Revised Permit Information 8/27/2019:

Well Name: Wild Weasel 15 Fed Com #707H

Location:
SHL: 324' FSL & 2166' FEL, Section 15, T-25-S, R-34-E, Lea Co., N.M.
BHL: 100' FSL & 1716' FWL, Section 27, T-25-S, R-34-E, Lea Co., N.M.

Design A

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
12.25"	0' – 983'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,530'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 11,030'	5.5"	20#	P-110 EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	11,030'–11,530'	5.5"	20#	HCP-110	VAM SFC	1.125	1.25	1.60
6.75"	11,530' – 22,958'	5.5"	20#	P-110 EC	DWC/C-IS MS	1.125	1.25	1.60

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

EOG requests variance to allow deviation from the 0.422'' annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422'' between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422'' is acceptable for the curve and lateral portions of the production open hole section.

EOG also requests to retain the option to utilize the previously permitted 4 string design, to be referred to as Design B.

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/sk	Slurry Description
983' 9-5/8"	830	13.5	1.73	Lead: Class C + 4.0% Bentonite + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 845')
11,530' 7-5/8"	470	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,800')
	1,000	12.7	2.30	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
22,958' 5-1/2"	950	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 11,030')

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8'' intermediate casing string with the first stage being pumped conventionally with the calculated TOC at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top of cement will be verified by Echo-meter.

EOG also requests variance for the option to perform this cement procedure on Design B in the 7-5/8" 2nd Intermediate casing string as a contingency plan.

EOG will include the final fluid top verified by Echo-meter and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 983'	Fresh - Gel	8.6-8.8	28-34	N/c
983' – 11,530'	Oil Base	10.0-10.2	28-34	N/c
11,530' – 12,184'	Oil Base	8.7-9.4	58-68	N/c - 6
12,184' – 22,958' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

Revised Wellbore
Design A

KB: 3,369'
GL: 3,344'

API: 30-025-45801