# DRILLING PROGRAM MARATHON OIL COMPANY

## North Indian Basin Unit No. 21

#### 1. Estimated KB Elevation: 3749"

	TOP		BASE			FLUID
<u>FORMATION</u>	<u>MEASURED</u>	SUBSEA	<u>MEASU</u>	<u>RED</u>	<u>SUBSEA</u>	CONTENT
Queen	Surface	+3749'	650'		+3099'	water
San Andres	650'	3099'	2250'		1499'	water
Glorietta	2250'	1899'	2355'		449'	
Delaware	3300'	449'	4300'		-551'	
Bone Spring	4300'	-551'	5950'		-2201'	oil gas
Wolfcamp	5950'	-2201'	7520'		-3771'	oil gas
B/Permian Shell	7520'.	-3771'	7530'		-3781'	•
Ú. Penn	7530'	-3781'	7550'		-3801'	gas, oil, water
Penn Dolomite	7550'	-3801'	8150'		-4401'	gas, oil, water
Strawn	8150'	-4401	8800'		-5051'	<b>3</b> , ,
Atoka	8800'	-5051'	9050'		-5301'	
Morrow	9050'	-5301'	9500'		-5751'	
<u>FORMATION</u>		HP G EMW	EST SBHT DEG f	H2S PPM	SIGNIFICANCE (obj. marker, etc.)	
Bone Springs	1210 8.	5		500	marker	

#### 2. See (1) above.

Wolfcamp

U. Penn

Morrow

B/Permian Shale

Penn Dolomite

If any unexpected water or mineral bearing zones are encountered, they will be reported, evaluated, and protected as circumstances and regulations require.

marker

marker

objective

Objective

objective pay

5000

5000

#### 3. Pressure Control Equipment:

1680

1810

2050

2164

3460

9.0

9.0

9.0

9.0

9.2

9 5/8" Surface: 11" 3M annular tested to 200#/2000#, 11" 3M dual rams, choke manifold and mud cross, tested to 300#/3000#.

### **Auxiliary Equipment:**

Surface Hole: N/A

Intermediate Hole: None

<u>Production Hole:</u> Flow indicator, PVT, H<sub>2</sub>S Sensors, air packs, stroke counter, rotating head.

BOP systems will be consistent with API RP 53. Blowout preventers will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs.