Form 3160-4
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

MAY 2002

5. Lease Serial No. NMSF - 078046

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator: BP AMERICA PRODUCTION COMPANY
Contact: MARY CORLEY
E-Mail: corleyml@bp.com

8. Lease Name and Well No.: HUGHES B 2B

3. Address: P.O. BOX 3092, HOUSTON, TX 77253
3a. Phone No. (include area code): Ph: 281.366.4491

9. API Well No.: 30-045-30937

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface: SWSE Tract 0 895FSL 1660FEL 36.47400 N Lat, 107.42800 W Lon

At top prod interval reported below: NWSE Tract J 2350FSL 1800FEL 36.47400 N Lat, 107.42800 W Lon

At total depth: NWSE Tract J 2350FSL 1800FEL 36.47400 N Lat, 107.42800 W Lon

10. Field and Pool, or Exploratory: BLANCO MESAVERDE

11. Sec., T., R., M., or Block and Survey or Area: Sec 19 T29N R8W Mer NMP

12. County or Parish: SAN JUAN
13. State: NM

14. Date Spudded: 04/10/2002
15. Date T.D. Reached: 04/24/2002
16. Date Completed: ☐ D & A ☒ Ready to Prod. 05/10/2002
17. Elevations (DF, KB, RT, GL)*: 6480 GL

18. Total Depth: MD 6064 TVD 5731
19. Plug Back T.D.: MD 6060 TVD 5681
20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each): TDT

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
13.500	9.625 H-40	32.3	0	216		194		0	
8.750	7.000 J-55	20.0	0	3612		450		0	
6.250	4.500 J-55	10.5	3512	6063		150		3512	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	5700							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	MESAVERDE	4848	5981	4848 TO 5149	3.125	45	
B)				5226 TO 5572	3.125	46	
C)				5612 TO 5981	3.125	50	
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
5612 TO 5981	97,000# OF 16/30 BRADY SAND, 70% QUALITY FOAM & N2
5226 TO 5572	93,000# OF 16/30 BRADY SAND, 70% QUALITY FOAM & N2
4848 TO 5149	93,000# OF 16/30 BRADY SAND, 70% QUALITY FOAM & N2

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
05/07/2002	05/07/2002	12	→	1.0	1100.0	0.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI 0	Csg. Press. 140.0	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
								PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status

ENTERED
EMSS

MAY 20 2002

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #11288 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

NMOCD

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas(*Sold, used for fuel, vented, etc.*)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
MESAVERDE	4848	5981		CLIFF HOUSE	4848
				MENEFEE	5151
				POINT LOOKOUT	5601
				MANCOS	5984

32. Additional remarks (include plugging procedure):
NO REMARK PROVIDED

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #11288 Verified by the BLM Well Information System.
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

Name(*please print*) MARY CORLEY Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) Date 05/13/2002

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

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HUGHES B 2B
COMPLETION SUBSEQUENT REPORT
05/13/2002

04/23/2002 RU & NU Frac head & Frac valve – test liner to 4500#. HELD OK.

04/24/2002 RU & run TDT log from 3050' to 6051'.

04/26/2002 RU & Perf and perf Point Lookout with 1 SPF, 120° phasing as follows:
5981', 5976', 5963', 5948', 5918', 5914', 5910', 5894', 5881', 5869', 5859', 5853', 5850', 5844', 5840', 5830', 5817', 5812', 5805', 5797', 5792', 5782', 5772', 5741', 5736', 5732', 5729', 5723', 5721', 5718', 5715', 5706', 5704', 5701', 5694', 5690', 5686', 5676', 5672', 5666', 5661', 5656', 5654', 5650', 5644', 5637', 5632', 5620', 5617', 5612'

04/29/2002 RU & Frac w/97,000# of 16/30 Brady Sand, 70% Quality Foam & N2. RU, TIH & set CIBP @ 5590'. RU & perf Menefee with 1 SPF, 120° phasing as follows:
5572', 5570', 5558', 5542', 5533', 5526', 5520', 5508', 5502', 5496', 5490', 5480', 5476', 5465', 5461', 5456', 5448', 5444', 5438', 5430', 5426', 5419', 5413', 5404', 5399', 5394', 5388', 5385', 5378', 5372', 5367', 5356', 5344', 5339', 5329', 5322', 5316', 5308', 5300', 5296', 5276', 5265', 5255', 5238', 5234', 5226'
RU & Frac w/93,000# of 16/30 Brady Sand, 70% Quality Foam & N2. RU, TIH & set CIBP @ 5180'. RU & perf Cliff House with 1 SPF, 120° phasing as follows:
5149', 5144', 5138', 5131', 5126', 5117', 5109', 5094', 5084', 5080', 5078', 5070', 5064', 5060', 5056', 5049', 5046', 5033', 5026', 5018', 5012', 4999', 4995', 4988', 4973', 4966', 4961', 4958', 4955', 4951', 4948', 4945', 4940', 4934', 4926', 4922', 4913', 4909', 4896', 4877', 4873', 4868', 4859', 4854', 4848'
RU & Frac w/93,000# of 16/30 Brady Sand, 70% Quality Foam & N2. ND Frac & NU Flow back head. SI well.

04/30/2002 Open well on ¼" choke for 8 hrs. SI well.

05/01/2002 Well SI. ND Frac valve & NU BOP.

05/02/2002 Blow down well. TIH & tag fill @ 4500'. C/O to 5127'. PU above liner & flow well to pit w/watchman – flowing foam and N/2.

05/03/2002 TIH & tag 50' of fill. C/O to CIBP set @ 5180'. DO CIBP. PU above liner & flow well on ¾" choke w/watchman.

05/04/2002 Flow well thru ¾" choke – flowing back N2 foam. SI well.

05/05/2002 Open well & flow for 8 hrs. SI well.

05/06/2002 TIH & DO CIBP set @ 5180'. C/O to PBTD @ 6060'. PU above liner & flow well to pit thru ¾" choke w/watchman.

05/07/2002 TIH & tag 50' of fill. C/O to PBTD. PU above perfs & flow test well 12 hrs. thru ¾" choke. 1100 MCF Gas, trace S WTR, Trace oil.

05/08/2002 TIH & tag 45' of fill. C/O to PBTD. PU above liner & flow back well.

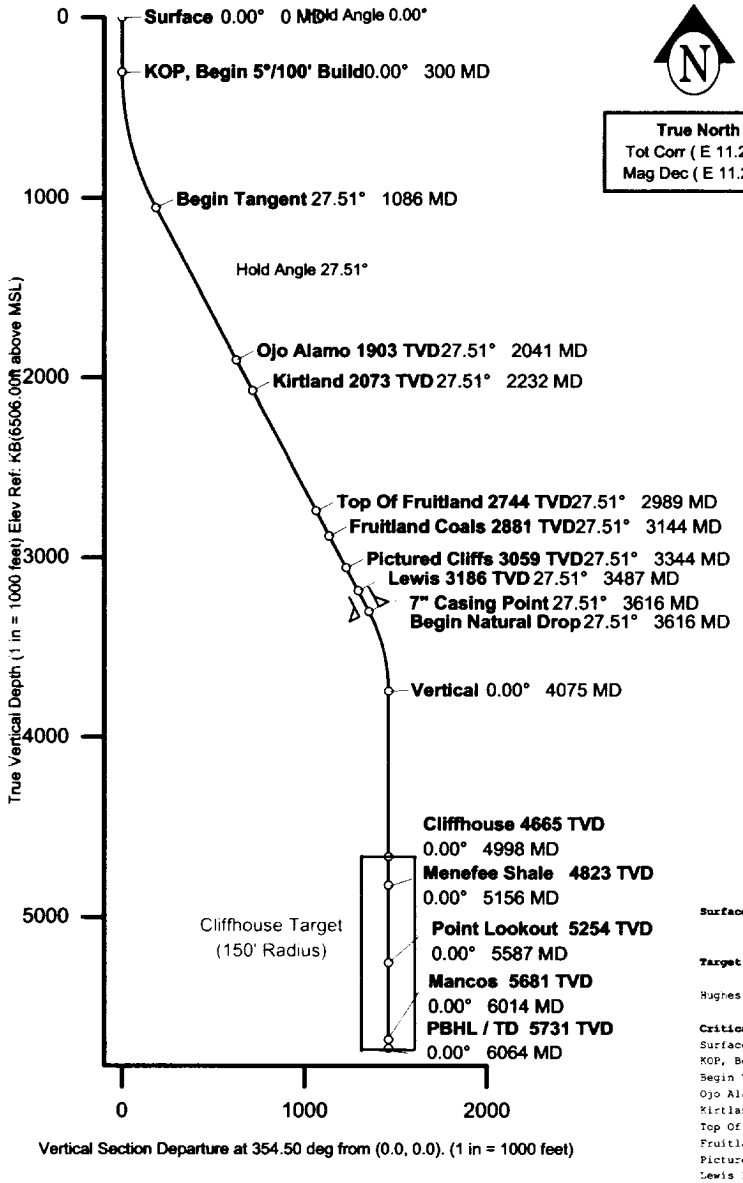
05/09/2002 TIH & tag 28' of fill. C/O to PBTD. PU above perfs & flow back well.

05/10/2002 TIH & found 18' of fill. C/O to PBTD. RU & TIH w/BHA & TBG plug. TIH w/ 2 3/8" production TBG & land @ 5700'. ND BOP. NUWH. Pull TBG plug. RD & MOSU. Rig Release @ 17:00 hrs.

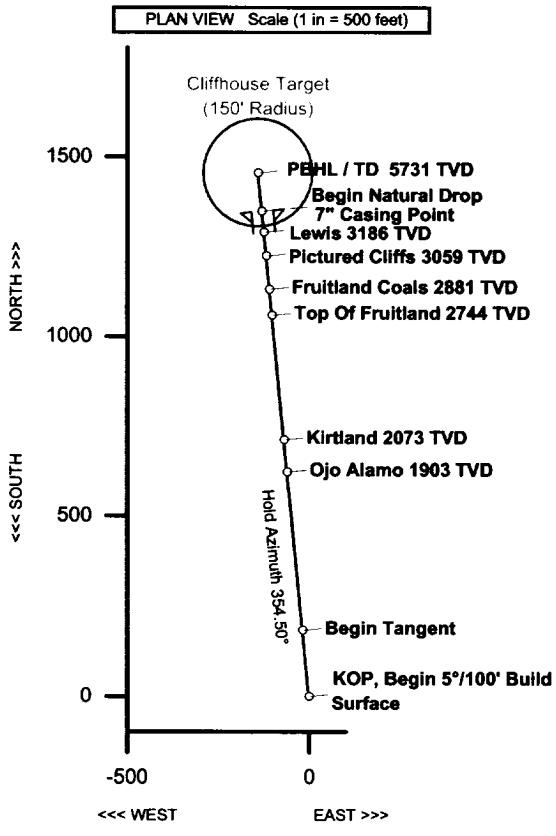
Schlumberger BP

WELL	FIELD	STRUCTURE
Hughes B 2B	NM, San Juan County	BP 19 T29N R8W

Vertical Section View



Vertical Section Departure at 354.50 deg from (0.0, 0.0). (1 in = 1000 feet)



PLAN VIEW Scale (1 in = 500 feet)

Surface Location: North:2007835.00 ftUS, East:2561475.60 ftUS NAD83 New Mexico State Planes, Western Zone, US Feet

Target Name	Grid Coord N(+)/S(-) ftUS	Grid Coord E(+)/W(-) ftUS	TVD ft	Local Coord VSEC ft	Local Coord N(+)/S(-) ft	Local Coord E(+)/W(-) ft	Shape	Major Axis
Hughes B 2B Cliff	2009290.70	2561343.92	4665.00	1461.72	1455.00	-140.00	Circle	300.0

Critical Points	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	354.50	0.00	0.00	0.00	0.00	0.00
KOP, Begin 5°/100	300.00	0.00	354.50	300.00	0.00	0.00	0.00	0.00
Begin Tangent	1086.02	27.51	354.50	1056.17	185.11	184.26	-17.73	3.50
Ojo Alamo 1903 TV	2040.82	27.51	354.50	1903.00	626.15	623.27	-59.97	0.00
Kirtland 2073 TVD	2232.50	27.51	354.50	2073.00	714.68	711.40	-68.45	0.00
Top Of Fruitland	2989.04	27.51	354.50	2744.00	1064.14	1059.25	-101.92	0.00
Fruitland Coals 2	3143.51	27.51	354.50	2881.00	1135.49	1130.27	-108.75	0.00
Pictured Cliffs 3	3344.20	27.51	354.50	3059.00	1228.20	1222.55	-117.63	0.00
Lewis 3186 TVD	3487.39	27.51	354.50	3186.00	1294.34	1288.39	-123.97	0.00
7" Casing Point	3615.93	27.51	354.50	3300.00	1353.71	1347.49	-129.66	0.00
Begin Natural Dro	3615.99	27.51	354.50	3300.05	1353.74	1347.52	-129.66	0.00
Vertical	4074.50	0.00	354.50	3741.15	1461.72	1455.00	-140.00	6.00
Cliffhouse 4665 T	4998.35	0.00	354.50	4665.00	1461.72	1455.00	-140.00	0.00
Menefee Shale 4	5156.35	0.00	354.50	4823.00	1461.72	1455.00	-140.00	0.00
Point Lookout 52	5587.35	0.00	354.50	5254.00	1461.72	1455.00	-140.00	0.00
Mancos 5681 TVD	6014.35	0.00	354.50	5681.00	1461.72	1455.00	-140.00	0.00
PBHL / TD 5731 T	6064.35	0.00	354.50	5731.00	1461.72	1455.00	-140.00	0.00

Quality Control
Date Drawn: 04-Apr-2002
Drawn by: John O'Keefe
Checked by: Allen Starkey
Client OK: _____

ENTERED AFMSS

MAY 20 2002

BY _____

Schlumberger

Proposed Well Profile

Report Date:	April 4, 2002	**Survey / DLS Computation Method:**	Minimum Curvature / Lubinski
Client:	BP	**Vertical Section Azimuth:**	354.500°
Field:	NM, San Juan County	**Vertical Section Origin:**	N 0.000 ft, E 0.000 ft
Structure / Slot:	BP 19 T29N R8W (Hughes B 2B) / Hughes B 2B	**TVD Reference Datum:**	KB
Well:	Hughes B 2B	**TVD Reference Elevation:**	6506.0 ft relative to MSL
Borehole:	Original Hole	**Sea Bed / Ground Level Elevation:**	6492.000 ft relative to MSL
UWI / API#:		**Magnetic Declination:**	11.270°
Survey Name / Date:	Rev6 jok 02-Apr-02 (3300 Csg) / April 4, 2002	**Total Field Strength:**	51555.570 nT
Tort / AHD / DDI / ERD ratio:	55.022° / 1461.72 ft / 4.930 / 0.255	**Magnetic Dip:**	63.366°
Grid Coordinate System:	NAD83 New Mexico State Planes, Western Zone, US Feet	**Declination Date:**	November 16, 2001
Location Lat / Long:	N 36 31 0.000, W 108 23 0.001	**Magnetic Declination Model:**	BGGM 2001
Location Grid N/E Y/X:	N 2007835.000 ftUS, E 2561475.600 ftUS	**North Reference:**	True North
Grid Convergence Angle:	-0.32728780°	**Total Corr Mag North -> True North:**	+11.270°
Grid Scale Factor:	0.99994655	**Local Coordinates Referenced To:**	Well Head

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Surface	0.00	0.00	354.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-5.5MTF
KOP, Begin 5°/100' Build	300.00	0.00	354.50	300.00	0.00	0.00	0.00	0.00	0.00	0.00	-5.5MTF
	400.00	3.50	354.50	399.94	3.05	3.04	-0.29	3.05	354.50	3.50	-5.5MTF
	500.00	7.00	354.50	499.50	12.20	12.15	-1.17	12.20	354.50	3.50	0.0
	600.00	10.50	354.50	598.32	27.41	27.29	-2.63	27.41	354.50	3.50	0.0
	700.00	14.00	354.50	696.03	48.63	48.40	-4.66	48.63	354.50	3.50	0.0
	800.00	17.50	354.50	792.26	75.77	75.42	-7.26	75.77	354.50	3.50	0.0
	900.00	21.00	354.50	886.66	108.73	108.23	-10.41	108.73	354.50	3.50	0.0
	1000.00	24.50	354.50	978.86	147.40	146.72	-14.12	147.40	354.50	3.50	0.0
Begin Tangent	1086.02	27.51	354.50	1056.17	185.11	184.26	-17.73	185.11	354.50	3.50	0.0
Ojo Alamo 1903 TVD	2040.82	27.51	354.50	1903.00	626.15	623.27	-59.97	626.15	354.50	0.00	0.0
Kirtland 2073 TVD	2232.50	27.51	354.50	2073.00	714.68	711.40	-68.45	714.68	354.50	0.00	0.0

Top Of Fruitland 2744 TVD	2989.04	27.51	354.50	2744.00	1064.14	1059.25	-101.92	1064.14	354.50	0.00	0.0
Fruitland Coals 2881 TVD	3143.51	27.51	354.50	2881.00	1135.49	1130.27	-108.75	1135.49	354.50	0.00	0.0
Pictured Cliffs 3059 TVD	3344.20	27.51	354.50	3059.00	1228.20	1222.55	-117.63	1228.20	354.50	0.00	0.0
Lewis 3186 TVD	3487.39	27.51	354.50	3186.00	1294.34	1288.39	-123.97	1294.34	354.50	0.00	0.0
7" Casing Point	3615.93	27.51	354.50	3300.00	1353.71	1347.49	-129.66	1353.71	354.50	0.00	0.0
Begin Natural Drop	3615.99	27.51	354.50	3300.05	1353.74	1347.52	-129.66	1353.74	354.50	0.00	180.0
	3700.00	22.47	354.50	3376.17	1389.22	1382.83	-133.06	1389.22	354.50	6.00	180.0
	3800.00	16.47	354.50	3470.41	1422.54	1416.00	-136.25	1422.54	354.50	6.00	180.0
	3900.00	10.47	354.50	3567.62	1445.82	1439.17	-138.48	1445.82	354.50	6.00	180.0
	4000.00	4.47	354.50	3666.72	1458.82	1452.11	-139.72	1458.82	354.50	6.00	-5.5MTF
Vertical	4074.50	0.00	354.50	3741.15	1461.72	1455.00	-140.00	1461.72	354.50	6.00	-5.5MTF
Cliffhouse 4665 TVD	4998.35	0.00	354.50	4665.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
Menefee Shale 4823 TVD	5156.35	0.00	354.50	4823.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
Point Lookout 5254 TVD	5587.35	0.00	354.50	5254.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
Mancos 5681 TVD	6014.35	0.00	354.50	5681.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
PBHL / TD 5731 TVD	6064.35	0.00	354.50	5731.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	0.0MTF

Survey Error Model: **Wolff & deWardt 1.0000 sigma**

Surveying Programme:

MD From (ft)	MD To (ft)	EOU Freq	Survey Tool Type
0.00	6064.35	Act-Stns	Anadrill MWD (none assigned-default tool used)