

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Road, Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101

May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Chesapeake Operating Inc. P. O. Box 11050 Midland, TX 79702-8050		² OGRID Number 147179
		³ API Number 30-015-24708
³ Property Code 301149	⁵ Property Name Carrasco 18	⁶ Well No. 1
⁹ Proposed Pool 1 Loving, Delaware, South		¹⁰ Proposed Pool 2

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Westline	County
D	18	23S	28E		990	North	990	West	Eddy

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Westline	County

Additional Well Information

¹¹ Work Type Code Plug Back	¹² Well Type Code O/G	¹³ Cable/Rotary	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3059
¹⁶ Multiple	¹⁷ Proposed Depth 12650	¹⁸ Formation Brushy Canyon	¹⁹ Contractor Unavailable	²⁰ Spud Date 08/30/2006
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
NO PIT WILL BE USED				
Pit: Liner: Synthetic <input type="checkbox"/> milst thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method: _____				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20	94	437	750 sx	0
17 1/2	13 3/8	68	2386	2900 sx	
12 1/4	9 5/8	40	10642	900 sx	
	5 1/2 liner		12650 Btm 10108 Top	800	

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.
Plug back to the Brushy Canyon per the attached workover report.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Printed name: Brenda Coffman

Title: Regulatory Analyst

E-mail Address: bcoffman@chkenergy.com

Date: 08/15/2006

Phone: (432)687-2992

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARRANT

Title:

DISTRICT II GEOLOGIST

Approval Date: AUG 25 2006

Expiration Date:

AUG 25 2007

Conditions of Approval Attached ☒

See STIPS

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-24708		Pool Code 4038c	Pool Name Loving; Delaware South
Property Code 301149	Property Name Carrasco 18		Well Number 1
OGRID No. 147179	Operator Name Chesapeake Operating Inc.		Elevation 3059

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
D	18	23S	28E		990	North	990	West	Eddy

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40		Joint or Infill		Consolidation Code		Order No.			

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.

					17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature Date 08/15/2006 Brenda Coffman Printed Name			
					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.			
					Date of Survey Signature and Seal of Professional Surveyor: Certificate Number			

**Carrasco 18 #1
Plug Back to Brushy Canyon
Eddy County, New Mexico**

GENERAL INFORMATION

Location: 990' FNL & 990' FWL, Sec 18 - T23S - R28E
API No.: 30-015-24708

WELL INFORMATION

<u>String OD</u>	<u>Weight & Grade</u>	<u>Depth</u>	<u>ID</u>	<u>Drift</u>	<u>Burst</u>	<u>TOC</u>
13-3/8"	68# K55 STC	0' - 2386'	12.715"	12.559"	1730	0'
9-5/8"	40# N80 LTC	0' - 10642'	8.835"	8.679"	5750	~8487'
5-1/2"	Unknown	10108' - 12650'	~ 4.8"	~ 4.7"		10108'

Atoka Perforations: 11180 - 11224' (OA)

TD/PBTD: 12650'/11840'

Recommended Perforations

Brushy Canyon 5786 - 5834'

Re-Completion Procedure

1. MIRU CT Unit. Spool out with 1-1/4" CT. RDMO CT Unit.
2. MIRU Service Rig and requisite equipment. NDWH, NU BOP. Release packer and POOH with 2-7/8" tubing. Note: packer type unknown. If unable to release, free-point and back off tubing 1 joint above packer.
3. MIRU Wireline Service Unit. Run a strip log and correlate depth with Neutron/Density log dated 3/23/84 to set a 5-1/2" CIBP at 11130'. Run strip log across the interval 6300 - 5300' as well. Bail 2 sx of cement on 5-1/2" plug. Set a 9-5/8" CIBP at 6275'. Bail 2 sx of cement on plug. *-35' B&D*
4. Load hole with 2% KCL and pressure test to 1000#.
5. Shoot four squeeze holes at 6050'. Shoot four upper squeeze holes at 5550'. Set a cement retainer at 6025'. RDMO Wireline Service Co.
6. RIH pressure testing 2-7/8" tubing. Sting into retainer. Break/establish circulation with brine water. Pump 15 bbl of mud sweep and cement with 250 sacks of Class C cement plus additives per squeeze recommendation. Sting out of retainer and reverse clean. Pull tubing several stands above top squeeze hole. WOC overnight.
7. RIH and tag new PBTD to ensure adequate rat hole. POOH.
8. MIRU Wireline Service unit. Run bond log from PBTD past TOC. RU lubricator and RIH w/ HSD casing gun. Perforate the Brushy Canyon w/ 1 SPF, 23 gram charge, .37" holes, from 5786' to 5834' (49 holes).
9. RIH w/ 9-5/8" treating packer and SN on 2-7/8" tubing. Space out with the EOT at 5834'.

* 100' Cement plug across Top Wolfcamp
@ 9195'

10. RU Acid Service Company. Spot 200 gal of 7-1/2% HCL Acid containing 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Pull packer to ~ 5750'. Reverse circulate to ensure packer is clear of acid, set packer. Pressure test annulus to 1000#.
11. ND BOP. NU tree. Pressure annulus to 1000 psi. Displace spot acid, establish rate of 4 to 5 BPM w/ 2% KCL. (Keep KCL water usage to a minimum). Acidize w/ 1,300 gal of same acid. Displace w/ 2% KCL. Do not over-displace. Pump at 4 to 5 BPM max. Launch 60 ball sealers during job. Note rates and pressures. Note ISIP. Max pressure 4000#.
12. Flow/swab back job. Swab test zone.
13. Prep to frac. Kill well with 2% KCL if required. NU frac valve. MIRU Frac Service Company. Pressure annulus to 1000#. Tie on to tubing and establish rate w/ 10,000 gallon pad of 30# XL gel pad containing additives per frac schedule. Scour with 1000# of 16/30 Ottawa in 4000 gal of additional pad. Frac per frac schedule ramping 16/30 Ottawa from 1 lb/gal scour to 6 #/gal of resin coat at tail of job in a 30# XL gel. Total sand 51000 lb of 16/30, 10000 lb of 16/30 resin coat. Obtain rates approaching 12 - 15 BPM, max pr 4000#. Cut resin activator in last tub of sand. Displace to top perf with slickwater. Anticipated treating pressure ~2500#.
14. Obtain 5, 10, and 15 min SI data. RDMO Frac Service Company. Wait on frac overnight.
15. Flow back job. Swab to clean up and test.
16. ND tree, NU BOP. POOH with tubing and packer.
17. RIH w/ MA, PS, SN, TAC (at ~ 5600') and 2-7/8" tubing. Space out and land SN ~5850'. Swab to clean up.
18. RIH w/ 1-3/4" pump and an API Grade 'D' tapered rod string. Run pump, 350' of 1-1/2" sinker bars, 117 - 3/4", and 103 - 7/8". Space out/seat pump. Load and test.
19. Set 456-256-144 PU. Stroke to 126" hole and PWOP.