

RCVD FEB 20 2007  
OIL CONS. DIV.  
DIST. 3

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NM-03566</b>
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well Gas <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or tribe Name
2. Name of Operator <b>BP AMERICA PRODUCTION COMPANY</b>		7. If Unit or CA Agreement, Name and No
3a. Address <b>P.O. BOX 3092 HOUSTON, TX 77079-2064</b>	3b. Phone No. (include area code) <b>281-366-4081</b>	8. Lease Name and Well No. <b>Stewart LS 6N</b>
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>2345' FNL &amp; 1530' FEL SWNE</b> At proposed prod. Zone <b>2550 FNL &amp; 1900 FEL</b>		9. API Well No. <b>30-045-34039</b>
14. Distance in miles and direction from nearest town or post office* <b>7.2 MILES SOUTHEAST FROM AZTEC, NM</b>		10. Field and Pool, or Exploratory <b>Basin Dakota &amp; Blanco Mesaverde</b>
15. Distance from proposed* Location to nearest Property or lease line, ft. (Also to nearest drig. Ujnit line, if any) <b>1081'</b>	16. No. of Acres in lease <b>322.26</b>	11. Sec., T., R., M., or Blk, and survey or Area <b>SECTION 28 T30N &amp; R10W</b> <b>6</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>711'</b>	19. Proposed Depth <b>7408' MD</b>	12. County or Parish <b>SAN JUAN</b>
21. Elevations (show whether DF, KDB., RT, GL, etc.) <b>6251' GL</b>	22. Approximate date work will start* <b>03/08/07</b>	13. State <b>NEW MEXICO</b>
17. Spacing Unit dedicated to this well <b>322.26</b> <b>E/2</b>		20. BLM/BIA Bond No. on file <b>WY2924</b>
23. Estimated duration <b>7 DAYS</b>		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |                                                                                                                                                 |                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1. Well plat certified by a registered surveyor.                                                                                                | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.                                                                                                                             | 5. Operator certification.                                                                         |
| 3. A Surface Use Plan (if the location is on National forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Cherry Hlava</i>	Name (Printed/typed) <b>Cherry Hlava</b>	Date <b>10/23/2006</b>
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Title  
**Regulatory Analyst**

Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) <b>AEH</b>	Date <b>2/2/07</b>
-----------------------------------------------	------------------------------------	-----------------------

Title <b>AEH</b>	Office <b>FFO</b>
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Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct Operations thereon.

Conditions of approval, if any, are attached.

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 fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

3/8

HOLD C104 FOR *directional*  
*survey* +  
*BH survey*  
**NMOCD**

2/6/07

NOTIFY AZTEC OGD **24hrs**  
IN TIME TO WITNESS **CSG Cementing**

District I  
PO Box 1980, Hobbs NM 88241-1980  
District II  
PO Drawer KK, Artesia, NM 87211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

REC'D OCT 28 PM 7 13 AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

RCVD FEB 6 '07  
OIL CON. DIV

1 API Number <b>30-045-34039</b>		2 Pool Code <b>71599; 72319</b>		3 Pool Name <b>Basin Dakota; Blanco Mesaverde</b>		DIST. 3	
4 Property Code <b>00 1129</b>		5 Property Name <b>Stewart LS</b>				6 Well Number <b># 6N</b>	
7 OGRID No. <b>000778</b>		8 Operator Name <b>BP AMERICA PRODUCTION COMPANY</b>				9 Elevation <b>6251</b>	

**10 Surface Location**

UL or Lot No. <b>G (Lot 7)</b>	Section <b>28</b>	Township <b>30 N</b>	Range <b>10 W</b>	Lot Idn	Feet from the <b>2345</b>	North/South line <b>NORTH</b>	Feet from the <b>1530</b>	East/West line <b>EAST</b>	County <b>SAN JUAN</b>
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**11 Bottom Hole Location If Different From Surface**

1 UL or lot no. <b>G (lot 7)</b>	Section <b>28</b>	Township <b>30 N</b>	Range <b>10 W</b>	Lot Idn	Feet from the <b>2550'</b>	North/South line <b>North</b>	Feet from the <b>1900'</b>	East/West line <b>East</b>	County <b>San Juan</b>
12 Dedicated Acres <b>322.26</b>		13 Joint or Infill		14 Consolidation Code		15 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

16				17 OPERATOR CERTIFICATION			
				I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature <u>Cherry Hava</u> Printed Name <u>Cherry Hava</u> Title <u>Regulatory Analyst</u> Date <u>10-23-06</u>			
18 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. Date of Survey <u>March 9, 2004</u> Signature and Seal of Professional Surveyor 				Certificate Number <u>7016</u>			

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., 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  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. <u>30-045-34039</u> New Well
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. <u>7 15</u>
7. Lease Name or Unit Agreement Name Stewart LS
8. Well Number 6N
9. OGRID Number 000778
10. Pool name or Wildcat Basin Dakota & Blanco Mesaverde

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type DRILLING Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water <1000'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume \_\_\_\_\_ bbls; Construction Material \_\_\_\_\_

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/>
2. Name of Operator BP AMERICA PRODUCTION COMPANY
3. Address of Operator P.O. BOX 3092 HOUSTON, TX 77079-2064
4. Well Location Unit Letter <u>G</u> : <u>2345</u> feet from the <u>North</u> line and <u>1530</u> feet from the <u>East</u> line Section <u>28</u> Township <u>30N</u> Range <u>10W</u> NMPM SAN JUAN County
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6251'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
PLUG AND ABANDON <input type="checkbox"/>	P AND A <input type="checkbox"/>
CHANGE PLANS <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
MULTIPLE COMPL <input type="checkbox"/>	
OTHER: LINED DRILLING PIT <input checked="" type="checkbox"/>	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Construct a lined drilling pit per BP America – San Juan Basin Drilling/ Workover Pit Construction Plan issued date of 11/17/2004. Pit will be closed according to closure plan on file.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

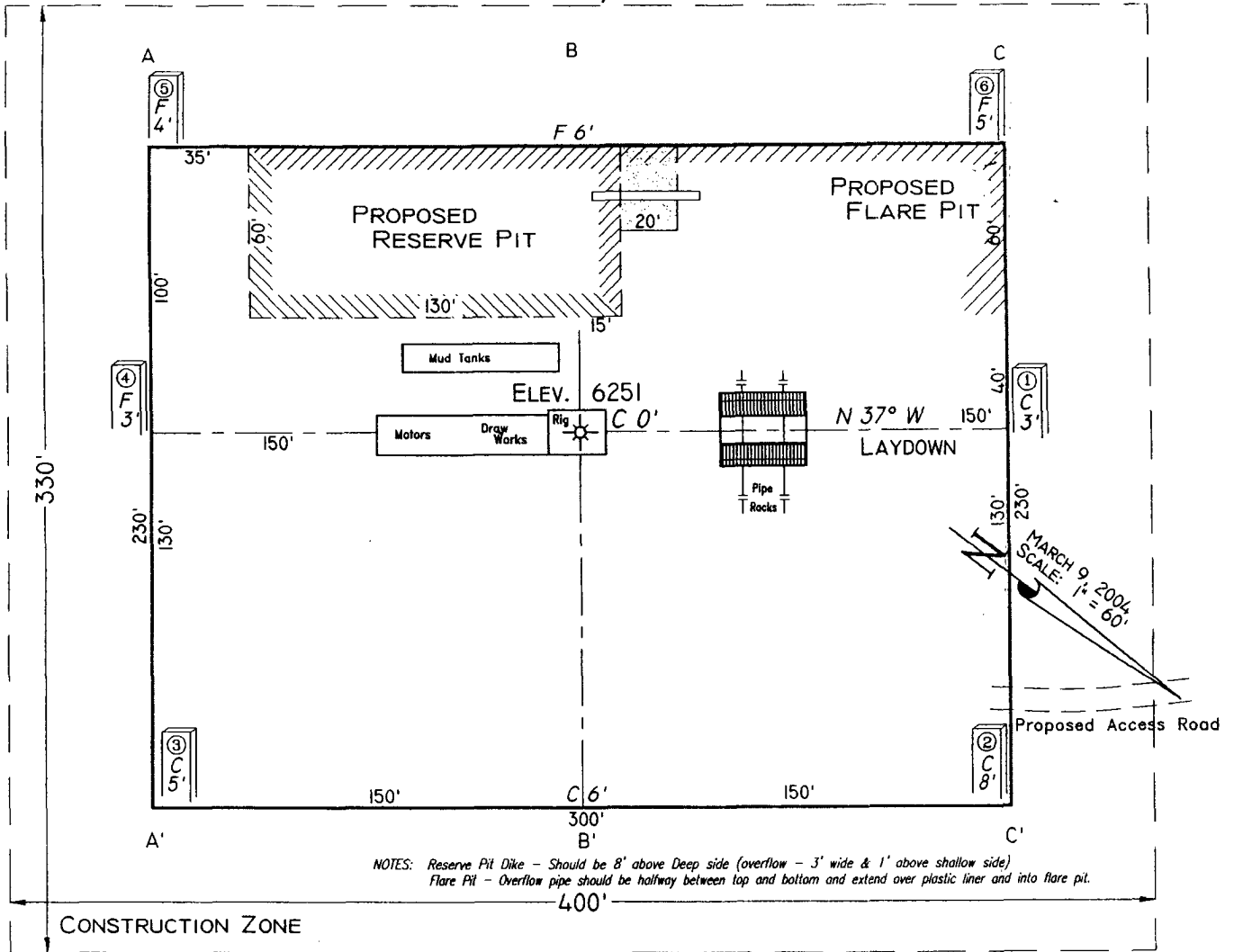
SIGNATURE Cherry Hlava TITLE Regulatory Analyst DATE 10/23/06

Type or print name Cherry Hlava E-mail address: hlavacl@bp.com Telephone No. 281-366-4081  
For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 80 DATE FEB 06 2007  
Conditions of Approval (if any):

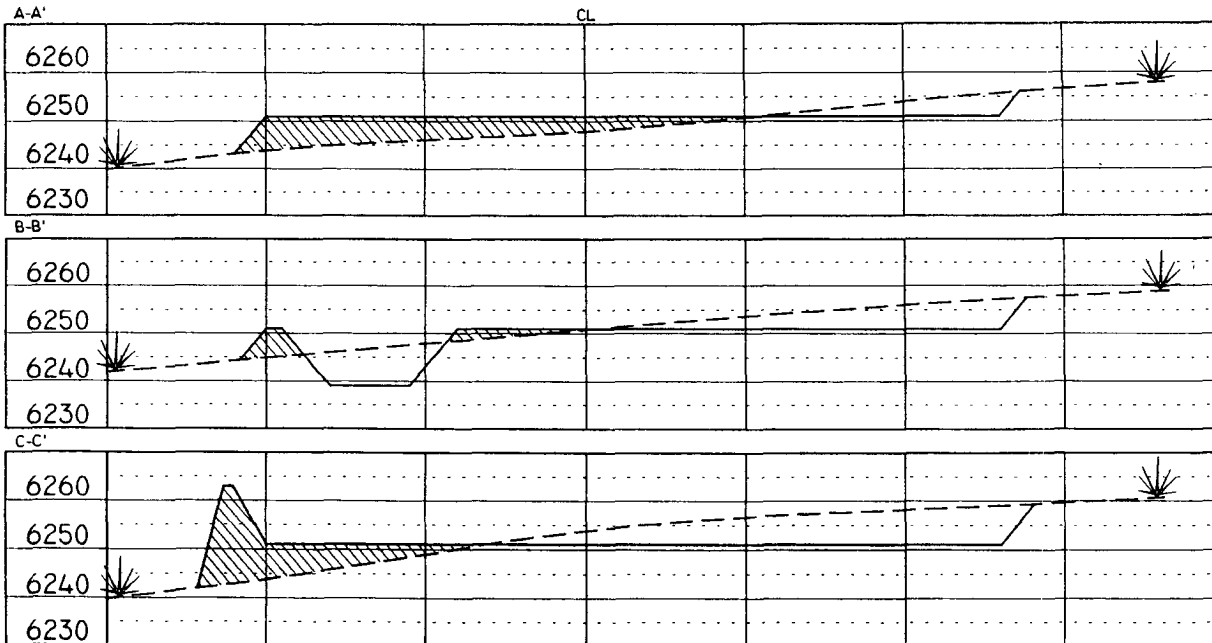
**PAD LAYOUT PLAN & PROFILE**  
**BP AMERICA PRODUCTION COMPANY**  
 Stewart LS # 6N  
 2345' F/NL 1530' F/EL  
 SEC. 28, T30N, R10W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36°47'03"  
 Long: 107°53'09"



Area of Construction Zone - 330'x400' or 3.03 acres, more or less.

SCALE: 1"=60'-HORIZ.  
 1"=40'-VERT.



**NOTE:** Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS  
 P. O. Box 1306  
 Farmington, NM

# BP AMERICA PRODUCTION COMPANY

## DRILLING AND COMPLETION PROGRAM

7/10/2006

<b>Lease:</b>	Stewart LS	<b>Well Name &amp; No.</b>	Stewart LS LS #6N	<b>Field:</b>	Blanco Mesaverde/Basin Dakota
<b>County:</b>	San Juan, New Mexico	<b>Surface Location:</b>	28-30N-10W: 2345' FNL, 1530' FEL		
<b>Minerals:</b>	State	<b>Surface:</b>	Lat: 36.7840984 deg; Long: -107.8854489 deg		
<b>Rig :</b>	Aztec 184	<b>BH Location:</b>	28-30N-10W: 2550' FNL, 1900' FEL; Lat: 36.7835726; Long: -107.8867052		

**OBJECTIVE:** Drill 240' below the top of the Two Wells Mbr, set 4-1/2" production casing, Stimulate DK, MF, and PL intervals.

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL:	6250	Estimated KB:	6,264.0'
Rotary	0 - TD	Marker		SUBSEA	TVD

LOG PROGRAM		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
Type	Depth Interval	Marker		SUBSEA	TVD
Single Run		Ojo Alamo		4,865'	1,399'
		Kirtland		4,701'	1,563'
		Fruitland	*	4,097'	2,167'
		Fruitland Coal	*	859'	5,405'
		Pictured Cliffs	*	3,515'	2,749'
Cased Hole	TD to 7" shoe	Lewis	*	3,371'	2,893'
		Cliff House	#	1,979'	4,285'
		Menefee	#	1,736'	4,528'
RST- CBL	Identify 4 1/2" cement top	Point Lookout	#	1,222'	5,042'

<b>REMARKS:</b>	Mancos		809'	5,455'	5,490'
	Greenhorn		-757'	7,021'	7,056'
	Graneros (bent,mkr)		-818'	7,082'	7,117'
	Two Wells	#	-869'	7,133'	7,168'
	Paguate	#	-947'	7,211'	7,246'
The recommended TD is intended to penetrate the ENCN (~40') in order to evaluate, and possibly produce it. Offsetting wells encountered no water flow at this depth. See attached cross-section.	Cubero	#	-1,004'	7,268'	7,303'
	L. Cubero	#	-1,042'	7,306'	7,341'
	Encinal Cyn	#	-1,095'	7,359'	7,394'

The intermediate casing should be set 100 ft. into the MENF to minimize the risks encountered drilling through the possibly water productive CLFH.		<b>TOTAL DEPTH:</b>		-1,109'	7,373'
		# Probable completion interval			* Possible Pay

SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE		FREQUENCY	DEPTH	FREQUENCY	DEPTH
None		30'/10' intervals	4,663' to TD	Geolograph	0 - TD

**REMARKS:**

MUD PROGRAM:					
Interval	TypeMud	#/gal	Vis, sec/qt	/30 min	Other Specification
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
4,663'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite
7,408'	Air	1	1000 cfm for hammer		Volume sufficient to maintain a stable and clean wellbore

CASING PROGRAM:							
CasingString	Depth	Size	Casing Size	Grade, Thread	Weight	Landing Point	Cement
Surface/Conductor	200'	13 1/2"	9-5/8"	H-40 ST&C	32#		cmt to surface
Intermediate	0' - 4000'	8-3/4"	7"	J/K-55 ST&C	20#		
Intermediate	4000' - 4663'	8 3/4"	7"	N-80 ST&C	23#	100' below MENF	cmt to surface
Production	7,408'	6-1/4"	4-1/2"	P-110 5-8	11.6#	DKOT	150' inside Intermediate - TOC survey required

**CORING PROGRAM:**  
None

**COMPLETION PROGRAM:**  
Rigless, 2-3 Stage Limited Entry Hydraulic Frac, FMC Unihead

**GENERAL REMARKS:**  
Notify BLM/NMOC 24 hours prior to Spud, BOP testing, and Casing and Cementing.

BOP Pressure Testing Requirements			
Formation	Depth	Anticipated bottom hole pressure	Max anticipated surface pressure**
Cliffhouse	4,285'	500	0
Point Lookout	5,042'	600	0
Dakota	7,133'	2600	1030.74

Requested BOP Pressure Test Exception = 1500 psi

\*\* Note: Determined using the following formula: ABHP - (.22" TVD) = ASP

Form 46 Reviewed by:	Logging program reviewed by:	DATE:	APPROVED:	DATE:
PREPARED BY:	APPROVED:	DATE:	APPROVED:	DATE:
HGJ	JMP/GGZ	10-Jul-06		
Form 46 7-84bw	For Drilling Dept.		For Production Dept.	

# Cementing Program

Well Name: Stewart LS #6N  
 Location: 28-30N-10W: 2345' FNL, 1530' FEL  
 County: San Juan  
 State: New Mexico

Well Flac  
 Formation: Blanco Mesaverde/Basin Dakota  
 KB Elev (est) 6264  
 GL Elev. (est) 6250

## Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)
Surface	200	13.5	9.625	ST&C	Surface
Intermediate	4663	8.75	7	ST&C	Surface
Production -	7408	6.25	4.5	ST&C	4513

## Casing Properties:

(No Safety Factor Included)					
Casing String	Size (in.)	Weight (lb/ft)	Grade	Burst (psi.)	Collapse (psi.)
Surface	9.625	32	H-40	2270	1400
Intermediate	7	20	K-55	3740	2270
Intermediate	7	23	N80	6340	3830
Production -	4.5	11.6	J-55	5350	4960

## Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	<u>Recommended Mud Properties Prio Cementing:</u>	
			PV	<20
			YP	<10
			Fluid Loss	<15
0 - SCP	Water/Spud	8.6-9.2		
SCP - ICP	Water/LSND	8.6-9.2		
ICP - ICP2	Gas/Air Mist	NA		
ICP2 - TD	LSND	8.6 - 9.2		

## Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	75	40
Excess %, Tail	NA	0	40
BHST (est deg. F)	75	120	183
Special Instructions	1,6,7	1,6,8	2,4,6

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales
7. 1" cement to surface if cement is not circulated.
8. If cement is not circulated to surface, run temp. survey 10-12 hr. after landing plug.

## Notes:

\*Do not wash up on top of plug. Wash lines before displacing production cement job to minimize drillout.

## Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	154 sx Class C Cement		195 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		
			0.4887 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8
Casing Equipment:	9-5/8", 8R, ST&C 1 Guide Shoe 1 Top Wooden Plug 1 Autofill insert float valve Centralizers, as needed 1 Stop Ring 1 Thread Lock Compound		

# Cementing Program

## Intermediate:

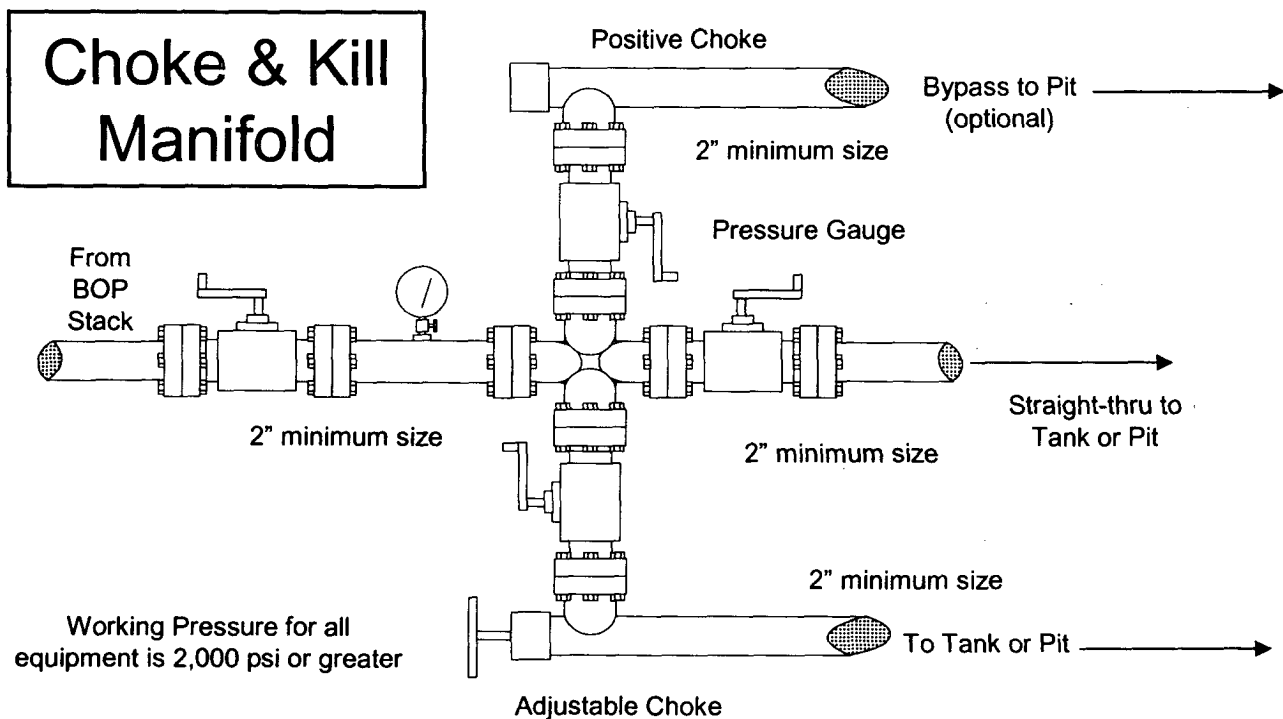
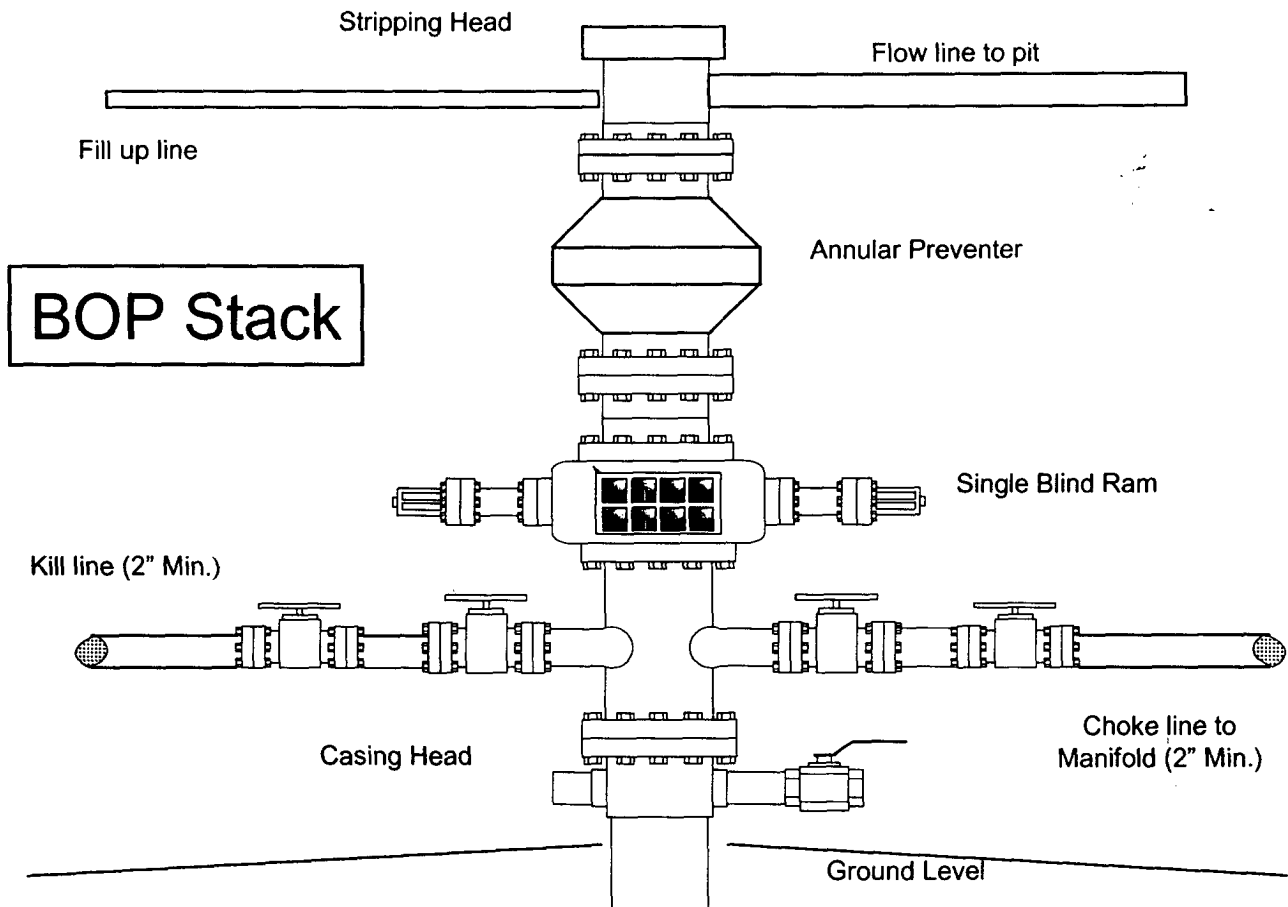
Fresh Water	20 bbl	fresh water	
Lead		410 sx Class "G" Cement	1077 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+1/4 #/sk. Cellophane Flake	
		+ 5 lb/sk Gilsonite	
Tail		59 sx 50/50 Class "G"/Poz	75 cuft
Slurry 2		+ 2% gel (extender)	
500 ft fill		+1/4 #/sk. Cellophane Flake	0.1503 cuft/ft OH
		+ 2% CaCl <sub>2</sub> (accelerator)	0.1746 cuft/ft csg ann
		+ 5 lb/sk Gilsonite	
Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	11.4	2.63	15.8
Slurry 2	13.5	1.27	5.72
Casing Equipment:	7", 8R, ST&C		
	1 Float Shoe (autofill with minimal LCM in mud) 1 Float Collar (autofill with minimal LCM in mud) 1 Stop Ring Centralizers as needed 1 Top Rubber Plug 1 Thread Lock Compound		

## Production:

Fresh Water	10 bbl	CW100	
Lead		102 LiteCrete D961 / D124 / D154	256 cuft
Slurry 1		+ 0.03 gps D47 antifoam	
TOC, 400' above 7" shoe		+ 0.5% D112 fluid loss	
		+ 0.11% D65 TIC	
Tail		141 sx 50/50 Class "G"/Poz	204 cuft
Slurry 2		+ 5% D20 gel (extender)	
1418 ft fill		+ 0.1% D46 antifoam	
		+ 1/4 #/sk. Cellophane Flake	
		+ 0.25% D167 Fluid Loss	
		+ 5 lb/sk Gilsonite	
		+0.1% d800, retarder	
		+0.15% D65, dispersant	
			0.1026 cuft/ft OH
Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	9.5	2.52	6.38
Slurry 2	13	1.44	6.5
			Top of Mancos
			5490
Casing Equipment:	4-1/2", 8R, ST&C		
	1 Float Shoe (autofill with minimal LCM in mud) 1 Float Collar (autofill with minimal LCM in mud) 1 Stop Ring Centralizers, as needed 1 Top Rubber Plug 1 Thread Lock Compound		

# BP American Production Company

## Well Control Equipment Schematic







Scientific Drilling

Project: Western - San Juan South

Site: SEC 28-T30N-R10W

Well: STEWART LS #6N

Wellbore:

Wellbore #1

Plan: Plan #1



bp

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	1900.00	0.000	0.000	1900.00	0.00	0.00	0.00	0.00	0.00	
3	2234.14	10.024	241.011	2232.44	-14.13	-25.50	3.00	0.00	29.16	
4	4329.25	10.024	241.011	4295.56	-190.87	-344.50	0.00	0.00	393.84	
5	4663.39	0.000	0.000	4628.00	-205.00	-370.00	3.00	180.00	423.00	7" STEWART 6N
6	7408.39	0.000	0.000	7373.00	-205.00	-370.00	0.00	0.00	423.00	PBHL STEWART 6N

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
7" STEWART 6N	4628.00	-205.00	-370.00	2104530.414	2707460.612	36°47'.725N	107°53'12.163W	Point
PBHL STEWART 6N	7373.00	-205.00	-370.00	2104530.414	2707460.612	36°47'.725N	107°53'12.163W	Circle (Radius: 100.00)

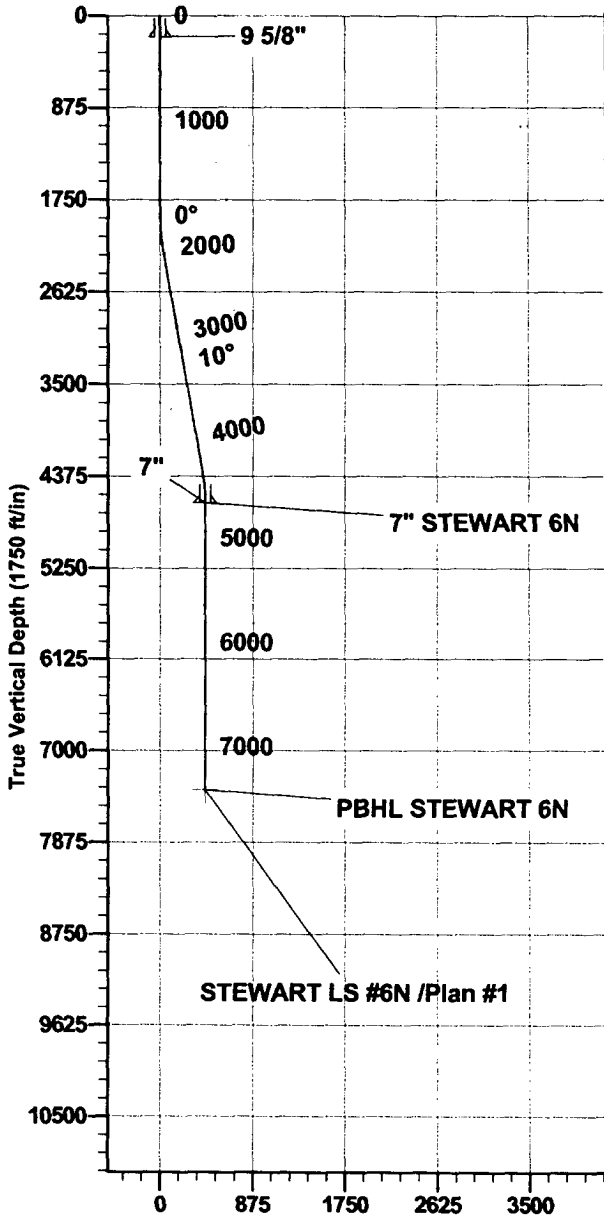
#### WELL DETAILS: STEWART LS #6N

Ground Level:	6250.00
Northing	2104735.397
Easting	2707830.581
Latitude	36°47'2.754N
Longitude	107°53'7.616W

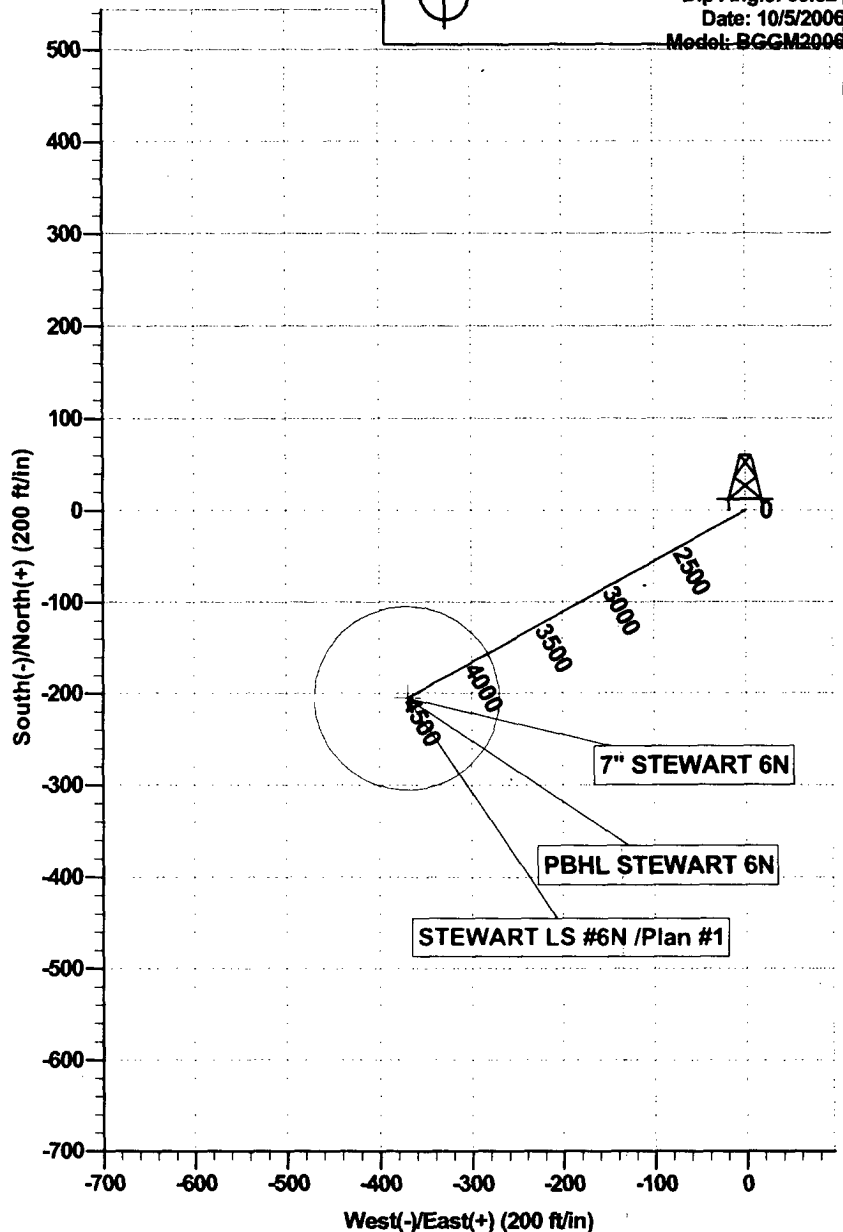


Azimuths to Grid North  
True North: 0.03°  
Magnetic North: 10.60°

Magnetic Field  
Strength: 51226.2nT  
Dip Angle: 63.62°  
Date: 10/5/2006  
Model: BGM2006



Vertical Section at 241.01° (1750 ft/in)



**SAN JUAN BASIN  
Dakota Formation  
Pressure Control Equipment**

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**Background**

The objective Dakota formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 psi system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 psi rated pressure control equipment will typically be utilized in a single ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Basin Dakota. No abnormal temperature, pressure, or H<sub>2</sub>S anticipated.

**Equipment Specification**

**Interval**

**BOP Equipment**

Below conductor casing to total depth 11" nominal or 7 1/16", 2000 psi Single ram preventer with 3000 psi annular preventer and rotating head. All ram type and annular preventers as well as related control equipment will be hydraulically tested to 250 psi (low pressure) and 1500 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper Kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

**Additional Operator Remarks**  
**Stewart LS 6N**  
**APD**

NOTICE OF STAKING WAS SUBMITTED ON 07/11/06

BP America Production Company respectfully requests permission to directional drill the subject well to a total depth of approximately 7408' MD & 7373' TVD. Complete in the Basin Dakota Pool, isolate the Dakota; complete into the Blanco Mesaverde, establish a production rate; drill out the bridge plug and commingle production downhole.

Application for Downhole Commingling authority (NMOCD order R-11363) will be submitted to all appropriate for approval after Permit to Drill has been approved.

If terrain allows it is our intent to pre-set the 9 5/8" casing on the above mentioned well by drilling a surface hole with air/air mist in lieu of drilling mud and the surface casing be cemented with 94.5 cu/ft type I-II, 20% FLYASH, 14.5 PPG, 7.41 gal/sk, 1.61 cf/sk Yield, 80 DEG BHST ready mix cement. If the area will not allow for pre-set the approved cement program will be followed.

**SUPPLEMENTAL TO SURFACE USE PLAN**

**New Facilities:**

A 4.5" diameter buried steel pipeline that is +/- 100 feet in length will be constructed. The pipe wall thickness is .156 and the pipe wall strength is 42,000#. It will be adjacent to the access road and tie the well into an existing gas meter operated by BP America Production Company. The pipeline will not be used to transport gas to drill the well. After the well is spud the pipeline will be authorized by a right-of-way issued by El Paso Field Services.

**APD/ROW**