#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED OMB No. 1004-0135

-	OMID NO. 1004-01.		
	Expires July 31, 20		
Lease Serial 1	No.		

		OTICES AND REPORTS ON WELLS	TK OF	I-149-IND-8470		
		form for proposals to drill or to re-enter an  Use Form 3160-3 (APD) for such proposals.  Bureau	of Land	I-149-IND-8470  Mariage Middan, Allottee or tribe Name Field Once  Allotted  7. If Unit of CA/Agreement, Name and/or No.		
	SUBMIT IN TRIPLIC	Fam CATE – Other instructions on reverse	7. If Unit or CA/Agreement, Name and/or No.			
		Gas Well Other		8. Well Name and No.  GCU 320		
	2. Name of Operator	Address Charme Library		9. API Well No.		
	BP America Production-Company Attn:-Cherry-Hlava			30-045-24732		
,	3a. Address         3b. Phone No. (include area code)           P.O. Box 3092 Houston, TX 77253         281-366-4081			10. Field and Pool, or Exploratory Area Pictured Cliffs		
	4. Location of Well (Footage, Se 1850' FSL & 820' FEL Sec. 3	c., T., R., M., or Survey Description)  O T28N, R12W NESE		11. County or Parish, State San Juan, New Mexico		
,	12. CHE	CK APPROPRIATE BOX(ES) TO INDICATE NATU	JRE OR N	OTICE, REPORT, OR OTHER DATA		
	TYPE OF SUBMISSION		TYPE C	ACTION		
	Notice of Intent	Acidize Deepen  Alter Casing Fracture Treat	<u> </u>	Production (Start/Resume) Water shut-Off Reclamation Well Integrity		
		Casing Repair New Construction		` <b>—</b> .		
	Subsequent Report	Change Plans Plug and Abandon	П.	Recomplete ROUNERS 9 '03 Water Disposal SIL GONS, DIV,		
	Final Abandonment Notice	Convert to Injection Plug Back		DIST. 3		
	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 recomplete 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 BLMBIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion 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.  April 2009 Compliance Well					
		nut in & unable to produce. Well cannot pi ir Engineer finds no up hole potential for		enough gas to run a compressor or the beam ve mentioned well.		
	BP America respectfully re	quests permission to plug the entire wellb	oore. Pl	ease see attached P&A procedure.		
	14. I hereby certify that the foregoin Name (Printed/typed)	ng is true and correct				
	Cherry Hlava	Title	Regul	atory Analyst		
	Signature Cherry Held	Date	03/03/	/2009		

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Original Signed: Stephen Mason MAR 0 6 2009 Title Date Approved by 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 Office subject lease which would entitle the applicant to conduct operations thereon.

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 witin its jurisdiction.



# SJ Basin Plugging Procedure **Gallegos Canyon Unit 320** 30-045-24732

Date:

March 1, 2009

Repair Type:

P & A

Location:

T28N-R12W-Sec30

County:

San Juan

State:

**New Mexico** 

Meter #: 93919

P/L:

**Enterprise** 

**Gat Sys: CHACO** 

Horizon:

PC

Engr:

**Nona Morgan** 

CO2%:

1.531%

ph (281)-366-6207

H2S:

None known

fax (281)-366-7836

# Objective: Plug and Abandonment

- 1. TIH and pull out completion
- 2. Cleanout wellbore
- 3. Isolate wellbore to check casing integrity
- 4. Run CBL of 4-1/2" casing & consult w/ NMOCD
- 5. Set cement plugs to isolate intervals.
- 6. Install markers.
- 7. Rig down move out.
- 8. Restore location.

## Well History:

Spud date - 4/1981

Pump Change - 6/1999

Recomplete to Fruitland Coal - 2/1997

Squeeze FC and stimulate PC - 5/1998

Casing leak repair - 5/1998 - no subsequent report filed

Methanol Treat & Acidize - 7/2004

C/o Fill, Reland tubing, pump & rods - 1/2005

C/O Fill, change tubing, Methanol Treat. - 8/2006

Methanol Treat & Acidize - 3/2008

## Work Guidelines NOTICE 1: Perform all work per these guidelines and considerations.

- Health, safety, and the environment are a top priority with BP San Juan South Asset and all work shall be done in accordance with Company Policies. Deviations from established BP Policies and Standards are provided for only by the DWOP Dispensation or MOC process.
- All work requires a Pre-work Safety Meeting / JSEA with all BP and service company personnel. The Pre-work Safety Meeting / JSEA should cover the work, personnel assignments, BP General Safety Rules, BP 8 Golden Rules, BP IIF work practices, permitted work, specific hazards and mitigations, emergency response plan, environmental issues and countermeasures, site security, PPE, etc.
- All personnel are empowered to Stop The Job at any time there is a potentially unsafe or perceived unsafe condition or process. For an Incident and Injury Free (IIF) workplace, all personnel are to take care of themselves and one another.

#### Procedure:

## **Preparations**

# Wellsite Preparations and Agency Notifications:

Notify the following Inspectors 48 hours before working on the well;

Charlie Perrin 505-334-6178 ext. 11 or Kelly Roberts 505-334-6178 ext. 16 (NMOCD) Steve Mason 505-599-6364 (BLM)

- 2. Perform pre-rig site inspection. Per Applicable documents, check for:

  (1) size of location, (2) gas taps, (3) other wells, (4) other operators, (5) production—
  equipment, (6) wetlands, (7) wash (dikes requirements), (8) H2S, (9) barriers needed to protect
  equipment, (10) landowner issues, (-11) location of pits (-buried or lines in pits), (12) raptor
  nesting, (13) critical location, (14) check anchors, (15) ID wellhead, etc. Allow 48 hours for One
  Call if earth pit is required.
- 3. Identify wellhead for proper flange connections and BOP equipment.
- 4. Work with GCU through CoW and w/P&S to develop a plan to move or temporarily relocate equipment that prohibits well servicing/plugging objectives.
- 5. Notify land owners with gas taps on well.
- 6. Perform and second site visit after lines are marked to ensure all lines locations are clearly marked and that Planning & Scheduling has stripped equipment and set surface barricades as needed.
- 7. Properly lock out/tag out any remaining production equipment. Ensure all necessary production equipment is isolated (LOTO) including, but not limited to the meter run, automation, and separator, etc.

## Initial Well Checks & Preparations:

- 8. Check gas H2S content and treat if the concentration is > or equal to 10 ppm/Treat for H2S, if necessary per H2S Wells NOTICE.
- 9. MIRU workover rig. Conduct lifting JHA and fill out permit for removing the Horse's head. Complete necessary paperwork and risk assessment.
- 10. Check and record tubing, casing and bradenhead pressures daily. Ensure production casing and bradenhead valves are double valved. Double valve all casing strings. Check lock down pins on hanger.
- 11. Pressure test tree and hanger to 200 psi above SITP. Make up 3" flowback line, if necessary and blow down well. Kill with 2% KCL water or fresh water, as necessary. Check all casing strings to ensure no pressure exist on any annulus.

#### TOH w/ Pump & Rods

- 12. Hang off polish rod on stuffing box and remove horses head.
- 13. Pump tubing capacity with 2% KCl water to load tubing. Test stroke pump to 500 psi if tubing will load. <u>Note</u>: If tubing will not load or goes on vacuum after loading, then hole in tubing or pump shoe problem is indicated.
- 14. Unseat pump. TOH Rods/Pump, inspect rods and pump for scale or wear. \*Watch lower rods (near EOT) closely for signs of wear on guides and rods.

## **Completion Removal**

- 15. RU slickline and set mechanical barriers plugs/bpv in tubing and tubing hanger or install "G" packoff. Blowdown and kill tubing and casing strings. RD slickline.
- -16.-Nipple-down-Wellhead.—Reference—"No-Dual-Barrier—in-Annulus-During-All-Well-Servicing"——dispensation. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs to 250 psi on the low end and on the high range at 1500 psi. Monitor flowing casing pressure with gauge (with casing flowing to blow tank), if available, throughout workover.
- 17. Install stripping rubber. Pull tubing hanger up to rubber and shut pipe rams. Bleed pressure above rams. Pull stripping rubber and hanger up to floor. Remove hanger and replace stripping rubber.
- 18. Open rams and TOOH w/ 2-3/8 production tubing currently set at 1348'. PBTD 1375' Use approved "Under Balance Well Control Tripping Procedure". Visually inspect tubing while POOH. (It is acceptable to use the existing tubing as workstring, if it appears to have good integrity based on normal inspection procedures. WSL's discretion.)
- 19. TIH w/ bit & scraper for 4-1/2" casing to the top of the PC perfs at 1301' and clean out.
- 20. RIH with 4- 1/2" CIBP on workstring and set at 1266'.
- 21. Load hole and circulate out any produced fluids. Pressure test wellbore to 500 psi for 15 minutes. Monitor bradenhead for indications of communication while this is being done.
- 22. RU slickline and run Schlumberger CBL for 4-1/2" casing from 1266' to surface. RD slickline. Report casing load, cement quality, and pressure test results, bradenhead pressure and bleed details, and TOC to the BLM, NMOCD, and Production Engineer.

**Note:** According to the well files, a Temperature survey was run in 4/1981 indicating the TOC was at 400'. Note 2: Have not been able to locate temperature survey on the NMOCD website.

# Spot Plug Locations and Pump Cement to plug off Pictured Cliffs & Fruitland Coal intervals:

- 23. RIH with 2-3/8" open-ended workstring to 1266'. Spot 520' or ~40 sacks (48 cu. Ft.) of G-Class cement on top of CIBP from 1266-746''. This will isolate the entire PCCF and FT Gas bearing productive intervals. WOC.
- 24. Based on 4-1/2" CBL forthcoming results, it will be determined if and where cement will be required behind casing to squeeze off the Pictured Cliffs Sandstone and Fruitland Coal productive intervals.

The next steps listed below assume the TOC behind the 4-1/2" casing is available in

sufficient quantities to surface to fully plug off the identified producing intervals from a depth of 1429' to surface. However, the order and detail of the next steps could change based on the casing pressure tests and CBL results. If necessary, a modified procedure that has been agreed upon by the NMOCD/BLM will be issued at that time to fully isolate and squeeze off any portion of the producing intervals where cement is found to be inadequate according to test reports. The engineer should be consulted throughout the plugging and abandonment procedures. All CBL and pressure test results will be reported to the onsite NMOCD and BLM representatives.

# Set Cement Plugs to Isolate & Plug off Shallow Productive Zones: Kirkland & Ojo Alamo

- 25. RIH w/ 2-3/8" workstring and 4-1/2" cement retainer and set @ 420'.
- 26. RIH with 2-3/8" open-ended workstring to 420'. Spot 405' or ~33 sacks (44 cu. Ft.) of G-Class cement-on-top-of-cement-retainer-from-405'-to-surface. This will isolate the wellbore from the entire Kirland/Ojo Alamo horizon to surface.
- 27. Based on 4-1/2" CBL forthcoming results, it will be determined if and where additional cement will be required behind casing to meet regulatory requirements to squeeze off the Kirkland and Ojo Alamo intervals.
- 28. At this point however, it is being recommended to pump a cement plug behind pipe from 405' to surface. (Ability to pump will depend on results from current CBL run)

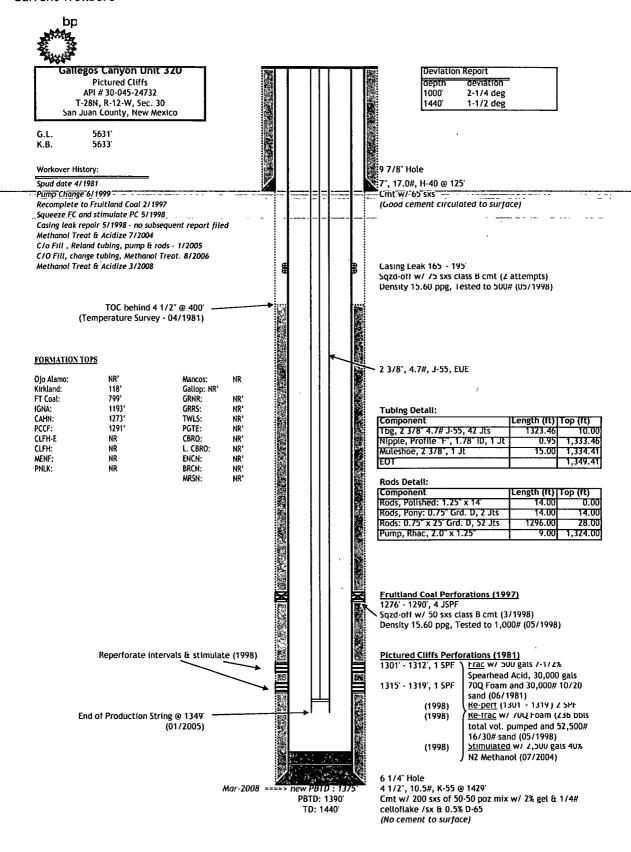
Note that a cement squeeze was performed in 05/1998 to stop a casing leak at 165'-195'

- a. Stab into cement retainer and squeeze 6.8 cu ft or 9 sacks of G-Class cement from top of retainer to the surface.
- b. POOH with work string and top off 4 ½". This will fill the 4 -1/2" casing from previously identified top of cement to surface. (provided the new CBL agrees)

# Final Plugging and Abandonment steps:

- 29. After completion of the above described or modified cementing procedures, If cement cannot be seen on all annulus and casing strings after removing wellhead, remedial cementing at the surface will be required.
- 30. Install 4' well marker and identification plate per NMOCD requirements.
- 31. RU slickline to remove all mechanical barriers and plugs. RD slickline.
- 32. RD service rig and release all equipment. Remove all Wells Team LOTO equipment.
- 33. Ensure all well work details and well bore equipment report are entered in DIMS. Print DIMS summary of work and wellbore diagram and put in well file. Notify Sherri Bradshaw and Cherry Hlava of completed P&A for final regulatory agency reporting and database clearing.
- 34. Submit work request to Planning and Scheduling to prepare location for reclamation and reseeding.

## **Current Wellbore**



# **Proposed PXA**



Gallegos Canyon Unit 320 Pictured Cliffs API # 30-045-24732

T-28N, R-12-W, Sec. 30 San Juan County, New Mexico

G.L. K.B. 5633' 400' cmt, plug across Kirklan

& Ojo Alamo to surface.

9 7/8" Hole

7", 17.0#, H-40 @ 125'

Casing Leak 165 - 195

cement retainer set @ 420' pump cement behind pipe to surface

Cmt w/ 65 sxs

\_(Good\_cement\_circulated\_to,surface)\_

Sqzd-off w/ /5 sxs class B cmt (2 attempts) Density 15.60 ppg, Tested to 500# (05/1998)

Deviation Report

deviation 2-1/4 deg

1-1/2 deg

depth 1000

1440

Workover History:

Spud date 4/1981

Pump Change 6/1999

Recomplete to Fruitland Coal 2/1997 Squeeze FC and stimulate PC 5/1998 Casing leak repair 5/1998 - no subsequent report filed

Methanol Treat & Acidize 7/2004

C/o Fill , Reland tubing, pump & rods - 1/2005 C/O Fill, change tubing, Methanol Treat. 8/2006

Methanol Treat & Acidize 3/2008

TOC behind 4 1/2" @ 400" (Temperature Survey - 04/1981)

#### FORMATION TOPS

Ojo Alamo:	NR'	Mancos:	NR
Kirkland:	118'	Gallop: NR'	
FT Coal:	799'	GRNR:	NR'
IGNA:	1193'	GRRS:	NR'
CAHN:	1273'	TWLS:	NR'
PCCF:	1291'	PGTE:	NR'
CLFH-E	NR	CBRO:	NR'
CLFH:	NR	L. CBRO:	NR'
MENF:	NR	ENCN:	NR'
PNLK:	NR	BRCN:	NR'
		MRSN:	NR'

TOC @ 746'

CIBP set @ 1266'

Reperforate intervals & stimulate (1998)

Mar-2008 = PBTD: 1390'

TD: 1440'

Tubing Detail:

	Length (ft)	Top (ft)
Tbg, 2 3/8" 4.7# J-55, 42 Jts	1323.46	10.00
Nipple, Profile "F", 1.78" ID, 1 Jt	0.95	1,333.46
Muleshoe, 2 3/8", 1 Jt	15.00	1,334.41
EOT		1,349.41

## Rods Detail:

Component	Length (ft)	Top (ft)
Rods, Polished: 1.25" x 14"	14.00	0.00
Rods, Pony: 0.75" Grd. D, Z Jts	14.00	14.00
Rods: 0.75" x 25' Grd. D, 52 Jts	1296.00	28.00
Pump, Rhac, 2.0" x 1.25"	9.00	1,324.00

Fruitiand Coal Perforations (1997)

1276' - 1290', 4 JSPF

1315' - 1319', 1 SPF

Sqzd-off w/ 50 sxs class B cmt (3/1998) Density 15.60 ppg, Tested to 1,000# (05/1998)

Pictured Cliffs Perforations (1981)

1301 - 1312', 1 SPF | Frac w/ 500 gats /-1/2% | Spearhead Acid, 30,000 gats

sand (06/1981) <u>Ke-perr</u> (1301 - 1319) 2 5PF (1998)Ke-Trac W/ /UU Foam (436 bbts (1998)

total vol. pumped and 52,500# 16/30# sand (05/1998) <u>Stimulated</u> w/ 2,500 gais 40%

70Q Foam and 30,000# 10/20

N2 Methanol (07/2004)

6 1/4" Hole

4 1/2", 10.5#, K-55 @ 1429" Cmt w/ 200 sxs of 50-50 poz mix w/ 2% gel & 1/4#

celloflake /sx & 0.5% D-65 (No cement to surface)

(1998)