

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
BETTY RIVERA
Cabinet Secretary

September 16, 2002

Lori Wrotenbery
Director
Oil Conservation Division

Energen Resources Corporation 2198 Bloomfield Highway Farmington, New Mexico 87401

Attention:

Richard Corcoran

Re: Administrative application (reference No. pKRV0-225653480) for an exception to the well location provisions (Rule 7) of the "Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool," as promulgated by Division Order No. R-8768, as amended, for Energen Resources Corporation's ("Energen") recently drilled Carson Well No. 11 (API No. 30-039-26881) located 1680 feet from the North line and 1650 feet from the West line (Unit F) of Section 21, Township 30 North, Range 4 West, NMPM, Rio Arriba County, New Mexico. The W/2 of Section 21, being a standard 320-acre stand-up gas spacing unit for the Basin-Fruitland Coal (Gas) Pool (71629), is to be dedicated to this well.

Dear Mr. Corcoran:

In reviewing your application and checking the Division's records in association with this matter, I discovered that Energen recently drilled the Carson Well No. 10 (API No. 30-039-26882), located 795 feet from the South line and 1405 feet from the West line (Unit N) of Section 21. According to the well file (see copy attached), Energen permitted this well as a dual Pictured Cliffs/Basin-Fruitland Coal gas well. The NMOCD Form C-102, dated December 11, 2001, for the Carson Well No. 10 shows that the W/2 will also be dedicated to the well for the Basin-Fruitland coal gas production, and pursuant to Rule 7 of the special Basin-Fruitland coal gas pool rules this location is standard.

I find it interesting that you failed to mention the Carson Well No. 10 in your application. Perhaps it was inadvertently overlooked. This application being unnecessary is hereby **denied** and is being returned to you at this time.

Sincerely

Michael E. Stogner

Chief Hearing Officer/Engineer

cc:

New Mexico Oil Conservation Division - Aztec

U. S. Bureau of Land Management - Farmington

U.S. Forest Service - Bloomfield

Kathy Valdes, NMOCD - Santa Fe

J. Scott Hall, Legal Counsel for Energen Resources Corporation - Santa Fe

DATE IN 9/13/02 SUSPENSE 10/3/02 ENGINEER MS LOGGED W/NSL TYPE 225653480

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

## **ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERS	HEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION	ONS FOR EXCEPTIONS TO DIVISION RULES A	AND REGULATIONS
[PC-	[NSP-Non-Standard Proration Unit]	imultaneous Dedication] mingling] [PLC-Pool/Lease C rage] [OLM-Off-Lease Measu essure Maintenance Expansion niection Pressure Increase]	urementj n]
[1] <b>TYPE OF A</b> [A]	PPLICATION - Check Those Which Location - Spacing Unit - Directions [X] NSL [] NSP [] DD	al Drilling	
Check [B]	k One Only for [B] and [C]  Commingling - Storage - Measurem [ ] DHC [ ] CTB [ ] PLC	nent	[ ]OLM
[C]	Injection - Disposal - Pressure Incre  [ ] WFX [ ] PMX [ ] SW	ease - Enhanced Oil Recover D []IPI []EOR	ry []PPR
(a) NOTHERA	TION REQUIRED TO: - Check Tho	ose Which Apply or Doe	s Not Apply
[2] NOTIFICA'	[ ] Working, Royalty or Overriding	Royalty Interest Owners	
[B]	[X] Offset Operators, Leaseholders	or Surface Owner	OL CONSERVATION DIV 2 SEP 13 PM 2: 30
[C]	[ ] Application is One Which Requ	nires Published Legal Notice	e PA
[D]	[ ] Notification and/or Concurrent U.S. Bureau of Land Management - Commission	Approval by BLM or SLO oner of Public Lands, State Land Office	EHWITON DIN PN 2: 30
[E]	[ ] For all of the above, Proof of N	otification or Publication is	
[F]	[ ] Waivers are Attached		
[3] INFORMA	TION / DATA SUBMITTED IS CO	MPLETE - Statement of U	Inderstanding
Regulations of the Capproval is accurate RI, ORRI) is common	I, or personnel under my supervision, Dil Conservation Division. Further, I and complete to the best of my know on. I understand that any omission of returned with no action taken.	assert that the attached appled ledge and where applicable,	verify that all interest (W.
Richard P. Corcora	Note: Statement must be completed by a	an individual with supervisory capacity  District Landm	
Print or Type Name	Signature	Title	Date
	~		



September 11, 2002

Mr. Michael E. Stogner New Mexico Oil Conservation Division 1220 South Saint Francis Drive Santa Fe, New Mexico 87505

RE:

ADMINISTRATIVE APPROVAL OF UNORTHODOX LOCATION

CARSON #11

1680' FNL & 1650' FWL SECTION 21-T30N-R4W

RIO ARRIBA COUNTY, NEW MEXICO

(30-039-26881)

Dear Mr. Stogner:

Energen Resources Corporation hereby requests administrative approval for an unorthodox location of its proposed Carson #11 Fruitland Coal well under the provisions of NMOCD Order #R-8768A.

The Carson #11 was drilled to a total depth of 4,720' and completed August 21, 2002 as a Pictured Cliffs well, at a legal location 1680' FNL & 1650' FWL of Section 21-T30N-R4W, Rio Arriba County, New Mexico. There is no production history for this well yet. However, our review of the logs indicates the Fruitland Coal formation may be productive in this wellbore.

Energen now desires to attempt a completion in the Fruitland Coal Formation and if productive commingle it with the Pictured Cliffs production. In order to avoid unnecessary expense and capture these reserves Energen is making plans to utilize the subject well and recomplete it as a Fruitland Coal well. Since NMOCD Order #R-8768A calls for Fruitland Coal wells to be located in the NE or SW of a governmental section, an exception to this requirement will be needed to utilize the existing wellbore and is hereby requested.

The San Juan 30-4 Unit #101NP was drilled to a total depth of 4,242' and completed August 8, 1989 as a Fruitland Coal well at a legal location of 790' FNL & 1,495' FEL of Section 20-T30N-R4W. The well never produced and was Plugged and Abandoned July 9, 1997.

The San Juan 30-4 Unit #40 was drilled to a total depth of 7,503' and completed in the Mesaverde November 24, 1995 at a location of 2,450' FSL & 2,270 FEL of Section 21-30N-4W. The formation could not be economically produced, subsequent completions were attempted in the Pictured Cliffs and Fruitland Coal Formations with the well being temporarily abandoned.

A copy of this application is being submitted to all offset owners by certified mail with a request that they furnish your office in Santa Fe a waiver of objection.

Attached is a well location plat showing dedicated acreage, a topographic plat of the area and a map showing offset owners.

Sincerely,

Richard Corcoran District Landman

RC/ga Enclosures Forest Service Southwestern Region 3 Carson National Forest Jicarilla Ranger District 664 East Broadway Bloomfield, New Mexico 87413 (505) 632-2956 FAX (505) 632-3173

File Code: 2820-2

Date: February 26, 2002

Rich Corcoran
Energen Resources
2198 Bloomfield Hwy.
Farmington, NM 87413

Dear Mr. Corcoran:

RE: Unorthodox location for wells

The Jicarilla Ranger District, Carson National Forest is requesting you apply for two unorthodox locations as follows, as discussed by your company representative, and Camela Hooley of this office:

San Juan 30-4 #34R T. 30 N., R. 4 W. Section 16 1755'FNL/1655'FWL Carson #11 T. 30 N., R. 4 W. Section 21 1680'FNL/1650'FWL

The mineral operator is required to comply with other applicable regulations such as the Endangered Species Act, the Clean Water Act, and the Archeological Resources Protection Act under 36 CFR 228.112(c). The operator is also required under 36 CFR 228.108(c) to minimize or prevent damage to surface resources. The Carson National Forest Management Plan states that surface resource impacts will be minimized when administering mineral resources.

The following conditions apply which require unorthodox locations:

S.J. 30-4 #34R: Topographic and visual concerns prevent locating the well in the preferred orthodox location. An existing abandoned well pad exists at the requested location, preventing unnecessary resource damage.

Carson #11: An existing abandoned well pad exists at the requested location, preventing unnecessary resource damage.

Thank you for your cooperation in this matter.

Sincerely,

/s/ Mark Catron MARK CATRON District Ranger



·District I PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico Energy, Minerals & Natural Resources Departs.

Form C-102 Revised February 21, 1994 Instructions on back

15269

Certificate Number

Oistrict II PO Drawer DD, Artesia, NM 88211-0719

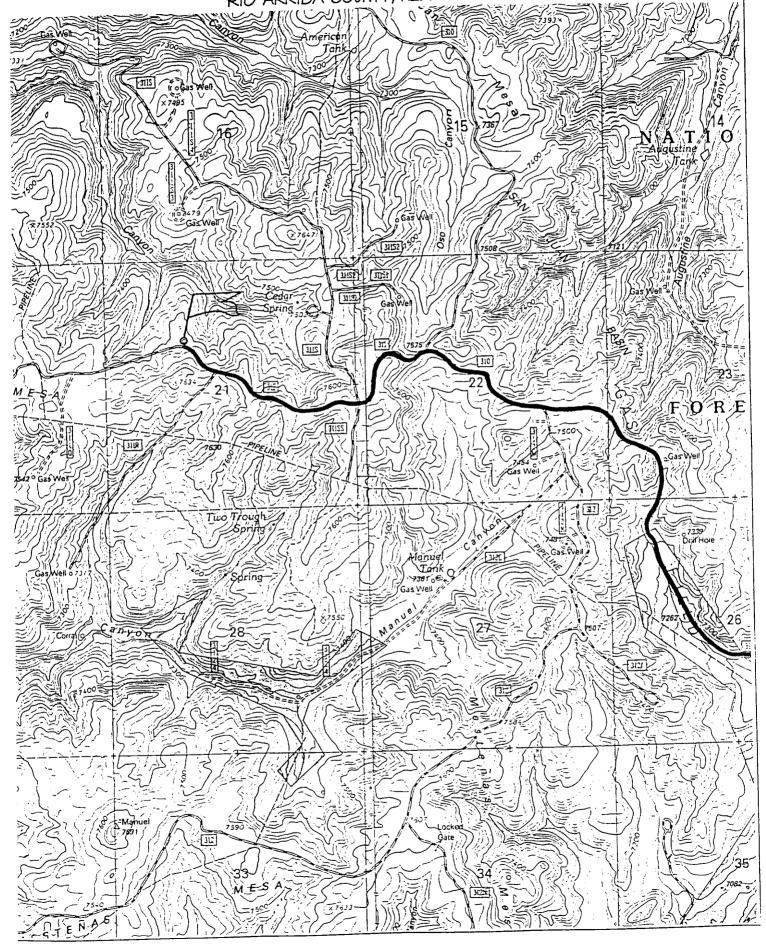
Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

OIL CONSERVATION DIVISION PO Box 2088

District III 1000 Rip Braz				Sar 	nta Fe, NM	87504-2088	3			AMENDE	D REPORT
PO Box 2088.	Santa Fe,	NM 87504-2		I OCAT	TONI ANIO AI	CREAGE DEDI	ΓΓΔΤ	TON PI	ΔΤ		
	<del></del>			ool Code	TON AND A			ol Name			
, A	PI Number		72400		Blanco	Pictured Cl:	iffs,	East			
Property	Code		/ / / / / /	<u> </u>	*Property					•We	ll Number
,, 0,00					CARS	SON					11
OGRID I			F	NERGE	Operator N RESOURC	Name ES CORPORA	TION		:		levation 7522
16292	20				<sup>10</sup> Surface						
UL or lat no.	Section	Township	Aange	Lot Ich	Feet from the	North/South line	Fee	t from the	East/We	st line	County
F	21	30N	4W		1680	NORTH	1	650	WE	ST	RIO ARRIBA
L		11 B	ottom	Hole L	ocation I			m Surf			
UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Fee	t from the	East/We	est line	County
12 Dedicated Acres					Dount or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Onder	Na.			<u> </u>
	160										
NO ALLOW	VABLE W	ILL BE A	SSIGNEI NON-ST	D TO TH	IS COMPLETI UNIT HAS BE	ON UNTIL ALL EEN APPROVED	INTE BY T	RESTS H HE DIVI	AVE BE SION	EN CON	SOLIDATED
William .				282.64						CERTI	FICATION
			J	1				containe	d herein	that the i	d complete
		-		1		İ					e and belief
		089		3					m B	Raham	
		9		7				Signatur Non G	e Graham		
		L						Printed	Name		
		i		4		: 1		l ——-	ction	Superi	ntendant
-	550'	<del>  -</del> 5						Title	2-11-0	,	
	550	1		1				Date	2-71-0		
		:		4		<u>.</u>		18 SURVI	EYOR	CERTI	FICATION
00		 				1	00	I hereby	centify th	hat the we was plott	ll location ed from field
1 -		7 . 77.	177	21-		<del> </del>	80	notes of	actual su ision and	rveys made	same is true
528		_				1	52				ER 28, 2001
",											sional Surveyor
				ı					NON	C. EDW	
								/	260, M	C. EDWX	
				1				] /_	/ <i>≫</i> /	~~~	)
		<u></u>						\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		FESSICNA	ED LES
								/	A CONTRACTOR	<i></i>	/\$ /
		1				İ			V AR	FESSIONA	/
				•					_		

5282.64

# ENERGEN JESOURCES CORPORATION JARSON #11 1680' FNL & 1650' FWL, SECTION 21, T30N, R4W, N.M.P.M. RIO ARRIBA COUNTY, NEW MEXICO

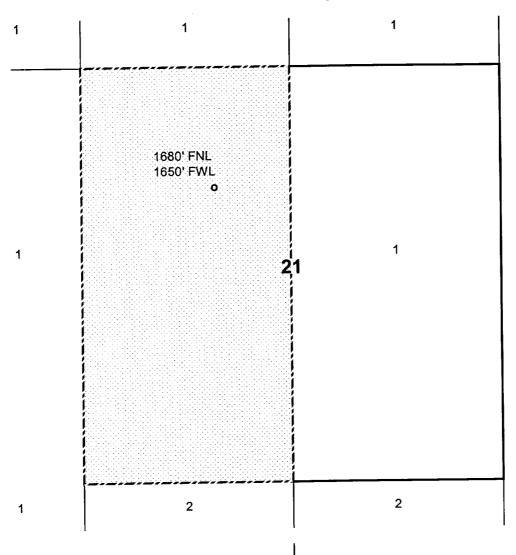


## **Energen Resources Corporation**

## Carson #11 OFFSET OPERATOR \ OWNER PLAT

## Fruitland Coal Formation

W/2 Section 21 - Township 30 North - Range 4 West Rio Arriba County, NM



Tract 1	Energen Resources Corp.	
		Tract 2 (continued)
Tract 2	Burlington Resources	Lorrayn Gay Hacker
	Energen Resources	T. H. McElvain Oil & Gas
	Dugan Production Corp.	Ruth Zimmerman Trustee
	Providence Minerals	Pool Resources, Inc.
	J&M Raymond, Ltd.	Tinnin Enterprises/Thomas Tinnin
	M A R Oil & Gas Corp.	The Tinmil/Robert Tinnin
	JABCO, LLP	
	Trust U/W/O Evelyn G. Brown	
	Trust U/W/O Algernon W. Brown	
	Maydell Miller Mast Trust	
	Charles W. Gay	

.Form 3160-5 (August 1999)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

5. Lease Seri	al No.	

SUNDRY NOTICES AND REPORTS	ON	WELLS	R	-1	$\left( \cdot \right)$		$\bigvee$	-		)
----------------------------	----	-------	---	----	------------------------	--	-----------	---	--	---

Do not use this form for patched well. Use Form	proposals to drill or to re n 3160-3 (APD) for suc	e-enter an h proposals. 2017 July 22	) PM 1: 1	6. If Indian, Allo	ttee or Tribe Name
SUBMIT IN TRIPLICATE -	ther instructions on	reverse side 070 FARMI	NGTON, NM	7. If Unit or CA	/Agreement, Name and/or No.
1. Type of Well Oil Well X Gas Well Other 2. Name of Operator	JUL 2002 FREDENED OIL CONS. DW.			8. Well Name an Carson	nd No. 10
Energen Resources Corporation  3a. Address  2198 Bloomfield Highway, Farmington 4. Location of Well (Footage, Sec., T., R., M., or Survey L., 795' FSL, 1405' FWL, Sec. 21, T301	NM 87401	[] Phone No. (include are 505-325-6800	a code)		32 pol, or Exploratory Area Pictured Cliffs Cland Coal
12. CHECK APPROPRIATE	BOX(ES) TO INDICA	TE NATURE OF N	IOTICE REPO	Rio Arriba	NM
12. CHECK APPROPRIATE  TYPE OF SUBMISSION	BOX(ES) TO INDICA		E OF ACTION		
Notice of Intent  X Subsequent Report  Final Abandonment Notice  3. Describe Proposed or Completed Operation (clearly If the proposal is to deepen directionally or recompany Attach the Bond under which the work will be perfollowing completion of the involved operations. It testing has been completed. Final Abandonment Metermined that the final site is ready for final inspection of the involved operations. It is stage Qel, 0.2% CFR-3, 0.5% Halad-9 (29 surface. Cement 1st stage Qel, 0.2% CFR-3, 0.5% Halad-9 (29 surface. Cement 2nd stage with 50 CaCl2 followed with 50 sks 50/50 Halad-9 (1202 cu.ft.). Plug down Halliburton. ND BOP. Rig release	plete horizontally, give subsurformed or provide the Bond of the operation results in a motices shall be filed only afterion.)  5.5-1/2" 15.50# J-5!  with 225 sks 50/50  7. cu.ft.). Plug di 180 sks 65/35 Class Class B poz, 5#/sk  1.6 1:45 pm on 07/06	Tace locations and meas No. on file with BLM/ hultiple completion or refer all requirements, income and requirements, income and requirements, income and requirements, income and requirements, income and requirements, income and requirements, income and requirements, income and requirements are requirements.	Reclamatio Recomplet Recomplet Temporaril Water Disp  In g date of any produced and true ver BIA. Required secompletion in a relation in a relation in a relation of the secompletion of the second	y Abandon  posal  posed work and a tical depths of all ubsequent reports new interval, a Fo n, have been con  Stage too te, 1/4#/sk Circulate 1/4#/sk floce 2, 2% gel. 0	shall be filed within 30 days rm 3160-4 shall be filed once repleted, and the operator has 1 set @ 3996'.  flocele, 2% 5 sks cement to sele, 6% gel, 2% .2% CFR-3, 0.5% face. RD
14. I hereby certify that the foregoing is true and correct Name (Printed Typed)		Title	tiem Assist		<del></del>
Vicki Donaghey		Date 07/11/02	tion Assist	dni	
We washing the	S SPACE FOR FEDER			ACCEP	TED FOR RECORD
Approved by	00170210112521	Title		Da	
Conditions of approval, if any, are attached. Approval of certify that the applicant holds legal or equitable title to which would entitle the applicant to conduct operations to	those rights in the subject	lease			NGTUN FIELD OFFICE
Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section States any false, fictitious or fraudulent statements or rep	on 1212, makes it a crime for	any person knowingly within its jurisdiction.	and willfully to m	ake to any depart	ment or agency of the United

Form 2160-5 (August 1999)

### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
ØMB NO. 1004-0135
Expires: November 30, 2000

5.	Leage	Serial	No.

BOILERY OF ER	5. Lease Serial No.						
SUNDRY NOTICES	SUNDRY NOTICES AND REPORTS ON WELLS						
Do not use this form for abandoned well. Use Form	Do not use this form for proposals to drill or to re-enter an \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \						
(\forall \forall \)	Other instructions on liverse side AM U						
	N, RO4W, N.M.P.M.	Carson 10  9. API Well No. 30.039.26882  10. Field and Pool, or Exploratory Area East Blanco Pictured Cliffs Basin Fruitland Coal  11. County or Parish, State Rio Arriba NM					
12. CHECK APPROPRIATE	BOX(ES) TO INDICATE NATURE OF NOTICE	CE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION	TYPE OF	ACTION					
If the proposal is to deepen directionally or recomparation the Bond under which the work will be perfollowing completion of the involved operations. I testing has been completed. Final Abandonment 1 determined that the final site is ready for final inspection of the involved operations. I determined that the final site is ready for final inspection.	//02. Drilled 12-1/4" hole to 237'. F Halliburton. Cement with 150 sks Cla	Ran 5 jts. 9-5/8" 32.30# ass B, 1/4#/sk flocele,					
2% CaCl2 (177 cu.ft.). Plug down RD Halliburton. WOC. NU BOP. T	el 1:30 am on 06/29/02. Circulate 85 est casing & BOP to 600 psi - ok. BLM	sks cement to surface. I notified- no witness.					

14. I hereby certify that the foregoing is true and correct Name (Printed Typed)  Vicki Donaghey	Title Production As:	sistant
Vicke Tonaghan	Date 07/03/02	ACCEPTED FOR RECORD
○ OTHIS SPACE FOR FEDER	AL OR STATE OFFICE USE	
Approved by	Title	.1111 Date 2002
Conditions of approval, if any, are attached. Approval of this notice does not warra certify that the applicant holds legal or equitable title to those rights in the subject which would entitle the applicant to conduct operations thereon.	nt or Office lease	FARMINGTUN FIELD OFFICE BY

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

Form 3160-3 (August 1999)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0136 Expires: November 30, 2000

	APPLICATION FO	R PERMIT TO DRILL	OR REENTER			Lease Serial No. SF-079487A	
la Type of Work	X DRILL	REENTI		13 84	6.1	f Indian, Allotee or	Tribe Name
lb. Type of Well	Oil Well X G	s Well Other	X Single Zone [	Multiple Zon		Unit or CA Agreem	
2. Name of Operator			TO/U M		1	Lease Name and We	1 No.
Energen Resour	ces Corporation		12h Dhama No	(include area co		Carson 10	
3a. Address			_	-		API Well No. 30-039	-26882
2198 Bloomfie	<u>1d Highway Farmii</u>	gton, New Mexico 8		) 325-6800			
		l in accordance with any Sta	ue equivements)		10	Field and Pool, or E East_Blanco_f	xpioratory PC: Basin FRC
At surface 795	5' FSL, 1405' FWL				11.	Sec., T., R., M., or	Blk. and Survey or An
At proposed prod.	70ne				1.7	/	N, R4W, N.M.P.M
						County or Parish	13.State
4. Distance in miles a	nd direction from nearest to	wn or post office*			- 1	•	NM
	10 miles No	rtheast of Goberna	dor. New Mexic	<u>.                                      </u>		o Arriba	
15. Distance from pro			16.No. of Acres in	lease	17. Spacm	ng Unit dedicated to	tilis wen
location to neares property or lease (Also to nearest d		795'	1819	9.52		310 W/2	
		·····················-	19. Proposed Dept	h	20.BLM	BIA Bond No. on	file
<ol> <li>Distance from proto nearest well, disapplied for, on the</li> </ol>	rilling, completed,	00'	4744				
21 Floretions (Chart	whether DF, KDB, RT, GI	etc	22. Approximate of	ate work will sta	art*	23. Estimated dur	ation
	witemer Dr, KDB, Kr, Gr	, •		ne 2002		10	Days
7552' GL			24. Attachments				
•			·	1-111	ad to this fo		
<ol> <li>Well plat certified</li> <li>A Drilling Plan</li> <li>A Surface Use P</li> </ol>	d by a registered surveyor.	requirements of Onshore Onshor	4. Bond to Item 20 about the 5. Operato 6. Such ot	cover the opera ve). r certification.	itions unless		ting bond on file (see
25. Signuature			Name (Printed/Types	0 2019	SCORICE .	Date	
23. Signature	Thomas		Don Graham	Egy		C.	12/11/01
Title Now	flaham		DON GRANGIII	J.			
Production	Superintendent_				CENE	. 53	
	utre) /s/ David J. I	<b>Mankiewicz</b>	Name (Printed/Type		DIST. 8	Date	JN 19 2002
Title			Office	68	,9,5.V	200	
conduct operations t Conditions of approv	hereon. val, if any, are attached.	fy that the applicant holds l					
Title 18 U.S.C. Sect	ion 1001 and Title 43 U.S.	C. Section 1212, make it a c	rime for any person kn	owlingly and wil	lifully to ma	ke to any departmen	nt or agency of the Uni
States any false, ficti	tious or fraudulent stateme	nts or representations as to a	ny matter within its ju	risdiction.			

\*(Instructions on Reverse)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DIGILARY OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED PRENERAL REQUIREMENTS."

District I 20 Box 1980. Hobbs. NM 88241-1980

State of New Mexico Energy, Minerals & Natural Resources Department Form C-102 Revised February 21, 1994 Instructions on back

District II PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District III 1000 Rio Brazos Rd., Aztec, NM 87410

1405

MENDED REPORT

AROFESSIONAL

Certificate Number

15269

						2001 NET 13	M 1: 50	A	MENDE	D REPORT
strict IV Box 2088,	Santa Fe,	NM 87504-	-2088			070 Falses	•			
			MC1-1	I OCAT	דרוא אאור או	CREAGE DEDI		ΔΤ		
	API Number	_		Pool Code	TOM AND AC		'Pool Name		·	
30-0	39_/	6887		001 code 0 - 716	829 Blanco	Pictured Cl:	iffs, East -	- Basin	Fruit	land Coal
*Property Code /2400 /130			³Property Name				*Well Number			
21185		CARSON							10	
'0GAID No. 162928		*Operator Name ENERGEN RESOURCES CORPORATION							7552	
					<sup>10</sup> Surface	Location		, <u>_</u>		
UL on lot no. Section Township Range Lot Ion		Feet from the	North/South line .	h line . Feet from the Eas		t line	County RIO			
N	21	30N	4W		795	SOUTH	1405	WES	o I	ARRIBA
	T 5	11 E	ottom	Hole L	ocation I	f Different	From Sunf	ace East/Wes	t line	County
UL or lot no.	Section	TOWNSTEP	, ruge	202 10	1,022 11,021 2.0					·
Dedicated Acres			<u> </u>		Doint or Infill	<sup>14</sup> Consolidation Code	<sup>25</sup> Onder No.	<del></del>		
	160	7/320							,	
				282.64	: 		Signatur Don ( Printed Produ Title	Graham Name Uction S	Super 1	ntendant
. 00 · 08 25	<b></b>		. * ***	71 -		10: SO	I hereby shown on notes of my supervalue of Survey	certify that this plat was actual survision, and sect to the the Date: SE	it the well was plotted by made that the specific profession of Profession to the specific profession	il location ed from field by me or under same is true y belief. ER 28, 200 sional Surveyor

## ENERGEN RESOURCES CORPORATION CARSON #10

795' FSL & 1405' FWL, SECTION 21, T30N, R4W, N.M.P.M. RIO ARRIBA COUNTY, NEW MEXICO



## **OPERATIONS PLAN**

WELL NAME: Carson 10

LOCATION: 795' FSL, 1405' FWL, Section 21, T30N, R4W, Rio Arriba County, NM

ELEVATION: 7552' GL FIELD: East Blanco Pictured Cliffs

### **FORMATION TOPS:**

Surface	San Jose
Nacimiento	2334
Ojo Alamo	3669
Kirtland	3889
Fruitland	4109
Pictured Cliffs	4294
Lewis	4604
Total Depth	4744

## LOGGING PROGRAM:

Open Hole Logs:

Surface to TD: HRI/SP/GR, CNT/LDT/MLT, MRIL

Mud Logs:

None

Coring:

None

Natural Gauges:

None

MUD PROGRAM: Fresh water low solids mud from surface to T. D. 9.0-9.2 PPG.

#### **CASING PROGRAM:**

HOLE SIZE	<u>DEPTH</u>	CSG SIZE	<u>WT.</u>	<u>GRADE</u>
12 1/4"	200'	9 5/8"	32.3#	H-40
7 7/8"	4744'	5 1/2"	15.5#	J-55

#### TUBING PROGRAM:

J-55 4.7# 4600 2 3/8"

WELLHEAD: 9 5/8" 2000 x 5 1/2" Larkin Fig. 92 casing head. 5-1/2" 2000 x 2" tubing head.

#### **BOP SPECIFICATIONS:**

An 11" 2000 psi minimum double gate BOP stack (Figure 1) will be used following nipple up of casing head. During air drilling operations, a Shaffer Type 50 or equivalent rotating head will be installed on top of the stack. A 2" nominal, 2000 psi minimum choke manifold will be used. An upper Kelly Cock valve with handle available and drill string valve to fit each drill string will be available on the rig floor during drilling operations.

## **CEMENTING:**

9 5/8" surface casing - Cement with 110 sks Class B Cement with ¼# flocele/sk and 2% calcium chloride (130 cu. ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 600# for 30 minutes.

Texas Pattern Guide Shoe on bottom.

5 1/2" production casing:

First Stage - cement with 155 sks Class B with 2% Calcium Chloride, 10% Gilsonite and 1/4# flocele/sks (194 cu. ft. of slurry, 50% excess to circulate stage tool @ 4000).

Second Stage - cement with 510 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and  $\frac{1}{4}$ # flocele/sk. Tail with 50 sks Class B w/2% calcium chloride, 10% gilsonite and  $\frac{1}{4}$ # flocele/sk. (1040 cu. ft. of slurry, 50% excess to circulate to surface). WOC 12 hrs.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 8 bow spring centralizers spaced every 3rd joint off bottom. One bow spring centralizer below and eight above stage tool at 4000. Two turbolating centralizers at the base of the Ojo Alamo.

#### OTHER INFORMATION:

1) No abnormal temperatures or pressures are anticipated.

- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 3) This gas is dedicated.
- 4) Anticipated pore pressure for the Fruitland is 900 psi and the Pictured Cliffs is 1000 psi.