

**NM OIL CONSERVATION
ARTESIA DISTRICT**

AUG 27 2018

Form C-102

Revised August 1, 2011

RECEIVED

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

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 Grande Blvd., 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45215	Pool Code 96473	Pool Name Pierce Crossing, Bone Spring, East
Property Code 322293	Property Name REFRIED BEANS CC "15_16" STATE COM	Well Number 12H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 2938.8'

Surface Location

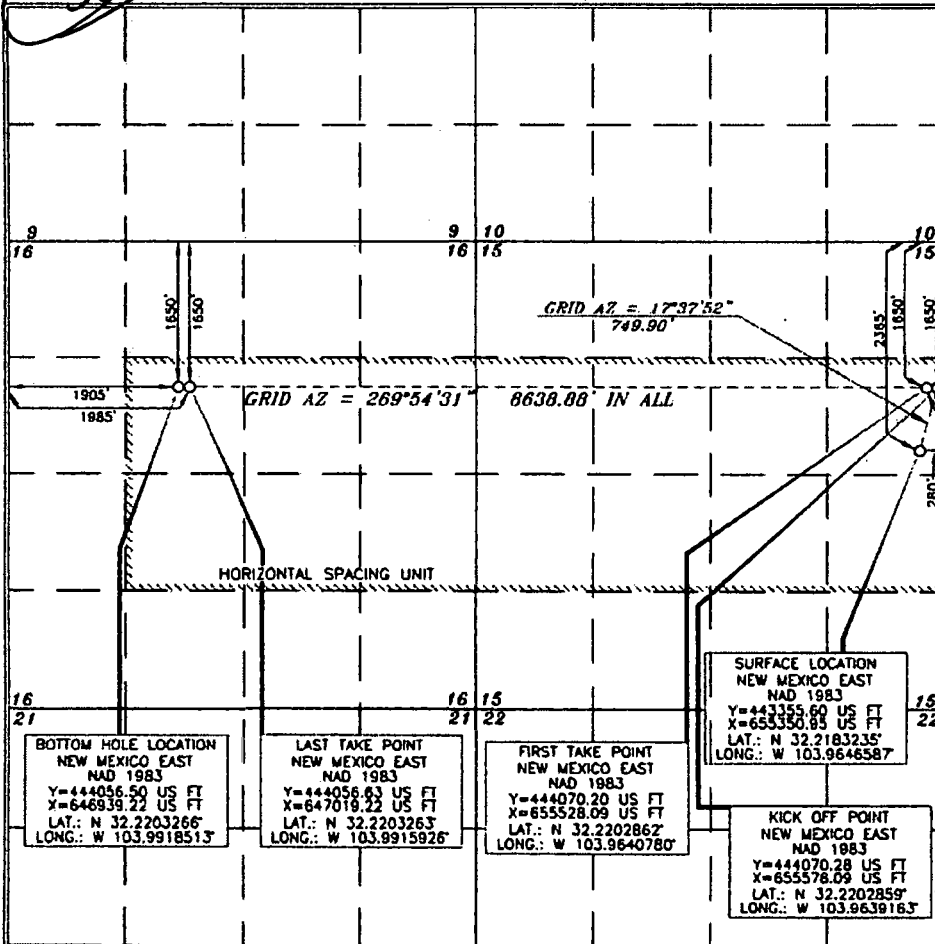
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
H	15	24 SOUTH	29 EAST, N.M.P.M.		2365'	NORTH	280'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	16	24 SOUTH	29 EAST, N.M.P.M.		1650'	NORTH	1905'	WEST	EDDY

Dedicated Acres 2.90	Joint or Infill Infill	Consolidation Code	Order No. Defining well: Refried Beans CC 15-16 State Com #1314
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

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

Sarah Chapman 8/15/18
Signature Date

Sarah Chapman
Printed Name

Sarah.chapman@oxy.com
Email Address

SURVEYOR CERTIFICATION

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

15079
Date of Survey

15079
Signature and Seal
Professional Surveyor

15079
Certificate Number

WD# 180522WL-a (Rev. A) (NA)

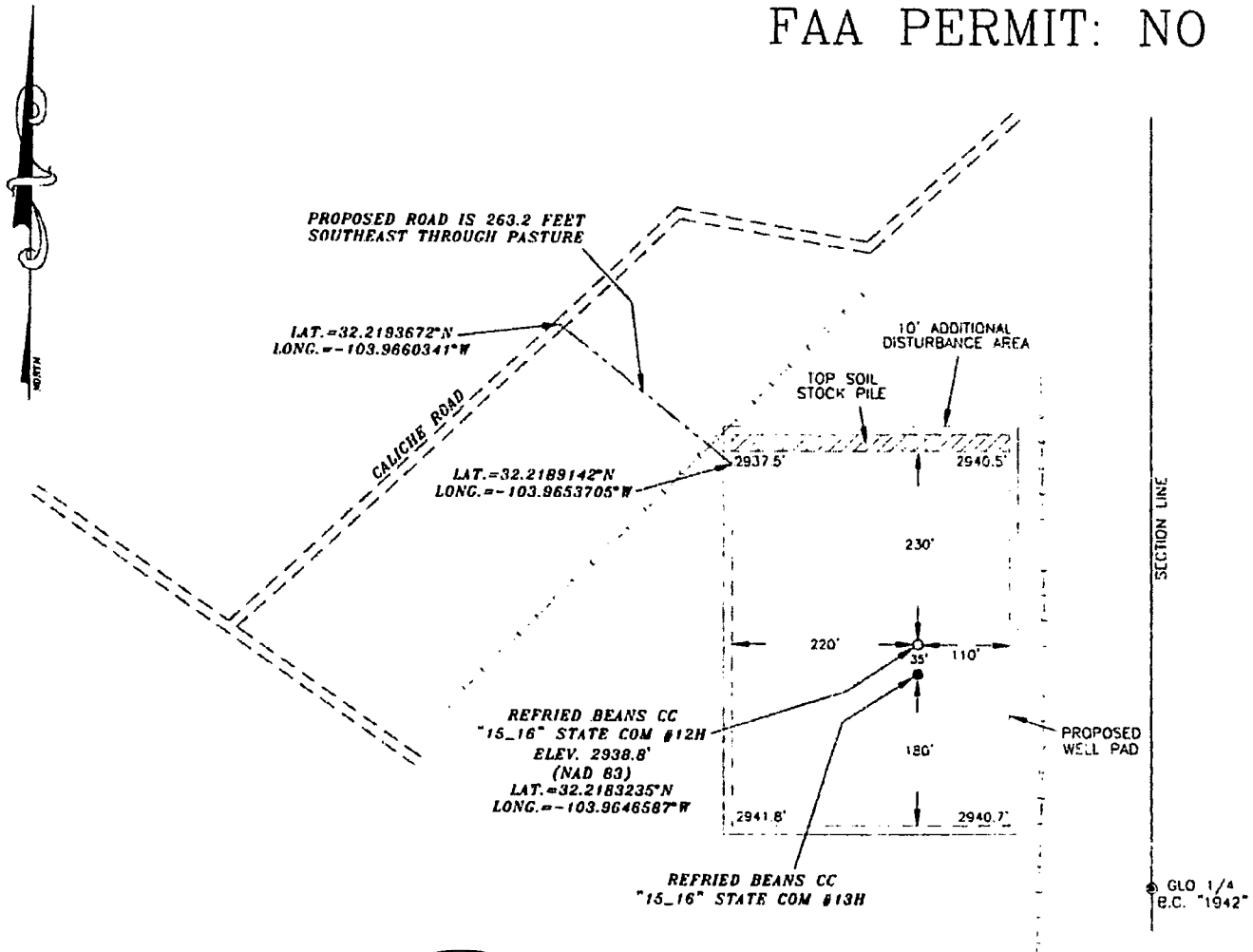
8-28-18.
RUF.

OXY USA INC.

REFRIED BEANS CC "15_16" STATE COM #12H

SITE PLAN

FAA PERMIT: NO



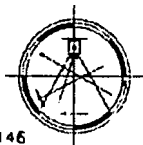
SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 7/25/2018
Terry J. Asel, N.M. R.P.L.S. No. 15079

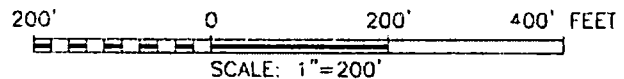
Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146



LEGEND

- - - - - DENOTES PROPOSED WELL PAD
- - - - - DENOTES PROPOSED ROAD
- ▨▨▨▨▨ DENOTES STOCK PILE AREA

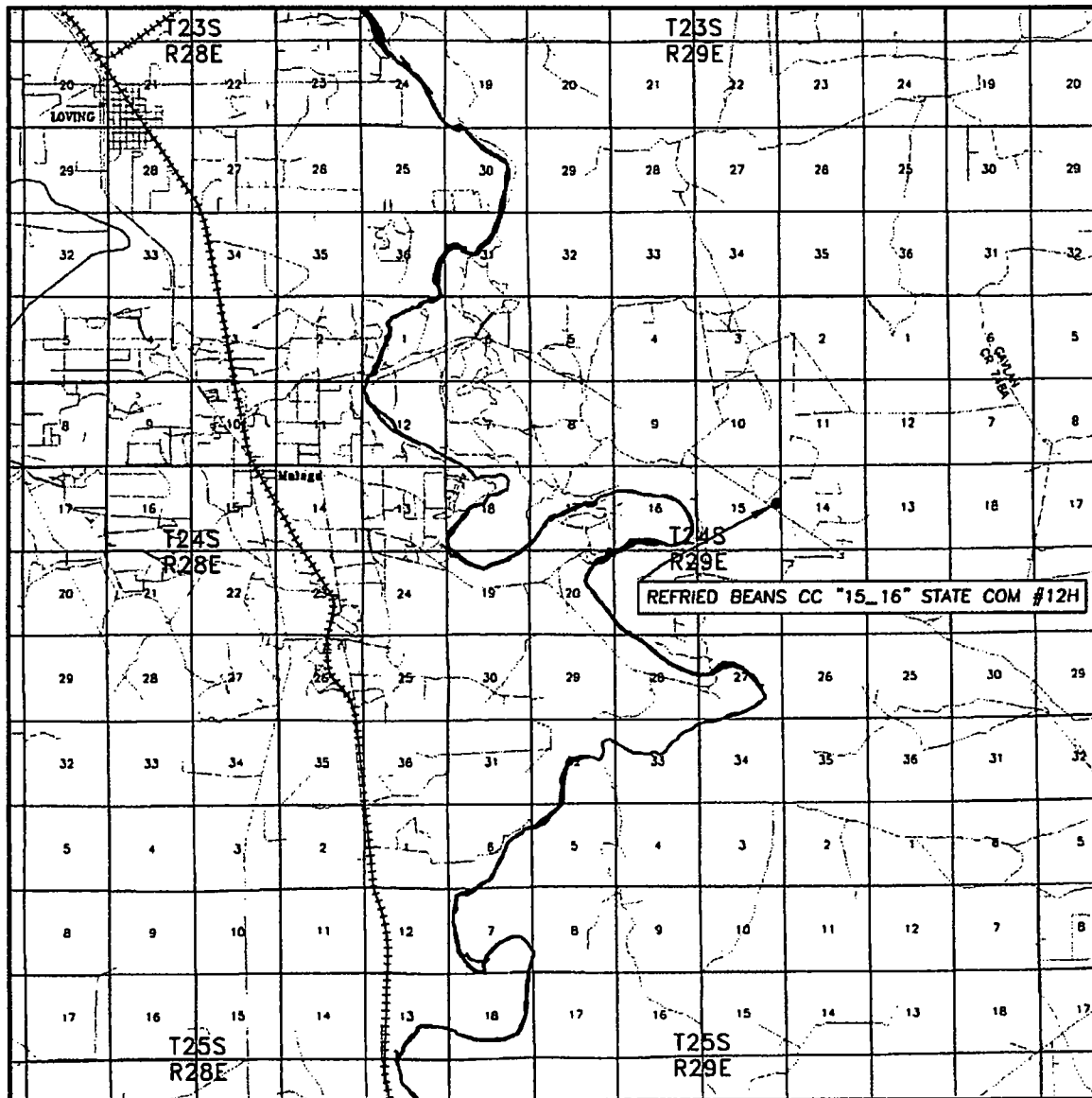


OXY USA INC.

REFRIED BEANS CC "15_16" STATE COM #12H
LOCATED AT 2365' FNL & 280' FEL IN SECTION
15, TOWNSHIP 24 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 07/11/18	Sheet 1 of 1 Sheets
W.O. Number: 180522WL-a	Drawn By: KA Rev:
Date: 07/24/18	180522WL-a Scale: 1"=200'

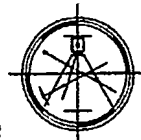
VICINITY MAP



SEC. 15 TWP. 24-S RGE. 29-E
 SURVEY N.M.P.M.
 COUNTY EDDY
 DESCRIPTION 2365' FNL & 280' FEL
 ELEVATION 2938.8'
 OPERATOR OXY USA INC.

SCALE: 1" = 2 MILES

Asel Surveying



P.O. BOX 393 - 310 W. TAYLOR
 HOBBS, NEW MEXICO - 575-393-9146

LEASE REFRIED BEANS CC "15_16" STATE COM #12H

DIRECTIONS FROM THE INTERSECTION OF U.S. HWY. #285 AND COUNTY ROAD #731 (ONSUREZ ROAD) IN MALAGA, GO NORTH ON COUNTY ROAD #731 FOR 0.6 MILES, TURN RIGHT ON COUNTY ROAD #743 (BRUMBLE ROAD) AND GO EAST FOR 1.0 MILES, CONTINUE EAST ON COUNTY ROAD #745 (HARROUN ROAD) FOR 2.0 MILES, TURN RIGHT ON COUNTY ROAD #788 (DOG TOWN ROAD) AND GO SOUTHEAST FOR 1.3 MILES, TURN LEFT ON CALICHE ROAD AND GO EAST FOR 0.6 MILES, TURN RIGHT AND GO SOUTHEAST FOR 1.5 MILES, TURN LEFT AND GO NORTH FOR 0.2 MILES, TURN RIGHT AND GO SOUTHEAST FOR 1.1 MILES, TURN LEFT AND GO NORTHEAST FOR 0.1 MILES, TURN RIGHT ON PROPOSED ROAD AND GO SOUTHEAST FOR 263.2 FEET TO LOCATION.

Oxy USA Inc. - Refried Beans CC 15_16 State Com 12H

1. Geologic Formations

TVD of target	7899'	Pilot Hole Depth	N/A
MD at TD:	16380'	Deepest Expected fresh water:	76'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	76	
Salado	576	Salt
Castile	1,089	Salt
Lamar/Delaware	3,009	Oil/Gas/Brine
Bell Canyon	3,059	Oil/Gas/Brine
Cherry Canyon	3,870	Oil/Gas/Brine
Brushy Canyon	5,129	Oil/Gas/Brine
Bone Spring	6,713	Oil/Gas
1st Bone Spring	7,737	Oil/Gas

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	Buoyant Buoyant			
	From (ft)	To (ft)					SF Collapse	SF Burst	Body SF Tension	Joint SF Tension
14.75	0	400	10.75	40.5	J-55	BTC	1.125	1.2	1.4	1.4
9.875	0	7312	7.625	26.4	L-80	BTC	1.125	1.2	1.4	1.4
6.75	0	7862	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
6.75	7862	16380	4.5	13.5	P-110	DQX	1.125	1.2	1.4	1.4
SF Values will meet or Exceed										

*Oxy requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage we will drop a cancellation cone and not pump the second stage.

Oxy USA Inc. - Refried Beans CC 15_16 State Com 12H

3. Cementing Program

Casing/String	# Sks	Wt. (lb/gal)	Yld (ft ³ /sack)	H ₂ O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	326	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate 1st Stage (Lead)	591	10.2	2.58	11.568	6:59	Pozzolan Cement, Retarder
Intermediate 1st Stage (Tail)	167	13.2	1.61	7.804	7:11	Class H Cement, Retarder, Dispersant, Salt
DV/ECP Tool @ 3059 (We request the option to cancel the second stage if cement is circulated to surface during the first stage of cement operations)						
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	1083	13.6	1.67	8.765	7:32	Class C Cement, Accelerator, Retarder
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	1104	13.2	1.38	6.686	3:39	Class H Cement, Retarder, Dispersant, Salt

Casing/String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	400	100%
Intermediate 1st Stage (Lead)	2959	6312	20%
Intermediate 1st Stage (Tail)	6312	7312	20%
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	0	3059	200%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	6812	16380	20%

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
9.875" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
			Blind Ram	✓	250/5000psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

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

Oxy USA Inc. - Refried Beans CC 15_16 State Com 12H

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.

	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.
	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.
Y	Are anchors required by manufacturer?
	A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. 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. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	400	Water-Based Mud	8.6-8.8	40-60	N/C
400	7312	Saturated Brine-Based or Oil-Based Mud	9.0-9.6	35-45	N/C
7312	16380	Water-Based or Oil-Based Mud	9.0-9.6	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring
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Oxy USA Inc. - Refried Beans CC 15_16 State Com 12H

6. Logging and Testing Procedures

Logging, Coring and Testing	
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

Additional logs planned	Interval
No	Resistivity
No	Density
No	CBL
Yes	Mud log
No	PEX

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3944 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	144°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

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

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the two well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes

Oxy USA Inc. - Refried Beans CC 15_16 State Com 12H

Will more than one drilling rig be used for drilling operations? If yes, describe. Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes
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Total estimated cuttings volume: 1140.7 bbls.

Attachments

- X Directional Plan
- X H2S Contingency Plan

9. Company Personnel

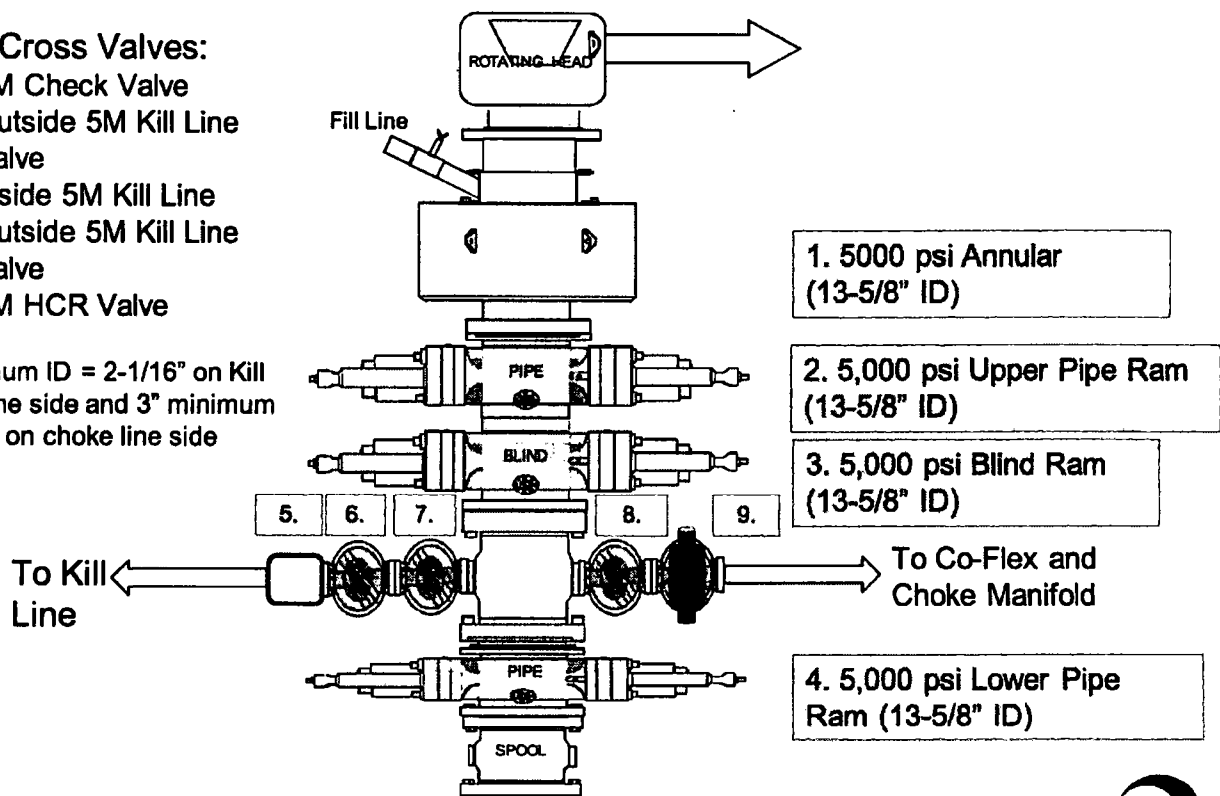
<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Mobile Phone</u>
John Rodriguez	Drilling Engineer	713-513-6641	361-759-4650
Randy Neel	Drilling Engineer Supervisor	713-215-7987	713-517-5544
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417

5M BOP Stack

Mud Cross Valves:

5. 5M Check Valve
6. Outside 5M Kill Line Valve
7. Inside 5M Kill Line Valve
8. Outside 5M Kill Line Valve
9. 5M HCR Valve

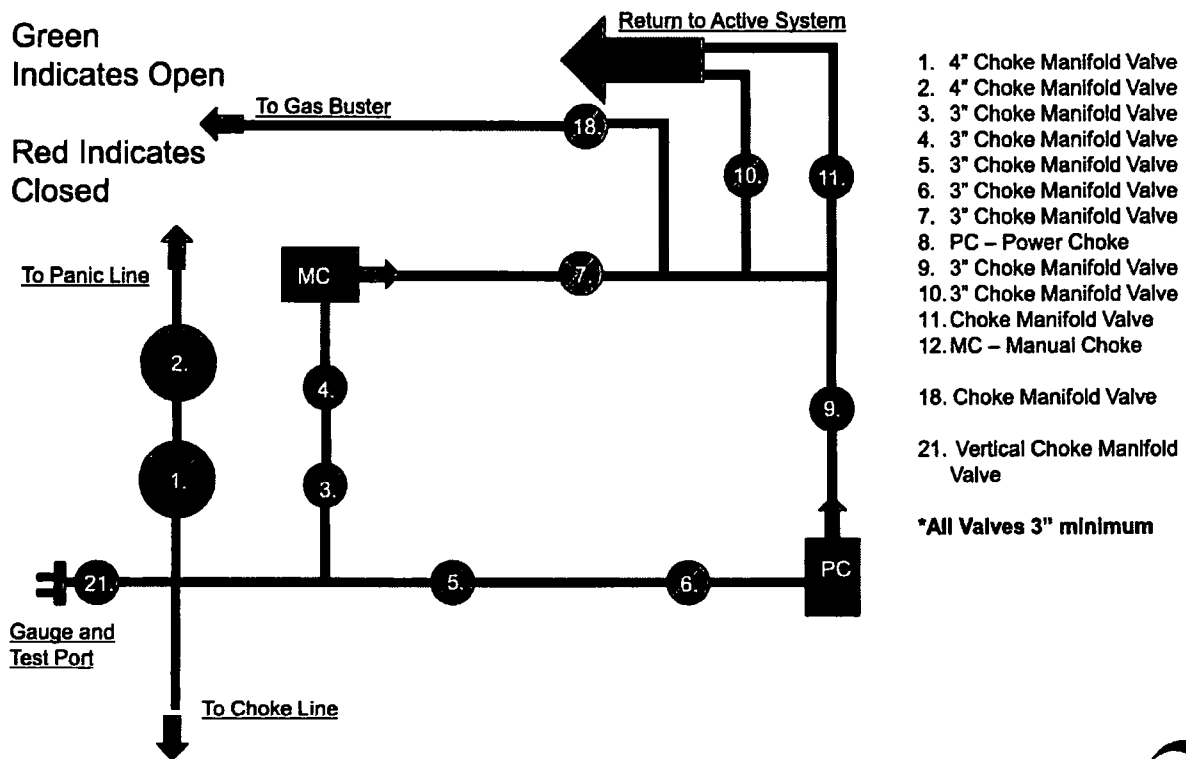
*Minimum ID = 2-1/16" on Kill Line side and 3" minimum ID on choke line side



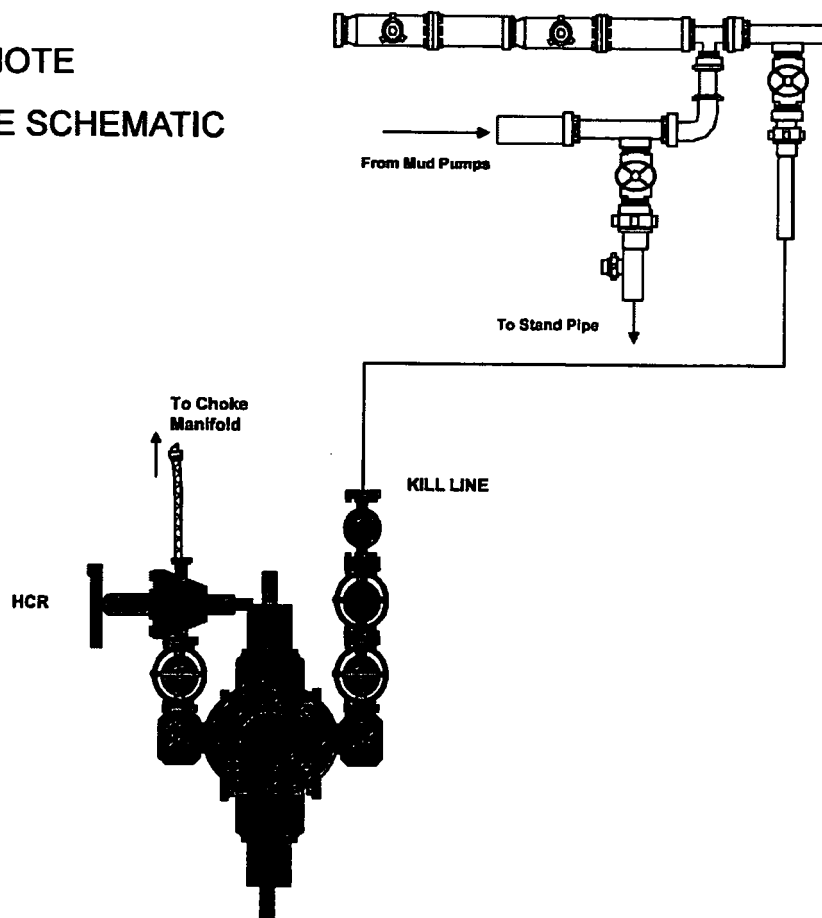
5M Choke Panel

Green
Indicates Open

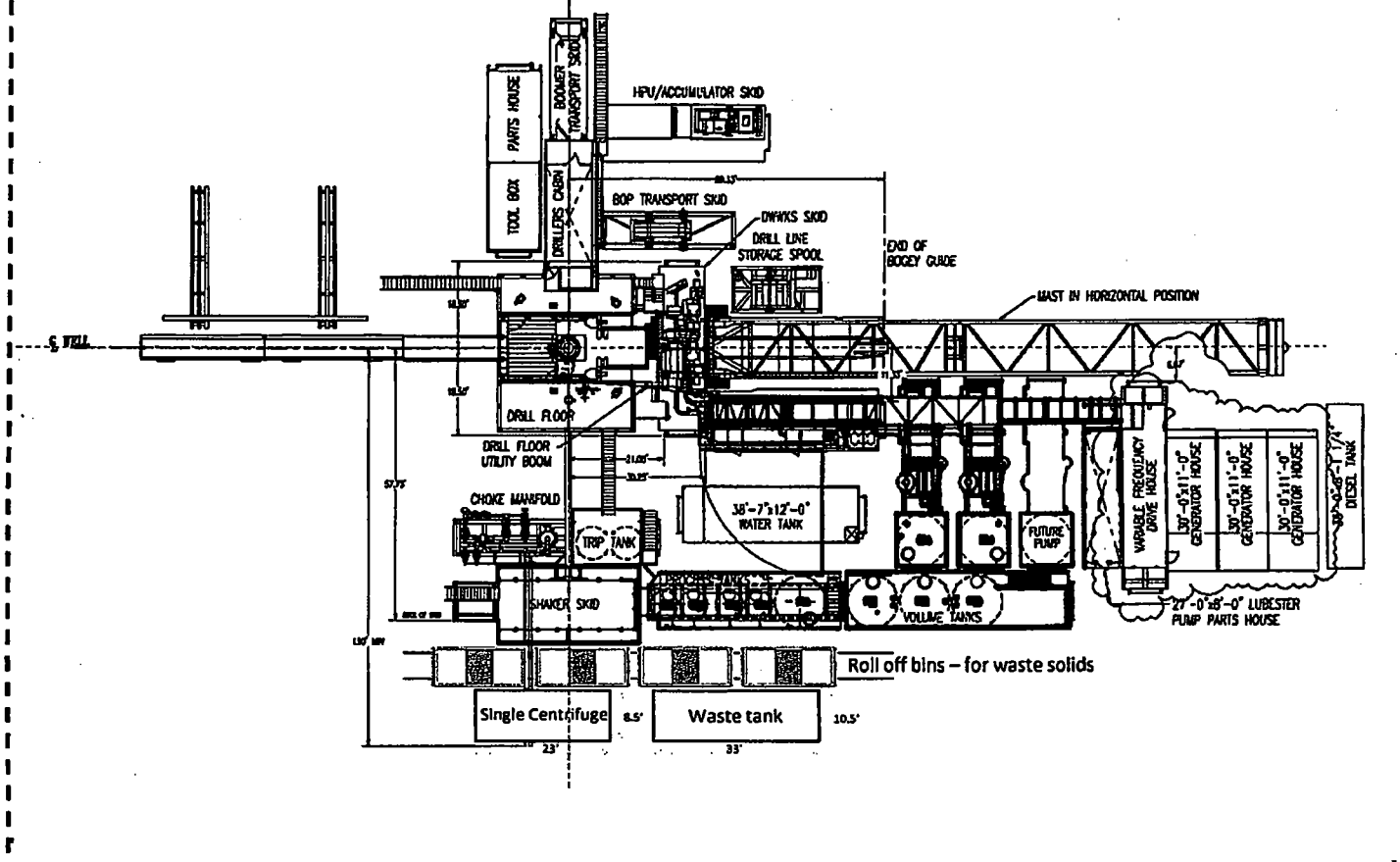
Red Indicates
Closed



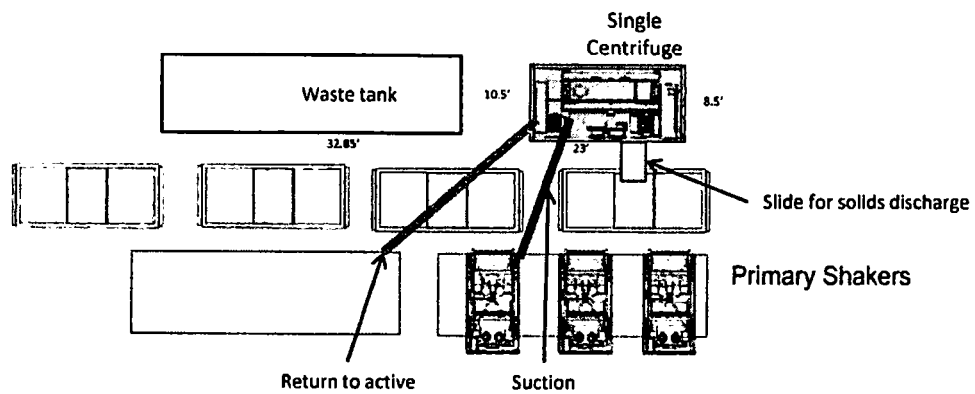
10M REMOTE
KILL LINE SCHEMATIC



May 28, 2013



Oxy



Well Head

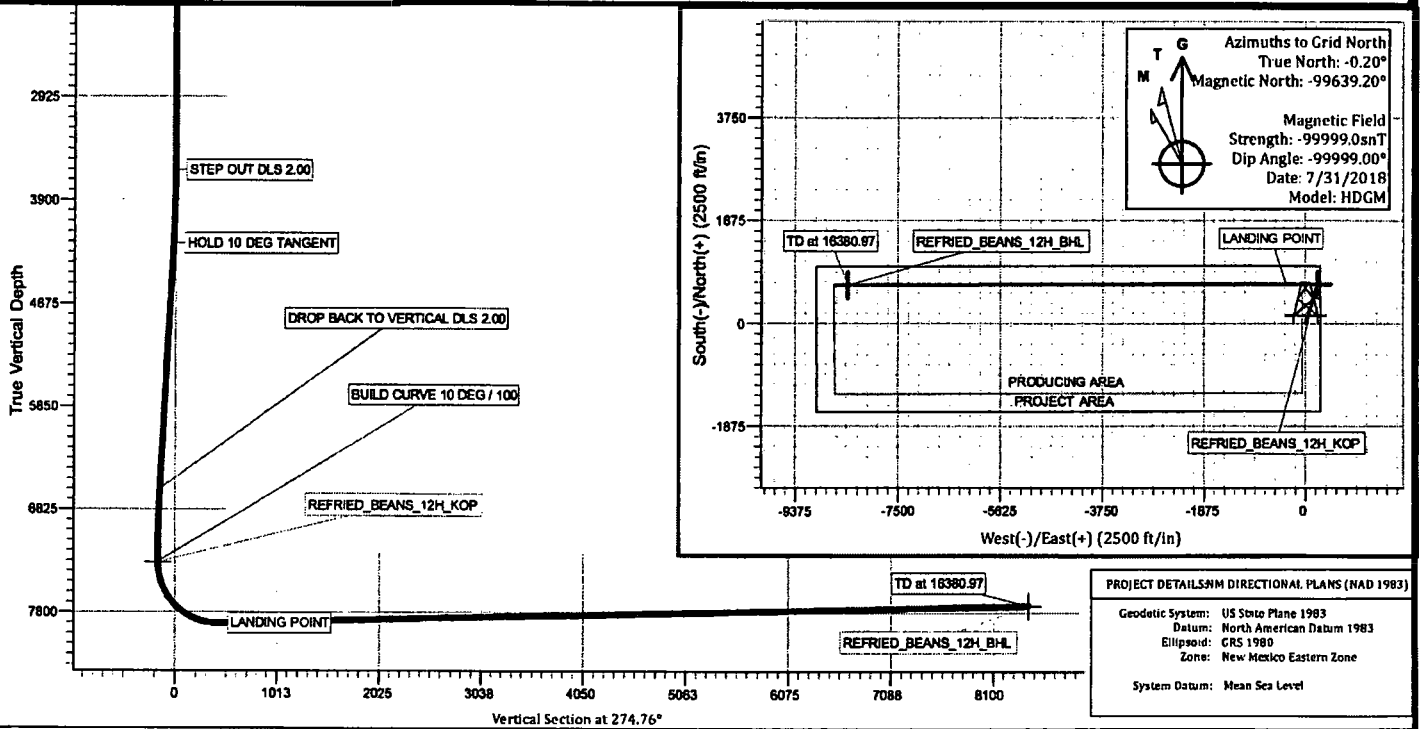
Oxy Single Centrifuge
Closed Loop System – New
Mexico Flex III
May 28, 2013



Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: REFRIED BEANS CC 15_16 STATE COM
Well: REFRIED BEANS CC 15_16 STATE COM 12H
Wellbore: W800
Design: Permitting Plan

WELL DETAILS: REFRIED BEANS CC 15_16 STATE COM 12H

+N/-S	+E/-W	Northing	Ground Level: 2938.80	Easting	Latitude	Longitude
0.00	0.00	443355.60		655350.95	32° 13' 5.964730 N	103° 57' 52.771260 W
				DATUM @ 2965.30ft		



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	3615.00	0.00	0.00	3615.00	0.00	0.00	0.00	0.00	0.00		STEP OUT DLS 2.00
3	4314.57	13.99	17.63	4307.64	81.00	25.74	2.00	17.63	-18.92		HOLD 10 DEG TANGENT
4	6712.48	13.99	17.63	6634.40	633.53	201.31	0.00	0.00	-147.99		DROP BACK TO VERTICAL DLS 2.00
5	7412.05	0.00	269.91	7327.04	714.54	227.05	2.00	180.00	-166.91		BUILD CURVE 10 DEG / 100
6	8324.05	91.20	269.91	7899.87	713.64	-357.91	10.00	-90.09	415.95		LANDING POINT
7	16380.97	91.22	269.91	7730.00	701.30	-8413.03	0.00	0.00	8442.21		TD at 16380.97

OXY

**PRD NM DIRECTIONAL PLANS (NAD 1983)
REFRIED BEANS CC 15_16 STATE COM
REFRIED BEANS CC 15_16 STATE COM 12H**

WB00

Plan: Permitting Plan

Standard Planning Report

, 31 July, 2018

Planning Report

Database:	HOPSP	Local Co-ordinate Reference:	Well REFRIED BEA 12H
Company:	ENGINEERING DESIGNS	TVD Reference:	DATUM @ 2965.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	DATUM @ 2965.30ft
Site:	REFRIED BEANS CC 15_16 STATE COM	North Reference:	Grid
Well:	REFRIED BEANS CC 15_16 STATE COM 12H	Survey Calculation Method:	Minimum Curvature

Wellbore: WB00
Design: Permitting Plan

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site REFRIED BEANS CC 15_16 STATE COM

Site Position:	Northing:	443,355.60 usft	Latitude:	
From:	Map	Easting:	655,350.95 usft	Longitude:
Position Uncertainty:	0.00 ft Slot Radius:		13.200 in	Grid Convergence:

Well REFRIED BEANS CC 15_16 STATE COM 12H

Well Position	+N-S	0.00 ft	Northing:	443,355.60 usft	Latitude:	32° 13' 5.
	+E-W	0.00 ft	Easting:	655,350.95 usft	Longitude:	103° 57' 52.
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	

Wellbore WB00

Magnetics	Model Name	Sample Date	Declination	Dip Angle	Fi
	HDGM	7/31/2018	(°)	(°)	
			-99,639.00	-99,999.00	

Design Permitting Plan

Audit Notes:

Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
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Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	274.76

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Dogleg Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,615.00	0.00	0.00	3,615.00	0.00	0.00	0.00
4,314.57	13.99	17.63	4,307.64	81.00	25.74	2.00
6,712.48	13.99	17.63	6,634.40	633.53	201.31	0.00
7,412.05	0.00	269.91	7,327.04	714.54	227.05	2.00
8,324.05	91.20	269.91	7,899.87	713.64	-357.91	10.00
16,380.97	91.22	269.91	7,730.00	701.30	-8,413.03	0.00

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vert Sec (f
0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00

300.00	0.00	0.00	300.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00
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1,400.00	0.00	0.00	1,400.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00
3,615.00	0.00	0.00	3,615.00	0.00	0.00
3,700.00	1.70	17.63	3,699.99	1.20	0.38
3,800.00	3.70	17.63	3,799.87	5.69	1.81
3,900.00	5.70	17.63	3,899.53	13.50	4.29
4,000.00	7.70	17.63	3,998.84	24.62	7.82
4,100.00	9.70	17.63	4,097.69	39.03	12.40
4,200.00	11.70	17.63	4,195.94	56.73	18.03
4,300.00	13.70	17.63	4,293.49	77.68	24.68
4,314.57	13.99	17.63	4,307.64	81.00	25.74
4,400.00	13.99	17.63	4,390.53	100.69	31.99
4,500.00	13.99	17.63	4,487.57	123.73	39.32
4,600.00	13.99	17.63	4,584.60	146.77	46.64
4,700.00	13.99	17.63	4,681.63	169.81	53.96
4,800.00	13.99	17.63	4,778.67	192.86	61.28
4,900.00	13.99	17.63	4,875.70	215.90	68.60

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E/-W (ft)	Vert Sec (f
5,000.00	13.99	17.63	4,972.73	238.94	75.92	
5,100.00	13.99	17.63	5,069.77	261.98	83.25	
5,200.00	13.99	17.63	5,166.80	285.02	90.57	
5,300.00	13.99	17.63	5,263.83	308.07	97.89	
5,400.00	13.99	17.63	5,360.87	331.11	105.21	
5,500.00	13.99	17.63	5,457.90	354.15	112.53	
5,600.00	13.99	17.63	5,554.93	377.19	119.86	
5,700.00	13.99	17.63	5,651.97	400.24	127.18	
5,800.00	13.99	17.63	5,749.00	423.28	134.50	
5,900.00	13.99	17.63	5,846.03	446.32	141.82	
6,000.00	13.99	17.63	5,943.06	469.36	149.14	
6,100.00	13.99	17.63	6,040.10	492.41	156.46	
6,200.00	13.99	17.63	6,137.13	515.45	163.79	
6,300.00	13.99	17.63	6,234.16	538.49	171.11	
6,400.00	13.99	17.63	6,331.20	561.53	178.43	

6,500.00	13.99	17.63	6,428.23	584.57	185.75
6,600.00	13.99	17.63	6,525.26	607.62	193.07
6,700.00	13.99	17.63	6,622.30	630.66	200.40
6,712.48	13.99	17.63	6,634.40	633.53	201.31
6,800.00	12.24	17.63	6,719.64	652.46	207.32
6,900.00	10.24	17.63	6,817.72	671.04	213.23
7,000.00	8.24	17.63	6,916.41	686.34	218.09
7,100.00	6.24	17.63	7,015.61	698.35	221.91
7,200.00	4.24	17.63	7,115.19	707.06	224.67
7,300.00	2.24	17.63	7,215.02	712.45	226.38
7,400.00	0.24	17.63	7,315.00	714.51	227.04
7,412.05	0.00	269.91	7,327.04	714.54	227.05
7,500.00	8.80	269.91	7,414.65	714.53	220.31
7,600.00	18.80	269.91	7,511.64	714.49	196.50
7,700.00	28.80	269.91	7,603.03	714.43	156.20
7,800.00	38.80	269.91	7,686.02	714.34	100.65
7,900.00	48.80	269.91	7,758.11	714.24	31.53
8,000.00	58.80	269.91	7,817.11	714.11	-49.06
8,100.00	68.80	269.91	7,861.21	713.98	-138.67
8,200.00	78.80	269.91	7,889.08	713.83	-234.58
8,300.00	88.80	269.91	7,899.87	713.68	-333.86
8,324.05	91.20	269.91	7,899.87	713.64	-357.91
8,400.00	91.20	269.91	7,898.28	713.52	-433.84
8,500.00	91.20	269.91	7,896.19	713.37	-533.82
8,600.00	91.20	269.91	7,894.09	713.22	-633.80
8,700.00	91.20	269.91	7,892.00	713.06	-733.78
8,800.00	91.20	269.91	7,889.90	712.91	-833.76
8,900.00	91.20	269.91	7,887.81	712.76	-933.73
9,000.00	91.20	269.91	7,885.71	712.61	-1,033.71
9,100.00	91.20	269.91	7,883.61	712.45	-1,133.69
9,200.00	91.20	269.91	7,881.52	712.30	-1,233.67
9,300.00	91.20	269.91	7,879.42	712.15	-1,333.65
9,400.00	91.20	269.91	7,877.32	711.99	-1,433.62
9,500.00	91.20	269.91	7,875.22	711.84	-1,533.60
9,600.00	91.20	269.91	7,873.12	711.69	-1,633.58
9,700.00	91.20	269.91	7,871.03	711.53	-1,733.56
9,800.00	91.20	269.91	7,868.93	711.38	-1,833.54

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vert Sec (f)
9,900.00	91.20	269.91	7,866.83	711.23	-1,933.51	
10,000.00	91.20	269.91	7,864.73	711.07	-2,033.49	
10,100.00	91.20	269.91	7,862.63	710.92	-2,133.47	
10,200.00	91.20	269.91	7,860.53	710.77	-2,233.45	
10,300.00	91.20	269.91	7,858.42	710.61	-2,333.42	
10,400.00	91.20	269.91	7,856.32	710.46	-2,433.40	
10,500.00	91.20	269.91	7,854.22	710.31	-2,533.38	
10,600.00	91.20	269.91	7,852.12	710.16	-2,633.36	
10,700.00	91.20	269.91	7,850.02	710.00	-2,733.34	
10,800.00	91.20	269.91	7,847.91	709.85	-2,833.31	
10,900.00	91.21	269.91	7,845.81	709.70	-2,933.29	
11,000.00	91.21	269.91	7,843.71	709.54	-3,033.27	
11,100.00	91.21	269.91	7,841.60	709.39	-3,133.25	
11,200.00	91.21	269.91	7,839.50	709.24	-3,233.22	
11,300.00	91.21	269.91	7,837.39	709.08	-3,333.20	
11,400.00	91.21	269.91	7,835.29	708.93	-3,433.18	
11,500.00	91.21	269.91	7,833.18	708.78	-3,533.16	
11,600.00	91.21	269.91	7,831.08	708.62	-3,633.14	
11,700.00	91.21	269.91	7,828.97	708.47	-3,733.11	
11,800.00	91.21	269.91	7,826.87	708.32	-3,833.09	
11,900.00	91.21	269.91	7,824.76	708.17	-3,933.07	
12,000.00	91.21	269.91	7,822.65	708.01	-4,033.05	
12,100.00	91.21	269.91	7,820.55	707.86	-4,133.02	
12,200.00	91.21	269.91	7,818.44	707.71	-4,233.00	
12,300.00	91.21	269.91	7,816.33	707.55	-4,332.98	
12,400.00	91.21	269.91	7,814.22	707.40	-4,432.96	
12,500.00	91.21	269.91	7,812.11	707.25	-4,532.93	

12,600.00	91.21	269.91	7,810.00	707.09	-4,632.91
12,700.00	91.21	269.91	7,807.89	706.94	-4,732.89
12,800.00	91.21	269.91	7,805.78	706.79	-4,832.87
12,900.00	91.21	269.91	7,803.67	706.63	-4,932.84
13,000.00	91.21	269.91	7,801.56	706.48	-5,032.82
13,100.00	91.21	269.91	7,799.45	706.33	-5,132.80
13,200.00	91.21	269.91	7,797.34	706.17	-5,232.78
13,300.00	91.21	269.91	7,795.23	706.02	-5,332.76
13,400.00	91.21	269.91	7,793.12	705.87	-5,432.73
13,500.00	91.21	269.91	7,791.01	705.72	-5,532.71
13,600.00	91.21	269.91	7,788.89	705.56	-5,632.69
13,700.00	91.21	269.91	7,786.78	705.41	-5,732.67
13,800.00	91.21	269.91	7,784.67	705.26	-5,832.64
13,900.00	91.21	269.91	7,782.55	705.10	-5,932.62
14,000.00	91.21	269.91	7,780.44	704.95	-6,032.60
14,100.00	91.21	269.91	7,778.32	704.80	-6,132.58
14,200.00	91.21	269.91	7,776.21	704.64	-6,232.55
14,300.00	91.21	269.91	7,774.09	704.49	-6,332.53
14,400.00	91.21	269.91	7,771.98	704.34	-6,432.51
14,500.00	91.21	269.91	7,769.86	704.18	-6,532.49
14,600.00	91.21	269.91	7,767.75	704.03	-6,632.46
14,700.00	91.21	269.91	7,765.63	703.88	-6,732.44
14,800.00	91.21	269.91	7,763.51	703.73	-6,832.42
14,900.00	91.21	269.91	7,761.40	703.57	-6,932.40
15,000.00	91.21	269.91	7,759.28	703.42	-7,032.37

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vert Sec (f)
15,100.00	91.21	269.91	7,757.16	703.27	-7,132.35	
15,200.00	91.21	269.91	7,755.04	703.11	-7,232.33	
15,300.00	91.21	269.91	7,752.92	702.96	-7,332.31	
15,400.00	91.21	269.91	7,750.81	702.81	-7,432.28	
15,500.00	91.21	269.91	7,748.69	702.65	-7,532.26	
15,600.00	91.21	269.91	7,746.57	702.50	-7,632.24	
15,700.00	91.21	269.91	7,744.45	702.35	-7,732.22	
15,800.00	91.22	269.91	7,742.33	702.19	-7,832.19	
15,900.00	91.22	269.91	7,740.21	702.04	-7,932.17	
16,000.00	91.22	269.91	7,738.08	701.89	-8,032.15	
16,100.00	91.22	269.91	7,735.96	701.73	-8,132.12	
16,200.00	91.22	269.91	7,733.84	701.58	-8,232.10	
16,300.00	91.22	269.91	7,731.72	701.43	-8,332.08	
16,380.97	91.22	269.91	7,730.00	701.30	-8,413.03	

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Eas (us)
REFRIED_BEANS_12H_KOP - plan hits target center - Point	0.00	0.00	7,327.04	714.54	227.05	444,070.08	6
REFRIED_BEANS_12H_BHL - plan hits target center - Point	0.00	0.00	7,730.00	701.30	-8,413.03	444,056.85	6

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
3,615.00	3,615.00	0.00		0.00 STEP OUT DLS 2.00
4,314.57	4,307.64	81.00		25.74 HOLD 10 DEG TANGENT
6,712.48	6,634.41	633.53		201.31 DROP BACK TO VERTICAL DLS 2.00
7,412.05	7,327.04	714.54		227.05 BUILD CURVE 10 DEG / 100
8,324.05	7,899.87	713.64		-357.91 LANDING POINT
16,380.97	7,730.00	701.30		-8,413.03 TD at 16380.97

7/31/2018 1:56:19PM

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32° 13' 5.964730 N
 103° 57' 52.771260 W
 0.20 °

.964730 N
 771260 W
 2,938.80 ft

old Strength
 (nT)
 -99,999

Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	
0.00	0.00	0.00	
2.00	0.00	17.63	
0.00	0.00	0.00	
-2.00	0.00	180.00	REFRIED_BEANS_1
10.00	0.00	-90.09	
0.00	0.00	0.00	REFRIED_BEANS_1

ical tion t)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00

-136.55	0.00	0.00	0.00
-141.93	0.00	0.00	0.00
-147.32	0.00	0.00	0.00
-147.99	0.00	0.00	0.00
-152.41	2.00	-2.00	0.00
-156.75	2.00	-2.00	0.00
-160.32	2.00	-2.00	0.00
-163.13	2.00	-2.00	0.00
-165.16	2.00	-2.00	0.00
-166.42	2.00	-2.00	0.00
-166.90	2.00	-2.00	0.00
-166.91	2.00	-2.00	0.00
-160.20	10.00	10.00	0.00
-136.47	10.00	10.00	0.00
-96.32	10.00	10.00	0.00
-40.96	10.00	10.00	0.00
27.91	10.00	10.00	0.00
108.21	10.00	10.00	0.00
197.50	10.00	10.00	0.00
293.06	10.00	10.00	0.00
391.99	10.00	10.00	0.00
415.95	10.00	10.00	0.00
491.61	0.00	0.00	0.00
591.23	0.00	0.00	0.00
690.85	0.00	0.00	0.00
790.47	0.00	0.00	0.00
890.09	0.00	0.00	0.00
989.71	0.00	0.00	0.00
1,089.33	0.00	0.00	0.00
1,188.95	0.00	0.00	0.00
1,288.57	0.00	0.00	0.00
1,388.19	0.00	0.00	0.00
1,487.81	0.00	0.00	0.00
1,587.43	0.00	0.00	0.00
1,687.05	0.00	0.00	0.00
1,786.67	0.00	0.00	0.00
1,886.29	0.00	0.00	0.00

ical tion t)	Dogleg Rate (°/100ft)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)
1,985.91	0.00	0.00	0.00
2,085.53	0.00	0.00	0.00
2,185.15	0.00	0.00	0.00
2,284.77	0.00	0.00	0.00
2,384.39	0.00	0.00	0.00
2,484.01	0.00	0.00	0.00
2,583.63	0.00	0.00	0.00
2,683.25	0.00	0.00	0.00
2,782.87	0.00	0.00	0.00
2,882.49	0.00	0.00	0.00
2,982.11	0.00	0.00	0.00
3,081.72	0.00	0.00	0.00
3,181.34	0.00	0.00	0.00
3,280.96	0.00	0.00	0.00
3,380.58	0.00	0.00	0.00
3,480.20	0.00	0.00	0.00
3,579.82	0.00	0.00	0.00
3,679.44	0.00	0.00	0.00
3,779.06	0.00	0.00	0.00
3,878.68	0.00	0.00	0.00
3,978.30	0.00	0.00	0.00
4,077.92	0.00	0.00	0.00
4,177.54	0.00	0.00	0.00
4,277.16	0.00	0.00	0.00
4,376.78	0.00	0.00	0.00
4,476.40	0.00	0.00	0.00
4,576.02	0.00	0.00	0.00

4,675.64	0.00	0.00	0.00
4,775.26	0.00	0.00	0.00
4,874.87	0.00	0.00	0.00
4,974.49	0.00	0.00	0.00
5,074.11	0.00	0.00	0.00
5,173.73	0.00	0.00	0.00
5,273.35	0.00	0.00	0.00
5,372.97	0.00	0.00	0.00
5,472.59	0.00	0.00	0.00
5,572.21	0.00	0.00	0.00
5,671.83	0.00	0.00	0.00
5,771.45	0.00	0.00	0.00
5,871.07	0.00	0.00	0.00
5,970.69	0.00	0.00	0.00
6,070.31	0.00	0.00	0.00
6,169.93	0.00	0.00	0.00
6,269.55	0.00	0.00	0.00
6,369.16	0.00	0.00	0.00
6,468.78	0.00	0.00	0.00
6,568.40	0.00	0.00	0.00
6,668.02	0.00	0.00	0.00
6,767.64	0.00	0.00	0.00
6,867.26	0.00	0.00	0.00
6,966.88	0.00	0.00	0.00
7,066.50	0.00	0.00	0.00

ical tion t)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,166.12	0.00	0.00	0.00
7,265.74	0.00	0.00	0.00
7,365.36	0.00	0.00	0.00
7,464.98	0.00	0.00	0.00
7,564.60	0.00	0.00	0.00
7,664.22	0.00	0.00	0.00
7,763.83	0.00	0.00	0.00
7,863.45	0.00	0.00	0.00
7,963.07	0.00	0.00	0.00
8,062.69	0.00	0.00	0.00
8,162.31	0.00	0.00	0.00
8,261.93	0.00	0.00	0.00
8,361.55	0.00	0.00	0.00
8,442.21	0.00	0.00	0.00

ting ift)	Latitude	Longitude
55,577.98	32° 13' 13.027413 N	3° 57' 50.099864 W
46,938.58	32° 13' 13.179284 N	3° 59' 30.672032 W

COMPASS 5000.1 Build 74