

NM OIL CONSERVATION ARTESIA DISTRICT

APR 15 2015

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 293-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 745-1282 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6173 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. PL Number 30-05-43040	2. Pool Code 16800	3. Pool Name Delaware River; Bone Spring
4. Property Code	5. Property Name MIDNIGHT SUN 2 26 27	6. Well Number 5H
7. OGRD No. 4323	8. Operator Name CHEVRON U.S.A. INC.	9. Elevation 3222'

10. Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North-South line	Feet from the	East-West line	County
D	2	26 SOUTH	27 EAST, N.M.P.M.		175'	NORTH	775'	WEST	EDDY

11. 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
M	2	26 SOUTH	27 EAST, N.M.P.M.		150'	SOUTH	660'	WEST	EDDY

12. Dedicated Acres 1600	13. Joint or Infill	14. Consolidation Code	15. Order No.
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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.

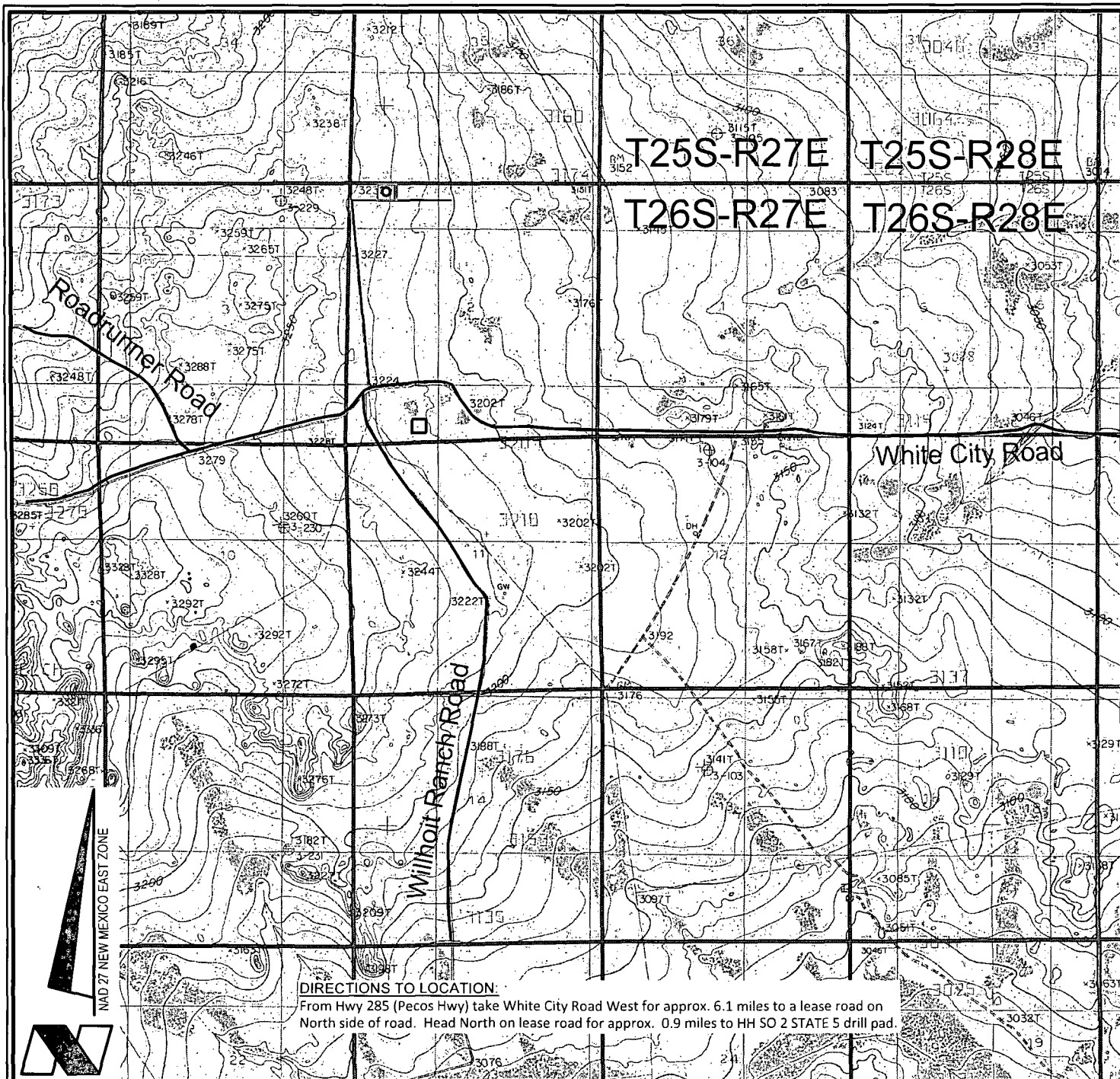
S 37°16'11"W 194.82' Proposed First Take Point 330' FNL, 660' FWL S 01°07'29"W 5,007.17' Proposed Producing Interval Proposed Last Take Point 330' FSL, 660' FWL 660' 150'	16. OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided 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 to a temporary pooling agreement or a compulsory pooling order hereafter entered by the division. <i>Denise Pinkerton</i> 04/13/15 Signature Date Denise Pinkerton Printed Name Lpinkert@chevron.com E-mail Address
	17. 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. 3.19.15 Date of Survey Signature and Seal of Professional Surveyor Wm. J. Daniel III NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 19078 Certificate Number #75078

MIDNIGHT SUN 2 26 27 5H WELL			
X=	551,655	NAD 27	
Y=	392,273		
LAT.	32.078363		
LONG.	104.166561		
X=	592,836	NAD83	
Y=	392,330		
LAT.	32.078485		
LONG.	104.167053		
ELEVATION	+3222' NAD 83		

CORNER COORDINATES TABLE (NAD 27)

A - Y=392448.13, X=550882.93
B - Y=392446.88, X=552211.81
C - Y=386937.82, X=550774.76
D - Y=386985.18, X=552118.16

PROPOSED BOTTOM HOLE LOCATION			
X=	551,438	NAD 27	
Y=	387,111		
LAT.	32.064176		
LONG.	104.167285		
X=	592,622	NAD83	
Y=	387,168		
LAT.	32.064298		
LONG.	104.167777		



DIRECTIONS TO LOCATION:

From Hwy 285 (Pecos Hwy) take White City Road West for approx. 6.1 miles to a lease road on North side of road. Head North on lease road for approx. 0.9 miles to HH SO 2 STATE 5 drill pad.

VICINITY MAP

SCALE

3000' 0 1500' 3000'

LEGEND

- Drillsite
- Existing Trail/Road
- Proposed Well

CHEVRON U.S.A. INC.
MIDNIGHT SUN 2 26 27 NO. 5H WELL
LOCATED 175' FNL AND 775' FWL
SECTION 2, T26S-R27E
EDDY COUNTY, NEW MEXICO



135 Regency Sq. Lafayette, LA 70508
 Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

DRAWN BY: BOR

REVISIONS

PROJ. MGR.: GDG

No.

DATE:

REVISED BY:

DATE: MARCH 18, 2015

No.

DATE:

REVISED BY:

FILENAME: T:\2014\2149544\DWG\Midnight Sun 2 26 27 5H APD revised.dwg

Sec. 34

Bureau of Land Management

Sec. 35

Bureau of Land Management

T25S-R27E

T26S-R27E

Sec. 3

Bureau of Land Management

Sec. 2

State of New Mexico

PROPOSED
ARCHAEOLOGICAL AREA
±5.16 Acres

PROPOSED PAD
±2.80 Acres

PROPOSED
TOP SOIL AREA
±0.30 Acres

Existing
Facility Pad

Existing Pad &
Access Road for
Skeen 2-26-27 St
No. 1H Well(As-Staked)

Existing Top Soil Area
& Fence Line to be
Removed

Midnight Sun 2 26 27
No. 5H Well
FNL=175'
FWL=775'

Existing Road for
Skeen 2-26-27 St
No. 2H Well

Existing Fenceline

FOR THE EXCLUSIVE USE OF
CHEVRON U.S.A. INC.

I, WM. J. Daniel III, Registered Professional
Land Surveyor, do hereby state this plat is true
and correct to the best of my knowledge.

PAGE 1 OF 2

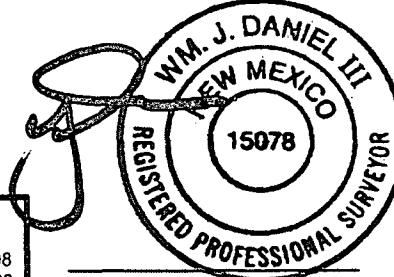


SCALE 1"= 200'

200' 0 100' 200'



135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com



WM. J. Daniel III
Registration No. 15078

CHEVRON U.S.A. INC.

PROPOSED PAD & TOP SOIL AREA
MIDNIGHT SUN 2 26 27 NO. 5H WELL
SECTION 2, T26S-R27E
EDDY COUNTY, NEW MEXICO

DRAWN BY: BOR

REVISIONS

PROJ. MGR.: GDG

No.

DATE:

REVISED BY:

DATE: MARCH 18, 2015

No.

DATE:

REVISED BY:

FILENAME: T:\2014\2149544\DWG\Midnight Sun 2 26 27 5H SUP Revised.dwg

DISCLAIMER: At this time, C.H. Fenstermaker & Associates, LLC has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, or "No Rise" certification analyses, including but not limited to determining whether the project will impact flood hazards in connection with federal/FEMA, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

NOTE:

Please be advised, that while reasonable efforts are made to locate and verify pipelines and anomalies using our standard pipeline locating equipment, it is impossible to be 100 % effective. As such, we advise using caution when performing work as there is a possibility that pipelines and other hazards, such as fiber optic cables, PVC pipelines, etc, may exist undetected on site.

NOTE:

Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities. For guidance: New Mexico One Call System - www.nmonecall.org.

MIDNIGHT SUN 2 26 27 NO. 5H WELL	NE TOP SOIL AREA CORNER	NW PAD CORNER	NW ARCH. AREA CORNER
X= 551.655 NAD 27	X= 551.880 NAD 27	X= 551.470 NAD 27	X= 551.355 NAD 27
Y= 392.273	Y= 392.422	Y= 392.423	Y= 392.558
LAT. 32.078363	ELEVATION +3220' NAVD 88	ELEVATION +3225' NAVD 88	ELEVATION +3226' NAVD 88
LONG. 104.166561	SE TOP SOIL AREA CORNER	NE PAD CORNER & NW TOP SOIL AREA CORNER	NE ARCH. AREA CORNER
X= 592.838 NAD83	X= 551.879 NAD 27	X= 551.840 NAD 27	X= 551.955 NAD 27
Y= 392.330	Y= 392.092	Y= 392.422	Y= 392.557
LAT. 32.078485	ELEVATION +3219' NAVD 88	ELEVATION +3220' NAVD 88	ELEVATION +3218' NAVD 88
LONG. 104.167053	SE PAD CORNER & SW TOP SOIL AREA CORNER	SE ARCH. AREA CORNER	SW ARCH. AREA CORNER
ELEVATION +3222' NAVD 88	X= 551.839 NAD 27	X= 551.954 NAD 27	X= 551.354 NAD 27
	Y= 392.092	Y= 391.957	Y= 391.958
	ELEVATION +3219' NAVD 88	ELEVATION +3217' NAVD 88	ELEVATION +3226' NAVD 88
	SW PAD CORNER		
	X= 551.469 NAD 27		
	Y= 392.093		
	ELEVATION +3225' NAVD 88		

FOR THE EXCLUSIVE USE OF
CHEVRON U.S.A. INC.

I, WM. J. Daniel III, Registered Professional
Land Surveyor, do hereby state this plat is true
and correct to the best of my knowledge.



WM. J. Daniel III
Registration No. 15078



135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

PAGE 2 OF 2

CHEVRON U.S.A. INC.
PROPOSED PAD & TOP SOIL AREA
MIDNIGHT SUN 2 26 27 NO. 5H WELL
SECTION 2, T26S-R27E
EDDY COUNTY, NEW MEXICO

DRAWN BY: BOR	REVISIONS		
PROJ. MGR.: GDG	No.	DATE:	REVISED BY:
DATE: MARCH 18, 2015	No.	DATE:	REVISED BY:
FILENAME: T:\2014\2149544\DWG\Midnight Sun 2 26 27 5H SUP Revised.dwg			

BLOWOUT PREVENTOR SCHEMATIC

Minimum Requirements

OPERATION : Intermediate and Production Hole Sections

Minimum System
Pressure Rating : 5,000 psi

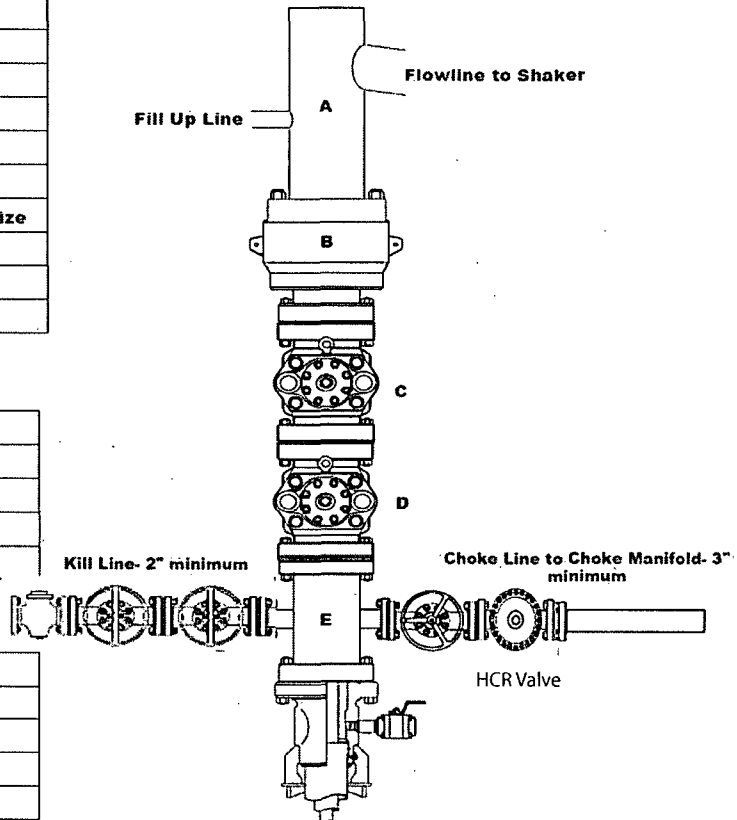
SIZE	PRESSURE	DESCRIPTION
A	N/A	Bell Nipple
B	13 5/8"	5,000 psi Annular
C	13 5/8"	5,000 psi Pipe Ram
D	13 5/8"	5,000 psi Blind Ram
E	13 5/8"	5,000 psi Mud Cross
F		
DSA	As required for each hole size	
C-Sec		
B-Sec	13-5/8" 5K x 11" 5K	
A-Sec	13-3/8" SOW x 13-5/8" 5K	

Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5,000 psi	Gate Valve
2"	5,000 psi	Gate Valve
2"	5,000 psi	Check Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Gate Valve
3"	5,000 psi	HCR Valve



Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.
- ☐ All valves on the kill line and choke line will be full opening and will allow straight through flow.
- ☐ The kill line and choke line will be straight unless turns use tee blocks or are targeted with running tress, and will be anchored to prevent whip and reduce vibration.
- ☐ Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be installed on all manual valves on the choke line and kill line.
- ☐ A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.
- ☐ Upper kelly cock valve with handle will be available on rig floor along with safety valve and subs to fit all drill string connections in use.

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

Wellname: _____

Representative: _____

Date: _____

CHOKE MANIFOLD SCHEMATIC

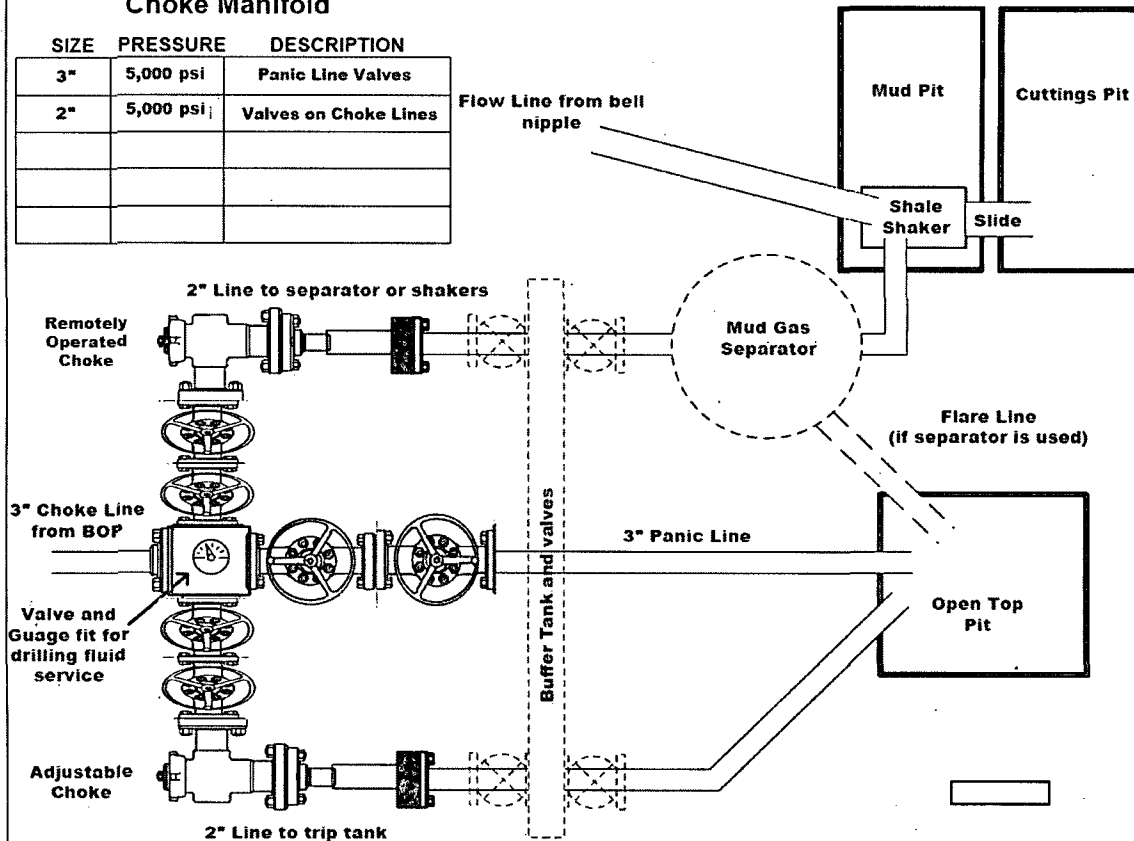
Minimum Requirements

OPERATION : Intermediate and Production Hole Sections

Minimum System Pressure Rating : 5,000 psi

Choke Manifold

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Panic Line Valves
2"	5,000 psi	Valves on Choke Lines



Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.
- ☐ Adjustable Chokes may be Remotely Operated but will have backup hand pump for hydraulic actuation in case of loss of rig air pressure or power.
- ☐ Flare and Panic lines will terminate a minimum of 150' from the wellhead. These lines will terminate at a location as per approved APD.
- ☐ The choke line, kill line, and choke manifold lines will be straight unless turns use tee blocks or are targeted with running tress, and will be anchored to prevent whip and reduce vibration. This excludes the line between mud gas separator and shale shaker.
- ☐ All valves (except chokes) on choke line, kill line, and choke manifold will be full opening and will allow straight through flow. This excludes any valves between mud gas separator and shale shakers.
- ☐ All manual valves will have hand wheels installed.
- ☐ If used, flare system will have effective method for ignition
- ☐ All connections will be flanged, welded, or clamped (no threaded connections like hammer unions)
- ☐ If buffer tank is used, a valve will be used on all lines at any entry or exit point to or from the buffer tank.

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

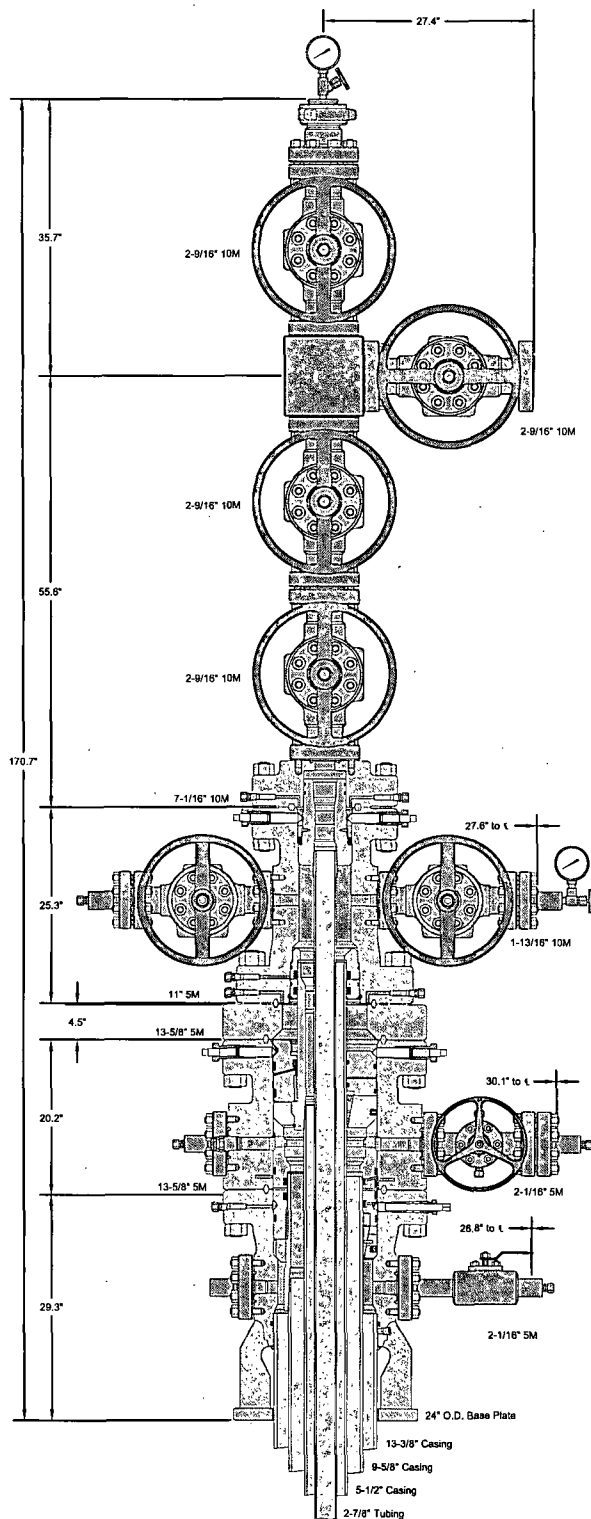
Wellname: _____

Representative: _____

Date: _____



GE Oil & Gas



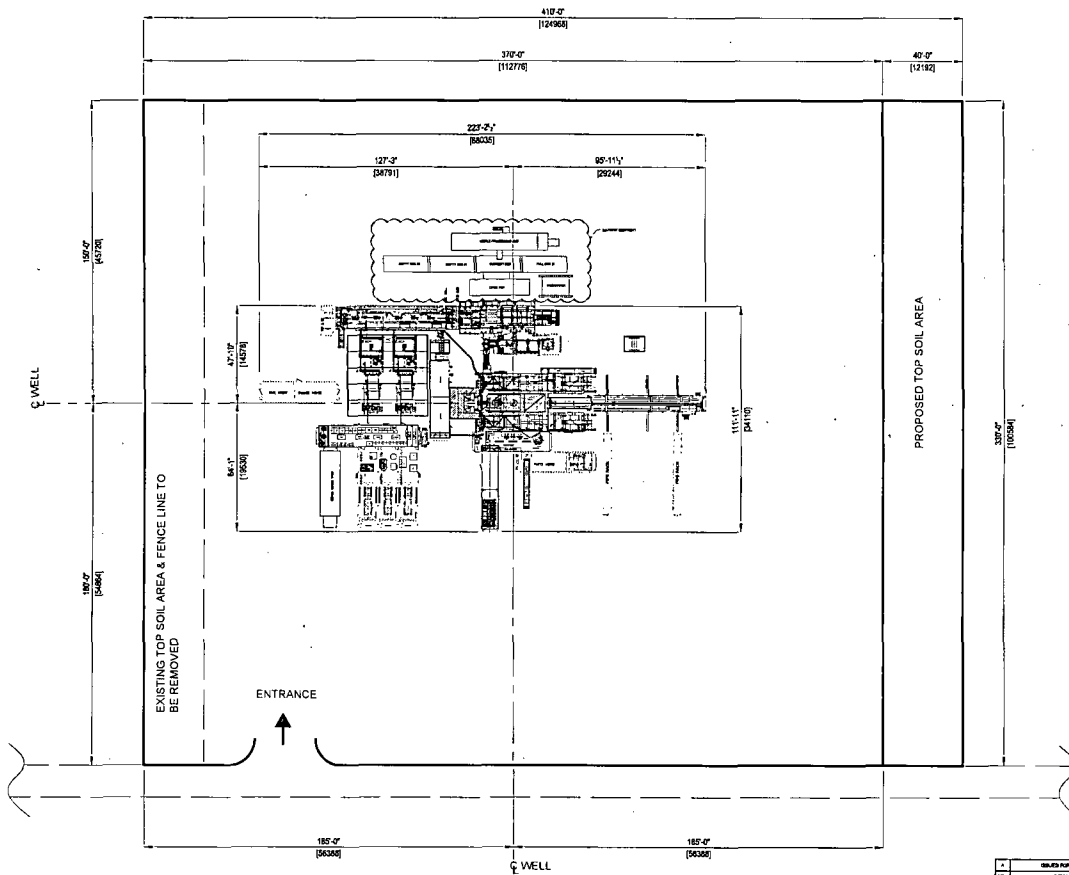
This drawing is the property of GE Oil & Gas Pressure Control LP and is considered confidential. Unless otherwise approved in writing, neither it nor its contents may be used, copied, transmitted or reproduced except for the sole purpose of GE Oil & Gas Pressure Control LP.

CHEVRON USA, INC.
DELAWARE BASIN

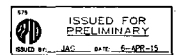
13-3/8" x 9-5/8" x 5-1/2" x 2-7/8" 10M SH2/Conventional
Wellhead Assembly, With DSA, T-EBS-F Tubing Head,
T-EN Tubing Hanger and A5PEN Adapter Flange

DRAWN	VJK	19MAR13
APPRV	KN	19MAR13
FOR REFERENCE ONLY		
DRAWING NO.		AE23705

NABORS - M51
WELL PAD LAYOUT
CHEVRON U.S.A., Inc
MIDNIGHT SUN 2 26 27 5H,
SKEEN - NEW MEXICO



FOR RIG:
LAYOUT REFER DWG # NU-05727-02-01



RIG - M51
WELL PAD LAYOUT
CHEVRON - NEW MEXICO

THIS CONTAINS NO SECURITY VALUE, BUT ONLY WHEN PRINTED ON THIS TYPE FORM				D	
1A	CLASS FOR APPROVAL	CLASS-18	CLASS	CLASS	CLASS
APV	DESCRIPTION	CLASS	CLASS	CLASS	CLASS
1000					
THE INFORMATION ON THIS FORM IS FOR OFFICIAL USE ONLY. IT IS NOT TO BE RELEASED OR DISCLOSED TO THE PUBLIC OR TO ANY OTHER AGENCY OR INDIVIDUAL WITHOUT THE WRITTEN PERMISSION OF THE SECRETARY OF DEFENSE. DO NOT WRITE IN THE SPACES PROVIDED FOR THE CLASSIFICATION. IT IS TO BE USED FOR THE CLASSIFICATION ONLY. IT IS NOT TO BE RELEASED OR DISCLOSED TO THE PUBLIC OR TO ANY OTHER AGENCY OR INDIVIDUAL WITHOUT THE WRITTEN PERMISSION OF THE SECRETARY OF DEFENSE. CLASSIFIED BY: 05727 05-01					



Chevron Midnight Sun 2 26 27 #5H ST01 Rev0 PCG 01-April-15 Proposal

Geodetic Report - 100ft Interpolated

(Non-Def Plan)

Report Date: April 01, 2015 - 03:24 PM
 Client: Chevron
 Field: NM Eddy County (NAD 27)
 Structure / Slot: Chevron Midnight Sun 2 26 27 #5H / Midnight Sun 2 26 27 #5H
 Well: Midnight Sun 2 26 27 #5H
 Borehole: ST01
 UWI / API#: Unknown / Unknown
 Survey Name: Chevron Midnight Sun 2 26 27 #5H ST01 Rev0 PCG 01-April-15
 Survey Date: April 01, 2015
 Tort / AHD / DDI / ERD Ratio: 100.002 ° / 5453.299 ft / 5.932 / 0.607
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 4' 42.11169", W 104° 9' 59.61438"
 Location Grid N/E Y/X: N 392273.000 ftUS, E 551655.000 ftUS
 CRS Grid Convergence Angle: 0.0886 °
 Grid Scale Factor: 0.99991215
 Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 182.407 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3244.000 ft above MSL
 Seabed / Ground Elevation: 3222.000 ft above MSL
 Magnetic Declination: 7.562 °
 Total Gravity Field Strength: 998.4345mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48025.442 nT
 Magnetic Dip Angle: 59.843 °
 Declination Date: April 01, 2015
 Magnetic Declination Model: BGGM 2014
 North Reference: Grid North
 Grid Convergence Used: 0.0886 °
 Total Corr Mag North->Grid North: 7.4737 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	318.30	0.00	0.00	0.00	0.00	N/A	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	100.00	0.00	318.30	100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	200.00	0.00	318.30	200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
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	400.00	0.00	318.30	400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	500.00	0.00	318.30	500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	600.00	0.00	318.30	600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	700.00	0.00	318.30	700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
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	1200.00	0.00	318.30	1200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1300.00	0.00	318.30	1300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1400.00	0.00	318.30	1400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
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	1600.00	0.00	318.30	1600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1700.00	0.00	318.30	1700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1800.00	0.00	318.30	1800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1900.00	0.00	318.30	1900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2000.00	0.00	318.30	2000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2100.00	0.00	318.30	2100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2200.00	0.00	318.30	2200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2300.00	0.00	318.30	2300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2400.00	0.00	318.30	2400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2500.00	0.00	318.30	2500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2600.00	0.00	318.30	2600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2700.00	0.00	318.30	2700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2800.00	0.00	318.30	2800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2900.00	0.00	318.30	2900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3000.00	0.00	318.30	3000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3100.00	0.00	318.30	3100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3200.00	0.00	318.30	3200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
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	3500.00	0.00	318.30	3500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3600.00	0.00	318.30	3600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3700.00	0.00	318.30	3700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3800.00	0.00	318.30	3800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3900.00	0.00	318.30	3900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4000.00	0.00	318.30	4000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4100.00	0.00	318.30	4100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4200.00	0.00	318.30	4200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4300.00	0.00	318.30	4300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4400.00	0.00	318.30	4400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4500.00	0.00	318.30	4500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4600.00	0.00	318.30	4600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4700.00	0.00	318.30	4700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4800.00	0.00	318.30	4800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4900.00	0.00	318.30	4900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5000.00	0.00	318.30	5000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5100.00	0.00	318.30	5100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5200.00	0.00	318.30	5200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5300.00	0.00	318.30	5300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5400.00	0.00	318.30	5400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
Build @ 3° DLS	5430.00	0.00	318.30	5430.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5500.00	2.10	318.30	5499.98	-0.92	0.96	-0.85	3.00	392273.96	551654.15	N 32 4 42.12 W 104 9 59.62	
Hold Tangent	5596.67	5.00	318.30	5596.46	-5.22	5.43	-4.83	3.00	392278.43	551650.17	N 32 4 42.17 W 104 9 59.67	
	5600.00	5.00	318.30	5599.78	-5.43	5.64	-5.03	0.00	392278.64	551649.97	N 32 4 42.17 W 104 9 59.67	
	5700.00	5.00	318.30	5699.40	-11.69	12.15	-10.83	0.00	392285.15	551644.18	N 32 4 42.23 W 104 9 59.74	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	5800.00	5.00	318.30	5799.01	-17.94	18.66	-16.62	0.00	392291.66	551638.38	N 32 4 42.30 W 104 9 59.81	
	5900.00	5.00	318.30	5898.63	-24.20	25.17	-22.42	0.00	392298.16	551632.58	N 32 4 42.36 W 104 9 59.87	
	6000.00	5.00	318.30	5998.25	-30.46	31.67	-28.22	0.00	392304.67	551626.78	N 32 4 42.43 W 104 9 59.94	
	6100.00	5.00	318.30	6097.87	-36.72	38.18	-34.02	0.00	392311.18	551620.99	N 32 4 42.49 W 104 10 0.01	
	6200.00	5.00	318.30	6197.49	-42.98	44.69	-39.82	0.00	392317.68	551615.19	N 32 4 42.55 W 104 10 0.08	
	6300.00	5.00	318.30	6297.11	-49.23	51.19	-45.61	0.00	392324.19	551609.39	N 32 4 42.62 W 104 10 0.14	
	6400.00	5.00	318.30	6396.73	-55.49	57.70	-51.41	0.00	392330.70	551603.59	N 32 4 42.68 W 104 10 0.21	
	6500.00	5.00	318.30	6496.35	-61.75	64.21	-57.21	0.00	392337.20	551597.80	N 32 4 42.75 W 104 10 0.28	
	6600.00	5.00	318.30	6595.97	-68.01	70.72	-63.01	0.00	392343.71	551592.00	N 32 4 42.81 W 104 10 0.35	
	6700.00	5.00	318.30	6695.59	-74.27	77.22	-68.80	0.00	392350.22	551586.20	N 32 4 42.88 W 104 10 0.41	
	6800.00	5.00	318.30	6795.21	-80.52	83.73	-74.60	0.00	392356.72	551580.40	N 32 4 42.94 W 104 10 0.48	
	6900.00	5.00	318.30	6894.83	-86.78	90.24	-80.40	0.00	392363.23	551574.61	N 32 4 43.01 W 104 10 0.55	
	7000.00	5.00	318.30	6994.45	-93.04	96.75	-86.20	0.00	392369.74	551568.81	N 32 4 43.07 W 104 10 0.61	
	7100.00	5.00	318.30	7094.07	-99.30	103.25	-92.00	0.00	392376.24	551563.01	N 32 4 43.13 W 104 10 0.68	
	7200.00	5.00	318.30	7193.69	-105.56	109.76	-97.79	0.00	392382.75	551557.22	N 32 4 43.20 W 104 10 0.75	
	7300.00	5.00	318.30	7293.31	-111.82	116.27	-103.59	0.00	392389.26	551551.42	N 32 4 43.26 W 104 10 0.82	
Drop to Vertical @ 3° DLS	7333.33	5.00	318.30	7326.51	-113.90	118.44	-105.52	0.00	392391.43	551549.49	N 32 4 43.29 W 104 10 0.84	
	7400.00	3.00	318.30	7393.01	-117.24	121.91	-108.62	3.00	392394.90	551546.39	N 32 4 43.32 W 104 10 0.87	
Hold to TD - Pilot	7500.00	0.00	318.30	7492.97	-119.12	123.86	-110.36	3.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7600.00	0.00	181.16	7592.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7700.00	0.00	181.16	7692.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7800.00	0.00	181.16	7792.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7900.00	0.00	181.16	7892.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8000.00	0.00	181.16	7992.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8100.00	0.00	181.16	8092.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8200.00	0.00	181.16	8192.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8300.00	0.00	181.16	8292.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8400.00	0.00	181.16	8392.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8500.00	0.00	181.16	8492.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
Tie-In - Pilot Hole	8505.00	0.00	181.16	8497.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
Build 12"/100' DLS	8509.57	0.00	181.16	8502.54	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8600.00	10.85	181.16	8592.43	-110.58	115.33	-110.53	12.00	392388.32	551544.48	N 32 4 43.25 W 104 10 0.90	
	8700.00	22.85	181.16	8687.96	-81.65	86.40	-111.11	12.00	392359.39	551543.90	N 32 4 42.97 W 104 10 0.90	
	8800.00	34.85	181.16	8775.39	-33.50	38.24	-112.08	12.00	392311.24	551542.93	N 32 4 42.49 W 104 10 0.92	
	8900.00	46.85	181.16	8850.89	31.77	-27.04	-113.40	12.00	392245.97	551541.61	N 32 4 41.85 W 104 10 0.93	
	9000.00	58.85	181.16	8911.17	111.32	-106.58	-115.00	12.00	392166.43	551540.01	N 32 4 41.06 W 104 10 0.95	
	9100.00	70.85	181.16	8953.59	201.65	-196.92	-116.83	12.00	392076.10	551538.18	N 32 4 40.16 W 104 10 0.98	
	9200.00	82.85	181.16	8976.29	298.83	-294.10	-118.79	12.00	391978.93	551536.23	N 32 4 39.20 W 104 10 1.00	
Landing Point	9259.57	90.00	181.16	8980.00	358.23	-353.50	-119.98	12.00	391919.53	551535.03	N 32 4 38.62 W 104 10 1.02	
	9300.00	90.00	181.16	8980.00	398.65	-393.92	-120.80	0.00	391879.11	551534.21	N 32 4 38.22 W 104 10 1.03	
	9400.00	90.00	181.16	8980.00	498.63	-493.90	-122.81	0.00	391779.14	551532.20	N 32 4 37.23 W 104 10 1.05	
	9500.00	90.00	181.16	8980.00	598.60	-593.88	-124.83	0.00	391679.17	551530.18	N 32 4 36.24 W 104 10 1.08	
	9600.00	90.00	181.16	8980.00	698.58	-693.86	-126.85	0.00	391579.20	551528.17	N 32 4 35.25 W 104 10 1.10	
	9700.00	90.00	181.16	8980.00	798.55	-793.84	-128.86	0.00	391479.23	551526.15	N 32 4 34.26 W 104 10 1.13	
	9800.00	90.00	181.16	8980.00	898.53	-893.82	-130.88	0.00	391379.26	551524.13	N 32 4 33.27 W 104 10 1.15	
	9900.00	90.00	181.16	8980.00	998.51	-993.80	-132.89	0.00	391279.29	551522.12	N 32 4 32.28 W 104 10 1.18	
	10000.00	90.00	181.16	8980.00	1098.48	-1093.78	-134.91	0.00	391179.32	551520.10	N 32 4 31.29 W 104 10 1.20	
	10100.00	90.00	181.16	8980.00	1198.46	-1193.76	-136.93	0.00	391079.35	551518.09	N 32 4 30.30 W 104 10 1.23	
	10200.00	90.00	181.16	8980.00	1298.44	-1293.74	-138.94	0.00	390979.37	551516.07	N 32 4 29.31 W 104 10 1.25	
	10300.00	90.00	181.16	8980.00	1398.41	-1393.72	-140.96	0.00	390879.40	551514.05	N 32 4 28.32 W 104 10 1.28	
	10400.00	90.00	181.16	8980.00	1498.39	-1493.70	-142.98	0.00	390779.43	551512.04	N 32 4 27.33 W 104 10 1.30	
	10500.00	90.00	181.16	8980.00	1598.36	-1593.68	-144.99	0.00	390679.46	551510.02	N 32 4 26.34 W 104 10 1.33	
	10600.00	90.00	181.16	8980.00	1698.34	-1693.66	-147.01	0.00	390579.49	551508.00	N 32 4 25.35 W 104 10 1.35	
	10700.00	90.00	181.16	8980.00	1798.32	-1793.64	-149.03	0.00	390479.52	551505.99	N 32 4 24.36 W 104 10 1.38	
	10800.00	90.00	181.16	8980.00	1898.29	-1893.62	-151.04	0.00	390379.55	551503.97	N 32 4 23.38 W 104 10 1.40	
	10900.00	90.00	181.16	8980.00	1998.27	-1993.60	-153.06	0.00	390279.58	551501.95	N 32 4 22.39 W 104 10 1.43	
	11000.00	90.00	181.16	8980.00	2098.24	-2093.58	-155.08	0.00	390179.61	551499.94	N 32 4 21.40 W 104 10 1.45	
	11100.00	90.00	181.16	8980.00	2198.22	-2193.56	-157.09	0.00	390079.64	551497.92	N 32 4 20.41 W 104 10 1.48	
	11200.00	90.00	181.16	8980.00	2298.20	-2293.54	-159.11	0.00	389979.67	551495.90	N 32 4 19.42 W 104 10 1.50	
	11300.00	90.00	181.16	8980.00	2398.17	-2393.52	-161.13	0.00	389879.70	551493.89	N 32 4 18.43 W 104 10 1.53	
	11400.00	90.00	181.16	8980.00	2498.15	-2493.50	-163.14	0.00	389779.73	551491.87	N 32 4 17.44 W 104 10 1.56	
	11500.00	90.00	181.16	8980.00	2598.13	-2593.48	-165.16	0.00	389679.76	551489.85	N 32 4 16.45 W 104 10 1.58	
	11600.00	90.00	181.16	8980.00	2698.10	-2693.46	-167.18	0.00	389579.79	551487.84	N 32 4 15.46 W 104 10 1.61	
	11700.00	90.00	181.16	8980.00	2798.08	-2793.44	-169.20	0.00	389479.81	551485.82	N 32 4 14.47 W 104 10 1.63	
	11800.00	90.00	181.16	8980.00	2898.05	-2893.42	-171.21	0.00	389379.84	551483.80	N 32 4 13.48 W 104 10 1.66	
	11900.00	90.00	181.16	8980.00	2998.03	-2993.40	-173.23	0.00	389279.87	551481.78	N 32 4 12.49 W 104 10 1.68	
	12000.00	90.00	181.16	8980.00	3098.01	-3093.38	-175.25	0.00	389179.90	551479.77	N 32 4 11.50 W 104 10 1.71	
	12100.00	90.00	181.16	8980.00	3197.98	-3193.35	-177.27	0.00	389079.93	551477.75	N 32 4 10.51 W 104 10 1.73	
	12200.00	90.00	181.16	8980.00	3297.96	-3293.33	-179.28	0.00	388979.96	551475.73	N 32 4 9.52 W 104 10 1.76	
	12300.00	90.00	181.16	8980.00	3397.93	-3393.31	-181.30	0.00	388879.99	551473.71	N 32 4 8.54 W 104 10 1.78	
	12400.00	90.00	181.16	8980.00	3497.91	-3493.29	-183.32	0.00	388780.02	551471.70	N 32 4 7.55 W 104 10 1.81	
	12500.00	90.00	181.16	8980.00	3597.89	-3593.27	-185.34	0.00	388680.05	551469.68	N 32 4 6.56 W 104 10 1.83	
	12600.00	90.00	181.16	8980.00	3697.86	-3693.25	-187.36	0.00	388580.08	551467.66	N 32 4 5.57 W 104 10 1.86	
	12700.00	90.00	181.16	8980.00	3797.84	-3793.23	-189.37	0.00	388480.11	551465.64	N 32 4 4.58 W 104 10 1.88	
	12800.00	90.00	181.16	8980.00	3897.82	-3893.21	-191.39	0.00	388380.14	551463.62	N 32 4 3.59 W 104 10 1.91	
	12900.00	90.00	181.16	8980.00	3997.79	-3993.19	-193.41	0.00	388280.17	551461.61	N 32 4 2.60 W 104 10 1.93	
	13000.00	90.00	181.16	8980.00	4097.77	-4093.17	-195.43	0.00	388180.20	551459.59	N 32 4 1.61 W 104 10 1.96	
	13100.00	90.00	181.16	8980.00	419							

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	13400.00	90.00	181.16	8980.00	4497.67	-4493.09	-203.50	0.00	387780.31	551451.52	N 32 3 57.65 W 104 10 2.06	
	13500.00	90.00	181.16	8980.00	4597.65	-4593.07	-205.52	0.00	387680.34	551449.50	N 32 3 56.66 W 104 10 2.09	
	13600.00	90.00	181.16	8980.00	4697.62	-4693.05	-207.54	0.00	387580.37	551447.48	N 32 3 55.67 W 104 10 2.11	
	13700.00	90.00	181.16	8980.00	4797.60	-4793.03	-209.56	0.00	387480.40	551445.46	N 32 3 54.68 W 104 10 2.14	
	13800.00	90.00	181.16	8980.00	4897.58	-4893.01	-211.58	0.00	387380.43	551443.44	N 32 3 53.70 W 104 10 2.16	

Last Take Point	13887.50	90.00	181.16	8980.00	4985.06	-4980.49	-213.34	0.00	387292.96	551441.67	N 32 3 52.83 W 104 10 2.18	
	13900.00	90.00	181.16	8980.00	4997.55	-4992.99	-213.60	0.00	387280.46	551441.42	N 32 3 52.71 W 104 10 2.19	
	14000.00	90.00	181.16	8980.00	5097.53	-5092.97	-215.62	0.00	387180.49	551439.40	N 32 3 51.72 W 104 10 2.21	

Chevron Midnight Sun 2 26 27 #5H - PBHL	14069.51	90.00	181.16	8980.00	5167.02	-5162.46	-217.02	0.00	387111.00	551438.00	N 32 3 51.03 W 104 10 2.23	
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Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	22.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Pilot Borehole / Chevron Midnight Sun 2 26 27 #5H Rev1 PCG 01-
	1	22.000	8505.000	1/100.000	30.000	30.000	SLB_MWD-STD	Pilot Borehole / Chevron Midnight Sun 2 26 27 #5H Rev1 PCG 01-
	1	8505.000	14069.510	1/100.000	30.000	30.000	SLB_MWD-STD	ST01 / Chevron Midnight Sun 2 26 27 #5H ST01 Rev0 PCG 01-April-

Chevron Midnight Sun 2 26 27 #5H Rev1 PCG 01-April-15 Proposal

Geodetic Report - 100ft Interpolated

(Non-Def Plan)



Report Date: April 01, 2015 - 03:21 PM
 Client: Chevron
 Field: NM Eddy County (NAD 27)
 Structure / Slot: Chevron Midnight Sun 2 26 27 #5H / Midnight Sun 2 26 27 #5H
 Well: Midnight Sun 2 26 27 #5H
 Borehole: Pilot Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Chevron Midnight Sun 2 26 27 #5H Rev1 PCG 01-April-15
 Survey Date: March 20, 2015
 Tort / AHD / DDI / ERD Ratio: 10,000 ° / 165.895 ft / 3.220 / 0.018
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 4' 42.11169", W 104° 9' 59.61438"
 Location Grid N/E Y/X: N 392273.000 ftUS, E 551655.000 ftUS
 CRS Grid Convergence Angle: 0.0886 °
 Grid Scale Factor: 0.99991215
 Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 182.407 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: KB
 TVD Reference Elevation: 3244.000 ft above MSL
 Seabed / Ground Elevation: 3222.000 ft above MSL
 Magnetic Declination: 7.562 °
 Total Gravity Field Strength: 998.4345mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48025.442 nT
 Magnetic Dip Angle: 59.843 °
 Declination Date: April 01, 2015
 Magnetic Declination Model: BGGM 2014
 North Reference: Grid North
 Grid Convergence Used: 0.0886 °
 Total Corr Mag North->Grid North: 7.4737 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	318.30	0.00	0.00	0.00	0.00	N/A	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	100.00	0.00	318.30	100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	200.00	0.00	318.30	200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	300.00	0.00	318.30	300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	400.00	0.00	318.30	400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	500.00	0.00	318.30	500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	600.00	0.00	318.30	600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	700.00	0.00	318.30	700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	800.00	0.00	318.30	800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	900.00	0.00	318.30	900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1000.00	0.00	318.30	1000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1100.00	0.00	318.30	1100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1200.00	0.00	318.30	1200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1300.00	0.00	318.30	1300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1400.00	0.00	318.30	1400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1500.00	0.00	318.30	1500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1600.00	0.00	318.30	1600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1700.00	0.00	318.30	1700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1800.00	0.00	318.30	1800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	1900.00	0.00	318.30	1900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2000.00	0.00	318.30	2000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2100.00	0.00	318.30	2100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2200.00	0.00	318.30	2200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2300.00	0.00	318.30	2300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2400.00	0.00	318.30	2400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2500.00	0.00	318.30	2500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2600.00	0.00	318.30	2600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2700.00	0.00	318.30	2700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2800.00	0.00	318.30	2800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	2900.00	0.00	318.30	2900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3000.00	0.00	318.30	3000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3100.00	0.00	318.30	3100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3200.00	0.00	318.30	3200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3300.00	0.00	318.30	3300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3400.00	0.00	318.30	3400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3500.00	0.00	318.30	3500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3600.00	0.00	318.30	3600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3700.00	0.00	318.30	3700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3800.00	0.00	318.30	3800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	3900.00	0.00	318.30	3900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4000.00	0.00	318.30	4000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4100.00	0.00	318.30	4100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4200.00	0.00	318.30	4200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4300.00	0.00	318.30	4300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4400.00	0.00	318.30	4400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4500.00	0.00	318.30	4500.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4600.00	0.00	318.30	4600.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4700.00	0.00	318.30	4700.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4800.00	0.00	318.30	4800.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	4900.00	0.00	318.30	4900.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5000.00	0.00	318.30	5000.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5100.00	0.00	318.30	5100.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5200.00	0.00	318.30	5200.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5300.00	0.00	318.30	5300.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5400.00	0.00	318.30	5400.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
Build @ 3° DLS	5430.00	0.00	318.30	5430.00	0.00	0.00	0.00	0.00	392273.00	551655.00	N 32 4 42.11 W 104 9 59.61	
	5500.00	2.10	318.30	5499.98	-0.92	0.96	-0.85	3.00	392273.96	551654.15	N 32 4 42.12 W 104 9 59.62	
Hold Tangent	5596.67	5.00	318.30	5596.46	-5.22	5.43	-4.83	3.00	392278.43	551650.17	N 32 4 42.17 W 104 9 59.67	
	5600.00	5.00	318.30	5599.78	-5.43	5.64	-5.03	0.00	392278.64	551649.97	N 32 4 42.17 W 104 9 59.67	
	5700.00	5.00	318.30	5699.40	-11.69	12.15	-10.83	0.00	392285.15	551644.18	N 32 4 42.23 W 104 9 59.74	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	5800.00	5.00	318.30	5799.01	-17.94	18.66	-16.62	0.00	392291.66	551638.38	N 32 4 42.30 W 104 9 59.81	
	5900.00	5.00	318.30	5898.63	-24.20	25.17	-22.42	0.00	392298.16	551632.58	N 32 4 42.36 W 104 9 59.87	
	6000.00	5.00	318.30	5998.25	-30.46	31.67	-28.22	0.00	392304.67	551626.78	N 32 4 42.43 W 104 9 59.94	
	6100.00	5.00	318.30	6097.87	-36.72	38.18	-34.02	0.00	392311.18	551620.99	N 32 4 42.49 W 104 10 0.01	
	6200.00	5.00	318.30	6197.49	-42.98	44.69	-39.82	0.00	392317.68	551615.19	N 32 4 42.55 W 104 10 0.08	
	6300.00	5.00	318.30	6297.11	-49.23	51.19	-45.61	0.00	392324.19	551609.39	N 32 4 42.62 W 104 10 0.14	
	6400.00	5.00	318.30	6396.73	-55.49	57.70	-51.41	0.00	392330.70	551603.59	N 32 4 42.68 W 104 10 0.21	
	6500.00	5.00	318.30	6496.35	-61.75	64.21	-57.21	0.00	392337.20	551597.80	N 32 4 42.75 W 104 10 0.28	
	6600.00	5.00	318.30	6595.97	-68.01	70.72	-63.01	0.00	392343.71	551592.00	N 32 4 42.81 W 104 10 0.35	
	6700.00	5.00	318.30	6695.59	-74.27	77.22	-68.80	0.00	392350.22	551586.20	N 32 4 42.88 W 104 10 0.41	
	6800.00	5.00	318.30	6795.21	-80.52	83.73	-74.60	0.00	392356.72	551580.40	N 32 4 42.94 W 104 10 0.48	
	6900.00	5.00	318.30	6894.83	-86.78	90.24	-80.40	0.00	392363.23	551574.61	N 32 4 43.01 W 104 10 0.55	
	7000.00	5.00	318.30	6994.45	-93.04	96.75	-86.20	0.00	392369.74	551568.81	N 32 4 43.07 W 104 10 0.61	
	7100.00	5.00	318.30	7094.07	-99.30	103.25	-92.00	0.00	392376.24	551563.01	N 32 4 43.13 W 104 10 0.68	
	7200.00	5.00	318.30	7193.69	-105.56	109.76	-97.79	0.00	392382.75	551557.22	N 32 4 43.20 W 104 10 0.75	
	7300.00	5.00	318.30	7293.31	-111.82	116.27	-103.59	0.00	392389.26	551551.42	N 32 4 43.26 W 104 10 0.82	
Drop to Vertical @ 3° DLS	7333.33	5.00	318.30	7326.51	-113.90	118.44	-105.52	0.00	392391.43	551549.49	N 32 4 43.29 W 104 10 0.84	
	7400.00	3.00	318.30	7393.01	-117.24	121.91	-108.62	3.00	392394.90	551546.39	N 32 4 43.32 W 104 10 0.87	
Hold to TD - Pilot	7500.00	0.00	318.30	7492.97	-119.12	123.86	-110.36	3.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7600.00	0.00	318.30	7592.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7700.00	0.00	318.30	7692.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7800.00	0.00	318.30	7792.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	7900.00	0.00	318.30	7892.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8000.00	0.00	318.30	7992.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8100.00	0.00	318.30	8092.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8200.00	0.00	318.30	8192.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8300.00	0.00	318.30	8292.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8400.00	0.00	318.30	8392.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8500.00	0.00	318.30	8492.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8600.00	0.00	318.30	8592.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8700.00	0.00	318.30	8692.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8800.00	0.00	318.30	8792.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	8900.00	0.00	318.30	8892.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	9000.00	0.00	318.30	8992.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
	9100.00	0.00	318.30	9092.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	
TD - Pilot Hole	9177.00	0.00	318.30	9169.97	-119.12	123.86	-110.36	0.00	392396.85	551544.65	N 32 4 43.34 W 104 10 0.89	

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 97.071% Confidence 3.0000 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	22.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only
	1	22.000	9177.000	1/100.000	30.000	30.000	SLB_MWD-STD

Pilot Borehole / Chevron Midnight
Sun 2 26 27 #5H Rev1 PCG 01-
Pilot Borehole / Chevron Midnight
Sun 2 26 27 #5H Rev1 PCG 01-



Proposal - ST01 Rev0

Chevron

PATHFINDER
A Schlumberger Company

Borehole:	ST01	Well:	Midnight Sun 2 26 27 #5H	Field:	NM Eddy County (NAD 27)	Structure:	Nabors M-51
Gravity & Magnetic Parameters	Model: BGGM 2014 Dip: 69.843° Date: 01-Apr-2016 MagDec: 7.562° FS: 48025.442mT Gravity FS: 998.435mgn (9.80665 Based)		Surface Location	NAD27 New Mexico State Plane, Eastern Zone, US Feet Lat: N 32 4 42.11 Northing: 392273.0US Grid Conv: 0.0086° Lon: W 104 9 59.81 Easting: 551655.0US Scale Fact: 0.99981215		Miscellaneous Slot: Midnight Sun 2 26 27 #5H TVD Ref: RKB(3244ft above MSL) Plan: ST01 Rev0 PCG 01-April-16	

		Critical Points												
Comments	Survey MD(ft)	Inclination(deg)	Azimuth(deg)	TVD(ft)	Sub-Sea TVD	VS(ft)	NS(ft)	EW(ft)	Latitude(deg)	Longitude(deg)	Easting(RUS)	Northing(ftUS)	DLS(F/100ft)	
	SHL	0.00	0.00	318.30	0.00	-3244.00	0.00	0.00	0.00	N 32 4 42.112	W 104 9 59.614	551655.00	392273.00	
	Build @ 3° DLS	5430.00	0.00	318.30	5430.00	2186.00	0.00	0.00	0.00	N 32 4 42.112	W 104 9 59.614	551655.00	392273.00	0.00
	Hold Tangent	5596.67	5.00	318.30	5596.46	2352.46	-5.22	5.43	-4.83	N 32 4 42.165	W 104 9 59.670	551650.17	392278.43	3.00
Drop to Vertical @ 3° DLS	7333.33	5.00	318.30	7326.51	4082.51	-113.90	118.44	-105.52	N 32 4 43.285	W 104 10 0.839	551549.49	392391.43	0.00	
	Hold to TD - Pilot	7500.00	0.00	318.30	7492.97	4248.97	-119.12	123.86	-110.36	N 32 4 43.339	W 104 10 0.895	551544.65	392396.85	3.00
	Tie-In - Pilot Hole	8505.00	0.00	181.16	8497.97	5253.97	-119.12	123.86	-110.36	N 32 4 43.339	W 104 10 0.895	551544.65	392396.85	0.00
	Build 12°/100' DLS	8509.57	0.00	181.16	8502.54	5258.54	-119.12	123.86	-110.36	N 32 4 43.339	W 104 10 0.895	551544.65	392396.85	0.00
	Landing Point	9259.57	90.00	181.16	8980.00	5736.00	358.23	-353.50	-119.98	N 32 4 38.615	W 104 10 1.015	551535.03	391919.53	12.00
	Last Take Point	13887.50	90.00	181.16	8980.00	5736.00	4985.06	-4980.49	-213.34	N 32 3 52.830	W 104 10 2.183	551441.67	387292.96	0.00
Chevron Midnight Sun 2 26 27 #5H - PBHL		14069.51	90.00	181.16	8980.00	5736.00	5167.02	-5162.46	-217.02	N 32 3 51.029	W 104 10 2.229	551438.00	387111.00	0.00

Grid
True
Mag

Grid North
Tot Corr (M+G 7.473°)
Mag Dec (7.562°)
Grid Conv (0.008°)

CONTROLLED

Plan ref: Chevron Midnight Sun 2 26 27 #5H ST01 Rev0 PCG 01-Apr-16

Drawing ref: of 1

Copy number: 01-Apr-2016

Date: 01-Apr-2016

1 Originator: Colby Gannon

2 OE Sign Off Authority

3 D&M Line Manager: Irving Marzano

4 Client: Chevron

Copy number: for

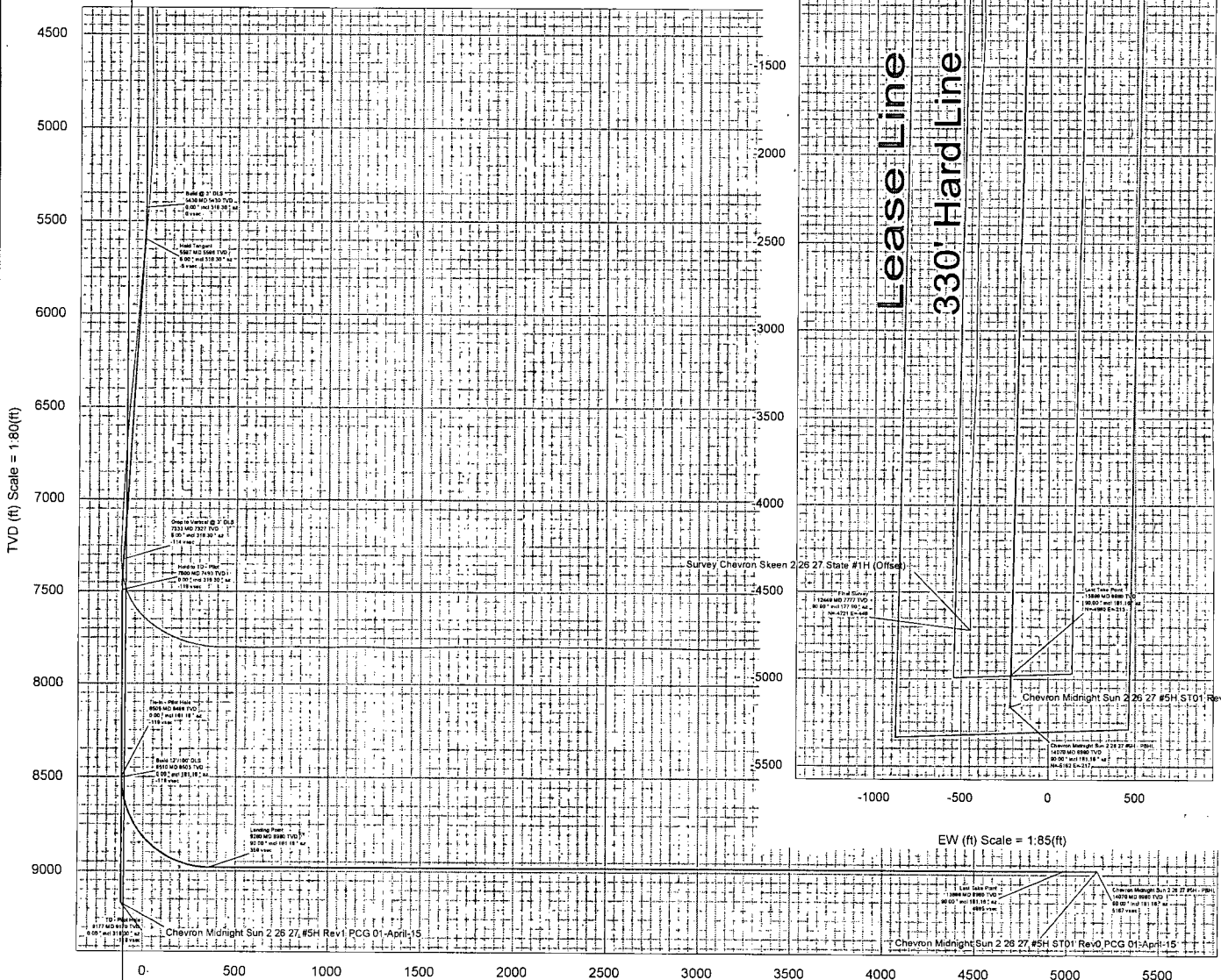
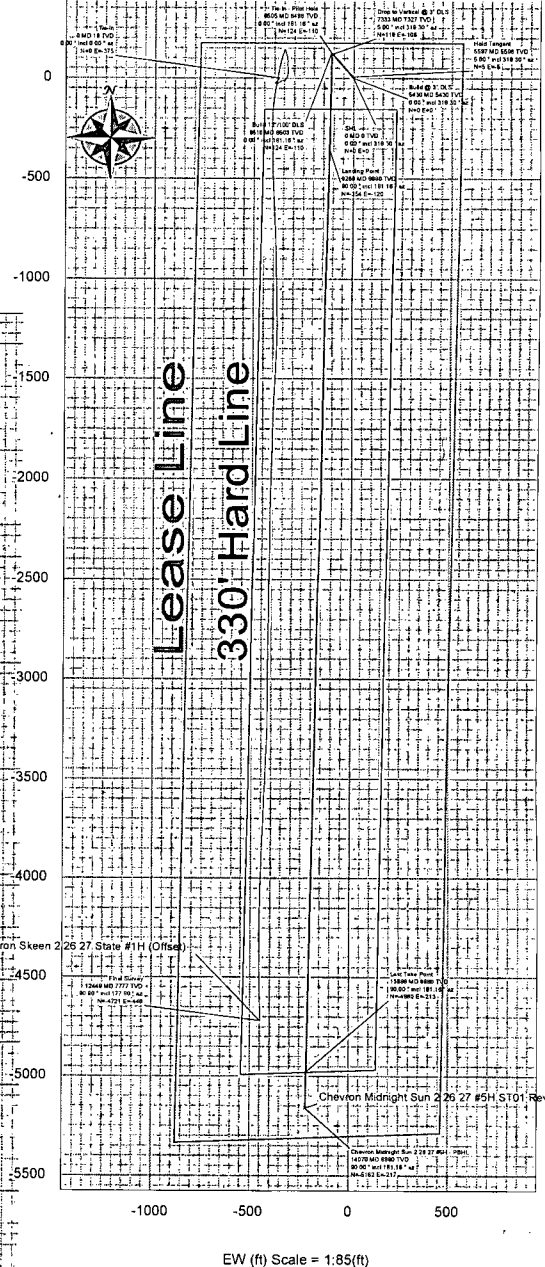
Chevron Midnight Sun 2 26 27 #5H ST01 Rev0 PCG 01-Apr-16

Survey Chevron Steen 2 26 27 State #1H (Offset)

Chevron Midnight Sun 2 26 27 #5H - PBHL

Chevron Midnight Sun 2 26 27 #5H - Lease

Chevron Midnight Sun 2 26 27 #5H - 330' HL



Vertical Section (ft) Azim = 182.407° Scale = 1:80(ft) Origin = ON-S, OE-W

CEMENTING PROGRAM

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water
Surface		ft	ft	(ppg)	(sx/cu ft)	Open Hole	ea	gal/sk
	Tail Class C+2%CaCl	0'	450'	14.8	1.35	125	534	6.57
Intermediate								
1st Stage Lead	65C/35Poz +6%Gel +5%Salt	1,600'	7,000'	12.9	1.876	150	2254	9.90
1st Stage Tail	Class C+5%Gel	7,000'	7,600'	14.8	1.332	100	311	6.36
2nd Stage Lead	65C/35Poz +6%Gel +5%Salt	0'	1,600'	12.9	1.876	250	743	9.90
2nd Stage Tail	Class C+5%Gel	1,600'	1,900'	14.8	1.332	200	212	6.36
Production								
1st Lead	Varicem (Halliburton)	7,100'	8,510'	11.3	2.54	50	187	15.51
2nd Lead	Varicem (Halliburton)	8,510'	13,000'	12.5	1.81	35	856	9.62
	Tail Solucem	13,000'	14,069'	15	2.63	0	103	11.38

1. Final cement volumes will be determined by caliper.
2. Intermediate will have a DV tool with a packer set at 1,900' to ensure all zones are covered and cement reaches to surface.
3. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
4. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

Pilot Hole Plugging Plan:

Please note that this 8-3/4" Pilot Hole will TD at +/-9177 ft within the Wolfcamp formation, and the planned lateral will be in the 3rd Bone Spring formation.

OH cement plug will be set across the pilot hole

Plug	Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks
					(ppg)	(sx/cu ft)	Open Hole	
Pilot Hole	Plug Cement	Class H	KOP	Pilot Depth	17.2	0.97	35	~400

Eddy, NM

CASING PROGRAM

- a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	500'	17-1/2"	13-3/8"	48 #	H-40	STC	New
Intermediate	0'	7,600'	12-1/4"	9-5/8"	40 #	HCK-55	LTC	New
Production	0'	14,069'	8-3/4"	5-1/2"	17.0 #	HCP-110	CDC	New

- b. Casing design subject to revision based on geologic conditions encountered.
- c. ***A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalculated.
- d. Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.

SF Calculations based on the following "Worst Case" casing design.

Surface Casing: 1500'
Intermediate Casing: 7600'
Production Casing: 14,069' MD/8,980' TVD (5167' VS @ 90 deg inc)

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension
Surface	1.28	1.14	1.6
Intermediate	2.47	1.88	1.73
Production	1.29	1.56	1.59

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int	Prod
Burst Design			
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X		
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 15 ppg Frac Gradient		X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid			X
Tubing leak- Prod Csg (packer at KOP) P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid			X
Collapse Design			
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X
Tension Design			
100k lb overpull	X	X	X