Form 3160-5 HOBBS OCD						
(Augus: 2007)	UNITED STATES	NTERIOR	OCD	Hobbs	OMBN	APPROVED 10 1004-0135 July 31, 2010
DEC 27 20 HUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an abangomedwell. Use form 3160-3 (APD) for such proposals.					5 Lease Serial No NMNM12568A	
					6 If Indian, Allottee or Tribe Name	
SUBMIT IN TRI	PLICATE - Other instruc	ctions on rev	erse side.		7 If Unit or CA/Agr	eement, Name and/or No
T Type of Well - Cas Well - Other					8 Well Name and No BONDURANT F	ederal 10
Oil Well Gas Well Other Contact: BRETT JENNINGS					9. API Well No	
CIMAREX ENERGY CO. OF	COLORADMail: bajennings			<u>. </u>	30-025-32431	- Fuelosotosu
3a Address 600 N MARIENFELD ST STE MIDLAND, TX 79701	3b Phone No (include area code) Ph. 432-620-1932 Fx: 432-620-1940			10. Field and Pool, c BUFFALO YA	res	
4 Location of Well (Footage, Sec. 7				11. County or Parish, and State		
Sec 1 T19S R32E 990FNL 19 Kn:+ B				LEA COUNTY	, NM	
12. CHECK APPE	ROPRIATE BOX(ES) TO	O INDICATE	NATURE OF N	NOTICE, RE	EPORT, OR OTHE	ER DATA
TYPE OF SUBMISSION			TYPE O	F ACTION		
Notice of Intent	□ ^{Acidize}		pen	Product	ion (Start/Resume)	□ Water Shut-Off
Subsequent Report	□ Alter Casing		cture Treat	C Reclama		U Well Integrity
	Casing Repair		-		blete	□ ^{Other}
Final Abandonment Notice	Change Plans				arily Abandon Disposal	
determined that the site is ready for f Cimarex Energy Company of case no. 14676. Cimarex pro See attached WBD and secor MIRU, pull rods/pump and LD PU 2-7/8? production tubing, s MU 4-3/4? bit and scraper on tubing Deliver 2-7/8? injection tubing RU wireline. Perf 3424-3442? SEE ATTACHED FOR	Colorado received approposed to convert Bondurandary recovery project approximation back. production tubing (need 3 & 3480-3492? with 3 3/8	ant Fed 10 to proval. 3 extra jts) an	injector per belo AFTER F PLEASE REPORT INTERVA d RIH to PBTD,	w procedure RECOMPLET SUBMIT 31 FOR THE AL(S) WITHII tag and POC	Ject ON AND TESTING 60-4 COMPLETION CAJECTION V 30 DAYS DH, LD	3451 Y for record w/ COAs 011_PAL
CONDITIONS OF AP						
	For CIMAREX ENE	ERGY CO. OF	d by the BLM We COLORADO, ser	nt to the Hon		nuga l
Name (Printed/Typed) BRETT JE	ENNINGS		Title REGUL	ATORY AN	ALYST	Mario -
Signature (Electronic S	Submission)		Date 09/20/2	011	- Aroj	
	THIS SPACE FO		L OR STATE	OFFICE U	SE Contra of	(¹⁰
Approved By Q. D. D. La	the fight		Title LPE	7	ection existing the	12/ Date 20/4
Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent which would entitle the applicant to condu-	uitable title to those rights in th	s not warrant or e subject lease	Office (Fe		System bs ALYST SE SE Control SE Control SE Control SE Control SE Control SE Control SE Control SE Control SE Control SE SE SE SE SE SE SE SE SE SE SE SE SE	, ,
Title 18 U S C Section 1001 and Title 43 States any false, fictitious or fraudulent	USC Section 1212, make it a statements or representations as	a crime for any p s to any matter w	erson knowingly and vithin its jurisdiction	JUS C	of the ament	or agency of the United
** OPERA				م ^و ر به رو) **
Condition of Approva)		, er		
office 24 hours prior to	running MIT Test & Ci	hart. 🕴 🕅	NOCD 12-2	8-2011		

Additional data for EC transaction #118017 that would not fit on the form

32. Additional remarks, continued

RIH with injection packer on wireline, set at 3375? with plug in place. PU 2-7/8? injection string and RIH to packer, circulate packer fluid, sting in and test casing to 500# for 30min. If OK, pump out plug and schedule MIT test.

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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING THE:

APPLICATION OF CIMAREX ENERGY COMPANY OF COLORADO FOR APPROVAL OF A SECONDARY RECOVERY PROJECT AND TO QUALIFY THE PROJECT FOR THE RECOVERED OIL TAX RATE, LEA COUNTY, NEW MEXICO

CASE NO. 14676 ORDER NO. R-13451

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on June 23, 2011, at Santa Fe, New Mexico before Examiner William V. Jones.

NOW, on this 31st day of August, 2011, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) Cimarex Energy Company of Colorado ("Cimarex" or "applicant"), seeks approval to institute a lease secondary recovery project in the Yates formation, Buffalo-Yates Pool (8180) within its Bondurant Federal Lease (Federal Lease NM 12568-A) and to qualify the project for the Enhanced Oil Tax Rate.

(3) The Bondurant Federal Lease covers 440 acres, more or less, of the following federal lands within Lea County, New Mexico:

Township 19 South, Range 32 East, NMPM

Section 1: E/2, E/2 NW/4, and NE/4 SW/4

(4) The Buffalo-Yates Pool is developed on statewide rules, specifically Division Rule 19.15.15.9(A), with 40-acre, quarter-quarter section, oil spacing and

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19 South, Range 32 East, NMPM, Lea County, New Mexico. Injection shall be through perforations in that well from a maximum depth range from 3362 feet to 3650 feet, and through lined tubing and a packer set no higher than 100 feet above the approved injection interval.

(5) Within one year of commencing injection into this well, the operator shall have an injection survey run in the well while injecting at typical rates. The results of this survey shall be submitted to the Division and placed in this file for Case No. 14676.

(6) The Division Director may administratively authorize alternate or additional injection wells within this project as provided in 19.15.26.8 NMAC.

(7) The operator shall take all steps necessary to ensure that the injected water enters only the permitted injection intervals and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(8) Injection into any approved injection wells within this project shall be accomplished through plastic-lined tubing installed in a packer located within 100 feet of the uppermost injection perforation. The casing-tubing annulus shall be filled with an inert fluid, and a gauge or approved leak-detection device shall be attached to the annulus in order to detect any leakage in the casing, tubing, or packer.

(9) The injection well(s) or pressurization system shall be equipped with a pressure control device or acceptable substitute that will <u>limit the maximum surface</u> injection pressure to 672 psi.

(10) The Division Director may administratively authorize a pressure limitation in excess of the above, upon a showing by the operator, supported by approved Step Rate Tests that such higher pressure will not result in the fracturing of the injection formation or confining strata or damage to the reservoir.

(11) As per Division Rule 19.15.26.11A., the operator shall test each approved injection well for mechanical integrity prior to commencing injection into that well and prior to resuming injection each time the packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC.

(12) The operator shall provide notice, 72 hours in advance, to the supervisor of the Division's district office of the date and time of the installation of injection equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

(13) The operator shall provide written notice of the date of commencement of injection to the Division's district office. In accordance with Division rules, the operator shall submit monthly reports of the injection operations on Division Form C-115.

(14) Without limitation on the duties of the operator as provided in Division

(h) Cimarex has examined rock and fluid properties and determined that conditions are favorable for waterflooding. In addition, properties favorably compare with analogous Yates formation waterfloods where the secondary to primary recovery ratio has been approximately 0.5 to 1.

(i) Planned makeup water will first be obtained from Bone Spring formation drilling in this area.

(j) Cimarex did not find water wells within or surrounding this lease area. Any possible fresh waters should be protected by surface casing and cement.

(8) This Bondurant Federal lease is approximately six miles north of the defined Potash area and approximately two miles north of the northern limit of the Capitan Reef. The wells within this lease were drilled in the early 1990's and logs for all the wells appear on the Division's web site. The cementing data submitted with this application and the Division's well records indicate that cement jobs were designed to cover at least the depths of this Yates formation.

(9) Within one half mile from the proposed injection well, there are 18 total wells and six of these are plugged (or dry) and abandoned wells. All of these Area of Review wells are cased, cemented, and/or plugged to adequately isolate the intended injection interval within the Yates formation and to protect any underground fresh waters if present.

(10) Cimarex Energy Company of Colorado (OGRID 162683) is the operator of record of the wells located on this acreage. Cimarex is in compliance with Division Rule 5.9 and therefore eligible for approval of disposal and injection permits.

(11) The applicant has notified all affected parties of the intent to inject into the proposed injection well and has received no objections. No other parties appeared in this case or otherwise opposed this application.

(12) The proposed secondary recovery injection project or waterflood within this lease is feasible and should result in the recovery of additional oil and gas that would not otherwise be recovered.

(13) The estimated additional costs of the proposed secondary recovery operations will not exceed the estimated value of the additional oil and gas recovered plus a reasonable profit.

(14) The proposed project will prevent waste, protect correlative rights, and should be approved and called the **Bondurant Federal Secondary Recovery Project**. The Project Area to be affected by this secondary recovery operation should consist of the entire Bondurant Federal lease area.

(15) As proposed, Cimarex should be approved to inject into the Bondurant

Case No. 14676 Ordei No. R-13451 Page 7 of 7

(23) Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

(24) Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing (or without prior notice and hearing in case of emergency), terminate the injection authority granted herein.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JAMI BAILEY Director

SEAL

Cimarex Energy Co. of Colorado Bondurant Federal 10 API 3002532431

December 14, 2011

- 1. Provide a cement bond log record from plug back total depth to top of cement.
- 2. Surface disturbance beyond the existing pad must have prior approval.

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- 3. Closed loop system required. 2000 2M BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 (attachment 1, 2M diagrams of choke manifold equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
- 4. Prior BLM approval of a notice of intent (BLM Form 3160-5) is required for fracture treatment of injection wells. The operator will be required to tag fracture material with a tracer and run a tracer survey to verify that the fracture material is not placed out of zone. Results of the tracer to be reported on the workover subsequent sundry Form 3160-5.
- 5. Workover approval is good for 90 days (completion to be within 90 days of approval).
- 6. One year after fracture stimulation an injection profile tracer survey is to be run. Submit the survey report to this office in a subsequent sundry Form 3160-5.

General Conditions of Approval: Well with a Packer

- Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established. Repair that seal any time more than five barrels of packer fluid is replaced within 30 days.
 - a) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with 200 psig differentials between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
 - b) Document the pressure test on a calibrated recorder chart registering within 25 to 85 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
 - c) At least 24 hours before the test: In Eddy County email Paul R. Swartz <u>paul_swartz@blm.gov</u>, (phone 575-200-7902). If there is no response phone 575-361-2822. In Lea County email Andy Cortez <u>andy_cortez@blm.gov</u>, (phone 575-393-3612 or 575-631-5801). Note the contact notification method, time, & date in your subsequent report.
 - d) Submit a subsequent Sundry Form 3160-5 relating the MIT activity. Include a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. NMOCD is to retain the original recorded MIT chart.

- e) Use of tubing internal protection, on/off tubing equipment just above the packer, and a profile nipple installation is required. The setting depths and descriptions of each are to be included in the subsequent sundry. List (by date) descriptions of daily activity of any previously unreported wellbore workover.
- f) Submit the original subsequent sundry with three copies to BLM Carlsbad.
- 2) Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
 - a) Approved injection pressure compliance is required.
 - b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
 - c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum.
 - i) Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
- 3) Other unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 4) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity.
- 5) The annulus is to be maintained full of packer fluid at atmospheric pressure. Installation of equipment that will display on site, continuous open to the air fluid level is required. A BLM inspector may request verification of this fluid level at any time.
- 6) **Submit a subsequent report (Sundry Form 3160-5)** describing the installation of packer fluid level monitoring equipment within 30 days of beginning injection.
- 7) The operator shall keep monthly records documenting that the casing annulus is fluid filled. A suggested format for these records is available from the BLM Carlsbad Field Office. Copies of those records shall be furnished at the request of a BLM authorized officer.
- 8) Loss of packer fluid above five barrels per month requires notification of the BLM authorized officer within 5 days.
- 9) Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of Opsia. Notify the BLM's authorized officer (Paul R. Swartz <u>paul swartz@blm.gov</u> phone 575-200-7902). If there is no response phone 575-361-2822.
- 10) Also submit to this office a (Sundry Form 3160-5) Notice of Intent (NOI) for planned well work involving a formation change, casing repair/replacement, and injection well fracture treatment for approval by BLM and NMOCD. Verbal approval for the plan may be given by a BLM authorized officer, with the NOI filed within five business days. Packer and tubing repair (normal maintance procedures) do not require a NOI, but a subsequent sundry needs to be filed. http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html (§3162.3-2 subsequent well operations).
- 11) Submit a (Sundry Form 3160-5) subsequent report (daily reports) describing all wellbore activity and Mechanical Integrity Test as per item 1) above. Include the date(s) of the well work, and the setting depths of required equipment: tubing, one on/off tool, one profile nipple, and a single packer.

PRS 121411

Use of Form 3160-5 "Sundry Notices and Reports on Wells"

§ 43 CFR 3162.3-2 Subsequent Well Operations.

a) A proposal for further well operations shall be submitted by the operator on Form 3160–5 for approval by the authorized officer prior to commencing operations to redrill, deepen, perform casing repairs, plug-back, alter casing, perform nonroutine fracturing jobs, recomplete in a different interval, perform water shut off, commingling production between intervals and/or conversion to injection. If there is additional surface distubance, the proposal shall include a surface use plan of operations. A subsequent report on these operations also will be filed on Form 3160–5. The authorized officer may prescribe that each proposal contain all or a portion of the information set forth in §3162.3–1 of this title.

(b) Unless additional surface disturbance is involved and if the operations conform to the standard of prudent operating practice, prior approval is not required for routine fracturing or acidizing jobs, or recompletion in the same interval; however, a subsequent report on these operations must be filed on Form 3160–5.

(c) No prior approval or a subsequent report is required for well cleanout work, routine well maintenance, or bottom hole pressure surveys.

[47 FR 47765, Oct. 27, 1982. Redesignated and amended at 48 FR 36583–36586, Aug. 12, 1983, further amended at 52 FR 5391, Feb. 20, 1987; 53 FR 17363, May 16, 1988; 53 FR 22847, June 17, 1988]

§ 43 CFR 3160.0-9 (c)(1) Information collection.

(c)(1) The information collection requirements contained in part 3160 have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned the following Clearance Numbers:

Operating Forms

Form No.	Name and filing date		
3160-3	Application for Permit to Drill, Deepen, or Plug Back—Filed 30 days prior to planned action	1004–0136	
31604	With Completion of Recompletion Report and Log-Due 30 days after well completion	1004–0137	
3160–5	Sundry Notice and Reports on Wells—Subsequent report due 30 days after operations completed	1004–0135	

The information will be used to manage Federal and Indian oil and gas leases. It will be used to allow evaluation of the technical, safety, and environmental factors involved with drilling and producing oil and gas on Federal and Indian oil and gas leases. Response is mandatory only if the operator elects to initiate drilling, completion, or subsequent operations on an oil and gas well, in accordance with 30 U.S.C. 181 *et seq.*

§ 3162.4-1 (c) Well records and reports.

Not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160–5, or orally to be followed by a letter or sundry notice, <u>of the date</u> on which such production has begun or resumed.

NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html