

Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED OM B No. 1004-0137 Expires: March 31, 2007

SUBMIT IN TRIPLICATE- Other instructions on reverse side. 7. If Unit or CM.). ;
1. Type of Well Oil Well Gas Well Gas Well O John State of Operator BOPCO, L. P. 3a. Address P. O. Box 2760 Midland, TX 79702 3b. Phone No. (Include area code) 432-683-2277 10. Field and Poo Well (Footage, Sec., T., R., M., or Survey Description) 11. Country or Par Eddy Co., N 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OT TYPE OF SUBMISSION TYPE OF ACTION 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, including estimated starting date of any proposed work and If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of a Attach the Bord under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent report following completion of the involved operations. If the operation results in a multiple completion in a new interval, a Fe testing has been completed. Final Abandroment Notices all be filed only after all requirements, including reclamated subsequent report following completion of the involved operations. If the operation results in a multiple completion in a new interval, a Fe testing has been completed. Final Abandroment Notices that the filed only after all requirements, including reclamation determined that the site is ready for final inspection.) BOPCO, L.P. requests approval of the attached revised re-entry procedure. In original APD all work was to be done attached revised procedure all plugs down to 12,112 will be defilled out with a pulling unit with 300,000 lb derrick an required. The pulling unit will then be rigged down and rotary tools rigged up with 5,000 psi BOP's. Next 7 casing with ement direulated to surface per NMOCD injection permit. Final plug will be drilled out and well then deepen of the princed Typeed. 14. Inereby certify that the foregoing is true and correct Name (PrintedTypeed) 15. Each Manual Printed Typeed (PrintedTypeed) 16. The Administrative Assistant	ottee or Tribe Name
2. Name of Operator 2. Name of Operator 3. Address P. O. Box 2760 Midland, TX 79702 3. Address P. O. Box 2760 Midland, TX 79702 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) NWNW, ULD, 660' FNL, 660' FEL, Sec 12, T25S, R30E, Lat N32.15059, Long W103.840908 11. Country or Par Eddy Co., N 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OT TYPE OF SUBMISSION TYPE OF SUBMISSION TYPE OF ACTION Alter Casing Fracture Treat Reclamation Subsequent Report Casing, Repair New Construction Recomplete Casing, Repair New Construction Recomplete In June 10 Jun	/Agreement, Name and/or No.
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Notice of Intent Alter Casing	
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CCEPTED FOR SEE ATTACHED FOR CONDITIONS OF APPROVAL MOCD APT 14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) KatyHolster Signature Manual Ma	nd casing strings tested as will be installed, cemented,
KatyHolster Title Administrative Assistant Date 3/28/1/	5 2011 TES
Signature ###\$## Date 3/28/11 A	NA THE STATE OF TH
	APPROVED
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or /s	APR 1 9 2011 s/ Chris Walls
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. 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 dept States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.	AU OF LAND MANAGEMENT

AMENDED PROCEDURE

J.F. HARRISON FEDERAL #1 CONVERT TO DEVONIAN SWD POKER LAKE EDDY COUNTY. NEW MEXICO

CURRENT STATUS: Well has been plugged and abandoned since 1954.

PLAN: Re-enter the J.F. Harrison Federal #1 wellbore to the Devonian formation. Drill out existing cement and magnesium bridge plugs. RIH with 7", 26#, L80 Buttress casing and tie back the existing 7" liner top at 9,850' to surface. Cement 7" casing to surface with 1,545 sacks of VersaCem class H cement. Drill down to TD at 16,705' and deepen wellbore an additional 500' leaving a new TD of 17,205'. Acid stimulate the open hole section with 25,000 gallons of 15% NEFE HCL Acid. Place well on disposal operation observing a maximum allowable surface injection pressure of 3,325 psi.

DETAIL:

- 1. Move in grader to clear location of brush and level 30' x 30' area around dry hole marker. Haul in caliche if necessary.
- 2. Move in backhoe, dig around dry hole marker and uncover 20" surface casing.
- 3. Install 6' x 6' cellar, re-nipple up to 20" surface casing and 13-3/8" casing using wellhead specialties casinghead and intermediate spool. Top of intermediate spool should be 6" below ground level.
- 4. Move in and complete leveling of location. Set new anchors. Move in and set two 500 bbl frac tanks and load with produced water.
- 5. MIRU pulling unit capable of 300,000 lb pull.
- 6. NU 13-5/8" 5,000 psi hydraulic BOP. (2-7/8" pipe and blind rams)
- 7. MIRU power swivel and reverse unit. Pick up 12-1/4" milltooth bit and one 4-3/4" drill collar on 2-7/8" workstring.
- 8. Drill out surface plug and continue in hole with 4-3/4" drill collars. Picking up a total of (20) drill collars.
- 9. Tag up on cement plug at 3,640'.
- 10. Close backside and pressure test to 1000 psi through bit nozzle.
- 11. After successful test drill out cement plug with produced water and tag up on 9-5/8" casing stub at 3,800'.
- 12. POOH and lay down 12-1/4" bit.

- 13. Pick up 6-1/2" smooth sided convex mill, pony collar, 8-1/2" watermelon mill and RBIH with (20) 4-3/4" drill collars and 2-7/8" workstring to casing stub at 3,800'.
- 14. RU power swivel and commence to drill out plug in 9-5/8" casing. TOOH, LD mills and pick up 8-1/2" milltooth bit. RIH and tag magnesium bridge plug at 6,230' with 2 sacks of cement on top. POOH with 8-1/2" milltooth bit.
- 15. RU Weatherford Wireline with 5k pack-off. RIH with Gauge Ring/Junk Catcher to 6,230'. POOH with Gauge Ring/Junk Catcher. PU 9-5/8" Casing Imaging Tool (CIT). RIH and log from 6,230' to 3,800'. POOH with CIT. PU 13-3/8" 60 arm Multi-Sensor Caliper (MSC) Tool. RIH and log from 3,800' to surface. POOH with MSC Tool. PU Sector Cement Bond Tool. RIH to 6,230' and log to surface.
- 16. RD Weatherford Wireline. Send field copies of logs to Midland for further review before proceeding to next step.
- 17. Close backside and test perfs (6,123'; 6,153' 6,173'; 6,203') to 1000 psi. After successful test drill out plug at 6,230'.
- 18. Continue in hole to magnesium bridge plug at 9,560' with 2 sacks of cement on top.
- 19. Tag up on cement plug. Close backside and pressure test to 1000 psi through bit nozzle. (NOTE: In the event of an unsuccessful test run in with retrievable bridge plug and packer, assess location of leak, squeeze and re-test.)
- 20. Before drilling out cement and bridge plug at 9,560' RU H2S trailer and begin to monitor for H2S.
- 21. After successful test, drill out cement and bridge plug at 9,560'.
- 22. Continue in hole to top of 7" liner at 9,850'. Test to 1000 psi. Circulate clean and POOH with 8-1/2" milltooth bit BHA. (**Note:** If test is unsuccessful squeeze liner top).
- 23. RBIH with 5-7/8" milltooth bit drill out to CIBP at 12,112'. Test to 1000 psi. Chart 30 minute test to 500 psi. If unsuccessful TOOH for packer. Squeeze if necessary.
- 24. RU Renegade wireline. RIH with caliper log/Gamma Ray/CCL
- 25. Log 7" liner from 12,112' through liner top at 9,850'. Repeating liner section twice. Then log GR/CCL to surface. Identify both the length and ID of polished bore receptacle. RD Renegade wireline.
- 26. RIH with fluted tie back mill with cut-write on bottom and liner top polishing mill run in tandem and dress off polished bore receptacle. POOH with mills.
- 27. NU 7" x 13-5/8" B Section.
- 28. RD pulling unit.
- 29. RU Mcvay #5 drilling rig.

- 30. Install 5k Mcvay stock hydraulic BOP.(3-1/2" pipe & blind rams)
- 31. RU casing crew and RIH with 7", 26#, L80, Buttress casing, float collar, and seal bore assembly. (Place float collar 2 jts above seal bore assembly). Run Weatherford bow spring centralizers 1 every other joint starting in the 13-3/8" casing from 3,800 feet to surface.

7", 26#, L80				
Wt _{Air} = 256,100 lbs	The state of the s	Wt _{Bouy.} = 222,833 lbs		
S.F. Collapse	S.F. Burst	S.F. Tension		
1.01	2.07	2.29		

^{*}Buoyancy Factor of .8701 (8.5 ppg) fluid – Halliburton Red Book

32. Sting into Brown Liner top at 9,850' with seal assembly. Test 7" casing to 1,000 psi. Sting out of liner top and RU Halliburton. Before commencing cementing operations, notify BLM and NMOCD. Pump 2 annular volumes of PW (582 bbls = 1 annular volume) then a 20 bbl spacer of fresh water followed by 1,545 sacks VersaCem class H cement.

INTERVAL (ft.)	AMOUNT (sks)	TYPE	PPG	SLURRY VOLUME (bbls)	YIELD (cu.ft/sk)
9,850' to Surface	1,545	VersaCem H	14.40	334	1.21

- 33. Flush with 20 bbl fresh water spacer followed by 333 bbls of 10 ppg produced water down to float collar. Sting back into 7" liner top with seal assembly. RD Halliburton.
- 34. WOC 24 hours.
- 35. Pick up 5-7/8" milltooth bit, boot basket, (20) 4-3/4" drill collars and RIH on 3-1/2" drill pipe.
- 36. Drill out float collar and cement down to CIBP at 12,112'.
- 37. Drill out CIBP and continue in hole to PBTD at 16,282'.
- 38. Shut in backside and test 7" casing and squeeze perfs from 12,220' to 12,360' to 1000 psi. Chart 30 minute test to 500 psi.
- 39. Drill out plug back cement at 16,282 with 10 ppg produced water.
- 40. Deepen hole 500' drilling with 10 ppg produced water. Giving a new TD of 17,205'. (**Note:** Prepare to mud-up in the event of a kick).
- 41. Circulate hole clean with PW. While on bottom with bit spot 20 bbls of 15% NEFE HCL Acid across open hole section; 16,626' to 17,205'.

- 42. TOOH with 5-7/8" BHA laying down to 3,000', then stand back. PU RBP for 7". TIH and set RBP at 3,000'. TOOH laying down. Place valve on top. RD Mcvay #5 drilling rig.
- 43. MIRU pulling unit.
- 44. NU 5,000 psi hydraulic BOP.
- 45. RU Renegade Wireline with 5k pack-off and full lubricator.
- 46. RIH with GR and CCL tool and log open hole section from 17,205' to 16,626'. Continue logging through the 7" liner from 16,626' to 12,112'. (Tie log data back into previous log from 12,112' to surface.)
- 47. RD Renegade Wireline.
- 48. Pick up 2-7/8" workstring with a 10K Hornet packer and 2 joints of 2-7/8" tbg as tail pipe. RIH to 16,600' +/- and set packer.
- 49. Break down formation with 576 bbls of 15% NEFE HCL Acid observing a maximum surface treating pressure of 3,000 psi. Over displace acid by a full tubing capacity (78 bbls) with PW.
- 50. POOH with 2-7/8" workstring and packer.
- 51. Pick up 7" IPC and externally nickel plated 10k Baker Hornet injection packer and RIH on 4-1/2" flush joint IPC, 12.75#, L80, RTS-8 R2 sml Koppel injection tubing to 16,575. (IPC is NOV Tuboscope TK-15 with Temp. Rating up to 300 deg.)

4-1/2", 12.75#, L80 RTS-8				
Wt _{Air} = 211,331 lbs		Wt _{Bouy.} = 183,879 lbs		
S.F. Collapse	S.F. Burst	S.F. Tension		
1.02	1.41	1.57		

*Buoyancy Factor of .8701 (8.5 ppg) fluid – Halliburton Red Book

- 52. Reverse circulate 294 bbls of packer fluid in 2% KCL (8.5 ppg) around packer. Set packer and top fill additional packer fluid if necessary. Test to 500 psi for 30 minutes. Record test on chart. Notify Artesia NMOCD of intent to place well on injection. Have NMOCD witness MIT.
- 53. ND BOP and NU wellhead.
- 54. Place well on injection observing a maximum surface injection pressure of 1,500 psi until further notified.
- 55. A diagnostics and evaluation procedure will follow.

End	of	Pro	ced	ure.	
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Submitted By: Martyn Robertson

Approved By:

Date: <u>March 11, 2011</u>

CURRENT WELLBORE DIAGRAM

Lease:	J F Harrison Federal	Well No.:	1	
Field:	Wildcat (Wolfcamp)			
Location:	660' FNL & 660' FWL, SEC 12-T25S-R30E			
County:	EDDY St: VM			API: 30-015-04749

ize: <u>20"</u> Spud: 7/22/19				(*)	_		
Second S	•		E13		20 sxs cmt		3356
rd H-40 et @: 557' xs cmt: 750 iv: 7 sks OC: Surface ole Size: 24" 20" @ 557' xs cmt: 750 iv: 13 3/8" // 61 172# id: 61/72# id: 6400 iv: 2000 sks OC: Surface ole Size: 9 5/8" // 17 1/2" // 18 10 10 17 17 1/2" // 18 10 10 10 10 10 10 10 10 10 10 10 10 10			_			1	7/22/1952
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22: 13 3/8" the folia first state of the first stat	tormodiato	Cen					
td		- ·					
DV Tool @ 2792' at a			-		•		
DV Tool @ 2792' DV Tool @ 2792' St Cmt: 6400 CC: 2000 sks DC: Surface Surface 17 1/2" TOC 4560' DV Tool @ 6008'. Perf & Sqz @ 6,123' Perf & Sqz @ 6,123' Perf & Sqz @ 6,203' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf & Sqz @ 380' - 9400' Perf & Sqz @ 10,025' Perf & Sqz @ 11,930' TOC 10,490' Perf & Sqz @ 11,930' TOC 10,490' Perf & Sqz @ 11,930' TOC 10,490' Perf & Sqz @ 12,360'			-		•		
sc Cmt: 6400 CDC: Surface ple Size: 17 1/2" **Toc 4560" **Def Size: 9 5/8" 1			- 3		DV T1 @ 2702!		
TC: 2000 sks DC: Surface Doc: Su	-		- 1		DV 1001@ 2792		
Cut & pull 9 5/8" @ 3800' spotting 100 sxs cmt on top			-				
Spotling 100 sxs cmt on top 13 3/8" @ 3971'			-		0.4.0		
termediate Csg. ze: 9 5/8" 1			- 333	1000			
termediate Csg. re: 9 5/8" t 40/47# rd: 40/97# rd: 10,073' rs: Cmt: 3507 rc: None DC: 4560' (Temp Log) re: 7" rd: 32# rd: N-80 rd: N-80 rd: N-80 re: 7" re: 7" re: 7" re: 7" re: 8 Sqz @ 6,123' Perf & Sqz @ 6,153' - 6,173' Perf & Sqz @ 6,153' - 6,173' Perf & Sqz @ 6,203' Perf & Sqz @ 6,203' Perf & Sqz @ 6,203' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf @ 7,665' - 7,670' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf @ 7,665' - 7,670' Perf & Sqz @ 7,480' Perf & Sqz @ 8,450' Perf & Sqz @ 380' - 9400' Perf & Sqz 9380' - 9400' Perf & Sqz 9380' - 9460', 9525' - 9527' 2 sxs cmt cap 9 5/8" Magnesium bridge plug @ 9560' Perf & Sqz @ 10,025' Perf & Sqz @ 11,930' 7" CIBP @ 12,112' Perf 12,220' - 12,240', 12,250' - 12,280', 12,315' - 12,330' 12,320' - 12,335', 12,448' - 12,251' (Sqz'd) Perf & Sqz @ 12,360' Plugged back to 16,282' w/ 75 sxs cmt	DIE SIZE.	17 1/2				ор	
d 40/47#	termediate	Csg.			10 0/0 @ 00/1		
Perf & Sqz @ 6,123' Perf & Sqz @ 6,123' Perf & Sqz @ 6,153' - 6,173' Perf & Sqz @ 6,203' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf & Sqz @ 7,680' Perf & Sqz @ 7,680' Perf & Sqz @ 380' - 9400' Perf & Sqz 9380' - 9400' Per	ze: .	9 5/8"			TOC 4560'		
# @: 10,073" S Cmt: 3507 Perf & Sqz @ 6,153' - 6,173' Perf & Sqz @ 6,203' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf & Sqz @ 7,680' Perf & Sqz @ 7,680' Perf & Sqz @ 7,680' Perf & Sqz @ 8,450' Perf & Sqz @ 8,450' Perf & Sqz @ 8,450' Perf & Sqz @ 8,80' - 9400' Perf & Sqz @ 380' - 9400' Perf & Sqz 9380' - 9460', 9525' - 9527' 2 sxs cmt cap 9 5/8" Magnesium bridge plug @ 9560' Perf & Sqz @ 10,025' Perf & Sqz @ 11,930' Perf & Sqz @ 12,360' Perf & Sqz @ 12,36	t	40/47#	- <	>	DV Tool @ 6008'.		
S Cmt: 3507 c: None DC: 4560' (Temp Log) le Size: 12 1/4" poduction Liner te: 7" dd N-80 t @: 9850' - 16,626' s Cmt: 1675 c: None DC: 10490' le Size: 8 5/8" Perf & Sqz @ 10,025' Perf & Sqz @ 10,073' TOC 10,490' Perf & Sqz @ 11,930' 7" CIBP @ 12,112' Perf & Sqz @ 12,360'	d	N-80	- A	7	Perf & Sqz @ 6,123'		
S Cmt: 3507 C: None DC: 4560' (Temp Log) de Size: 12 1/4" poduction Liner re: 7"	t @:	10,073	- A	₽	Perf & Sqz @ 6,153' - 6,1	173'	
None	_	3507	- 21	1		•	
2 sxs cmt cap 9-5/8" Magnesium bridge plug @ 6230' Perf & Sqz @ 7,250', 7,652 - 7,662' Perf @ 7,665' - 7,670' Perf & Sqz @ 7,680' Perf & Sqz @ 8,450' d N-80 t @ 9850' - 16,626' s Cmt: 1675 rc: None NC: 10490' rele Size: 8 5/8" Perf & Sqz @ 10,025' Perf & Sqz @ 11,930' 7" CIBP @ 12,112' Perf 12,220' - 12,240', 12,250' - 12,280', 12,315' - 12,330' 12,320' - 12,335', 12,448' - 12,251' (Sqz'd) Perf & Sqz @ 12,360' Plugged back to 16,282' w/ 75 sxs cmt	rc:	None	- 1				
9-5/8" Magnesium bridge plug @ 6230'	C:	4560' (Temp Log)	- 376	5 222	2 sxs cmt cap		
Def & Sqz @ 7,250', 7,652 - 7,662' Perf @ 7,665' - 7,670' Perf & Sqz @ 7,680' Perf & Sqz @ 8,450' Perf & Sqz 9380' - 9400' Perf & Sqz 9380' - 9400' Perf & Sqz 9380' - 9460', 9525' - 9527' 2 sxs cmt cap 9 5/8" Magnesium bridge plug @ 9560' Perf & Sqz @ 10,025' 9 5/8" @ 10,073' TOC 10,490' Perf & Sqz @ 11,930' 7" CIBP @ 12,112' Perf 12,220' - 12,240', 12,250' - 12,280', 12,315' - 12,330' 12,320' - 12,335', 12,448' - 12,251' (Sqz'd) Perf & Sqz @ 12,360' Plugged back to 16,282' w/ 75 sxs cmt	ole Size:		-			ntug @ 6230'	
Perf @ 7,665' - 7,670' Perf & Sqz @ 7,680' Perf & Sqz @ 8,450' Perf & Sqz @ 9380' - 9400' Perf & Sqz 9380' - 9460', 9525' - 9527' 2 sxs cmt cap 9 5/8" Magnesium bridge plug @ 9560' Perf & Sqz @ 10,025' Perf & Sqz @ 10,073' TOC 10,490' Perf & Sqz @ 11,930' 7" CIBP @ 12,112' Perf 12,220' - 12,240', 12,250' - 12,280', 12,315' - 12,330' 12,320' - 12,335', 12,448' - 12,251' (Sqz'd) Perf & Sqz @ 12,360' Plugged back to 16,282' w/ 75 sxs cmt		•	- 4				
Perf & Sqz @ 7,680' N-80 Perf & Sqz @ 380' - 9400' Perf & Sqz @ 380' - 9400' Perf & Sqz @ 380' - 9460', 9525' - 9527' Sc Cmt: 1675 rc: None DC: 10490' Dle Size: 8 5/8" Perf & Sqz @ 10,025' 9 5/8" @ 10,073' TOC 10,490' Perf & Sqz @ 11,930' 7" CIBP @ 12,112' Perf 12,220' - 12,240', 12,250' - 12,280', 12,315' - 12,330' 12,320' - 12,335', 12,448' - 12,251' (Sqz'd) Perf & Sqz @ 12,360' Plugged back to 16,282' w/ 75 sxs cmt	oduction L	iner	4	2			
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7" @ 16,626'					Plugged back to 16,282'	w/ 75 sxs cmt	
/ @ 10,020				(A)			
			-		7" @ 16 6261		

PBTD: 16,282' TD: 16,705'
 Updated:
 8/23/2010

 Author:
 crm

 Engr:
 GEG