

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: ☒ DRILL ☐ REENTER		5. Lease Serial No. SF - 076337
1b. Type of Well: ☐ Oil Well ☒ Gas Well Gas ☐ Other ☐ Single Zone ☒ Multiple Zone		6. If Indian, Allottee or tribe Name
2. Name of Operator BP America Production Company Attn: Mary Corley		7. If Unit or CA Agreement, Name and No
3a. Address P.O. Box 3092 Houston, Texas 77253	3b. Phone No. (include area code) 281-366-4491	8. Lease Name and Well No. Lobato Gas Com E 1M
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1130' FSL & 580' FWL At proposed prod. Zone 700' FSL & 700' FWL		9. API Well No. 30 045 31906
14. Distance in miles and direction from nearest town or post office* 13+ miles from Bloomfield, NM		10. Field and Pool, or Exploratory Basin Dakota & Blanco Mesaverde
15. Distance from proposed* Location to nearest Property or lease line, ft. (Also to nearest drig. Ujnit line, if any) SHL: 580' BHL: 700'	16. No. of Acres in lease 320.6	11. Sec., T., R., M., or Blk. and survey or Area M Sec. 03, T29N, R09W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1200'	19. Proposed Depth 7288'	12. County or Parish San Juan
21. Elevations (show whether DF, KDB., RT, GL, etc.) 5765' GL	22. Approximate date work will start* November 20, 2003	13. State New Mexico
23. Estimated duration 7 Days		

24. Attachments

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

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

25. Signature 	Name (Printed/typed) Mary Corley	Date 09/19/2003
Title Senior Regulatory Analyst		
Approved By (Signature) 	Name (Printed/Typed) David J. Mankiewicz	Date JAN - 6 2004
Title Office		

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) DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

HOLD C104 FOR NSL

NMOCD

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
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30045-31906		2 Pool Code 71599-72319		3 Pool Name BASIN DAKOTA & BLANCO MESA VERDE	
4 Property Code 000804		5 Property Name Lobato Gas Com E			6 Well Number # 1M
7 OGRID No. 000778		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 5765

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
M	3	29 N	9 W		1130	SOUTH	580	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

7 UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	29 N	9 W		700	SOUTH	700	WEST	SAN JUAN

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320.6			

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 2631(R) 1416(R) 1335(R) 2631(R) 580' Azimuth - 165°55' 484' 1130' Bottom Hole Location 700' F/SL 700' F/WL 106(R)	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Mary Corley</i> Signature Mary Corley Printed Name Sr. Regulatory Analyst Title 09.19.2003 Date
	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. August 18, 2003 Date of Survey Signature and Seal of Professional Surveyor GARY D. VANCE NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 7016 Certificate Number 7016

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMSF076337

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM739148. Well Name and No.
LOBATO GAS COM E 1M9. API Well No.
30-045-31906-00-X110. Field and Pool, or Exploratory
BASIN DAKOTA
BLANCO MESAVERDE11. County or Parish, and State
SAN JUAN COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator
BP AMERICA PRODUCTION COContact: MARY CORLEY
E-Mail: corleyml@bp.com3a. Address
P. O. BOX 3092
HOUSTON, TX 772533b. Phone No. (include area code)
Ph: 281.366.4491
Fx: 281.366.0700

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 3 T29N R9W SWSW 1130FSL 580FWL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

As per your request please find attached our Form 46 with the corrected Formation Tops, amended Directional survey data and amended cementing program.



14. I hereby certify that the foregoing is true and correct.

Electronic Submission #26142 verified by the BLM Well Information System
For BP AMERICA PRODUCTION CO, sent to the Farmington
Committed to AFMSS for processing by ADRIENNE GARCIA on 12/29/2003 (04AXG0076SE)

Name (Printed/Typed) MARY CORLEY

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 12/16/2003

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

/s/ David J. Mankiewicz

Title

JAN - 6 2004

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ******NMOCD**

**BP AMERICA PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM**

Prospect Name: Lobato GC E
Lease: Lobato GC E

County: San Juan
State: New Mexico
Date: December 15, 2003

Well No: 1M
Surface Location: 3-29N-9W, 1130 FSL, 580 FWL
BHL: 3-29N-9W, 700 FSL, 700 FWL
Field: Blanco Mesaverde/Basin Dakota

OBJECTIVE: Drill 210' below the top of the Upper Two Wells (DKOT), set 41/2" production casing, Stimulate CH, MF, PL and DK intervals							
METHOD OF DRILLING				APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		DEPTH OF DRILLING		Estimated GL: 5765		Estimated KB: 5779	
Rotary		0 - TD					
LOG PROGRAM							
TYPE		DEPTH INVERAL		MARKER		TVD	
OPEN HOLE						MD	
none				Ojo Alamo		1266	
				Kirkland		1364	
				Fruitland		1939	
				Fruitland Coal		2199	
				Pictured Cliffs		2399	
				Lewis Shale		2599	
				Cliff House		3872	
				Menefee Shale		4195	
				Point Lookout		4633	
				Mancos		5022	
				Greenhorn		6651	
				Bentonite Marker		6710	
				Two Wells		6759	
				Paguate		6859	
				Cubero Upper		6905	
				Cubero Lower		6930	
				TOTAL DEPTH		6969	
						7053	
				# Probable completion interval		* Possible Pay	
SPECIAL TESTS				DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE				FREQUENCY		FREQUENCY	
None				DEPTH		DEPTH	
				10'		2952'-TD	
						Geolograph	
						0-TD	
REMARKS:							
- Please report any flares (magnitude & duration).							
MUD PROGRAM:							
Approx. Interval		Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification	
0 - 120		Spud	8.6-9.2				
120 - 2958 (1)		Water/LSND	8.6-9.2		<6		
2958 - 7053		Gas/Air/N2/Mist	Volume sufficient to maintain a stable and clean wellbore				
REMARKS:							
(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.							
CASING PROGRAM: (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)							
Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.	
Surface/Conductor	120	9 5/8"	H-40 ST&C	32#	13.5"	1	
Intermediate 1	2958	7"	J/K-55 ST&C	20#	8.75"	1,2	
Production	7053	4 1/2"	J-55	11.6#	6.25"	3	
REMARKS:							
(1) Circulate Cement to Surface							
(2) Set casing 100' into Lewis Shale							
(3) Bring cement 100' above 7" shoe							
CORING PROGRAM:							
None							
COMPLETION PROGRAM:							
Rigless, 3-4 Stage Limited Entry Hydraulic Frac							
GENERAL REMARKS:							
Notify BLM/NMOCD 24 hours prior to Spud; BOP testing, and Casing and Cementing.							
Form 46 Reviewed by:				Logging program reviewed by: N/A			
PREPARED BY:		APPROVED:		DATE:			
HGJ/MNP/JMP				December 15, 2003			
				Version 2.0			
Form 46 12-00 MNP							

Cementing Program

Well Name: Lobato GC E1M
 Location: 02-29N-09W, 1130 FSL, 580 FWL
 County: San Juan
 State: New Mexico

Field: Blanco Mesaverde / Basin Dakota
 API No.
 Well Flac
 Formation: Dakota Mesa Verde
 KB Elev (est) 5779
 GL Elev. (est) 5765

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Cir. Out (bbl.)
Surface	120	12.25	9.625	ST&C	Surface	NA	
Intermediate	2958	8.75	7	LT&C	Surface	NA	
Production -	7053	6.25	4.5	?	2858	NA	

Casing Properties:

(No Safety Factor Included)								
Casing String	Size (in.)	Weight (lb/ft)	Grade	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Drift (in.)
Surface	9.625	32	H-40	3370	2270	1400	254	0.0787
Intermediate	7	20	K-55	3740	2270	234	254	0.0405
Production -	4.5	11.6	J-55	5350	4960	154	0.0155	3.875

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:	
			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.	Fresh Water	
Slurry 1	70 sx Class G Cement		81
TOC@Surface	+ 2% CaCl2 (accelerator)		75 cuft
	0.25 #/sk Cellophane Flake (lost circulation additive)		
	0.1% D46 antifoam		0.3132 cuft/ft OH
Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)
Slurry 1	15.8	1.16	4.95

Casing Equipment:

9-5/8", 8R, ST&C
 1 Guide Shoe
 1 Top Wooden Plug
 1 Autofill insert float valve
 Centralizers, 1 per joint except top joint
 1 Stop Ring
 1 Thread Lock Compound

Cementing Program

Intermediate:

Fresh Water	20 bbl	fresh water	
Lead		250 sx Class "G" Cement	<u>453</u> 636 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+ 2% S1 Calcium Chloride	
		+ 1/4 #/sk. Cellophane Flake	
		+ 0.1% D46 antifoam	
Tail		60 sx 50/50 Class "G"/Poz	75 cuft
Slurry 2		+ 2% gel (extender)	
500 ft fill		0.1% D46 antifoam	0.1503 cuft/ft OH
		+ 1/4 #/sk. Cellophane Flake	0.1746 cuft/ft csg ann
		+ 2% CaCl2 (accelerator)	

Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)
Slurry 1	11.4	2.61	17.77
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
- 14 Centralizers (one in middle of first joint, then every third collar)
- 2 Fluidmaster vane centralizers @ base of Ojo
- 1 Top Rubber Plug
- 1 Thread Lock Compound

Production:

Fresh Water	10 bbl	CW100	
Lead		170 LiteCrete D961 / D124 / D154	<u>428</u> 484 cuft
Slurry 1		+ 0.03 gps D47 antifoam	
TOC, 100' above 7" shoe		+ 0.5% D112 fluid loss	
		+ 0.11% D65 TIC	
Tail		130 sx 50/50 Class "G"/Poz	184 cuft
Slurry 2		+ 5% D20 gel (extender)	+ 5 #/sk D24 gilsonite
1280 ft fill		+ 0.1% D46 antifoam	+ 0.15% D65 TIC
		+ 1/4 #/sk. Cellophane Flake	+ 0.1% D800 retarder
		+ 0.25% D167 Fluid Loss	
			0.1026 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)	
Slurry 1	9.5	2.52	6.38	0.1169 cuft/ft csg ann
Slurry 2	13	1.44	6.5	Top of Mancos

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, every 4th joint in mud drilled holes, none in air drilled holes.
- 1 Top Rubber Plug
- 1 Thread Lock Compound



Lobato GC 1M Proposal Surveys (Rev 1)

Report Date: December 12, 2003 Client: BP America Inc. Field: NM, San Juan County (NAD 83 WZ) Structure / Slot: BP 03 29N 9W (Lobato GC E 1M)(No Plats/Lat/Longs) / Lobato GC E 1M Well: Lobato GC E 1M Borehole: Original Hole (Est RKB) UWI/API#: Survey Name / Date: Labato GC 1M R1 dc 12-Dec-03 / December 12, 2003 Tort / AHD / DDI / ERD ratio: Grid Coordinate System: Location Lat/Long: Location Grid N/E Y/X: Grid Convergence Angle: Grid Scale Factor:	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 164.410° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: Sea Bed / Ground Level Elevation: Magnetic Declination: Total Field Strength: Magnetic Dip: Declination Date: Magnetic Declination Model: North Reference: Total Corr Mag North -> Grid North: Local Coordinates Referenced To:
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Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
Surface	0.00	0.00	164.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	164.41M
9 5/8" Casing Point	120.00	0.00	164.41	120.00	0.00	0.00	0.00	0.00	0.00	0.00	164.41M
Ojo Alamo	1266.00	0.00	164.41	1266.00	0.00	0.00	0.00	0.00	0.00	0.00	164.41M
Kirtkand	1364.00	0.00	164.41	1364.00	0.00	0.00	0.00	0.00	0.00	0.00	164.41M
KOP, Begin 3.07100' Build	1650.00	0.00	164.41	1650.00	0.00	0.00	0.00	0.00	0.00	0.00	164.41M
	1700.00	1.50	164.41	1699.99	0.65	-0.63	0.18	0.65	164.41	3.00	164.41M
	1800.00	4.50	164.41	1799.85	5.89	-5.67	1.58	5.89	164.41	3.00	164.41M
	1900.00	7.50	164.41	1899.29	16.34	-15.74	4.39	16.34	164.41	3.00	0.00G
Fruitland	1940.11	8.70	164.41	1939.00	21.99	-21.18	5.91	21.99	164.41	3.00	0.00G
	2000.00	10.50	164.41	1998.04	31.98	-30.80	8.60	31.98	164.41	3.00	0.00G
	2100.00	13.50	164.41	2095.85	52.77	-50.83	14.18	52.77	164.41	3.00	0.00G
	2200.00	16.50	164.41	2192.43	78.65	-75.75	21.14	78.65	164.41	3.00	0.00G
Fruitland Coal	2206.86	16.71	164.41	2199.00	80.61	-77.64	21.67	80.61	164.41	3.00	0.00G
	2300.00	19.50	164.41	2287.52	109.55	-105.51	29.45	109.55	164.41	3.00	0.00G
Begin Tangent	2311.15	19.83	164.41	2298.03	113.30	-109.13	30.45	113.30	164.41	3.00	0.00G
Pictured Cliffs	2418.49	19.83	164.41	2399.00	149.72	-144.21	40.25	149.72	164.41	0.00	0.00G
Lewis Shale	2631.11	19.83	164.41	2599.00	221.86	-213.70	59.64	221.86	164.41	0.00	0.00G
7" Casing Point	2958.53	19.83	164.41	2907.00	332.96	-320.71	89.50	332.96	164.41	0.00	0.00G
Begin 3.07100' Drop	2959.04	19.83	164.41	2907.47	333.13	-320.87	89.55	333.13	164.41	0.00	180.00G
	3000.00	18.61	164.41	2946.15	346.62	-333.86	93.17	346.62	164.41	3.00	180.00G
	3100.00	15.61	164.41	3041.72	376.03	-362.19	101.08	376.03	164.41	3.00	180.00G
	3200.00	12.61	164.41	3138.69	400.39	-385.66	107.63	400.39	164.41	3.00	180.00G
	3300.00	9.61	164.41	3236.81	419.65	-404.21	112.80	419.65	164.41	3.00	180.00G
	3400.00	6.61	164.41	3335.80	433.75	-417.79	116.59	433.75	164.41	3.00	180.00G
	3500.00	3.61	164.41	3435.39	442.65	-426.36	118.98	442.65	164.41	3.00	164.41M
	3600.00	0.61	164.41	3535.31	446.32	-429.90	119.97	446.32	164.41	3.00	164.41M
Begin Vertical Hole	3620.19	0.00	164.41	3555.50	446.43	-430.00	120.00	446.43	164.41	3.00	164.41M
	3764.69	0.00	164.41	3700.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Cliffhouse Target	3936.69	0.00	164.41	3872.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Menefee Shale	4259.69	0.00	164.41	4195.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Point Lookout	4697.69	0.00	164.41	4633.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Mancos	5086.69	0.00	164.41	5022.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Greenhorn	6715.69	0.00	164.41	6651.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Bentonite Marker	6774.69	0.00	164.41	6710.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Two Wells	6823.69	0.00	164.41	6759.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Paguate	6923.69	0.00	164.41	6859.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Cubero Upper	6969.69	0.00	164.41	6905.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
Cubero Lower	6994.69	0.00	164.41	6930.00	446.43	-430.00	120.00	446.43	164.41	0.00	164.41M
PBHL/TD	7053.69	0.00	164.41	6989.00	446.43	-430.00	120.00	446.43	164.41	0.00	0.00M

Survey Type: Raw Proposal

Survey Error Model: SLB ISCWSA version 16 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

MD From (ft)

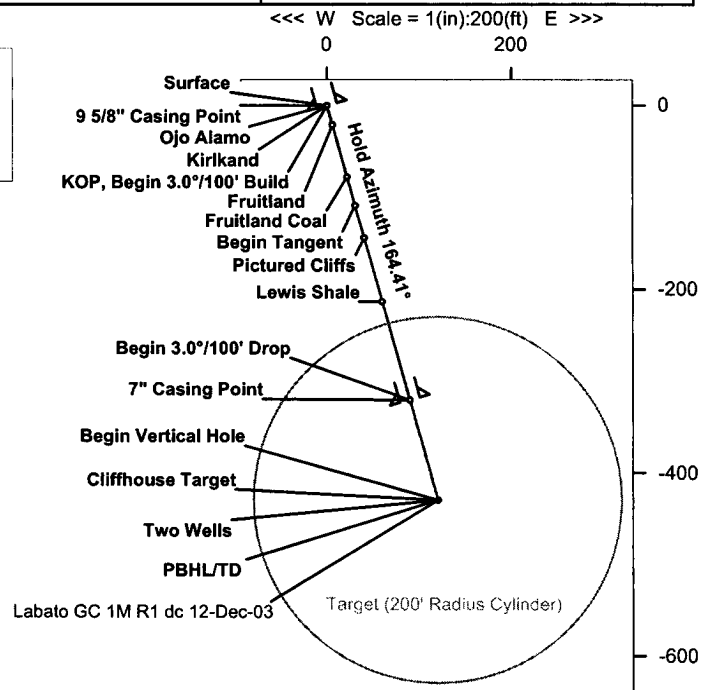
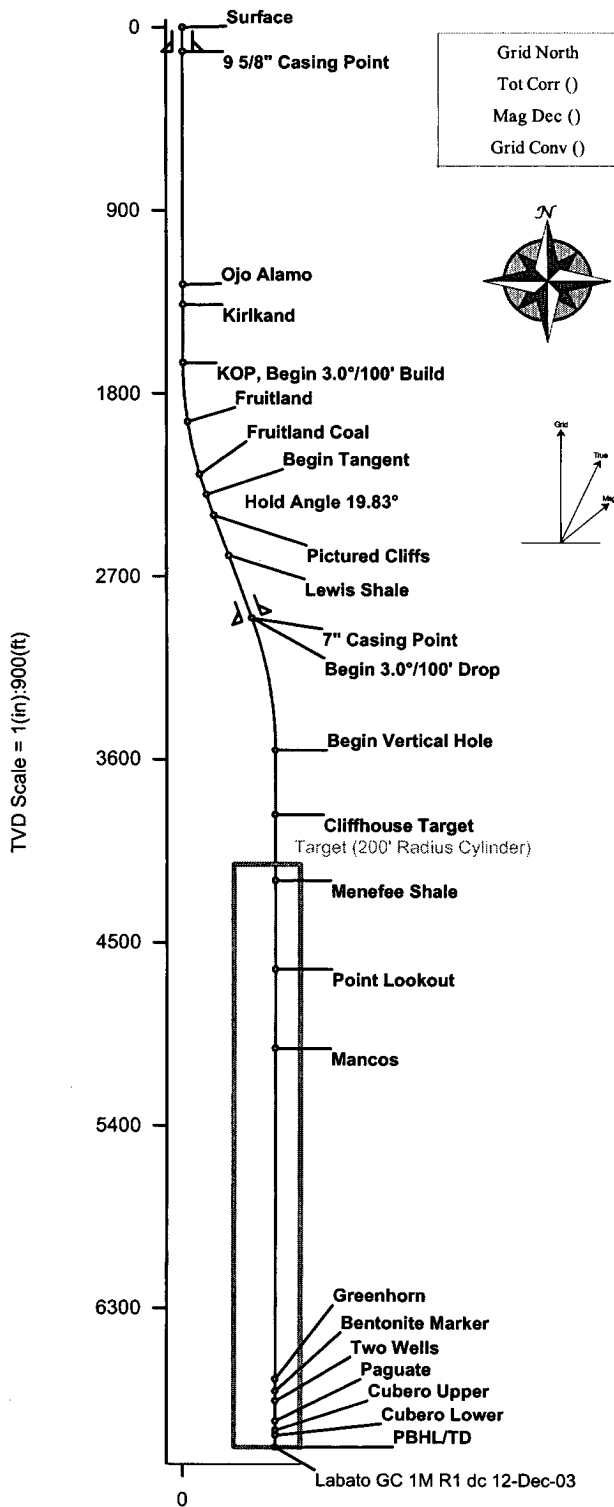
0.00

MD To (ft) EOU Freq Survey Tool Type

7053.69 1/100.00 ft SLB_MWD-STD



Well Lobato GC E 1M	Field San Juan County, New Mexico	Structure BP 03 29N 9W
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Critical Point	Critical Points							
	MD	INCL	AZIM	TVD	VSEC	N(+) / S(-)	E(+) / W(-)	DLS
Surface	0.00	0.00	164.41	0.00	0.00	0.00	0.00	0.00
9 5/8" Casing Point	120.00	0.00	164.41	120.00	0.00	0.00	0.00	0.00
Ojo Alamo	1266.00	0.00	164.41	1266.00	0.00	0.00	0.00	0.00
Kirkland	1364.00	0.00	164.41	1364.00	0.00	0.00	0.00	0.00
KOP, Begin 3.0°/100' Build	1650.00	0.00	164.41	1650.00	0.00	0.00	0.00	0.00
Fruitland	1940.11	8.70	164.41	1939.00	21.99	-21.18	5.91	3.00
Fruitland Coal	2206.86	16.71	164.41	2199.00	80.61	-77.64	21.67	3.00
Begin Tangent	2311.15	19.83	164.41	2298.03	113.30	-109.13	30.45	3.00
Pictured Cliffs	2418.49	19.83	164.41	2399.00	149.72	-144.21	40.25	0.00
Lewis Shale	2631.11	19.83	164.41	2599.00	221.86	-213.70	59.64	0.00
7" Casing Point	2958.53	19.83	164.41	2907.00	332.96	-320.71	89.50	0.00
Begin 3.0°/100' Drop	2959.04	19.83	164.41	2907.47	333.13	-320.87	89.55	0.00
Begin Vertical Hole	3620.19	0.00	164.41	3555.50	446.43	-430.00	120.00	3.00
Cliffhouse Target	3936.69	0.00	164.41	3872.00	446.43	-430.00	120.00	0.00
Menefee Shale	4259.69	0.00	164.41	4195.00	446.43	-430.00	120.00	0.00
Point Lookout	4697.69	0.00	164.41	4633.00	446.43	-430.00	120.00	0.00
Mancos	5086.69	0.00	164.41	5022.00	446.43	-430.00	120.00	0.00
Greenhorn	6715.69	0.00	164.41	6651.00	446.43	-430.00	120.00	0.00
Bentonite Marker	6774.69	0.00	164.41	6710.00	446.43	-430.00	120.00	0.00
Two Wells	6823.69	0.00	164.41	6759.00	446.43	-430.00	120.00	0.00
Paguate	6923.69	0.00	164.41	6859.00	446.43	-430.00	120.00	0.00
Cubero Upper	6969.69	0.00	164.41	6905.00	446.43	-430.00	120.00	0.00
Cubero Lower	6994.69	0.00	164.41	6930.00	446.43	-430.00	120.00	0.00
PBHL/TD	7053.69	0.00	164.41	6989.00	446.43	-430.00	120.00	0.00

Vertical Section (ft) Azim = 164.41°, Scale = 1(in):900(ft) Origin = 0 N/-S, 0 E/-W

Proposal Draft Only

Quality Control

Date Drawn: Fri 11:16 AM December 12, 2003

Drawn by: Dana Crossland

Checked by: John O'Keefe

Client OK: