Form CDP-1 April 2004 Form must be Typed

#### **APPLICATION FOR SURFACE PIT**

Submit in Duplicate

Operator Name:				
EOG Resources, Inc.				
Operator Address:				
3817 NW Expressway, Suite 500 Oklahoma City, OK 73112				
Contact Person:		Phone Number:		
		( 405 ) 246-3234		
		Pit Location (QQQQ):		
T		<u>8/2 - SW - SE - SW</u>		
Pit is				
X Proposed	☐ Existing	Sec. <u>9</u> Twp. <u>338</u> R. <u>40</u> East 🛣 West		
If existing, date cor	nstructed	Feet fromNorth/ South Line of Section		
Pit capacity		Feet fromEast/ West Line of Section		
12,500	(bbls)	County		
r Area? X Yes	□ No	Chloride concentration: mg/l		
		(For Emergency Pits and Settling Pits, only)		
Artificial Liner?		How is pit lined if a plastic liner is not used?		
☐ Yes	X No	Soil compaction		
<b>125</b> Leng	gth (feet)12	5 Width (feet) N/A Steel Pits		
Depth from ground lev	vel to deepest poin	nt (feet)		
If the pit is lined give a brief description of the liner material, thickness and installation procedure.  Describe procedures for periodic maintenance and determining liner integrity, including any special monitoring.				
-mite of pit	Depth to sha	allowest fresh water		
<b>32</b> 6_feet	Source of information measur	mation: ed well owner electric logKDWR		
	Drilling, Worko	Workover and Haul-Off Pits ONLY:		
Producing Formation: Type of mate		pe of material utilized in drilling/workover Gel		
Number of producing wells on lease: Number		Number of working pits to be utilized0		
1		ent procedure: Evaporation/dewater and		
		filling of reserve pit		
Drift pits thust be closed within 365 days of spud date.				
nts are true and con	rrect to the besi	t of my knowledge and belief.  RECEIVED  KANSAS CORPORATION COMMISSION		
1/25/07 Mewsa Lurm				
Signature of Applicant of Agent				
Date Received: 7/31/07 Permit Number: 15-129-20810 Permit Date: 7/51/07 Lease Inspection: XYes No				
	Pit is    X   Proposed     If existing, date condition     Pit capacity     12,500     Artificial Liner?     Yes     125   Lengue     Lengue     Lengue     Lengue     Lengue     Lengue     Spilled fluids to     No     No     Ints are true and condition     KCC OFF	Pit is    X		



Kathleen Sebelius, Governor Thomas E. Wright, Chairman Robert E. Krehbiel, Commissioner Michael C. Moffet, Commissioner

July 31, 2007

Ms. Melissa Sturm EOG Resources, Inc. 3817 NW Expressway Ste 500 Oklahoma City, OK 73112

Re:

Haul-Off Pit Application CNG 9 Lease Well No. 1 SW/4 Sec. 09-33S-40W Morton County, Kansas

Dear Ms. Sturm:

District staff has inspected the above referenced location and has determined that the haul-off pit shall be constructed <u>without slots</u>, the bottom shall be flat and reasonably level, and the free fluids must be removed. The fluids are to be removed from the haul-off pit after drilling operations have ceased.

If production casing is set all completion fluids shall be removed from the working pits daily. NO completion fluids or non-exempt wastes shall be placed in the reserve pit.

The fluids should be taken to an authorized disposal well. Please call the District Office at (620) 225-8888 when the fluids have been removed. Please file form CDP-5, Exploration and Production Waste Transfer, within 30 days of fluid removal. Conservation division forms are available through our office and on the KCC web site: <a href="https://www.kcc.state.ks.us/conservation/forms">www.kcc.state.ks.us/conservation/forms</a>.

A copy of this letter should be posted in the doghouse along with the approved Intent to Drill. If you have any questions or concerns please feel free to contact the undersigned at the above address.

Sincerely.

Kathy Haynes

**Environmental Protection and Remediation Department** 

cc: S Durrant



Kathleen Sebelius, Governor Brian J. Moline, Chair Robert E. Krehbiel, Commissioner Michael C. Moffet, Commissioner

### HAUL-OFF PIT APPLICATION FILING REQUIREMENTS

82-3- <del>6</del> 07.	<b>DISPOSAL</b>	OF	DIKE	AND P	İΤ	CONTENTS.	
OE-5-001.	DIST OURE	O.	DIIL	MIND F	• •	CONTENTS.	

- (a) Each operator shall perform one of the following when disposing of dike or pit contents:
  - (1) Remove the liquid contents to a disposal well or other oil and gas operation approved by the commission or to road maintenance or construction locations approved by the department;
  - (2) dispose of reserve pit waste down the annular space of a well completed according to the alternate I requirements of K.A.R. 82-3-106, if the waste to be disposed of was generated during the drilling and completion of the well; or
  - (3) dispose of the remaining solid contents in any manner required by the commission. The requirements may include any of the following:
    - (A) Burial in place, in accordance with the grading and restoration requirements in K.A.R. 82-3-602 (f);
    - (B) removal and placement of the contents in an on-site disposal area approved by the commission;
    - (C) removal and placement of the contents in an off-site disposal area on acreage owned by the same landowner or to another producing lease or unit operated by the same operator, if prior written permission from the landowner has been obtained; or
    - (D) removal of the contents to a permitted off-site disposal area approved by the department.
- (b) Each violation of this regulation shall be punishable by the following:
  - (1) A \$1,000 penalty for the first violation:
  - (2) a \$2,500 penalty for the second violation; and
  - (3) a \$5,000 penalty and an operator license review for the third violation.

#### Complete and return with Haul-Off Pit Application, Form CDP1(2004)

Haul-off pit will be located in an on-site disposal area:  Yes No	
Haul-off pit is located in an off-site disposal area on acreage owned by the same la No If yes, written permission from the land owner must be obtained permission to haul-off pit application.	ndowner: ed. Attach written
Haul-off pit is located in an off-site disposal area on another <b>producing</b> lease or use same operator: Yes No If yes, written permission from the land owner must be permission and a copy of the lease assignment that covers the acreage where the located, to the haul-off pit application.	e obtained. Attach

JUL 3 1 2007

\*\*ONSERVATION DIVISION WICHITALKS



3817 NW Expressway, Suite 500 Oklahoma City, OK 73112 (405) 246-3226

July 30, 2007

Kansas Corporation Commission Conservation Division Finney State Office Building 130 S. Market, Room 2078 Wichita, KS 67202-3802

Re: Reserve pit

CNG 9 #1

Dear Sir or Madam:

Please see the attached portion of the BLM permit, showing U.S. Forest Service permission for an offsite reserve pit.

Regards,

Melissa Sturm

Sr. Operations Assistant

Melins Sturm

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CONSERVATION DIVISION WICHITA, KS



### United States Department of the Interior

BUREAU OF LAND MANAGEMENT OKLAHOMA DISTRICT OFFICE 7906 E. 33<sup>rd</sup> St., Suite 101 TULSA, OK 74145-1352 http://www.blm.gov



IN REPLY REFER TO:

JUL 2 6 2007

Lease:

KS NM 67926

Well:

CNG 9 No. 1

3160 (04200)

EOG Resources Inc. 3817 N. W. Expressway, Suite 500 Oklahoma City, OK 73112

#### \*\*\* OPERATORS PERMIT TO DRILL \*\*\*

#### REVIEW AND COMPLY WITH THE

- (1) GENERAL STIPULATIONS
- (2) DRILLING STIPULATIONS
- (3) ENVIRONMENTAL STIPULATIONS
- (4) GENERAL REQUIREMENTS DATED 12/01/2001 INCLUDED WITH THIS PERMIT

Lease No.:

KS NM 67926

Operator:

EOG Resources Inc.

Well:

CNG 9 No. 1

Location:

1830' FSL & 1980' FWL

Sec. 9, T. 33 S., R. 40 W. 6 PM.

Morton County, KS

This well will be drilled from surface administered by the U. S. Forest Service into Federal mineral Lease KS NM 67926 (lessee: Anadarko Production Corp. - 100.00%).

FAILURE TO COMPLY WITH THIS CONDITION MAY SUBJECT THE OPERATOR TO REGULATIONS FOUND IN TITLE 43 CFR SUBPART 3163-NONCOMPLIANCE, ASSESSMENTS, AND PENALTIES.

Your drilling and environmental surface use plans are approved subject to compliance with OKFO minimum standards found in CFR'S, IM'S, NTL'S, Onshore Orders, the "General Requirements for Oil and Gas Operations on Federal and Indian Leases", dated RECEIVED

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12/01/2001, and to all stipulations and consequent conditions of approval contained in this permit. Any item in your APD that fails to meet minimum standards must be approved with a variance in this permit or by Sundry Notice (SN) before the item can be applied to the subject well. Any item not so addressed with a variance from minimum standards is not approved.

In addition to the general requirements and stipulations found in this permit, also enclosed are certain orders (depending on nature of the well) and relevant forms.

The approved APD must be on location at the date of first surface disturbance (pad construction, setting conductor, etc.). Any approved sundry notice that changes (or adds to) approved stipulations/conditions of approval, must also be on location (as soon as possible after your receipt of the approval). Any proposed change to the drilling or surface use plans must first be approved by our office (OKFO-Tulsa) prior to executing the change. The change can, in some emergency cases be approved by phone, but in all cases, the request for a change must be accompanied/followed by a Sundry Notice for signature approval.

Any request for a change to the drilling plan is made directly to this office (OKFO-Tulsa), via a phone call to the drilling plan contact(s) in OKFO-Tulsa identified in this Permit in emergency cases (followed by a SN), or in non-emergency cases with a SN. Refer to "General Stipulations", below.

In the case of a proposed change to the surface use plan, for example, to add a pipeline to the location, extend pad, relocate wellbore, revise pit size, change pad liner mil size, add road, or in any way alter the surface use plan approvals, you must first contact the BLM (or Forest Service, as applicable) surface use individual responsible for the "environmental stipulations", identified in this Permit, and discuss the proposed change. This individual may request you fax a copy of the SN to them for review. If they agree to any proposed surface use change, then you are to submit the final copy (in triplicate) of the SN to OKFO-Tulsa for final approval signature. Identify all requested changes in the remarks section of the SN ( and attachments as required) and indicate whether of not a change to the surface use plan was agreed to (with or without stipulations) by the above mentioned individual. If a SN with multiple proposed changes (drilling/surface use) is requested and any surface use change does not indicate acceptance by the proper surface use individual, the SN may be approved only in part, with conditions of approval from our office so stating.

Example SN remarks:

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- 1) change 8.625" surface casing from H-40 to J-55
- 2) extend pad layout as described in the attached plat (agreed to by K. Tyler on 6/05/03, with K. Tyler's stipulations attached to this SN.)

Each Permittee has the right of administrative appeal from all minimum standards, as stated above, pursuant to title 43 Code of Federal Regulations, Subpart 3165, et. al.

#### **GENERAL STIPULATIONS**

#### Operator Notifications:

- a.) You are to notify the Assistant Field Station Manager, I&E and Verification, (Moore, OK), telephone (405)-794-9624, with 48 hours notice for a BLM representative to witness:
  - Starting Pad Construction Cementing casing 8.625" 4.5"
  - Testing BOP equipment

You are to contact the above by direct communication (phone or in-person). Voice mail, E-mail, or Facsimile notice is allowed only after direct communication. You are to list in your daily progress (drilling) report, the BLM staff that was notified (directly or otherwise).

Also, in addition to the above actions, any change to the drilling plan, the plugging of the well as a dry hole, or the plugging of the well in the future as an exhausted well, must be preceded with a Sundry Notice to OKFO-Tulsa for approval at least 48 hours prior to the action. If the action requires a short notice approval (in about 48 hours, for example), the SN describing the action to be approved may be faxed, with your signature and date (or transmitted via E-commerce), to OKFO-Tulsa for approval. For wells in the drilling phase with a short notice action, a heads up phone call to the Division of Minerals (Jim Mason or Ron Bartel) and to the appropriate field staff (as above) describing the action is required. After your receipt of the approved SN (by fax or mail), you must then make direct communication with as least one of the appropriate BLM field staff (as above), and have the approved SN on location prior to executing the action.

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#### DRILLING STIPULATIONS

- 1. <u>TUBULAR</u>: The <u>8.625</u>", 24#/ft., J-55, STC surface casing will be set at 1700' (treatable water to 550') with cement circulated to surface (500 sacks). The <u>4.5</u>", 10.5 #/ft., J-55, STC casing will be set at 5950'and cemented with 100 sacks (±599' fill). Note: The 100 sack production casing program above provides for the required 10% fill. Actual cement slurry volumes will vary depending on actual wellbore conditions.
- 2. <u>PRESSURE CONTROL EQUIPMENT:</u> Surface pressure control equipment is subject to the requirements of a 2M psi system from below the shoe of the surface casing to 5950'. You plan to install a 2M psi BOP. If you use a 2M psi annular preventer, you are required to test, at installation, as a minimum, the annular BOP to 1000 psi. Should you use a 2M psi "ram" BOP, you are required to test, at installation, as a minimum, the BOP stack to 2000 psi. The surface casing and stack must be isolated during the test.

A low pressure test of 250-300 psi is also recommended.

Note: Our geologist has determined that lost circulation zones may be encountered in the drilling of this well.

The BOP and choke manifold must be designed and assembled in accordance with O & G Order No. 2 (copy enclosed).

3. <u>CASING PRESSURE TEST:</u> The casing pressure test for the 8.625" casing would require a surface pressure of 1275 psi applied to the hydrostatic head. A surface test pressure of 1275 psi when added to the hydrostatic head results in a pressure at the shoe equal to 70 percent of the minimum internal yield of the casing, e.g.  $[(.7 \times 2950 \text{ psi})] = (1275 \text{ psi} + (.465 \times 1700'))]$ .

The casing test for the 4.5" casing would require a surface pressure of about 586 psi applied to the hydrostatic head. A surface test pressure of 586 psi when added to the hydrostatic head results in a pressure at the shoe equal to 70 percent of the minimum internal yield of the casing, e.g.  $[(.7 \times 4790 \text{ psi}) = (586 \text{ psi} + (.465 \times 5950))]$ .

For all strings, the casing pressure test (see Onshore Oil and Gas Order No.2, III.B.1.h.) should be based on similar calculations using actual well conditions (displacement fluid density, type of test, etc.) at the time of the test. You are to report all pressure tests in your daily progress reports.

Prior to spudding this well, you are required to furnish this office with a final rig layout RECEIVED

# ATTACHMENT SUMMARY OF REQUIRED PRESSURE TESTS, BOPE EQUIPMENT, CASING PROGRAM

	CASING	PRESSURE T	EST/FORMAT	ION PRES	SURE TEST	
CASING SIZE-	TEST	CASING PRESS. TEST-PSI	FORMATION PRESS. TEST - PSI			
IN.	MUD WT- PPG <sup>(1)</sup>		PACKER ISOLATION	MUD WT. EQUIV PPG	NO PACKER ISOLATION	MUD WT. EQUIVPPG
8.625	8.942	1275	-			
4.5	8.942	586	_			

(1) Adjust mud weight based on fluid in hole at time of test.

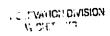
		BOPE			
REQ. SIZE (M PSI) / APD FROM – FT		TO - FT (TVD)	PRESSURE TEST <sup>(1</sup> ) - PSI		
			ANNULAR	RAMS	
2M/(2M annular or rams)*	1700	5950	1000 *	2000 *	

(1) At installation, as a minimum

CASING DESIGN						
' '	SETTING DEPTH-ft	DESIGN FACTORS <sup>(0)</sup>				
	(MD)	BURST <sup>(2)</sup>	COLLAPSE <sup>(1)</sup>	TENSION <sup>(3)</sup>		
8.625	1700	2.98	1.72	5.98JOINT		
4.5	5950	1.72	1.44	2.11JOINT		

(0) BASED ON DRILLING PLAN DATA IN APD.

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<sup>(</sup>I) COLLAPSE DESIGN - MINIMUM DESIGN FACTOR OF 1.1 BASED ON EVACUATED CASING (ANNULAR SPACE) AND MAXIMUM EXTERNAL MUD WEIGHT TO SHOE.

<sup>(2)</sup> BURST DESIGN - MINIMUM DESIGN FACTOR OF 1.0 BASED ON FULL PORE PRESSURE FROM BOTTOM HOLE TO SURFACE (NO OFFSETTING GAS GRADIENT) AND ZERO EXTERNAL PRESSURE.

<sup>(3)</sup> JOINT/BODY DESIGN - MINIMUM DESIGN FACTOR FOR JOINT TENSION DESIGN IS 1.80 IN AIR (NO BUOYANCY); FOR BODY TENSION IS 1.75 (NO BUOYANCY)

#### U.S. FOREST SERVICE CIMARRON NATIONAL GRASSLAND

#### CONDITIONS OF APPROVAL TO DRILL

Surface Protection, Rehabilitation and Operation

#### Oil and Gas Well

RE: EOG RESOURCES INC CNG 9-1 KSNM 67926 NESW Section 9, T33S, R40W. 1830 FSL, 1980' FWL Morton County, Kansas

#### A. CONSTRUCTION AND OPERATION

- 1. TIMING STIPULATION = No construction activity will be allowed from April 15<sup>th</sup> through July 15<sup>th</sup> for protection of Lesser Prarie Chicken nesting.
- 2. All gasoline and deisel powered equipment must be equipped with approved spark arresters or mufflers. The decibel level must not exceed 70 decibels at a distance of 100 feet from the exhaust of any muffler.
- 3. Topsoil material (minimum six (6) inches) will be removed from entire pad areas on locations south of the Cimarron River (sandy soils). This soil material will be stockpiled as designated on APD layout diagram and saved for later distribution over recontoured site. Caliche/gravel can be utilized to stabilize the pad area. The cut and fillslopes will be constructed at 3:1 grade.
- 4. New access road must be crowned and ditched and surfaced with caliche, Refer to Exhibit A for road specifications. The new road will be delineated with flagging/fencing to keep traffic to a single lane. Maximum width of road surface will be 14 feet.
- 5. The reserve pit will be located outside of the river corridor as specified by a Forest Service representative. The pit will have a minimum of one-half the total depth below the original ground surface at the lowest point within the pit and will be designed to prevent the collection of surface runoff. No liner will be required.

#### 6. Fencing Option

a. Fence the reserve pit with four strand fencing on three sides during the drilling phase and the fourth side immediately after the rig is removed (Refer to Exhibit B). Wooden H bracing must be constructed at all corners, utilizing five (5) inch diameter wooden posts. Companies may choose to utilize steel panels or piping for fencing, these designs must be approved by the Forest Service.

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b. Fence entire drill site, refer to Exhibit B. Fencing will be done as soon as site preparation is completed and will remain in place until pits are filled and necessary site revegetation is accomplished to the satisfaction of the Forest Service. Wooden H bracing must be constructed at all corners, utilizing five (5) inch diameter wooden posts corporation commission

If the entire drill site is fenced, a gate or cattleguard will be installed for access. JUL 3 1 2007

- 7. Cattle guards must be installed with side wings. The fence on both sides of the cattle guard number of the guard number of the cattle guard number of the guard nu
- 8. All equipment and vehicles must be confined to the access road and pad.
- 9. Sewage will be confined to a chemically-treated portable unit on location. Burying of sewage will not be allowed.
- 10. A trash cage must be on location throughout all drilling, testing and completion activities. Burying trash on-site or trash within the reserve pit will not be allowed.
- 11. The operator must provide a manifest of all drilling compounds/additives utilized and copies of the daily mud analysis from the drilling program.
- 12. Any hydrocarbons within the reserve pit must be removed as soon as posssible. The pit must have overhead flagging or netting (if oil is in pit) installed immediately for wildlife protection, until all oil is removed. The U.S. Fish & Wildlife Service may assess a penalty for any migratory bird found within a pit. If oil is spotted (example stuck pipe) the oil must be recovered in frac tanks, not allowed in reserve pit.
- 13. During the completion phase, all treatment fluids will be contained in steel frac tanks and hauled to a State approved disposal site. No completion fluids will be allowed in the reserve pit.
- 14. All hydrocarbons produced during the completion testing will be contained in steel frac tanks and will be accountable to appropriate agencies.
- 15. All drilling fluids within the reserve pit will be pumped immediately after the drilling phase is completed and disposed in a State approved disposal well per Kansas Oil and Gas Corporation regulations. Since the drilling fluids will be removed, the Forest Service will not require testing of fluids for chloride concentrations. Spill, Prevention Control, and Countermeasure (SPCC) Plans are regulated and approved by the Environmental Protection Agency (EPA). If EPA requires a SPCC plan for this project, the company must submit a copy of the plan to the Cimarron National Grassland.
- 16. The operator must inform the Forest Service immediately in the event of any oil or hazardous spill (including salt water).
- 17. For safety purposes, the rat/mouse hole must be filled and compacted immediately after the rig is removed.
- 18. Water well locations will be approved on-the-ground by the Forest Service prior to drilling to protect wells from ground water contamination by reserve pits. State procedures concerning construction of water supply wells and disposal of saltwater will be followed. Fiberglass tanks or lined pits will be used to store saltwater prior to disposal.

- 19. Drilling company signs will be allowed on National Grassland system lands during the construction and drilling phase.
  - 20. If subsurface cultural materials and/or paleontological resources are found during construction, the District Ranger must be notified immediately. Construction must cease until the impact has been properly mitigated.
  - 21. Notify the Forest Service (620)-697-4621 forty eight hours in advance of any pad construction.

#### **B. PRODUCING WELL**

1. Production facilities (including containment berms) will be located outside of the river corrdor as specified in (Item D Cimarron River mitigations). The tanks will be placed on cut and located a minimum of 15 feet from the toe of the backcut to allow adaquate space between facilities and the restoration of the backslope to a 3:1 grade.

2.4. II storage tredities (officioliced water tanks) must be berned into an interestinate be constituted of clay ealled or steel constitution be impervious, hold one himoled and twanty (120) percent (96) of the capacity of the bargest and within the barrier, and the barrier finds of the barrier being finds be interested in the barrier of the barrier being finds on the second that an entries in the barrier in the barrier of the barrier of the barrier being finds on the second of the barrier of the

- 3. The access road will be maintained as a crowned and ditched road, see attached diagram A of a typical road cross section for specifications.
- 4. Surfacing of the access road will be required if maintenance becomes inadequate without gravel or caliche. Excessive rutting, drive arounds etc. would precipitate this action.
- 5. The reserve pit will be backfilled and reclaimed when dry. In addition; stockpiled material will be evenly distributed and landscaped to the surrounding topography over all areas on the pad which are not needed for production. Any caliche/gravel which was placed on areas to be reclaimed will be removed proir to the reclamation process. (The caliche can be placed on roads designated by the Forest Service).
- 6. Refer to conditions C-2, C-3, and C-4 for reclamation requirements.
- 7. All areas on the pad which are not to be revegetated or which are not needed for facilities, are to be surfaced with caliche or gravel. Thereafter, periodic additions of gravel or caliche will be required in order to maintain a rut-free surface for driving and equipment handling.
- 8. All production facilities, i.e. pump, pump house, storage tanks, treater, etc. will be painted with a lusterless color (refer to the attached Exhibit C "Standard Environmental Color Sheet"). The company may choose any of the checked colors on the sheet to meet this requirement. The exception being that Occupation Health and Safety Act Rules and Regulations are to be complied with where special safety colors are required. All facilities must be painted within six months of installation.

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- 9. All engines (including compressors) must be equipped with adaquate mufflers. In areas where there are no noise sensitive areas (NSA's), decibel levels must not exceed 70 decibels (dB(A) at a distance of 100 feet from the mufflers exhaust. Noise levels near noise sensitive area (NSA's) such as a farm residence, school, campground must not exceed 55 decibles (dB(A). EPA guidelines suggest noise levels above 55 dB(A) are potentially significant with exposure to sensitive human populations.
- 10. Fencing Fence individual facilities, the pump jack (including well head), treater, tank battery and production pit with cattle tight fencing. The fence around the tank battery and treater must be constructed on the outside perimeter of the dikes. See diagram B for Forest Service fence specifications. Wooden H braces must be constructed at all corners and a gate for access must be provided at each facility. Companies may choose to utilize steel panels or piping for fencing, these designs must be approved by the Forest Service.
- 11. Control of noxious weeds that invade the well pad and access road is required. Treatment by the operator will meet Forest Service requirements and specifications for herbicide application. Prior to application a pesticide use plan must be submitted to the Forest Service for approval.
- 12. Facility identification: Individual well facilities (oil, gas,injection,saltwater) shall have a sign in legible condition until final abandonment. The sign will show the operator's name, lease name or unit number, well name and number and location (quarter section, township,range and footages from section lines).

#### C. ABANDONED WELL

- 1. Bureau of Land Management (BLM) subsurface plugging/casing requirements will be implemented. A permanent abandonment marker inscribed with operator, well number, and location (quarter section, township, range) is required. This marker will be 24 inches below the surface level so that it has 24 inches of soil cover after final reclamation. Leave a small weep hole in welded top of casing. The hole serves as a seepage indicator.
- 2. All disturbed areas will be scarified and all caliche/gravel will be removed from the location. The cut and fill slopes will be recontoured to original contours. The entire disturbed area will then be backfilled with topsoil, landscaped, seeded, mulched, and fenced to exclude livestock. On slopes greater than 4% waterbars (contour ditches) will be constructed on the contour at seventy-five (75) foot intervals beginning at the top of the disturbed slope. They should be at least on (1) foot deep, with approximately two (2) feet of drop per one hundred (100) feet and with the berm on the downhill side. The fence will remain in place until vegetation has been established. It will be removed prior to approval of final abandonment.
- 2. The following seed mixture is required for reclamation. The seed must be certified. Proof of certification must be provided the Forest Service prior to seeding.

#### Cimarron National Grassland Seed Mixture

### SOUTH OF CIMARRON RIVER (sandy soils) (Inclues river corridor)

<u>Species</u>	Ibs/acre PLS	% of Mix
sand bluestem	2.4	29.3%
switchgrass	1.2	14.6%
sideoats grama	2.4	29.3%
Indiangrass	1.8	22.0%
sand lovegrass	.4	4.9%
TOTALS	8.2 #	100%

Compacted areas must be ripped or disced prior to seeding.

Seeding conducted during time period of January 15 through April 15.

Drill seed on the contour at a depth of one-half (1/2) inch.

All disturbed areas will be mulched at the rate of 20 tons of manure/acre or 2 tons/acre of native grass hay/straw. The mulch must be crimped into the surface.

- 4. The operator may have to mow weeds the first year after vegetation is established. An alternative is to control weeds by chemical means until they are exterminated. All herbicides are to be approved for use by the Forest Service and be applied by a certified applicator.
- 5. Reclamation will be approved (minimum timeframe of two growing seasons) when the established vegetative cover is equal to 75% of the adjacent areas. The operator's bond will not be released until the area has been successfully reclaimed.

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### D. CIMARRON RIVER (floodplain) mitigations for well drilling

JUL 3 1 2007

1. Maintain a one hundred (100) foot buffer zone from river channel.

CONCERNATION DIVISION

2. A closed pit system at well site utilizing steel tanks for drilling fluids and cuttings. All materials removed from location and disposed at a designated reserve pit outside of the river corrdor.

All fluids will be pumped from the reserve pit immediately upon rig release (refer to item A 15). Drill cuttings can be buried in the pit. A forest representative will monitor pumping of fluids. All fluids will be pumped from the pit. Backfilling of pit will not proceed until approved by Forest Service.

- 3. All production facilities (including condensate, and saltwater facilities) will be located out of the floodplain, and situated on higher terrain. Location of facilities will be designated by the Forest Service.
- 4. The well head and possible pumping jack will be the only facility within floodplain. If a pumping jack is installed, it must be elevated above pad surface. Steel barriers anchored in cement must be constructed around the well head and pumping jack.

5. Pipelines will be buried to transport hydrocarbons/saltwater from the well site to off pad storage.

#### A. PIPELINE CONSTRUCTION

- 1. The holder shall designate a construction manager for the project construction. This individual shall be qualified to represent the holder and shall be present or have a qualified acting representative present at all times while project construction activities are taking place. This individual shall be the person who receives the on-the-ground approvals and direction from the designated Forest Service representative(s).
- 2. A prework conference involving permittee, contractors and Forest Service representatives will be conducted prior to right-of-way excavation.
- 3. Pipeline right-of-way width for construction will be 30 feet. Ground disturbance will be limited to the trenching and backfilling process. Flatblading/grading of the right-of-way will not be allowed, except as necessary to facilitate vehicle/equipment access across drainages and rough terrain.
- 4. Pipeline trenches must be ramped, if left open overnight, to provide escape routes for livestock or wildlife that may fall in the open trenches. Any pipeline left open overnight must be plugged on the ends to elliminate animals hiding within the pipeline.
- 5. The pipeline must be buried to a minimum depth of 36 inches, with the following exceptionin areas of solid rock the pipeline may be buried to a 18 inch depth.
- 6. Polypipe installation (plastics) will require installing 12 mill copper wire or a similar product with pipeline for future location purposes.
- 7. Construction will not be permitted during wet periods. The permittee will not disturb or have vehicles or other equipment off established roads when **moisture conditions** will result in rutting of soils.
- 8. Pipeline construction shall not block nor change the natural course of any drainage.
- 9. When crossing other pipelines, bury the flowlines at least one foot below the existing pipelines, unless otherwise authorized in writing from affected party.
- 10. Fences cut to facilitate pipeline construction must be reinforced with wooden H bracing on both sides of the cut. A temporary gate must be installed to control livestock movement. The gate will remain in place until the reclamation process is completed. The fence will then be reconstructed to its original condition.
- 11. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be maintained in order to correct settlement and erosion.
- 12. Remove all refuge resulting from this use from National Forest Systems lands and dispose in an approved sanitary disposal site.

#### B. PIPELINE REHABILITATION

- 1. It is the holder's responsibility to reclaim areas disturbed by pipeline construction /maintenance/operation to a stable grassland ecological condition comparable to pre-disturbed conditions.
- 2. On slopes greater than four (4) % waterbars (contour ditches) will be constructed on the contour at seventy-five (75) foot intervals beginning at the top of the disturbed slope. They should be at least one (1) foot deep with approximately two (2) feet of drop per one hundred (100) feet and with the berm on the downhill side.
- 3. Refer to items C-3, C-4, and C-5 for reclamation requirements.

#### C. PIPELINE OPERATION/MAINTENANCE

- 1. Pipeline trenches shall be maintained to correct settlement and erosion.
- 2. Pipeline markers (steel posts) will be installed on both sides of any road the pipeline crosses. The posts will be signed to identify the name of the operator, telephone number and type of pipeline (natural gas, oil ect.).
- 3. Noxious weed/pest control Control of noxious weeds and or isolated towns of prairie dogs that invade the pipeline right-of-way as a result of soil disturbance is required by the Forest Service. Treatment by permittee will meet Forest Service requirements and specifications for pesticide application.
- 4. All above-ground structures must be painted an earthtone color. Refer to Exhibit C "Standard Environmental Color Sheet".

#### D. FIRE PREVENTION REQUIREMENTS

- 1. All vehicles used on the pipeline project will be equipped with a fire extinquisher and shovel.
- 2. All gasoline and diesel powered equipment must have Forest Service approved spark arrestors/mufflers.
- 3. In the event of any fire occurrence, immediately notify the 911 for Elkhart or Richfield Fire Department and the Forest Service office 620-697-4621.

### TYPICAL ROAD SECTION

Rateral Grand

2" Crown 46" Fill

BARROW Ditch, 9' 11 14 DRIVING SURFACE, 14 SARROW Ditch, 9' 1 Construction Width, 34'

A FOUR INCH LAYER OF GRAVEL (SCORIA) IS TO BE PLACED ON THE DRIVING SURFACE.

### TYPICAL TAIL DITCH INSTALLATION

Tail Ditch Tail Ditch Tail Ditch

Tail Ditch

Tail Ditch

Tail Ditch

Tail Ditch

Tail Ditch

Spacing Between Ditches Varies From 50' to 300'

## Standard Environmental Colors

For the painting of permanent Federal Oil and Gas Facilities

Rocky Mountain Regional Coordinating Committee (RMRCC)



Sand Beige (5Y 6/3)



Desert Brown (10YR 6/3)



Carlsbad Canyon (2.5Y 6/2)



Slate Gray (5Y 6/1)



Sudan Brown (2.5Y 4/2)



Brush Brown (10YR 5/3)



**Juniper Green** 



Shale Green (5Y 4/2)



Yuma Green (5Y 3/1)



Largo Red (2.5R 5/6)

Numbers in parentheses ( ) refer to Munsell Soil Color Charts

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