

District I
1625 N French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax (505) 393-0720

District II
311 S. First St., Artesia, NM 88210
Phone (505) 748-1203 Fax (505) 748-0720

District III
1600 Rio Pecos Road, 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
AS-DRILLED PLAT

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35794	² Pool Code 97232	³ Pool Name Mancos Gas
⁴ Property Code 317305	⁵ Property Name Northeast Blanco Unit 604 Com	⁶ Well Number 2H
⁷ OGRID No. 000778	⁸ Operator Name BP America Production Company	⁹ Elevation 6501

10 Surface Location

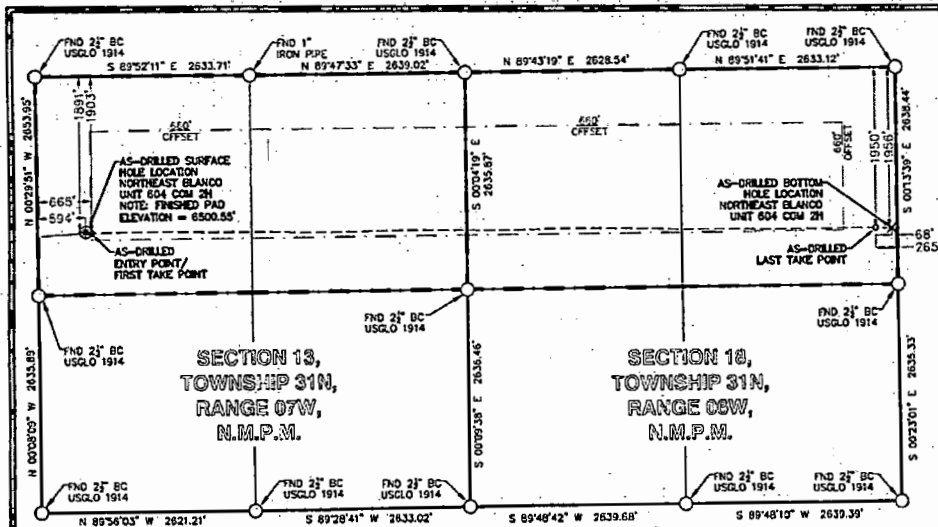
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	13	31N	07W		1891	North	594	West	San Juan

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
H	18	31N	06W		1956	North	68	East	San Juan

¹² Dedicated Acres 640.00 -	N/2 - SEC. 13 N/2 - SEC. 18	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.



LEGEND

FOUND MONUMENT ○
AS-DRILLED SURFACE HOLE LOCATION ●
AS-DRILLED BOTTOM HOLE LOCATION ×

17 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 information was obtained from a working interest or related interest in the land including the proposed bottom hole location or has a right to drill the well at the 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 having been entered by the division.

R Marshall 05/09/2018
Signature Date

Randall Marshall

Printed Name

randall.marshall@bp.com

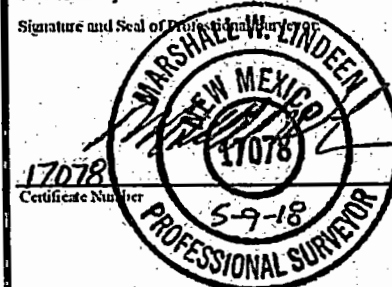
E-mail Address

18 SURVEYOR CERTIFICATION

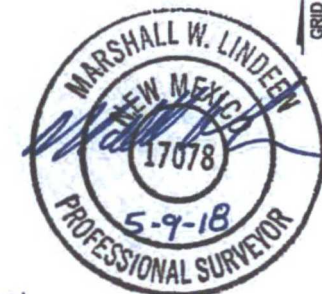
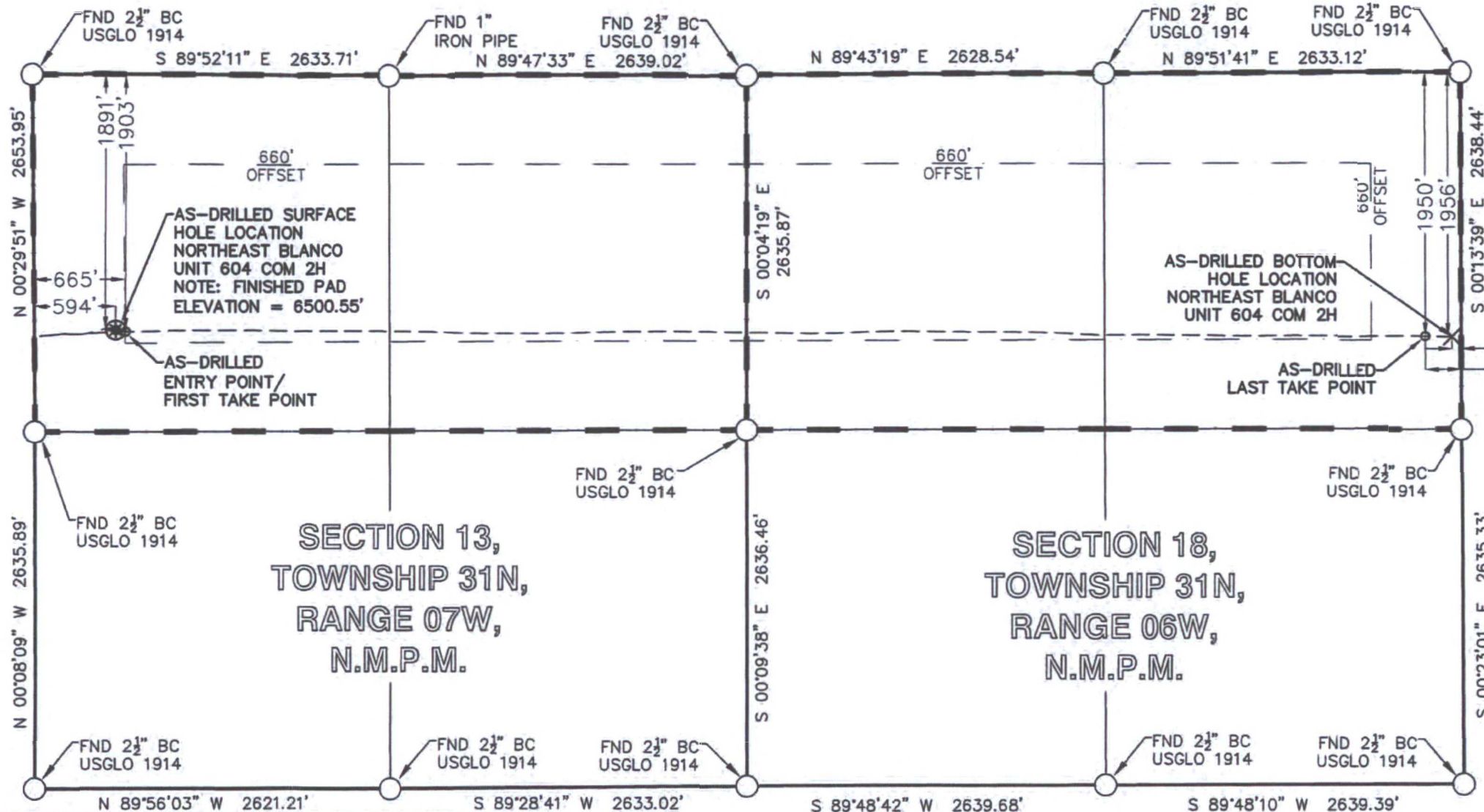
I hereby certify that the well location shown on this plat was placed in the field using of record survey made by me or under my supervision, and that the same is true and correct to the best of my belief.

7-22-16
Date of Survey

Signature and Seal of Professional Surveyor



NEBU 604 COM 2H	NMWS NAD'83	NAD'83	TIES
AS-DRILLED SURFACE HOLE LOCATION (SHL)	N (Y) = 2,147,644.55' E (X) = 2,812,001.69'	LAT. = 36.90158375°N LON. = 107.52924729°W	FNL = 1891' FWL = 594'
AS-DRILLED ENTRY POINT (EP)/FIRST TAKE POINT (FTP)	N (Y) = 2,147,632.57' E (X) = 2,812,072.69'	LAT. = 36.90155023°N LON. = 107.52900459°W	FNL = 1903' FWL = 665'
AS-DRILLED LAST TAKE POINT (LTP)	N (Y) = 2,147,608.39' E (X) = 2,821,668.04'	LAT. = 36.90139522°N LON. = 107.49618781°W	FNL = 1950' FEL = 265'
AS-DRILLED BOTTOM HOLE LOCATION (BHL)	N (Y) = 2,147,602.96' E (X) = 2,821,865.44'	LAT. = 36.90137839°N LON. = 107.49551275°W	FNL = 1956' FEL = 68'



SURVEY NOTES

1. BEARING BASIS FOR THIS SURVEY IS BASED ON THE NORTH AMERICAN DATUM OF 1983, NEW MEXICO STATE PLANE COORDINATE SYSTEM, WEST NEW MEXICO, ZONE 3003.
2. ELEVATION BASIS FOR THIS SURVEY IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID12A).
3. SURVEYED IN THE FIELD ON 07/22/2016.
4. BEARINGS AND DISTANCE SHOWN ARE MEASURED IN THE FIELD UNLESS OTHERWISE NOTED.
5. ALL MEASURED DISTANCES SHOWN ARE GRID USING A COMBINED SCALE FACTOR 0.99961813.
6. AS-DRILLED DATA SHOWN IS BASED ON AS-DRILLED REPORT PROVIDED BY SCIENTIFIC DRILLING DATED MARCH 02, 2018.

NEU 604 COM 2H	NMWS NAD'83	NAD'83	TIES
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0 500 1000 2000

GRAPHIC SCALE IN FEET

LEGEND

FOUND MONUMENT ○
AS-DRILLED SURFACE HOLE LOCATION ●
AS-DRILLED BOTTOM HOLE LOCATION ×

SURVEYOR'S CERTIFICATE

I, MARSHALL LINDEEN, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF NEW MEXICO, DO 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.

DRAWN BY	CHECKED BY	SCALE	DATE	SHEET	REVISION
CFW/RLM	MWL	1"=1000'	05/09/2018	1 OF 1	



BP AMERICA
PRODUCTION COMPANY
US LOWER 48 ONSHORE

AS-DRILLED PLAT

NORTHEAST BLANCO UNIT 604 COM 2H
PART OF
SECTION 13, TOWNSHIP 31N, RANGE 07W, N.M.P.M.
AND
SECTION 18, TOWNSHIP 31N, RANGE 06W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



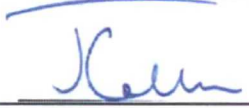
Scientific Drilling

Directional Survey Certification

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

Operator	B.P.
Well Name & No.	NEBU 604 COM 2H
County & State	San Juan, NM
SDI Job No.	OP.007847
Rig	Aztec 1000

I, Janie Collins, having personal knowledge of all the facts, hereby
certify that the attached directional survey run from a measured depth of 1,099 feet to a
measured depth of 17,193 feet is true and correct as determined from all available records.


Signature

2-Mar-18
Date

Janie Collins

Colorado District Well Planner
Scientific Drilling International



NMOC
MAY 11 2018
DISTRICT III

B.P.

San Juan County, NM NAD83
NEBU 604 Pad
NEBU 604 COM 2H

Lateral

Design: Lateral

Standard Survey Report

02 March, 2018



www.scientificdrilling.com

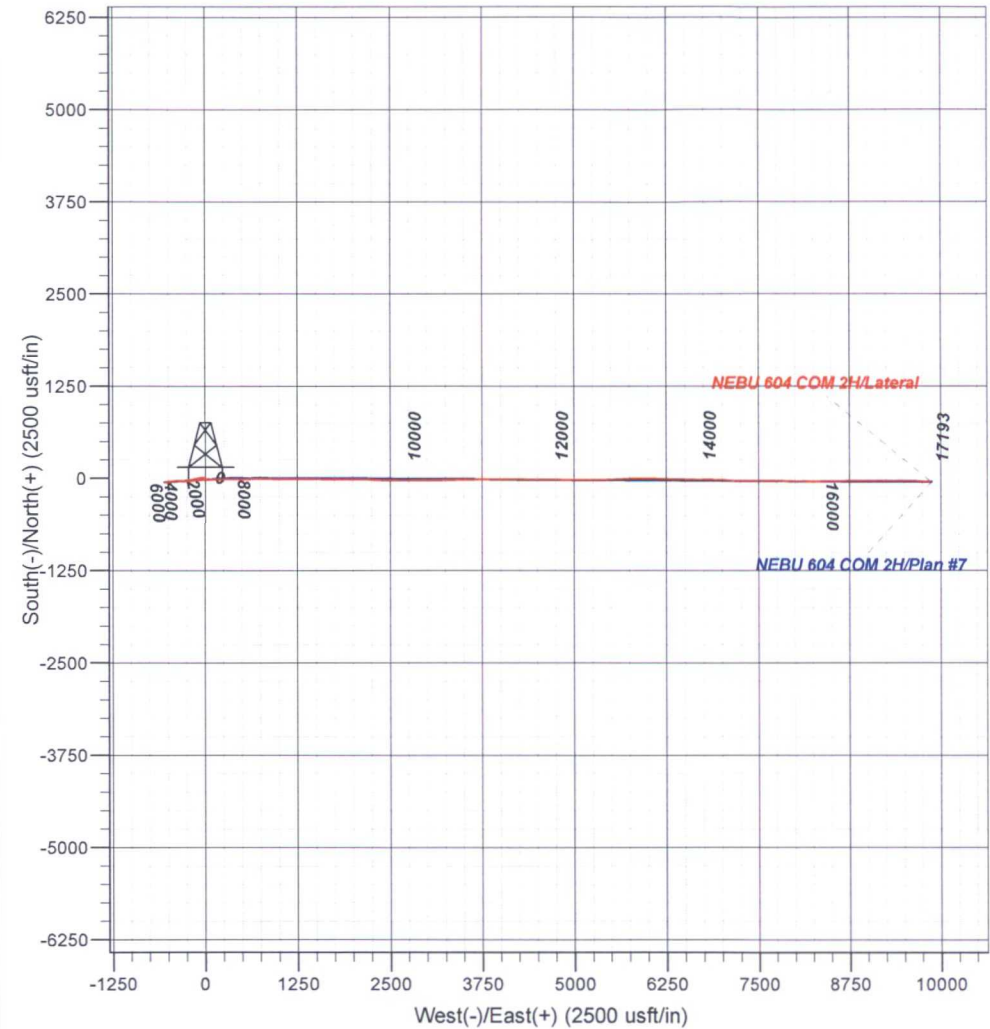
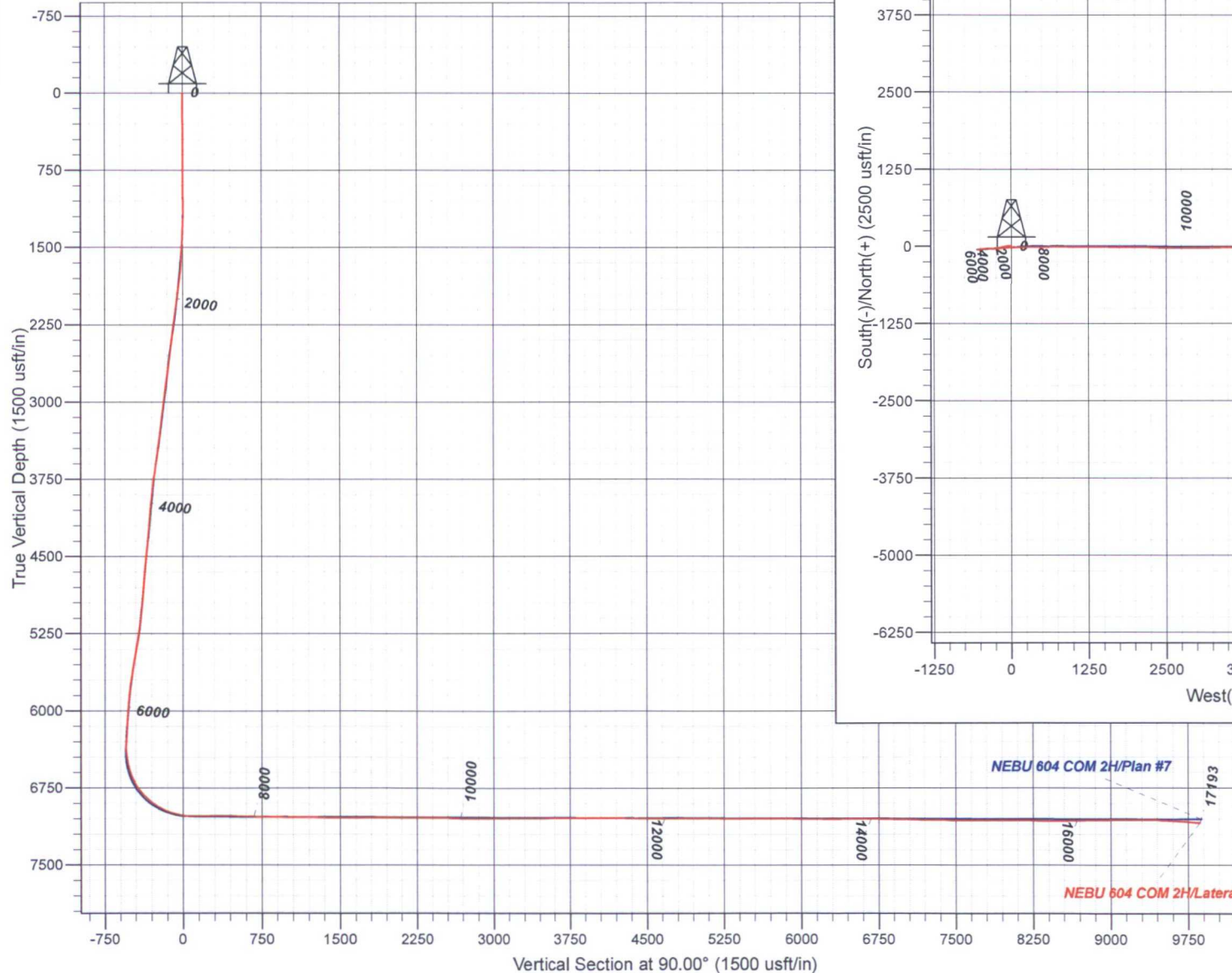


Company Name: B.P.
Project: San Juan County, NM NAD83
Site: NEBU 604 Pad
Well: NEBU 604 COM 2H
Wellbore: Lateral



WELL DETAILS: NEBU 604 COM 2H

+N/-S	+E/-W	GL 6500' & RKB 25' @ 6525.00usft	6500.00	
0.00	0.00	Northing	Easting	Latitude
		2147644.56	2812001.96	36.9015838
				Longitude
				-107.5292464



Design: Lateral (NEBU 604 COM 2H/Lateral)

Created By: Janie Collins Date: 10:51, March 02 2018

PROJECT DETAILS: San Juan County, NM NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone

System Datum: Mean Sea Level
Local North: Grid



Survey Report



Company:	B.P.	Local Co-ordinate Reference:	Well NEBU 604 COM 2H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Site:	NEBU 604 Pad	MD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Well:	NEBU 604 COM 2H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	Grand Junction District

Project	San Juan County, NM NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	NEBU 604 Pad		
Site Position:		Northing:	2,147,663.38 usft
From:	Map	Easting:	2,812,008.74 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.9016354
		Longitude:	-107.5292230
		Grid Convergence:	0.18 °

Well	NEBU 604 COM 2H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.9015837
		Longitude:	-107.5292464
		Ground Level:	6,500.00 usft

Wellbore	Lateral		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	2/4/2018	9.02
			Dip Angle (°)
			63.50
			Field Strength (nT)
			49,971

Design	Lateral		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			90.00

Survey Program	Date 2/18/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
197.00	955.13	Survey #1 - Gyro Survey (Lateral)	Gyro
1,099.00	6,285.00	Survey #2 - MWD Survey (Lateral)	SDI MWD
6,361.00	7,433.00	Survey #3 - Curve MWD Surveys (Lateral)	SDI MWD
7,475.00	17,193.00	Survey #4 - Lateral MWD Survey (Lateral)	SDI MWD
			Description
			SDI MWD - Standard ver 1.0.1
			SDI MWD - Standard ver 1.0.1
			SDI MWD - Standard ver 1.0.1

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
197.00	0.50	44.00	197.00	0.62	0.60	0.60	0.25	0.25	0.00
387.00	0.20	86.00	386.99	1.24	1.50	1.50	0.20	-0.16	22.11
575.00	0.20	86.00	574.99	1.28	2.16	2.16	0.00	0.00	0.00
764.90	0.20	259.00	764.89	1.24	2.16	2.16	0.21	0.00	91.10
955.13	0.20	341.00	955.12	1.49	1.73	1.73	0.14	0.00	43.11
1,099.00	0.54	7.77	1,098.99	2.40	1.74	1.74	0.26	0.24	18.61
1,192.00	0.44	3.51	1,191.99	3.19	1.82	1.82	0.11	-0.11	-4.58



Survey Report



Company:	B.P.	Local Co-ordinate Reference:	Well NEBU 604 COM 2H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Site:	NEBU 604 Pad	MD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Well:	NEBU 604 COM 2H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,285.00	1.72	292.68	1,284.97	4.09	0.55	0.55	1.75	1.38	-76.16
1,380.00	2.45	295.24	1,379.91	5.50	-2.60	-2.60	0.77	0.77	2.69
1,475.00	3.83	288.79	1,474.76	7.39	-7.44	-7.44	1.50	1.45	-6.79
1,569.00	5.14	286.05	1,568.47	9.57	-14.46	-14.46	1.41	1.39	-2.91
1,663.00	4.80	292.57	1,662.12	12.24	-22.14	-22.14	0.70	-0.36	6.94
1,758.00	4.97	277.85	1,756.78	14.33	-29.88	-29.88	1.33	0.18	-15.49
1,853.00	5.97	266.53	1,851.35	14.59	-38.89	-38.89	1.54	1.05	-11.92
1,947.00	6.67	258.61	1,944.78	13.22	-49.12	-49.12	1.19	0.74	-8.43
2,042.00	7.25	259.10	2,039.08	10.99	-60.42	-60.42	0.61	0.61	0.52
2,137.00	7.75	258.40	2,133.26	8.57	-72.58	-72.58	0.54	0.53	-0.74
2,232.00	7.27	256.13	2,227.45	5.84	-84.69	-84.69	0.59	-0.51	-2.39
2,327.00	7.98	253.92	2,321.61	2.58	-96.86	-96.86	0.81	0.75	-2.33
2,422.00	8.23	255.64	2,415.66	-0.94	-109.78	-109.78	0.37	0.26	1.81
2,516.00	7.36	259.51	2,508.79	-3.70	-122.22	-122.22	1.08	-0.93	4.12
2,611.00	6.02	257.69	2,603.14	-5.87	-133.07	-133.07	1.43	-1.41	-1.92
2,706.00	6.59	253.90	2,697.57	-8.44	-143.18	-143.18	0.74	0.60	-3.99
2,800.00	7.15	251.23	2,790.89	-11.82	-153.90	-153.90	0.69	0.60	-2.84
2,895.00	8.02	251.82	2,885.06	-15.79	-165.79	-165.79	0.92	0.92	0.62
2,990.00	7.57	257.14	2,979.18	-19.25	-178.19	-178.19	0.89	-0.47	5.60
3,084.00	7.92	257.39	3,072.32	-22.05	-190.55	-190.55	0.37	0.37	0.27
3,179.00	6.93	260.81	3,166.53	-24.39	-202.59	-202.59	1.14	-1.04	3.60
3,274.00	6.57	261.76	3,260.87	-26.08	-213.63	-213.63	0.40	-0.38	1.00
3,368.00	6.75	261.25	3,354.23	-27.70	-224.41	-224.41	0.20	0.19	-0.54
3,463.00	7.51	261.89	3,448.50	-29.42	-236.07	-236.07	0.80	0.80	0.67
3,557.00	8.62	261.63	3,541.57	-31.31	-249.13	-249.13	1.18	1.18	-0.28
3,652.00	8.59	266.06	3,635.50	-32.84	-263.25	-263.25	0.70	-0.03	4.66
3,746.00	7.58	268.35	3,728.56	-33.50	-276.45	-276.45	1.13	-1.07	2.44
3,841.00	6.16	269.32	3,822.88	-33.74	-287.81	-287.81	1.50	-1.49	1.02
3,936.00	5.59	270.33	3,917.38	-33.77	-297.53	-297.53	0.61	-0.60	1.06
4,030.00	5.23	268.99	4,010.96	-33.82	-306.39	-306.39	0.41	-0.38	-1.43
4,125.00	4.94	272.02	4,105.59	-33.75	-314.81	-314.81	0.42	-0.31	3.19
4,220.00	4.92	270.51	4,200.24	-33.57	-322.97	-322.97	0.14	-0.02	-1.59
4,314.00	5.44	275.24	4,293.85	-33.13	-331.44	-331.44	0.72	0.55	5.03
4,409.00	5.36	277.67	4,388.43	-32.13	-340.32	-340.32	0.26	-0.08	2.56
4,504.00	5.10	281.91	4,483.04	-30.66	-348.85	-348.85	0.49	-0.27	4.46
4,598.00	5.19	284.52	4,576.66	-28.73	-357.06	-357.06	0.27	0.10	2.78
4,693.00	4.48	284.50	4,671.32	-26.73	-364.81	-364.81	0.75	-0.75	-0.02
4,787.00	5.02	256.46	4,765.01	-26.77	-372.36	-372.36	2.51	0.57	-29.83
4,882.00	5.56	245.96	4,859.60	-29.62	-380.60	-380.60	1.16	0.57	-11.05
4,977.00	5.62	259.25	4,954.16	-32.36	-389.38	-389.38	1.36	0.06	13.99
5,071.00	5.22	265.61	5,047.74	-33.55	-398.16	-398.16	0.77	-0.43	6.77
5,166.00	6.43	262.93	5,142.25	-34.53	-407.75	-407.75	1.31	1.27	-2.82
5,260.00	8.05	263.67	5,235.49	-35.91	-419.52	-419.52	1.73	1.72	0.79



Survey Report



Company:	B.P.	Local Co-ordinate Reference:	Well NEBU 604 COM 2H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Site:	NEBU 604 Pad	MD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Well:	NEBU 604 COM 2H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,355.00	9.10	263.48	5,329.43	-37.49	-433.59	-433.59	1.11	1.11	-0.20
5,449.00	8.92	264.38	5,422.27	-39.05	-448.23	-448.23	0.24	-0.19	0.96
5,543.00	9.63	264.43	5,515.04	-40.53	-463.31	-463.31	0.76	0.76	0.05
5,638.00	9.30	264.98	5,608.75	-41.97	-478.86	-478.86	0.36	-0.35	0.58
5,732.00	8.06	263.89	5,701.67	-43.34	-492.98	-492.98	1.33	-1.32	-1.16
5,827.00	6.87	264.49	5,795.86	-44.59	-505.26	-505.26	1.26	-1.25	0.63
5,922.00	5.58	262.50	5,890.30	-45.74	-515.50	-515.50	1.38	-1.36	-2.09
6,016.00	4.71	265.12	5,983.92	-46.67	-523.87	-523.87	0.96	-0.93	2.79
6,111.00	3.65	267.62	6,078.67	-47.12	-530.78	-530.78	1.13	-1.12	2.63
6,206.00	3.34	264.31	6,173.49	-47.52	-536.56	-536.56	0.39	-0.33	-3.48
6,285.00	2.68	268.96	6,252.38	-47.78	-540.69	-540.69	0.89	-0.84	5.89
6,361.00	2.46	270.93	6,328.30	-47.79	-544.10	-544.10	0.31	-0.29	2.59
6,393.00	0.26	264.95	6,360.29	-47.79	-544.86	-544.86	6.88	-6.88	-18.69
6,424.00	3.08	81.87	6,391.28	-47.67	-544.11	-544.11	10.77	9.10	570.71
6,456.00	5.89	84.51	6,423.18	-47.40	-541.62	-541.62	8.80	8.78	8.25
6,487.00	8.09	81.61	6,453.95	-46.92	-537.88	-537.88	7.19	7.10	-9.35
6,519.00	10.29	79.59	6,485.53	-46.08	-532.84	-532.84	6.95	6.88	-6.31
6,550.00	12.66	81.96	6,515.91	-45.10	-526.75	-526.75	7.79	7.65	7.65
6,582.00	14.86	84.16	6,546.99	-44.20	-519.20	-519.20	7.07	6.88	6.88
6,613.00	17.23	87.41	6,576.78	-43.58	-510.65	-510.65	8.17	7.65	10.48
6,645.00	19.08	88.11	6,607.19	-43.20	-500.69	-500.69	5.82	5.78	2.19
6,676.00	21.90	85.92	6,636.22	-42.62	-489.86	-489.86	9.43	9.10	-7.06
6,708.00	25.59	84.60	6,665.51	-41.54	-477.02	-477.02	11.65	11.53	-4.13
6,739.00	29.11	83.54	6,693.04	-40.06	-462.86	-462.86	11.46	11.35	-3.42
6,771.00	31.57	83.54	6,720.66	-38.25	-446.80	-446.80	7.69	7.69	0.00
6,802.00	33.50	85.21	6,746.79	-36.62	-430.21	-430.21	6.87	6.23	5.39
6,834.00	36.76	85.74	6,772.96	-35.17	-411.85	-411.85	10.23	10.19	1.66
6,865.00	39.66	86.27	6,797.31	-33.84	-392.73	-392.73	9.41	9.35	1.71
6,897.00	42.21	88.73	6,821.49	-32.93	-371.78	-371.78	9.43	7.97	7.69
6,928.00	45.37	88.73	6,843.86	-32.46	-350.34	-350.34	10.19	10.19	0.00
6,960.00	47.92	88.73	6,865.83	-31.94	-327.08	-327.08	7.97	7.97	0.00
6,992.00	51.27	88.91	6,886.57	-31.44	-302.72	-302.72	10.48	10.47	0.56
7,024.00	54.61	88.11	6,905.85	-30.77	-277.20	-277.20	10.63	10.44	-2.50
7,055.00	57.60	86.97	6,923.14	-29.67	-251.49	-251.49	10.12	9.65	-3.68
7,087.00	60.76	86.44	6,939.53	-28.08	-224.06	-224.06	9.98	9.88	-1.66
7,118.00	63.40	85.04	6,954.05	-26.05	-196.75	-196.75	9.40	8.52	-4.52
7,150.00	66.21	84.95	6,967.67	-23.52	-167.91	-167.91	8.78	8.78	-0.28
7,181.00	68.41	85.57	6,979.62	-21.16	-139.41	-139.41	7.33	7.10	2.00
7,213.00	71.23	86.44	6,990.66	-19.07	-109.45	-109.45	9.17	8.81	2.72
7,244.00	74.13	86.97	6,999.89	-17.37	-79.90	-79.90	9.50	9.35	1.71
7,276.00	77.73	87.06	7,007.67	-15.75	-48.91	-48.91	11.25	11.25	0.28
7,307.00	80.81	87.59	7,013.44	-14.33	-18.49	-18.49	10.08	9.94	1.71
7,338.00	83.27	88.11	7,017.73	-13.18	12.19	12.19	8.11	7.94	1.68
7,370.00	86.00	88.82	7,020.72	-12.33	44.03	44.03	8.81	8.53	2.22



Survey Report



Company:	B.P.	Local Co-ordinate Reference:	Well NEBU 604 COM 2H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Site:	NEBU 604 Pad	MD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Well:	NEBU 604 COM 2H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,401.00	88.81	89.70	7,022.13	-11.93	74.99	74.99	9.50	9.06	2.84
7,433.00	89.69	89.87	7,022.55	-11.81	106.99	106.99	2.80	2.75	0.53
7,475.00	90.44	88.97	7,022.50	-11.38	148.99	148.99	2.79	1.79	-2.14
7,570.00	90.54	89.15	7,021.69	-9.82	243.97	243.97	0.22	0.11	0.19
7,665.00	90.71	88.55	7,020.65	-7.92	338.95	338.95	0.66	0.18	-0.63
7,759.00	88.99	89.54	7,020.90	-6.35	432.93	432.93	2.11	-1.83	1.05
7,854.00	88.69	89.90	7,022.82	-5.89	527.91	527.91	0.49	-0.32	0.38
7,948.00	89.40	89.62	7,024.39	-5.49	621.89	621.89	0.81	0.76	-0.30
8,043.00	87.92	89.83	7,026.61	-5.04	716.86	716.86	1.57	-1.56	0.22
8,137.00	88.99	89.90	7,029.14	-4.81	810.83	810.83	1.14	1.14	0.07
8,232.00	90.27	89.89	7,029.75	-4.64	905.82	905.82	1.35	1.35	-0.01
8,327.00	89.03	90.84	7,030.33	-5.25	1,000.82	1,000.82	1.64	-1.31	1.00
8,421.00	90.37	90.81	7,030.83	-6.60	1,094.80	1,094.80	1.43	1.43	-0.03
8,516.00	88.22	90.50	7,032.00	-7.68	1,189.78	1,189.78	2.29	-2.26	-0.33
8,611.00	89.60	90.96	7,033.80	-8.90	1,284.76	1,284.76	1.53	1.45	0.48
8,705.00	90.84	91.10	7,033.44	-10.58	1,378.74	1,378.74	1.33	1.32	0.15
8,800.00	88.05	90.32	7,034.36	-11.76	1,473.72	1,473.72	3.05	-2.94	-0.82
8,895.00	89.36	90.43	7,036.51	-12.38	1,568.69	1,568.69	1.38	1.38	0.12
8,989.00	90.27	89.89	7,036.81	-12.65	1,662.69	1,662.69	1.13	0.97	-0.57
9,084.00	89.30	89.72	7,037.17	-12.32	1,757.68	1,757.68	1.04	-1.02	-0.18
9,179.00	90.64	90.13	7,037.22	-12.20	1,852.68	1,852.68	1.48	1.41	0.43
9,274.00	88.83	90.19	7,037.66	-12.46	1,947.68	1,947.68	1.91	-1.91	0.06
9,368.00	90.07	90.24	7,038.56	-12.82	2,041.67	2,041.67	1.32	1.32	0.05
9,463.00	91.21	89.89	7,037.50	-12.92	2,136.66	2,136.66	1.26	1.20	-0.37
9,558.00	89.29	91.45	7,037.09	-14.04	2,231.65	2,231.65	2.60	-2.02	1.64
9,652.00	90.30	91.81	7,037.42	-16.71	2,325.61	2,325.61	1.14	1.07	0.38
9,747.00	89.09	91.77	7,037.93	-19.68	2,420.56	2,420.56	1.27	-1.27	-0.04
9,841.00	90.00	92.01	7,038.67	-22.78	2,514.50	2,514.50	1.00	0.97	0.26
9,936.00	88.56	91.51	7,039.87	-25.69	2,609.45	2,609.45	1.60	-1.52	-0.53
10,031.00	88.15	90.17	7,042.59	-27.09	2,704.40	2,704.40	1.47	-0.43	-1.41
10,126.00	89.16	89.99	7,044.82	-27.22	2,799.37	2,799.37	1.08	1.06	-0.19
10,220.00	90.64	90.10	7,044.99	-27.29	2,893.37	2,893.37	1.58	1.57	0.12
10,315.00	89.40	89.93	7,044.96	-27.32	2,988.36	2,988.36	1.32	-1.31	-0.18
10,407.00	90.47	89.82	7,045.06	-27.12	3,080.36	3,080.36	1.17	1.16	-0.12
10,499.00	90.44	89.52	7,044.33	-26.59	3,172.36	3,172.36	0.33	-0.03	-0.33
10,591.00	91.34	89.15	7,042.90	-25.52	3,264.34	3,264.34	1.06	0.98	-0.40
10,683.00	89.19	88.61	7,042.47	-23.72	3,356.31	3,356.31	2.41	-2.34	-0.59
10,777.00	89.93	88.23	7,043.20	-21.13	3,450.28	3,450.28	0.88	0.79	-0.40
10,870.00	90.64	88.33	7,042.73	-18.34	3,543.23	3,543.23	0.77	0.76	0.11
10,964.00	90.27	88.96	7,041.99	-16.12	3,637.20	3,637.20	0.78	-0.39	0.67
11,057.00	91.58	88.90	7,040.49	-14.38	3,730.17	3,730.17	1.41	1.41	-0.06
11,150.00	89.16	89.85	7,039.89	-13.36	3,823.16	3,823.16	2.80	-2.60	1.02
11,243.00	89.97	89.29	7,040.59	-12.67	3,916.15	3,916.15	1.06	0.87	-0.60



Survey Report



Company:	B.P.	Local Co-ordinate Reference:	Well NEBU 604 COM 2H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Site:	NEBU 604 Pad	MD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Well:	NEBU 604 COM 2H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,335.00	88.93	90.44	7,041.47	-12.45	4,008.14	4,008.14	1.69	-1.13	1.25
11,428.00	90.30	89.67	7,042.10	-12.54	4,101.14	4,101.14	1.69	1.47	-0.83
11,520.00	91.11	90.40	7,040.97	-12.60	4,193.13	4,193.13	1.19	0.88	0.79
11,613.00	89.26	89.84	7,040.67	-12.79	4,286.12	4,286.12	2.08	-1.99	-0.60
11,705.00	90.50	91.73	7,040.86	-14.05	4,378.11	4,378.11	2.46	1.35	2.05
11,799.00	88.96	92.06	7,041.30	-17.16	4,472.05	4,472.05	1.68	-1.64	0.35
11,892.00	89.56	89.93	7,042.50	-18.77	4,565.03	4,565.03	2.38	0.65	-2.29
11,985.00	90.40	90.92	7,042.54	-19.46	4,658.02	4,658.02	1.40	0.90	1.06
12,078.00	87.95	90.47	7,043.88	-20.59	4,751.00	4,751.00	2.68	-2.63	-0.48
12,171.00	89.40	89.98	7,046.03	-20.96	4,843.97	4,843.97	1.65	1.56	-0.53
12,264.00	90.34	91.13	7,046.24	-21.86	4,936.96	4,936.96	1.60	1.01	1.24
12,355.00	89.50	90.92	7,046.36	-23.48	5,027.95	5,027.95	0.95	-0.92	-0.23
12,448.00	90.60	90.38	7,046.28	-24.54	5,120.94	5,120.94	1.32	1.18	-0.58
12,542.00	89.36	89.64	7,046.32	-24.56	5,214.94	5,214.94	1.54	-1.32	-0.79
12,637.00	89.77	88.48	7,047.04	-23.00	5,309.92	5,309.92	1.30	0.43	-1.22
12,732.00	88.99	88.16	7,048.07	-20.21	5,404.87	5,404.87	0.89	-0.82	-0.34
12,826.00	89.66	87.92	7,049.17	-17.00	5,498.81	5,498.81	0.76	0.71	-0.26
12,921.00	90.30	87.05	7,049.21	-12.83	5,593.72	5,593.72	1.14	0.67	-0.92
13,015.00	89.87	89.17	7,049.07	-9.73	5,687.66	5,687.66	2.30	-0.46	2.26
13,110.00	90.94	88.97	7,048.39	-8.19	5,782.64	5,782.64	1.15	1.13	-0.21
13,205.00	90.07	91.47	7,047.56	-8.55	5,877.63	5,877.63	2.79	-0.92	2.63
13,299.00	88.64	90.75	7,048.62	-10.37	5,971.60	5,971.60	1.70	-1.52	-0.77
13,394.00	89.66	90.48	7,050.02	-11.39	6,066.59	6,066.59	1.11	1.07	-0.28
13,488.00	89.80	90.32	7,050.47	-12.05	6,160.58	6,160.58	0.23	0.15	-0.17
13,583.00	88.62	90.35	7,051.78	-12.60	6,255.57	6,255.57	1.24	-1.24	0.03
13,678.00	89.52	90.31	7,053.32	-13.15	6,350.56	6,350.56	0.95	0.95	-0.04
13,772.00	90.64	89.70	7,053.19	-13.16	6,444.55	6,444.55	1.36	1.19	-0.65
13,867.00	89.73	90.54	7,052.88	-13.36	6,539.55	6,539.55	1.30	-0.96	0.88
13,961.00	90.80	90.15	7,052.45	-13.92	6,633.55	6,633.55	1.21	1.14	-0.41
14,056.00	90.57	91.57	7,051.31	-15.35	6,728.53	6,728.53	1.51	-0.24	1.49
14,151.00	89.53	90.71	7,051.23	-17.24	6,823.51	6,823.51	1.42	-1.09	-0.91
14,245.00	88.66	91.99	7,052.71	-19.45	6,917.47	6,917.47	1.65	-0.93	1.36
14,349.00	89.23	92.32	7,054.63	-23.36	7,021.37	7,021.37	0.63	0.55	0.32
14,444.00	88.73	94.13	7,056.32	-28.71	7,116.20	7,116.20	1.98	-0.53	1.91
14,539.00	88.79	92.28	7,058.37	-34.02	7,211.03	7,211.03	1.95	0.06	-1.95
14,633.00	89.83	89.94	7,059.51	-35.84	7,305.00	7,305.00	2.72	1.11	-2.49
14,728.00	89.13	89.07	7,060.37	-35.02	7,399.99	7,399.99	1.18	-0.74	-0.92
14,823.00	88.22	89.49	7,062.57	-33.82	7,494.95	7,494.95	1.05	-0.96	0.44
14,917.00	87.42	90.18	7,066.14	-33.55	7,588.88	7,588.88	1.12	-0.85	0.73
15,012.00	89.60	90.14	7,068.61	-33.82	7,683.85	7,683.85	2.30	2.29	-0.04
15,107.00	90.84	90.49	7,068.25	-34.34	7,778.84	7,778.84	1.36	1.31	0.37
15,202.00	89.93	90.86	7,067.61	-35.46	7,873.83	7,873.83	1.03	-0.96	0.39
15,296.00	90.60	89.93	7,067.17	-36.11	7,967.83	7,967.83	1.22	0.71	-0.99



Survey Report



Company:	B.P.	Local Co-ordinate Reference:	Well NEBU 604 COM 2H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Site:	NEBU 604 Pad	MD Reference:	GL 6500' & RKB 25' @ 6525.00usft
Well:	NEBU 604 COM 2H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,391.00	89.87	90.81	7,066.78	-36.72	8,062.82	8,062.82	1.20	-0.77	0.93
15,486.00	88.99	91.94	7,067.73	-39.00	8,157.79	8,157.79	1.51	-0.93	1.19
15,580.00	88.56	89.69	7,069.74	-40.34	8,251.75	8,251.75	2.44	-0.46	-2.39
15,675.00	90.00	89.79	7,070.93	-39.91	8,346.74	8,346.74	1.52	1.52	0.11
15,769.00	89.16	89.64	7,071.62	-39.44	8,440.74	8,440.74	0.91	-0.89	-0.16
15,864.00	90.47	89.85	7,071.93	-39.02	8,535.73	8,535.73	1.40	1.38	0.22
15,959.00	91.75	89.21	7,070.09	-38.24	8,630.71	8,630.71	1.51	1.35	-0.67
16,053.00	90.94	90.01	7,067.88	-37.60	8,724.68	8,724.68	1.21	-0.86	0.85
16,148.00	90.27	90.31	7,066.88	-37.86	8,819.67	8,819.67	0.77	-0.71	0.32
16,243.00	89.19	90.37	7,067.33	-38.43	8,914.67	8,914.67	1.14	-1.14	0.06
16,337.00	90.20	90.43	7,067.83	-39.08	9,008.66	9,008.66	1.08	1.07	0.06
16,432.00	91.94	89.21	7,066.05	-38.78	9,103.64	9,103.64	2.24	1.83	-1.28
16,526.00	90.84	88.87	7,063.77	-37.21	9,197.60	9,197.60	1.22	-1.17	-0.36
16,621.00	90.00	89.20	7,063.08	-35.61	9,292.58	9,292.58	0.95	-0.88	0.35
16,715.00	89.09	89.65	7,063.82	-34.67	9,386.57	9,386.57	1.08	-0.97	0.48
16,810.00	88.15	90.06	7,066.11	-34.43	9,481.54	9,481.54	1.08	-0.99	0.43
16,905.00	87.42	90.57	7,069.78	-34.95	9,576.47	9,576.47	0.94	-0.77	0.54
16,999.00	86.71	90.97	7,074.60	-36.21	9,670.34	9,670.34	0.87	-0.76	0.43
17,094.00	85.70	91.78	7,080.88	-38.48	9,765.10	9,765.10	1.36	-1.06	0.85
17,131.00	85.47	91.81	7,083.73	-39.64	9,801.97	9,801.97	0.63	-0.62	0.08
17,193.00	85.47	91.81	7,088.63	-41.59	9,863.75	9,863.75	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____