

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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Chesapeake Operating Inc. 2010 Rankin Hwy Midland, TX 79701		² OGRID Number 147179
³ Property Code 301171		⁴ API Number 30-015-25237
⁵ Property Name FORT 18 COM		⁶ Well No. 1
⁹ Proposed Pool 1 MALAGA; DELAWARE (OIL)		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
E	18	24S	29E		1980	NORTH	895	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
E	18	24S	29E		1980	NORTH	895	WEST	EDDY

Additional Well Information

¹¹ Work Type Code P	¹² Well Type Code OIL	¹³ Cable/Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 2955.8 GR
¹⁶ Multiple	¹⁷ Proposed Depth 13058	¹⁸ Formation BRUSHY CANYON	¹⁹ Contractor	²⁰ Spud Date 04/05/2007
Depth to Groundwater 45		Distance from nearest fresh water well 1000		Distance from nearest surface water 1000
Pit: Liner: Synthetic <input type="checkbox"/> mil thick Clay <input checked="" type="checkbox"/> Pit Volume: 12129 bbls Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> Closed-Loop System <input type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2	13 3/8	61#	600	580 sx	
12 1/4	9 5/8	36#	2610	1550 sx CL C	
8 1/2	7	23#	10650	1400 SX CL C	
	4 1/2 LNR		10317-13058	250 SX	

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.
CHESAPEAKE, RESPECTFULLY, REQUEST PERMISSION TO PLUG BACK TO BRUSHY CANYON ZONE PER THE ATTACHED.

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 NMOC guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Printed name: Shay Stricklin

Title: Regulatory Tech.

E-mail Address: sstricklin@chkenergy.com

Date: 03/30/2007

Phone: (432)687-2992

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARRANT

DISTRICT II GEOLOGIST

Approval Date: APR 04 2007

Expiration Date: APR 04 2008

Conditions of Approval Attached ☐

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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

1 API Number 30-015-25237		2 Pool Code 42940		3 Pool Name MALAGA; DELAWARE (OIL)	
4 Property Code 004915		5 Property Name FORT 18 COM			6 Well Number 1
7 OGRID No. 147179		8 Operator Name Chesapeake Operating Inc.			9 Elevation 2955.8 GR

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
E	18	24S	29E		1980	NORTH	895	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
E	18	24S	29E		1980	NORTH	895	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320 4c			

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.

16 	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: <u>Shay Stricklin</u> Date: <u>3/30/2007</u> Printed Name: <u>Shay Stricklin</u>			
	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			

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

GENERAL INFORMATION

February 15, 2007

Location: 1980' FNL & 895' FWL, Sec 18 – T24S – R29E

API No.: 30-015-25237

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"	61# K55	0' – 600'	12.515"	12.359"	3090	0'
9-5/8"	36# K55	0' - 2610'	8.921"	8.765"	3950	0'
7"	23# S95	0' - 10650'	6.366"	6.241"	7530	6390'
4-1/2"	13.5# N80	10306' - 13058'	3.920"	3.795"	9020	10306'

Atoka 11922 – 76' (OA); Bone Spring 8806 – 50'

TD/PBTD: 13058'/12000'

Recommended Perforations

Brushy Canyon 6046 – 68'

Re-Completion Procedure

1. MIRU Service Rig and requisite equipment. NU BOP. POOH with pump, rods, and 2-3/8" tubing.
2. MIRU Wireline Service Co. Make a gauge ring trip in and out to ~11900'. Correlate to CBL/CCL dated 4/25/1995. Set a 4-1/2" CIBP at 11875'. Bail 2 sx of cement on plug. Correlate to CBL/CCL dated 6/10/1998. Set a 7" CIBP at 8760'. Load hole with 2% KCL and test to 1000#. Run strip log and correlate to Litho Density log dated 4/19/1985. Shoot two squeeze holes at 6200'. Shoot two squeeze holes at 5850'. Set a cement retainer at 6175'. RDMO Wireline Service Co.
3. RIH picking up 2-7/8" 6.5# N80 workstring. Sting into retainer. Break/establish circulation with KCL water. Pump 15 bbl of mud sweep and cement with 200 sacks of Class C cement plus additives per squeeze recommendation. Sting out of retainer, reverse clean, and POOH with tubing.
4. Run temperature log to establish TOC. WOC overnight.
5. Load hole and pressure test casing to 500#.
6. RU lubricator and RIH w/ 3-3/8" casing gun. Perforate the Brushy Canyon w/ 2 SPF, 120 degree phasing, 23 gram charge, .37" holes from 6046 – 68' (45 holes).
7. RIH w/ 7" treating packer and SN on 2-7/8" tubing. Space out with the EOT at 6068'.
8. 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 ~ 6000'. Reverse circulate excess acid into tubing, set packer. Pressure test annulus to 500#.

9. ND BOP. NU tree. Pressure annulus to 500 psi. Displace spot acid, establish rate of 3 to 4 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 3 to 4 BPM max. Launch 55 ball sealers during job. Note rates and pressures. Note ISIP. Max pressure 2500#.
10. Flow/swab back job. Swab test zone.
11. Prep to frac. Kill well with 2% KCL if required. Release and lower packer through perfs to clear of ball sealers. NU frac valve. MIRU Frac Service Company. Pressure annulus to 500#. Tie on to tubing and establish rate with a 2000 gal pre-pad of 30# linear gel. Pump a 10,000 gallon pad of 30# XL gel pad containing additives per frac schedule. Scour zone with 1/4 #/gal 16/30 Ottawa in 4000 gal of 30# XL gel. Frac per frac schedule ramping 50,000# of 16/30 Ottawa from 1 lb/gal to 5 #/gal in 15,000 gal of 30# linear gel. Tail in with 10000# of 16/30 resin coat at 6 #/gal in 1700 gal of linear gel. Total sand 51,000 lb of 16/30 Ottawa, 10,000 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 linear gel. Anticipated treating pressure ~2500#.
12. Obtain 5, 10, and 15 min SI data. RDMO Frac Service Company. Wait on frac overnight.
13. Flow back job. Swab to clean up and test.
14. ND tree, NU BOP. POOH with tubing and packer laying down workstring.
15. RIH w/ MA, PS, SN, TAC (at ~ 5700') and 2-3/8" tubing. Space out and land SN ~6075'. Swab to clean up.
16. RIH w/ 1-1/2" pump and a high strength tapered rod string. Run pump, 300' of 1-1/2" sinker bars, 140 - 3/4", and 91 - 7/8". Space out/seat pump. Load and test. PWOP.

CURRENT WELLBORE SCHEMATIC

CHESAPEAKE OPERATING INC.

WELL : FORT 18 COM # 1

FIELD : MALAGA - ATOKA

LOCATION : 1,980' FNL & 895' FWL, SEC. 18-T24S-R29E

COUNTY : EDDY

STATE : NM

ELEVATION : GL - 2,955.8' KB - 2,976'



API #: 30-015-25237

SPUD DATE: 03/23/1985

RIG RELEASED: 09/24/2002

FIRST SALES: 12/14/2002

CHK PN: 891241

HOLE
SIZE

17-1/2"

12-1/4"

8-1/2"

6-1/8"

13-3/8" 51# K-55 STC Surf. Csg. @ 600'
Cmt: 350 sx HL+additives & 200 sx class H+additives. Circ 30 sx to surf

9-5/8" 36# K-55 Csg. @ 2,610'
Cmt: Lead: 1200 sx HL+ additives. Tail: 350 sx Class C+additives. Circ 100 sx to surf

TOC @ 6,390'

Rod Detail:
2"x1-1/16"x24" RHBM
8 1-1/2" K-Bars
336 1/4" rods
131 7/8" rods
2' 7/8" SUB
8' 7/8" SUB
1 1/4"x24" Polish rod
1 1/2"x18" LNR

Trn Detail:
2-3/8" 4.7# N80
SN- 11,925' from KB

Bone Spring Perfs @ 8,806'-8,850' w/4 spf (176 holes)

TOL @ 10,306'

7" 23# 8-96 Csg. @ 10,860'
Cmt: Lead: 850 sx HL + additives. Tail: 550 sx Class H+ additives.

Upper Atoka Perfs @ 11,922'-30', 11,968'-76' w/4 spf (64 holes)

CIBP @ 12,010' W/10' CMT.

Atoka Perfs @ 12,027'-12,038' w/1 spf (12 holes)

Morrow Perfs @ 12,879'-12,890' w/1 spf (12 holes) sqzd

4-1/2" 13.5# N-80 Liner @ 13,059'
Cmt: 250 sx Class H w/additives.

TD @ 13,068'
PBTD @ 12,000'

Well History:

8-19-85: Run CNL/Sonic/Dual log.
9-24-85: Perf Morrow 12,879' to 890'. Acdz w/ 3000 gal 7-1/2% MS acid, 500 SCF N2/bbl.
9-25-85: Sqzd Perf with 50 sx Class H cmt w/additives.
9-27-85: Perf Atoka 12,027 to 038'. Acdz w/ 5000 gal 7-1/2% Mor Flo BC acid w/20 BS in acid.
2/14/82: RIW w/ 1-11/16" sinker bar to 10,800', seal-assembly @ 10,330'. Swab dry-not flowing. RIH w/ CCL gamma gun. Reperf existing perf 12,027' to 038' w/4 spf 180 degree phasing. Drop 2 soap stick.
12/1/84: RIH w/1-1/2" coiled tbg w/ wash tool & 750 SCF N2 PM to 7,200'. Wash to 12,200'. Work coiled tbg thru perfs several times w/H2 & foamer. Spot 750gal 7-1/2% HCL. Close annulus & dsp acid w/H2 & foamer, jet hole dry, POOH w/ 1-1/4" coil tbg. Well dead. Cln out did not benefit well.
3 & 4/19/85: Set CIBP @ 12010'. Perf Atoka 11922 - 30 & 11968 - 76'. Acdz perf 11,922' to 976' w/ 5000 gal 7-1/2% NEFE.
6/30/86: Atoka depleted. Perf Bone spring from 8,806' to 850'. Frac w/ 1878 bbl spectratrac gel & 151,540# sand.
10/08/01: RU. Petroplex acdz w/280 gal 15% HCL mixed w/220 gal Gas plus w/45 bbl of 2% KCL.
10/01/03: Changed Pmp. Load tbg w/24 bbl. Test to 500# for 5 min. Good.
4/2/04: RU pulling unit. Removed horse's head, stuffing box and polish rod liner. Replaced 1-1/2"x28" polish rod & 1-1/2"x18" rod liner. Load tbg w/3 bbl water and test tbg. Pressure test OK'd.
6/20/04: Repair pmp.
12/3/04: Repair pmp. Change belt.
1/19/05: C/O Paraffin from surf to 6,000'. Pump change.

PREPARED BY: Myo Htoon

UPDATED BY: AJM

DATE: 5/25/06

DATE: 2/16/07