Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

RECEIVED
NOV 23 2009
NMOCD ARTESIA

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

1 Type of Well ☐ Oil Well ☐ Gas Well ☑ Other INJECTION WELL	5. Lease Serial No. NMNM 01119
	6. If Indian, Allottee or Tribe Name
	7. If Unit of CA/Agreement, Name and/or No. NMNM94450X
	8. Well Name and No. Avalon (Delaware) Unit 505
2 Name of Operator Exxon Mobil Corporation	9. API Well No. 05-103-28677
3a. Address P.O Box 4358, CORP-MI-0203 Houston, TX 77210-4358 3b. Phone No. *(include area code)* 281-654-1926	10. Field and Pool or Exploratory Area Avalon Delaware 3715
4 Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* 123' FNL 2673' FEL SEC. 31 T20S R28E	11. Country or Parish, State Eddy, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. 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 BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Exxon Mobil requests approval of attached procedure to perform Step-rate test on this injection well to determine latest formation injection properties.

APPROVED
NOV 20 2009
/s/ Myles Kristof
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

SUBJECT TO LIKE APPROVAL BY STATE

RI - NMOCD
12/10/09

14. I hereby certify that the foregoing is true and correct Name *(Printed/Typed)* MARK DEL PICO	Title STAFF REG SPECIALIST
Signature Mark Del Pico	Date 11/12/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
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 subject lease which would entitle the applicant to conduct operations thereon.	Office	

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 within its jurisdiction

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and grantingapproval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

U.S. PRODUCTION

EXXONMOBIL US PRODUCTION
WELL WORK PROCEDURE
ADU 503, 238, 642, 516, 505, 507, 537, 523
Avalon Delaware Unit

SUBSURFACE ENGINEERING

CURRENT STATUS: Well is currently injecting.
Well will be shut in at least 48 hours prior to beginning of step-rate test.
ExxonMobil will contact NM OCD no less than 48 hours prior to beginning of test.

OBJECTIVE: Perform Step-Rate tests on water injectors to determine latest formation injection properties.

Risk Assessment:

Injection well. Producing wells in the area have been known to have ± 5000 ppm H2S concentration in their flow stream. Caution should be taken to prevent un-expected H2S exposure.

RECOMMENDED PROCEDURE:

1. Ensure ExxonMobil has notified NM OCD of step rate test (48 hours in advance) and shut in the well for a minimum of 48 hours prior to testing. Execute energy Isolation procedures on all equipment, machinery and valves associated within work scope.
2. Check status of rig anchor test. Move in and rig up wireline unit and pump truck.
3. Kill well by bull heading field salt water down tubing until assured well is dead.
4. Nipple down tree. MIRU BOP and lubricator and test.
5. Make wireline run to TD with a tool of analogous O.D. as down-hole pressure gauge to ensure that we have the clearance to run the pressure gauge.
6. Set pressure gauge at appropriate depth (see Table 1 below). Consult attached wellbore diagrams for individual well down-hole configurations.
7. Start injection at lowest rate (Step 1 of Table 2) and continue to inject at higher rates according to the specifications in Table 2 (below). Each step will last one hour (8 hours total pump time).
8. Finish final step rate and stop pumping. Ensure well is dead. Keep kill (or pump) truck on location as needed. ND BOP and lubricator; NU WH.
9. RDMO wireline unit and pump truck; RWTI. Return well to previous injection state. NM OCD needs to review the test data before an increase in injection rate or pressure can be approved and implemented.

ADU Step-Rate Tests

	U. Cherry Perfs		U. Brushy Perfs		
Well	Top	Bottom	Top	Bottom	Gauge Depth
-	ft	ft	ft	ft	ft
238	2632	2754	3428	3604	2582
503	2628	2704	3486	3666	2578
505	2546	2662	3514	3564	2578
507	2498	2610	3426	3600	2448
516	2576	2690	3602	3670	2526
523	2556	2682	3542	3738	2506
537	2544	2688	3586	3642	2494
642	2534	2668	3646	3678	2484

Table 1: Step-Rate Test Information

			Step 1		Step 2		Step 3		Step 4		Step 5		Step 6		Step 7		Step 8		
Well	Inj.Water Rate	Inj Pressure	30%		60%		90%		120%		150%		180%		210%		240%		Total Bbls for Test
	bpd	psi	Bbl/d	Bbls/hr	Bbl/d	Bbls/hr	Bbl/d	Bbls/hr	Bbl/d	Bbls/hr.	Bbl/d	Bbls/hr.	Bbl/d	Bbls/hr	Bbl/d	Bbls/hr	Bbl/d	Bbls/hr	bbls
238	475	480	142 5	6	285	12	427 5	18	570	24	712 5	30	855	36	997 5	42	1140	48	214
503	430	430	129	5	258	11	387	16	516	22	645	27	774	32	903	38	1032	43	194
505	240	480	72	3	144	6	216	9	288	12	360	15	432	18	504	21	576	24	108
507	215	480	64 5	3	129	5	193 5	8	258	11	322 5	13	387	16	451 5	19	516	22	97
516	350	480	105	4	210	9	315	13	420	18	525	22	630	26	735	31	840	35	158
523	175	460	52 5	2	105	4	157 5	7	210	9	262 5	11	315	13	367 5	15	420	18	79
537	240	480	72	3	144	6	216	9	288	12	360	15	432	18	504	21	576	24	108
642	200	480	60	3	120	5	180	8	240	10	300	13	360	15	420	18	480	20	90

Table 2: Injection Test Specifications for All 8 Wells