**UNITED STATES** 

FORM APPROVED

(AugustARR - 8 ZUIU	DEPARTMENT OF TH	E INTERIOR	OR OMB No 1004- 0137			
014	BUREAU OF LAND MA	NAGEMENT		E:	xpires July 31, 2010	
NMOCD ARTESIA	 NDRY NOTICES AND RE	PORTS ON W		5 Lease Serial N	o NMLC028793C	
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.					ttee, or Tribe Name	
SUBMIT IN TRIPLICATE - Other Instructions on page 2				7 If Unit or CA Agreement Name and/or No NMNM88525X		
X Oil Well Gas Well	Other			8 Well Name an	d No	
Name of Operator  Marbob Energy Corporation					Burch Keely Unit #78	
3a Address 3b Phone No (mchide area code)						
PO Box 227 Artesia, NM 88211-0227		(575) 74	(575) 748-3303		30-015-23852 Field and Pool, or Exploratory Area	
					Grbg Jackson; SR-Q-Grbg-SA	
2310 FSL 2310 FEL, Sec. 23-T17S-R29E, Unit J					County or Parish, State Eddy Co., NM	
12. CHECK APPROF	PRIATE BOX(S) TO INDICAT	TE NATURE OF 1	NOTICE, REPOR	T, OR OTHER	R DATA	
TYPE OF SUBMISSION		TYPE OF ACTION				
X Notice of Intent	Acidize	Deepen	Production ( St	art/ Resume)	Water Shut-off	
	Altering Casing	Fracture Treat	Reclamation		Well Integrity	
Subsequent Report	Casing Repair	New Construction	Recomplete		Other	
	Change Plans	Plug and Abandon	Temporarily A	bandon		
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposa	]		
If the proposal is to deepen dire Attach the Bond under which the following completion of the invol- testing has been completed. Final determined that the site is ready for	Operation (clearly state all pertinent of cetionally or recomplete horizontally, go work will performed or provide the Eved operations If the operation results I Abandonment Notice shall be filed a final inspection.)  attion proposes to plug & abandonment Notice stated REVIS	ive subsurface location  Bond No on file with  in a multiple comple  only after all requiren  andon this well.	as and measured and the BLM/ BIA Requion or recompletion in nents, including reclan	true vertical depti ired subsequent re n a new interval, nantion, have been	hs or pertinent markers and sands eports shall be filed within 30 days a Form 3160-4 shall be filed once	

# RECLAMATION PROCEDURE ATTACHED

## SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct					
Name (Reinted Typed)					
Diana J Briggs	Title	Production Manager			
Signature Harry Bucks	Date	APPROVED			
THIS SPACE FOR FED	ERAL OR ST	ATE OFFICE USE			
J # 11/1		APP 7 2000			
Approved by Alaman Approved by	Title	APR 7 2010 -			
Conditions of approval, if any relattached Approval of this notice does not wan		/s/ Dustin Winkler	1		
certify that the applicant holds legal or equitable title to those rights in the subject	lease Office	A Pagent Annivier			
which would entitle the applicant to conduct operations the	ereon	PUDEAU OF LAND MANAGEMENT			
Title 18 U.S.C. Section 1001 AND Title 43 U.S.C. Section 1212, make it a cit.	me for any person	mowney which depth he was to be the warmen	ht or agency of the United		
States any talse, fictitious or fraudulent statements or representations as to any matte	er within its jurisdicti	ONINESDAD FIELD OFFICE			

#### REVISED TO REFLECT BLM CONDITIONS OF APPROVAL

BKU 78 2310' fsl, 2310' fel Unit J, Sec. 23, T17S, R29E Eddy Co., NM LC-028793-C

RECEIVED

MAR 23 2010

KRL.

#### Plug and Abandonment Procedure 14 Sept 09

#### Basic Data:

8-5/8" @ 385' 240 sx. Circ. Cmt. 5-1/2" @ 3300' 2250 sx. TOC 845' BHC Acoustic.

<u>Note:</u> Notify BLM inspectors in Carlsbad (575-361-2822) at least 24 hrs. before starting plugging operation. Class "C" cement will be used (14.8 ppg, 1.32 cfps, 6.3 gwps).

#### Procedure:

- 1. Pick up a work string and run bit and scraper to 2350'.
- 2. Install packoff, run gauge ring to 2340' if necessary and set CIBP + 35' cement at 2340'. Shoot 8 squeeze holes at 825' (50' below base salt) and 435' (50' below 8-5/8" shoe).
- 3. RIH with tubing to approx. 2300' and circulate 55 bbls of 9 ppg brine mixed with 25 sx per 100 bbls of salt gel into well.
- 4. Pull tubing up to 2100' and spot 40 sx. Class "C" with 2% CaCl2. Pull up to 1000', wait 2 hrs and tag plug. Plug must be 1800' or shallower. Respot if necessary.
- 5. RIH with packer to 700', establish injection rate into perfs at 825', pump 40 sx Class "C" with 2% CaCl2, flush cement to packer, TOOH with packer and RIH open-ended and tag cement. If can't inject into perfs at 825', POOH with packer, RIH open-ended to 875', spot 25 sx. Class "C" with 2% CaCl2, pull tubing to 300', WOC couple of hours and RIH and tag plug. Plug needs to be 715' or shallower. Respot plug if necessary.
- 6. Set retainer at 385'. RIH with tubing and attempt to establish circulation to surface in the 8-5/8" x 5-1/2" annulus. If circulation can be established, pump 125 sx Class "C" with 2% CaCl2. If cement not circulated but still getting good returns when almost done pumping the original 125 sx, pump another 75 sx (or more) cement to fill annulus to surface. Sting out and spot 40 sx on top of retainer to fill inside of 5-1/2" from 385' to surface.
- 7. If unable to establish injection and pump cement below retainer at 385' in Step 6, shoot 8 squeeze holes just above retainer and 8 squeeze holes at 60', R1H with packer/retainer to 300' and pump 25 sx. Class "C" + 2% CaCl2. Flush to packer/retainer and TOOH with packer/tubing. If can't inject into squeeze perfs, spot 25 sx. Class "C" + 2% CaCl2 inside 5-1/2" casing at top of retainer at 385'. WOC couple of hours and tag plug on top of retainer. TOC must be 335' or shallower (should tag at approx. 140').

- 8. If Step 7 was done, tie onto 5-1/2" and pump 20 sx. Class "C" cement + 2% CaCl2 down 5-1/2" and up 8-5/8" x 5-1/2" annulus to fill up top 60' of 5-1/2" and top 60' of 8-5/8" x 5-1/2" annulus. If unable to circulate, RIH to 60' and spot 10 sx. Class "C" + 2% CaCl2 from 60' to surface inside 5-1/2". Top off with cement if necessary.
- 9. Cut wellhead and casings off 3' below ground level and remove. Weld plate onto 8-5/8" stub. Weld a 4" diameter dry hole marker onto plate such that 4' of it is above ground level. The following information needs to be placed on the marker:

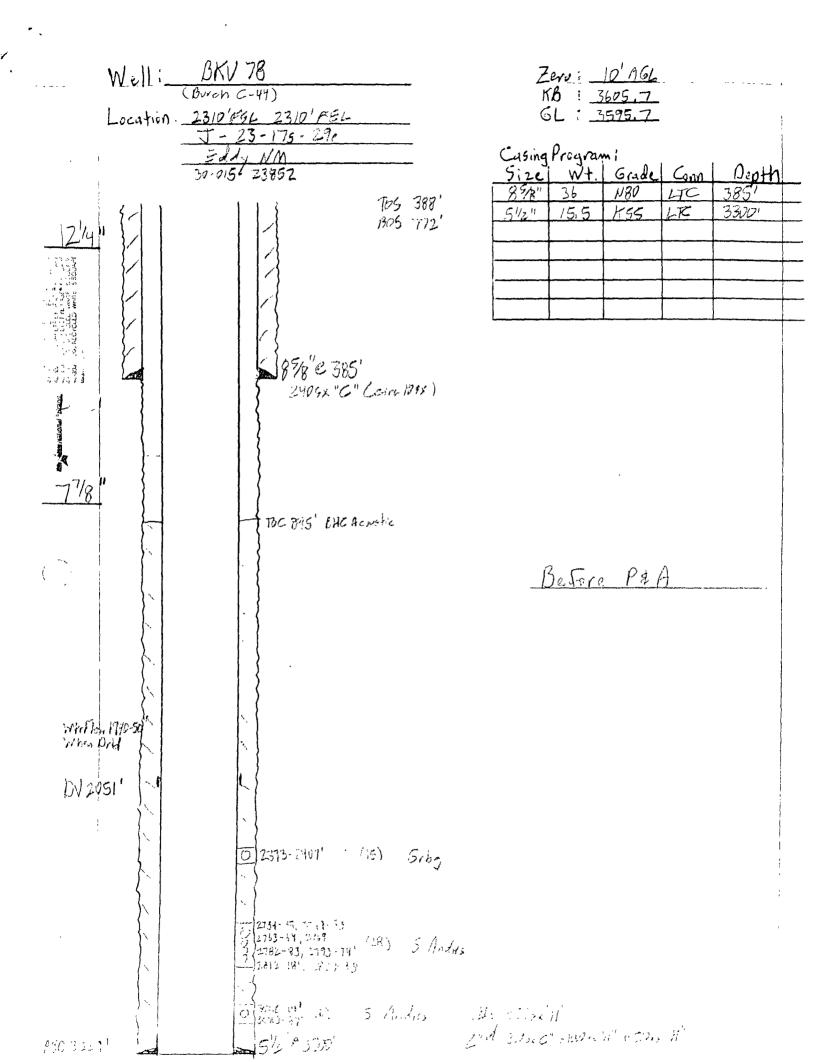
Marbob Energy, BKU 78, 2310' fsl, 2310' fel, Unit J, Sec. 23, T17S, R29E, LC-028793-C Date well plugged

7. Cut off anchors, and reclaim location per BLM specs.

Kbc/bku 78 plug

Well: BKV 78
(Byreb C-44) Zers: 10' AGL KB: 3605.7 Location: 2310'594 2310' FEL J-23-175-296 Casing Program ! =ddy NM 30-015 23852 Size Wt. Grade Com 85/8" 36 NBO TOS 388' 15,5 K55 51/211 LK 3300 BOS 772' 405x . 1336 CF/F 8%"e 385' R#W 385 . 1255x. 2409x"C" (circ 189x) 8 shots e 435 ' 715 77/8 į 255. 592 holds 835' TOC 895' OHC Acrobic 3751 AFter PAA (Able to Circulate 8% >56 Annulus to Surface WhoFlow 1910-50 When Dry 405x DV 2051' 21001 CIBP+35 tent 2340 0 2373-2407 (15) Gran 2134-35, 1019-35 5 2763-64, 2749 2 2182-83, 2193-741 (28) 5 Andres 2 1812-83, 2193-741 Oftens of its 5 Andres JU TORY 711 30500 - Wand 18. 11 15/2 (300) FRD 32271

Well: BKV 78 (Burch C-49) Zero: 10' AGL Location: 23/0/564 23/0 FEL GL: 3595.7 J-23-175-290 Casing Program: Sizei Wt. | Grade | Conn | 30-015 23852 85%" NBO LIC 705 388' 1305 772' 201 L 1 51/211 15,5 455 3300 .1336 CF/F 592 Holis = 380' } 255% 8%"E 385" RHW 385 2409x "C" (core 189x) 8 shots c 435. יבור After P\$A (Couldn't Circulate 77/8 25 ex / Statelin 825 898 X515 Annilys to Surface) 8251 TOC 845' BHC Acordic WinFlow 1910-50 i 4094 i Ween Doll DV 2051' ZIVOI C16P+35'hat 0 2313.2401' Gran 2340 (5) = (2134-35, 7.047-7.5 = 753-64, 2144 = 2782-83, 2783-741 = 181, (82)-33 Elment F. & Alles 2 di 3 Mar 6" - Marin" + 52 m 11 15"2" (150) 110 7227



Marbob Energy Corperation
NMLC-028793C: Burch Keely Unit #78

API: 30-015-23852

Eddy County, New Mexico

RE: Plugging and Abandonment Procedure, Conditions of Approval

- 1. OK
- 2. Set CIBP at 2340' Otherwise OK(Grayburg perfs)
- OK
- 4. CHANGE: Spot a minimum 25 sx plug at 2100'. WOC and tag at 1800' or shallower. (DV Tool Lost Circulation)
- 5. CHANGE: Perf at 825' and squeeze a plug (minimum 25 sx) in and out to 715'. If injection cannot be established, spot plug 50' below the perfs. WOC and tag at 715' or shallower. (BOS)
- 6. OK (Casing shoe TOS)
- 7. After stinging out of retainer, perforate on top of it, and attempt to squeeze cement in the annulus. WOC and tag at 715' or shallower Otherwise OK (Contingency: Casing shoe TOS)
- 8. CHANGE: If injection rate could not be established, perf and squeeze at 60' to surface. Otherwise, pot plug 60' to surface.
- 9. OK Check all annuli to confirm cement to surface before welding.
- 10. Submit subsequent report, with details.

See attacked standard COA.

It is recommended that H2S monitoring and protection available on site.

DHW 012810

Previous COA for original NOI

Marbob Energy Corperation NMLC-028793C: Burch Keely Unit #78

API: 30-015-23852

**Eddy County, New Mexico** 

RE: Plugging and Abandonment Procedure, Conditions of Approval

- 1. OK
- 2. OK (Grayburg perfs)
- 3. OK
- 4. OK (DV Tool Lost Circulation)
- 5. OK (BOS)
- 6. OK (Casing shoe TOS Surface)
- 7. (If step 7 in plan used) After stinging out of retainer, perforate just above it (no perforations at 60' unless injection rate was unable to be established), and attempt to squeeze cement in the annulus using a packer and fill the 5-1/2" casing in and out to surface.

  (Contingency: Casing shoe TOS Surface)
- 8. CHANGE: If injection rate could not be established in step 7, spot 25 sx on top of retainer at 385' (WOC and tag at 285' or shallower), then perf at 60' and squeeze cement to surface in and out of casing.
- 9. OK Check all annuli to confirm cement to surface before welding.
- 10. Submit subsequent report, with details.

See attached standard COA.

It is recommended that H2S monitoring and protection available on site.

DHW 040110

#### **BUREAU OF LAND MANAGEMENT**

Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

#### Permanent Abandonment of Federal Wells Conditions of Approval

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within <u>ninety (90)</u> days from the approval date of this Notice of Intent to Abandon

If you are unable to plug the well by the 90<sup>th</sup> day provide this office, prior to the 90<sup>th</sup> day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.

The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may result in enforcement action.

- 2. <u>Notification:</u> Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-393-3612.
- 3. <u>Blowout Preventers</u>: A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.
- 4. <u>Mud Requirement:</u> Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of **brine** water. Minimum nine (9) pounds per gallon.
- 5. <u>Cement Requirement</u>: Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. In lieu of a cement plug in a cased hole, a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. Any plug that requires a tag will have a minimum WOC time of 4 hours.

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

- 6. <u>Dry Hole Marker</u>: All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). **The BLM is to be notified when the wellhead is cut off to verify that cement is to surface in the casing and all annuluses.** The well bore shall then be capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: well name and number, name of the operator, lease serial number, surveyed location (quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer such as metes and bounds).
- 7. <u>Subsequent Plugging Reporting:</u> Within 30 days after plugging work is completed, file one original and five copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**
- 8. <u>Trash:</u> All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration will be required. See attached reclamation procedure.

DHW 112309



### **United States Department of the Interior**

#### **BUREAU OF LAND MANAGEMENT**

Carlsbad Field Office 620 E. Greene St. Carlsbad, New Mexico 88220-6292 www.blm.gov/nm



In Reply Refer To: 1310

#### **Reclamation Objectives and Procedures**

Reclamation Objective: Oil and gas development is one of many uses of the public lands and resources. While development may have a short- or long-term effect on the land, successful reclamation can ensure the effect is not permanent. During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses. At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land and water are restored.

The long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats. In most cases this means returning the land to a condition approximating or equal to that which existed prior to the disturbance. The final goal of reclamation is to restore the character of the land and water to its predisturbance condition. The operator is generally not responsible for achieving full ecological restoration of the site. Instead, the operator must achieve the short-term stability, visual, hydrological, and productivity objectives of the surface management agency and take steps necessary to ensure that long-term objectives will be reached through natural processes.

To achieve these objectives, remove any and all contaminants, scrap/trash, equipment, pipelines and powerlines. Strip and remove caliche, contour the location to blend with the surrounding landscape, redistribute the native soils, provide erosion control as needed, rip and seed as specified in the original APD COA. This will apply to well pads, facilities, and access roads. Barricade access road at the starting point. If reserve pits have not reclaimed due to salts or other contaminants, submit a plan for approval, as to how you propose to provide adequate restoration of the pit area.

- The Application for Permit to Drill or Reenter (APD, Form 3160-3), Surface Use Plan of
  Operations must include adequate measures for stabilization and reclamation of disturbed lands.
  Oil and Gas operators must plan for reclamation, both interim and final, up front in the APD
  process as per Onshore Oil and Gas Order No. 1.
- 2. For wells and/or access roads not having an approved plan, or an inadequate plan for surface reclamation (either interim or final reclamation), the operator must submit a proposal describing the procedures for reclamation. For interim reclamation, the appropriate time for submittal would be when filing the Well Completion or Recompletion Report and Log (Form 3160-4). For final reclamation, the appropriate time for submittal would be when filing the Notice of Intent, or the Subsequent Report of Abandonment, Sundry Notices and Reports on Wells (Form 3160-5). Interim reclamation is to be completed within 6 months of well completion, and final reclamation is to be completed within 6 months of well abandonment.
- 3. The operator must file a Subsequent Report Plug and Abandonment (Form 3160-5) following the plugging of a well.
- 4. Previous instruction had you waiting for a BLM specialist to inspect the location and provide you with reclamation requirements. If you have an approved Surface Use Plan of Operation and/or an approved Sundry Notice, you are free to proceed with reclamation as per approved APD. If you have issues or concerns, contact a BLM specialist to assist you. It would be in your interest to have a BLM specialist look at the location and access road prior to the removal of reclamation

- equipment to ensure that it meets BLM objectives. Upon conclusion submit a Form 3160-5, Subsequent Report of Reclamation. This will prompt a specialist to inspect the location to verify work was completed as per approved plans.
- 5. The approved Subsequent Report of Reclamation will be your notice that the native soils, contour and seedbed have been reestablished. If the BLM objectives have not been met the operator will be notified and corrective actions may be required.
- 6. It is the responsibility of the operator to monitor these locations and/or access roads until such time as the operator feels that the BLM objective has been met. If after two growing seasons the location and/or access roads are not showing the potential for successful revegetation, additional actions may be needed. When you feel the BLM objectives have been met submit a Final Abandonment Notice (FAN), Form 3160-5, stating that all reclamation requirements have been achieved and the location and/or access road is ready for a final abandonment inspection.
- 7. At this time the BLM specialist will inspect the location and/or access road. If the native soils and contour have been restored, and the revegetation is successful, the FAN will be approved, releasing the operator of any further liability of the location and/or access road. If the location and/or access road have not achieved the objective, you will be notified as to additional work needed or additional time being needed to achieve the objective.

If there are any questions, please feel free to contact any of the following specialists:

Jim Amos Supervisory Environmental Protection Specialist 575-234-5909, 575-361-2648 (Cell)

Terry Gregston Environmental Protection Specialist 575-234-5958

Bobby Ballard Environmental Protection Specialist 575-234-2230

Randy Rust Environmental Protection Specialist 575-234-5943

Linda Denniston Environmental Protection Specialist 575-234-5974

Jennifer Van Curen Environmental Protection Specialist 575-234-5905

Justin Frye Environmental Protection Specialist 575-234-5922 Cody Layton Natural Resource Specialist 575-234-5959

Trishia Bad Bear Natural Resource Specialist 575-393-3612

Todd Suter Surface Protection Specialist 575-234-5987

Doug Hoag Civil Engineering Technician 575-234-5979