Street		
City: Artesia	State: NM	Zip: 88210
Phone: (575)748-6940		
Email address: gherrera@concho.com		

Well Name: FEZ FEDERAL COM	Well Location: T25S / R35E / SEC 9 / SWSE / 32.138547 / -103.369005	County or Parish/State: LEA / NM
Well Number: 710H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125658	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546247	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: REYES	Signed on: JAN 23, 2021 02:57 PM
Name: COG OPERATING LLC	
Title: Regulatory Analyst	
Street Address: ONE CONCHO CENTER 600 W ILLINOIS AVENUE	
City: MIDLAND	State: TX
Phone: (432) 685-9158	
Email address: NOT ENTERED	

Field Representative

Representative Name: Gerald Herera		
Street Address: 2208 West Main Street		
City: Artesia	State: NM	Zip: 88210
Phone: (575)748-6940		
Email address: gherrera@concho.com		

BLM Point of Contact

BLM POC Name: JENNIFER SANCHEZ	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5756270237	BLM POC Email Address: j1sanchez@blm.gov
Disposition: Approved	Disposition Date: 01/25/2021
Signature: Jennifer Sanchez	

DISTRICT I
1699 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 598-0101 Fax: (575) 598-0720

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) 534-6176 Fax: (505) 534-6176

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-46247	Pool Code 98098	Pool Name WC-025 G-09 S243532M;WOLFBONE
Property Code 322742	Property Name FEZ FEDERAL COM	Well Number 710H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3238.7'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	9	25-S	35-E		330	SOUTH	1570	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	33	24-S	35-E		2590	SOUTH	1650	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
801.64			

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

**NAD 83 NME
PROPOSED BOTTOM
HOLE LOCATION**
Y=428316.8 N
X=839633.5 E
LAT.=32.173847° N
LONG.=103.369247° W

LIP
2540' FSL & 1650' FEL
Y=428266.8 N
X=839634.0 E
LAT.=32.173709° N
LONG.=103.369247° W

LEASE X-ING
LAT.=32.144895° N
LONG.=103.369261° W


**NAD 83 NME
SURFACE LOCATION**
Y=415475.2 N
X=839823.6 E
LAT.=32.138547° N
LONG.=103.369005° W

OPERATOR CERTIFICATION
I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Mayte Reyes* Date: *1-6-2021*
Mayte Reyes
Printed Name
mreyes1@concho.com
E-mail Address

SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

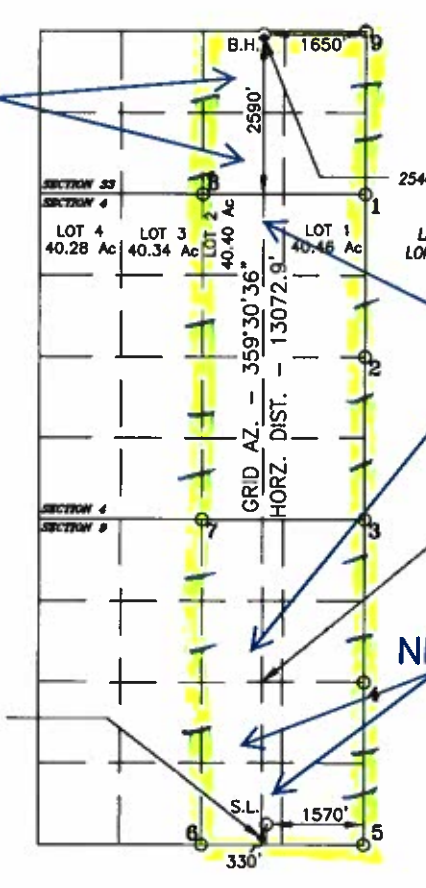
NOVEMBER 15, 2018
Date of Survey

Signature & Seal of Professional Surveyor

Certificate No. CHAD HARCROW 17777
W.O. # 20-1297 DRAWN BY: AH

POINT LEGEND

1	Y=425741.7 N X=841308.7 E
2	Y=423071.0 N X=841331.7 E
3	Y=420437.6 N X=841353.8 E
4	Y=417799.7 N X=841376.1 E
5	Y=415181.3 N X=841398.0 E
6	Y=415134.1 N X=838748.7 E
7	Y=420417.3 N X=838707.7 E
8	Y=425718.0 N X=838667.7 E
9	Y=428382.1 N X=841283.0 E

FIP
100' FSL & 1650' FEL
Y=415244.4 N
X=839745.3 E
LAT.=32.137914° N
LONG.=103.369264° W
GRID AZ. TO FIP
198°44'02"



1. Geologic Formations

TVD of target	12841' EOL	Pilot hole depth	NA
MD at TD:	25343	Deepest expected fresh water:	207'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	760	Water	
Top of Salt	1105	Salt	
Base of Salt	4899	Salt	
Lamar	5280	Salt Water	
Bell Canyon	5336	Salt Water	
Cherry Canyon	6251	Oil/Gas	
Brushy Canyon	7759	Oil/Gas	
Bone Spring Lime	8975	Oil/Gas	
U. Avalon Shale	9220	Oil/Gas	
L. Avalon Shale	9672	Oil/Gas	
1st Bone Spring Sand	10300	Oil/Gas	
2nd Bone Spring Sand	10821	Oil/Gas	
3rd Bone Spring Sand	11918	Oil/Gas	
Wolfcamp	12294	Target Oil/Gas	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1000	13.375"	54.5	J55	STC	2.53	7.05	9.43
12.25"	0	11850	9.625"	47	HCL80	BTC	1.49	1.05	2.01
8.5	0	25343	5.5"	23	P110	BTC	1.80	2.12	2.53
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	410	13.5	1.75	9	12	Lead: Class C + 4% Gel
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter. Stage1	1000	11	2.8	19	48	Lead: NeoCem
	300	16.4	1.1	5	8	Tail: Class H
DV Tool @ 5200'						
Inter. Stage2	720	11	2.8	19	48	Lead: NeoCem
	100	14.8	1.35	6.34	8	Tail: Class C + 1% Cacl
5.5 Prod	400	12.7	2	10.6	16	Lead: 35:65:6 H Blend
	2990	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	10,850'	35%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	---

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4"	13-5/8"	5M	Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	10M	5M Annular	x	5000psi
			Blind Ram		10M
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.4 - 8.6	28-29	N/C
Surf csg	Int shoe	Diesel Brine Emul	8.6 - 9.4	30-40	N/C
Int shoe	Lateral TD	OBM	10.5 - 12.5	30-40	20

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	Are Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8100 psi at 12458' TVD
Abnormal Temperature	NO 180 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N H₂S is present

Y H₂S Plan attached

8. Other Facets of Operation

Y	Is it a walking operation?
N	Is casing pre-set?

x	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan
x	5M Annular Variance

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

FEZ FEDERAL PROJECT (BULLDOG 2535)

FEZ FEDERAL COM #710H

OWB

Plan: PWP1

Standard Survey Report

13 October, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	BULLDOG PROSPECT (NM-E)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	FEZ FEDERAL PROJECT (BULLDOG 2535)		
Site Position:		Northing:	398,637.10 usft
From:	Map	Easting:	741,887.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 36.820 N
		Longitude:	103° 33' 8.116 W
		Grid Convergence:	0.42 °

Well	FEZ FEDERAL COM #710H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty		3.0 usft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OWB		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2020	10/13/2020	6.52
			Dip Angle (°)
			59.88
			Field Strength (nT)
			47,535.05894368

Design	PWP1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			359.15

Survey Tool Program	Date	10/13/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	11,892.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
11,892.0	25,343.2	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
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	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	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	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	195.95	2,600.0	-1.7	-0.5	-1.7	2.00	2.00	0.00
2,700.0	4.00	195.95	2,699.8	-6.7	-1.9	-6.7	2.00	2.00	0.00
Start 3888.1 hold at 2700.0 MD									
2,800.0	4.00	195.95	2,799.6	-13.4	-3.8	-13.4	0.00	0.00	0.00
2,900.0	4.00	195.95	2,899.4	-20.1	-5.8	-20.0	0.00	0.00	0.00
3,000.0	4.00	195.95	2,999.1	-26.8	-7.7	-26.7	0.00	0.00	0.00
3,100.0	4.00	195.95	3,098.9	-33.5	-9.6	-33.4	0.00	0.00	0.00
3,200.0	4.00	195.95	3,198.6	-40.2	-11.5	-40.1	0.00	0.00	0.00
3,300.0	4.00	195.95	3,298.4	-47.0	-13.4	-46.7	0.00	0.00	0.00
3,400.0	4.00	195.95	3,398.1	-53.7	-15.3	-53.4	0.00	0.00	0.00
3,500.0	4.00	195.95	3,497.9	-60.4	-17.3	-60.1	0.00	0.00	0.00
3,600.0	4.00	195.95	3,597.6	-67.1	-19.2	-66.8	0.00	0.00	0.00
3,700.0	4.00	195.95	3,697.4	-73.8	-21.1	-73.5	0.00	0.00	0.00
3,800.0	4.00	195.95	3,797.2	-80.5	-23.0	-80.1	0.00	0.00	0.00
3,900.0	4.00	195.95	3,896.9	-87.2	-24.9	-86.8	0.00	0.00	0.00
4,000.0	4.00	195.95	3,996.7	-93.9	-26.8	-93.5	0.00	0.00	0.00
4,100.0	4.00	195.95	4,096.4	-100.6	-28.8	-100.2	0.00	0.00	0.00
4,200.0	4.00	195.95	4,196.2	-107.3	-30.7	-106.9	0.00	0.00	0.00
4,300.0	4.00	195.95	4,295.9	-114.0	-32.6	-113.5	0.00	0.00	0.00
4,400.0	4.00	195.95	4,395.7	-120.7	-34.5	-120.2	0.00	0.00	0.00
4,500.0	4.00	195.95	4,495.5	-127.4	-36.4	-126.9	0.00	0.00	0.00
4,600.0	4.00	195.95	4,595.2	-134.1	-38.3	-133.6	0.00	0.00	0.00
4,700.0	4.00	195.95	4,695.0	-140.8	-40.3	-140.2	0.00	0.00	0.00
4,800.0	4.00	195.95	4,794.7	-147.6	-42.2	-146.9	0.00	0.00	0.00
4,900.0	4.00	195.95	4,894.5	-154.3	-44.1	-153.6	0.00	0.00	0.00
5,000.0	4.00	195.95	4,994.2	-161.0	-46.0	-160.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)	
5,100.0	4.00	195.95	5,094.0	-167.7	-47.9	-167.0	0.00	0.00	0.00	
5,200.0	4.00	195.95	5,193.7	-174.4	-49.9	-173.6	0.00	0.00	0.00	
5,300.0	4.00	195.95	5,293.5	-181.1	-51.8	-180.3	0.00	0.00	0.00	
5,400.0	4.00	195.95	5,393.3	-187.8	-53.7	-187.0	0.00	0.00	0.00	
5,500.0	4.00	195.95	5,493.0	-194.5	-55.6	-193.7	0.00	0.00	0.00	
5,600.0	4.00	195.95	5,592.8	-201.2	-57.5	-200.3	0.00	0.00	0.00	
5,700.0	4.00	195.95	5,692.5	-207.9	-59.4	-207.0	0.00	0.00	0.00	
5,800.0	4.00	195.95	5,792.3	-214.6	-61.4	-213.7	0.00	0.00	0.00	
5,900.0	4.00	195.95	5,892.0	-221.3	-63.3	-220.4	0.00	0.00	0.00	
6,000.0	4.00	195.95	5,991.8	-228.0	-65.2	-227.1	0.00	0.00	0.00	
6,100.0	4.00	195.95	6,091.6	-234.7	-67.1	-233.7	0.00	0.00	0.00	
6,200.0	4.00	195.95	6,191.3	-241.5	-69.0	-240.4	0.00	0.00	0.00	
6,300.0	4.00	195.95	6,291.1	-248.2	-70.9	-247.1	0.00	0.00	0.00	
6,400.0	4.00	195.95	6,390.8	-254.9	-72.9	-253.8	0.00	0.00	0.00	
6,500.0	4.00	195.95	6,490.6	-261.6	-74.8	-260.4	0.00	0.00	0.00	
6,588.1	4.00	195.95	6,578.4	-267.5	-76.5	-266.3	0.00	0.00	0.00	
Start Drop -1.00										
6,600.0	3.88	195.95	6,590.3	-268.3	-76.7	-267.1	1.00	-1.00	0.00	
6,700.0	2.88	195.95	6,690.2	-273.9	-78.3	-272.8	1.00	-1.00	0.00	
6,800.0	1.88	195.95	6,790.1	-277.9	-79.5	-276.7	1.00	-1.00	0.00	
6,900.0	0.88	195.95	6,890.0	-280.2	-80.1	-279.0	1.00	-1.00	0.00	
6,988.1	0.00	0.00	6,978.1	-280.9	-80.3	-279.7	1.00	-1.00	0.00	
Start 4904.1 hold at 6988.1 MD										
7,000.0	0.00	0.00	6,990.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,090.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,190.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,290.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,390.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,490.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,590.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,690.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,790.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,890.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,990.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,090.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,190.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,290.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,390.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,490.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,590.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,690.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,790.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,890.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,990.0	-280.9	-80.3	-279.7	0.00	0.00	0.00	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
9,100.0	0.00	0.00	9,090.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,190.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,290.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,390.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,490.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,590.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,690.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,790.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,890.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,000.0	0.00	0.00	9,990.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,100.0	0.00	0.00	10,090.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,190.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,300.0	0.00	0.00	10,290.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,400.0	0.00	0.00	10,390.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,490.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,600.0	0.00	0.00	10,590.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,700.0	0.00	0.00	10,690.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,800.0	0.00	0.00	10,790.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
10,900.0	0.00	0.00	10,890.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,000.0	0.00	0.00	10,990.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,100.0	0.00	0.00	11,090.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,200.0	0.00	0.00	11,190.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,300.0	0.00	0.00	11,290.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,400.0	0.00	0.00	11,390.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,500.0	0.00	0.00	11,490.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,600.0	0.00	0.00	11,590.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,700.0	0.00	0.00	11,690.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,800.0	0.00	0.00	11,790.0	-280.9	-80.3	-279.7	0.00	0.00	0.00
11,892.2	0.00	0.00	11,882.2	-280.9	-80.3	-279.7	0.00	0.00	0.00
Start DLS 10.00 TFO 359.53									
11,900.0	0.78	359.53	11,890.0	-280.8	-80.3	-279.6	10.00	10.00	0.00
12,000.0	10.78	359.53	11,989.4	-270.8	-80.4	-269.6	10.00	10.00	0.00
12,100.0	20.78	359.53	12,085.5	-243.6	-80.6	-242.4	10.00	10.00	0.00
12,200.0	30.78	359.53	12,175.4	-200.2	-81.0	-199.0	10.00	10.00	0.00
12,300.0	40.78	359.53	12,256.5	-141.8	-81.4	-140.6	10.00	10.00	0.00
12,400.0	50.78	359.53	12,326.1	-70.2	-82.0	-69.0	10.00	10.00	0.00
12,500.0	60.78	359.53	12,382.3	12.4	-82.7	13.6	10.00	10.00	0.00
12,600.0	70.78	359.53	12,423.2	103.5	-83.5	104.7	10.00	10.00	0.00
12,700.0	80.78	359.53	12,447.8	200.3	-84.2	201.5	10.00	10.00	0.00
12,800.0	90.78	359.53	12,455.1	299.9	-85.1	301.1	10.00	10.00	0.00
12,805.4	91.33	359.53	12,455.0	305.3	-85.1	306.5	10.00	10.00	0.00
Start 4744.9 hold at 12805.4 MD									
12,900.0	91.33	359.53	12,452.8	399.8	-85.9	401.1	0.00	0.00	0.00
13,000.0	91.33	359.53	12,450.5	499.8	-86.7	501.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
13,100.0	91.33	359.53	12,448.2	599.8	-87.5	601.0	0.00	0.00	0.00
13,200.0	91.33	359.53	12,445.9	699.8	-88.3	701.0	0.00	0.00	0.00
13,300.0	91.33	359.53	12,443.5	799.7	-89.2	801.0	0.00	0.00	0.00
13,400.0	91.33	359.53	12,441.2	899.7	-90.0	900.9	0.00	0.00	0.00
13,500.0	91.33	359.53	12,438.9	999.7	-90.8	1,000.9	0.00	0.00	0.00
13,600.0	91.33	359.53	12,436.6	1,099.6	-91.6	1,100.9	0.00	0.00	0.00
13,700.0	91.33	359.53	12,434.3	1,199.6	-92.4	1,200.8	0.00	0.00	0.00
13,800.0	91.33	359.53	12,431.9	1,299.6	-93.3	1,300.8	0.00	0.00	0.00
13,900.0	91.33	359.53	12,429.6	1,399.5	-94.1	1,400.8	0.00	0.00	0.00
14,000.0	91.33	359.53	12,427.3	1,499.5	-94.9	1,500.8	0.00	0.00	0.00
14,100.0	91.33	359.53	12,425.0	1,599.5	-95.7	1,600.7	0.00	0.00	0.00
14,200.0	91.33	359.53	12,422.7	1,699.5	-96.5	1,700.7	0.00	0.00	0.00
14,300.0	91.33	359.53	12,420.4	1,799.4	-97.4	1,800.7	0.00	0.00	0.00
14,400.0	91.33	359.53	12,418.0	1,899.4	-98.2	1,900.6	0.00	0.00	0.00
14,500.0	91.33	359.53	12,415.7	1,999.4	-99.0	2,000.6	0.00	0.00	0.00
14,600.0	91.33	359.53	12,413.4	2,099.3	-99.8	2,100.6	0.00	0.00	0.00
14,700.0	91.33	359.53	12,411.1	2,199.3	-100.6	2,200.6	0.00	0.00	0.00
14,800.0	91.33	359.53	12,408.8	2,299.3	-101.5	2,300.5	0.00	0.00	0.00
14,900.0	91.33	359.53	12,406.4	2,399.2	-102.3	2,400.5	0.00	0.00	0.00
15,000.0	91.33	359.53	12,404.1	2,499.2	-103.1	2,500.5	0.00	0.00	0.00
15,100.0	91.33	359.53	12,401.8	2,599.2	-103.9	2,600.4	0.00	0.00	0.00
15,200.0	91.33	359.53	12,399.5	2,699.2	-104.7	2,700.4	0.00	0.00	0.00
15,300.0	91.33	359.53	12,397.2	2,799.1	-105.6	2,800.4	0.00	0.00	0.00
15,400.0	91.33	359.53	12,394.9	2,899.1	-106.4	2,900.3	0.00	0.00	0.00
15,500.0	91.33	359.53	12,392.5	2,999.1	-107.2	3,000.3	0.00	0.00	0.00
15,600.0	91.33	359.53	12,390.2	3,099.0	-108.0	3,100.3	0.00	0.00	0.00
15,700.0	91.33	359.53	12,387.9	3,199.0	-108.8	3,200.3	0.00	0.00	0.00
15,800.0	91.33	359.53	12,385.6	3,299.0	-109.7	3,300.2	0.00	0.00	0.00
15,900.0	91.33	359.53	12,383.3	3,398.9	-110.5	3,400.2	0.00	0.00	0.00
16,000.0	91.33	359.53	12,380.9	3,498.9	-111.3	3,500.2	0.00	0.00	0.00
16,100.0	91.33	359.53	12,378.6	3,598.9	-112.1	3,600.1	0.00	0.00	0.00
16,200.0	91.33	359.53	12,376.3	3,698.9	-112.9	3,700.1	0.00	0.00	0.00
16,300.0	91.33	359.53	12,374.0	3,798.8	-113.8	3,800.1	0.00	0.00	0.00
16,400.0	91.33	359.53	12,371.7	3,898.8	-114.6	3,900.1	0.00	0.00	0.00
16,500.0	91.33	359.53	12,369.4	3,998.8	-115.4	4,000.0	0.00	0.00	0.00
16,600.0	91.33	359.53	12,367.0	4,098.7	-116.2	4,100.0	0.00	0.00	0.00
16,700.0	91.33	359.53	12,364.7	4,198.7	-117.0	4,200.0	0.00	0.00	0.00
16,800.0	91.33	359.53	12,362.4	4,298.7	-117.8	4,299.9	0.00	0.00	0.00
16,900.0	91.33	359.53	12,360.1	4,398.6	-118.7	4,399.9	0.00	0.00	0.00
17,000.0	91.33	359.53	12,357.8	4,498.6	-119.5	4,499.9	0.00	0.00	0.00
17,100.0	91.33	359.53	12,355.4	4,598.6	-120.3	4,599.9	0.00	0.00	0.00
17,200.0	91.33	359.53	12,353.1	4,698.5	-121.1	4,699.8	0.00	0.00	0.00
17,300.0	91.33	359.53	12,350.8	4,798.5	-121.9	4,799.8	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
17,400.0	91.33	359.53	12,348.5	4,898.5	-122.8	4,899.8	0.00	0.00	0.00
17,500.0	91.33	359.53	12,346.2	4,998.5	-123.6	4,999.7	0.00	0.00	0.00
17,550.4	91.33	359.53	12,345.0	5,048.8	-124.0	5,050.1	0.00	0.00	0.00
Start DLS 2.00 TFO -179.67									
17,600.0	90.34	359.52	12,344.3	5,098.4	-124.4	5,099.7	2.00	-2.00	-0.01
17,635.8	89.62	359.52	12,344.3	5,134.2	-124.7	5,135.5	2.00	-2.00	-0.01
Start 4634.8 hold at 17635.8 MD									
17,700.0	89.62	359.52	12,344.7	5,198.4	-125.2	5,199.7	0.00	0.00	0.00
17,800.0	89.62	359.52	12,345.4	5,298.4	-126.1	5,299.7	0.00	0.00	0.00
17,900.0	89.62	359.52	12,346.0	5,398.4	-126.9	5,399.7	0.00	0.00	0.00
18,000.0	89.62	359.52	12,346.7	5,498.4	-127.8	5,499.7	0.00	0.00	0.00
18,100.0	89.62	359.52	12,347.4	5,598.4	-128.6	5,599.7	0.00	0.00	0.00
18,200.0	89.62	359.52	12,348.0	5,698.4	-129.4	5,699.7	0.00	0.00	0.00
18,300.0	89.62	359.52	12,348.7	5,798.4	-130.3	5,799.7	0.00	0.00	0.00
18,400.0	89.62	359.52	12,349.4	5,898.4	-131.1	5,899.7	0.00	0.00	0.00
18,500.0	89.62	359.52	12,350.0	5,998.4	-131.9	5,999.7	0.00	0.00	0.00
18,600.0	89.62	359.52	12,350.7	6,098.4	-132.8	6,099.7	0.00	0.00	0.00
18,700.0	89.62	359.52	12,351.3	6,198.4	-133.6	6,199.7	0.00	0.00	0.00
18,800.0	89.62	359.52	12,352.0	6,298.4	-134.5	6,299.7	0.00	0.00	0.00
18,900.0	89.62	359.52	12,352.7	6,398.4	-135.3	6,399.7	0.00	0.00	0.00
19,000.0	89.62	359.52	12,353.3	6,498.4	-136.1	6,499.7	0.00	0.00	0.00
19,100.0	89.62	359.52	12,354.0	6,598.4	-137.0	6,599.7	0.00	0.00	0.00
19,200.0	89.62	359.52	12,354.7	6,698.3	-137.8	6,699.6	0.00	0.00	0.00
19,300.0	89.62	359.52	12,355.3	6,798.3	-138.6	6,799.6	0.00	0.00	0.00
19,400.0	89.62	359.52	12,356.0	6,898.3	-139.5	6,899.6	0.00	0.00	0.00
19,500.0	89.62	359.52	12,356.6	6,998.3	-140.3	6,999.6	0.00	0.00	0.00
19,600.0	89.62	359.52	12,357.3	7,098.3	-141.1	7,099.6	0.00	0.00	0.00
19,700.0	89.62	359.52	12,358.0	7,198.3	-142.0	7,199.6	0.00	0.00	0.00
19,800.0	89.62	359.52	12,358.6	7,298.3	-142.8	7,299.6	0.00	0.00	0.00
19,900.0	89.62	359.52	12,359.3	7,398.3	-143.7	7,399.6	0.00	0.00	0.00
20,000.0	89.62	359.52	12,360.0	7,498.3	-144.5	7,499.6	0.00	0.00	0.00
20,100.0	89.62	359.52	12,360.6	7,598.3	-145.3	7,599.6	0.00	0.00	0.00
20,200.0	89.62	359.52	12,361.3	7,698.3	-146.2	7,699.6	0.00	0.00	0.00
20,300.0	89.62	359.52	12,361.9	7,798.3	-147.0	7,799.6	0.00	0.00	0.00
20,400.0	89.62	359.52	12,362.6	7,898.3	-147.8	7,899.6	0.00	0.00	0.00
20,500.0	89.62	359.52	12,363.3	7,998.3	-148.7	7,999.6	0.00	0.00	0.00
20,600.0	89.62	359.52	12,363.9	8,098.3	-149.5	8,099.6	0.00	0.00	0.00
20,700.0	89.62	359.52	12,364.6	8,198.3	-150.4	8,199.6	0.00	0.00	0.00
20,800.0	89.62	359.52	12,365.3	8,298.3	-151.2	8,299.6	0.00	0.00	0.00
20,900.0	89.62	359.52	12,365.9	8,398.2	-152.0	8,399.6	0.00	0.00	0.00
21,000.0	89.62	359.52	12,366.6	8,498.2	-152.9	8,499.6	0.00	0.00	0.00
21,100.0	89.62	359.52	12,367.2	8,598.2	-153.7	8,599.6	0.00	0.00	0.00
21,200.0	89.62	359.52	12,367.9	8,698.2	-154.5	8,699.6	0.00	0.00	0.00
21,300.0	89.62	359.52	12,368.6	8,798.2	-155.4	8,799.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
21,400.0	89.62	359.52	12,369.2	8,898.2	-156.2	8,899.6	0.00	0.00	0.00
21,500.0	89.62	359.52	12,369.9	8,998.2	-157.1	8,999.6	0.00	0.00	0.00
21,600.0	89.62	359.52	12,370.6	9,098.2	-157.9	9,099.5	0.00	0.00	0.00
21,700.0	89.62	359.52	12,371.2	9,198.2	-158.7	9,199.5	0.00	0.00	0.00
21,800.0	89.62	359.52	12,371.9	9,298.2	-159.6	9,299.5	0.00	0.00	0.00
21,900.0	89.62	359.52	12,372.5	9,398.2	-160.4	9,399.5	0.00	0.00	0.00
22,000.0	89.62	359.52	12,373.2	9,498.2	-161.2	9,499.5	0.00	0.00	0.00
22,100.0	89.62	359.52	12,373.9	9,598.2	-162.1	9,599.5	0.00	0.00	0.00
22,200.0	89.62	359.52	12,374.5	9,698.2	-162.9	9,699.5	0.00	0.00	0.00
22,270.6	89.62	359.52	12,375.0	9,768.7	-163.5	9,770.1	0.00	0.00	0.00
Start DLS 2.00 TFO -1.56									
22,280.3	89.81	359.52	12,375.0	9,778.4	-163.6	9,779.8	2.00	2.00	-0.05
Start 3062.9 hold at 22280.3 MD									
22,300.0	89.81	359.52	12,375.1	9,798.2	-163.7	9,799.5	0.00	0.00	0.00
22,400.0	89.81	359.52	12,375.4	9,898.2	-164.6	9,899.5	0.00	0.00	0.00
22,500.0	89.81	359.52	12,375.8	9,998.2	-165.4	9,999.5	0.00	0.00	0.00
22,600.0	89.81	359.52	12,376.1	10,098.2	-166.3	10,099.5	0.00	0.00	0.00
22,700.0	89.81	359.52	12,376.4	10,198.2	-167.1	10,199.5	0.00	0.00	0.00
22,800.0	89.81	359.52	12,376.7	10,298.1	-168.0	10,299.5	0.00	0.00	0.00
22,900.0	89.81	359.52	12,377.1	10,398.1	-168.8	10,399.5	0.00	0.00	0.00
23,000.0	89.81	359.52	12,377.4	10,498.1	-169.7	10,499.5	0.00	0.00	0.00
23,100.0	89.81	359.52	12,377.7	10,598.1	-170.5	10,599.5	0.00	0.00	0.00
23,200.0	89.81	359.52	12,378.0	10,698.1	-171.4	10,699.5	0.00	0.00	0.00
23,300.0	89.81	359.52	12,378.4	10,798.1	-172.2	10,799.5	0.00	0.00	0.00
23,400.0	89.81	359.52	12,378.7	10,898.1	-173.1	10,899.5	0.00	0.00	0.00
23,500.0	89.81	359.52	12,379.0	10,998.1	-173.9	10,999.5	0.00	0.00	0.00
23,600.0	89.81	359.52	12,379.3	11,098.1	-174.7	11,099.5	0.00	0.00	0.00
23,700.0	89.81	359.52	12,379.7	11,198.1	-175.6	11,199.5	0.00	0.00	0.00
23,800.0	89.81	359.52	12,380.0	11,298.1	-176.4	11,299.5	0.00	0.00	0.00
23,900.0	89.81	359.52	12,380.3	11,398.1	-177.3	11,399.5	0.00	0.00	0.00
24,000.0	89.81	359.52	12,380.6	11,498.1	-178.1	11,499.5	0.00	0.00	0.00
24,100.0	89.81	359.52	12,381.0	11,598.1	-179.0	11,599.5	0.00	0.00	0.00
24,200.0	89.81	359.52	12,381.3	11,698.1	-179.8	11,699.5	0.00	0.00	0.00
24,300.0	89.81	359.52	12,381.6	11,798.1	-180.7	11,799.5	0.00	0.00	0.00
24,400.0	89.81	359.52	12,381.9	11,898.1	-181.5	11,899.5	0.00	0.00	0.00
24,500.0	89.81	359.52	12,382.3	11,998.1	-182.4	11,999.5	0.00	0.00	0.00
24,600.0	89.81	359.52	12,382.6	12,098.1	-183.2	12,099.5	0.00	0.00	0.00
24,700.0	89.81	359.52	12,382.9	12,198.1	-184.1	12,199.5	0.00	0.00	0.00
24,800.0	89.81	359.52	12,383.2	12,298.1	-184.9	12,299.5	0.00	0.00	0.00
24,900.0	89.81	359.52	12,383.6	12,398.1	-185.7	12,399.5	0.00	0.00	0.00
25,000.0	89.81	359.52	12,383.9	12,498.1	-186.6	12,499.5	0.00	0.00	0.00
25,100.0	89.81	359.52	12,384.2	12,598.1	-187.4	12,599.4	0.00	0.00	0.00
25,200.0	89.81	359.52	12,384.5	12,698.1	-188.3	12,699.4	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FEZ FEDERAL COM #710H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3268.7usft (TBD)
Site:	FEZ FEDERAL PROJECT (BULLDOG 2535)	MD Reference:	*KB=30' @ 3268.7usft (TBD)
Well:	FEZ FEDERAL COM #710H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
25,300.0	89.81	359.52	12,384.9	12,798.0	-189.1	12,799.4	0.00	0.00	0.00
25,343.2	89.81	359.52	12,385.0	12,841.2	-189.5	12,842.6	0.00	0.00	0.00
TD at 25343.2									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
5280' FFTP (FEZ FEC	1.33	179.53	12,345.0	5,048.8	-124.0	420,465.73	798,513.00	32° 9' 8.284 N	103° 22' 7.658 W
- plan hits target center									
- Rectangle (sides W100.0 H5,330.0 D20.0)									
10000' FFTP (FEZ FE	-0.38	179.52	12,375.0	9,768.7	-163.5	425,185.65	798,473.50	32° 9' 54.991 N	103° 22' 7.625 W
- plan hits target center									
- Rectangle (sides W100.0 H4,713.0 D20.0)									
LTP (FEZ FED COM #	0.00	0.00	12,385.0	12,791.2	-189.1	428,208.10	798,447.90	32° 10' 24.901 N	103° 22' 7.608 W
- plan misses target center by 0.2usft at 25293.2usft MD (12384.8 TVD, 12791.2 N, -189.1 E)									
- Point									
PBHL (FEZ FED COM	-0.19	179.52	12,385.0	12,841.2	-189.5	428,258.10	798,447.50	32° 10' 25.396 N	103° 22' 7.607 W
- plan hits target center									
- Rectangle (sides W100.0 H3,072.0 D20.0)									
FTP (FEZ FED COM ;	0.00	0.00	12,455.0	-230.9	-78.3	415,186.00	798,558.70	32° 8' 16.036 N	103° 22' 7.676 W
- plan misses target center by 202.8usft at 12374.7usft MD (12309.7 TVD, -89.5 N, -81.9 E)									
- Circle (radius 50.0)									

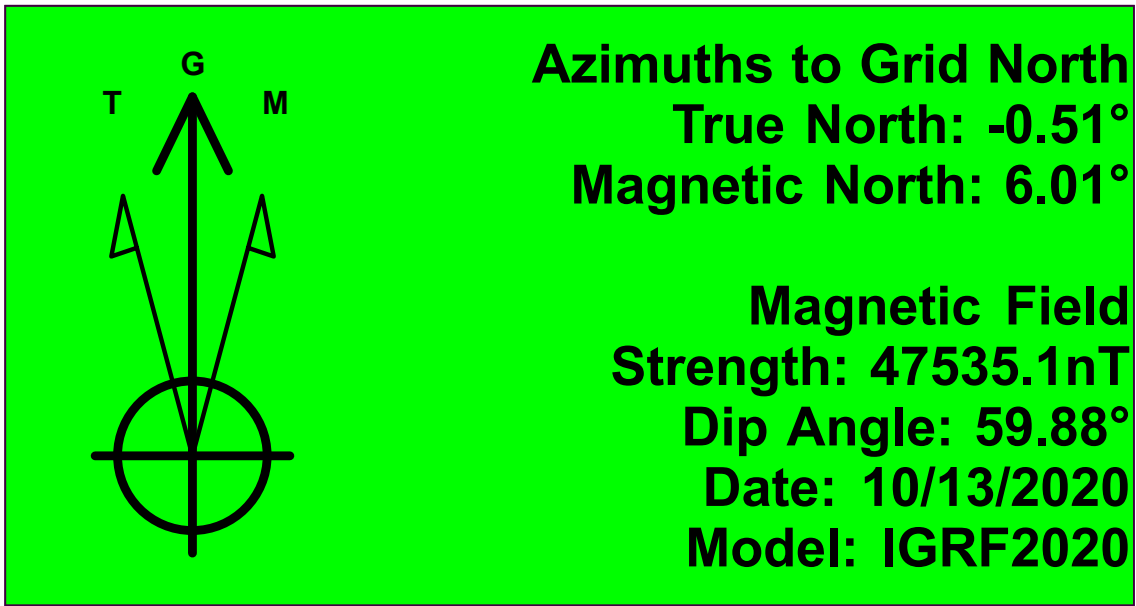
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
2500	2500	0	0	Start Build 2.00
2700	2700	-7	-2	Start 3888.1 hold at 2700.0 MD
6588	6578	-267	-76	Start Drop -1.00
6988	6978	-281	-80	Start 4904.1 hold at 6988.1 MD
11,892	11,882	-281	-80	Start DLS 10.00 TFO 359.53
12,805	12,455	305	-85	Start 4744.9 hold at 12805.4 MD
17,550	12,345	5049	-124	Start DLS 2.00 TFO -179.67
17,636	12,344	5134	-125	Start 4634.8 hold at 17635.8 MD
22,271	12,375	9769	-164	Start DLS 2.00 TFO -1.56
22,280	12,375	9778	-164	Start 3062.9 hold at 22280.3 MD
25,343	12,385	12,841	-189	TD at 25343.2

Checked By: _____ Approved By: _____ Date: _____

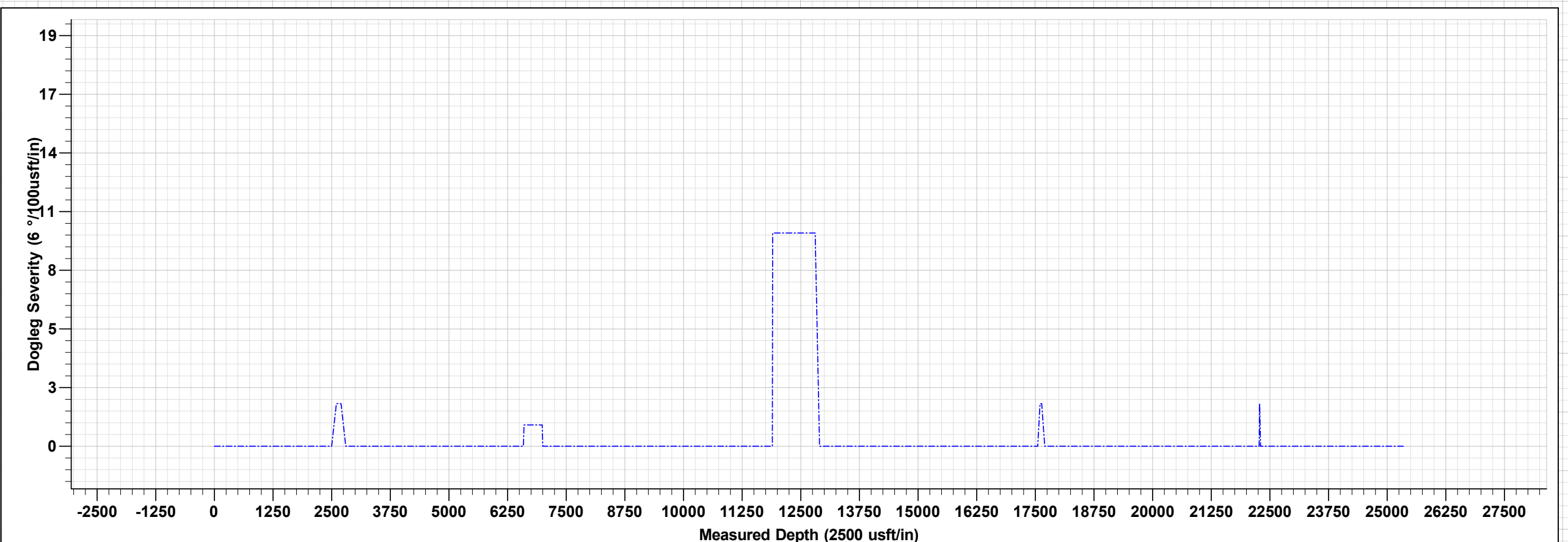
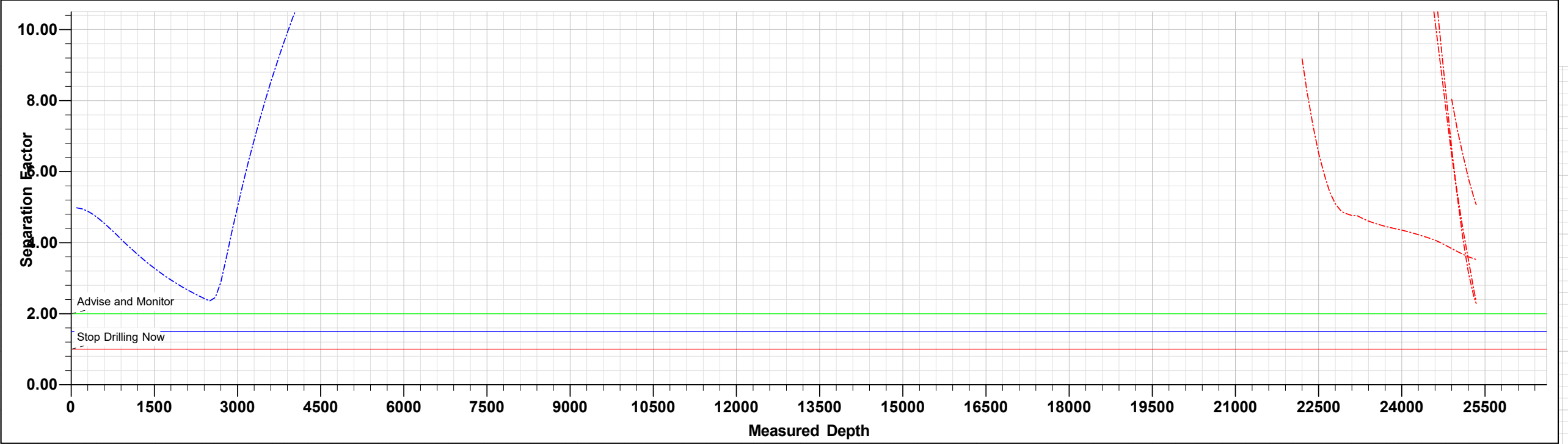


Project: BULLDOG PROSPECT (NM-E)
Site: FEZ FEDERAL PROJECT (BULLDOG 2535)
Well: FEZ FEDERAL COM #710H
Wellbore: OWB
Design: PWP1
GL: 3238.7
*KB=30' @ 3268.7usft (TBD)

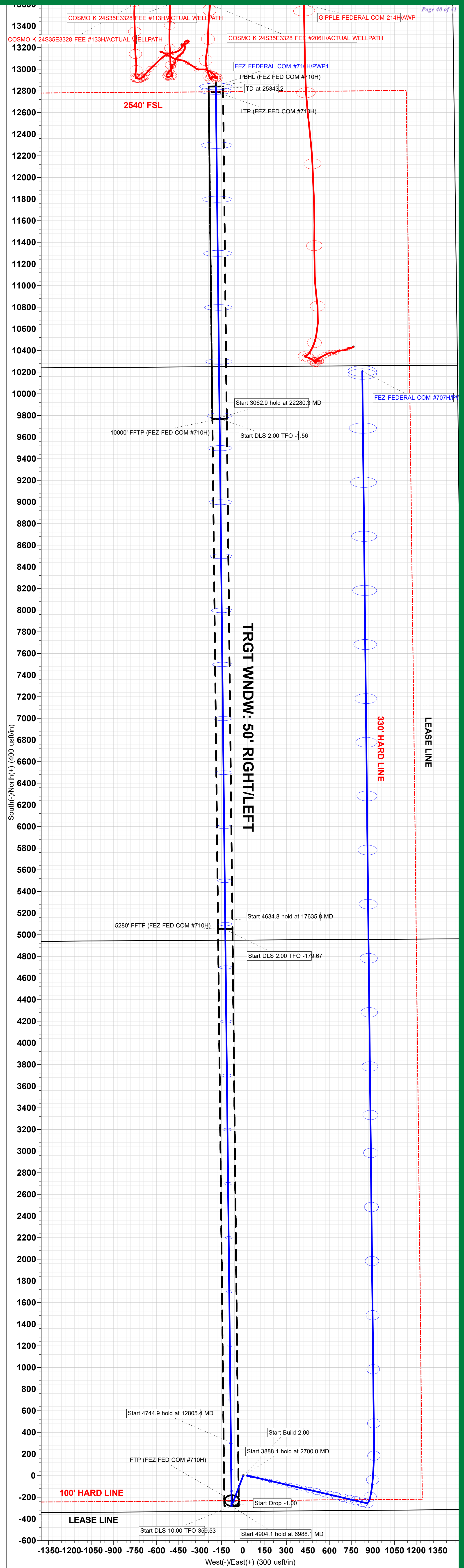
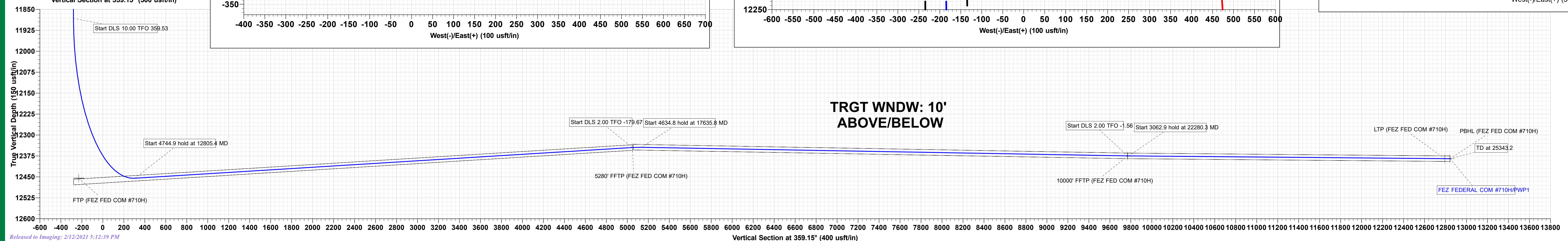
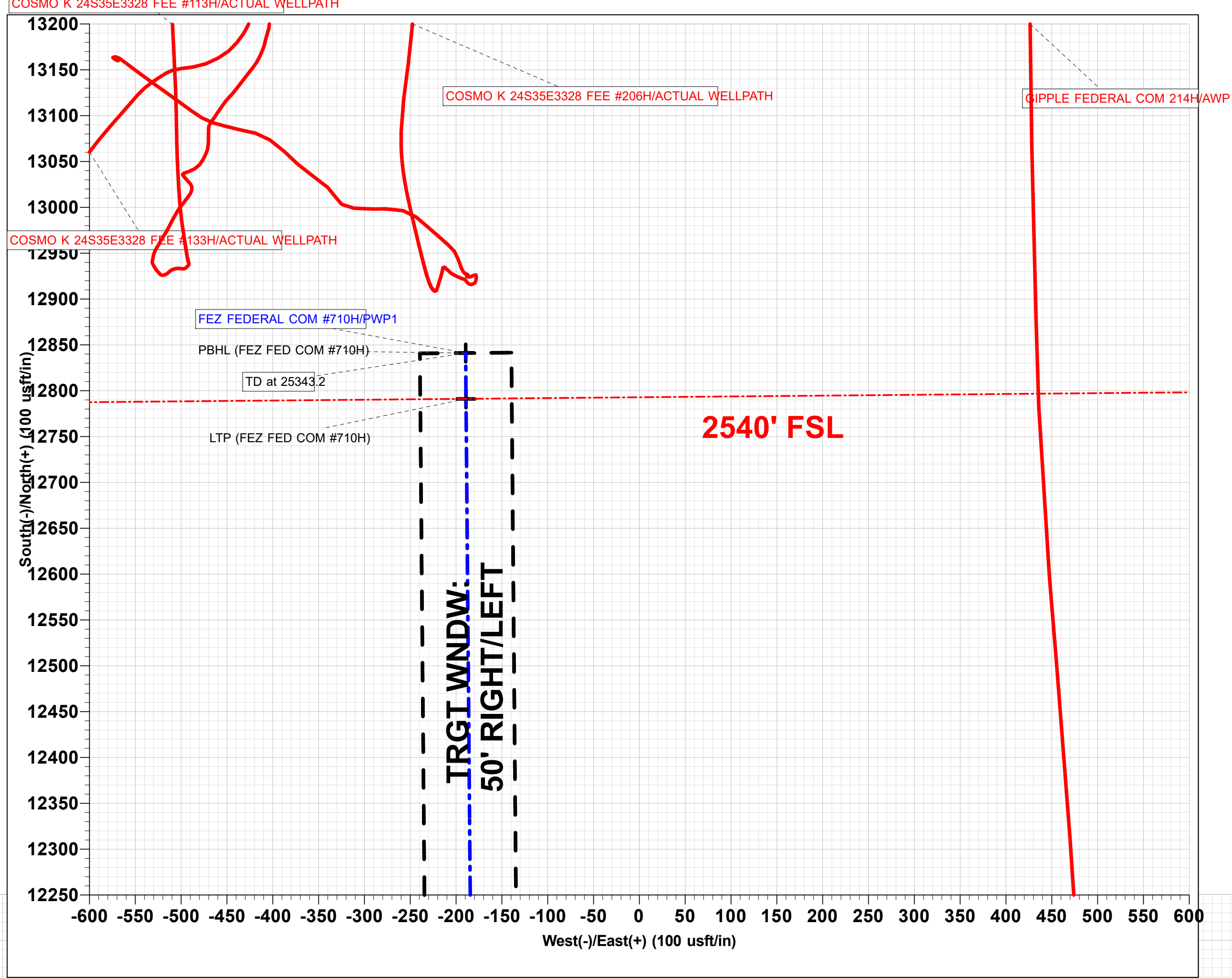
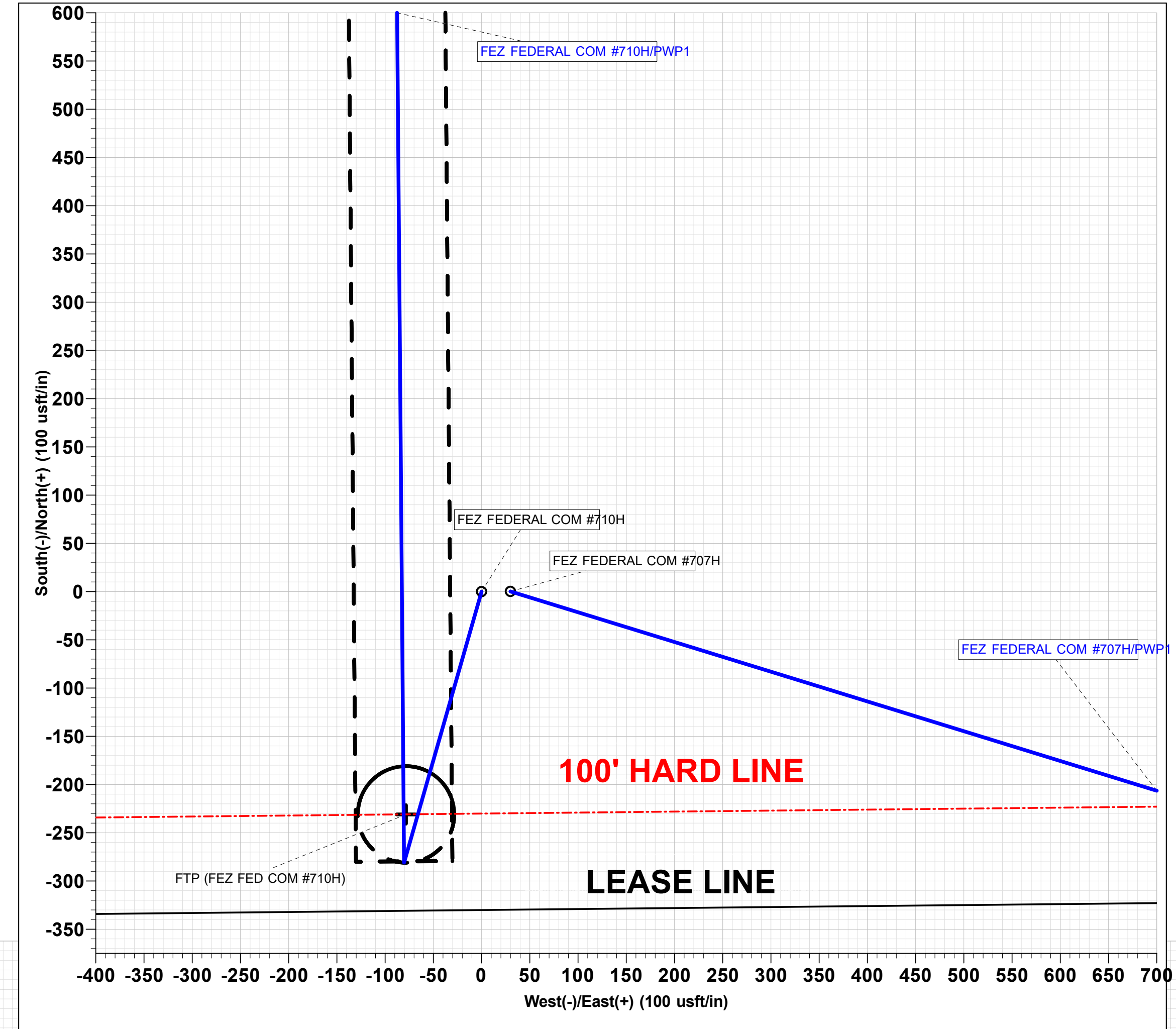
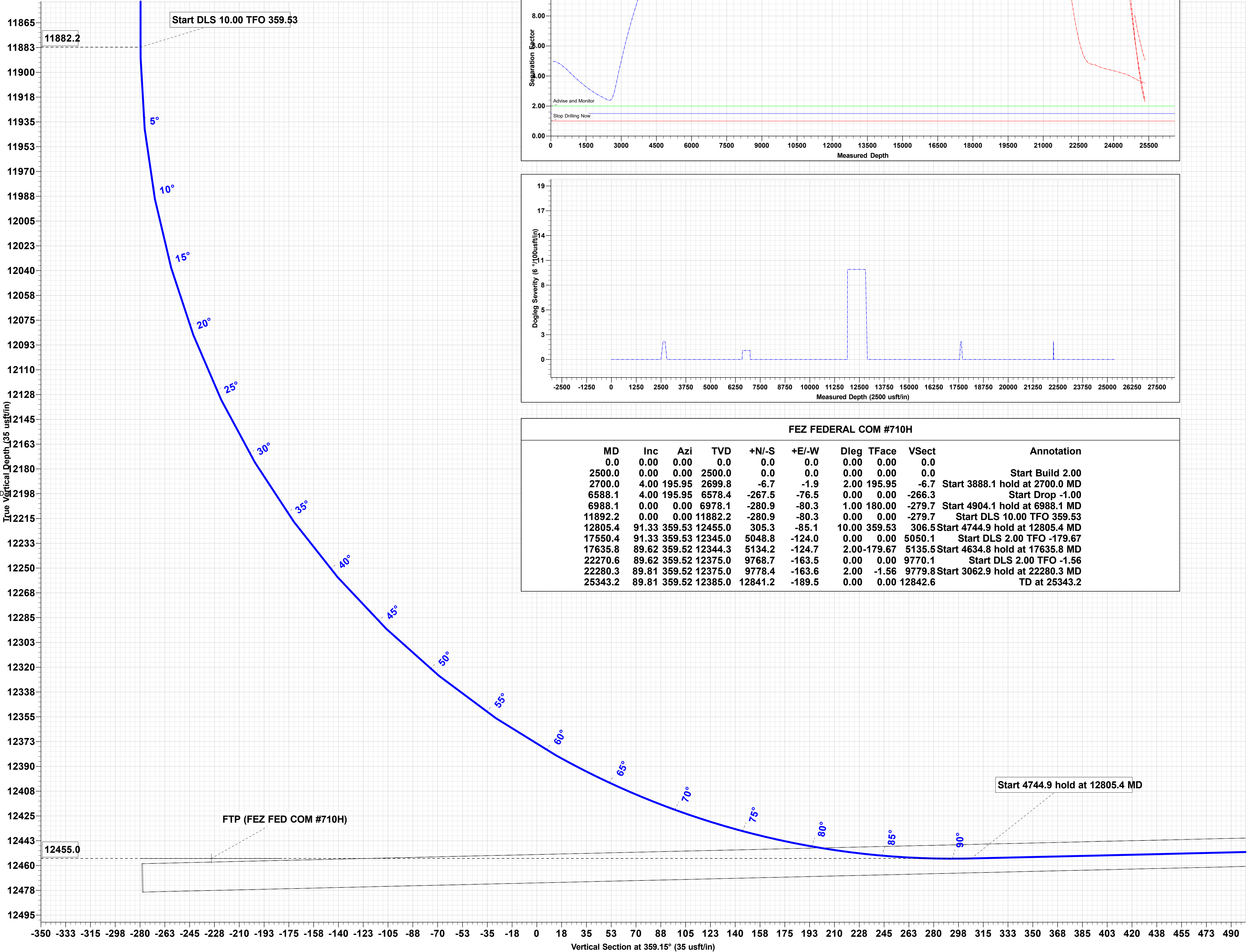
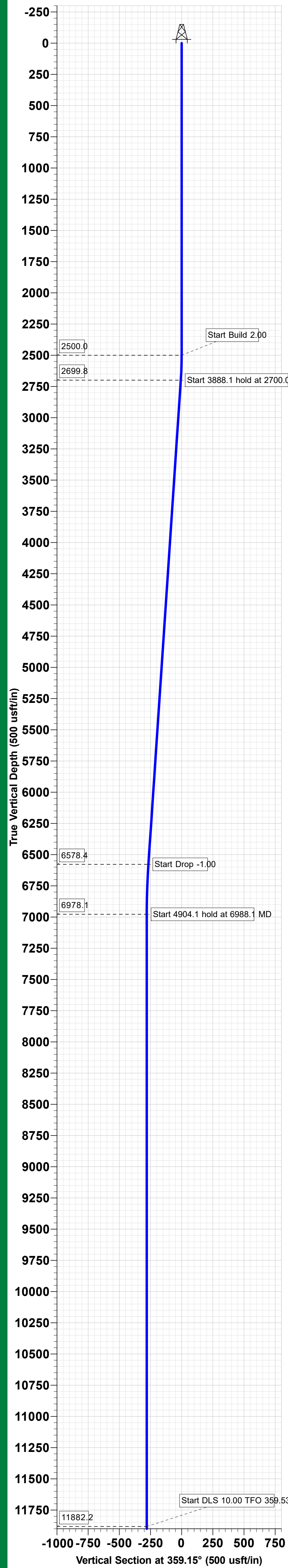


WELL DETAILS: FEZ FEDERAL COM #710H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	415416.90	798637.00	32° 8' 18.314 N	103° 22' 6.742 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
5280' FFTP (FEZ FED COM #710H)	12345.0	5048.8	-124.0	420465.73	798513.00	32° 9' 8.284 N
10000' FFTP (FEZ FED COM #710H)	12375.0	9768.7	-163.5	425185.65	798473.50	32° 9' 54.991 N
LTP (FEZ FED COM #710H)	12385.0	12791.2	-189.1	428208.10	798447.90	32° 10' 24.901 N
PBHL (FEZ FED COM #710H)	12385.0	12841.2	-189.5	428258.10	798447.50	32° 10' 25.396 N
FTP (FEZ FED COM #710H)	12455.0	-230.9	-78.3	415186.00	798558.70	32° 8' 16.036 N



FEZ FEDERAL COM #710H									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2700.0	4.00	195.95	2699.8	-6.7	-1.9	2.00	195.95	-6.7	Start 3888.1 hold at 2700.0 MD
6588.1	4.00	195.95	6578.4	-267.5	-76.5	0.00	0.00	-266.3	Start Drop -1.00
6988.1	0.00	0.00	6978.1	-280.9	-80.3	1.00	180.00	-279.7	Start 4904.1 hold at 6988.1 MD
11892.2	0.00	0.00	11882.2	-280.9	-80.3	0.00	0.00	-279.7	Start DLS 10.00 TFO 359.53
12805.4	91.33	359.53	12455.0	305.3	-85.1	10.00	359.53	306.5	Start 4744.9 hold at 12805.4 MD
17550.4	91.33	359.53	12345.0	5048.8	-124.0	0.00	0.00	5050.1	Start DLS 2.00 TFO -179.67
17635.8	89.62	359.52	12344.3	5134.2	-124.7	2.00	-179.67	5135.5	Start 4634.8 hold at 17635.8 MD
22270.6	89.62	359.52	12375.0	9768.7	-163.5	0.00	0.00	9770.1	Start DLS 2.00 TFO -1.56
22280.3	89.81	359.52	12375.0	9778.4	-163.6	2.00	-1.56	9779.8	Start 3062.9 hold at 22280.3 MD
25343.2	89.81	359.52	12385.0	12841.2	-189.5	0.00	0.00	12842.6	TD at 25343.2



TRGT WNDW: 10'
ABOVE/BELOW

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 17724

CONDITIONS OF APPROVAL

Operator:	COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	OGRID:	229137	Action Number:	17724	Action Type:	C-103A
OCD Reviewer	Condition								
pkautz	None								