

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
HOBBS OCS Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
MAR 23 2012 220 South St. Frances Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-40504	Pool Code 77838	Pool Name WC-025-605 4263208P-BS UPPER SHALE
Property Code 39058	Property Name BUCK FEDERAL (20)	Well Number 4H
OGRID No. 217817	Operator Name CONOCOPHILLIPS	Elevation 3183'

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	20	26 S	32 E		330	NORTH	690	WEST	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
M	20	26 S	32 E		330	SOUTH	690	WEST	LEA
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	NOTE: 1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.	OPERATOR CERTIFICATION I hereby certify the 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 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Brian Maierino 11/29/11 Signature Date Brian Maierino Printed Name 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. October 19, 2011 Date of Survey Signature & Seal of Professional Surveyor Malvin McDONALD NEW MEXICO 12185 W.O. Num. 2011-1441 Certificate No. MACON McDONALD 12185
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MAR 27 2012

ConocoPhillips MCBU

Permian Hz Bonespring/Avalon

Buck Federal 20

Buck Federal 20

Buck Federal 20 #4H

Plan: Plan BLM

Standard Planning Report

22 November, 2011

*TMM
2/7/2012*

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning Company: ConocoPhillips MCBU Project: Permian Hz Bonespring/Avalon Site: Buck Federal 20 Well: Buck Federal 20 Wellbore: Buck Federal 20 #4H Design: Plan BLM	Local Co-ordinate Reference: Well Buck Federal 20 TVD Reference: WELL @ 3206.0ft (Original Well Elev) MD Reference: WELL @ 3206.0ft (Original Well Elev) North Reference: True Survey Calculation Method: Minimum Curvature	
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Project: Permian Hz Bonespring/Avalon		
Map System: US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)		
Map Zone: Texas South Central 4204		

Site: Buck Federal 20			
Site Position:	Northing:	m	Latitude:
From: None	Easting:	m	Longitude:
Position Uncertainty: 0.0 ft	Slot Radius:	in	Grid Convergence: 0.00 °

Well: Buck Federal 20				
Well Position	+N/-S	0.0 ft	Northing: 0.00 m	Latitude: 27° 41' 16.664 N
	+E/-W	0.0 ft	Easting: 0.00 m	Longitude: 105° 10' 51.259 W
Position Uncertainty		0.0 ft	Wellhead Elevation: ft	Ground Level: 3,184.0 ft

Wellbore: Buck Federal 20 #4H					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	BGGM2011	6/21/2011	(°) 7.92	(°) 55.41	(nT) 45,610

Design: Plan BLM				
Audit Notes:				
Version:	Phase: PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	180.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,550.0	0.00	0.00	8,550.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,655.0	8.80	180.00	8,654.6	-8.0	0.0	8.38	8.38	0.00	180.00	
9,658.0	90.00	180.00	9,254.0	-707.4	0.0	8.10	8.10	0.00	0.00	
13,615.0	89.88	180.00	9,258.2	-4,664.4	0.0	0.00	0.00	0.00	-180.00	

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Planning Report

Database: EDM Central Planning	Local Co-ordinate Reference: Well Buck Federal 20	
Company: ConocoPhillips MCBU	TVD Reference: WELL @ 3206.0ft (Original Well Elev)	
Project: Permian Hz Bonespring/Avalon	MD Reference: WELL @ 3206.0ft (Original Well Elev)	
Site: Buck Federal 20	North Reference: True	
Well: Buck Federal 20	Survey Calculation Method: Minimum Curvature	
Wellbore: Buck Federal 20 #4H		
Design: Plan BLM		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	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
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

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Planning Report

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Company: ConocoPhillips MCBU
Project: Permian Hz Bonespring/Avalon
Site: Buck Federal 20
Well: Buck Federal 20
Wellbore: Buck Federal 20 #4H
Design: Plan BLM

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North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

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5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,550.0	0.00	0.00	8,550.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	4.19	180.00	8,600.0	-1.8	0.0	1.8	8.38	8.38	0.00
8,655.0	8.80	180.00	8,654.6	-8.0	0.0	8.0	8.38	8.38	0.00
8,700.0	12.44	180.00	8,698.8	-16.3	0.0	16.3	8.09	8.09	0.00
8,800.0	20.54	180.00	8,794.6	-44.7	0.0	44.7	8.10	8.10	0.00
8,900.0	28.63	180.00	8,885.5	-86.3	0.0	86.3	8.10	8.10	0.00
9,000.0	36.73	180.00	8,969.6	-140.2	0.0	140.2	8.10	8.10	0.00
9,100.0	44.83	180.00	9,045.2	-205.5	0.0	205.5	8.10	8.10	0.00
9,200.0	52.92	180.00	9,111.0	-280.8	0.0	280.8	8.10	8.10	0.00
9,300.0	61.02	180.00	9,165.4	-364.5	0.0	364.5	8.10	8.10	0.00
9,400.0	69.11	180.00	9,207.5	-455.1	0.0	455.1	8.10	8.10	0.00
9,500.0	77.21	180.00	9,236.5	-550.8	0.0	550.8	8.10	8.10	0.00
9,600.0	85.30	180.00	9,251.7	-649.5	0.0	649.5	8.10	8.10	0.00
9,658.0	90.00	180.00	9,254.0	-707.4	0.0	707.4	8.10	8.10	0.00
9,700.0	90.00	180.00	9,254.0	-749.5	0.0	749.5	0.00	0.00	0.00
9,800.0	90.00	180.00	9,254.1	-849.5	0.0	849.5	0.00	0.00	0.00
9,900.0	89.99	180.00	9,254.1	-949.5	0.0	949.5	0.00	0.00	0.00
10,000.0	89.99	180.00	9,254.1	-1,049.5	0.0	1,049.5	0.00	0.00	0.00
10,100.0	89.99	180.00	9,254.1	-1,149.5	0.0	1,149.5	0.00	0.00	0.00
10,200.0	89.98	180.00	9,254.1	-1,249.5	0.0	1,249.5	0.00	0.00	0.00
10,300.0	89.98	180.00	9,254.2	-1,349.5	0.0	1,349.5	0.00	0.00	0.00

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 Company: ConocoPhillips MCBU
 Project: Permian Hz Bonespring/Avalon
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Local Co-ordinate Reference: Well Buck Federal 20
 TVD Reference: WELL @ 3206.0ft (Original Well Elev)
 MD Reference: WELL @ 3206.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,400.0	89.98	180.00	9,254.2	-1,449.5	0.0	1,449.5	0.00	0.00	0.00
10,500.0	89.97	180.00	9,254.2	-1,549.5	0.0	1,549.5	0.00	0.00	0.00
10,600.0	89.97	180.00	9,254.3	-1,649.5	0.0	1,649.5	0.00	0.00	0.00
10,700.0	89.97	180.00	9,254.3	-1,749.5	0.0	1,749.5	0.00	0.00	0.00
10,800.0	89.97	180.00	9,254.4	-1,849.5	0.0	1,849.5	0.00	0.00	0.00
10,900.0	89.96	180.00	9,254.5	-1,949.5	0.0	1,949.5	0.00	0.00	0.00
11,000.0	89.96	180.00	9,254.5	-2,049.5	0.0	2,049.5	0.00	0.00	0.00
11,100.0	89.96	180.00	9,254.6	-2,149.5	0.0	2,149.5	0.00	0.00	0.00
11,200.0	89.95	180.00	9,254.7	-2,249.5	0.0	2,249.5	0.00	0.00	0.00
11,300.0	89.95	180.00	9,254.8	-2,349.5	0.0	2,349.5	0.00	0.00	0.00
11,400.0	89.95	180.00	9,254.8	-2,449.5	0.0	2,449.5	0.00	0.00	0.00
11,500.0	89.94	180.00	9,254.9	-2,549.5	0.0	2,549.5	0.00	0.00	0.00
11,600.0	89.94	180.00	9,255.0	-2,649.5	0.0	2,649.5	0.00	0.00	0.00
11,700.0	89.94	180.00	9,255.1	-2,749.5	0.0	2,749.5	0.00	0.00	0.00
11,800.0	89.94	180.00	9,255.3	-2,849.5	0.0	2,849.5	0.00	0.00	0.00
11,900.0	89.93	180.00	9,255.4	-2,949.5	0.0	2,949.5	0.00	0.00	0.00
12,000.0	89.93	180.00	9,255.5	-3,049.5	0.0	3,049.5	0.00	0.00	0.00
12,100.0	89.93	180.00	9,255.6	-3,149.5	0.0	3,149.5	0.00	0.00	0.00
12,200.0	89.92	180.00	9,255.8	-3,249.5	0.0	3,249.5	0.00	0.00	0.00
12,300.0	89.92	180.00	9,255.9	-3,349.5	0.0	3,349.5	0.00	0.00	0.00
12,400.0	89.92	180.00	9,256.0	-3,449.5	0.0	3,449.5	0.00	0.00	0.00
12,500.0	89.91	180.00	9,256.2	-3,549.5	0.0	3,549.5	0.00	0.00	0.00
12,600.0	89.91	180.00	9,256.3	-3,649.5	0.0	3,649.5	0.00	0.00	0.00
12,700.0	89.91	180.00	9,256.5	-3,749.5	0.0	3,749.5	0.00	0.00	0.00
12,800.0	89.90	180.00	9,256.7	-3,849.5	0.0	3,849.5	0.00	0.00	0.00
12,900.0	89.90	180.00	9,256.8	-3,949.5	0.0	3,949.5	0.00	0.00	0.00
13,000.0	89.90	180.00	9,257.0	-4,049.5	0.0	4,049.5	0.00	0.00	0.00
13,100.0	89.90	180.00	9,257.2	-4,149.5	0.0	4,149.5	0.00	0.00	0.00
13,200.0	89.89	180.00	9,257.4	-4,249.5	0.0	4,249.5	0.00	0.00	0.00
13,300.0	89.89	180.00	9,257.6	-4,349.5	0.0	4,349.5	0.00	0.00	0.00
13,400.0	89.89	180.00	9,257.8	-4,449.5	0.0	4,449.5	0.00	0.00	0.00
13,500.0	89.88	180.00	9,258.0	-4,549.5	0.0	4,549.5	0.00	0.00	0.00
13,600.0	89.88	180.00	9,258.2	-4,649.5	0.0	4,649.5	0.00	0.00	0.00
13,615.0	89.88	180.00	9,258.2	-4,664.4	0.0	4,664.4	0.00	0.00	0.00

NOTE: PILOT HOLE WILL BE DRILLED TO ±9800' and plugged back to kick off point, per COF.

Tmm
2/7/2012

DRILLING PLAN

PROSPECT/FIELD		Bonespring/Red Hills		COUNTY/STATE		Lea County, NM	
OWNERS		BURLINGTON RESOURCES		LEASE			
WELL NO.		BuckFederal 20 #4H		FNL	FSL	FEL	FWL
LOCATION		Surface Location:		330			690
		Bottom Hole Location			330		690
EST. T.D.		Leg #1 13,615' MD		GROUND ELEV.		3,178' (est)	
PROGNOSIS:				LOGS:			
Based on 3,200' KB(est)				Type Interval			
				Open Hole: TC-S-SS-FMI * 9,800' - 4,500'			
				GR-MWD 13,615' - 8550'			
Marker TVD S.S. Depth				DEVIATION:			
Quaternary Surface 766 2,412				Surf 3" max, svy every 500'			
Rustler 2498 685				Int 1/2 3" max, svy every 90'			
Castile 4,408 -1,230				Prod			
Delaware Top 4434 -1260				DST'S:			
Ford Sand 4448 -1265							
Oids 6545 -3362							
Cherry Canyon Lower Top 8,255 -5,077							
Bone Spring 8,489 -5,311							
Bone Spring 1st Carbonate Top 8,546 -5,368							
Bone Spring 1st Carbonate Base 8,751 -5,573							
Avalon A Shale Top 8,981 -5,803							
Avalon A Shale Base 8,981 -5,803							
Avalon B Zone Top 9,105 -5,927							
Avalon B Zone Base 9,105 -5,927							
Avalon C Shale Top 9,372 -6,194							
Avalon C Shale Base (Should not penetrate)				CORES:			
				No coring			
				SAMPLES:			
				Mudlogging, Start End			
				Two-Man: 2,800' 9,800' Pilot Hole			
				Two-Man: 9800' 13500' Horizontal Lateral			
				BOP:			
				COP Category 3 Well Control Requirements			
				Nabors Rig M-09 BOPE 13-5/8"-5Mpsi Annular (Hydnt GK)			
				(With Rotating Head) 13-5/8"-5Mpsi Blind Ram (Cameron U)			
				13-5/8"-5Mpsi Cross / Choke & Kill Lines			
				13-5/8"-5M psl Pipe Ram (Cameron U)			
				13-5/8"-5Mpsi Spacer Spool			
Dip Rate (See inclination prediction)				Surface Formation:			
Max. Anticipated BHP: 0.65 psi/ft				Max. MW Vis WL Remarks			
MUD:				Interval Type			
Surface 0'-950'				Aquagel - Spud Mud 8.9 32-36 NC			
Intermediate 1: 950'-4500'				Brine 10.1 28-30 5-8			
Production Lat 4500'-13615'				Cut Brine 10 30-40 <=5			
CASING:				Size Wt ppf Hole Depth Cement WOC Remarks			
Surface: 13-3/8" 54.5 17-1/2 700'				To Surface 18hrs			
Intermediate 1: 9-5/8" 40 12-1/4" 4,350'				To Surface 18hrs			
Production Lat #1: 5-1/2" 17 8-3/4" 13,615'				18hrs Long String			
DIRECTIONAL PLAN				MD TVD AZ			
Surface: N/A N/A N/A				Directional Company: DDC			
Vertical KOP: 8,550' 8,550'				Vertical Build Rate: 8.1 '100'			
End Build/ (90° curve) 9,658' 9,254'				Tan Leg Turn Rate: 0.0 '100'			
Tangent N/A N/A N/A							
Turn: N/A N/A N/A							
TD: 13,615' 9,258'				180.0			
Comments:							
Prep By:		Luis Serrano		Date:		9/19/11	
				Doc:		REV 0	

TMD
 2/7/2012

BuckFederal 20 #4H

Surface Location: 0 0 Bottom Hole Location 330 0

SAP Network: TBA

Inv. Handler ID: TBA TBA

Drilling TBA

Completion/Facility: \$0

Total #VALUE!

Permit:

NDIC #: TBA

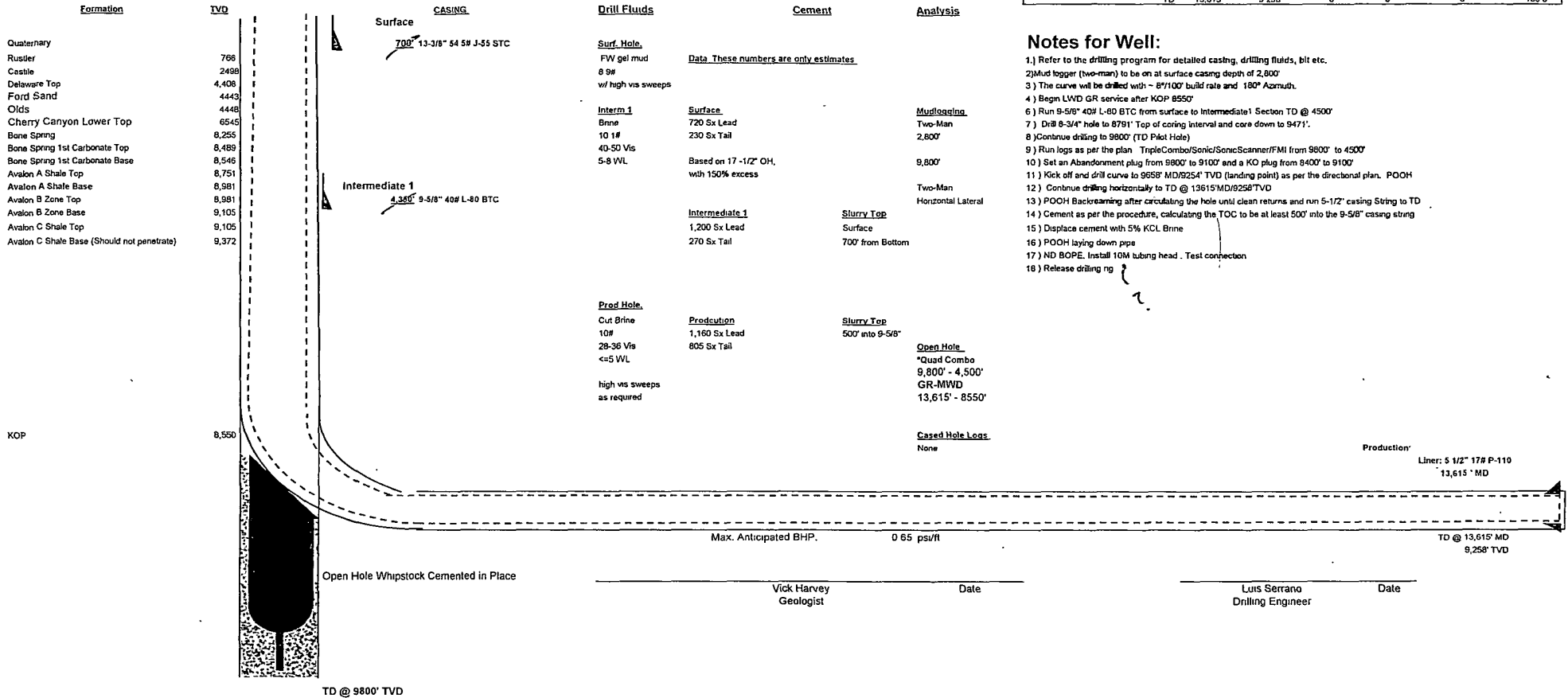
API #: TBA

Fed #: TBA

AFE# TBA

Directional						
	MD	TVD	FN/FSL	FEU/FWL	S-T-R	Azi
Vertical KOP :	8550	8550	0	0	0	180
End Build (90° curve)	9,658'	9,254'	0	0	0	180.0
Tangent	N/A	N/A	0	0	0	N/A
Turn	N/A	N/A	0	0	0	N/A
TD	13,615'	9,258'	0	0	0	180.0

Formation	TVD
Quaternary	
Rustler	766
Castile	2498
Delaware Top	4,408
Ford Sand	4443
Olds	4448
Cherry Canyon Lower Top	6545
Bone Spring	8,255
Bone Spring 1st Carbonate Top	8,489
Bone Spring 1st Carbonate Base	8,546
Avalon A Shale Top	8,751
Avalon A Shale Base	8,981
Avalon B Zone Top	9,105
Avalon B Zone Base	9,105
Avalon C Shale Top	9,105
Avalon C Shale Base (Should not penetrate)	9,372



TAMM
2/7/2012